

Development Plan for Mirsharai Upazila, Chattogram District: Risk Sensitive Land Use Plan (2017-2037)

VOLUME-III: RURAL AND ACTION AREA PLAN

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Gazette Notification

Acknowledgement

This is a great pleasure for all concerned that the "Preparation of Development Plan for Mirsharai Upazila, Chattogram District: Risk Sensitive Land Use Plan" project has been successfully completed by June, 2020 under the supervision of Urban Development Directorate (UDD), Ministry of Housing and Public Works, Government of the People's Republic of Bangladesh.

This Development Plan for the period of 20 years (2017-2037) will serve as a guideline for the future Infrastructure Development together with risk sensitive land use control, effective development and management of Mirsharai Upazila. This Development Plan comprises of four stages and tiers in a hierarchical order. These are Structure Plan for 20 years, Urban Area Plan for 10 years, Rural Area Plan for 10 years and selected Action Area Plan for 5 Years.

The appointed consulting firms have successfully completed the most essential tasks such as Physical Feature Survey; Socio-economic Survey; Transportation Survey; Hydro-Geological Survey; Geological Survey and baseline survey of Flora and Fauna for the preparation of Development Plan. The project team has completed Participatory Rural Appraisal (PRA) and series of consultation meetings with stakeholders for the preparation of the Plan. After preparing the draft Development Plan, local level stakeholder consultation and workshop have been completed. Finally, formal public hearing has been made to register public complaints and awareness through participatory planning approach with the Upazila and related stake-holders. During implementation period if needed any change of the development plan may be allowed with the approval of the appropriate authority.

Urban Development Directorate (UDD) acknowledges the full support and cooperation of Mirsharai Upazila Authority, Member of Parliament, Mayors of both Baroiarhat and Mirsharai Paurashava, Chairman of the Union Parishad, Stakeholders and Member of Civil Societies, member of University Student Association of Mirsharai (USAM) and the common people of locality with the deepest gratitude.

Ahmed Akhtaruzzaman

Project Director

"Development Plan for Mirsharai Upazila, Chattogram
District: Risk Sensitive Land Use Plan" Project
Urban Development Directorate (UDD)
Ministry of Housing and Public Works
Government of the People's Republic of Bangladesh

Preface

Urban Development Directorate (UDD) under the Ministry of Housing and Public Works, Government of the People's Republic of Bangladesh prepares and co-ordinates Development Plan at Upazila level. Presently Urban Development Directorate is working to enhance the quality of life of the people by improving the environment through planned development activities and to ensure a geographically balanced urbanization.

A Development Plan for Mirsharai Upazila is required so that no unauthorized and unplanned development, either in urban area or in rural area, can take place. Hence, a comprehensive planning package is essential to coordinate such development activities of various public agencies and private organizations in a planned way.

Under the supervision of Urban Development Directorate (UDD), the project titled "Preparation of Development Plan for Mirsharai Upazila, Chattogram District: Risk Sensitive Land Use Plan" has been successfully completed by June, 2020. This Development Plan for the period of 20 years (2017-2037) will serve as a guideline for the future Infrastructure Development together with risk sensitive land use control, effective development and management of Mirsharai Upazila. The objective of this Development Plan is integrating the rural area with the urban area in both physical and socioeconomic terms to implement rural-urban development. Therefore, the main purpose of preparing this Development Plan for Mirsharai Upazila is to ensure rational use of scarce land resources for concentrated development at rural and urban scale.

Finally, it is expected that this plan package will serve as a guideline to the future infrastructure development of Mirsharai Upazila with risk sensitive land use control and effective management of services and facilities. This will ensure planned, physical growth and socio-economic development of Mirsharai Upazila.

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Executive Summary

The Rural Area Plan and Action Area Plan are prepared as a part of the requirement laid out in the Terms of Reference (ToR) of the Project, "Development Plan for Mirsharai Upazila, Chattogram District: Risk Sensitive Land Use Plan (2017-2037)". The policies, strategies, and planning standards adopted in the Structure Plan have guided the process of preparing the Rural Area Plan for Mirsharai Upazila.

In preparing the Rural Area Plan, sixteen unions of Mirsharai Upazila have been considered. The local authority at Upazila level has no previous experience of implementing such plans which integrates both urban and rural areas. In rural level, there is no such experience of implementing physical plans. The plan prepared through this project will be their first experience of implementing the physical plans in union level of Mirsharai Upazila.

Rural Area Plan aims to guide the physical development of Mirsharai Upazila (except Baroiarhat and Mirsharai Paurashava area) including all the economic and social activities. Considering the local people demand from the PRA and based on the planning standards, about 39.48 acres of land has been proposed for educational facilities purpose, about 10.55 acres of land has been proposed for commercial activities purpose, about 10.09 acres of land has been proposed for health facilities purpose, about 22.72 acres of land has been proposed for open space and recreational facilities purpose, about 29.56 acres of land has been proposed for community facilities purpose, about 7.74 acres of land has been proposed for utility services purpose, about 8.62 acres of land has been proposed for transport facilities purpose.

It should be kept in mind that this development plan is a guideline for the development and control of growth in a systematic manner. The existing Local Government Acts for Upazila Parishad, and Union Parishad have provided authorities, responsibilities, and scope of planned development in their respective areas. The Upazila Parishad has legal responsibilities and opportunities for coordinating development within the Upazila.

RURAL AREA PLAN REPORT

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Acronyms

BBS Bangladesh Bureau of Statistics

BEZA Bangladesh Economic Zone Authority

BIWTA Bangladesh Inland Water Transport Authority

BM Bench Mark

BRTC Bangladesh Road Transport Corporation

BSCIC Bangladesh Small and Cottage Industries Corporation

BTCL Bangladesh Telecommunications Company Limited

BWDB Bangladesh Water Development Board

CBOs Community Based Organizations

CFS Country Freight Service

DFI Direct Foreign Investment

DoE Department of Environment

DoF Department of Forest

DPHE Department of Public Health Engineering

EPZ Export Processing Zone

EZ Economic Zone

FWC Family Welfare Center

GED General Economics Division

GDP Gross Domestic Product

GIS Geographic Information System

HSC Higher Secondary Certificate

HQ Head Quarter

ICD Inland Container Depot

ICT Information and Communication Technology

IMTP Integrated Multimodal Transport Policy

LGED Local Government and Engineering Department

MoA Ministry of Agriculture

MoDMR Ministry of Disaster Management and Relief

Mol Ministry of Industry

MoHFW Ministry of Health and Family Welfare

MoHPW Ministry of Housing and Public Works

MoL Ministry of Law

MoWR Ministry of Water Resources

NGO Non-Government Organization

NHA National Housing Authority

O-D Origin - Destination

PDB Power Development Board

PPP Public Private Partnership

PRA Participatory Rural Appraisal

REB Rural Electrification Board

RHD Roads and Highways Department

SLR Sea Level Rise

SSC Secondary School Certificate

STS Secondary Transfer Station

TMC Technical Management Committee

ToR Terms of Reference

UDD Urban Development Directorate

UHC Upazila Health Complex

Glossary of Terms

Bazaar

Bazaar is a Market Place almost synonym of hat with some advanced facilities in comparison to hat. Generally, in a hat, there may not be any permanent business/trading house, shops. However, in a bazaar, there are some permanent trading houses, shops, these shops are open every day, and buyers and sellers attend the bazaar from morning till late evening.

Buffer

:

A zone of user-specified distance around a point, line or area.

Growth

Hat

Center

The term 'hat' is very much known to all from time immemorial throughout the country which is a temporary rural market place. In rural area, farmers and other producers used to sit with their surplus products in a suitable place having comparatively better communication system with adjacent villages to exchange these goods. This suitable place is called hat where generally on fixed days sellers and buyers get together and exchange goods and services. This gathering place is developed gradually by the local people at the beginning. The Hat is a rural trading center.

Katcha : Temporary in nature

: Any passage of inflow and outflow of water. Khal/Chhara

Mauza is the smallest unit of Land Survey system with a unique number called Mauza

Jurisdiction List Number (J.L. No.).

Para : Smallest identified area in rural area (Union level) with settlements of

homogeneous group of people. For operational convenience statistical "Para"

are delineated within Union Parishad.

: Paurashava is the local name of Municipality. The incorporated area Paurashava

administered by the government as urban area under the Paurashava

Ordinance 2008 is considered as the Paurashava.

Pucca Permanent in nature

: Semi-Permanent in nature Semi-pucca

Tempo : Human Hauler

Union Smallest local administrative unit of rural area which is composed of Mauzas

and Villages.

Upazila : Sub-District administrative area.

Village : Smallest geographic area of rural area. A village may be same as mauza or

there may be more than one village in a mauza.

Ward : Smallest local administrative unit of urban area. For the operational

convenience, Municipalities are divided into nine or more wards. The Ward

boundaries are specified by gazette notifications.

Zila : District administrative area

CHAPTER 01: INTRODUCTION

1.1 Introduction

Rural Area Plan is prepared as per the Terms of Reference (TOR) of the project. The policies, strategies, and planning standards adopted in the Structure Plan have guided the process of preparing the Rural Area Plan for Mirsharai Upazila.

1.2 Background of the Rural Area Plan

Rural development is the procedure of improving the quality of life and economic well-being of people living in rural areas. Rural Area Plan provides a long-term strategy for 10 years and covers for the development of rural areas within the project area.

Prime Minister of Peoples' Republic of Bangladesh gives emphasis to ensure all urban facilities for rural people to give them a better life. To implement the "Amar Gram- Amar Shohar" vision, government need to create the civic amenities of urban areas for rural people which would include access to electricity, expansion of trade and business, development of all modes of communication, planned housing and sewerage system, pure drinking water, healthcare facilities and coverage of internet and technology based communication. This chapter describes the existing land use scenario; future required land for Rural Area Plan, major problems list compiled from rural sector PRA, and proposed facilities for rural area.

1.3 Objectives of the Rural Area Plan

Rural Area Plan will be a statutory guide and control for development of the sixteen unions of Mirsharai Upazila. This plan is prepared on mauza map with sectoral development proposals. The Rural Area Plan is aimed to determine the present and future functional structure of the rural area, including land use and provide infrastructure proposals for improving and guiding development of rural area of Mirsharai Upazila. The objectives of the plan will be attained through orderly location of rural land uses and location of different services and facilities.

1.4 Coverage Area of the Rural Area Plan

The sixteen unions of Mirsharai Upazila are considered as the jurisdiction of Rural Area Plan. According to the GIS database, the Rural Area Plan of Mirsharai Upazila covers total an area of 119581.19 acres (483.93 sq.km.) of land. Map 1. 1 shows the administrative boundary of the Rural Area Plan. Table 1. 1 shows the administrative boundary, existing and projected population of the Rural Area Plan.

Para Boundary of Mirsharai Upazila 360000 336000 342000 348000 354000 Khaiyachhara Wahedpur Saherkhali Bay of Bengal Scale 1:177,056 336000 342000 360000 354000 348000 366000 DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA CHATTOGRAM DISTRICT: RISK SENSITIVE Legend LAND USE PLAN River Upazila Boundary Bay Of Bengal Union Boundary ernment of the People's Republic of Bangladesh Ministry of Housing and Public Works Para Boundary Urban Development Directorate (UDD)

Map 1. 1: Administrative Boundary of Mirsharai Upazila

Table 1. 1: Administrative Boundary of the Rural Area of Mirsharai Upazila

| Union Name | Area (Acre) | Area | Existing Population | Projected Population |
|--------------------|-------------|----------|---------------------|----------------------|
| | | (sq.km.) | (BBS, 2011) | (2037) |
| Dhum Union | 3006.50 | 12.17 | 16770 | 20471 |
| Durgapur Union | 3806.43 | 15.40 | 21128 | 25791 |
| Haitkandi Union | 3527.04 | 14.27 | 19051 | 23256 |
| Hinguli Union | 4382.29 | 17.73 | 29133 | 35563 |
| Ichhakhali Union | 14932.22 | 60.43 | 27980 | 34155 |
| Karerhat Union | 37896.94 | 153.36 | 35467 | 43295 |
| Katachhara Union | 3447.28 | 13.95 | 23596 | 28804 |
| Khaiyachhara Union | 3250.44 | 13.15 | 23423 | 28593 |
| Mayani Union | 3241.34 | 13.12 | 18285 | 22321 |
| Mirsharai Union | 3123.74 | 12.64 | 16828 | 20542 |
| Mithanala Union | 4915.97 | 19.89 | 23109 | 28209 |
| Maghadia Union | 3503.83 | 14.18 | 23406 | 28572 |
| Osmanpur Union | 3737.19 | 15.12 | 14645 | 17877 |
| Saherkhali Union | 16122.48 | 65.25 | 16912 | 20645 |
| Wahedpur Union | 4877.84 | 19.74 | 24981 | 30495 |
| Zorwarganj Union | 5805.44 | 23.49 | 36182 | 44168 |
| Total Area | 119576.97 | 483.91 | 370896 | 452756 |

Source: Physical Feature Survey, 2018

CHAPTER 02: RURAL AREA PLAN

2.1 Introduction

The current chapter of the report is about Rural Area Plan covering its development plan proposals. This chapter also describes the existing land use scenario; list of major problems compiled from rural PRA, functional hierarchy of different unions of rural area, future land requirement for different facilities, and proposed facilities for rural area of Mirsharai Upazila.

2.2 Land Use Categories in the Rural Area Plan

The Rural Area Plan (RAP) is prepared with a number of detailed land use categories to guide the implementation of the Rural Area Plan in a planned manner. Separate land use categories are considered for the rural area of Mirsharai Upazila. The land use categories considered for the Rural Area Plan of Mirsharai Upazila are provided in Table 2. 1.

Table 2. 1: Land Use Categories Considered for the Rural Area Plan of Mirsharai Upazila

| Land Use Categories | Description of the Categories |
|-------------------------|---|
| Administrative | Administrative area covers all kinds of government and |
| | nongovernment offices in the project area. |
| | Agricultural land (also agricultural area) denotes the land suitable |
| Agricultural Area | for agricultural production, both crops and livestock. It includes land |
| Agricultural Area | left temporarily fallow; land under permanent crops (e.g., fruit, |
| | plantations); areas for natural grasses and grazing of livestock. |
| Circulation Network | All types of roadways, walkways, railways. |
| | Commercial areas generally contain one or more of a wide variety |
| | of uses that includes business uses, offices, hotels, public houses, |
| Commercial Area | and limited forms of retailing. Mainly bazar, shopping |
| | agglomerations and areas suitable for commercial development |
| | have been placed under this category. |
| | This land use covers all categories of community facilities and |
| Community Facilities | establishments like mosque, temple, church, eidgah, graveyard, |
| | community center etc. |
| | Land belonging to educational use includes all categories of |
| Education and Research | educational and training institutions. Educational institute like |
| | Medical College, University etc. have been included in this zone. |
| Forest Area | All kinds of agglomeration of trees and existing forest area |
| General Industrial Area | Processing and manufacturing industries |
| Health Services | The health service zone includes all existing health service |
| Treatur Services | establishments and the areas proposed for health facilities |
| Mixed Use Area | Mixed Use area will allow residential structures together with |
| IVIIXEU USE AI Ed | commercial uses and other services and facilities |

| Land Use Categories | Description of the Categories |
|---|--|
| Open Space and Recreation | Open space covers the parks, play fields and the existing open space |
| Open space and necreation | areas like, forest, park, etc. |
| | Different categories of housing areas have been proposed in the |
| | development plan under the categories of residential use. These |
| Residential Area | categories have been made for promotion of housing through |
| Residential Area | private and public initiatives. The residential category includes all |
| | areas of future residential development, public housing, hotels and |
| | lodging and also the existing housing areas. |
| Restricted Area | Government-controlled areas including Cantonment, Jail, offices of |
| Restricted Area | the Law Enforcing Agencies |
| Transportation and Transport facilities like, bus and truck terminals have been | |
| Communication | in this zone |
| | Public utilities for various services like, fire service, post office, solid |
| Utility Services | waste transfer station, solid waste disposal center, electric |
| | substation, filling station, etc. fall under this category |
| Water bodies | Khal, irrigation canal and river are treated as water bodies. |
| Miscellaneous | Miscellaneous |

2.3 Types and Patterns of Existing Land Use in Rural Area

Existing land use data of the rural area of Mirsharai Upazila has been collected from the field through detailed physical feature survey. The existing land use of the rural area was classified into 17 categories with the provision of further division and sub-division to elaborate each category of use as per requirement of the planning process. The existing land use category of rural area in Mirsharai Upazila is presented in Table 2. 2.

Table 2. 2: Existing Land Use of Rural Area of Mirsharai Upazila

| Serial No. | Land Use Category | Area (Acre) | Percentage (%) |
|------------|----------------------|-------------|----------------|
| 1 | Administrative | 17.46 | 0.01 |
| 2 | Agricultural | 46146.01 | 37.49 |
| 3 | Commercial | 325.26 | 0.26 |
| 4 | Community Services | 125.25 | 0.10 |
| 5 | Economic Zone | 8864.77 | 7.20 |
| 6 | Education & Research | 137.47 | 0.11 |
| 7 | Forest | 31856.75 | 25.88 |
| 8 | Health Facility | 14.03 | 0.01 |
| 9 | Industrial | 229.88 | 0.19 |
| 10 | Miscellaneous | 10.45 | 0.01 |
| 11 | Mixed Use | 14.40 | 0.01 |
| 12 | Recreation | 7.16 | 0.01 |
| 13 | Residential | 17444.12 | 14.17 |
| 14 | Circular Network | 1283.82 | 1.04 |

| Serial No. | Land Use Category | Area (Acre) | Percentage (%) |
|------------|-------------------|-------------|----------------|
| 15 | Service Activity | 323.38 | 0.26 |
| 16 | Vacant | 248.92 | 0.20 |
| 17 | Waterbody | 16042.98 | 13.03 |
| Total | | 119576.97 | 100.00 |

Source: Physical Feature Survey, 2018

Land use of rural area of Mirsharai Upazila is dominated by the agricultural activities. From the Land Use analysis, it is clearly evident that out of the total area an amount of 44966.30 acres (37.26%) of land in the rural area is under agricultural use which includes agricultural land, cattle shed, poultry farm, dairy farm, etc. Agricultural category ranks highest in terms of land use area of the rural area of Mirsharai Upazila. Forest area ranks second in terms of area and occupy 31856.75 acres (26.40%) of land. Rural settlement category ranks third highest in terms of area and occupies an amount of 16648.61 acres (13.80%) of land. Fourth highest land use type is waterbody and under this use 15836.96 acres of land which is 13.12% of the total rural area of Mirsharai Upazila. Map 2. 1 illustration the existing land use distribution of rural area in Mirsharai Upazila.

2.4 Functional Hierarchy of Mirsharai Upazila

In this section, an attempt has been made to identify the hierarchical orders of rural services union wise and find out the functional gaps. The existing pattern of rural services in Mirsharai is the result of economic and political exigencies. In this study, for identifying the functional hierarchy of union wise, several services forming into three orders have been taken consideration (vide Table 2. 3).

Table 2. 3: List of the Rural Services Order wise in Mirsharai Upazila

| Order | Rural Services |
|-----------------------|---|
| 1 st Order | Primary School, Tea Stall, Grocery Store, Private Doctor's Chamber, Saloon, |
| | Carpenter Shop, Tailor Shop, Katcha Road, Mobile Recharge Store |
| 2 nd Order | Association Office, Blacksmith Shop, Cobbler's Shop, Cycle/Rickshaw Repair |
| | Store, Drugstore, Dispensary, Dish's Office, Fertilizer Store, Furniture Shop, |
| | Hardware Store, Madrasah, Mobile Shop, Post Office, Pucca Road, Retail Clothing |
| | Store, Rice Mill, Secondary School, Stationary Store, Weekly Bazar, Welding Store |
| 3 rd Order | Animal Husbandry Center, College, Family Planning Center, Girls Secondary |
| | School, Seed Marketing Center, Telephone Exchange Office, Tafsil Bank |

Source: Physical Feature Survey, 2018

After identification of order wise rural services, the questionnaire was prepared and detail data of functional rural services has been collected from field survey. The significance of each rural service differs because its status is determined by the level of services. Beside all the services are not equally distributed throughout the union. The value of each service is determined in terms of the level of services. On the basis of weighted value of each rural service, the score value of each union has been calculated order wise and grouped into five categories of hierarchy based on the total score values scored by them (vide Table 2. 4).

91°25'30"E

Legend

Landuse

Existing Land Use of Rural Area in Mirsharai Upazila 91°25'30"E 91°31'0"E Karerhat

91°31'0"E

Community Services

Miscellaneous

Mixed Use

Recreation

Service Activity

Vacant

Agricultural

Commercial

Economic Zone Education & Research

Map 2. 1: Existing Land Use Scenario of Rural Area in Mirsharai Upazila

Scale 1:165,546

DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA

CHATTOGRAM DISTRICT: RISK SENSITIVE LAND USE PLAN

Government of the People's Republic of Bangladesh Ministry of Housing and Public Works Urban Development Directorate (UDD)

Table 2. 4: Union Wise Functional Hierarchy of Services in Mirsharai Upazila

| Union Name | Services | | | | Functional |
|--------------------|-----------------------|-----------------------|-----------------------|-------|------------|
| Official Name | 1 st Order | 2 nd Order | 3 rd Order | Total | Hierarchy |
| Dhum Union | 300 | 256 | 12 | 568 | Medium |
| Durgapur Union | 165 | 120 | 0 | 285 | Very Low |
| Haitkandi Union | 258 | 188 | 9 | 455 | Medium |
| Hinguli Union | 205 | 334 | 18 | 557 | Medium |
| Ichhakhali Union | 370 | 328 | 6 | 704 | High |
| Karerhat Union | 335 | 324 | 12 | 671 | High |
| Katachhara Union | 317 | 224 | 21 | 562 | Medium |
| Khaiyachhara Union | 256 | 164 | 12 | 432 | Low |
| Mayani Union | 312 | 230 | 27 | 569 | Medium |
| Mirsharai Union | 242 | 366 | 24 | 632 | High |
| Mithanala Union | 211 | 310 | 18 | 539 | Medium |
| Maghadia Union | 166 | 108 | 0 | 274 | Very Low |
| Osmanpur Union | 1102 | 1840 | 9 | 2951 | Very High |
| Saherkhali Union | 224 | 190 | 6 | 420 | Low |
| Wahedpur Union | 278 | 152 | 6 | 436 | Low |
| Zorwarganj Union | 430 | 352 | 45 | 827 | Very High |

Source: Field Survey, 2018

The spatial distribution of rural services in Mirsharai Upazila is quite uneven. Table 2. 4 shows that Osmanpur Union scored maximum value 2951 (Very High) followed by Ichhakhali Union scored 704 (High), Mayani Union scored 569 (Medium), Wahedpur Union scored 436 (Low) and Maghadia Union scored 274 (Very Low).

It is clear from above discussion that some unions are poor or moderately served in respect of some functions, and it also indicates where and which functions are required. On the basis of functional hierarchy, Maghadia and Durgapur Union are very low category than other union. These unions served less rural services and need services that are more rural. Union wise functional hierarchy of Mirsharai Upazila is presented in Map 2. 2.

Functional Hierarchy of Mirsharai Upazila 336000 342000 348000 354000 Hinguli Karerhat Zorwarganj Ichhakhali Saherkhali Scale 1:177,056 336000 342000 354000 348000 360000 DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Legend **Functional Hierarchy** CHATTOGRAM DISTRICT: RISK SENSITIVE LAND USE PLAN Upazila Boundary Very High High Union Boundary Medium Low nment of the People's Republic of Bangladesh Ministry of Housing and Public Works Very Low Urban Development Directorate (UDD)

Map 2. 2: Union Wise Functional Hierarchy of Mirsharai Upazila

2.5 Critical Problems Identified from PRA

Extensive union wise interaction was conducted at the union level with public representatives and general people who expressed their perception on the problems of rural areas of Mirsharai Upazila. There were open discussions about local problems, potentials, and expectations of the people. Open discussion revealed the union wise problems and issues of Mirsharai Upazila. Table 2. 5 shows the extracts of problems of rural area compiled from PRA.

Table 2. 5: List of Major Union Wise Problems of Mirsharai Upazila Compiled from PRA

| Serial No. | Problems | Union Name |
|---------------|----------------------------|--|
| | Narrow road, poor | |
| 01 | condition and missing link | All union |
| | of road | |
| 02 | Water logging | All union |
| 03 | Drainage problem and Khal | All union |
| 05 | re-excavation | |
| 04 | Community clinic | All Union |
| | Scarcity of pure drinking | Dhum, Haitkandi, Ichhakhali, Karerhat, Katachhara, Maghadia, |
| 05 | water | Mayani, Mirsharai, Mithanala, Osmanpur, Saherkhali, |
| | | Wahedpur, Zorwarganj (13 Unions) |
| 06 | Sanitation problem | Dhum, Haitkandi, Ichhakhali, Karerhat, Katachhara, Maghadia, |
| | · | Mayani, Mirsharai (8 Unions) |
| 07 | _ | Dhum, Haitkandi, Hinguli, Karerhat, Katachhara, Mirsharai, |
| | problem | Saherkhali, Wahedpur, Zorwarganj (9 Unions) |
| 08 | Public toilet | Dhum, Hinguli, Ichhakhali, Karerhat, Katachhara, Maghadia, |
| | | Mayani, Mirsharai, Saherkhali (9 Unions) |
| 09 | CNG stand | Haitkandi, Ichhakhali, Osmanpur, Katachhara, Zorwarganj, |
| 10 | Bus stand | Mirsharai, Mithanala, Saherkhali, Dhum, Karerhat (12 Unions) Ichhakhali, Karerhat (2 Unions) |
| 10 | DUS STATIO | Dhum, Durgapur, Haitkandi, Hinguli, Ichhakhali, Karerhat, |
| 11 | Playground and park | Katachhara, Maghadia, Mayani, Mirsharai, Mithanala, |
| 11 | riaygiounu anu park | Osmanpur, Saherkhali, Wahedpur (14 Unions) |
| | | Dhum, Haitkandi, Hinguli, Ichhakhali, Karerhat, Katachhara, |
| 12 | Graveyard/Cremation | Maghadia, Mayani, Mirsharai, Mithanala, Osmanpur, |
| | ground | Wahedpur, Zorwarganj (13 Unions) |
| | | Dhum, Haitkandi, Hinguli, Ichhakhali, Karerhat, Katachhara, |
| 13 | Eidgah | Maghadia, Mayani, Mirsharai, Mithanala, Osmanpur, |
| | | Wahedpur, Zorwarganj (13 Unions) |
| 14 | Union Parishad office | Hinguli, Khaiyachhara, Zorwarganj (3 Unions) |
| 15 | Fixed place of kitchen | Dhum, Durgapur, Ichhakhali, Karerhat, Maghadia, Mirsharai, |
| 12 | market/super market | Mithanala (7 Unions) |
| 16 | Cattle market | Hinguli, Mithanala (2 Union) |
| 17 | Slaughter house | Hinguli, Ichhakhali, Katachhara, Mirsharai, Mithanala (5 Unions) |

| Serial No. | Problems | Union Name | | |
|---------------|-----------------------------|---|--|--|
| 18 | Cold storage | Katachhara, Saherkhali (2 Unions) | | |
| 10 | Cold Storage | , , , | | |
| 19 | Community center | Haitkandi, Ichhakhali, Katachhara, Maghadia, Mirsharai (5 | | |
| | | Unions) | | |
| 20 | Cyclone shelter | Haitkandi, Hinguli, Katachhara, Maghadia, Mayani, Osmanpur, | | |
| | ayorone shereer | Saherkhali (7 Unions) | | |
| | | Dhum, Durgapur, Hinguli, Ichhakhali, Karerhat, Katachhara, | | |
| 21 | Cluster village | Mayani, Mirsharai, Saherkhali, Wahedpur, Zorwarganj (11 | | |
| | | Unions) | | |
| | | Durgapur, Karerhat, Haitkandi, Hinguli, Khaiyachhara, Mayani, | | |
| 22 | Primary school | Mirsharai, Mithanala, Osmanpur, Wahedpur, Saherkhali, | | |
| | | Zorwarganj (12 Unions) | | |
| | | Haitkandi, Karerhat, Hinguli, Ichhakhali, Katachhara, Maghadia, | | |
| 23 | Secondary school | Mayani, Mithanala, Osmanpur, Saherkhali, Wahedpur, | | |
| | | Zorwargani (12 Unions) | | |
| | | Haitkandi, Karerhat, Ichhakhali, Katachhara, Mithanala, | | |
| 24 | College | Saherkhali, Zorwargani (7 Unions) | | |
| | | Haitkandi, Karerhat, Ichhakhali, Katachhara, Maghadia, | | |
| 25 | Vocational Training Center | Mithanala, Osmanpur, Saherkhali, Zorwarganj (9 Unions) | | |
| | | Durgapur, Haitkandi, Hinguli, Ichhakhali, Katachhara, Maghadia, | | |
| 26 | Unplanned housing | Mayani, Mirsharai, Mithanala, Wahedpur, Osmanpur, | | |
| 20 | | , | | |
| | u a dia a fu a a dia a a di | Saherkhali (12 Unions) | | |
| 27 | Handicraft and cottage | Haitkandi, Karerhat, Saherkhali, Zorwarganj (4 Unions) | | |
| | industry | | | |

Source: PRA, 2019

2.6 Standards of Land Use Planning and Infrastructure

Planning Standard is a guiding principal that guide the planners and decision makers in providing or allocating required amount of space for different purpose. Present Development Plan intends to provide development guidelines and future land use directions for a period of the whole plan period. The main objective of this plan is not to allocate spaces for all kinds of services for all the areas. Most importantly, the planning team has only proposed those services that have immediate need, possess importance in terms of regional and local context.

As there is no nationally acceptable planning standard, there is always scope for controversy and disagreement. However, the proposed standard should be treated rather flexibly. In doing so, the proposed standard can be used. These standards are adopted from a research conducted by UDD that reviewed the space standards of many planning projects of Bangladesh. Planning standards of the land use planning and infrastructure are shown in Table 2. 6.

Table 2. 6: Recommended Planning Standards of Land Use and Infrastructure

| Land Use Components | Recommended Standard Provision | Remarks |
|---|--|---------------|
| Residential | | |
| General Residential | 1 acre/100-150 pop. | |
| Real Estate- Public/ Private | 1 acre/200 pop. | |
| Government Services | _ sand_coper | |
| Union Parishad Office | 3-5 acres/Union Parishad | |
| Police station/Police box | 3-5 acres/Paurashava | |
| Post office | 0.50 acre/20,000 pop. | |
| Fire service | 1 acre/20,000 pop. | |
| Telephone exchange | 0.25 acre/20,000 pop. | |
| Commercial | | |
| Wholesale market | 3-5 acres/Paurashava | |
| Retail sale market | 0.5 acre/10,000 pop. | |
| Neighborhood market | 1 acre/Neighborhood market | |
| Cattle Market/Hat | 1-1.5 acre/Paurashava | |
| Industrial | | |
| General/Agro/Cottage Industry | 2-5 acre/10,000 pop. | |
| Educational and Research | | |
| Nursery | 0.40 acres/Nursery; 1 Nursery/5000 pop. | |
| | 1 acre/primary school; 1 primary | |
| Primary school | school/2000 pop. | |
| Cocondomicabaal | 2 acres/Secondary School; 1 secondary | |
| Secondary school | school/8000 pop. | |
| College | 4 acres/1 college, 1 college/20,000 pop. | |
| Vocational training center | 5-10 acres/Upazila | 1 per Upazila |
| Others | 3 acres/20,000 pop. | |
| Health Facilities | | |
| Upazila health complex | 10-20 acres/Upazila HQ | 1 per Upazila |
| General Hospital | 5 acres/50 bed hospital/Paurashava | |
| Specialized Hospital | 1 acre/Paurashava | |
| Community/Maternity clinic | 0.60 acre/5000 pop., within 2 km. distance | |
| | of residents. | |
| Open Space and Recreation Facili | ties | |
| Stadium/Sports complex | 5-10 acres/Upazila | 1 per Upazila |
| Central Park | 5-10 acres/Upazila | 1 per Upazila |
| Community/Neighborhood Park | 1 acre/10,000 pop. | |
| Playground | 3 acres/20,000 pop. | |
| Cinema hall | 1 acre/20,000 pop. | |
| Community and Social Services | | |
| Eidgah | 0.5 acre/20,000 pop. | |
| Graveyard/Cremation Ground | 1 acre/20,000 pop. | |
| Religious (mosque/temple/ | 0.5 acre/20,000 pop. | |
| church) | | |
| Community center | 0.50 acre/20,000 pop. | |
| Club/Gymnasium | 0.10 acre | Optional |
| Utility Facilities | | |
| Water Supply Treatment Plant | 1 acre/20,000 pop. | |
| Solid Waste Disposal Site | 4-10 acres/Upazila | |
| Sewerage Treatment Plant | As per local requirement | |

| Land Use Components | Recommended Standard Provision | Remarks |
|---------------------------|--------------------------------|---------------|
| Waste Transfer Station | 0.25 acre/station | |
| Electric Sub-station | 0.50 acre/20,000 pop. | |
| Transportation Facilities | | |
| Bus terminal | 1 acre/Paurashava | 1 per Upazila |
| Bus Stand | 0.50 acre/Paurashava | |
| Truck Terminal | 1 acre/Paurashava | 1 per Upazila |
| Launch Ghat | 1 acre/Paurashava | |
| Railway Station | 4 acres/station | |
| CNG/Tempo Stand | 0.25 acres/stand | |

2.7 Rural Area Development Proposals

Development proposals for the rural area of Mirsharai Upazila have been proposed based on the projected population of 2037. After analyzing the local people demands from PRA, others facilities for the rural area of Mirsharai Upazila have been proposed.

2.7.1 Proposals for Education and Research

Educational and Research zone refers to mainly education and research and other social service facilities. Considering the local people demand from the PRA and based on the planning standards, numbers of 26 educational facilities have been proposed for the rural area of Mirsharai Upazila. Among these proposals, there are 3 nurseries, 10 primary schools, 2 primary cum high schools, 7 high schools, and 4 colleges. Detail lists of proposed educational facilities (including mauza wise plot schedule) for the rural area of Mirsharai Upazila is presented in Table 2. 7. Map 2. 3 illustrate the proposed location of education and research facilities for rural area in Mirsharai Upazila.

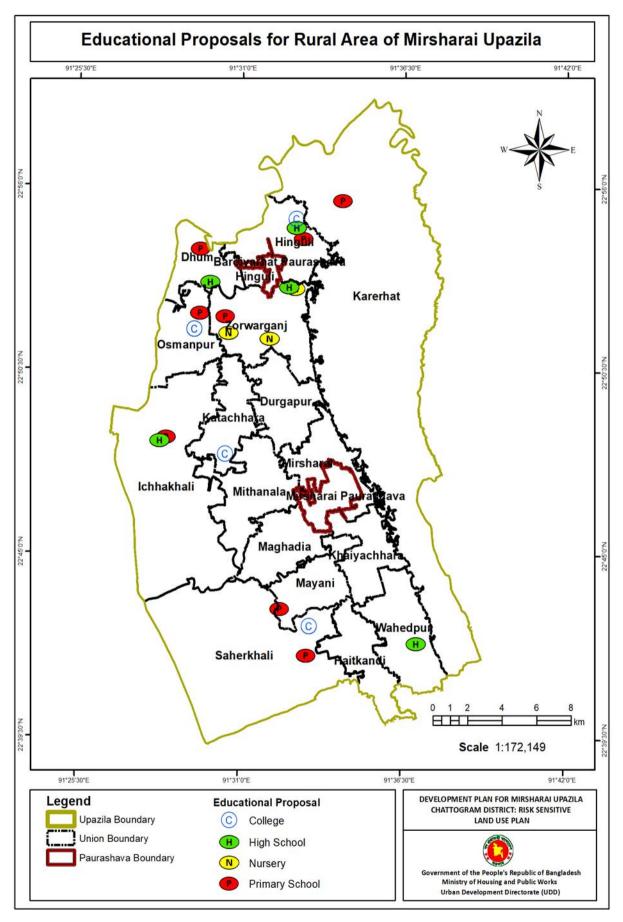
Table 2. 7: List of Proposals for Education and Research

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) |
|---------------------|-----------------------|------------------------------------|---|----------------|
| | 7: | Khilmurari_012_000 | 153, 171 | 0.45 |
| Nursery | Zorwarganj Union | Sonapahar_013_004 | 5824, 5823, 5822, 5825, 5828, 5844 | 0.40 |
| | Official | Bhagabatipur_026_000 | 197, 198, 195, 194, 207, 184, 183, 185 | 0.40 |
| | Dhum Union | Mobarakghona_034_001 | 295, 770, 771, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 802, 1166, 1167, 1169 | 1.07 |
| | Karerhat Union | Geramara_008_003 | 2901, 3134, 3117, 3116, 3114, 3115, 3003, 3113, 3111, 3112 | 1.43 |
| Primary School | Khaiyachhara Union | Duaru_077_000 | 2229, 2233, 2234, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2288, 2289, 2290, 2291, 2292, 99999 | |
| | Maghadia Union | Madhya Maghadia_071_004 | 8377, 8494, 8500, 8501, 8504 | 1.08 |
| | Mayani | Paschim | 8455, 8458, 8459, 8461, 8529, 8531, 8532, 8533, | 0.72 |
| | Union | Mayani_079_004 | 8534, 8535, 8536, 8539, 8540, 8541 | 0.72 |
| | Mirsharai Union | Purba Mithanala_051_002 | 2344, 2346, 2378, 2345 | 1.64 |

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) |
|---------------------------|---------------------|--|--|----------------|
| | Saherkhali Union | Domkhali_082_002 | 2152, 2143, 2140, 2149, 2153, 2150, 2139, 2146, 2137, 2144, 2147, 2138, 2154, 2148 | 1.78 |
| | Zorwarganj Union | Naherpur_024_000 | 1871, 1873, 1870, 1888, 1869, 1868, 1867, 1857, 1858, 1856, 1855, 1854, 1887, 1853, 1938, 1939 | 0.91 |
| Primary School | Hinguli Union | Purba Hinguli_011_002 Purba Hinguli 011 003 | 3162, 3163, 3164 4035, 4036, 4037, 4038, 4039 | 1.16 |
| cum Cyclone Shelter | Osmanpur Union | Morgang_032_002 | 2193, 2207, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2227, 2228, 2237, 2238, 2239, 2240, 2241, 2264, 2267 | 1.32 |
| Primary | Durgapur Union | Hariharpur_048_000 | 337, 338, 339, 347, 351, 352, 353, 354, 355, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386 | 2.10 |
| and High School | Ichhakhali Union | Paschim Ichhakhali_066_002 | 2449, 2450, 2451, 2458, 2459, 2460, 2461, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2494, 2495, 2496, 2555, 2462 | 2.70 |
| | Dhum Union | Dhum_023_003 | 6725, 6727, 6738, 6739, 6740, 6741, 6731, 6732, 6607, 6729, 6730, 6733, 6734, 6735, 6736, 6737, 6742, 6743 | 1.93 |
| | Haitkandi Union | Dakshin Muradpur_083_001 | | |
| High | Hinguli Union | Purba Hinguli_011_001 | 1086, 1088, 1089, 1090, 1132 | 1.59 |
| School | Maghadia Union | Madhya Maghadia_071_006 Madhya Maghadia_071_005 | 15060, 15065, 15066, 15068, 15069, 15067, 99999 11139, 11138 | 1.60 |
| | Wahedpur Union | Wahedpur_089_004 | 10662, 10664, 10665, 10666, 10667, 10809, 10839, 10840, 10842, 10843, 10848 | 1.91 |
| | Zorwarganj Union | Khilmurari_012_000 | 192, 187, 203, 193, 202, 186, 194, 196, 197, 195, 217 | 2.02 |
| | Hinguli Union | Purba Hinguli_011_001 | 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1018, 1019, 1093, 1094, 1606 | 3.29 |
| | Katachhara Union | Paschim Mithanala_064_000 | 614, 615, 616, 617, 618, 619, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 657, 658, 780 | 2.65 |
| College | | Baman Sundar_062_001 | 920 | |
| | Osmanpur Union | Osmanpur_030_000 Rokandipur_031_000 | 1132 758, 761, 767, 768, 770, 771, 772, 773, 774, 775, 778, 779, 785, 786, 787, 788, 789, 790, 792, 798, 798, 799, 799, 800, 801, 803, 803, 815 | 2.97 |
| | Saherkhali Union | Saherkhali_081_001 | 788, 787, 801, 794, 786, 789, 762, 785, 784, 763, 796, 764, 790, 791, 795, 783, 813, 798, 800, 799, 814, 749, 812, 797, 808, 761 | 2.91 |

Source: GIS Database, MUDP (2017-2037)

Map 2. 3: Proposed Educational Facilities for Rural Area in Mirsharai Upazila



2.7.2 Proposals for Commercial Facilities

The land used for commercial activities is considered as commercial land use. These activities include the buying and selling of goods and services in retail businesses, wholesale buying and selling, financial establishments, and wide variety of services that are broadly classified as "Business". Commercial land includes established markets and areas earmarked for markets. In Mirsharai Upazila, there already exists in 44 growth centers/hat bazars.

To meet the local peoples, demand from PRA and based on the planning standards, number of 25 commercial facilities have been proposed for the rural area of Mirsharai Upazila. Among these proposals, there are 19 kitchen markets, 3 cold storages, 1 slaughter house, 1 super market, and 1 wholesale market. Detail mauza wise plot schedule of the proposed commercial facilities for the rural area is presented in Table 2. 8. Map 2. 4 show the proposed location of commercial facilities for rural area in Mirsharai Upazila.

Table 2. 8: List of Proposals for Commercial Facilities

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) |
|------------------------|-----------------|------------------------------------|---|----------------|
| | | Mobarakghona_034_002 | 2300, 2305, 2340, 2348, 2349, 2350, 2351 | 0.23 |
| | Dhum Union | Dhum_023_001 | 658, 660, 663, 664, 666 | |
| | Diluin Onion | Dhum_023_003 | 8140, 8141, 8142, 8143, 8144, 8145, 8147 | 0.43 |
| | | Dhum_023_003 | 6343, 6344, 6345, 6346 | 0.15 |
| | Durganur Union | Durgapur_052_002 | 4374, 4375, 4376, 4364, 4378 | 0.32 |
| | Durgapur Union | Janarddanpur_045_000 | 210, 211, 252, 255, 256 | 0.29 |
| | | Haithandi 004 003 | 3224, 3225, 3226, 3239, 3240, | 0.35 |
| | Haitkandi Union | Haitkandi_084_003 | 3241, 3242, 3243, 3252 | |
| | | Dakshin | 211, 212, 213, 214, 295, 296, | 0.40 |
| Vitaban | | Muradpur_083_001 | 297, 298, 299, 301, 251 | 0.40 |
| Kitchen Market | Hinguli Union | Azamnagar_021_002 | 3912, 3928, 3929, 3930, 3931, | 0.52 |
| Ivialket | | | 3932, 3934, 3938, 3933 | |
| | | Uttar Ichhakhali_041_007 | 14515, 14708, 14510, 14513, 14509, 14564, 14511 | 0.22 |
| | Ichhakhali | Uttar Ichhakhali_041_004 | 5458, 5459 | |
| | Union | Uttar Ichhakhali_041_005 | 8002, 8003, 8004, 8005, 8006, 8007, 8008, 8014 | 0.48 |
| | Karerhat Union | Baraia_005_000 | 36, 30, 915, 31, 330 | 0.23 |
| | | | 2019, 2020, 2021, 2030, 2031, | |
| | | Baman Sundar_062_002 | 2032, 2033, 2034 | 0.40 |
| | Katachhara | Paschim | 074 000 | 0.18 |
| | Union | Mithanala_064_000 | 874, 880 | |
| | | Bariakhali_065_002 | 4596, 4597, 4600, 4601 | 0.47 |

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) |
|---------------------|---------------------------------|------------------------------------|--|----------------|
| | Mayani Union | Paschim Mayani_079_004 | 7180, 7156, 7177, 7245, 7246, 7255, 7031, 7178 | 0.21 |
| | Mithanala Union | Mithanala Rajapur_061_004 | 11679, 11680, 11681, 11682, 11683 | 0.35 |
| | | Brindabanpur_033_000 | 836, 837, 868, 869, 1050 | 0.34 |
| | Osmanpur Union | Patakot_029_000 | 273, 274, 275, 276, 297, 298, 299, 300, 309, 310, 313, 314 | 0.51 |
| | Saherkhali Union | Dakshin Maghadia_080_004 | 3665, 3667, 3671, 3672, 3678, 3673, 3674, 3675, 3676, 3677, 3679, 3680, 3747, 3708 | 0.44 |
| | Zorwarganj Union | Paragalpur_018_000 | 611, 627, 1412, 1413, 1417, 1418, 1419, 1613 | 0.57 |
| | 0111011 | Imampur_019_000 | npur_019_000 764, 765 | |
| | Katachhara Union | Baman Sundar_062_002 | 2006, 2007, 2005, 2004 | 0.13 |
| Cold Storage | Saherkhali Union | Saherkhali_081_003 | 6470, 6471, 6472, 6507, 6508 | 0.25 |
| | Zorwarganj Sonapahar_013_007 | | 11246, 11244, 11243, 11242, 11239, 11240, 11237, 11238, 11236, 11338, 11339, 12069 | 1.60 |
| Slaughter House | Banshkhali 039 000 | | 1130, 1131, 1132, 1135, 1136, 1137, 1138 | 0.29 |
| Super Market | Mirsharai Union | Purba Mithanala_051_002 | 1975, 1984, 1978, 1976, 2137, 2136, 3003, 2134, 2135, 2133 | 0.69 |
| Wholesale Market | Wahedpur Union | Wahedpur_089_004 | 10435, 10452, 10453, 10454, 10455, 10456, 10457, 10458, 10459, 10460, 10461, 10467 | 0.90 |
| | | Khajuria_090_000 | 341 | |

Commercial Proposals for Rural Area of Mirsharai Upazila 蚁 Dhump Karerhat Zorwarganj Osmanpur Mithanala Ichhakhali Maghadia Mayani ahedpu Saherkhali Scale 1:172,149 91*25'30"E 91°36'30"E 91°31'0"E DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Legend Commercial Proposal CHATTOGRAM DISTRICT: RISK SENSITIVE Upazila Boundary Cattle Market Super Market LAND USE PLAN Union Boundary Cold Storage Wholesale Market Paurashava Boundary Kitchen Market Growth_Center nment of the People's Republic of Bangladesh Ministry of Housing and Public Works Slaughter House Rural_Market

Map 2. 4: Proposed Commercial Facilities for Rural Area in Mirsharai Upazila

2.7.3 Proposals for Health Facilities

The health facilities are intended to provide locations, where health facilities including Upazila health complex and other maternity clinic can be set up and function. Family welfare centers already exist at all the unions of Mirsharai Upazila. Considering the local people demand, 23 community clinics and one specialized hospitals have been proposed for the rural area. Detail lists of proposed health facilities for the rural area is presented in **Error! Not a valid bookmark self-reference.** Map 2. 5 show the proposed location of health facilities for rural area in Mirsharai Upazila.

Table 2. 9: List of Proposed Health Facilities

| Proposed | Union Name | Area | Mauza Name, J.L. No., Sheet | Plot No. |
|-------------|-----------------------|--------|---------------------------------|---|
| Facilities | | (Acre) | No. | |
| | Dhum Union | 0.16 | Mobarakghona_034_001 | 1, 6, 7, 335, 1344 |
| | | 0.24 | Janarddanpur_045_000 | 246, 247, 250, 251, 258, 259, 715, 717 |
| | Durgapur Union | 0.52 | Hajisarai_014_000 | 926, 927, 928, 929, 849 |
| | Dargapar Omon | 0.30 | Durgapur_052_002 | 3197, 3653, 3737, 3740, 3741, 3742, 3743, 3748 |
| | Haitkandi Union | 0.30 | Kurua_085_003 | 10476, 10469, 10465, 10470, 10473, 10472, 10463, 99999, 10464, 10461, 10471 |
| | | 0.26 | Haitkandi_084_003 | 6642, 6643, 6644, 6654, 6655, 6656, 6687 |
| | Hinguli Union | 0.33 | Purba Hinguli_011_002 | 3170, 3171, 3172, 3173, 3174, 3175, 3212, 3293 |
| | | 0.42 | Purba Ichhakhali_067_011 | 14754, 14755, 14756 |
| | Ichhakhali Union | 0.35 | Uttar Ichhakhali_041_006 | 10541, 10542, 10543, 10544, 10545 |
| | iciliakilali oliloli | 0.39 | ILITTAT ICNNAKNALI UALI UUS – I | 8099, 8098, 8097, 8096, 8095, 8094, |
| | | 0.33 | | 8092, 8093, 8090, 8279 |
| | Karerhat Union | 0.62 | Geramara_008_003 | 2985, 2584, 2585, 2583 |
| Community | Katachhara Union | 0.34 | Temuhani Muradpur_043_000 | 1797, 1801 |
| Clinic | | | Katachhara_044_001 | 331, 364, 365, 366, 1665 |
| | Khaiyachhara Union | 0.37 | Purba Khaiyachhara_075_000 | 114, 146, 153, 152, 147 |
| | Maghadia Union | 0.22 | Madhya Maghadia_071_006 | 13012, 13073, 13074, 13075, 13091 |
| | Mayani Union | 0.38 | Paschim Mayani_076_002 | 2815, 2816, 2818, 2892, 2893, 2894, 2895 |
| | Mithanala Union | 0.33 | Mithanala Rajapur_061_003 | 5723, 5799, 5800, 5807, 5801, 5806, 5724 |
| | | 0.32 | Modhyo Muradpur_069_001 | 517, 523, 519, 520, 521, 522, 531, 518 |
| | Osmanpur Union | 0.22 | Brindabanpur_033_000 | 1029, 1041, 1042, 1043 |
| | Cabarlibali Union | 0.69 | Dakshin Maghadia_080_004 | 3053, 3123, 3055, 3068, 3122, 3124, 3125, 3126, 3127, 3131, 3054 |
| | Saherkhali Union | 0.43 | Saherkhali_081_003 | 5966, 5968, 5969, 5970, 5971, 5972, 5975, 6860, 6861, 7948 |
| | | 0.53 | Bhagabatipur_026_000 | 199, 200, 206, 207, 208, 303, 209, 210 |
| | Zorwarganj Union | 0.36 | Paragalpur_018_000 | 588, 585, 589, 629, 586, 584, 643, 587, 591 |
| | | 0.37 | Sonapahar_013_003 | 3812, 3808, 3809, 3807 |
| Specialized | Osmannur Hair - | 1.64 | Osmanpur_030_000 | 1115, 1118, 1126, 1127, 1130, 1131 |
| Hospital | Osmanpur Union | 1.04 | Rokandipur_031_000 | 803, 807, 810, 811, 812, 813, 814 |

Proposed Health Facilities for Rural Area of Mirsharai Upazila 91°25'30"E 91°31'0"E 91°36'30"E Hing Dhum Bar Karerhat Osmanpur Durgapur Ichhakhali Mithanala Maghadia Mayani Vahedpu Saherkhali Scale 1:172,149 91°25'30"E 91°31'0"E 91°36'30"E 91°42'0"E DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Legend **Proposed Health Facilities** CHATTOGRAM DISTRICT: RISK SENSITIVE LAND USE PLAN Upazila Boundary Community Clinic Union Boundary Maternity Clinic and Child Care Center Paurashava Boundary nment of the People's Republic of Bangladesh Ministry of Housing and Public Works Urban Development Directorate (UDD)

Map 2. 5: Proposed Health Facilities for Rural Area in Mirsharai Upazila

2.7.4 Proposals for Open Space and Recreation

Recreational and sport facilities without or with minimum building structure i.e. Playground, Park, Botanical Garden, Stadium, Zoo etc. will be listed and proposed under Open Space and Recreational zone. This zone has been provided to meet the active and passive recreational needs of the people and at the same time, conserve the natural resources. Playground is a basic necessity for the youth for building their body and mind. There are some open spaces in rural areas where they usually play. However, these open spaces belong to other people and not formal playground.

Keeping the need for playgrounds, 9 playgrounds have been proposed different unions of the Mirsharai Upazila. Table 2. 10 shows the mauza wise plot schedule of proposed open space and recreations for the rural area in Mirsharai Upazila. Map 2. 6 show the proposed location of open space and recreation facilities for rural area in Mirsharai Upazila.

Table 2. 10: List of Proposals for Open Space and Recreation Facilities

| Proposed | Union Name | Mauza Name, J.L. No., Sheet | Plot No. | Area |
|------------|------------------|-----------------------------|--|--------|
| Facilities | Official Name | No. | riot No. | (Acre) |
| | | Mobarakghona_034_002 | 2329, 2330, 2331, 2332, 2333 | |
| | Dhum Union | | 339, 344, 346, 349, 353, 354, 355, | 2.55 |
| | Diluili Ollioli | Dhum_023_001 | 356, 357, 358, 359, 360, 361, 362, | 2.33 |
| | | | 363, 370, 371, 561, 99999 | |
| | | Durgapur_052_001 | 1907, 1905, 1884, 1883, 1880, 1908, | 0.96 |
| | | Durgapur_032_001 | 1909, 1911 | 0.90 |
| | Durgapur Union | | 1266, 1377, 1390, 1391, 1392, 1393, | |
| | Dargapar Omon | Hajisarai 014 000 | 1394, 1395, 1396, 1398, 1399, 1400, | 1.06 |
| | | | 1401, 1402, 1403, 1405, 1406, 1409, | 1.00 |
| | | | 1410, 1413, 1297, 1397 | |
| | | | 3515, 3516, 3523, 3525, 3525, 3526, | |
| | | Dakshin Muradpur 083 002 | 3527, 3530, 3532, 3533, 3534, 3535, | |
| | Haitkandi Union | Daksiiii Wuraupur_083_002 | 3536, 3537, 3538, 3539, 3540, 3541, | 1.34 |
| | | | 3542, 3543, 3544, 3545, 3541, 3542 | |
| | | Haitkandi_084_003 | 6344 | |
| | Ichhakhali Union | Purba Ichhakhali_067_002 | 2488, 2491, 2480, 2489, 2490, 2479, | |
| Playground | | | 2474, 2477, 2476, 2475, 2469, 2470, | 0.87 |
| Flayground | | | 2467, 2465, 2464, 2462, 2468 | |
| | | Geramara_008_003 | 2969, 2903, 2908, 2964, 2909, 2965, | |
| | Karerhat Union | | 2967, 2904, 2968, 2907, 2970, 2905, | 1.52 |
| | | | 2906 | |
| | | | 1479, 1480, 1481, 1490, 1491, 1492, | |
| | | Temuhani Muradpur_043_000 | 1493, 1494, 1495, 1496, 1497, 1498, | 0.88 |
| | Katachhara | | 1499, 1500, 1504 | 0.00 |
| | Union | Katachhara_044_001 | 48, 49, 50, 231, 232, 1663 | |
| | Official | | 2795, 2794, 2793, 2792, 2791, 2790, | |
| | | Katachhara_044_002 | 2858, 2841, 2837, 2840, 2842, 2839, | 1.09 |
| | | | 2843, 2844 | |
| | | | 9304, 9290, 9306, 9307, 9280, 9305, | |
| | Maghadia Union | Madhya Maghadia_071_005 | 9289, 9308, 9288, 9309, 9287, 9070 | 1.34 |
| | | | | 4.00 |
| | Sanerkhali Union | Dakshin Maghadia_080_005 | 4224, 4225 | 1.38 |
| | Osmanpur Union | Osmanpur_030_000 | 445, 446, 447, 448, 449, 450, 451, 456, 459, 545, 547, 549, 551, 452, | 1.20 |

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | | |
|------------------------|-------------------------------------|------------------------------------|---|------|--|
| | | | 453, 454, 455, 457, 458, 462, 468, 470, 542, 543, 544, 546, 550 | | |
| | | Morgang_032_001 | 630, 632, 651 | | |
| | | Morgang_032_002 | 2287, 2288, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2302 | 1.03 | |
| | Wahedpur Union | Maijgaon_087_001 | 645, 646, 648, 649, 650, 651, 652, 654, 655, 656, 658, 709, 1806, 1807, 647, 653 | | |
| | Zorwarganj Union Sonapahar_013_0 | | 5523, 5338, 5327, 5337, 5330, 5334, 5336, 5332, 5333, 5331, 5335, 5256, 5134 | | |
| Children Park | Dhum Union | Mobarakghona_034_001 | 822, 823, 836, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 850, 851, 852, 863, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 935, 936, 938, 939 | | |

Proposed Open Space and Recreation for Rural Area of Mirsharai Upazila 91°25'30"E 91°31'0"E 91°42'0"E Hinguli Karerhat Zorwarganj Osmanpur Durgapur. Ichhakhali Mithanala Maghadia Mayani ahedpu Saherkhali Scale 1:172,149 91°25'30"E DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Legend **Proposed Open Space and Recreation** CHATTOGRAM DISTRICT: RISK SENSITIVE LAND USE PLAN Upazila Boundary Playground Union Boundary Paurashava Boundary rnment of the People's Republic of Bangladesh Ministry of Housing and Public Works

Map 2. 6: Proposed Open Space and Recreation Facilities for Rural Area

2.7.5 Proposals for Community Facilities

All community facilities, including funeral places (i.e. graveyards, cremation grounds) and other religious uses denoted as community facilities. Considering the local people demand from PRA, community facilities have been prosed for the rural area of Mirsharai Upazila. Among these proposals, there are 1 community center, 8 eidgahs, 15 graveyards, and 13 cremation grounds. **Error! Not a valid bookmark self-reference.** shows the mauza wise plot schedule of proposed community facilities for rural area of Mirsharai Upazila. Map 2. 7 show the proposed location of community facilities for rural area in Mirsharai Upazila.

Table 2. 11: List of Proposals for Community Facilities

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) |
|------------------------|-----------------------|------------------------------------|---|----------------|
| Community Center | Dhum Union | Dhum_023_003 | 7440, 7452, 7453, 7457 | 0.16 |
| | | Mobarakghona_034_002 | 2267, 2273, 2271, 2272, 2268, 2258, 2270, 2269, 2257, 2396, 2395 | |
| | Dhum Union | Dhum_023_001 | 60, 62, 67, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 98, 99, 100, 252, 254, 262, 263, 264, 64, 66, 65 | |
| | Durgapur Union | Durgapur_052_002 | 3357, 3365, 3366, 3653 | 0.35 |
| | | Purba Ichhakhali_067_002 | 2465, 2464, 2462, 2461, 2463, 2459, 2460, 2458, 2714, 2713 | 0.67 |
| Eidaah | Ichhakhali Union | Uttar Ichhakhali_041_002 | 1706, 1707, 1708, 1719 | |
| Eidgah | | Uttar Ichhakhali_041_002 | 3123, 3124, 3125, 3127, 3132, 3137 | 0.61 |
| | | Uttar Ichhakhali_041_005 | 8017 | |
| | Karerhat Union | Geramara_008_003 | 2901, 3134, 3114, 3003, 3002 | 0.77 |
| | Khaiyachhara Union | Purba Mayani_078_006 | 15711, 15712, 15761, 15762, 15763, 15764, 15770, 15771 | 0.60 |
| | Mithanala Union | Mithanala Rajapur_061_006 | 18222, 18447, 18223, 18224, 18445, 18446, 18258, 18257 | 0.63 |
| | Saherkhali Union | Saherkhali_081_001 | 2512, 2511, 1314, 2518, 2516, 2514, 2515, 2513, 2510, 2517 | 0.99 |
| | Dhum Union | Dhum_023_001 | 137, 138 | 1.42 |
| | Durgapur Union | Durgapur_052_004 | 8973, 8974, 8972, 8967, 8689, 8677, 8882 | 0.71 |
| | Haitkandi Union | Kurua_085_001 | 1530, 1543, 1544, 1545, 1546, 1547, 1548, 1663, 1664, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1678, 1280, 1677, 99999 | 1 19 |
| Graveyard | Hinguli Union | Purba Hinguli_011_001 | 581, 583, 587, 588, 593, 594, 599, 600, 601, 602, 603, 604, 605, 608, 612, 613, 614 | |
| | | Paschim Hinguli_022_002 | 925, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1742, 1743, 1744 | 0.66 |
| | Ichhakhali Union | Uttar Ichhakhali_041_005 | 8212, 8209, 8210, 8215, 8208, 8207, 8206, 8223, 8211 | 0.38 |
| | Katachhara Union | Bariakhali_065_003 | 6875, 6878, 6879, 6880, 6887, 6888, 6889, 6890, 6891, 6892, 6893, 6894, | 1.66 |

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) | |
|------------------------|-----------------------|------------------------------------|--|----------------|--|
| | | | 6895, 6896, 6897, 6898, 6899, 6901, 6903, 7180 | | |
| | Khaiyachhara Union | Polmogra_076_000 | 480, 482, 486, 487, 498, 499, 500, 501, 502, 504, 506 | 0.64 | |
| | Maghadia Union | Madhya Maghadia_071_006 | 13274, 13275, 13246, 13276, 13247, 13256, 13258, 13253, 13248, 13245 | 0.88 | |
| | Mayani Union | Paschim Mayani_079_003 | 6338, 5741, 5744, 5743, 5745, 5746, 5763 | 0.44 | |
| | Mithanala Union | Mithanala Rajapur_061_003 | 7104, 7103, 7108, 6933, 6907, 6892, 6908, 6909, 6906, 6931, 6932 | 0.62 | |
| | Osmanpur Union | Morgang_032_002 | 2111, 2112 | 0.19 | |
| | | Brindabanpur_033_000 | 976, 977, 981, 982 | | |
| | Saherkhali Union | Dakshin Maghadia_080_004 | 3711, 3719 | 0.37 | |
| | Wahedpur Union | Maijgaon_087_001 | 1799, 1800, 709, 1801, 1806, 1808, 1805 | 0.52 | |
| | Zorwarganj Union | Sonapahar_013_003 | 2997, 2994, 2998, 3822, 2999, 3013, 3002, 3012, 3001, 3000, 3011, 3782, 3004, 3003, 3007 | | |
| | Dhum Union | Dhum_023_002 | 194, 192, 191, 193, 197, 196, 179, 190, 188, 180, 178, 198, 176 | | |
| | Durgapur Union | Durgapur_052_003 | 7268, 7269, 7267, 7266, 7269, 7266, 7266 20005, 20007, 20004, 20001, 20005, | 0.44 | |
| | | Durgapur_052_005 | 20005, 20007, 20004, 20001, 20005, 20001 | | |
| | | Kurua_085_002 | 6714 | | |
| | Haitkandi Union | Dakshin Muradpur_083_002 | 4045, 4049, 4073, 4076, 4077, 4078, 4079, 4081, 4082, 4083, 4080, 4049 | 0.60 | |
| | Hinguli Union | Azamnagar_021_001 | 576, 577, 578, 579, 580, 581, 582, 583, 584, 586 | 0.48 | |
| | Karerhat Union | Joypur Purba Joar_001_001 | 116, 1467, 1468, 1482, 1483 | 0.86 | |
| | Katachhara | Katachhara_044_001 | 616, 618, 619 | 0.45 | |
| Cremation | Union | Idilpur_042_000 | 231 | 0.45 | |
| Ground | Khaiyachhara Union | Purba Mayani_078_005 | 11647, 10676, 10674, 10675, 10677, 10839 | 0.19 | |
| | Maghadia Union | Madhya Maghadia_071_004 | 8153, 8154, 8158, 8159, 8160, 8161, 8162, 7658, 8603, 8601 | 2.16 | |
| | Mayani Union | Paschim Mayani_079_002 | 1930, 2033, 2034, 2035, 2037, 2038, 2039, 2040, 2043, 1934, 1935, 2036 | 0.77 | |
| | Mithanala Union | Mithanala Rajapur_061_001 | 458, 460, 459, 485, 480, 481, 487 | 0.64 | |
| | Osmanpur Union | Sahebpur_028_000 | 2129, 2130, 2131, 2131, 2133, 2134, 2147 | 0.78 | |
| | | Sahebpur_028_002 | 4343, 4367, 4367 | | |
| | Wahedpur Union | Wahedpur_089_001 | 2494, 2496, 2497, 2498, 2500, 2499, 2503 | 0.26 | |
| | Zorwarganj Union | Dewanpur_017_000 | 147, 152, 190, 156, 153, 189 | 0.72 | |
| | | | | | |

Proposed Community Facilities for Rural Area of Mirsharai Upazila 91°25'30"E 91°31'0°E Karerhat Osmanpur Ichhakhali Maghadia Saherkhali Scale 1:172,149 91°25'30"E 91°31'0"E **DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Proposed Community Facilities** Legend CHATTOGRAM DISTRICT: RISK SENSITIVE m Community Center LAND USE PLAN Upazila Boundary Cremation Ground Cyclone Shelter Union Boundary Paurashava Boundary Eidgah rnment of the People's Republic of Bangladesh Ministry of Housing and Public Works ▲ Graveyard Urban Development Directorate (UDD)

Map 2. 7: Proposed Community Facilities for Rural Area in Mirsharai Upazila

2.7.6 Proposals for Utility Services

Utility services are one of the most important components of a planned development area. Utility services include Overhead Tank, Public Toilet, Sewerage Office, Water Pump House, Water Reservoir, Water Treatment Plant, Waste transfer station, Waste Disposal ground, etc. Considering the local people demand and existing conditions, numbers of 72 utility services have been proposed for rural area of Mirsharai Upazila. Among these proposals, there are 32 public toilets, and 40 waste transfer stations. Table 2. 12 show the list of proposed utility services for rural area of Mirsharai Upazila. Map 2. 8 show the proposed location of utility services for rural area in Mirsharai Upazila.

Table 2. 12: List of Proposals for Utility Services

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) |
|------------------------|-----------------------|------------------------------------|---|----------------|
| | - · · · | Dhum 023 001 | 1002, 1003 | 0.08 |
| | Dhum Union | Dhum_023_003 | 8144, 8145, 8153, 8154, 8155 | 0.12 |
| | | Gopalpur_047_000 | 828, 833, 822, 1166 | 0.11 |
| | Durgapur Union | Durgapur_052_004 | 8534, 8536, 8366, 8340, 8452 | 0.10 |
| | | Kurua_085_003 | 8326, 8493, 8490, 8491 | 0.10 |
| | Haitkandi Union | Dakshin Muradpur_083_001 | 211, 212, 213, 304, 305, 306, 210, 251 | 0.12 |
| | | Haitkandi_084_001 | 601, 604, 608 | 0.11 |
| - | Hinguli Union | Purba Hinguli_011_001 | 1504, 1505 | 0.05 |
| | _ | Uttar Ichhakhali_041_008 | 20103, 19203, 20100, 20104, 19202 | 0.10 |
| | Ichhakhali Union | Uttar Ichhakhali_041_004 | 5461, 5470, 5440, 5519, 5470, 5440, 5519 | 0.10 |
| Ī | Managhat I Inian | Paschimjoar_002_002 | 2638, 2651, 2661 | 0.15 |
| | Karerhat Union | Baraia_005_000 | 36, 30, 915, 31, 330 | 0.11 |
| | | Katachhara_044_003 | 8820, 8856, 8859 | 0.11 |
| | Katachhara Union | Baman Sundar_062_002 | 2006, 2007, 2008, 2009, 2010, 2011, 2021 | 0.10 |
| Dublic | | Paschim Mithanala_064_000 | 837 | |
| Public Toilet | Khaiyachhara Union | Polmogra_076_000 | 337, 339, 340, 351 | 0.09 |
| Tollet | Maghadia Union | Madhya Maghadia_071_004 | | 0.01 |
| | | Madhya Maghadia_071_001 | 52909, 52910 | 0.03 |
| | | Madhya Maghadia_071_007 | 337, 423 | 0.04 |
| | Mayani Union | Paschim Mayani_079_005 | 12738, 12744 | 0.02 |
| | iviayani Onion | Paschim Mayani_079_004 | 7245, 7255, 7260 | 0.08 |
| | Mirsharai Union | Purba Mithanala_051_002 | 1921, 1975 | 0.03 |
| | Mithanala Union | Mithanala Rajapur_061_004 | 11666, 11667, 11668, 11670 | 0.17 |
| | WIITHAIIAIA UIIIUH | Mithanala Rajapur_061_006 | 17549, 17551 | |
| | Osmannur Union | Morgang_032_002 | 1751, 1752, 1748 | 0.15 |
| | Osmanpur Union | Banshkhali_039_000 | 1123, 1124, 1141, 1143, 1144 | 0.10 |
| | Saherkhali Union | Domkhali_082_004 | 8967, 8966, 9060 | 0.13 |
| | Saller Kilali UlliUll | Saherkhali_081_003 | 6506, 6504, 6505 | 0.15 |
| | | Gachhbaria_088_000 | 2856 | 0.12 |
| | Wahadaur Union | Wahedpur_089_004 | 10456, 10457, 10435 | 0.12 |
| | Wahedpur Union | Bara Kamaldaha_094_002 | 2875, 2874, 2950, 2169 | 0.14 |
| | | Bara Kamaldaha_094_002 | | |
| | Zamuargani Unice | Sonapahar_013_007 | 11345, 11361, 11331 | 0.17 |
| <u> </u> | Zorwarganj Union | Sonapahar_013_004 | 5754 | 0.07 |
| Waste | Dhum Unice | Dhum_023_001 | 640, 658, 663, 666, 667, 720 | 0.08 |
| Transfer | Dhum Union | Dhum 023 003 | 8139, 8140, 8147 | 0.07 |

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) | |
|---------------------|----------------------|------------------------------------|---|----------------|--|
| Station | | Dhum_023_001 | 1002 | 0.08 | |
| | | Dhum 023 003 | 6345, 6346, 6347, 6348, 6351 | 0.11 | |
| | | Gopalpur_047_000 | 828, 830, 832, 833, 1166 | 0.12 | |
| | Durgapur Union | Durgapur_052_004 | 1, 2, 409 | 0.10 | |
| | | Durgapur_052_002 | 4364, 4378 | 0.13 | |
| | | Kurua_085_003 | 8012, 8057, 8055, 8056, 8060 | 0.12 | |
| | Haitkandi Union | Dakshin Muradpur_083_001 | 209, 211, 304, 305, 306, 310, 208, 210, 251 | 0.11 | |
| | | Haitkandi_084_003 | 3242, 3245, 3252 | 0.11 | |
| | | Haitkandi_084_003 | 3433, 3435, 3436, 3426, 3432 | 0.08 | |
| | Hinguli Union | Azamnagar_021_002 | 3912, 3928, 3934 | 0.12 | |
| | Ichhakhali Union | Uttar Ichhakhali_041_008 | 19213, 19220, 19429, 19430, 19431, 19432 | 0.13 | |
| | | Uttar Ichhakhali_041_006 | 10540, 10541, 10545, 10546 | 0.11 | |
| | | Paschimjoar_009_002 | 2849, 2851, 4042 | 0.11 | |
| | Karerhat Union | Joypur Purba Joar_001_002 | 4334, 4357, 4356, 4334 | 0.11 | |
| | | Baraia_005_000 | 12 | 0.11 | |
| | | Baman Sundar_062_002 | 2014, 2015, 2016, 2017 | | |
| | | Paschim | 042 072 | 0.09 | |
| | Katachhara Union | Mithanala_064_000 | 843, 873 | | |
| | | Paschim | 843, 873, 2017, 2016, 2015, 2014, 873, | 0.11 | |
| | | Mithanala_064_000 | 2017, 873, 2016, 873, 2015, 873, 2014 | 0.11 | |
| | | Bariakhali_065_003 | 8104, 8105, 8106, 8107 | 0.13 | |
| | | Bariakhali_065_002 | 4597, 4600 | 0.08 | |
| | Khaiyachhara Union | Polmogra_076_000 | 418, 336, 349, 350, 351 | 0.36 | |
| | | | 6853, 6854, 6855, 6857, 6867 | 0.05 | |
| | Maghadia Union | | 52933, 99999, 52932, 52941 | 0.07 | |
| | | Madhya Maghadia_071_001 | 457, 458, 481, 477 | 0.15 | |
| | Mayani Union | Paschim Mayani_079_005 | 13296, 12710, 12711 | 0.07 | |
| | Mayani Union | Paschim Mayani_079_004 | 7241, 7242, 7156, 7255, 7260 | 0.08 | |
| | Mirsharai Union | Purba Mithanala_051_002 | 1975 | 0.01 | |
| | Mithanala Union | Mithanala Rajapur_061_004 | 11682, 11683 | 0.14 | |
| | | Banshkhali_039_000 | 1120, 1154 | 0.10 | |
| | Osmanpur Union | Patakot_029_000 | 308, 309, 310, 311, 312, 313, 314, 315 | 0.10 | |
| | | Sahebpur_028_002 | 4014 | 0.15 | |
| | | Domkhali_082_004 | 8971, 9038, 9034, 8968 | 0.13 | |
| | Saherkhali Union | Saherkhali_081_003 | 6509, 6522 | 0.10 | |
| | | Dakshin Maghadia_080_004 | 3663, 3664, 3665, 3666, 3667, 3676 | 0.11 | |
| | | Gachhbaria_088_000 | 2856 | 0.14 | |
| | | Wahedpur_089_002 | 4694, 4694 | 0.08 | |
| | | Maijgaon_087_002 | 5102 | 0.00 | |
| | Wahedpur Union | Wahedpur_089_004 | 10447, 10441, 10435, 10440, 10442, 10447, 10440, 10442 | 0.17 | |
| | | Maijgaon_087_002 | 5102 | | |
| | | Bara Kamaldaha_094_002 | 2950, 2169 | 0.13 | |
| | Zorwarganj Union | Dewanpur_017_000 | 1346, 1334 | 0.19 | |
| | 20. Warbarij Officii | Sonapahar_013_002 | 1894, 1892, 1895, 1897, 1858 | 0.23 | |

Proposed Utility Services for Rural Area of Mirsharai Upazila 91°25'30"E 91°31'0"E 91°36'30"E Karerhat Osmanpur Ichhakhali Mayani Saherkhali Scale 1:172,149 91*36'30"E 91°25'30"E DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Legend **Proposed Utility Services** CHATTOGRAM DISTRICT: RISK SENSITIVE LAND USE PLAN Upazila Boundary **Public Toilet** Union Boundary Waste Transfer Station Paurashava Boundary rernment of the People's Republic of Bangladesh Ministry of Housing and Public Works Urban Development Directorate (UDD)

Map 2. 8: Proposed Utility Services for Rural Area in Mirsharai Upazila

2.7.7 Proposals for Transport Facilities

Under transport facilities, both transport and communication services are considered. This category includes, bus terminal/stand, filling station, garage, passenger shed, ticket counter, transport office, etc. Considering the future travel demands of the coming 20 years, different facilities have been proposed to support the transportation system in Mirsharai Upazila.

After analyzing the existing conditions of the transport facilities and local demand as revealed by PRA, number of 31 transport facilities has been proposed in all the unions of the Mirsharai Upazila. Among these proposals, there are 30 CNG stands and one bus stand. Table 2. 13 show the list of proposed transport facilities for the rural area of Mirsharai Upazila. Map 2. 9 show the proposed location of transport facilities for rural area in Mirsharai Upazila.

Table 2. 13: List of Proposals for Transport Facilities

| Proposed | Union Name | Mauza Name, J.L. No., | Plot No. | Area |
|------------|------------------|------------------------------|---|--------|
| Facilities | | Sheet No. | | (Acre) |
| | Dhum Union | Dhum_023_003 | 7428, 7429, 7431, 7432, 7440 | 0.15 |
| | Briain omor | Dhum_023_001 | 469, 470, 471, 472, 477 | 0.19 |
| | Durgapur Union | Gopalpur_047_000 | 766, 1761 | 0.37 |
| | Durgapur Omon | Durgapur_052_004 | 8367, 9359 | 0.25 |
| | | Kurua_085_003 | 8315, 8326, 8318, 8319, 8320, 8493, 8492 | 0.22 |
| | Haitkandi Union | Haitkandi_084_001 | 601, 604, 605, 598, 606, 608, 585, 607 | 0.21 |
| | | Dakshin | 177, 178, 179, 216, 227, 242, 244, 245, | 0.24 |
| | | Muradpur_083_001 | 215, 217, 218 | 0.21 |
| | Hinguli Union | Purba Hinguli_011_001 | 1475, 1484, 1487, 1488, 1489, 1490 | 0.24 |
| | | Uttar Ichhakhali_041_008 | 20216, 20208, 20207, 20206 | 0.18 |
| | Ichhakhali Union | Uttar Ichhakhali_041_004 | 5470, 5439, 5440, 5519, 5470, 5440, 5519 | |
| | Karerhat Union | Paschimjoar_009_002 | 2715 | 0.35 |
| | | Joypur Purba | 200 | 0.27 |
| CNG Stand | | Joar_001_002 | 309 | 0.27 |
| | | Katachhara_044_003 | 8820, 8847, 8848, 8846, 8851 | 0.25 |
| | Katashhara Unian | Baman Sundar_062_002 | 2002, 2004, 2005 | |
| | Katachhara Union | Paschim Mithanala_064_000 | 822, 824, 825 | 0.22 |
| | | Madhya Maghadia_071_004 | 6842, 8603, 6840, 6843 | 0.09 |
| | Maghadia Union | Madhya Maghadia_071_007 | 52738, 52740, 52739 | 0.22 |
| | | Madhya Maghadia_071_001 | 427, 469 | 0.23 |
| | Mayani Union | Paschim Mayani_079_005 | 12739, 12736, 12742, 12737, 12734, 12743, 12738, 12744, 12733 | 0.47 |
| | | Paschim Mayani_079_004 | 7259, 7260, 7261, 7267 | 0.17 |
| | Mirsharai Union | Motbaria_053_002 | 2702, 2703, 2706, 2707, 2779 | 0.20 |
| | Mithanala Union | Mithanala | 11668, 11669, 11670, 11668, 11669 | 0.36 |

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) |
|------------------------|------------------|---|--|----------------|
| | | Rajapur_061_006 | | |
| | | Mithanala | 17551 | |
| | | Rajapur_061_004 | 17331 | |
| | Osmanpur Union | Banshkhali_039_000 | 1120, 1121, 1122, 1123, 1154 | 0.23 |
| | Osmanpur Omon | Morgang_032_002 | | 0.19 |
| | | Domkhali 082 004 | 9187, 9188, 9061, 9067, 9063, 9068, | 0.45 |
| | Saherkhali Union | Domknan_082_004 | 9066, 9070, 9065, 9062, 9064 | 0.45 |
| | | Saherkhali_081_003 6522, 6521, 6509, 6510, 6520 | | 0.33 |
| | | Gachhbaria_088_000 | 2856 | 0.33 |
| | Wahedpur Union | Wahedpur_089_004 | 10462, 10462, 10462, 10462, 10463, 10464, 10465, 10467, 10467, 10467, 10467, 10468 | |
| | | Khajuria_090_000 341 | | |
| | | Dewanpur_017_000 | 1347, 1346, 1345, 1348, 1344 | 0.20 |
| | Zorwarganj Union | Sonapahar_013_007 | 11361, 11331 | 0.28 |
| | | Sonapahar_013_002 | 1907, 1908, 1911, 1910, 1909, 1913 | |
| Bus Stand | Karerhat Union | Paschimjoar_009_002 | 2638, 2659, 2660, 2661, 2662, 2663, 2664, 2670 | 1.03 |

Proposed Transport Facilities for Rural Area of Mirsharai Upazila 91°31'0"E 91°36'30"E Karerhat Zorwarganj Osmanpur Ourgapur Ichhakhali Maghadia Mayani Saherkhali Scale 1:172,149 91°25'30"E 91°36°30"E 91°42'0"E DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Legend **Proposed Transport Facilities** CHATTOGRAM DISTRICT: RISK SENSITIVE LAND USE PLAN Upazila Boundary **Bus Stand** Union Boundary **CNG Stand** Paurashava Boundary ernment of the People's Republic of Bangladesh Ministry of Housing and Public Works Urban Development Directorate (UDD)

Map 2. 9: Proposed Open Transport Facilities for Rural Area

2.7.8 Proposals for Other Rural Facilities

Considering the local people demand from the PRA, different proposals for rural area of Mirsharai Upazila have been proposed. Detail list of other proposed facilities for rural area are presented in Table 2.14.

Table 2. 14: List of Other Proposed Rural Facilities

| Proposed Facilities | Union Name | Mauza Name, J.L. No., Sheet No. | Plot No. | Area (Acre) |
|------------------------|---------------------|------------------------------------|--|----------------|
| Union | Hinguli Union | Purba Hinguli_011_001 | 1333, 1458, 1459, 1460, 1461, 1462, 1463, 1465, 1495, 1519, 1520, 1521 | 0.55 |
| Parishad Office | Zorwarganj Union | Dewanpur_017_000 | 1228, 1272, 1262, 1273, 1275, 1274, 1278, 1277, 1276, 1282, 1280, 1283, 1279 | 0.74 |
| | Mayani Union | Paschim Mayani_079_002 | 2661, 2857, 2860, 2861, 2863, 2927, 2660, 2924, 2925, 2926, 2928, 2929, 2930, 2632, 2862 | 0.78 |
| Cyclone Shelter | Saherkhali Union | Saherkhali_081_001 | 678, 776, 777, 780, 1072, 1089, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1103, 1104, 1105, 1120, 1123, 1124 | 2.03 |
| Housing for Tribal | Wahedpur Union | Wahedpur_089_003 | 8594, 8595, 8596, 8599, 8600, 8605, 8606, 8607, 8608, 8609, 8610, 8611, 8612, 8613, 8614, 8615, 8616, 8617, 8618, 8619, 8620, 8623, 8624, 8640, 8661, 8662, 8663, 8664, 8665, 8666, 8667, 8668, 8669, 8670, 8671, 8672, 8673, 8674, 8675, 8676, 8677, 8678, 8679, 8687, 8710, 8711, 8713, 8714, 8715, 8716, 8717, 8718, 8719, 8720, 8721, 8722, 8723, 8724, 8725, 8726, 8727, 8728, 8729, 8730, 8731, 8744, 8745, 8746, 8747, 8748, 8749, 8787, 8788, 8601, 8602, 8604, 8680, 8686, 8688, 8689, 8690, 8691, 8692, 8693, 8694, 8695, 8712 | 16.94 |
| Cluster Village | Saherkhali Union | Domkhali_082_002 | 2579, 2580, 2581, 2582, 2583, 2584, 2598, 2600, 2601, 2603, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2636, 2638, 2640, 2821, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3371, 3372, 3373, 3374, 3375, 3376, 3377, 3378, 3379, 3380, 3381, 3382, 3383, 3384, 3398, 3399, 3400, 3401, 3402, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3527, 3528, 3529, 3530, 3531, 3532, 3533, 3534, 3535, 3536, 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, 3549, 3550, 3551, 3552, 3553, 3554, 3555, 3556, 3557, 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 4585, 4601, 4602, 4603, 4604, 4605, 4606, 4607, 4608 | 18,45 |

2.8 Road Network Development Plan

The performance of the transportation system largely influences the economy and social progress of an area. The rural area of Mirsharai Upazila is fairly connected through road network development through physical conditions of the roads in many places are not up to standards.

2.8.1 Existing Condition of Rural Road Network

Mirsharai Upazila is well connected by National and Regional Highway. The rural road network of Mirsharai Upazila consists of some pucca, semi-pucca, and katcha roads. The road network and hierarchy within the rural area is poorly established. The total rural road network length of Mirsharai Upazila is 1681.39 km. Most prominent road category would be the pucca type which comprises about 1635.13 km and the least prominent would be the katcha category existing of 20.03 km. Rest out of total 26.24 km of road is found to be semi-pucca. Figure 2. 1 represents the percentage of existing road type status of rural area in Mirsharai Upazila. The existing road network status of the rural area is shown in Table 2. 15.

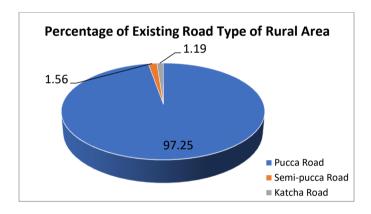


Figure 2. 1: Existing Road Type Status of Rural Area in Mirsharai Upazila

Table 2. 15: Existing Union Wise Road Network of Mirsharai Upazila by Road Type

| Union Nome | Dood Tune | Length | | Road Width (ft.) | |
|--------------------|------------|--------|---------|------------------|---------|
| Union Name | Road Type | (km) | Minimum | Maximum | Average |
| Dhum Union | Pucca | 51.13 | 6.56 | 14.11 | 8.69 |
| Diluili Oliloli | Semi-Pucca | 1.34 | 8.20 | 9.84 | 9.28 |
| | Pucca | 84.64 | 3.28 | 80.02 | 9.68 |
| Durgapur Union | Semi-Pucca | 3.99 | 6.50 | 9.84 | 7.87 |
| | Katcha | 1.02 | 6.50 | 26.25 | 11.0 |
| Haitkandi Union | Pucca | 89.43 | 1.77 | 36.09 | 8.89 |
| | Pucca | 107.04 | 4.10 | 98.43 | 9.22 |
| Hinguli Union | Semi-Pucca | 1.67 | 6.56 | 8.20 | 8.00 |
| | Katcha | 0.85 | 8.20 | 13.12 | 9.28 |
| Ichhakhali Union | Pucca | 156.82 | 4.89 | 18.37 | 8.75 |
| ICHIIAKIIAII OHIOH | Semi-Pucca | 0.04 | 6.56 | 6.56 | 6.56 |
| | Pucca | 199.43 | 3.28 | 24.28 | 8.83 |
| Karerhat Union | Semi-Pucca | 2.03 | 8.20 | 8.20 | 8.20 |
| | Katcha | 0.08 | 5.00 | 5.00 | 5.00 |
| Katachhara Union | Pucca | 83.33 | 3.28 | 18.37 | 8.45 |
| Nataciliala Ullion | Semi-Pucca | 1.06 | 6.56 | 9.84 | 8.48 |

| Union None | D | Length | Road Width (ft.) | | |
|--------------------|------------|---------|------------------|---------|---------|
| Union Name | Road Type | (km) | Minimum | Maximum | Average |
| | Katcha | 0.50 | 6.56 | 6.56 | 6.56 |
| Khaiyachhara Union | Pucca | 76.06 | 1.57 | 88.88 | 16.83 |
| | Pucca | 100.27 | 1.80 | 26.25 | 8.98 |
| Maghadia Union | Semi-Pucca | 1.52 | 5.02 | 10.10 | 7.87 |
| | Katcha | 2.80 | 2.72 | 10.24 | 6.81 |
| | Pucca | 87.23 | 3.83 | 79.53 | 8.52 |
| Mayani Union | Semi-Pucca | 1.01 | 7.09 | 9.91 | 7.91 |
| | Katcha | 1.35 | 4.69 | 13.45 | 7.93 |
| Mirsharai Union | Pucca | 72.73 | 1.97 | 91.93 | 12.31 |
| Wiirsharai Union | Semi-Pucca | 0.75 | 5.41 | 8.27 | 6.72 |
| | Pucca | 115.83 | 1.48 | 22.18 | 7.95 |
| Mithanala Union | Semi-Pucca | 3.18 | 4.13 | 11.55 | 7.65 |
| | Katcha | 10.12 | 2.92 | 13.09 | 6.59 |
| Osmannur Union | Pucca | 63.73 | 4.92 | 20.67 | 9.17 |
| Osmanpur Union | Semi-Pucca | 3.47 | 6.56 | 11.81 | 8.65 |
| Saherkhali Union | Pucca | 105.49 | 1.44 | 32.81 | 8.09 |
| Sanerkhall Union | Katcha | 3.18 | 2.85 | 7.71 | 6.47 |
| Wahedpur Union | Pucca | 108.77 | 2.26 | 94.29 | 12.57 |
| | Pucca | 133.20 | 3.28 | 75.46 | 10.73 |
| Zorwarganj Union | Semi-Pucca | 6.18 | 5.91 | 13.12 | 7.89 |
| | Katcha | 0.12 | 9.84 | 9.84 | 9.84 |
| Grand [.] | Total | 1681.39 | | | |

Source: Field Survey, 2018-19

2.8.2 Proposed Rural Road Network

The road network has been planned to provide adequate access for vehicles and pedestrians for inter-communication among all parts of the area. Considering the traffic volume and discussion with the authority and local stakeholders, a road hierarchy has been proposed based on the functional area within the Upazila as well as the internal and external linkage. In the road network plan, total 0.00 km of roads have been proposed including new road and widening of existing roads. Summary of the proposed rural road network of Mirsharai Upazila is given in Table 2. 16. Map 2. 10 show the proposed rural road network of Mirsharai Upazila.

Table 2. 16: Proposed Rural Road Network of Mirsharai Upazila

| Road Category | Proposed Right of Way (RoW) | Proposed Road Status | Length (km) |
|----------------|--------------------------------|----------------------|-------------|
| Regional Road | | Widening | |
| Primary Road | | Widening | |
| | | New | |
| Secondary Road | | Widening | |
| | | New | |
| Tertiary Road | | Widening | |
| | | New | |

Proposed Rural Road Network of Mirsharai Upazila 91°25'30"E 91°31'0"E 91°36'30"E 91°42′0"E Karerhat orwargani Durgapur Katachhara Ichhakhali Mithanala Maghadia Mayani Wahedpur Saherkhali Haitkandi Scale 1:172,149 91°36'30"E 91°25'30"E 91°31'0"E 91°42'0"E DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Legend Proposal CHATTOGRAM DISTRICT: RISK SENSITIVE LAND USE PLAN Upazila Boundary Proposed Road Union Boundary Paurashava Boundary rnment of the People's Republic of Bangladesh Ministry of Housing and Public Works Urban Development Directorate (UDD)

Map 2. 10: Proposed Rural Road Network Plan in Mirsharai Upazila

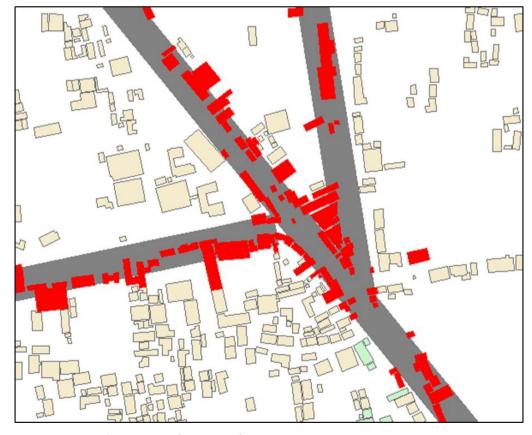
2.8.3 Affected Structures Due to Road Widening

About 8869 nos. structures are to be affected due to road widening and new road proposals. Among them, 1259 nos. structures are pucca, 1151 nos. structures are semi-pucca, 6454 nos. structures are katcha, and 9 nos. structures are in under construction. The detail statistics of the proposed rural road network and a number of affected structures due to road widening is presented in

Table 2. 17.

Table 2. 17: Number of Affected Structures by Proposed Road in Rural Area

| | Droposod | Length | | Number o | f Affected | Structures | |
|----------------|-----------------------|---------|-------|------------|------------|-----------------------|-------|
| Road Hierarchy | Proposed RoW (ft.) | (km) | Pucca | Semi-pucca | Katcha | Under Construction | Total |
| Primary Road | 250 | 51.14 | 162 | 111 | 943 | - | 1216 |
| Primary Road | 100 | 164.29 | 203 | 234 | 1180 | 2 | 1619 |
| Primary Road | 60 | 247.45 | 347 | 240 | 1655 | 4 | 2246 |
| Tertiary Road | 20 | 1190.58 | 547 | 562 | 2676 | 3 | 3788 |
| Total | | 1653.46 | 1259 | 1151 | 6454 | 9 | 8869 |



Source: GIS Database, MUDP (2017-2037)

Figure 2. 2: Affected Structures due to Road Widening (Rural Area)

2.9 Drainage Network Management Plan

2.9.1 Existing Drainage Condition

The Feni River, Muhuri River, Amir Ali Khal, Gobania Khal, Kanamachi Khal, Khaiyachhara Khal, Mohamaya Khal, Muhuri Project Khal, Molihas Khal, Baromashi Khal, and Osi Miah Khal are the main drainage channels in the rural area. This area faces heavy flash flood during the monsoon. At some places, canal or khal are not connected with each other. The Feni River and The Muhuri River passes through Dhum Union, Hinguli Union, Ichhakhali Union, Karerhat Union, and Osmanpur Union. Mohamaya Lake is one of the biggest lakes situated at Karerhat Union and its area about 494.52 acres. Khals are the part of primary drainage network while ponds and lakes act as water retentions ponds which have important implications in overall drainage network design. Total are devoted to water bodies in rural area is 16125.13 acres. Table 2. 18 show the total area covered by existing water bodies in rural area of Mirsharai Upazila.

Table 2. 18: Existing Water Bodies in Rural Area of Mirsharai Upazila

| Type of Waterbody | Area in Acre |
|------------------------------------|--------------|
| Ditch | 218.29 |
| Pond | 7229.89 |
| Khal | 1342.01 |
| Lake | 524.24 |
| River | 897.76 |
| Bay of Bengal | 5913.13 |
| Total area covered by Water bodies | 16125.35 |

Source: Field Survey, 2018-19

2.9.2 Plan for Drainage Management

To solve the overall drainage problem a Drainage Plan needs to be an integral part of Development Plan. During preparation of Development Plan special emphasis has been given to retain the existing natural water bodies. There are many small and big canal, khal and rivers passes through the Upazila. Those river and Khal are the main drainage channel of the Upazila. At some places canal or khal are not connect with main water channel. New canal has been proposed there. Water bodies area bigger than 0.50 acre has been proposed as water retention pond. It is suggested to open up these filled up khals by excavation. Khal links should be excavated and links reestablished. Map 2. 11 show the proposed drainage network plan of Mirsharai Upazila.

Table 2. 19: Water Protection Zone

| Water Protection Zone | Buffer |
|-----------------------|---------------------------------|
| River Protection Zone | 50-meter buffer from river edge |
| Khal Protection Zone | 10-meter buffer from khal edge |

Proposed Drainage Network Plan in Mirsharai Upazila 91°25'30"E 91"31"0"E Bay of Bengal Scale 1:172,149 91°36'30"E 91"25'30"E 91"31"0"E DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Legend CHATTOGRAM DISTRICT: RISK SENSITIVE Water Reservoir LAND USE PLAN Upazila Boundary Water Protection Zone Union Boundary Retention Area Paurashava Boundary nment of the People's Republic of Bangladesh Ministry of Housing and Public Works Bay of Bengal

Map 2. 11: Proposed Drainage Network Plan for Mirsharai Upazila

2.10 Environmental Management Plan

2.10.1 Existing Environment Condition

Physical environment of Mirsharai Upazila include its overall climatic condition along with the topographical and geological condition. With the increase of housing along with population will produce impact on the environment. Rapid urbanization and numerous human activities will deteriorate the environment, if the infrastructure is not developed as per requirement. Therefore, before planning of any development, possible adverse environmental impact should be studied.

2.10.2 Existing Ecological Condition

Mirsharai Upazila is very rich in biodiversity. The wildlife habitats of this Upazila consist of hill forests, water streams, freshwater lakes, canals, ponds, ditches, coastal mangroves, homestead vegetation and so on. The diverse habitats of this Upazila have developed a complex ecosystem, which supports a diverse group of flora and fauna; many of them are threatened nationally as well as globally. The surrounding hill forests of this Upazila are very dense and hold diverse group of wild animals. The hill streams and lake serve as a feeding and breeding ground for many threatened species. The forest area supports at least 26 species of nationally threated wild animals of which 4 species of amphibians, 10 reptiles, 1 bird and 11 species of mammals. Any degradation or alteration in the habitats of these threatened species may cause the decline of their population, which will ultimately create threat to their extinction.

2.10.3 Plans for Environmental Management

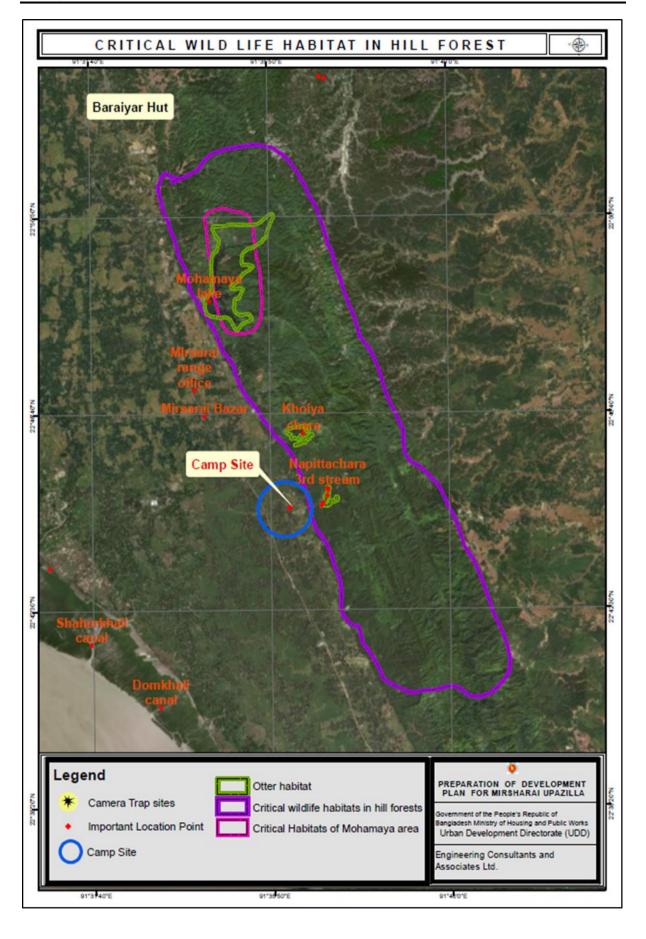
Critical Habitats of Terrestrial Forest Mammals: The forest habitat must be protected and should be kept as it is to support natural regeneration. Tourist activities must be restricted to only assigned areas. Tourists should not be allowed everywhere in the forest.

Critical Otter Habitats: Tourist activities should be restricted in hill streams. None of the activities should be allowed in core areas of otter habitats. Pollution in hill streams must be prevented to conserve fish diversity in hill streams.

Critical Amphibian and Reptile Habitats: Tourists should not be allowed to take bath or doing any other activities in hill streams (particular portion of the stream). Access of tourists must be sized before sun set. Awareness building is needed among the local inhabitants to conserve threatened amphibians and reptiles and their habitats.

Development of Ecotourism: Water based entertainment should be encouraged in Mohamaya Lake rather than hiking in hill forests. In Mohamaya Lake, infrastructure development (if necessary) must be restricted to the western side of the lake. It should not be allowed in the eastern side-which is continuous with the hill forest. In hill streams, like Khaiyachhara and Napittachhara, controlled ecotourism should be practiced. Visitors and their activities must be restricted to the first portion of the stream; should not allow any activities in the upper portion of the streams.

Map 2. 12: Ecologically Critical Hill Forest Area in Mirsharai Upazila



2.11 Union Wise Proposed Land Use

2.11.1 Dhum Union

Agricultural land has been given the highest priority while preparing the proposed land use plan of Dhum Union. Out of the total 3006.50 acres of land of this union, the area of 1584.77 acres (52.51%) has been proposed for agricultural purpose. Followed by waterbody 15.64%, residential 14.04%, circulation network 5.20%, community facilities 0.37%, educational facilities 0.30%, industrial 0.21%, and commercial 0.15% has been proposed. Table 2. 20 show the proposed land use of Dhum Union.

Table 2. 20: Proposed Land Use of Dhum Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|--|-------------|----------------|
| 1 | Administrative | 0.33 | 0.01 |
| 2 | Agriculture | 1584.77 | 52.51 |
| 3 | Circulation Network | 157.05 | 5.20 |
| 4 | Commercial | 4.51 | 0.15 |
| 5 | Community Facilities | 11.02 | 0.37 |
| 6 | Education and Research | 9.08 | 0.30 |
| 7 | Health Facilities | 0.76 | 0.03 |
| 8 | Industrial | 6.38 | 0.21 |
| 9 | Khal Catchment Area | 339.97 | 11.26 |
| 10 | Mixed Use | 0.42 | 0.01 |
| 11 | Open Space and Recreational Facilities | 7.11 | 0.24 |
| 12 | Residential | 423.69 | 14.04 |
| 13 | Transport Facilities | 0.35 | 0.01 |
| 14 | Utility Services | 0.55 | 0.02 |
| 15 | Waterbody | 472.11 | 15.64 |
| | Total | 3006.50 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

Considering the local peoples demand from the PRA and based on the planning standards, 20 development proposals have been recommended for Dhum Union. About 17.15 acres area has been covered with these proposals. These proposals provide commercial facilities, community facilities, education and research, health facilities, open space and recreational facilities, transport facilities and utility services in this union. Detail list of proposed facilities for Dhum Union is presented in Table 2. 21. In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Dhum Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Dhum Union has been shown in Table 2. 22.

Table 2. 22: Proposed Road Network in Dhum Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |

| _ | |
|-------|--|
| Total | |
| lolai | |
| iotai | |
| | |

Map 2. 13 show the proposed land use of Dhum Union.

Table 2. 21: List of Proposed Facilities for Dhum Union

| Proposed Land | Proposed | Area | Mauza Name, J.L. No., | Plot No. |
|-------------------|---------------------|--------|-----------------------|---|
| Use | Facilities | (Acre) | | 2000 2005 2010 2010 2010 2050 2051 |
| | | 0.23 | | 2300, 2305, 2340, 2348, 2349, 2350, 2351 |
| Commercial | Kitchen | | Dhum_023_001 | 658, 660, 663, 664, 666 |
| | Market | 0.43 | Dhum_023_003 | 8140, 8141, 8142, 8143, 8144, 8145, 8147 |
| | | 0.15 | Dhum_023_003 | 6343, 6344, 6345, 6346 |
| | Community Center | 0.16 | Dhum_023_003 | 7440, 7452, 7453, 7457 |
| | Cremation Ground | 1.66 | Dhum_023_002 | 194, 192, 191, 193, 197, 196, 179, 190, 188, 180, 178, 198, 176 |
| Community | Graveyard | 1.42 | Dhum 023 001 | 137, 138 |
| Facilities | | | Mobarakghona_034_002 | 2267 2273 2271 2272 2268 2258 2270 |
| | Eidgah | 1.94 | Dhum_023_001 | 60, 62, 67, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 98, 99, 100, 252, 254, 262, 263, 264, 64, 66, 65 |
| Education and | Primary School | 1.07 | Mobarakghona_034_001 | 295, 770, 771, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 802, 1166, 1167, 1169 |
| Research | High School | 1.93 | Dhum_023_003 | 6725, 6727, 6738, 6739, 6740, 6741, 6731, 6732, 6607, 6729, 6730, 6733, 6734, 6735, 6736, 6737, 6742, 6743 |
| Health Facilities | Community Clinic | 0.16 | Mobarakghona_034_001 | 1, 6, 7, 335, 1344 |
| | | | Mobarakghona_034_002 | 2329, 2330, 2331, 2332, 2333 |
| Open Space and | Playground | 2.55 | Dhum_023_001 | 339, 344, 346, 349, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 370, 371, 561, 99999 |
| Recreation | Children Park | 4.57 | Mobarakghona_034_001 | 822, 823, 836, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 850, 851, 852, 863, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 935, 936, 938, 939 |
| Transport | CNC Chatian | 0.15 | Dhum_023_003 | 7428, 7429, 7431, 7432, 7440 |
| Facilities | CNG Station | 0.19 | Dhum_023_001 | 469, 470, 471, 472, 477 |
| | \\\ t - | 0.08 | Dhum_023_001 | 640, 658, 663, 666, 667, 720 |
| | Waste | 0.07 | Dhum_023_003 | 8139, 8140, 8147 |
| | Transfer | 0.08 | Dhum_023_001 | 1002 |
| Utility Services | Station | 0.11 | Dhum 023 003 | 6345, 6346, 6347, 6348, 6351 |
| | Public Toilet | 0.08 | Dhum 023 001 | 1002, 1003 |
| | | 0.12 | Dhum 023 003 | 8144, 8145, 8153, 8154, 8155 |
| | ſ | | | - ,,,, |

Source: GIS Database, MUDP (2017-2037)

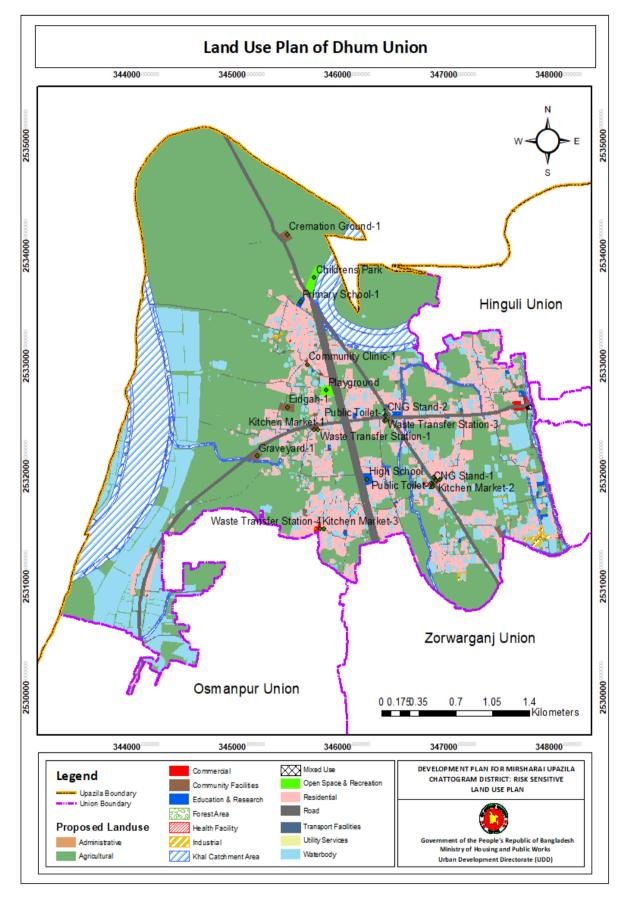
In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Dhum Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Dhum Union has been shown in Table 2. 22.

Table 2. 22: Proposed Road Network in Dhum Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |

| Total | |
|-------|--|

Map 2. 13: Proposed Land Use of Dhum Union



2.11.2 Durgapur Union

Durgapur Union is agro-based union. Out of total 3806.43 acres of land of this union, 2114.70 acres (55.77%) of land of this union has been proposed for agricultural purpose. Residential area has been proposed which area is 977.51 acres (25.78%) of land. Followed by waterbody 10.18%, circulation network 4.63%, commercial 0.32%, community facilities 0.20%, educational facilities 0.21% and health facilities 0.04% has been proposed. Table 2. 23 show the proposed land use of Durgapur Union.

Table 2. 23: Proposed Land Use of Durgapur Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|--|-------------|----------------|
| 1 | Administrative | 0.84 | 0.02 |
| 2 | Agriculture | 2114.70 | 55.77 |
| 3 | Circulation Network | 175.46 | 4.63 |
| 4 | Commercial | 12.16 | 0.32 |
| 5 | Community Facilities | 7.55 | 0.20 |
| 6 | Education and Research | 8.13 | 0.21 |
| 7 | Forest | 7.77 | 0.20 |
| 8 | Health Facilities | 1.33 | 0.04 |
| 9 | Industrial | 4.14 | 0.11 |
| 10 | Khal Catchment Area | 92.48 | 2.44 |
| 11 | Mixed Use | 0.34 | 0.01 |
| 12 | Open Space and Recreational Facilities | 2.02 | 0.05 |
| 13 | Residential | 977.51 | 25.78 |
| 14 | Transport Facilities | 0.62 | 0.02 |
| 15 | Utility Facilities | 0.55 | 0.01 |
| 16 | Waterbody | 385.92 | 10.18 |
| _ | Total | 3806.43 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

Considering the local peoples demand from the PRA and based on the planning standards, numbers of 23 development proposals have been recommended for Durgapur Union. About 12.05 acres area has been covered with these proposals. Among those proposals, three eidgah, one cremation ground and one graveyard has been proposed for community facilities purpose. Besides, two kitchen markets, one primary school, one primary and high school, two playgrounds, two CNG stands, two public toilets, and three waste transfer stations have also been proposed for this union. Detail mauza wise plot schedule of proposed development facilities for Durgapur Union is presented in Table 2. 24. Map 2. 14 shows proposed land use of Durgapur Union.

Table 2. 24: List of Proposed Facilities for Durgapur Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|----------------------|------------------------|----------------|------------------------------------|------------------------------|
| Commercial | Kitchen Market | 0.32 | Durgapur_052_002 | 4374, 4375, 4376, 4364, 4378 |
| | | 0.29 | Janarddanpur_045_000 | 210, 211, 252, 255, 256 |
| Community | Eidgah | 0.35 | Durgapur_052_002 | 3357, 3365, 3366, 3653 |

| Proposed | Proposed | Area | Mauza Name, J.L. No., | Plot No. | |
|---------------------------------|-----------------------------------|--------|-----------------------|--|--|
| Land Use | Facilities | (Acre) | Sheet No. | PIOUNO. | |
| Facilities | | 0.43 | Hajisarai_014_000 | 424, 425, 426, 429, 430, 431, 623, 625 | |
| | | 0.79 | Gopalpur_047_000 | 1547, 1548, 1549, 1649, 1650, 1651, 1652, | |
| | | | | 1653, 1655, 1677 | |
| | Cremation Ground | 0.44 | Durgapur_052_003 | 7266, 7267, 7268, 7269 | |
| | | | Durgapur_052_005 | 20001, 20004, 20005, 20007 | |
| | Graveyard | 0.71 | Durgapur_052_004 | 8677, 8689, 8882, 8967, 8972, 8973, 8974 | |
| Education & | Primary School and High School | 2.10 | Hariharpur_048_000 | 337, 338, 339, 347, 351, 352, 353, 354, 355, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386 | |
| Research | Primary School | 1.05 | Hariharpur_048_000 | 15, 16, 17, 27, 106, 111, 112, 113, 114, 115, 116 | |
| Open Space and Recreation | Playground | 0.96 | Durgapur_052_001 | 1880, 1883, 1884, 1905, 1907, 1908, 1909, 1911 | |
| | | 1.06 | Hajisarai_014_000 | 1266, 1297, 1377, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1405, 1406, 1409, 1410, 1413 | |
| Transport CNG Stand | | 0.37 | Gopalpur_047_000 | 766, 1761 | |
| Facilities | CNG Stand | 0.25 | Durgapur_052_004 | 8367, 9359 | |
| | Community Clinic | 0.24 | Janarddanpur_045_000 | 246, 247, 250, 251, 258, 259, 715, 717 | |
| | | 0.52 | Hajisarai_014_000 | 926, 927, 928, 929, 849 | |
| Health Facilities | | 0.30 | Durgapur_052_002 | 3197, 3653, 3737, 3740, 3741, 3742, 3743, 3748 | |
| | | 0.65 | Durgapur_052_001 | 1287, 1288, 1301, 1302, 1303, 2450 | |
| | | 0.66 | Raghunathpur_050_000 | 403, 404, 416, 460, 462, 465 | |
| | Waste Transfer Station | 0.12 | Gopalpur_047_000 | 828, 830, 832, 833, 1166 | |
| Utility | | 0.10 | Raghunathpur_050_000 | 1, 2, 409 | |
| | | 0.13 | Durgapur_052_002 | 4364, 4378 | |
| Services | Public Toilet | 0.11 | Gopalpur_047_000 | 822, 828, 833, 1166 | |
| | | 0.10 | Durgapur_052_004 | 8340, 8366, 8534, 8536, 8452 | |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Durgapur Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Durgapur Union has been shown in Table 2. 25.

Table 2. 25: Proposed Road Network in Durgapur Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Land Use Plan of Durgapur Union 349000° 350000 351000° 352000 348000 353000° Zorwarganj Union Karerhat Union CNG Stand Katachhara Union Public ToiletCNG Stand 2524000 Mirsharai Union Mithanala Union 0 0.2 0.4 1.2 8.0 Kilometers 348000 349000 350000 351000 353000 352000 Mixed Use DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Commercial Legend CHATTOGRAM DISTRICT: RISK SENSITIVE Open Space & Recreation Community Facilities LAND USE PLAN Upazila Boundary Education & Research Union Boundary ForestArea Proposed Landuse Health Facility Transport Facilities Utility Services rnment of the People's Republic of Bangladesh Ministry of Housing and Public Works Administrative Industrial Waterbody Agricultural Khal Catchment Area Urban Development Directorate (UDD)

Map 2. 14: Proposed Land Use of Durgapur Union

2.11.3 Haitkandi Union

Out of total 3527.04 acres of land in Haitkandi Union, around 2171.94 acres (60.72%) of land has been proposed for agricultural purpose. Proposed land use in this union followed by residential 23.86%, waterbody 6.82%, circulation network 6.76%, education and research 0.46%, commercial 0.43%, community facilities 0.19% and health facilities 0.05%. Table 2. 26 shows proposed land use of Haitkandi Union.

Table 2. 26: Proposed Land Uses of Haitkandi Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|---------------------------|-------------|----------------|
| 1 | Administrative | 0.58 | 0.02 |
| 2 | Agricultural | 2171.94 | 60.72 |
| 3 | Circulation Network | 241.87 | 6.76 |
| 4 | Commercial | 15.41 | 0.43 |
| 5 | Community Facilities | 6.79 | 0.19 |
| 6 | Education and Research | 16.40 | 0.46 |
| 7 | Health Facilities | 1.77 | 0.05 |
| 8 | Industrial | 0.22 | 0.01 |
| 9 | Khal Catchment Area | 21.21 | 0.59 |
| 10 | Open Space and Recreation | 2.07 | 0.06 |
| 11 | Residential | 853.68 | 23.86 |
| 12 | Transport Facilities | 0.68 | 0.02 |
| 13 | Utility Services | 0.75 | 0.02 |
| 14 | Waterbody | 243.89 | 6.82 |
| | Total | 3527.04 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan about 20 proposed facilities has been incorporated for Haitkandi Union according to the PRA demand and based on the planning standards. About 15.20 acres area has been covered with these proposals. Among those proposals, two kitchen markets, one cremation ground and one graveyard, one vocational training institute, four community clinics, one playground, three CNG stands, three public toilets, and four waste transfer stations have also been proposed for this union. Detail mauza wise plot schedule of proposed development facilities for Haitkandi Union is presented in Table 2. 27. Map 2. 15 shows proposed land use of Haitkandi Union.

Table 2. 27: List of Proposed Facilities for Haitkandi Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|-------------------------|------------------------|----------------|------------------------------------|--|
| Commercial | Kitchen Market | 0.35 | Haitkandi_084_003 | 3224, 3225, 3226, 3239, 3240, 3241, 3242, 3243, 3252 |
| | | 0.40 | Dakshin Muradpur_083_001 | 211, 212, 213, 214, 295, 296, 297, 298, 299, 301, 251 |
| Community Facilities | Cremation Ground | 0.60 | Kurua_085_002 | 6714 |
| | | | Dakshin Muradpur_083_002 | 4045, 4049, 4073, 4076, 4077, 4078, 4079, 4081, 4082, 4083, 4080 |
| | Graveyard | 1.19 | Kurua_085_001 | 1530, 1543, 1544, 1545, 1546, 1547, 1548, 1663, 1664, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 99999, 1678, |

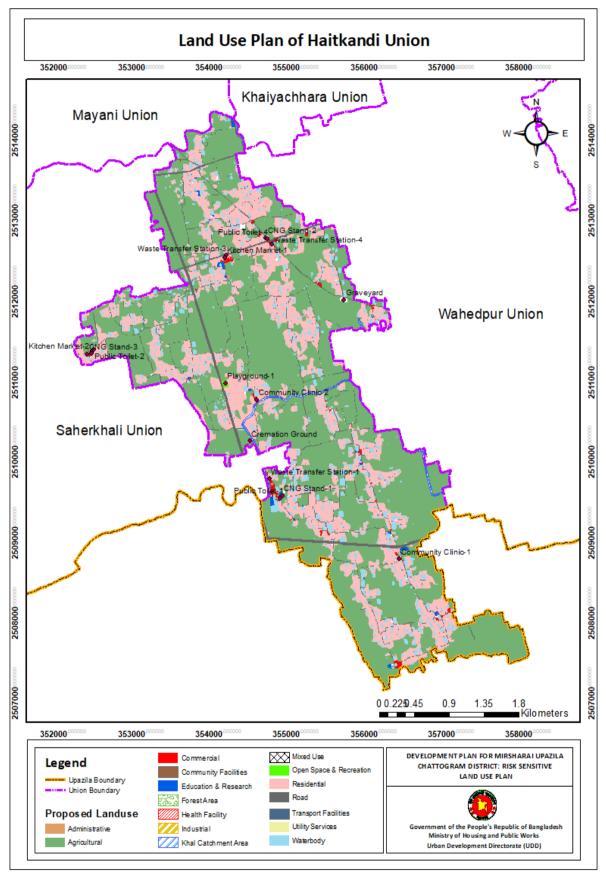
| Proposed | Proposed | Area | Mauza Name, J.L. No., Sheet | Plot No. | |
|---------------------|------------------------------|--------|-----------------------------|--|--|
| Land Use | Facilities | (Acre) | No. | | |
| | | | | 1280, 1677 | |
| | | 7.72 | Kurua_085_003 | 8368, 8369, 8377, 8378, 8379, 8380, 8381, | |
| | | | | 8382, 8383, 8388, 8389, 8390, 8391, 8392, | |
| | | | | 8393, 8394, 8395, 8396, 8397, 8398, 8399, | |
| Education | Vocational | | | 8400, 8401, 8402, 8403, 8404, 8405, 8406, | |
| and Research | Training | | | 8407, 8408, 8409, 8410, 8411, 8412, 8413, | |
| and Research | Institute | | | 8415, 8416, 8418, 8419, 8421, 8422, 8423, | |
| | | | | 8424, 8425, 8426, 8427, 8428, 8429, 8431, | |
| | | | | 8432, 8433, 8430, 8442, 8443, 8444, 8445, | |
| | | | | 8446, 8447, 8453, 8454, 8455, 11139, | |
| | Community Clinic | | Kurua 085 003 | 10476, 10469, 10465, 10470, 10473, | |
| Health | | | | 10472, 10463, 10464, 10461, 10471, 99999 | |
| Facilities | | | Haitkandi_084_003 | 6642, 6643, 6644, 6654, 6655, 6656, 6687 | |
| radinties | | 0.36 | Haitkandi_084_001 | 643, 644, 645, 646, 647 | |
| | | 0.51 | Dakshin Muradpur_083_001 | 1286, 1288, 1289, 1291, 1292, 1289, 4934 | |
| Open Space | Playground | 2.07 | Kurua_085_003 | 8365, 8368, 8369, 8385, 8383, 8384, 8387, | |
| & Recreation | | | | 8386, 8382, 8381, 8388, 8389 | |
| | CNG Stand | 0.22 | Kurua_085_003 | 8315, 8326, 8318, 8319, 8320, 8493, 8492 | |
| Transport | | 0.26 | Haitkandi_084_001 | 675, 677, 678, 671 | |
| Facilities | | 0.21 | Dakshin Muradpur 083 001 | 177, 178, 179, 216, 227, 242, 244, 245, 215, | |
| | | | Daksiiii Waraapai_005_001 | 217, 218 | |
| | Waste Transfer Station | 0.12 | Kurua_085_003 | 8012, 8057, 8055, 8056, 8060 | |
| | | 0.11 | Dakshin Muradpur_083_001 | 209, 211, 304, 305, 306, 310, 208, 210, 251 | |
| Utility Services | | 0.11 | Haitkandi_084_003 | 3242, 3245, 3252 | |
| | | 0.08 | Haitkandi_084_003 | 3433, 3435, 3436, 3426, 3432 | |
| | Public Toilet | 0.10 | Kurua_085_003 | 8326, 8493, 8490, 8491 | |
| | | 0.12 | Dakshin Muradpur_083_001 | 211, 212, 213, 304, 305, 306, 210, 251 | |
| | | 0.11 | Haitkandi_084_001 | 601, 604, 608 | |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Haitkandi Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Haitkandi Union has been shown in Table 2. 28.

Table 2. 28: Proposed Road Network in Haitkandi Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Map 2. 15: Proposed Land Use of Haitkandi Union



2.11.4 Hinguli Union

Agricultural land has been given the highest priority while preparing the proposed land use plan of Hinguli Union. Out of the total 4382.29 acres of land of this union, the area of 2460.84 acres (56.01%) has been proposed for agricultural purpose. Followed by residential 22.17%, waterbody 6.32%, forest 4.44%, circulation network 3.89%, community facilities 0.29%, educational facilities 0.24%, industrial 0.12%, and commercial 0.16% has been proposed. Table 2. 29 show the proposed land use of Hinguli Union.

Table 2. 29: Proposed Land Use of Hinguli Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|------------------------|-------------|----------------|
| 1 | Administrative | 1.73 | 0.04 |
| 2 | Agriculture | 2460.14 | 56.01 |
| 3 | Circulation Network | 170.84 | 3.89 |
| 4 | Commercial | 7.07 | 0.16 |
| 5 | Community Facilities | 12.88 | 0.29 |
| 6 | Education and Research | 10.43 | 0.24 |
| 7 | Forest | 194.98 | 4.44 |
| 8 | Health Facility | 0.45 | 0.01 |
| 9 | Industrial | 5.34 | 0.12 |
| 10 | Khal Catchment Area | 274.98 | 6.26 |
| 11 | Mixed Use | 0.61 | 0.01 |
| 12 | Residential | 973.87 | 22.17 |
| 13 | Transport Facilities | 0.24 | 0.01 |
| 14 | Utility Services | 1.32 | 0.03 |
| 15 | Waterbody | 277.62 | 6.32 |
| | Total | 4382.29 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

Considering the local peoples demand from the PRA and based on the planning standards, 12 development proposals have been recommended for Hinguli Union. About 10.54 acres of land has been covered with these proposals. On the basis of demand as revealed from PRA, one cremation ground and two graveyards has been proposed for community facilities purpose. One primary school cum cyclone shelter, one high school, and one college has been proposed for education and research use purpose. To provide health facilities to the local people one community clinic have been proposed. Besides, one Union Parishad Office, one maternity clinic and child care center, one CNG stand, one public toilet, and one waste transfer stations have also been proposed for this union. Detail mauza wise plot schedule of proposed development facilities for Hinguli Union is presented in Table 2. 30. Map 2. 16 shows proposed land use of Hinguli Union.

Table 2. 30: List of Proposed Facilities for Hinguli Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|---------------------------|------------------------------------|----------------|---|--|
| Administrative Use | Union Parishad Office | 0.55 | Purba Hinguli_011_001 | 1333, 1458, 1459, 1460, 1461, 1462, 1463, 1465, 1495, 1519, 1520, 1521 |
| Commercial | Kitchen Market | 0.52 | Azamnagar_021_002 | 3912, 3928, 3929, 3930, 3931, 3932, 3934, 3938, 3933 |
| | Cremation Ground | 0.48 | Azamnagar_021_001 | 576, 577, 578, 579, 580, 581, 582, 583, 584, 586 |
| Community Facilities | Graveyard | 1.54 | Purba Hinguli_011_001 | 581, 583, 587, 588, 593, 594, 599, 600, 601, 602, 603, 604, 605, 608, 612, 613, 614 |
| | | 0.66 | Paschim Hinguli_022_002 | 925, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1742, 1743, 1744 |
| | Primary School cum Cyclone Shelter | 1.16 | Purba Hinguli_011_002 Purba Hinguli_011_003 | 3162, 3163, 3164 4035, 4036, 4037, 4038, 4039 |
| Education and | High School | 1.59 | Purba Hinguli_011_001 | 1086, 1088, 1089, 1090, 1132 |
| Education and Research | College | 3.29 | Purba Hinguli_011_001 | 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1018, 1019, 1093, 1094, 1606 |
| Health Facilities | Community Clinic | 0.33 | Purba Hinguli_011_002 | 3170, 3171, 3172, 3173, 3174, 3175, 3212, 3293 |
| Transport Facilities | CNG Stand | 0.24 | Purba Hinguli_011_001 | 1475, 1484, 1487, 1488, 1489, 1490 |
| Utility Services | Waste Transfer Station | 0.12 | Azamnagar_021_002 | 3912, 3928, 3934 |
| | Public Toilet | 0.05 | Purba Hinguli_011_001 | 1504, 1505 |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Hinguli Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Hinguli Union has been shown in Table 2. 31.

Table 2. 31: Proposed Road Network in Hinguli Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Land Use Plan of Hinguli Union 348000° 349000° 350000 351000° 352000 353000° 347000° 354000 346000 Karerhat Union 2533000 Dhum Union 2531000 Zorwarganj Union 2.2 Kilometers 0 0.2750,55 1.65 347000° 348000 346000 349000° 350000 351000 352000 353000 DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Mixed Use Commercial Legend CHATTOGRAM DISTRICT: RISK SENSITIVE Open Space & Recreation Community Facilities LAND USE PLAN Upazila Boundary Residential Education & Research Union Boundary ForestArea Proposed Landuse Health Facility Transport Facilities Utility Services Administrative Industrial Ministry of Housing and Public Works Agricultural Khal Catch ment Area Urban Development Directorate (UDD)

Map 2. 16: Proposed Land Use of Hinguli Union

2.11.5 Ichhakhali Union

Ichhakhali Union is agro-based union. Out of total 14932.22 acres of land of this union, 7311.30 acres (48.69%) of land of this union has been proposed for agricultural purpose. Residential area has been proposed which covers 1458.40 acres (9.71%) of land. Followed by waterbody 9.51%, circulation network 2.75%, commercial 0.09%, community facilities 0.03%, educational facilities 0.08% and health facilities 0.01% has been proposed. Table 2. 32 show the proposed land use of Ichhakhali Union.

Table 2. 32: Proposed Land Use of Ichhakhali Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|--|-------------|----------------|
| 1 | Administrative | 0.43 | 0.003 |
| 2 | Agriculture | 7311.30 | 48.69 |
| 3 | Circulation Network | 412.77 | 2.75 |
| 4 | Commercial | 13.93 | 0.09 |
| 5 | Community Facilities | 4.20 | 0.03 |
| 6 | Economic Zone | 3134.98 | 20.88 |
| 7 | Education and Research | 11.44 | 0.08 |
| 8 | Forest | 738.11 | 4.92 |
| 9 | Health Facilities | 1.16 | 0.01 |
| 10 | Industrial | 1.62 | 0.01 |
| 11 | Khal Catchment Area | 498.24 | 3.32 |
| 12 | Mixed Use | 0.13 | 0.001 |
| 13 | Open Space and Recreational Facilities | 0.87 | 0.01 |
| 14 | Residential | 1458.40 | 9.71 |
| 15 | Transport Facilities | 0.29 | 0.002 |
| 16 | Utility Facilities | 0.45 | 0.003 |
| 17 | Waterbody | 1428.44 | 9.51 |
| | Total | 14932.22 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan, according to the PRA demand and based on the planning standards about 16 proposed facilities has been incorporated for Ichhakhali Union. About 8.00 acres area has been covered with these proposals. Among those proposals there are 2 eidgah, 1 graveyard, 1 primary and high school, 1 playground, 2 kitchen markets, 3 community clinics, 2 CNG stands, 2 public toilets, and 2 waste transfer station. Detail mauza wise plot schedule of proposed development facilities for Ichhakhali Union is presented in Table 2. 33. Map 2. 17 shows proposed land use of Ichhakhali Union.

Table 2. 33: List of Proposed Facilities for Ichhakhali Union

| Proposed Land | Proposed | Area | Mauza Name, J.L. No., Sheet | Plot No. | |
|----------------------|------------------|--------|-------------------------------|-------------------------------------|--|
| Use | Facilities | (Acre) | No. | | |
| Commercial Kit | Kitchen Market — | 0.22 | 0.22 Uttar Ichhakhali_041_007 | 14515, 14708, 14510, 14513, 14509, | |
| | | | | 14564, 14511 | |
| | | 0.48 | Uttar Ichhakhali_041_004 | 5458, 5459 | |
| | | | Uttar Ichhakhali_041_005 | 8002, 8003, 8004, 8005, 8006, 8007, | |

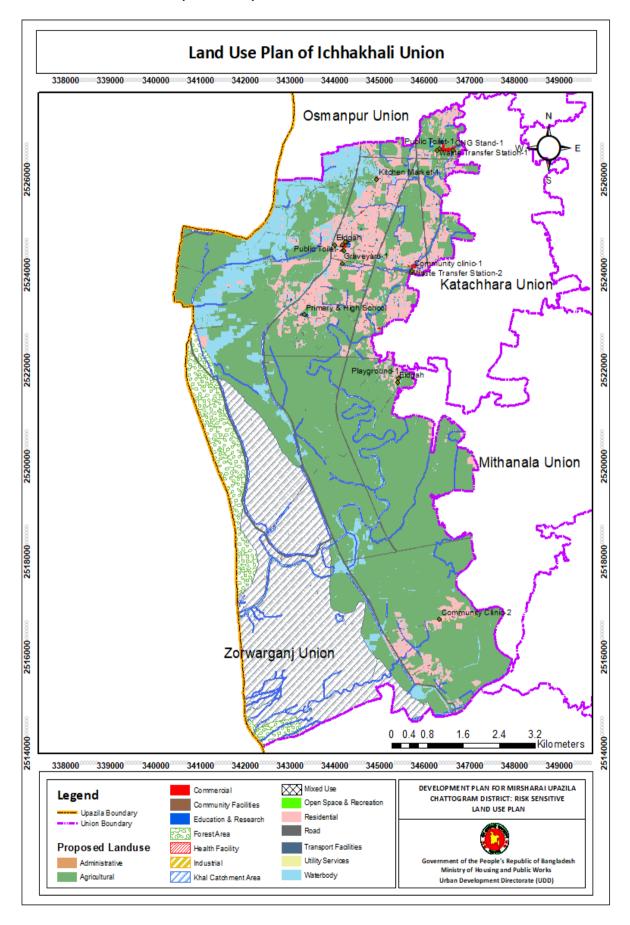
| Proposed Land | Proposed | Area | Mauza Name, J.L. No., Sheet | Plot No. |
|----------------------|---------------------|--------|-----------------------------|---|
| Use | Facilities | (Acre) | No. | PIOUNO. |
| | | | | 8008, 8014 |
| | | 0.67 | Purba Ichhakhali 067 002 | 2465, 2464, 2462, 2461, 2463, 2459, |
| | | 0.07 | Purba icililakilali_007_002 | 2460, 2458, 2714, 2713 |
| Community | Eidgah | | Uttar Ichhakhali_041_002 | 1706, 1707, 1708, 1719 |
| Facilities | | 0.61 | Uttar Ichhakhali_041_002 | 3123, 3124, 3125, 3127, 3132, 3137 |
| lacincies | | | Uttar Ichhakhali_041_005 | 8017 |
| | Graveyard | 0.38 | Uttar Ichhakhali_041_005 | 8212, 8209, 8210, 8215, 8208, 8207, |
| | Graveyaru | 0.36 | Ottal Iciliakilali_041_003 | 8206, 8223, 8211 |
| | | | | 2449, 2450, 2451, 2458, 2459, 2460, |
| Education and | Primary and | 2.70 | Paschim Ichhakhali_066_002 | 2461, 2463, 2464, 2465, 2466, 2467, |
| Research | High School | 2.70 | | 2468, 2469, 2470, 2471, 2494, 2495, |
| | | | | 2496, 2555, 2462 |
| | Community Clinic | 0.42 | Purba Ichhakhali_067_011 | 14754, 14755, 14756 |
| Health | | 0.35 | Uttar Ichhakhali_041_006 | 10541, 10542, 10543, 10544, 10545 |
| Facilities | | 0.39 | Uttar Ichhakhali_041_005 | 8099, 8098, 8097, 8096, 8095, 8094, |
| | | | | 8092, 8093, 8090, 8279 |
| Open Space | Playground | 0.87 | Purba Ichhakhali_067_002 | 2488, 2491, 2480, 2489, 2490, 2479, |
| and Recreation | | | | 2474, 2477, 2476, 2475, 2469, 2470, |
| and Recreation | | | | 2467, 2465, 2464, 2462, 2468 |
| Transport | | 0.18 | Uttar Ichhakhali_041_008 | 20216, 20208, 20207, 20206 |
| Facilities | CNG Stand | 0.29 | Uttar Ichhakhali 041 004 | 5470, 5439, 5440, 5519, 5470, 5440, |
| racincies | | 0.23 | Ottal lelillakilali_041_004 | 5519 |
| | Waste Transfer | 0 13 | Uttar Ichhakhali_041_008 | 19213, 19220, 19429, 19430, 19431, |
| | Station | 0.13 | Ottal lelillakilali_041_000 | 19432 |
| Utility Services | 3646011 | 0.11 | Uttar Ichhakhali_041_006 | 10540, 10541, 10545, 10546 |
| Starty Services | | 0.10 | Uttar Ichhakhali_041_008 | 20103, 19203, 20100, 20104, 19202 |
| | Public Toilet | 0.10 | Uttar Ichhakhali_041_004 | 5461, 5470, 5440, 5519, 5470, 5440, 5519 |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Ichhakhali Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Ichhakhali Union has been shown in Table 2. 34.

Table 2. 34: Proposed Road Network in Ichhakhali Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Map 2. 17: Proposed Land Use of Ichhakhali Union



2.11.6 Karerhat Union

Karerhat Union is mainly hilly area. Out of total 37896.94 acres of land of this union, 29753.92 acres (78.44%) of land of this union has been proposed for forest purpose. Agricultural area has been proposed which covers 4363.21 acres (11.50%) of land. Followed by residential 3.53%, waterbody 2.39%, circulation network 0.72%, commercial 0.04%, community facilities 0.06%, educational facilities 0.02% and health facilities 0.002% has been proposed. Table 2. 35 show the proposed land use of Karerhat Union.

Table 2. 35: Proposed Land Use of Karerhat Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|--|-------------|----------------|
| 1 | Administrative | 0.63 | 0.002 |
| 2 | Agriculture | 4363.21 | 11.50 |
| 3 | Circulation Network | 271.28 | 0.72 |
| 4 | Commercial | 13.87 | 0.04 |
| 5 | Community Facilities | 23.19 | 0.06 |
| 6 | Education and Research | 6.07 | 0.02 |
| 7 | Forest | 29753.92 | 78.44 |
| 8 | Health Facilities | 0.79 | 0.002 |
| 9 | Industrial | 35.30 | 0.09 |
| 10 | Khal Catchment Area | 1212.66 | 3.20 |
| 11 | Mixed Use | 0.78 | 0.002 |
| 12 | Open Space and Recreational Facilities | 1.52 | 0.004 |
| 13 | Residential | 1340.90 | 3.53 |
| 14 | Service Activity | 0.06 | 0.000 |
| 15 | Transport Facilities | 1.65 | 0.004 |
| 16 | Utility Facilities | 0.48 | 0.001 |
| 17 | Waterbody | 906.31 | 2.39 |
| | Total | 37896.94 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

Considering the local people demand, numbers of 13 development proposals have been recommended for Karerhat Union. About 7.56 acres area has been covered with these proposals. Among those proposals there are 1 kitchen market, 1 primary school, 1 cremation ground, 1 eidgah, 1 community clinic, 1 playground, 2 public toilets, 2 waste transfer stations, 2 CNG stands and 1 bus stand. Detail mauza wise plot schedule of proposed development facilities for Karerhat Union is presented in Table 2. 36. Map 2. 18 show the proposed land use of Karerhat Union.

Table 2. 36: List of Proposed Facilities for Karerhat Union

| Proposed Land Use | • | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|----------------------|----------------|----------------|------------------------------------|-------------------------------------|
| Commercial | Kitchen Market | 0.23 | Baraia_005_000 | 36, 30, 915, 31, 330 |
| Education and | Primary School | 1.43 | Geramara_008_003 | 2901, 3134, 3117, 3116, 3114, 3115, |

| Proposed Land | Proposed | Area | Mauza Name, J.L. No., | Plot No. |
|------------------------------|-----------------------------|--------|---------------------------|--|
| Use | Facilities | (Acre) | Sheet No. | FIOUNO. |
| Research | | | | 3003, 3113, 3111, 3112 |
| Community Facilities | Cremation Ground | 0.86 | Joypur Purba Joar_001_001 | 116, 1467, 1468, 1482, 1483 |
| racilities | Eidgah | 0.77 | Geramara_008_003 | 2901, 3134, 3114, 3003, 3002 |
| Health Facilities | Community Clinic | 0.62 | Geramara_008_003 | 2985, 2584, 2585, 2583 |
| Open Space and Recreation | Playground | 1.52 | Geramara_008_003 | 2969, 2903, 2908, 2964, 2909, 2965, 2967, 2904, 2968, 2907, 2970, 2905, 2906 |
| | Public Toilet | 0.15 | Paschimjoar_002_002 | 2638, 2651, 2661 |
| | | 0.11 | Baraia_005_000 | 36, 30, 915, 31, 330 |
| Utility Services | Wasta Transfer 0.11 | | Paschimjoar_009_002 | 2849, 2851, 4042 |
| | Waste Transfer — Station | 0.11 | Joypur Purba Joar_001_002 | 4334, 4357, 4356, 4334 |
| | | 0.11 | Baraia_005_000 | 12 |
| Transport Facilities | CNG Stand | 0.35 | Paschimjoar_009_002 | 2715 |
| | CNG Stallu | 0.27 | Joypur Purba Joar_001_002 | 309 |
| | Bus Stand | 1.03 | Paschimjoar_009_002 | 2638, 2659, 2660, 2661, 2662, 2663, 2664, 2670 |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Karerhat Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Karerhat Union has been shown in Table 2. 37.

Table 2. 37: Proposed Road Network in Karerhat Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Land Use Plan of Karerhat Union 343000 346000 349000 352000 355000 358000 361000 364000 367000 370000 340000 Cremation Ground 2515000 2512000 Kilometers 343000 **346000**.0 349000 352000 355000 358000 361000 364000 367000 DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Mixed Use

Open Space & Recreation

Residential

Transport Facilities

Utility Services

Commercial

Health Facility

Khal Catchment Area

Forest Area

Industrial

Community Facilities

Education & Research

Legend

Upazila Boundary

Proposed Landuse

Administrative Agricultural

---- Union Boundary

Map 2. 18: Proposed Land Use of Karerhat Union

CHATTOGRAM DISTRICT: RISK SENSITIVE

LAND USE PLAN

vernment of the People's Republic of Bangladesh Ministry of Housing and Public Works

Urban Development Directorate (UDD)

2.11.7 Katachhara Union

Katachhara Union is mainly is agro-based union. Out of total 3447.28 acres of land of this union, 1876.68 acres (53.93%) of land of this union has been proposed for agricultural purpose. Residential area has been proposed which covers 1015.04 acres (29.17%) of land. Followed by waterbody 7.21%, circulation network 6.16%, commercial 0.14%, community facilities 0.21%, educational facilities 0.21% and health facilities 0.02% has been proposed. Table 2. 38 show the proposed land use of Katachhara Union.

Table 2. 38: Proposed Land Use of Katachhara Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|--|-------------|----------------|
| 1 | Administrative | 0.50 | 0.01 |
| 2 | Agriculture | 1876.68 | 53.93 |
| 3 | Circulation Network | 214.44 | 6.16 |
| 4 | Commercial | 4.96 | 0.14 |
| 5 | Community Facilities | 7.20 | 0.21 |
| 6 | Education and Research | 7.28 | 0.21 |
| 7 | Forest | 0.36 | 0.01 |
| 8 | Health Facilities | 0.82 | 0.02 |
| 9 | Industrial | 5.01 | 0.14 |
| 10 | Khal Catchment Area | 93.36 | 2.68 |
| 11 | Mixed Use | 0.05 | 0.00 |
| 12 | Open Space and Recreational Facilities | 1.97 | 0.06 |
| 13 | Residential | 1015.04 | 29.17 |
| 14 | Transport Facilities | 0.48 | 0.01 |
| 15 | Utility Services | 0.63 | 0.02 |
| 16 | Waterbody | 251.02 | 7.21 |
| | Total | 3447.28 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan, according to the PRA demand and based on the planning standards about 17 proposed facilities has been incorporated for Katachhara Union. About 8.94 acres area has been covered with these proposals. Among those proposals there are 2 eidgah, 1 graveyard, 1 primary and high school, 1 playground, 2 kitchen markets, 3 community clinics, 2 CNG stands, 2 public toilets, and 2 waste transfer station. Detail mauza wise plot schedule of proposed development facilities for Katachhara Union is presented in Table 2. 39. Map 2. 19 shows proposed land use of Katachhara Union.

Table 2. 39: List of Proposed Facilities for Katachhara Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|----------------------|------------------------|----------------|------------------------------------|---|
| Commercial | Cold Storage | 0.13 | Baman Sundar_062_002 | 2006, 2007, 2005, 2004 |
| | Kitchen Market 0. | 0.10 | Baman Sundar_062_002 | 2019, 2020, 2021, 2030, 2031, 2032, 2033, |
| | | 0.18 | Paschim Mithanala_064_000 | 2034 874, 880 |

| Proposed | Proposed | Area | Mauza Name, J.L. No., Sheet | Plot No. |
|------------------------------|------------------------------|------------|-----------------------------|--|
| Land Use | Facilities | (Acre) | No. | PIOUNO. |
| | | 0.47 | Bariakhali_065_002 | 4596, 4597, 4600, 4601 |
| | Cremation | 0.45 | Katachhara_044_001 | 616, 618, 619 |
| Community | Ground | 0.45 | Idilpur_042_000 | 231 |
| Facilities | Graveyard | 1.66 | Bariakhali_065_003 | 6875, 6878, 6879, 6880, 6887, 6888, 6889, 6890, 6891, 6892, 6893, 6894, 6895, 6896, 6897, 6898, 6899, 6901, 6903, 7180 |
| Education and Research | College | 2.65 | Paschim Mithanala_064_000 | 614, 615, 616, 617, 618, 619, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 657, 658, 780 |
| nescaren | | | Baman Sundar_062_001 | 920 |
| Health | Community | 0.34 | Temuhani Muradpur_043_000 | 1797, 1801 |
| Facilities | Clinic | 0.34 | Katachhara_044_001 | 331, 364, 365, 366, 1665 |
| Open Space | Playground | 0.88 nd | Temuhani Muradpur_043_000 | 1479, 1480, 1481, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1504 |
| Recreation | | | Katachhara_044_001 | 48, 49, 50, 231, 232, 1663 |
| Recreation | | | Katachhara_044_002 | 2795, 2794, 2793, 2792, 2791, 2790, 2858, 2841, 2837, 2840, 2842, 2839, 2843, 2844 |
| Transport | | 0.25 | Katachhara_044_003 | 8820, 8847, 8848, 8846, 8851 |
| Transport | CNG Stand | 0.22 | Baman Sundar_062_002 | 2002, 2004, 2005 |
| Facilities | | 0.22 | Paschim Mithanala_064_000 | 822, 824, 825 |
| | | 0.11 | Katachhara_044_003 | 8820, 8856, 8859 |
| | Public Toilet | 0.10 | Baman Sundar_062_002 | 2006, 2007, 2008, 2009, 2010, 2011, 2021 |
| | | 0.10 | Paschim Mithanala_064_000 | 837 |
| Utility | | 0.09 | Baman Sundar_062_002 | 2014, 2015, 2016, 2017 |
| Services | Masta | 0.09 | Paschim Mithanala_064_000 | 843, 873 |
| Services | Waste Transfer Station | 0.11 | Paschim Mithanala_064_000 | 843, 873, 2017, 2016, 2015, 2014, 873, 2017, 873, 2016, 873, 2015, 873, 2014 |
| | | 0.13 | Bariakhali_065_003 | 8104, 8105, 8106, 8107 |
| | | 0.08 | Bariakhali_065_002 | 4597, 4600 |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Katachhara Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Katachhara Union has been shown in Table 2. 40.

Table 2. 40: Proposed Road Network in Katachhara Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Land Use Plan of Katachhara Union 346000 347000 348000 344000 345000 349000 350000 Zorwarganj Union Osmanpur Union 2527000 2527000 Cremation Ground **Durgapur Union** Ichhakhali Union Public Toile 1 CNG Stand-Gravevard Mithanala Union G Stand-2 Waste Transfer Station-4Kitchen Market-2 ublic Toilet-2 2521000 0 0.2250.45 0.9 1.35 .. Kilometers 350000 344000 345000 346000 348000 347000 349000 DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA CHATTOGRAM DISTRICT: RISK SENSITIVE Mixed Use Legend Community Facilities Open Space & Recreation LAND USE PLAN Upazila Boundary Residential Education & Research Union Boundary Forest Area **Proposed Landuse** Health Facility Transport Facilities Utility Services rnment of the People's Republic of Bangladesh Administrative Ministry of Housing and Public Works Waterbody Agricultural Khal Catchment Area Urban Development Directorate (UDD)

Map 2. 19: Proposed Land Use of Katachhara Union

2.11.8 Khaiyachhara Union

Khaiyachhara Union is mainly agriculture based union. Out of total 3250.44 acres of land in Khaiyachhara Union, around 2153.25 acres (58.32%) of land has been proposed for agricultural purpose. Proposed land use in this union followed by residential 22.20%, waterbody 7.35%, circulation network 4.63%, commercial 0.35%, education and research 0.16%, community facilities 0.16%, industrial 0.41% and health facilities 0.03%. Table 2. 41 show the proposed land use of Khaiyachhara Union.

Table 2. 41: Proposed Land Uses of Khaiyachhara Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|------------------------|-------------|----------------|
| 1 | Administrative | 1.25 | 0.03 |
| 2 | Agricultural | 2153.25 | 58.32 |
| 3 | Circulation Network | 170.82 | 4.63 |
| 4 | Commercial | 12.89 | 0.35 |
| 5 | Community Facilities | 5.74 | 0.16 |
| 6 | Education and Research | 6.05 | 0.16 |
| 7 | Forest | 86.68 | 2.35 |
| 8 | Health Facilities | 1.28 | 0.03 |
| 9 | Industrial | 14.97 | 0.41 |
| 10 | Khal Catchment Area | 133.92 | 3.63 |
| 11 | Mixed Use | 3.49 | 0.09 |
| 12 | Residential | 819.69 | 22.20 |
| 13 | Utility Services | 0.10 | 0.00 |
| 14 | Water Reservoir | 10.75 | 0.29 |
| 15 | Waterbody | 271.31 | 7.35 |
| | Total | 3250.44 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

Considering the local peoples demand from the PRA and based on the planning standards, 9 development proposals have been recommended for Khaiyachhara Union. About 4.58 acres area has been covered with these proposals. Among those proposals, there are one union parishad office, one eidgah, one cremation ground, one graveyard, one primary school, two community clinic, one public toilet, and one waste transfer station. These proposals provide community facilities, education and research, health facilities and utility service in the union. Detail mauza wise plot schedule of proposed development facilities for Khaiyachhara Union is presented in Table 2. 42. Map 2. 20 show the proposed land use of Khaiyachhara Union.

Table 2. 42: List of Proposed Facilities for Khaiyachhara Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|----------------------|------------------------|----------------|------------------------------------|------------------------------------|
| Administrative | Union Parishad | 0.57 | Purba Maghadia_073_007 | 13075, 12474, 12475, 12476, 12477, |
| | Office | | | 12478, 13225 |
| Community | Eidgah | 0.60 | Purba Mayani_078_006 | 15711, 15712, 15761, 15762, 15763, |

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|---------------------------|---------------------------|----------------|------------------------------------|---|
| Facilities | | | | 15764, 15770, 15771 |
| | Cremation Ground | 0.19 | Purba Mayani_078_005 | 11647, 10676, 10674, 10675, 10677, 10839 |
| | Graveyard | 0.64 | Polmogra_076_000 | 480, 482, 486, 487, 498, 499, 500, 501, 502, 504, 506 |
| Education and Research | Primary School | 1.43 | Madhya Maghadia_071_010 | 59091, 59086, 59085, 59084, 59073, 59072, 59071, 59070, 59097, 59096, 59095, 59094, 59093, 59092, 59067 |
| Health | Community | 0.37 | Purba Khaiyachhara_075_000 | 114, 146, 153, 152, 147 |
| Facilities | Community Clinic | | Paschim Khaiyachhara_072_000 | 553, 557, 558, 545, 552, 556 |
| Utility | Waste Transfer Station | 0.36 | Polmogra_076_000 | 418, 336, 349, 350, 351 |
| Services | Public Toilet | 0.10 | Purba Maghadia_073_007 | 13174, 13173 |
| | rublic Tollet | 0.10 | Polmogra_076_000 | 337, 339, 340, 351 |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Khaiyachhara Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Khaiyachhara Union has been shown in Table 2. 43.

Table 2. 43: Proposed Road Network in Khaiyachhara Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

353000

Upazila Boundary

Union Boundary

Proposed Landuse

Administrative

Agricultural

Legend

354000

Commercial

🎏 Forest Area

Industrial

Khal Catchment Area

Health Facility

Community Facilities

Education & Research

355000

Mixed Use

Residential

Transport Facilities

Utility Services

Waterbody

Open Space & Recreation

356000

Land Use Plan of Khaiyachhara Union 353000 354000 355000 356000 357000 Mirsharai Paurashava Karerhat Union 2518000 2518000 Community Clinic 2516000 Mayani Union Primary School 2515000 Wahedpur Union 2514000 0 0.17**6**.35 0.7 1.05

Map 2. 20: Proposed Land Use of Khaiyachhara Union

. Kilometers

CHATTOGRAM DISTRICT: RISK SENSITIVE

LAND USE PLAN

Government of the People's Republic of Bangladesh Ministry of Housing and Public Works

Urban Development Directorate (UDD)

2.11.9 Maghadia Union

Maghadia Union is mainly agriculture based. Out of total 3250.44 acres of land in Maghadia Union, around 1876.68 acres (53.93%) of land has been proposed for agricultural purpose. Proposed land use in this union followed by residential 29.17%, waterbody 7.21%, circulation network 6.16%, commercial 0.14%, education and research 0.21%, community facilities 0.21%, industrial 0.14% and health facilities 0.02%. Table 2.44 show the proposed land use of Maghadia Union.

Table 2. 44: Proposed Land Use of Maghadia Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|--|-------------|----------------|
| 1 | Administrative | 0.50 | 0.01 |
| 2 | Agriculture | 1876.68 | 53.93 |
| 3 | Circulation Network | 214.44 | 6.16 |
| 4 | Commercial | 4.96 | 0.14 |
| 5 | Community Facilities | 7.20 | 0.21 |
| 6 | Education and Research | 7.28 | 0.21 |
| 7 | Forest | 0.36 | 0.01 |
| 8 | Health Facilities | 0.82 | 0.02 |
| 9 | Industrial | 5.01 | 0.14 |
| 10 | Khal Catchment Area | 93.36 | 2.68 |
| 11 | Mixed Use | 0.05 | 0.00 |
| 12 | Open Space and Recreational Facilities | 1.97 | 0.06 |
| 13 | Residential | 1015.04 | 29.17 |
| 14 | Transport Facilities | 0.48 | 0.01 |
| 15 | Utility Services | 0.63 | 0.02 |
| 16 | Waterbody | 251.02 | 7.21 |
| | Total | 3503.83 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan, according to the PRA demand and based on the planning standards about 15 proposed facilities has been incorporated for Maghadia Union. About 8.17 acres area has been covered with these proposals. Among those proposals there are 1 cremation ground, 1 graveyard, 1 community clinic, 1 primary school, 1 high school, 1 playground, 3 CNG stands, 3 public toilets, and 3 waste transfer station. These proposals provide community facilities, health facilities, education and research, open space and recreation, transport facilities and utility services in the union. Detail mauza wise plot schedule of proposed development facilities for Maghadia Union is presented in Table 2. 45. Map 2. 21 shows proposed land use of Maghadia Union.

Table 2. 45: List of Proposed Facilities for Maghadia Union

| Proposed Land Use | - | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. | |
|----------------------|---------------------|----------------|------------------------------------|---|--|
| Community | Cremation Ground | 2.16 | Madhya Maghadia 071 004 | 8153, 8154, 8158, 8159, 8160, 8161, 8162, 7658, 8603, 8601 | |
| Facilities | Graveyard | 0.88 | Madhya Maghadia_071_006 | 13274, 13275, 13246, 13276, 13247, 13256, 13258, 13253, | |

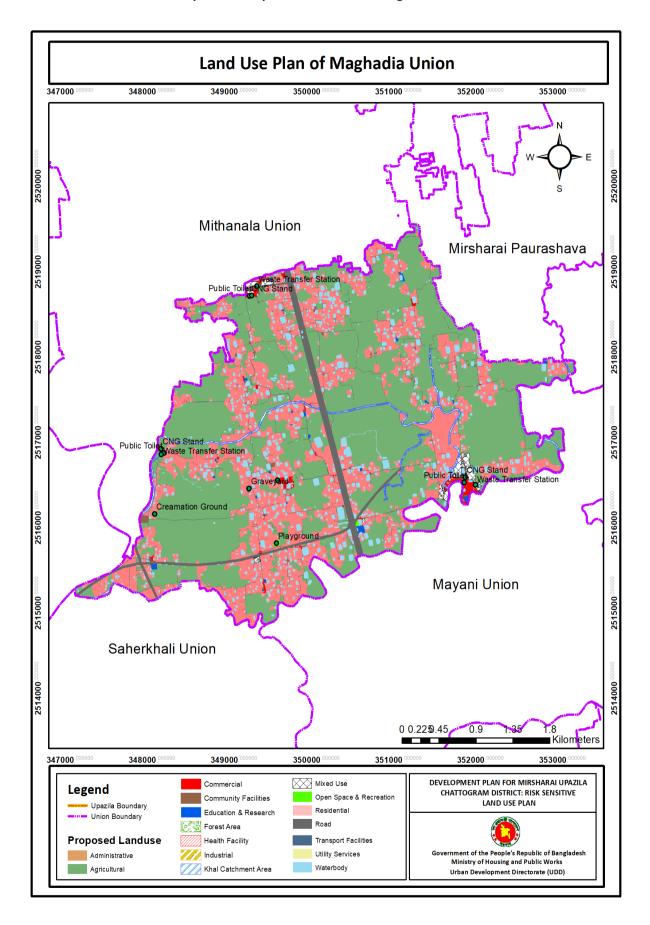
| Proposed Land | Proposed | Area | Mauza Name, J.L. No., Sheet | Plot No. | |
|------------------------------|------------------|--------|-----------------------------|--|--|
| Use | Facilities | (Acre) | No. | 11001101 | |
| | | | | 13248, 13245 | |
| Health Facilities | Community Clinic | 0.22 | Madhya Maghadia_071_006 | 13012, 13073, 13074, 13075, 13091 | |
| | Primary School | 1.08 | Madhya Maghadia_071_004 | 8377, 8494, 8500, 8501, 8504 | |
| Education and Research | High School | 1.60 | Madhya Maghadia_071_006 | 15060, 15065, 15066, 15068, 15069, 15067, 99999 | |
| | | | Madhya Maghadia_071_005 | 11139, 11138 | |
| Open Space and Recreation | Playground | 1.34 | Madhya Maghadia_071_005 | 9304, 9290, 9306, 9307, 9280, 9305, 9289, 9308, 9288, 9309, 9287, 9070 | |
| Transport | | 0.09 | Madhya Maghadia_071_004 | 6842, 8603, 6840, 6843 | |
| Transport Facilities | CNG Stand | 0.22 | Madhya Maghadia_071_007 | 52738, 52740, 52739 | |
| lacilities | | 0.23 | Madhya Maghadia_071_001 | 427, 469 | |
| | Waste Transfer | 0.05 | Madhya Maghadia_071_004 | 6853, 6854, 6855, 6857, 6867 | |
| | Station | 0.07 | Madhya Maghadia_071_007 | 52933, 99999, 52932, 52941 | |
| Litility Sorvices | Station | 0.15 | Madhya Maghadia_071_001 | 457, 458, 481, 477 | |
| Utility Services | | 0.01 | Madhya Maghadia_071_004 | 6851, 6853 | |
| | Public Toilet | 0.03 | Madhya Maghadia_071_001 | 52909, 52910 | |
| | | 0.04 | Madhya Maghadia_071_007 | 337, 423 | |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Maghadia Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Maghadia Union has been shown in Table 2. 46.

Table 2. 46: Proposed Road Network in Maghadia Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Map 2. 21: Proposed Land Use of Maghadia Union



2.11.10 Mayani Union

Out of total 3241.34 acres of land in Mayani Union, around 1947.55 acres (60.06%) of land has been proposed for agricultural purpose. Agricultural land has been given the highest priority while preparing the proposed land use plan. Proposed land use in this union followed by residential 24.44%, waterbody 5.77%, circulation network 4.25%, open space and recreation 0.16%, education and research 0.37%, commercial 0.74%, community facilities 0.21% and health facilities 0.09%. Table 2. 47 show the proposed land use of Mayani Union.

Table 2. 47: Proposed Land Uses of Mayani Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|---------------------------|-------------|----------------|
| 1 | Administrative | 1.07 | 0.03 |
| 2 | Agricultural | 1947.55 | 60.06 |
| 3 | Circulation Network | 137.86 | 4.25 |
| 4 | Commercial | 24.09 | 0.74 |
| 5 | Community Facilities | 6.92 | 0.21 |
| 6 | Education and Research | 11.91 | 0.37 |
| 7 | Health Facilities | 2.84 | 0.09 |
| 8 | Industrial | 0.25 | 0.01 |
| 9 | Khal Catchment Area | 66.22 | 2.04 |
| 10 | Open Space and Recreation | 5.07 | 0.16 |
| 11 | Residential | 792.53 | 24.44 |
| 12 | Retention Area | 56.99 | 1.76 |
| 13 | Transport Facilities | 1.07 | 0.03 |
| 14 | Utility Services | 1.50 | 0.05 |
| 15 | Waterbody | 187.06 | 5.77 |
| | Total | 3241.34 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

Considering the local peoples demand from the PRA and based on the planning standards, 41 development proposals have been recommended for Mayani Union. About 55.27 acres area has been covered with these proposals. Among those proposals, there are one cattle market, two kitchen market, one slaughter house, one cyclone shelter, two cremation ground, one graveyard, one primary school, five community clinic, three playground, three planned housing area, six CNG stands, four waste transfer stations, and ten public toilets. These proposals provide commercial facilities, community facilities, health facilities, educational facilities, recreational facilities, residential, transport facilities and utility services in the union. Detail mauza wise plot schedule of proposed development facilities for Mayani Union is presented in Table 2. 48. Map 2. 22 shows proposed land use of Mayani Union.

Table 2. 48: List of Proposed Facilities for Mayani Union

| Proposed | Proposed | Area | Mauza Name, J.L. No., | |
|----------------------|-------------------------|--------|---------------------------------------|---|
| Land Use | Facilities | (Acre) | | Plot No. |
| | | | | 5047, 5139, 5140, 5148, 5149, 5150, |
| | | | | 5154, 5155, 5156, 5048, 5049, 5052, |
| | Cattle Market | 1.44 | Purba Mayani_078_003 | 5053, 5054, 5055, 5058, 5059, 5060, |
| | | | | 5141, 5142, 5144, 5145, 5146, 5147, |
| Commercial | | | | 5151, 5143 |
| Commercial | | 0.21 | Paschim Mayani_079_004 | 7180, 7156, 7177, 7245, 7246, 7255, |
| | Kitchen Market | 0.21 | . – – | 7031, 7178 |
| | | 0.67 | Purba Mayani_078_004 | 7378, 7871, 7873, 7872, 7874 |
| | Slaughter House | 0.09 | Purba Mayani_078_003 | 5060, 5063, 5066, 5134, 5142, 5144, |
| | g | | · · · · · · · · · · · · · · · · · · · | 5145, 5065, 5143, 5064 |
| | | | | 2661, 2857, 2860, 2861, 2863, 2927, |
| | Cyclone Shelter | 0.78 | Paschim Mayani_079_002 | 2660, 2924, 2925, 2926, 2928, 2929, |
| | | | | 2930, 2632, 2862 |
| Como mon un idu c | | 0.77 | Paschim Mayani_079_002 | 1930, 2033, 2034, 2035, 2037, 2038, |
| Community Facilities | Cremation | | | 2039, 2040, 2043, 1934, 1935, 2036 |
| racilities | Ground | 1.02 | Purba Mayani_078_004 | 8989, 7904, 7895, 7901, 7896, 7900, 7899, 7908, 7897, 7910, 7911, 7898, |
| | | 1.02 | Purba Mayani_076_004 | 7912, 7913, 7914 |
| | | | | 6338, 5741, 5744, 5743, 5745, 5746, |
| | Graveyard | 0.44 | Paschim Mayani_079_003 | 5763, 5908, 6327, 6279 |
| Education | | | | 8455, 8458, 8459, 8461, 8529, 8531, |
| and | Primary School | 0.72 | Paschim Mayani_079_004 | 8532, 8533, 8534, 8535, 8536, 8539, |
| Research | , | 0.72 | | 8540, 8541 |
| | | 0.54 | Paschim Mayani_079_006 | 14154, 14153, 14575, 14155, 14156 |
| | | 0.53 | D | 12291, 12693, 12696, 12740, 12739, |
| Health | Community | 0.52 | Paschim Mayani_079_006 | 12695, 12741, 12736, 12742, 12737 |
| Facilities | Clinic | 0.40 | Paschim Mayani_079_002 | 1875, 1877, 2182, 2183, 1876, 2564 |
| | | 0.38 | Paschim Mayani_079_002 | 2815, 2816, 2818, 2892, 2893, 2894, 2895 |
| | | 0.47 | Purba Mayani_078_001 | 647, 649, 650, 651, 652, 653, 654 |
| | | | Paschim Mayani_079_002 | 3354, 3356, 3357, 2124, 3353, 3356, 2124 |
| | Central | 1.52 | | 5417, 5419, 5418, 5441, 5442, 5443, |
| | Playground | | Paschim Mayani_079_003 | 5446, 5445, 5444, 5509, 5508, 5447, |
| Open Space | | | | 5507, 5510, 5511, 5509, 5418 |
| and | | 1.25 | Purba Mayani_078_002 | 3605, 3604, 3359, 3358, 3606, 3612, |
| Recreation | | | . – – | 3659, 3607, 3609, 3658, 3610, 3608, 3619 |
| | Playground | 1.16 | Purba Mayani_078_004 | 7622, 7623, 7629, 7630, 7631, 7624, |
| | | 1 1 1 | Decebies Marrayi 070 005 | 7628, 7627, 7625, 7626 |
| | | 1.14 | Paschim Mayani_079_005 | 12912, 12914 |
| | | | | 12001, 12903, 12898, 12899, 12902, 12901, 12885, 12900, 12886, 12881, |
| | | | | 12901, 12885, 12900, 12886, 12881, 12884, 12871, 12883, 12882, 12942, |
| Residential | Planned Housing Area | 16 40 | Paschim Mayani_079_005 | 1284, 12871, 12883, 12882, 12942, 12947, 12948, 12949, 12959, 12961, |
| . icolacilital | | 13.40 | | 12950, 12946, 12963, 12960, 12964, |
| | | | | 12958, 12945, 12967, 12951, 12966, |
| | | | | |
| | | | | 12965, 12957, 12952, 12968, 12956, |

| Proposed | Proposed | Area | Mauza Name, J.L. No., | DI-4 N- |
|------------|-----------------|-----------------------------|-------------------------------------|--|
| Land Use | Facilities | (Acre) | Sheet No. | Plot No. |
| | | | | 12969 |
| | | | | 7197, 7198, 7199, 7200, 7201, 7316, |
| | | | | 7320, 7319, 7318, 7317, 7321, 7323, |
| | | | | 7322, 7315, 7306, 7305, 7304, 7397, |
| | | | | 7311, 7324, 7335, 7396, 7310, 7325, |
| | | | | 7307, 7326, 7327, 7302, 7334, 7395, |
| | | | | 7336, 7308, 7309, 7330, 7338, 7298, |
| | | | | 7329, 7393, 7328, 7299, 7300, 7394, |
| | | | | 7337, 7365, 7292, 7331, 7339, 7297, |
| | | 17.64 | Purba Mayani_078_004 | 7332, 7363, 7391, 7333, 7389, 7296, |
| | | 17.04 | Fulba Mayalli_078_004 | 7364, 7368, 7390, 7366, 7340, 7362, |
| | | | | 7295, 7358, 7357, 7386, 7387, 7367, |
| | | | | 7388, 7371, 7359, 7356, 7361, 7378, |
| | | | | 7384, 7341, 7369, 7342, 7360, 7370, |
| | | | | 7343, 7385, 7344, 7383, 7382, 7379, |
| | Housing for Low | | | 7377, 7372, 7373, 7355, 7353, 7350, |
| | Income People-1 | | | 7376, 7381, 7380, 7348, 7375, 7374, |
| | income People-1 | | | 7345, 7354, 7352, 7351, 7346, 7349, |
| | | | | 7347 |
| | | | 4.49 Paschim Mayani_079_004 | 8185, 9213, 7753, 7754, 7758, 7759, |
| | | 4.49 Paschim Mayani_079_004 | | 7760, 7757, 7761, 7762, 7763, 7764, |
| | | | | 7871, 7872, 7873, 7874, 7875, 7876, |
| | | | | 7877, 7878, 7879, 7880, 7883, 7901, |
| | | | | 7902, 7903, 7904, 7905, 7906, 7907, |
| | | | | 7908, 7909, 7910, 7911, 7912, 7914, |
| | | | | 7915, 7916, 7917, 7922, 7924, 7925, |
| | | | 7926, 7927, 7928, 7929, 7930, 7933, | |
| | | | | 8181, 8167, 8168, 8169, 8171, 8172, |
| | | | | 8182, 9212, 9209, 9215, 9216, 7730, |
| | | | | 7731, 7732, 7742, 7744, 7745, 7746, |
| | | | | 7747, 7749, 7750, 7748, 7752, 7755, |
| | | | | 7756, 7881, 7882, 7870, 7751, 7913 |
| | | 0.47 | D | 12739, 12736, 12742, 12737, 12734, |
| | | 0.47 | Paschim Mayani_079_005 | 12743, 12738, 12744, 12733 |
| | | 0.17 | Paschim Mayani_079_004 | 7259, 7260, 7261, 7267 |
| Transport | aug s | 0.18 | Purba Mayani_078_001 | 261, 262, 263, 265, 266, 267, 269, 270 |
| Facilities | CNG Stand | | Purba Mayani_078_004 | 7604, 7605 |
| | | 0.35 | Purba Mayani_078_005 | 10436, 10026, 10025, 12081 |
| | | 0.29 | Paschim Mayani_079_001 | 899, 915, 916, 914, 913 |
| | | 0.26 | Purba Mayani 078 001 | 373, 374, 835 |
| | | 0.07 | Paschim Mayani_079_005 | 13296, 12710, 12711 |
| | Waste Transfer | 0.08 | Paschim Mayani_079_004 | 7241, 7242, 7156, 7255, 7260 |
| | Station | 0.04 | Purba Mayani_078_003 | 5028, 5031, 5032, 5042 |
| Utility | Station | | | <u> </u> |
| Services | | 0.09 | Purba Mayani 078_001 | 273, 274, 282 |
| | Dublic Tailet | 0.02 | Paschim Mayani 079_005 | 12738, 12744 |
| | Public Toilet | 0.08 | Paschim Mayani_079_004 | 7245, 7255, 7260 |
| | | 0.04 | Purba Mayani_078_003 | 5028, 5042, 5043 |

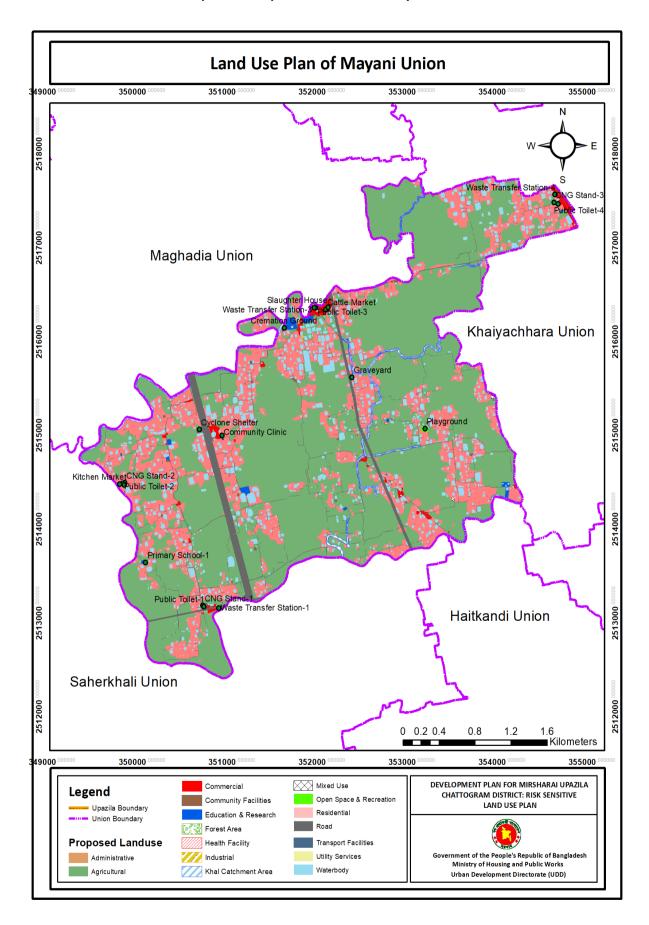
| Proposed | Proposed | Area | Mauza Name, J.L. No., | Plot No. | |
|----------|------------|------------------------|----------------------------|------------------------|-----------------------------------|
| Land Use | Facilities | (Acre) | Sheet No. | PIOUNO. | |
| | | 0.08 | Purba Mayani_078_001 | 314, 323 | |
| | | 0.16 | Paschim Mayani_079_005 | 10026 | |
| | | 0.10 | Paschim Mayani_079_004 | 7605 | |
| | | 0.19 | Purba Mayani_078_004 | 7378, 7871 | |
| | 0.14 | Paschim Mayani_079_006 | 16101, 16019, 16020, 16021 | | |
| | | 0.14 | Purba Mayani_078_004 | 8989 | |
| | | 0.30 | 0.28 | Paschim Mayani 079 006 | 14533, 14153, 14575, 14152, 14151 |
| | | 0.20 | rascilli iviayalii_079_000 | 14156, 14157 | |
| | | 0.10 | Paschim Mayani_079_004 | 8644, 8732, 8733 | |
| | | 0.13 | Paschim Mayani_079_001 | 915, 918, 917, 916 | |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Mayani Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Mayani Union has been shown in Table 2. 49.

Table 2. 49: Proposed Road Network in Mayani Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Map 2. 22: Proposed Land Use of Mayani Union



2.11.11 Mirsharai Union

Agricultural land has been given the highest priority while preparing the proposed land use plan. The area of 1689.49 acre of land (53.40%) has been proposed for agricultural use purpose. Proposed land use in this union followed by residential 23.74%, waterbody 5.97%, circulation network 6.11%, forest 5.38%, commercial 0.96%, industrial 1.64% and health facilities 0.04%. Table 2. 50 show the proposed land use of Mirsharai Union.

Table 2. 50: Proposed Land Use of Mirsharai Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|------------------------|-------------|----------------|
| 1 | Administrative | 1.22 | 0.04 |
| 2 | Agricultural | 1689.49 | 53.40 |
| 3 | Circulation Network | 193.34 | 6.11 |
| 4 | Commercial | 30.23 | 0.96 |
| 5 | Community Facilities | 4.66 | 0.15 |
| 6 | Education and Research | 8.22 | 0.26 |
| 7 | Forest | 170.22 | 5.38 |
| 8 | Health Facilities | 1.30 | 0.04 |
| 9 | Industrial | 51.96 | 1.64 |
| 10 | Khal Catchment Area | 42.54 | 1.34 |
| 11 | Mixed Use | 19.83 | 0.63 |
| 12 | Residential | 751.13 | 23.74 |
| 13 | Transport Facilities | 0.20 | 0.01 |
| 14 | Utility Services | 0.04 | 0.00 |
| 15 | Water Reservoir | 10.75 | 0.34 |
| 16 | Waterbody | 188.83 | 5.97 |
| | Total | 3123.74 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan, according to the PRA demand and based on the planning standards about nine proposed facilities has been incorporated for Mirsharai Union. About 4.80 acres of land has been covered with these proposals. Among those proposals, there are one super market, two agrobased industry, one primary school, two community clinics, one CNG stand, one public toilet, and one waste transfer station. These proposals provide commercial facilities, educational facilities, health facilities, industrial facilities, transport facilities, and utility services in the union. Detail mauza wise plot schedule of proposed development facilities for Mirsharai Union is presented in Table 2. 51. Map 2. 23 shows proposed land use of Mirsharai Union.

Table 2. 51: List of Proposed Facilities for Mirsharai Union

| Proposed | Proposed | Area | Mauza Name, J.L. No., | Plot No. |
|------------|--------------|--------|-------------------------|--|
| Land Use | Facilities | (Acre) | Sheet No. | |
| Commercial | Super Market | 0.69 | Purba Mithanala 051 002 | 1975, 1984, 1978, 1976, 2137, 2136, 3003, 2134, 2135, 2133 |

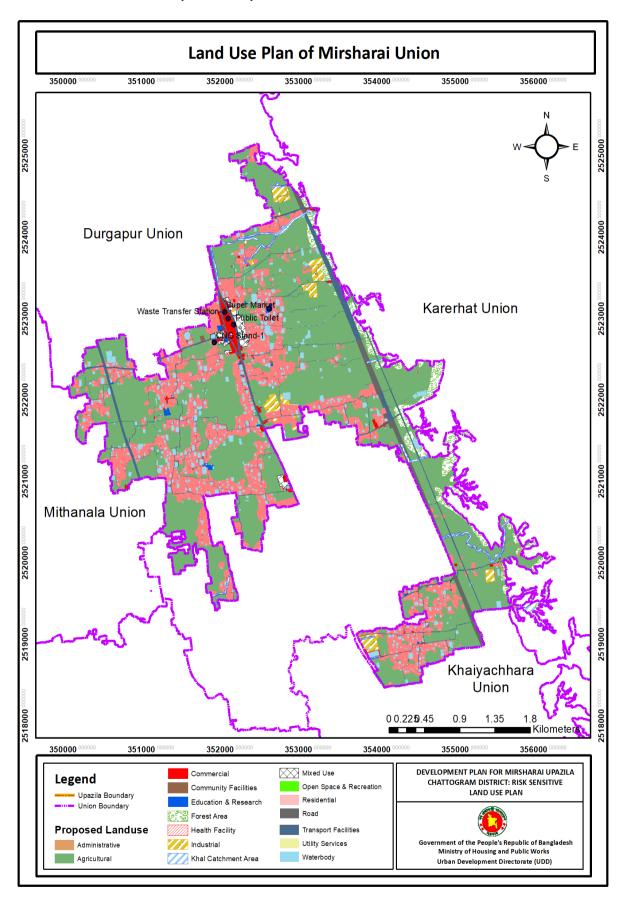
| Proposed | Proposed | Area | Mauza Name, J.L. No., | Plot No. |
|-------------------------|---------------------------|--------|-------------------------|---|
| Land Use | Facilities | (Acre) | Sheet No. | PIOUNO. |
| Education and Research | Primary School | 1.64 | Purba Mithanala_051_002 | 2344, 2346, 2378, 2345 |
| Health | Community | 0.61 | Purba Maghadia_073_001 | 860, 861, 862, 863, 867, 890, 891 |
| Facilities | Clinic | 0.60 | | 853, 1131, 1130, 838, 1127, 1128, 1129, 854, 1126, 1121 |
| | | 0.27 | Purba Mithanala_051_002 | 1228, 1227, 1229, 1226, 1225, 1224 |
| Industrial | Agro Industry | 0.75 | Purba Mithanala_051_002 | 1950, 1562, 1572, 1563, 1561, 1571, 1570, 1569 |
| Transport Facilities | CNG Stand | 0.20 | Motbaria_053_002 | 2702, 2703, 2706, 2707, 2779 |
| Utility | Public Toilet | 0.03 | Purba Mithanala_051_002 | 1921, 1975 |
| Services | Waste Transfer Station | 0.01 | Purba Mithanala_051_002 | 1975 |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Mirsharai Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Mirsharai Union has been shown in Table 2. 52.

Table 2. 52: Proposed Road Network in Mirsharai Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Map 2. 23: Proposed Land Use of Mirsharai Union



2.11.12 Mithanala Union

Out of total 4915.97 acres of land in Mithanala Union, around 2894.26 acres (58.75%) of land has been proposed for agricultural purpose. Agricultural land has been given the highest priority while preparing the proposed land use plan. Proposed land use in this union followed by residential 27.03%, waterbody 6.37%, circulation network 5.24%, commercial 0.33%, education and research 0.21%, community facilities 0.17%, and health facilities 0.02%. Table 2. 53 show the proposed land use of Mithanala Union.

Table 2. 53: Proposed Land Use of Mithanala Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|------------------------|-------------|----------------|
| 1 | Administrative | 0.49 | 0.01 |
| 2 | Agriculture | 2894.26 | 58.75 |
| 3 | Circulation Network | 258.22 | 5.24 |
| 4 | Commercial | 16.17 | 0.33 |
| 5 | Community Facilities | 8.40 | 0.17 |
| 6 | Education and Research | 10.47 | 0.21 |
| 7 | Forest | 0.01 | 0.0002 |
| 8 | Health Facilities | 1.22 | 0.02 |
| 9 | Industrial | 0.25 | 0.01 |
| 10 | Khal Catchment Area | 90.77 | 1.84 |
| 11 | Mixed Use | 0.34 | 0.01 |
| 12 | Residential | 1331.66 | 27.03 |
| 13 | Transport Facilities | 0.36 | 0.01 |
| 14 | Utility Services | 0.32 | 0.01 |
| 15 | Waterbody | 313.78 | 6.37 |
| | Total | 4915.97 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan, according to the PRA demand and based on the planning standards about 9 proposed facilities has been incorporated for Mithanala Union. About 3.56 acres area has been covered with these proposals. Among those proposals, there are 1 kitchen market, 1 eidgah, 1 cremation ground, 1 graveyard, 2 community clinics, 2 CNG stands, 2 public toilets, and 1 waste transfer station. These proposals provide commercial facilities, community facilities, health facilities, transport facilities, and utility services in the union. Detail mauza wise plot schedule of proposed development facilities for Mithanala Union is presented in Table 2. 54. Map 2. 24 shows proposed land use of Mithanala Union.

Table 2. 54: List of Proposed Facilities for Mithanala Union

| Proposed | Proposed | Area | Mauza Name, J.L. No., Sheet | Plot No. | |
|------------|----------------|--------|-------------------------------|------------------------------------|--|
| Land Use | Facilities | (Acre) | No. | FIOUNG. | |
| Commercial | Kitchen Market | 0.35 | Mithanala Rajapur_061_004 | 11679, 11680, 11681, 11682, 11683 | |
| Community | Eidgah | 0.62 | Mithanala Rajapur 061 006 | 18222, 18447, 18223, 18224, 18445, | |
| Facilities | Elugali | 0.03 | iviitiiaiiaia kajapui_001_000 | 18446, 18258, 18257 | |

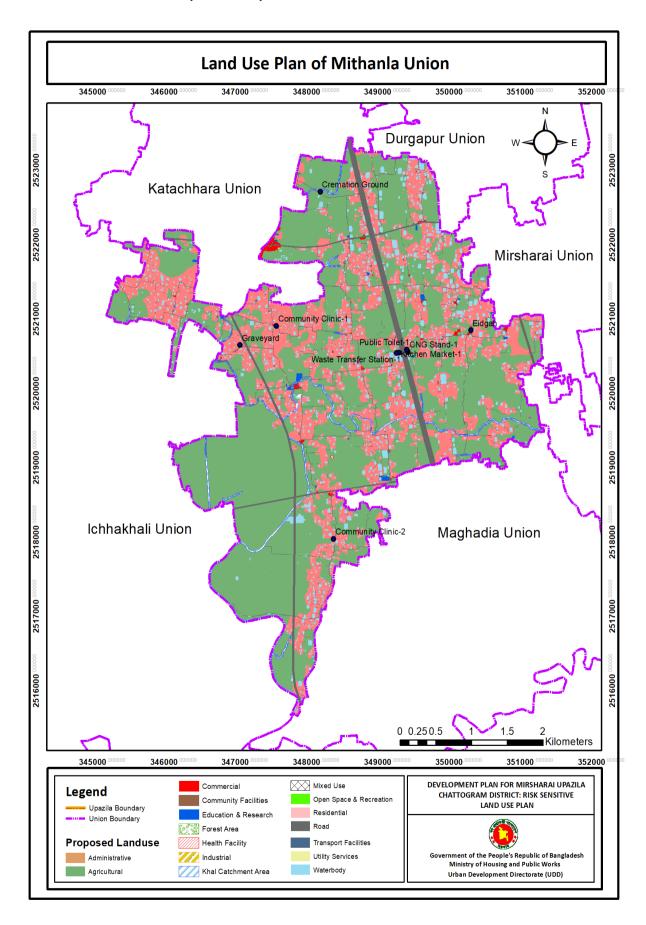
| Proposed | Proposed | Area | Mauza Name, J.L. No., Sheet | Plot No. | |
|------------------------------------|---------------------------|-----------|-----------------------------|--|-----------------------------------|
| Land Use | Facilities | (Acre) | No. | PIOUNO. | |
| | Cremation Ground | 0.64 | Mithanala Rajapur_061_001 | 458, 460, 459, 485, 480, 481, 487 | |
| | Graveyard | 0.62 | Mithanala Rajapur_061_003 | 7104, 7103, 7108, 6933, 6907, 6892, 6908, 6909, 6906, 6931, 6932 | |
| Health Community Facilities Clinic | , | 0.33 | Mithanala Rajapur_061_003 | 5723, 5799, 5800, 5807, 5801, 5806, 5724 | |
| | Cilliic | 0.32 | Modhyo Muradpur_069_001 | 517, 523, 519, 520, 521, 522, 531, 518 | |
| Transport | CNG Stand | CNG Stand | 0.36 | Mithanala Rajapur_061_006 | 11668, 11669, 11670, 11668, 11669 |
| Facilities | | 0.30 | Mithanala Rajapur_061_004 | 17551 | |
| | Utility Public Toilet | 0.17 | Mithanala Rajapur_061_004 | 11666, 11667, 11668, 11670 | |
| Utility | | 0.17 | Mithanala Rajapur_061_006 | 17549, 17551 | |
| Services | Waste Transfer Station | 0.14 | Mithanala Rajapur_061_004 | 11682, 11683 | |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Mithanala Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Mithanala Union has been shown in Table 2.55.

Table 2. 55: Proposed Road Network in Mithanala Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Map 2. 24: Proposed Land Use of Mithanala Union



2.11.13 Osmanpur Union

Agricultural land has been given the highest priority while preparing the proposed land use plan. The area of 1449.18 acre of land (38.32%) has been proposed for agricultural use purpose. Proposed land use in this union followed by waterbody 30.84%, residential 20.91%, circulation network 3.36%, educational facilities 0.23%, commercial 0.20%, community facilities 0.19%, industrial 0.05% and health facilities 0.04%. Table 2.56 show the proposed land use of Osmanpur Union.

Table 2. 56: Proposed Land Use of Osmanpur Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|---------------------------|-------------|----------------|
| 1 | Administrative | 0.27 | 0.01 |
| 2 | Agricultural | 1449.18 | 38.32 |
| 3 | Circulation Network | 127.08 | 3.36 |
| 4 | Commercial | 7.71 | 0.20 |
| 5 | Community Facilities | 7.28 | 0.19 |
| 6 | Education and Research | 8.88 | 0.23 |
| 7 | Health Facilities | 2.14 | 0.06 |
| 8 | Industrial | 1.97 | 0.05 |
| 9 | Khal Catchment Area | 216.76 | 5.73 |
| 10 | Open Space and Recreation | 2.22 | 0.06 |
| 11 | Residential | 790.83 | 20.91 |
| 12 | Transport Facilities | 0.42 | 0.01 |
| 13 | Utility Services | 0.61 | 0.02 |
| 14 | Waterbody | 1166.42 | 30.84 |
| | Total | 3737.19 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

Considering the local peoples demand from the PRA and based on the planning standards, 20 development proposals have been recommended for Osmanpur Union. About 14.47 acres area has been covered with these proposals. These proposals provide commercial facilities, educational facilities, community facilities, health facilities, recreational facilities, transport facilities, and utility services in the union. Detail list of proposed development facilities for Osmanpur Union is presented in Table 2. 57. Map 2. 25 shows proposed land use of Osmanpur Union.

Table 2. 57: List of Proposed Facilities for Osmanpur Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|------------------------------|--|----------------|------------------------------------|--|
| | Fish Market | 0.53 | Banshkhali_039_000 | 939, 943, 944, 945, 946, 951, 952, 953, 954 |
| | Kitchen Market | 0.34 | Brindabanpur_033_000 | 836, 837, 868, 869, 1050 |
| Commercial | | 0.68 | Patakot_029_000 | 95, 103, 108, 109, 120, 121, 122, 123, 92, 94, 110, 111, 118, 119 |
| | Slaughter House | 0.29 | Banshkhali_039_000 | 1130, 1131, 1132, 1135, 1136, 1137, 1138 |
| Education and Research | Primary School cum Cyclone Shelter | 1.32 | Morgang_032_002 | 2237, 2239, 2238, 2215, 2240, 2216, 2212, 2217, 2241, 2214, 2264, 2213, 2227, 2218, 2219, 2210, 2220, 2209, 2207, 2193, 2267, 2211, 2228 |

| Proposed | Proposed | Area | Mauza Name, J.L. No., | Plot No. |
|---------------|---------------------------|--------|-----------------------|---|
| Land Use | Facilities | (Acre) | | |
| | | | Osmanpur_030_000 | 1132 |
| | | | Rokandipur 031 000 | 815, 774, 775, 792, 790, 773, 771, 788, 798, |
| | College | 3.00 | | 789, 799, 758, 787, 800, 768, 770, 761, 786, |
| | | | | 785, 778, 767, 772, 779, 803, 801, 798, 799, 803, 815 |
| | | | | 1086, 1087, 1088, 1089, 1090, 1091, 1095, |
| | Eidgah | 0.63 | Osmanpur_030_000 | 1096, 1097, 1098, 1103, 1104, 1105, 1118 |
| | | 0.40 | Morgang_032_002 | 2111, 2112 |
| | | 0.19 | Brindabanpur_033_000 | 976, 977, 981, 982 |
| Community | | | | 1174, 1176, 1177, 1178, 1179, 1180, 1181, |
| Facilities | Cuarrand | | Datalist 020 000 | 1182, 1183, 1184, 1185, 1186, 1209, 1210, |
| | Graveyard | 2.21 | Patakot_029_000 | 1211, 1212, 1178, 1179, 1179, 1179, 1181, |
| | | | | 1185, 1185, 1186 |
| | | | Banshkhali_039_000 | 346, 347, 348, 349, 351, 352, 347, 347, 348, |
| | | | | 351, 351, 351, 352, 352 |
| | Playground | 1.20 | Osmanpur_030_000 | 445, 446, 447, 448, 449, 450, 451, 456, 459, |
| Open Space | | | | 545, 547, 549, 551, 452, 453, 454, 455, 457, |
| and | | | | 458, 462, 468, 470, 542, 543, 544, 546, 550 |
| Recreation | | 1.03 | Morgang_032_001 | 630, 632, 651 |
| ricer edition | | | Morgang 032 002 | 2287, 2288, 2293, 2294, 2295, 2296, 2297, |
| | | | 5 52 2 | 2298, 2299, 2300, 2302 |
| | Community Clinic | 0.34 | Brindabanpur_033_000 | 188 |
| Health | Specialized Hospital | 1.69 | Osmanpur_030_000 | 1115, 1118, 1126, 1127, 1130, 1131 |
| Facilities | | | Rokandipur 031 000 | 812, 813, 814, 811, 810, 807, 803, 807, 803, |
| | | | . – – | 815 |
| Transport | CNG Stand | 0.23 | Banshkhali_039_000 | 1120, 1121, 1122, 1123, 1154 |
| Facilities | | 0.19 | Morgang_032_002 | 1754, 1755, 1757, 1763 |
| | Public Toilet | 0.15 | Morgang_032_002 | 1751, 1752, 1748 |
| Utility | | 0.10 | Banshkhali_039_000 | 1123, 1124, 1141, 1143, 1144 |
| Services | Waste Transfer Station | 0.10 | Banshkhali_039_000 | 1120, 1154 |
| | | 0.10 | Patakot_029_000 | 308, 309, 310, 311, 312, 313, 314, 315 |
| | | 0.15 | Sahebpur_028_002 | 4014 |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Osmanpur Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Osmanpur Union has been shown in Table 2. 58.

Table 2. 58: Proposed Road Network in Osmanpur Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Land Use Plan of Osmanpur Union 344000 345000 346000 342000 343000 347000 Dhum Union ol cum Cyclone Shelter-1 Zorwarganj Union Katachhara Slaughter Hou CNG Station-1 ... — Wäste Transfer Station Union 2527000 Ichhakhali Union 00.17**9**.35 0.7 1.05 Kilometers 342000° 343000 344000 345000 346000 347000 DEVELOPMENT PLAN FOR MIRSHARA I UPAZILA Mixed Use Legend CHATTOGRAM DISTRICT: RISK SENSITIVE Open Space & Recreation Community Facilities LAND USE PLAN Upazila Boundary Education & Research Union Boundary ForestArea Proposed Landuse Health Facility Utility Services Administrative nt of the People's Republic of Banels Industrial Ministry of Housing and Public Works Waterbody Agricultural Khal Catch ment Area Urban Development Directorate (UDD)

Map 2. 25: Proposed Land Use of Osmanpur Union

2.11.14 Saherkhali Union

Out of total 16122.48 acres of land in Saherkhali Union, around 5584.04 acres (33.07%) of land has been proposed for economic zone purpose. Proposed land use in this union followed by waterbody 37.53%, agriculture 19.45%, residential 4.47%, circulation network 1.97%, commercial 0.05%, education and research facilities 0.05%, community facilities 0.04%, transport facilities 0.005%, recreational facilities 0.01%, and health facilities 0.01%. Table 2. 59 show the proposed land use of Saherkhali Union.

Table 2. 59: Proposed Land Use of Saherkhali Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|--|-------------|----------------|
| 1 | Administrative | 0.49 | 0.003 |
| 2 | Agriculture | 3284.19 | 19.45 |
| 3 | Circulation Network | 333.47 | 1.97 |
| 4 | Commercial | 8.73 | 0.05 |
| 5 | Community Facilities | 6.69 | 0.04 |
| 6 | Economic Zone | 5584.04 | 33.07 |
| 7 | Education and Research | 8.74 | 0.05 |
| 8 | Forest | 370.67 | 2.20 |
| 9 | Health Facilities | 1.12 | 0.01 |
| 10 | Industrial | 7.79 | 0.05 |
| 11 | Khal Catchment Area | 184.18 | 1.09 |
| 12 | Mixed Use | 0.73 | 0.004 |
| 13 | Open Space and Recreational Facilities | 1.38 | 0.01 |
| 14 | Residential | 754.88 | 4.47 |
| 15 | Transport Facilities | 0.78 | 0.005 |
| 16 | Utility Services | 0.61 | 0.004 |
| 17 | Waterbody | 6337.64 | 37.53 |
| | Total | 16122.48 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan, according to the PRA demand and based on the planning standards about 18 proposed facilities has been incorporated for Saherkhali Union. About 31.12 acres area has been covered with these proposals. Among those proposals there are 1 kitchen market, 1 cold storage, 1 cyclone shelter, 1 eidgah, 1 graveyard, 1 primary school, 1 college, 2 community clinics, 1 playground, 1 low income people housing area, 2 CNG stands, 3 public toilets, and 3 waste transfer stations. These proposals provide commercial facilities, community facilities, education and research, health facilities, open space and recreational facilities, residential, transport facilities and utility services in the union. Detail mauza wise plot schedule of proposed development facilities for Saherkhali Union is presented in Table 2. 60. Map 2. 26 shows proposed land use of Saherkhali Union.

Table 2. 60: List of Proposed Facilities for Saherkhali Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. | | |
|-------------------------|--------------------------------------|----------------|------------------------------------|--|--|--|
| Commercial | Kitchen Market | 0.44 | Dakshin Maghadia_080_004 | 3665, 3667, 3671, 3672, 3678, 3673, 3674, 3675, 3676, 3677, 3679, 3680, 3747, 3708 | | |
| | Cold Storage | 0.25 | Saherkhali_081_003 | 6470, 6471, 6472, 6507, 6508 | | |
| | Cyclone Shelter | 2.03 | Saherkhali_081_001 | 678, 776, 777, 780, 1072, 1089, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1103, 1104, 1105, 1120, 1123, 1124 | | |
| Community Facilities | Eidgah | 0.99 | Saherkhali_081_001 | 2512, 2511, 1314, 2518, 2516, 2514, 2515, 2513, 2510, 2517 | | |
| | Graveyard | 0.37 | Dakshin Maghadia_080_004 | 3711, 3719 | | |
| Education and | Primary School | 1.78 | Domkhali_082_002 | 2152, 2143, 2140, 2149, 2153, 2150, 2139, 2146, 2137, 2144, 2147, 2138, 2154, 2148 | | |
| Research | College | 2.91 | Saherkhali_081_001 | 788, 787, 801, 794, 786, 789, 762, 785, 784, 763, 796, 764, 790, 791, 795, 783, 813, 798, 800, 799, 814, 749, 812, 797, 808, 761 | | |
| Health | Community | 0.69 | Dakshin Maghadia_080_004 | 3053, 3123, 3055, 3068, 3122, 3124, 3125, 3126, 3127, 3131, 3054 | | |
| Facilities | Clinic | 0.43 | Saherkhali_081_003 | 5966, 5968, 5969, 5970, 5971, 5972, 5975, 6860, 6861, 7948 | | |
| Open Space & Recreation | Playground | 1.38 | Dakshin Maghadia_080_005 | 4224, 4225 | | |
| Residential | Low Income People Housing Area | 18.45 | Domkhali_082_002 | 2579, 2580, 2581, 2582, 2583, 2584, 2598, 2600, 2601, 2603, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2821, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3371, 3372, 3373, 3374, 3375, 3376, 3377, 3378, 3379, 3380, 3381, 3382, 3384, 3398, 3399, 3400, 3401, 3402, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3527, 3528, 3529, 3530, 3531, 3532, 3534, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, 3549, 3550, 3551, 3552, 3553, 3554, 3555, 3556, 3557, 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 4585, 4601, 4602, 4603, 4604, 4605, 4606, 4607, 4608 | | |
| Transport Facilities | CNG Stand | 0.45 | Domkhali_082_004 | 9187, 9188, 9061, 9067, 9063, 9068, 9066, 9070, 9065, 9062, 9064 | | |
| . domeics | | 0.33 | Saherkhali_081_003 | 6522, 6521, 6509, 6510, 6520 | | |

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|----------------------|------------------------|----------------|------------------------------------|------------------------------------|
| Luna OSC | | | • | 8967, 8966, 9060 |
| | Public Tollet | 0.15 | Saherkhali_081_003 | 6506, 6504, 6505 |
| Utility | | 0.13 | Domkhali_082_004 | 8971, 9038, 9034, 8968 |
| Services | Waste Transfer | 0.10 | Saherkhali_081_003 | 6509, 6522 |
| | Station | 0.11 | Dakshin | 3663, 3664, 3665, 3666, 3667, 3676 |
| | | 0.11 | Maghadia_080_004 | 3003, 3004, 3003, 3000, 3007, 3070 |

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Saherkhali Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Saherkhali Union has been shown in Table 2. 61.

Table 2. 61: Proposed Road Network in Saherkhali Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Land Use Plan of Saherkhali Union 343000 344000 345000 346000 347000 348000 349000 350000 351000 352000 353000 354000 355000 2517000 Maghadia Union Ichhakhali Union 2515000 et Mayani Union 2513000 Haitkandi Union 2511000 2507000 2.55 0 0.4250.85 ∎Kilometers 343000° 344000 345000° 346000 347000 348000 349000 350000 351000 352000 353000 354000° 355000 Mixed Use DEVELOPMENT PLAN FOR MIRSHARA I UPAZILA Commercial Legend CHATTOGRAM DISTRICT: RISK SENSITIVE Open Space & Recreation Community Facilities LAND USE PLAN Upazila Boundary Residential Education & Research - Union Boundary Proposed Landuse Health Facility Transport Facilities Utility Services Administrative Industrial Ministry of Housing and Public Works Waterbody Agricultural Khal Catchment Area Urban Development Directorate (UDD)

Map 2. 26: Proposed Land Use of Saherkhali Union

2.11.15 Wahedpur Union

Wahedpur Union is mainly agro-based union. Out of total 4877.84 acres of land in this union, around 2939.87 acres (59.71%) of land has been proposed for agricultural purpose. Agricultural land has been given the highest priority while preparing the proposed land use plan. Proposed land use in this union followed by residential 23.92%, waterbody 5.90%, circulation network 5.66%, commercial 0.93%, education and research 0.28%, community facilities 0.15%, industrial 0.19%, and utility services 0.02%. Table 2. 62 show the proposed land use of Mithanala Union.

Table 2. 62: Proposed Land Use of Wahedpur Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|---------------------------|-------------|----------------|
| 1 | Administrative | 0.36 | 0.01 |
| 2 | Agriculture | 2939.87 | 59.71 |
| 3 | Circulation Network | 278.77 | 5.66 |
| 4 | Commercial | 45.73 | 0.93 |
| 5 | Community Facilities | 7.44 | 0.15 |
| 6 | Education and Research | 13.74 | 0.28 |
| 7 | Forest | 73.77 | 1.50 |
| 8 | Industrial | 9.38 | 0.19 |
| 9 | Khal Catchment Area | 81.62 | 1.66 |
| 10 | Mixed Use | 1.33 | 0.03 |
| 11 | Open Space and Recreation | 1.68 | 0.03 |
| 12 | Residential | 1177.92 | 23.92 |
| 13 | Transport Facilities | 0.56 | 0.01 |
| 14 | Utility Services | 0.91 | 0.02 |
| 15 | Waterbody | 290.40 | 5.90 |
| | Total | 4877.84 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan, according to the PRA demand and based on the planning standards about 20 proposed facilities has been incorporated for Wahedpur Union. About 27.82 acres of land has been covered with these proposals. Among those proposals, there are one wholesale market, two primary schools, one high school, one housing area for tribal, two graveyards, one community clinic, one cremation ground, two CNG stands, three public toilets, and four waste transfer stations. Detail list of proposed development facilities for Wahedpur Union is presented in Table 2. 63. Map 2. 27 shows proposed land use of Wahedpur Union.

Table 2. 63: List of Proposed Facilities for Wahedpur Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|----------------------|------------------------|----------------|------------------------------------|--|
| Commercial | Wholesale | 0.90 | Wahedpur_089_004 | 10435, 10452, 10453, 10454, 10455, 10456, 10457, 10458, 10459, 10460, 10461, 10467 |
| | Market | | Khajuria_090_000 | 341 |
| | Deline | 1.04 | Wahedpur_089_003 | 6467 |
| Education | Primary School | 1.08 | Maijgaon_087_002 | 4610, 4611, 4612, 4613, 4614, 4615, 4620, 4621, 4622, 4730, 4758, 4761, 4923, 4924, 4925 |
| and Research | High School | 1.91 | Wahedpur_089_004 | 10662, 10664, 10665, 10666, 10667, 10809, 10839, 10840, 10842, 10843, 10848 |
| Health Facilities | Community Clinic | 0.44 | Wahedpur_089_001 | 262, 253, 252, 251, 250 |

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|----------------------------|------------------------|----------------|------------------------------------|--|
| | 10-Bed | 0.94 | Maijgaon_087_002 | 5074, 5077, 5078, 5079, 5080, 5081, 5082, 5091, 5099, 5108, 5092 |
| | Hospital | | Wahedpur_089_004 | 10467 |
| Open Space & Recreation | Playground | 1.68 | Maijgaon_087_001 | 645, 646, 648, 649, 650, 651, 652, 654, 655, 656, 658, 709, 1806, 1807, 647, 653 |
| Residential | Housing for Tribal | 16.94 | Wahedpur_089_003 | 8594, 8595, 8596, 8599, 8600, 8605, 8606, 8607, 8608, 8609, 8610, 8611, 8612, 8613, 8614, 8615, 8616, 8617, 8618, 8619, 8620, 8623, 8624, 8640, 8661, 8662, 8663, 8664, 8665, 8666, 8667, 8668, 8669, 8670, 8671, 8672, 8673, 8674, 8675, 8676, 8677, 8678, 8679, 8687, 8710, 8711, 8713, 8714, 8715, 8716, 8717, 8718, 8719, 8720, 8721, 8722, 8723, 8724, 8725, 8726, 8727, 8728, 8729, 8730, 8731, 8744, 8745, 8746, 8747, 8748, 8749, 8787, 8788, 8601, 8602, 8604, 8680, 8686, 8688, 8689, 8690, 8691, 8692, 8693, 8694, 8695, 8712 |
| | Graveyard | 0.52 | Maijgaon_087_001 | 1799, 1800, 709, 1801, 1806, 1808, 1805 |
| Community | Graveyaru | 0.54 | Wahedpur_089_005 | 13645, 13973, 13974, 13975, 13976, 13981, 13982 |
| Facilities | Cremation Ground | 0.26 | Wahedpur_089_001 | 2494, 2496, 2497, 2498, 2500, 2499, 2503 |
| | | 0.12 | Gachhbaria_088_000 | 2856 |
| | Public | 0.12 | Wahedpur_089_004 | 10456, 10457, 10435 |
| | Toilet | 0.14 | Bara Kamaldaha_094_002 | 2875, 2874, 2950, 2169 |
| Utility | | 0.14 | Gachhbaria_088_000 | 2856 |
| Services | | 0.08 | Wahedpur_089_002 | 4694 |
| | Waste | 0.08 | Maijgaon_087_002 | 5102 |
| | Transfer | 0.17 | Wahedpur_089_004 | 10447, 10441, 10435, 10440, 10442 |
| | Station | 0.17 | Maijgaon_087_002 | 5102 |
| | | 0.13 | Bara Kamaldaha_094_002 | 2950, 2169 |
| Transport | | 0.33 | Gachhbaria_088_000 | 2856 |
| 1 | CNG Stand | 0.34 | Wahedpur_089_004 | 10462, 10463, 10464, 10465, 10467, 10468 |
| Facilities | | 0.54 | Khajuria_090_000 | 341 |

Source: GIS Database, MUDP (2017-2037)

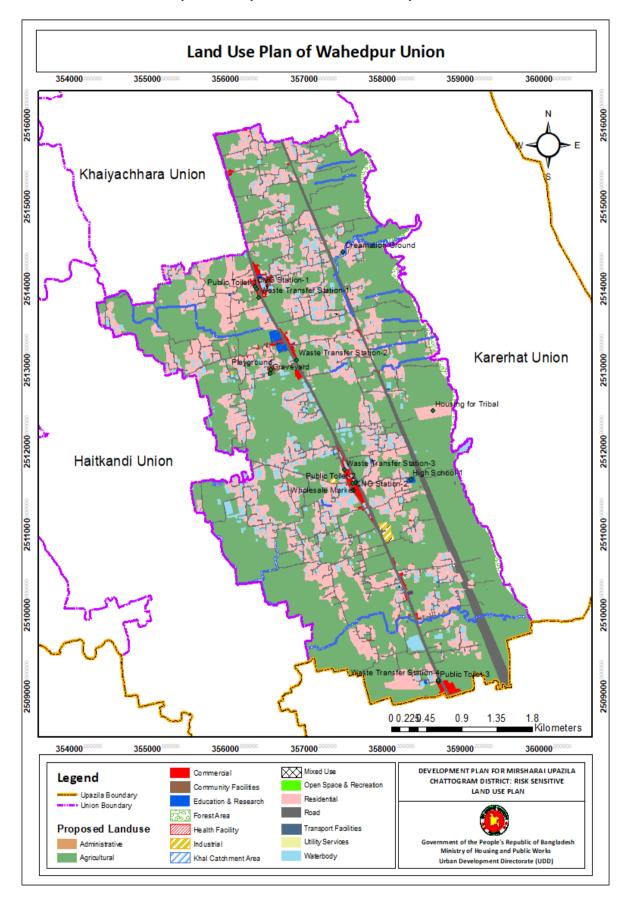
In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Wahedpur Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Wahedpur Union has been shown in Table 2. 64.

Table 2. 64: Proposed Road Network in Wahedpur Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Source: GIS Database, MUDP (2017-2037)

Map 2. 27: Proposed Land Use of Wahedpur Union



2.11.16 Zorwarganj Union

Agricultural land has been given the highest priority while preparing the proposed land use plan of Zorwarganj Union. The area of 3111.95 acres of land (53.49%) has been proposed for agricultural use purpose. Proposed land use in this union followed by residential 23.49%, waterbody 9.18%, circulation network 6.52%, industrial 1.30%, educational facilities 0.46%, commercial 0.41%, community facilities 0.33%, recreational facilities 0.08% and health facilities 0.17%. Table 2. 65 show the proposed land use of Zorwarganj Union.

Table 2. 65: Proposed Land Use of Zorwarganj Union

| Serial No. | Proposed Land Use | Area (Acre) | Percentage (%) |
|------------|---------------------------|-------------|----------------|
| 1 | Administrative | 1.87 | 0.03 |
| 2 | Agriculture | 3111.95 | 53.49 |
| 3 | Circulation Network | 379.63 | 6.52 |
| 4 | Commercial | 23.66 | 0.41 |
| 5 | Community Facilities | 19.18 | 0.33 |
| 6 | Education and Research | 26.63 | 0.46 |
| 7 | Forest | 114.95 | 1.98 |
| 8 | Health Facilities | 10.10 | 0.17 |
| 9 | Industrial | 75.48 | 1.30 |
| 10 | Khal Catchment Area | 147.34 | 2.53 |
| 11 | Mixed Use | 0.52 | 0.01 |
| 12 | Open Space and Recreation | 4.89 | 0.08 |
| 13 | Residential | 1366.51 | 23.49 |
| 14 | Transport Facilities | 0.70 | 0.01 |
| 15 | Utility Services | 0.67 | 0.01 |
| 16 | Waterbody | 534.23 | 9.18 |
| | Total | 5805.44 | 100.00 |

Source: GIS Database, MUDP (2017-2037)

In the Rural Area Plan, according to the PRA demand and based on the planning standards about 21 proposed facilities has been incorporated for Zorwarganj Union. About 13.28 acres area has been covered with these proposals. Among those proposals there are 1 union councilor office, 1 kitchen market, 1 cold storage, 3 nursery, 1 primary school, 1 high school, 3 community clinics, 1 graveyard, 1 cremation ground, 1 playground, 3 CNG stands, 2 public toilets, and 2 waste transfer stations. Detail list of proposed development facilities for Zorwarganj Union is presented in Table 2. 66. Map 2. 28 shows proposed land use of Zorwarganj Union.

Table 2. 66: List of Proposed Facilities for Zorwarganj Union

| Proposed Land Use | Proposed Facilities | Area (Acre) | Mauza Name, J.L. No., Sheet No. | Plot No. |
|-----------------------|---------------------------|----------------|------------------------------------|--|
| Administrative Use | Union Councilor Office | 0.74 | Dewannur ()1/ ()() | 1228, 1272, 1262, 1273, 1275, 1274, 1278, 1277, 1276, 1282, 1280, 1283, 1279 |
| Commercial | Kitchen Market | 0.57 | Paragalpur_018_000 | 611, 627, 1412, 1413, 1417, 1418, 1419, |

| Proposed | Proposed | Area | Mauza Name, J.L. No., | Disa No |
|-----------------|---------------------|--------|-----------------------|--|
| Land Use | Facilities | (Acre) | Sheet No. | Plot No. |
| | | | | 1613 |
| | | | Imampur_019_000 | 764, 765 |
| | Cold Ctorogo | 1.60 | Cananahar 012 007 | 11246, 11244, 11243, 11242, 11239, 11240, |
| | Cold Storage | 1.60 | Sonapahar_013_007 | 11237, 11238, 11236, 11338, 11339, 12069 |
| | | 0.45 | Khilmurari_012_000 | 153, 171 |
| | Nursery | 0.40 | Sonapahar_013_004 | 5824, 5823, 5822, 5825, 5828, 5844 |
| | | 0.40 | Bhagabatipur_026_000 | 197, 198, 195, 194, 207, 184, 183, 185 |
| Education and | | | | 1871, 1873, 1870, 1888, 1869, 1868, 1867, |
| Research | Primary School | 0.91 | Naherpur_024_000 | 1857, 1858, 1856, 1855, 1854, 1887, 1853, |
| | | | | 1938, 1939 |
| | High School | 2.02 | Khilmurari 012 000 | 192, 187, 203, 193, 202, 186, 194, 196, 197, |
| | nigii School | 2.02 | Killillurari_012_000 | 195, 217 |
| Health | Community | 0.53 | Bhagabatipur_026_000 | 199, 200, 206, 207, 208, 303, 209, 210 |
| Facilities | Clinic | 0.36 | Paragalpur_018_000 | 588, 585, 589, 629, 586, 584, 643, 587, 591 |
| racilities | Cillic | 0.37 | Sonapahar_013_003 | 3812, 3808, 3809, 3807 |
| | Cremation Ground | 0.72 | Dewanpur_017_000 | 147, 152, 190, 156, 153, 189 |
| Community | 0.04.14 | | | 2997, 2994, 2998, 3822, 2999, 3013, 3002, |
| Facilities | Graveyard | 1.61 | Sonapahar 013 003 | 3012, 3001, 3000, 3011, 3782, 3004, 3003, |
| | Graveyara | 1.01 | | 3007 |
| Open Space & | | | | 5523, 5338, 5327, 5337, 5330, 5334, 5336, |
| Recreation | Playground | 1.25 | Sonapahar_013_004 | 5332, 5333, 5331, 5335, 5256, 5134 |
| _ | | 0.20 | Dewanpur_017_000 | 1347, 1346, 1345, 1348, 1344 |
| Transport | CNG Stand | 0.28 | Sonapahar 013 007 | 11361, 11331 |
| Facilities | | 0.21 | Sonapahar 013 002 | 1907, 1908, 1911, 1910, 1909, 1913 |
| | | 0.17 | Sonapahar 013 007 | 11345, 11361, 11331 |
| | Public Toilet | 0.07 | Sonapahar 013 004 | 5754 |
| Utility Service | Waste Transfer | 0.19 | Dewanpur 017 000 | 1346, 1334 |
| | Station | | Sonapahar 013 002 | 1894, 1892, 1895, 1897, 1858 |

Source: GIS Database, MUDP (2017-2037)

In the road network plan, proper road channelization and widening of narrow roads has been making sure. Total 0.00 kilometer length of road has been proposed in Zorwarganj Union. About 0.00 kilometer of new roads has been proposed and about 0.00 kilometer roads have been proposed for widening. The proposed road network status of Zorwarganj Union has been shown in Table 2. 67.

Table 2. 67: Proposed Road Network in Zorwarganj Union

| Road Category | Road Proposal Status | Length in Kilometer |
|---------------|----------------------|---------------------|
| | | |
| | | |
| | | |
| | | |
| Total | | |

Source: GIS Database, MUDP (2017-2037)

Land Use Plan of Zorwarganj Union 346000° 347000° 348000 349000 350000 351000° 352000 Hinguli Union Dhum Union Karerhat Union Osmanpur Union 2527000 Katachhara Union **Durgapur Union** 0 0.25 0.5 346000 347000 348000 349000° 350000 351000 352000 Mixed Use DEVELOPMENT PLAN FOR MIRSHARAI UPAZILA Commercial Legend CHATTOGRAM DISTRICT: RISK SENSITIVE Open Space & Recreation Community Facilities LAND USE PLAN Upazila Boundary Education & Research Union Boundary ForestArea Proposed Landuse Health Facility ransport Facilities Utility Services mment of the People's Republic of Bangladesh Ministry of Housing and Public Works Administrative Agricultural Waterbody Khal Catchment Area Urban Development Directorate (UDD)

Map 2. 28: Proposed Land Use of Zorwarganj Union

CHAPTER 03: PERMITTED AND CONDITIONAL USE

3.1 Introduction

In the current chapter general definition, permitted and conditionally permitted uses under each Land use zone is furnished one by one. The uses not listed here in any of the category shall be treated as Restricted Use for the land zone category and shall not be permitted only except decision by the Planning Authority. In such situations, the use shall get permission in the category of new use.

3.2 Development Control in Rural Area

Development control is an essential part for the development process. For development control, certain procedures have to be followed for approval of designs of various categories of structures, establishments, and land uses. Development control process consists of some individual tasks. The first condition is to secure land use permit according to approved zoning plan followed by approval of the design of proposed building/structure. Land Use permit is given on the basis of Land Use Zoning. Land Use zoning is the base on which development control process is performed. The development control process is performed under some government Act and Rules. These are: Building Construction Rules, 1996 under Building Construction Act, 1952; Bangladesh National Building Code, 1993, Jaladhar Ain and other relevant laws related to development control of Upazila area.

3.3 Land Use Zoning

Land Use Zoning is a form of legal power which is delegated to development authorities/municipalities/upazilas through enabling legislation to ensure the welfare of the community by regulating the most appropriate use of the land. Zoning is a classification of land uses that limits what activities can or cannot take place and what will be prohibited on a parcel of land by establishing a range of development options. To get a Land Use permit from development authorities/municipalities/upazilas, a citizen's prospective use of structure must be compatible with the approved land use zones of an area.

Zoning has been defined as an action through legislation provided to a development authority/municipality to control

- The heights to which buildings/structures may be erected,
- The area of a land parcel that must be kept vacant, and
- The uses to which buildings and land parcels may be put.

Land Use zoning is mainly of three types, area zoning, density zoning and height zoning.

Area Zoning

Area zoning is to specify which types of Land Use are considered appropriate for different areas or 'zones' and it, therefore, indicates the planning control objectives of the authority or municipality or Upazilas for its administrative area. The main objectives of such zoning are done mainly from the environmental point of view that accrues other social benefits.

Density Zoning

The aim of the density zoning is to limit the size of the population in any particular area using density control methods so that the designed facilities and amenities can support the existing size of the population. The size of the population has to bear on the capacity of designed utility facilities and amenities and traffic volume and crowding, especially in the residential areas. Such zoning is practiced to ensure a healthy and enjoyable community living.

Height Zoning

Height zoning restricts the height of buildings and structures in any particular area. This zoning is aimed to promote natural growth of an area to be a proper and sound development of areas. Height zoning has a particular importance in-flight safety around airport areas and another similar purpose.

Considering the existing level of development and development prospects of the Upazila, the consultant recommends following the area zoning and height zoning among the above three. Zoning is only a part of development control regulations. A prospective developer in a Paurashava has to comply with other rules and regulations, like, Building Construction Rules, 1996 under Building Construction Act 1952, Bangladesh National Building Code 1993 and other conditions of construction method, building safety and associated issues.

3.4 Classification of Land Use Zoning

Characteristics of local towns like Upazilas have a clear difference with the traditional large towns of our country. After a detailed consultation between the client and consultants of the project, the consultant recommends following Land Use Zoning classification under current Development Plan of Mirsharai Upazila.

- a) Administrative Zone
- b) Agricultural Zone
- c) Commercial Zone
- d) Flood Flow Zone
- e) Growth Center
- f) General Industrial Zone
- g) Heavy Industrial Zone
- h) Mixed Use Zone

- i) Open Space
- j) Rural Settlement
- k) Urban Residential Zone
- I) Waterbody
- m) Water Retention Area

The following sections deal with the general definition of the use and description of associated permitted and conditionally permitted uses under each Land Use zone one by one. The uses not listed here in any of the categories shall be treated as Restricted Use for the corresponding Land Use category and shall not be permitted only except unanimously decided otherwise by the Nagar Unnayan Committee. In such situations, the use shall get permission in the category of New Use.

3.4.1 Administrative Zone

The administrative zone will allow agglomeration of administrative structures to make a convenient communication among them. This zone houses important government machinery such as the All types of Government Office, Ansar Camp, Bank, BWDB Office, Civil Surgeon Office, DoE Office, Deputy Commissioner's Office, Commercial Group Office, LGED Office, DPHE Office, Jailkhana, Labor Union, Law Chamber, Mercantile & Cooperatives, Money Exchange Center, Paurashava Office, PDB Office, Police Station, Political Party Office, Post office, Private company/Different types of NGO/CBO/Club, Professional's Association, R&H Office, Private Bank/Insurance Company, Public Works Department Office, Security Service Office, Settlement Office, Statistical Bureau Office, SP Office/Police Headquarter, Trading Corporation Office, Union Parishad Office, Upazila Headquarter, Zila Parishad Office, etc.

Purpose

The main purpose of this zone is to agglomerate the administrative structures within a certain boundary for the convenience of people.

Land Use Permitted

Table 3. 1: Permitted Land Use for Administrative Zone

| Permitted Administrative Uses | Permitted Administrative Uses |
|--|---------------------------------------|
| Accounting, Auditing or Bookkeeping Services | Newspaper Stand |
| ATM Booth | Outdoor Religious Events |
| Bus Passenger Shelter | Photocopying and Duplicating Services |
| Civic Administration | Post Office |
| Communication Service Facilities | Professional Office |
| Communication Tower within Permitted Height | Project Office |
| Confectionery Shop | Public Transport Facility |
| Construction, Survey, Soil Testing Firms | Satellite Dish Antenna |
| Cultural Exhibits and Libraries | Scientific Research Establishment |
| Cyber Café | Shelter (Passers By) |
| Emergency Shelter | Social Forestry |

| Permitted Administrative Uses | Permitted Administrative Uses | |
|-------------------------------|-------------------------------|--|
| Freight Transport Facility | Training Centre | |
| General Store | Transmission Lines | |
| Government Office | Utility Lines | |
| Grocery Store | Water Pump \ Reservoir | |
| Guest House | Woodlot | |

Land Use Conditionally Permitted

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

Table 3. 2: Conditionally Permitted Land Use for Administrative Zone

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

Source: Compiled by the MUDP Project Team

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.2 Agriculture Zone

The agricultural zone is the zone of 'food production' where predominantly agricultural production will be encouraged. All types of agricultural activity such as crop production; aquaculture etc. will be dominant and will be permitted to ensure food security. The agricultural zone is intended to prevent the scattered indiscriminate conversion of cropland into settlements.

Purpose

- To safeguard food security by protecting agricultural land from indiscriminate conversion in the name of development.
- To promote farming activity and farming operation in the land especially suitable for the purpose.

■ To conserve agricultural lands within urban areas and encourage the long-term viability of agricultural operations and the supporting agricultural industry.

Land Use Permitted

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

Table 3. 3: Permitted Land Use for Agricultural Zone

| Permitted Agriculture Uses | Permitted Agriculture Uses |
|---|---|
| Animal Shelter | Social Forestry |
| Aquaculture | Shallow Tube Well |
| Aquatic Recreation Facility (Without Structure) | Horticulture |
| Arboriculture | Static Transformer Stations |
| Cash Crop Cultivation | Temporary Structure (Agricultural) |
| Dairy Firming | Transmission Lines |
| Deep Tube Well | Tree Plantation (Except Narcotic Plant) |
| Ducker | Utility Lines |
| Food Grain Cultivation | Vegetable Cultivation |
| Irrigation Facilities (Irrigation canal, Culvert, Flood wall) | Woodlot |

Source: Compiled by the MUDP Project Team

Land Use Conditionally Permitted

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

Table 3. 4: Conditionally Permitted Land Use for Agricultural Zone

| Conditionally Permitted Agriculture Uses | Conditionally Permitted Agriculture Uses |
|---|--|
| Communication Tower Within Permitted Height | Graveyard \ Cemetery |
| Crematorium | |

Source: Compiled by the MUDP Project Team

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.3 Commercial Zone

Commercial areas generally contain one or more of a wide variety of uses that include business uses, offices, hotel, public houses, and limited forms of retailing. Uses that are particularly appropriate to these areas include wholesale, business service uses, the sale of motor vehicles and limited forms of retailing that involve the sale of bulky goods unsuitable to be carried away by pedestrians. This would allow users that are compatible with or reinforce the commercial function of the area. As a whole, Commercial Zone is intended to provide all the facilities and services with the commercial Land Use that are designed for basic trade and business.

Commercial zones are classified into two types: office and business predominated zones. Commercial Business Zone is a business pre-dominated commercial zone that mainly supports business. This zone is intended to support large commercial developments in major incorporated

areas such as retail distribution, retail warehouse, retail storage and retail logistics facilities. The Commercial Business Zone is intended to provide areas for logistical and retail warehousing activities, including storage, distribution, and packaging of goods and products as well as activities which require a large site and space. The Commercial Zone (Office) is intended to provide all the facilities and services with the commercial Land Use. Commercial Office Zone is an office predominated commercial zone that mainly supports the official works. It supports other types of commercial activities, too. Proposals for these areas involve large-scale buildings and require a high degree of accessibility and parking space for car users and delivery vehicles.

Purpose

- The intent of this zone is to provide commercial nodes inconvenient and strategic locations of the area to meet urban needs and to encourage clustering commercial development as opposed to stripping commercial development and commercial sprawl.
- The main objective for designating this zone is to promote trade and commerce compactly associated with all other facilities.

Land Use Permitted

Table 3. 5: Permitted Land Use for Commercial Zone

| Permitted Commercial Uses | Permitted Commercial Uses |
|--|---|
| Accounting, Auditing or Bookkeeping Services | Fruit and Vegetable Markets |
| Agri-Business | Fitness Centre |
| Agricultural Sales and Services | General Store |
| Ambulance Service | Government Office |
| Antique Store | Grocery Store |
| Appliance Store | Guest House |
| Art Gallery, Art Studio \ Workshop | Health Office |
| ATM Booth | Hotel or Motel |
| Auction Market | Indoor Amusement Centers, Game Arcades |
| Auditorium, Coliseum, Meeting Halls, and | Television, Radio or Electronics Repair (No |
| Conference Facilities, Convention | Outside Storage) |
| Auto Leasing or Rental Office | Jewelry and Silverware Sales |
| Automobile Driving Academy | Market (Bazar) Place |
| Auto Paint Shop | Mosque, Place of Worship |
| Auto Parts and Accessory Sales (Indoors) | Motorcycle Sales Outlet |
| Auto Repair Shop (With Garage) | Multi-Storied Car Park |
| Automobile Wash | Newspaper Stand |
| Billboards, advertisements & advertising structure | Outdoor\commercial outdoor recreation |
| Bakery or Confectionery-Retail | Parking Lot (Commercial) |
| Bank & Financial Institution | Orphanage |
| Barber Shop | Pathological Lab |
| Beauty and Body Service | Pet Store |
| Bicycle Shop | Photocopying and Duplicating Services |
| Automobile Sales | Photofinishing Laboratory & Studio |
| Billiard Parlor \ Pool Hall | Pipelines and Utility Lines |

| Permitted Commercial Uses | Permitted Commercial Uses |
|---|---|
| Boarding and Rooming House | Post Office |
| Inter-City Bus Terminal | Preserved fruits & vegetables facility |
| Book Stall | Printing, Publishing, and Distributing |
| Building Material Sales or Storage (Indoors) | Professional Office |
| Bulk Mail and Packaging | Project Identification Signs |
| Bus Passenger Shelter | Project Office |
| Catering Service | Property Management Signs |
| Chinese Restaurant | Public Transport Facility |
| Cinema Hall | Real Estate Office |
| Clinic | Refrigerator or Large Appliance Repair |
| Coffee Shop \ Tea Stall | Resort |
| Commercial Office | Restaurant |
| Communication Service Facilities | Retail Shops \ Facilities |
| Communication Tower Within Permitted Height | Sales Office of Industries |
| Computer Maintenance and Repair Shop | Satellite Dish Antenna |
| Computer Sales & Services Shops | Shelter (Passers By) |
| Confectionery Shop | Shopping Mall \ Plaza |
| Conference Center | Slaughter House |
| Community Center | Social Forestry |
| Construction Company | Software Development Firm |
| Construction, Survey, Soil Testing Firms | Stationery Store |
| Courier Service | Sporting Goods and Toys Sales |
| Cyber Café | Super Store |
| Daycare Center (Commercial or Nonprofit) | Taxi Stand |
| Dental Laboratory | Telephone Exchanges |
| Department Stores, Furniture & Variety Stores | Book or Stationery Store |
| Diagnostic Center | Theater (Indoor) |
| Doctor \ Dentist Chamber | Toys and Hobby Goods Processing and Supplies |
| Department Stores | Training Centre |
| Drug Store or Pharmacy | Transmission Lines |
| Electrical and Electronic Equipment and | Veterinarian Clinics, Animal Hospitals, Kennels |
| Instruments Sales | and Boarding Facilities |
| Fast Food Establishment \ Food Kiosk | Vehicle Sales & Service, Leasing or Rental |
| Flowers, Nursery Stock and Florist Supplies | Utility Lines |
| Food Court | Warehousing |
| Freight Handling, Storage & Distribution | Water Pump \ Reservoir |
| Freight Transport Facility | Wood Products |
| Freight Yard | Woodlot |

Land Use Conditionally Permitted

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

Table 3. 6: Conditionally Permitted Land Use for Commercial Zone

| Conditionally Permitted Commercial Uses | Conditionally Permitted Commercial Uses |
|---|---|
| Agricultural chemicals, pesticides\fertilizers shop | Broadcast studio\recording studio (no audience) |
| Amusement and Recreation (Indoors) | Indoor Amusement Centers, Game Arcades |

| Conditionally Permitted Commercial Uses | Conditionally Permitted Commercial Uses |
|--|---|
| Bicycle Assembly, Parts and Accessories | Indoor Theatre |
| Incineration Facility | Lithographic or Print Shop |
| Craft Workshop | Motor Vehicle Fueling Station \ Gas Station |
| Coffee Shop \ Tea Stall | Musical Instrument Sales or Repair |
| Concert Hall, Stage Shows | Optical Goods Sales |
| Construction, Survey, Soil Testing Firms | Painting and Wallpaper Sales |
| Container Yard | Paints and Varnishes |
| Energy Installation | Parking Lot |
| Fire \ Rescue Station | Patio Homes |
| Firm Equipment Sales & Service | Plantation (Except Narcotic Plant) |
| Fitness Centre | Postal Facilities |
| Flowers, Nursery Stock and Florist Supplies | Poultry |
| Forest Products Sales | Police Box \ Barrack |
| Fuel and Ice Dealers | Private Garages |
| Garages | Professional Office |
| Garden Center or Retail Nursery | Retail Shops Ancillary to Studio\workshop |
| Grain & Feed Mills | Stone \ Cut Stone Products Sales |
| Household appliance\furniture repair service | Trade Shows |

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.4 Flood Flow Zone

The area over which the flow of floodwater during monsoon passes through is termed here as flood flow zone.

Purpose

The intent of the Flood Flow Zone is to protect adverse hydrological impact, human life, and health, minimize property damage, encourage appropriate construction practices, and minimize public and private losses due to the overflow of water. Additionally, this zone is intended to maintain the sound use and development of flood-prone areas and to restrict potential home buyers by notifying that property is in a flood area. The provisions of this zone are intended to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, street, and bridges located in the floodplain, and prolonged business interruptions; and to minimize expenditures of public money for costly flood control projects and rescue and relief efforts associated with flooding.

Land Use Permitted

Table 3. 7: Permitted Land Use for Flood Flow Zone

| Permitted Uses | Permitted Uses |
|---|------------------------------------|
| Aquatic Recreation Facility (Without Structure) | Plantation (Except Narcotic Plant) |
| Dry Season Play Field | Static Transformer Stations |

| Permitted Uses | Permitted Uses |
|-----------------------------|--------------------|
| Marina \ Boating Facility | Transmission Lines |
| Pipelines and Utility Lines | Utility Lines |

Land Use Conditionally Permitted

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

Table 3. 8: Conditionally Permitted Land Use for Flood Flow Zone

| Conditionally Permitted Uses | Conditionally Permitted Uses |
|---|------------------------------|
| Communication Tower Within Permitted Height | Poultry |

Source: Compiled by the MUDP Project Team

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.4 Growth Center

According to the location theorists, "Such settlements which are nuclear or central to their influence area are called growth centers". In the context Bangladesh, Growth Centers are rural marketplaces that have been identified by the Planning Commission on the basis of socio-economic and administrative criteria for making development investment. There are about 8,000 rural marketplaces throughout Bangladesh that are popularly known as 'hat' or 'bazaar'. Realizing their importance in the rural sector, the government felt the need to upgrade them with some infrastructure facilities in order to enhance their efficiency. However, due to fund constraint, it was not possible to include all the 'hats' or 'bazaars' for development investment. Thus, initially 1,400 of them were selected in 1984 and later in 1993; another 700 'hats' or 'bazaars' were added to this list to take the final number to 2,100. In our planning area, there are some growth centers that contain substantially the following characteristics.

Purpose

- It incorporates a mix of uses that typically include or have the potential to include the following: retail, office, services, and another commercial, civic, recreational, industrial, and residential uses, within a densely developed, compact area;
- It incorporates existing or planned public spaces that promote social interaction, such as public parks, civic buildings (e.g., post office, municipal offices), community gardens, and other formal and informal places to gather;
- It is organized around one or more central places or focal points, such as prominent buildings of civic, cultural, or spiritual significance or a square;
- It results in compact concentrated areas of land development that are served by existing or planned infrastructure and are separated by rural countryside or working landscape

Land Use Permitted

Rural commercial center in the "Growth center" form is one of an important feature for rural economic sustainability. In a growth center, people can find their necessary service activity in an easily accessible distance apart from the urban area. In this sense, the permitted uses for growth center are the following:

Table 3. 9: Permitted Land Use for Growth Center

| Permitted Uses | Permitted Uses |
|---|--|
| Accounting, Auditing or Bookkeeping Services | Garages |
| Addiction Treatment Center | Garden Center or Retail Nursery |
| Agricultural chemicals, pesticides\fertilizers shop | General Store |
| Agricultural Dwellings | Grain & Feed Mills |
| Agricultural Product Sales | Grocery Store |
| Dormitory | High School |
| Furniture Stores | Hotel or Motel |
| Ambulance Service | Household appliance and furniture repair service |
| Amusement and Recreation (Indoors) | Housing for Seasonal Firm Labor |
| Ancillary Dwelling | Indoor Amusement Centers |
| Animal Husbandry | Indoor Theatre |
| Antique Store | Jewelry and Silverware Sales |
| Appliance Store | Katcha Bazar |
| Auction Market | Loom (Cottage Industry) |
| Auto Repair Shop (With Garage) | Mosque, Place of Worship |
| Bank & Financial Office | Newspaper Stand |
| Barber Shop | NGO \ CBO Office |
| Barber Shop | Nursery School |
| Billboards, advertisements & advertising | Communication tower within the permitted |
| structure | height |
| Blacksmith | Optical Goods Sales |
| Boarding and Rooming House | Orphanage |
| Book or Stationery Store or Newsstand | Outdoor Fruit and Vegetable Markets |
| Bus Passenger Shelter | Outdoor Religious Facility (Eidgah) |
| Cinema Hall | Paints and Varnishes Shop |
| Cleaning \ Laundry Shop | Photo Studio |
| Coffee Shop \ Tea Stall | Photocopying and Duplicating Services |
| Cold Storage | Postal Facilities |
| College\Technical Training School \ Centers \ | Electrical and Electronic Equipment and |
| Agro Based Trading | Instruments Sales |
| Communication Service Facilities | Public Utility Stations & Substations |
| Open Theater | Research organization (Agriculture \ Fisheries) |
| Community Center | Restaurant |
| Computer Maintenance and Repair | Retail Shops \ Facilities |
| Computer Sales & Services | Rickshaw \ Auto Rickshaw Stand |
| Confectionery | Satellite Dish Antenna |
| Courier Service | Sawmill |
| Craft Workshop | Shoe Repair or Shoeshine Shop (Small) |
| Cyber Café | Signboard \ Billboard |
| Dairy Farming | Slaughter House |
| Daycare Center (Commercial or Nonprofit) | Small Workshop |
| Department Stores | Social Forestry |

| Permitted Uses | Permitted Uses |
|---|---|
| Doctor \ Dentist Chamber | Specialized School: Dance, Art, Music & Others |
| Agro-based industry (rice mill, sawmill, cold | Specialized School: Dance, Art, Music, Physically |
| storage) | Challenged & Others |
| Drug Store or Pharmacy | Static Transformer Stations |
| Primary School | Storage & Warehousing |
| Emergency Shelter | Taxi Stand |
| Energy Installation | Television, Radio or Electronics Repair |
| Fabric Store | Theater (Indoor) |
| Family Welfare Center | Transmission Lines |
| Fast Food Establishment \ Food Kiosk | Truck Stand & Freight Terminal |
| Firm Equipment Sales & Service | Utility Lines |
| Fish Hatchery | Variety Stores |
| Fitness Centre | Vehicle, Leasing or Rental Service |
| Flowers, Nursery Stock | Veterinary Centre |
| Freight Transport Facility | Veterinary Clinic \ Center |
| Fuel and Ice Dealers | Wood Products |
| Funeral Services | Woodlot |

Land Use Conditionally Permitted

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

Table 3. 10: Conditionally Permitted Land Use for Growth Center

| Conditionally Permitted Uses | Conditionally Permitted Uses |
|--|---|
| Artisan's Shop | Library |
| Auto Leasing or Rental Office | Motor Vehicle Fueling Station \ Gas Station |
| Beauty Parlor | Musical Instrument Sales or Repair |
| Building Maintenance\Cleaning Services (No | Preserved Fruits and Vegetables Facility \ Cold |
| Outside Storage) | Storage |
| Building Material Sales or Storage (Indoors) | Plantation (Except Narcotic Plant) |
| Carnivals and Fairs | Police Station |
| Circus | Poultry |
| Correctional Institution | Pet Store |
| Fire Brigade Station | Sports and Recreation Club |
| Freight Handling, Storage & Distribution | Stage Shows |
| Freight Yard | Temporary Rescue Shed |
| Guest House | Trade Shows |

Source: Compiled by the MUDP Project Team

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.5 General Industrial Zone

Promoting the development of industrial areas as the primary locations for uses including manufacturing, repairs, warehousing, distribution, open-storage, waste materials treatment and

^{*} All of the commercial activities shall be located at growth center.

recovery, and transport operating centers, the industrial zone has been earmarked. The development of inappropriate mixes of uses, such as office-based industry and retailing will not normally be encouraged here.

It is an objective to ensure that, normally, new buildings in primarily industrial areas are a single story with high ceilings to provide versatility and adaptability to accommodate a broad range of types of plant, machinery, and delivery vehicles throughout their design life. It is an objective to ensure that the likely demand for car parking and delivery vehicle facilities are fully met within the site, to apply the highest standards of design, hard and soft landscaping and to ensure that pedestrian access is provided and that provision is made for public transport.

Purpose

The intent of this zone is to accommodate certain industrial uses which, based on their operational characteristics, is incompatible with residential, social, medical, and commercial environs. As a result, the establishment of such zones shall be restricted to areas geographically buffered from such environs, and the operations of such uses monitored by performance standards to ensure environmental compatibility.

- The purpose and intent of industrial zone are to provide areas in appropriate locations where various light and heavy industrial operations can be conducted without creating hazards to surrounding land uses. Industrial zones are cohesive, planned tracts, with all elements sharing the same or compatible architectural and landscaping themes within a parcel.
- Areas intended to accommodate a variety of industrial establishments which: 1) employ high environmental quality standards; 2) may function as an integral part of an overall development area; and, 3) have minimal impacts on adjacent uses.
- The purpose and intent of General industrial zone is to provide areas in appropriate locations for certain types of light manufacturing, processing or fabrication, warehousing establishments of non-objectionable products or adjacent uses because they are characterized by a minimum of material, processes, or machinery likely to cause undesirable effects upon nearby or adjacent residential or commercial property.

General Industrial Zone is to accommodate Green, Orange A, Orange B types of industries of Department of Environment (DOE) prepared categories, and Urban Area Plan designated light industries and general industries along with some other new types. Here the industries will not be noxious and heavy.

Land Use Permitted

Table 3. 11: Permitted Land Use for General Industrial Zone

| Artificial Fiber Production Artificial Fiber Production Artificial Fiber Production Assembling and manufacturing of clocks and watches Photocopying and Duplicating Services Photocopying and Duplicating Services Photographic Film Factory Plastic & rubber goods (excluding PVC) Assembling and manufacturing of toys (except plastic items) Assembling of motor vehicles Assembling of motor vehicles Assembling of fuelphones Power Loom ATM Booth Printing and writing ink manufacturing industry Automatic rice mill. Printing Press Bakery Printing Production of utensils and souvenirs of brass and bronze Assembling of telephones Power Loom ATM Booth Printing and writing ink manufacturing industry Automatic rice mill. Printing Press Bakery Printing Publishing, and Distributing Processing: fish, meat, and food Manufacture of industrial tools, equipment, and machinery Blacksmith Production of artificial leather goods Bus Passenger Shelter Production of artificial leather goods Bus Passenger Shelter Production of Gond, hair band, hair clip etc. Chocolate and lozenge Factory Production of Fomber milk/chodensed milk/dairy Production of Pin, board pin, U Pin etc. Clinic and Pathological lab Production of Pin, board pin, U Pin etc. Clinic and Pathological lab Production of Speeder milk/chodensed milk/dairy Production of shoes and leather goods Production of shoes and leather goods Production of speeder milk/chodensed milk/dairy Production of speeder milk milk milk milk milk milk milk milk | Permitted General Industrial Uses | Permitted General Industrial Uses |
|--|--|---|
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| Garments and sweater Factory Glass factory Sodium silicate Factory Glue (excluding animal glue) Grinding/husking wheat, rice, turmeric, chilly, pulses – machine above 0 Horse Power Grocery Store Starch and glucose factory Hotel, multi-storied commercial building. Household appliance and furniture repair service Ice-cream Jute mill Tire re-treading Lime Todium silicate Factory Spinning mill Television, Radio or Electronics Repair (No Outside Storage) Starch and glucose factory Stone grinding, cutting, and polishing Trea processing Jute mill Tire re-treading Transmission Lines | Bicycle Assembly, Parts and Accessories | Shoes and leather goods production |
| Glass factory Glue (excluding animal glue) Grinding/husking wheat, rice, turmeric, chilly, pulses – machine above 0 Horse Power Grocery Store Hotel, multi-storied commercial building. Household appliance and furniture repair service Stores appliance and furniture repair service Jute mill Tire re-treading Lime Spinning mill Television, Radio or Electronics Repair (No Outside Storage) Starch and glucose factory Stone grinding, cutting, and polishing Sports goods Production Tea processing Jute mill Tire re-treading Transmission Lines | Galvanizing | Soap |
| Glue (excluding animal glue) Grinding/husking wheat, rice, turmeric, chilly, pulses – machine above 0 Horse Power Grocery Store Hotel, multi-storied commercial building. Household appliance and furniture repair service Ice-cream Jute mill Television, Radio or Electronics Repair (No Outside Storage) Starch and glucose factory Stone grinding, cutting, and polishing Sports goods Production Tea processing Jute mill Tire re-treading Lime Transmission Lines | Garments and sweater Factory | Social Forestry |
| Grinding/husking wheat, rice, turmeric, chilly, pulses – machine above 0 Horse Power Grocery Store Hotel, multi-storied commercial building. Household appliance and furniture repair service Jute mill Television, Radio or Electronics Repair (No Outside Storage) Starch and glucose factory Stone grinding, cutting, and polishing Sports goods Production Tea processing Jute mill Tire re-treading Lime Transmission Lines | | • |
| Grinding/husking wheat, rice, turmeric, chilly, pulses – machine above 0 Horse Power Grocery Store Hotel, multi-storied commercial building. Household appliance and furniture repair service Jute mill Television, Radio or Electronics Repair (No Outside Storage) Starch and glucose factory Stone grinding, cutting, and polishing Sports goods Production Tea processing Jute mill Tire re-treading Lime Transmission Lines | Glue (excluding animal glue) | Spinning mill |
| pulses – machine above 0 Horse Power Grocery Store Starch and glucose factory Hotel, multi-storied commercial building. Stone grinding, cutting, and polishing Household appliance and furniture repair service Sports goods Production Ice-cream Tea processing Jute mill Tire re-treading Lime Transmission Lines | | |
| Grocery Store Hotel, multi-storied commercial building. Household appliance and furniture repair service Ice-cream Jute mill Lime Starch and glucose factory Stone grinding, cutting, and polishing Sports goods Production Tea processing Tire re-treading Transmission Lines | | |
| Hotel, multi-storied commercial building. Household appliance and furniture repair service Sports goods Production Ice-cream Tea processing Jute mill Tire re-treading Lime Transmission Lines | Grocery Store | |
| Household appliance and furniture repair service Sports goods Production Ice-cream Tea processing Jute mill Tire re-treading Lime Transmission Lines | | |
| Ice-cream Tea processing Jute mill Tire re-treading Lime Transmission Lines | Household appliance and furniture repair service | |
| Jute mill Tire re-treading Lime Transmission Lines | | |
| Lime Transmission Lines | | |
| Machine Sheds Truck Stop & Washing or Freight Terminal | | |
| | Machine Sheds | Truck Stop & Washing or Freight Terminal |

| Permitted General Industrial Uses | Permitted General Industrial Uses |
|---|---|
| Manufacture of Agricultural tools, equipments | Utensils made of clay and china clay/sanitary |
| and small machinery. | wares (ceramics) |
| Furniture Manufacture of wood/iron\aluminum | Utility Lines |
| Manufacturing of wooden vessel | Water Pump \ Reservoir |
| Match Factory | Water Purification Plant |
| Meat and Poultry (Packing & Processing) | Weaving and handloom |
| Metal utensils/spoons etc. | Wood Products |
| Mosque, Place of Worship | Wood treatment |
| Motor vehicles repairing works | Wood/iron/aluminum Furniture production |
| Newspaper Stand | Woodlot |
| Packaging Industries | |

Land Use Conditionally Permitted

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

Table 3. 12: Conditionally Permitted Land Use for General Industrial Zone

| Conditionally Permitted General Industrial Uses | Conditionally Permitted General Industrial Uses |
|--|--|
| Amusement and Recreation (Indoors) | Lithographic or Print Shop |
| Appliance Store | Manufacturing of Artificial flower |
| Assembling and manufacturing of clocks and | Assembling and manufacturing of electrical and |
| watches | Electronic home products etc. |
| Medical and surgical instrument production | Motor Vehicle Fueling Station \ Gas Station |
| Outside Bulk Storage | Motorcycle Sales Outlet |
| Assembling and manufacturing of toys (except | Assembling of motorcycles, bicycles, and toy |
| plastic items) | cycles |
| Musical instruments | Outdoor Fruit and Vegetable Markets |
| Assembling of scientific and mathematical | Photographic lab (except ultraviolet and infra- |
| instruments | red) |
| Assembling of telephones | Overhead Water Storage Tanks |
| Bamboo and cane goods | Painting and Wallpaper Sales |
| Book-binding | Paints and Varnishes |
| Candle Production | Parking Lot |
| Carpet and mat production | Parking Lot (Commercial) |
| Cork items Production | Pen and ball-pen Factory |
| Cyber Café | Production of artificial leather goods |
| Daycare Center (Commercial or Nonprofit) | Plantation (Except Narcotic Plant) |
| Doctor \ Dentist Chamber | Private Garages |
| Electrical and electronic equipment and | Re-packing of milk powder (excluding |
| instruments sales | production) |
| Employee Housing | Laundry |
| Energy Installation | Retail Shops Ancillary to Studio \ Workshop |
| Fast Food Establishment \ Food Kiosk | Rope and coir mat production |
| Garages | Sports goods (excluding plastic made items) |
| Gold ornaments Production | Super Store |
| Grain & Feed Mills | Tea packing (excluding processing) |
| Incineration Facility | Washing Plant |

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.6 Heavy Industrial Zone

The purpose and intent of Heavy Industrial Zone are to provide areas in appropriate locations where various heavy industrial operations can be conducted without creating hazards to surrounding land uses. Areas are intended to accommodate manufacturing and fabricating establishments that are generally characterized as producing noise, vibration, heavy freight traffic, fumes, and other forms of pollution which may be objectionable to adjacent uses is characterized as Heavy Industrial Zone. Heavy industries are those industries listed as red industries in the DOE Industry type list and industries listed in the Urban Area Plan as noxious industries including mining/quarrying.

Purpose

- To confine heavy, noisy, and vibrating industries as they harm human living in the surrounding area.
- To ensure that industrial development achieves high environmental standards of cleaner production, waste disposal, noise, and air quality
- To encourage the design and construction of energy efficient, functional, and flexible industrial and commercial facilities.
- To restrict heavy and noxious industrial developments along major approach routes and major roads.

Land Use Permitted

Table 3. 13: Permitted Land Use for Heavy Industrial Zone

| Permitted Heavy Industrial Uses | Permitted Heavy Industrial Uses |
|--|---|
| Acids and their salts (organic or inorganic) | Phosphorus and its Compounds/Derivatives |
| Industry | Industry |
| Animal Glue | Other Chemicals Industry |
| Artificial Rubber Industry | Outside Bulk Storage |
| Asbestos Factory | Paper and Pulp Mill |
| ATM Booth | Pesticides, Fungicides and Herbicides Industry |
| Bank & Financial Institution | Ordnance Factory |
| Basic Industrial Chemicals Industry | Photo Films, |
| Battery Industry | Photo papers and Photo Chemicals Industry |
| Bicycle Assembly, Parts and Accessories | Bus Passenger Shelter |
| Bitumen Industry | Pipelines and Utility Lines |
| Chemical Industry | Board Mills |
| Chlorine, Fluorine, Bromine, Iodine, and their | Plastic Raw Materials (PVC, PP/Iron, Polyester in |
| Compounds/Derivatives Industry | etc.) Factory |
| Carbon rod Industry | Police Box \ Barrack |
| Cement Industry | Power plant |

| Permitted Heavy Industrial Uses | Permitted Heavy Industrial Uses |
|--|---|
| Chemical dyes, Polish, Varnish, Enamel Paint | Public Transport Facility |
| Factory | · |
| Refrigerator/Air-conditioner/Air-cooler | Raw materials of Medicines and Basic Drugs |
| manufacturing | Industry |
| Communication Tower Within Permitted Height | Refractory |
| Detergent Factory | Re-rolling Mills |
| Distillery | Road Network |
| Effluent Treatment Plant | Rodenticide Industry |
| Electroplating | Satellite Dish Antenna |
| Explosive Industry | Saw Mills |
| Fabric Dyeing & Chemical Processing Industry | Scrap industry |
| Fiber-glass Factory | Sewage Treatment Plant |
| Fire \ Rescue Station | Shelter (Passers By) |
| Flood Control Structures | Ship Manufacturing |
| Formaldehyde Industry | Social Forestry |
| Fuel Oil Refinery | Sugar Mill |
| Grocery Store | Tannery |
| Heavy Engineering Workshop | Tire and Tubes |
| Heavy Repairing of Motor Vehicles | Tobacco Processing, Cigarette/Bidi Factory |
| Hospital | Transmission Lines |
| Incineration Facility | Truck Stop & Washing |
| Industrial Estate | TSP Fertilizer Factory |
| Industrial Gas (Oxygen, Nitrogen & Carbon- | Various Products made from Petroleum and Coal |
| dioxide) Industry | Industry |
| Iron and Steel Mill | Non-iron Basic Metals Industry |
| Jute Mill | Utility Lines |
| Life-Saving Drugs Industry | Urea Fertilizer Factory |
| Lumber and building supply | Waste Incinerator |
| Metallic Boat Manufacturing | Water Pump \ Reservoir |
| Mosque, Place of Worship | Water Treatment Plant |
| Murat of Potash Manufacturing | Wooden Boat Manufacturing |
| Newspaper Stand | Woodlot |

Land Use Conditionally Permitted

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

Table 3. 14: Conditionally Permitted Land Use for Heavy Industrial Zone

| Conditionally Permitted Heavy Industrial Uses | Conditionally Permitted Heavy Industrial Uses |
|---|---|
| Amusement and Recreation (Indoors) | Machine Sheds |
| Cyber Café | Motor Vehicle Fueling Station \ Gas Station |
| Daycare Center (Commercial or Nonprofit) | Nitrogen Compound Industry |
| Doctor \ Dentist Chamber | Parking Lot |
| Employee Housing | Parking Lot (Commercial) |
| Energy Installation | Plantation (Except Narcotic Plant) |
| Freight Transport Facility | Private Garages |
| Garages | Retail Shops Ancillary to Studio \ Workshop |

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.7 Mixed Use Zone

The Residential- Commercial- General Industrial zone is intended to achieve cohabitation of uses while ensuring that negative impacts on residents are minimized. The spaces created in this zone are intended to encourage a diminished need for motorized travel and shall possess characteristics of all of the three- Residential, Commercial, and Industrial.

Purpose

The main purpose of this zone is to support the diversification and expansion of the area's industrial base and employment growth as well as to facilitate investment in a wide range of industrial and related activities, with efficient land utilization and provision of infrastructure. To make provision for small-scale services that support surrounding industrial activities, or which meet the needs of the local workforce is a primary aim of this type of Land Use. Provide convenient access for the area and regional residents to industrial goods, services, and employment opportunities, too, is an important purpose of this zone.

Land Use Permitted

Table 3. 15: Permitted Land Use for Mixed Use Zone

| Permitted Mixed Uses | Permitted Mixed Uses |
|---|--|
| Accounting, Auditing or Bookkeeping Services | Fire \ Rescue Station |
| Antique Store | General Store |
| Appliance Store | Grocery Store |
| ATM Booth | Guest House |
| Auditorium, Coliseum, Meeting Halls, and Conference | Service stations, full service (with minor |
| Facilities, Convention | repair) |
| Auto Leasing or Rental Office | Landscape and Horticultural Services |
| Auto Paint Shop | Mosque, Place of Worship |
| Auto Parts and Accessory Sales (Indoors) | Newspaper Stand |
| Auto Repair Shop (With Garage) | Nursery School |
| Automobile Driving Academy | Photocopying and Duplicating Services |
| Automobile Sales | Pipelines and Utility Lines |
| Automobile Wash | Police Box \ Barrack |
| Bakery or Confectionery-Retail | Primary School |
| Bank & Financial Institution | Project Identification Signs |
| Barber Shop | Property Management Signs |
| Bicycle Assembly, Parts and Accessories | Public Transport Facility |
| Bicycle Shop | Rickshaw \ Auto Rickshaw Stand |
| Billboards, Advertisements, and Advertising Structure | Satellite Dish Antenna |
| Billiard Parlor \ Pool Hall | Service Garage |
| Blacksmith | Hospital |

| Permitted Mixed Uses | Permitted Mixed Uses |
|---|---------------------------------------|
| Boarding and Rooming House | Sewage Treatment Plant |
| Book or Stationery Store or Newsstand | Shelter (Passers By) |
| Bulk Mail and Packaging | Shoe Repair or Shoeshine Shop (Small) |
| Bus Passenger Shelter | Social Forestry |
| Children's Park | Social organization |
| Cleaning \ Laundry Shop | Solid Waste Recycling Plant |
| Commercial Recreational Buildings | Special Dwelling |
| Communication Service Facilities | Transmission Lines |
| Communication Tower within Permitted Height | Utility Lines |
| Confectionery Shop | Water Pump \ Reservoir |
| Construction, Survey, Soil Testing Firms | Woodlot |
| Courier Service | |

Land Use Conditionally Permitted

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

Table 3. 16: Conditionally Permitted Land Use for Mixed Use Zone

| Conditionally Permitted Mixed Uses | Conditionally Permitted Mixed Uses |
|---|---|
| Agricultural chemicals, pesticides\fertilizers shop | Freight Transport Facility |
| Amusement and Recreation (Indoors) | Garages |
| Auction Market | Garden Center or Retail Nursery |
| Beauty and Body Service | Government Office |
| Gaming Clubs | Grain & Feed Mills |
| Building Material Sales or Storage (Indoors) | Health Office, Dental Laboratory, Clinic or Lab |
| Bulk Fuel Sales Depot | Hotel or Motel |
| Coffee Shop \ Tea Stall | Household Appliance & Furniture repair service |
| Computer Maintenance and Repair | Incineration Facility |
| Computer Sales & Services | Indoor Theatre |
| Concert Hall, Stage Shows | Jewelry and Silverware Sales |
| Condominium or Apartment | Lithographic or Print Shop |
| Conference Center | Market (Bazar) |
| Construction Company | Musical Instrument Sales or Repair |
| Correctional Institution | Outdoor Fruit and Vegetable Markets |
| Counseling Services | Painting and Wallpaper Sales |
| Craft Workshop | Paints and Varnishes |
| Cyber Café | Pet Store |
| Daycare Center (Commercial or Nonprofit) | Photofinishing Laboratory & Studio |
| Department Stores, Furniture & Variety Stores | Plantation |
| Drug Store or Pharmacy | Project Office |
| Employee Housing | Psychiatric Hospital |
| Energy Installation | Refrigerator or Large Appliance Repair |
| Fabric Store | Restaurant |
| Fast Food Establishment \ Food Kiosk | Retail Shops \ Facilities |
| Firm Equipment Sales & Service | Retail Shops Ancillary to Studio \ Workshop |
| Fitness Centre | Sporting Goods and Toys Sales |
| Flowers, Nursery Stock and Florist Supplies | Sports & Recreation Club, Firing Range: Indoor |

| Conditionally Permitted Mixed Uses | Conditionally Permitted Mixed Uses |
|--|---|
| Forest Products Sales | Telephone Exchanges |
| Building Maintenance \ Cleaning Services, No | Television, Radio or Electronics Repair (No Outside |
| Outside Storage | Storage) |

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.8 Open Space

The primary uses in these areas include playgrounds, parks, and other areas for outdoor activities, sports centers, sports pitches, outdoor recreation, and landscaped areas. High standards of accessibility are essential in this zone. Accessibility standard is related to the use of that particular open space. For example, local amenity areas and playgrounds may require emphasis on access for pedestrians and cyclists. Sports Centers serving a wider catchments area will require accessibility by public transport and car users.

Purpose

To provide for the active and passive recreational needs of the city and the protection of its bountiful natural resources as well as to protect the natural and aesthetic qualities of the area for the general welfare of the community. The purpose of this zone is:

- To provide for, protect and improve the provision, attractiveness, accessibility, and amenity value of public open space and amenity areas.
- To provide for, protect, and improve the provision, attractiveness, and accessibility of public open space intended for use of recreational or amenity purposes. The only development that is incidental to, or contributes to the enjoyment of open space, amenity, or recreational facilities will be permitted within this zone.
- To preserve and provide for open space and recreational amenities. The zoning objective seeks to provide recreational and amenity resources for urban and rural populations subject to strict development controls. Only community facilities and other recreational uses will be considered and encouraged by the Planning Authority.

Land Use Permitted

Table 3. 17: Permitted Land Use for Open Space

| Permitted Open Space Uses | Permitted Open Space Uses |
|--------------------------------------|---------------------------|
| Botanical Garden & Arboretum | Playing Field |
| Bus Passenger Shelter | Social Forestry |
| Carnivals and Fairs | Special Function Tent |
| Circus | Tennis Club |
| Landscape and Horticultural Services | Transmission Lines |

| Permitted Open Space Uses | Permitted Open Space Uses |
|--|---------------------------|
| Memorial Structure | Urban-Nature Reserve |
| Open Theater | Utility Lines |
| Park and Recreation Facilities (General) | Woodlot |
| Pipelines and Utility Lines | Zoo |
| Plantation (Except Narcotic Plant) | |

Land Use Conditionally Permitted

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

Table 3. 18: Conditionally Permitted Land Use for Open Space

| Conditionally Permitted Open Space Uses | Conditionally Permitted Open Space Uses |
|---|---|
| Communication Tower Within Permitted Height | Motorized Recreation |
| Fitness Centre | Trade Shows |
| Flowers, Nursery Stock and Florist Supplies | |

Source: Compiled by the MUDP Project Team

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.9 Rural Settlement

Rural Settlement Zones are the island like isolated clusters of rural homesteads that preserve country's traditional agrarian community beside agricultural zones within development jurisdiction from indiscriminate and insane conversion into urban use so as to safeguard food security; preserve appropriate opening in between mounds that are essential to allow uninterrupted flow of annual flood water and safeguard our complex hydrological system.

The intent of this classification is to preserve, sustain, and protect rural areas and resources, particularly forest and agricultural land from suburban encroachment and maintain a balanced rural-urban environment. The retention of open lands, woodlands, plantations, and farmlands, which make up a large part of this area, are essential to clean air, water, wildlife, many natural cycles, and a balanced environment, among other things. Even more essential from an economic perspective are the agricultural lands and farming operations in this area.

Purpose

The purpose of this zone is to protect the natural environment; promote appropriate compact development and to promote creative developments that provide a range of housing styles and prices that suit the needs of local people. Isolated Rural Homestead will preserve the rural and traditional Character of the area. Isolated Rural Homestead zone will be composed of dwelling, small

shops, some special uses, and pure landscaping elements. The cluster uses that are compatible with and complementary to existing facilities, particularly with regard to food processing and warehousing and the markets, including some small-scale food retailing are permitted here.

Land Use Permitted

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

Table 3. 19: Permitted Land Use for Rural Settlement Zone

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

Source: Compiled by the MUDP Project Team

Land Use Conditionally Permitted

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

Table 3. 20: Conditionally Permitted Land Use for Rural Settlement Zone

| Conditionally Permitted Rural Settlement Uses | Conditionally Permitted Rural Settlement Uses |
|--|--|
| Artisan's workshop (Potter, Blacksmith, | Garden Center or Retail Nursery |
| Goldsmith Etc.) | |
| Emergency Shelter | Research organization (Agriculture \ Fisheries) |
| Energy Installation | Sports and recreation club, Firing range: Indoor |
| Fish Hatchery | |

Source: Compiled by the MUDP Project Team

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.10 Waterbody

Waterbody serves the natural flow of water along their alignment.

Purpose

This zone tends to preserve the flow and level of water across all seasons along with their natural alignment. Upazila area is covered by a network of natural water body including river, canal, and pond. To promote and provide environmentally safe and sound living for the people of the area and for the future generation, water body has an immensely importance. Waterbody should be preserved not only for environmental concern but also for active and passive recreation purposes.

Land Use Permitted

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

Table 3. 21: Permitted Land Use for Waterbody

| Permitted Administrative Uses | Permitted Administrative Uses |
|---|-------------------------------|
| Aquatic Recreation Facility (Without Structure) | Utility Lines |
| Fishing Club (Non-structural) | Water Parks |

Source: Compiled by the MUDP Project Team

Land Use Conditionally Permitted

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

Table 3. 22: Conditionally Permitted Land Use for Waterbody

| Conditionally Permitted Administrative Uses | Conditionally Permitted Administrative Uses |
|--|---|
| Marina \ Boating Facility | Water-based Recreation |

Source: Compiled by the MUDP Project Team

Restricted Uses

All use except permitted and conditionally permitted uses.

3.4.11 Water Retention Area

Retaining water is the main purpose of this type of Land Use.

Land Use Permitted

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

Table 3. 23: Permitted Land Use for Water Retention Area

| Permitted Uses | Permitted Uses |
|---|----------------|
| Aquatic Recreation Facility (Without Structure) | Utility Lines |
| Fishing Club (non-structural) | Water Parks |

Source: Compiled by the MUDP Project Team

Land Use Conditionally Permitted

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

Table 3. 24: Conditionally Permitted Land Use for Water Retention Area

| Conditionally Permitted Uses | Conditionally Permitted Uses |
|------------------------------|------------------------------|
| Marina \ Boating Facility | Water-based Recreation |

Restricted Uses

All use except permitted and conditionally permitted uses.

CHAPTER 04: ACTION AREA PLAN

4.1 Introduction

Development plan for the entire project is a package of Structure Plan, Urban Area Plan, Rural Area Plan, and Action Area plan. Action Area Plan is the last component of the Development Plan. Action Area Plan (AAP) is prepared as per the Terms of Reference (TOR) of the project. Proposed tourism development facilities have been presented in Action Area Plan.

4.2 Purpose of Action Area Plan

Action Area Plan deals with the projects as a part of implementation strategy. In the Structure Plan broad policies for future development have been formulated. The next step is to interpret these broad policies in terms of geographical location. Usually, Action Area Plan translates the Structure plan, Urban Area Plan, and Rural Area Plan through formulating projects and implementation procedure. Action area plan contains a description of the proposed sequence and related activities for the implementation of the development plan to ensure the planned development of the project area.

4.3 Duration and Phasing of Action Area Plan

The Action Area Plan is derived based on the policies set in the Structure Plan and components consider in the Urban Area Plan for the fulfillment of the strategies identified in the Structure Plan. Action Area Plan have prepared for the areas within the city where action is required immediately. Action Area Plan is prepared for a duration of 05 (five) years. It will not be reviewed during its tenure.

For preparing the priority list of Action Area Plan, all the development proposals have been arranged according to four phases.

Table 4. 1: Duration and Phasing of Action Area Plan

| Phasing | Duration |
|--------------|-------------|
| First Phase | 2017 - 2022 |
| Second Phase | 2022 – 2027 |
| Third Phase | 2027 – 2032 |
| Fourth Phase | 2032 - 2037 |

4.4 Action Area Plan-Project Description

4.4.1 Development of Mohamaya Lake for Tourism

Name of the Project : Tourism based Development of Mohamaya Lake

Project Location : Karerhat Union, Mirsharai Upazila

Project Area : 11 square kilometer

Priority Phase : 1st Phase

Objectives of the

Project

Project Description: Layout Plan of the project area is shown in Map 4. 1.

Tourists and local people of Mirsharai Upazila will be the major

Beneficiaries: beneficiaries. Also the people from surrounding areas can be benefited

from this project. Ultimate beneficiary is the nation.

Threat/Risk Threat/Risk There will be no environmental threats or risks if this Project is

implemented.

Implementing

Agencies

Government of Bangladesh (GoB)

Source of Fund/

Finance

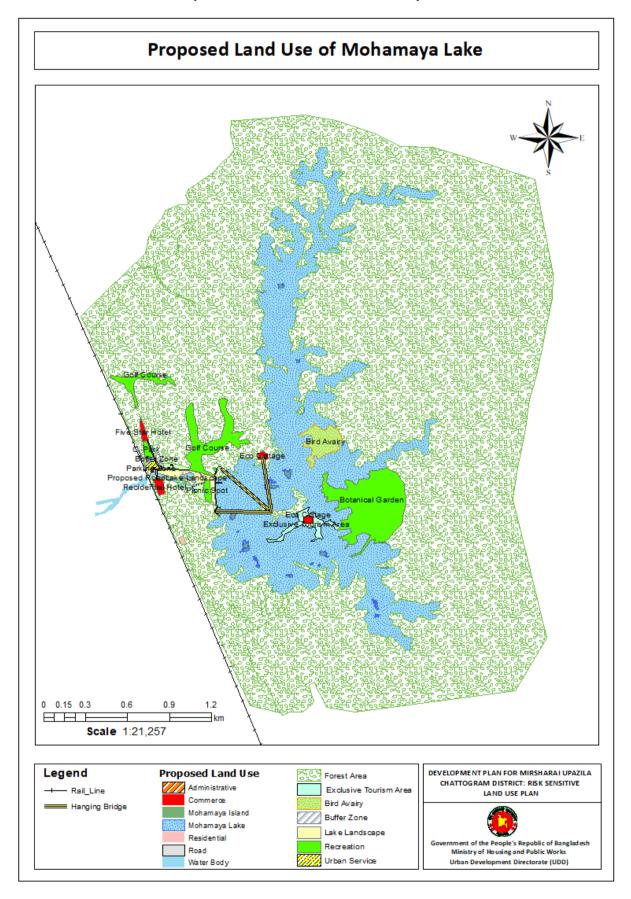
: Government of Bangladesh (GoB)

Suggested Needs and

Requirements

: Initiative should be taken immediately.

Map 4. 1: Action Area Plan for Mohamaya Lake



CHAPTER 05: CONCLUSION

5.1 Concluding Remarks

The Rural Area Plan of Mirsharai Upazila consists of the plans for Union level as identified in the Structure Plan for the Upazila. Since the Rural Area Plan is mainly indicative further measures should be taken during implementation.

In the development process of the Upazila, coordination among all local authorities within Mirsharai Upazila will be necessary for integrated development encompassing the potentials of both urban and rural areas. There is scope for local government authorities for cooperation and collaboration among themselves for local development in a comprehensive manner. It is expected that the Rural Area Plans prepared under the current project will provide essential tools for integrated development at Mirsharai Upazila.

ANNEXURE-A: PROJECT TEAM

A. Key Professionals

| Serial No. | Name | Position Assigned |
|------------|---------------------|-------------------|
| 01 | Ahmed Akhtaruzzaman | Project Director |
| 02 | Md. Ahshan Habib | Project Manager |
| 03 | Yearunnessa Khanam | Assistant Planner |
| 04 | Zakia Sultana | Planner |
| 05 | Md. Saifur Rahman | Planner |

B. Individual Consultants

| Serial No. | Name | Position Assigned |
|------------|---------------------|-------------------|
| 01 | Sikder Saeeduzzaman | Urban Planner |
| 02 | Adil Hasan | Hydrologist |

C. Supporting Staff

| Serial No. | Name | Position Assigned |
|------------|----------------------------|---------------------|
| 01 | Md. Monir Hossain | Draftsman (Grade-1) |
| 02 | S. M. Saidul Islam | Draftsman (Grade-2) |
| 03 | Md. Shahinur Rahman Sarkar | Draftsman (Grade-3) |
| 04 | Md. Nazrul Islam | Draftsman (Grade-4) |
| 05 | Md. Raju Ahamed | Tracer |
| 06 | Renu Mia | Tracer |

ANNEXURE-B: PHOTOGRAPHS





Photograph-1 & 2: "Art Competition, 2018- Children Thought About Mirsharai Upazila" at Zila Parishad Auditorium in Mirsharai Upazila under Development Plan for Mirsharai Upazila, Chattogram District: Risk Sensitive Land Use Plan (2017-2037) Project





Photograph-3 & 4: Seminar on MUDP Project at Zila Parishad Auditorium in Mirsharai Upazila





Photograph-5 & 6: PIC Meeting was held on May, 2018 under MUDP Project





Photograph-7 & 8: Conducting Urban PRA at Ward No. 07 in Mirsharai Paurashava and Ward No. 05 in Baroiarhat Paurashava





Photograph-9 & 10: Conducting Rural PRA at 01 No. Karerhat Union and 12 No. Khaiyachhara Union in Mirsharai Upazila





Photograph-11 & 12: Participation of Young Generation Group named "University Student Association of Mirsharai (USAM)"