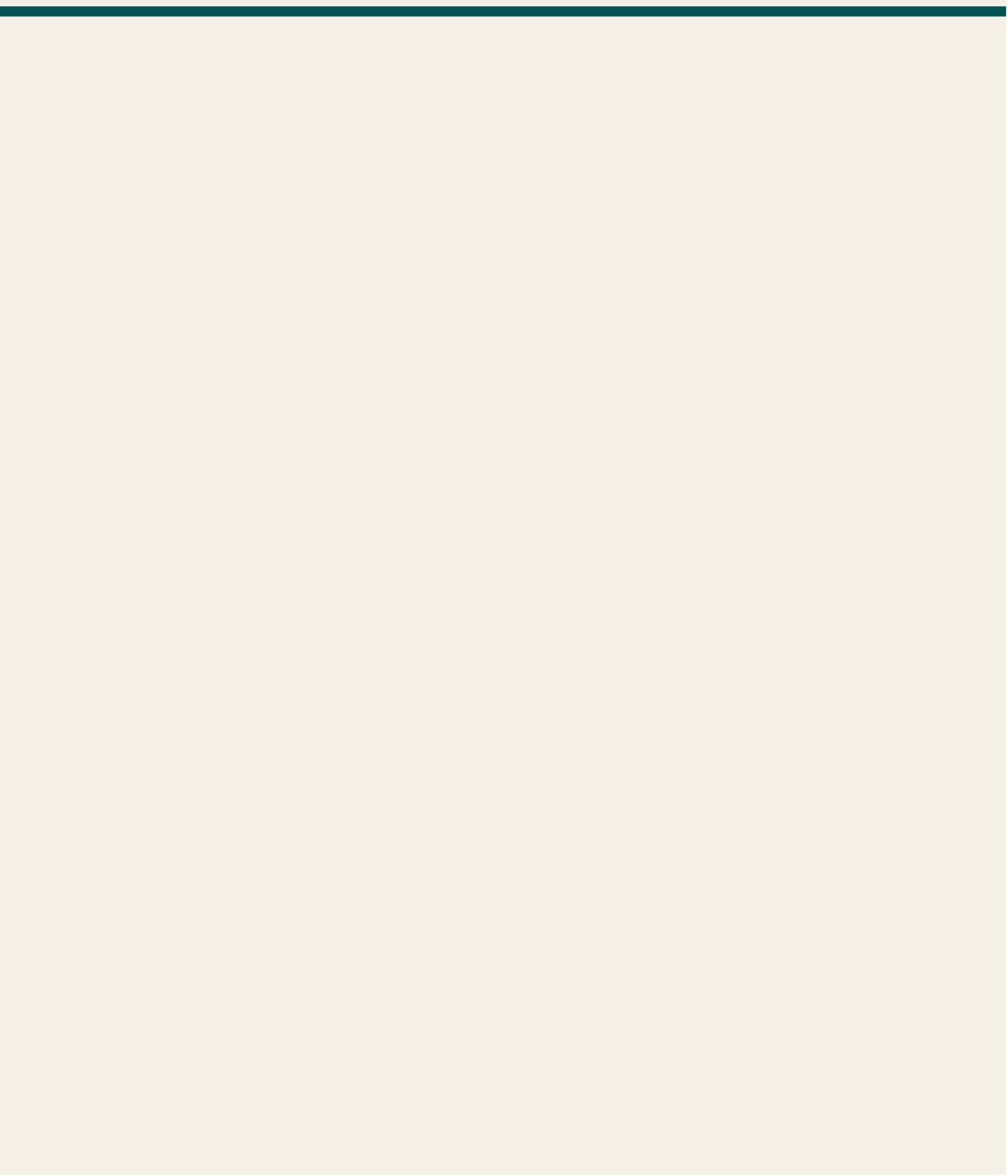
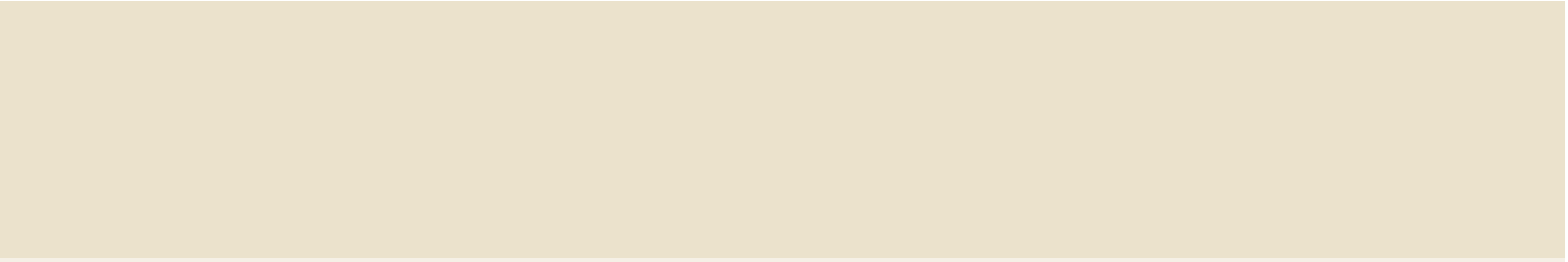


DPZ
08

HATHAZARI-RAOZAN



4.8 DPZ-08: HATHAZARI-RAOZAN

4.8.1 EXISTING SITUATION

a) Location and Administrative Boundary: The Hathazari hilly region is on the northern edge of the Chittagong District. DPZ-08 consists of the hilly region on the west and flat plains on the east. It covers an area of about 26,585 acres and lies immediately to the northern side of the Chittagong City Corporation area. To the west side, its boundary is the Sitakunda Thana and to the southwest side, its boundary is the Pahartali area and to the south side, its boundary is the Chandgaon Thana and to the east side, its boundary is the Rauzan Thana. The whole of the area covered by the Detailed Area Plan lies within Hathazari and Rauzan Thana and comprises 13 Unions.

b) Population: As per the BBS census 2001 the population of this zone was 215715. According to the population projection the total population is estimated to be 335295 in 2015. Density of this zone will rise from 11/acre in 2001 to 17/acre in 2015.

c) Land ownership: General people of the area own most lands of this planning zone. A certain amount of land is under public control as for example educational institutions. Most of the residents have their own private land and they live in their houses.

d) Socio-Economic The DPZ-08 is situated outside of the Chittagong City which is vastly rural in character. The DPZ-08 area comprises two Upazilla Headquarters Hathazari & Rauzan and a number of unions including three growth centres or extended bazaars of Hathazari growth centre, Gahira Growth Centre and Rauzan growth centre.

Educational status of the DPZ-08 area, it is found that about 29.34% have attained the primary level and 27.50% have completed the secondary level education. Secondary level education has defined as the interim period between after primary to before SSC. (Source: Socio-economic survey report of DAP project in March, 2007)

Structures in the DPZ-08 area fall into five main

categories like pucca, semi-pucca, Katcha, Tinshed and Jhupri. In the DPZ-08, Katcha and Tinshed structure are dominating feature and this is because of the DPZ-08 are located in the mostly rural area. (Source: Socio-economic survey report of DAP project in March, 2007)

In order to understand the pattern of household employment and investment activities as well as sectoral contribution to the economy of DPZ-08, it is necessary to present an overall profile of economic activities mainly in the industrial sector and agricultural sector. Agriculture as a whole including crops, livestock and poultry and fish cultivation, accounts for around 23.54%; there are about 15.67% day labour and around 4.69% are employed in informal activities (Source: Socio-economic survey report of DAP project in March, 2007)

According to the Socio-economic survey report of the DAP project 2007, business, trade and agricultural goods are the dominant sources of household monthly income accounting for around 42.91% of the total household monthly income. Income from wages and salaried job accounts for around 27.32%, cottage industry and professional services accounts for around 0.85%, agriculture as a whole, including crops, livestock and poultry and fish cultivation, accounts for around only 17.45%.

4.8.2 EXISTING LAND USE AND DEVELOPMENT STATUS:

According to the field survey 2005-2006, the study area exhibits an admixture of a variety of land uses of rural character. This area has been developed as spatial growth of rural character comprising housing, commerce, industries, institutions, and services. The remote areas not having good accessibility, far away from the major roads have remained with their original rural character comprising homestead, farmland, fellow land and areas of water bodies. The following table shows the existing land use features of the DPZ-08.

In accordance with the land use survey it is seen

that the present predominant land uses of the study area are agriculture, fisheries, hilly area and vacant land. Other important land uses are water body & residential use. Figure 4.15 shows the existing land use of the study area.

a) Residential: Residential use comprises an area of 1778 acres (6.69%) of the total area of DPZ-08. The survey result shows that residential use is the major portion amongst the different land uses of DPZ-08. A total of 48088 dwellings are in this area of which 18.77% pucca, 22.27% semi pucca, 4.39% tinshed and 54.57% katcha.

b) Industrial: In this DPZ, many scale industries have been developed around the hilly area as well as along the Hathazari Road that includes general

d) Mixed use: Mixed land use area primly covers residential with commercial or commercial with residential with office or admixture of all the three. In addition, other admixture of diverse land uses is also observed. Approximately 12 acres (0.05%) of DPZ-08 is covered by this category.

e) Topography and Drainage: Some area is geologically flat as well as encompasses a large number of Ponds, khals and agricultural land and some areas are geologically high with a large number of hills in the area. East side of the area covers flat area and consequently, this portion of the study area is flood prone and water remains for few weeks during the rainy season because of the hill storm water. West side of the area covers

Table 4.10: Existing land use features of DPZ-08

Sl. No	Type of use	Area (in acre)	Percentage
1.	Agriculture and Fisheries	15072	56.69%
2.	Commercial Activity	53	0.2%
3.	Education and Research	32	0.12%
4.	Hilly land	2656	10%
5.	Manufacturing & Processing	162	0.61%
6.	Miscellaneous	75	0.28%
7.	Mixed Use	12	0.045%
8.	Office Use	8	0.03%
9.	Open/Community Space	82	0.31%
10.	Residential	1778	6.69%
11.	Restricted	--	---
12.	Service Facilities	9	0.03%
13.	Transport & Community	377	1.42%
14.	Vacant Land	3680	13.84%
15.	Water Body	2589	9.74%
TOTAL		26585	100%

Source: Land use survey, 2006-2007

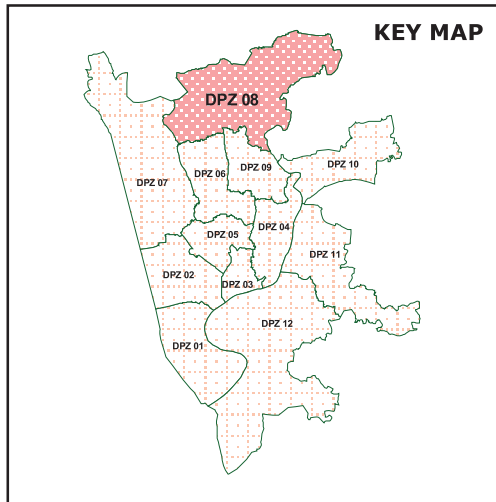
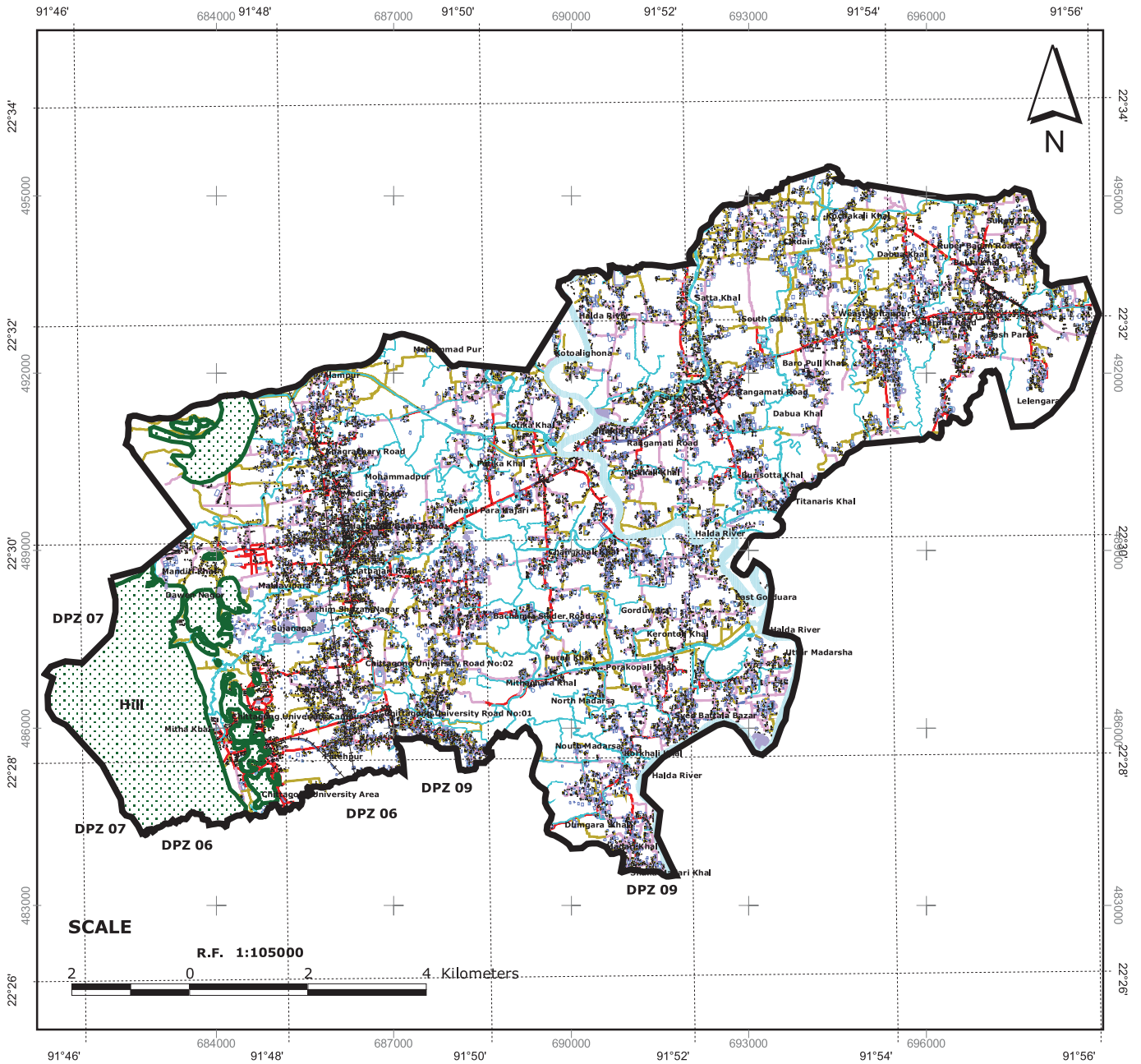
manufacturing plant, garments, different types of factory and food silos etc. A land of 162 acres (0.61%) of DPZ-08 is covered by industrial use.

c) Commercial: There are some commercial activities seen in this DPZ such as retail shops, wholesale shops and other categories, which have been developed in ribbon shape along the major road. This category covers some 53 acres (0.20%) of DPZ-08.

the hilly region. This part of the area is vulnerable to landslides. Some khals and branches, which cross the area, are important natural drainage courses. In addition to the khals a significant number of ponds work as storm water reservoir during the monsoon period.

f) Transport: An analysis on the circulation pattern shows, there is no major arterial road

FIGURE 4.15: EXISTING LAND USE MAP OF DPZ- 08 (Hathazari-Raozan)



LEGEND

<p>Existing Structure</p> <ul style="list-style-type: none"> Residential Commercial Activity Community Service Education & Research Governmental Services Manufacturing and Processing Activity Miscellaneous Mixed Use Non Government Services Service Activity Transport & Communication Agriculture <p>Existing Road</p> <ul style="list-style-type: none"> Pucca Road Semi-pucca Road Katcha Road Railway Line 	<p>Existing Waterbodies</p> <ul style="list-style-type: none"> Marshland Ditch Pond Khal River Drain <p>Other Use</p> <ul style="list-style-type: none"> Hilly Area Other Use
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network in this planning zone. Due to the less proportion of residential, industrial and mixed uses, a proper transport network has not yet been developed in DPZ-08. Tertiary and access roads available in the zone are also inadequate and very narrow. Again the existing roads do not make any circulation network system. This category covers an area of about 377 acres (1.42%) land of DPZ-08.

g) Community Facilities: Community facilities cover all land uses where public gathering takes place. This category of uses includes educational institutions, hospital/clinic/dispensary, park & playground, post office, police station, fire station, town hall, all kinds of assembly hall, prayer halls including mosque, temple, church, pagoda, community centre, mazaar, graveyards, cemetery, religious sites etc. It constitutes about 82 acres (0.31%) of DPZ-08.

h. Utility services: The water supply network is not sufficient in this planning area. There are various sources of water supply found in the DPZ-08 area. Tube well is predominant source for drinking water supply. A certain number of households depend on community tube well for safe drinking water. Shallow tube wells or open ponds, are prime water source in the slum areas and these supply sources are often polluted and unclean.

No piped sewerage system is seen in Chittagong. Some buildings have septic tanks but the majority of sewage is discharged directly to khals or deposited in open latrines.

There is no proper solid waste management system in DPZ-08. Households dump waste indiscriminately along the roadside; drain, pond and khal that pollute water body. This unsanitary

Table 4.11: Existing community facilities of DPZ 08

Community Facilities	Existing Features (Unit/No)	Area (in acre)
Police Box	3	0.17
Post office	2	0.05
Hospital	1	1.25
Clinic	11	2.15
Market	9	3.15
Bank	5	0.43
Cinema hall	1	0.98
Community Centre/Club house	7	0.62
Graveyard	113	17.52
Mosque	161	18.95
Temple	36	4.01
Crematorium	1	0.23
Mazar/Dargah	7	0.92
Primary school	68	9.92
Secondary school	17	5.1
College	2	1.14
NGO school	13	0.4
Madrassa	17	1.15
Park	---	---
Playground	14	5.06
Corner shop	532	7.95
Water pump house/Water reservoir	7	0.67
Signal house/Cyclone centre	2	0.14
Petrol pump	2	0.47
Total	1031	82

Source: Land use survey, 2006-2007

situation leads widespread pollution that causes tremendous health hazard.

Cylinder Gas and electricity supply are available to all developed parts of the area. But a large number of poor households cannot have this opportunity because of less financial affordability rather than they cook food in traditional mud made oven.

i) Agriculture: It comprises different types of agricultural uses such as paddy field, cropland, grazing land, orchard, horticulture, fisheries, nursery, farmland, poultry, cattle farm etc., which combined accounts for around 15072 acres (56.69%) land of DPZ-08. About 137 poultry farms and a considerable number of fisheries play a great role in local economy of DPZ 08.

j) Vacant land: Vacant and unused lands are important characteristics of this planning area. it comprises land with no apparent use or unused land, low-lying areas etc. The vacant land constitutes about 3680 acres (13.84%) within the DPZ 08. A little portion of agricultural land is converted into non-agricultural use because of land selling from farmers to non-farmers.

4.8.3 EXISTING ENVIRONMENTAL ISSUES:

The major environmental concern in this DPZ area is water body. The water bodies like river, pond, khal, ditch spread all over the area that encompasses approximately 2589 acres (9.74%) of DPZ-08 as shown Table 4.10. A lot of small hilly regions are remained in this area and it covers 2656 acres (10%) of DPZ 08.

4.8.4 HIGHER LEVEL PLANNING:

a) Structure Plan 1995: Structure plan has identified Hathazari Thana as one of the future agricultural expansion areas of the DAP Area taking into consideration various policies on population, economy, spatial development opportunity, community facilities, transportation, infrastructure services, flood and drainage, urban land development, environment and prestige projects. According to the Structure Plan, 3-growth centre were proposed in this zone namely

Hathazari growth centre, Gahira growth centre and Raozan growth centre.

b) Urban Development Plan 1995: The following issues, problems, opportunities and required actions have been recognized at DPZ-08, which are clarified through observation.

Major issues and problems

- Many formal developments have been commenced in the area but have not been completed-mainly through lack of a mechanism for the planned development of the areas as a whole.
- Presence of slum and squatter areas.
- Environmental problems caused by hill cutting for creation of developable sites, for mining of sand for building purposes and for extraction of clay for brick making.
- Pollution caused by industries in the industrial area.
- Pollution caused by brick kilns.

Opportunities

- Proximity to the existing urban area.
- Identified in the Structure Plan as one of three preferred locations for peripheral expansions.
- New east west and north-south road links proposed in the Structure Plan to “open up” the area for development.

Actions Required

- Identify and establish a mechanism to enable the whole area to be developed in a timely and coordinated manner.
- Redefine the eastern boundary of the proposed regional park and maintain it as the western boundary of development in this area.
- Identify alignments for the proposed east-west and north-south links and adopt reservations for them.
- Implement the transport proposals of the Immediate Action Plan and the Long Term Development Strategy.
- Implement afforestation schemes in association with the hilly area.

Priority Actions Required by Area

- Prepare a Detailed Plan for the whole area. This should concentrate on the mechanism required for its timely and coordinated development.
- Identify alignments for the proposed east-west and north-south lines and adopt reservations for them.
- Implement the transport proposals of the Immediate Action Plan and the Long Term Development Strategy.
- Implement afforestation Schemes in Association with the Hilly Area.

4.8.5 DETAILED AREA DEVELOPMENT PROPOSAL:

The following development proposals have been shown in *Figure no 4.16*.

As a large-scale peripheral expansion of the area, we recommend that the area covered by the Detailed Plan should contain a wide use of agriculture and fisheries related use and residential use. Taking into consideration all the demand for different activity, the present study of DAP recommends around 26585 acres land in DPZ-08. The table 4.11 shows proposed land use of the DPZ-08:

a) Residential (Housing) & Ancillary: Due to the land scarcity, Chittagong city is now extending to its urban fringe areas and Hathazari & Rauzan Thana are the urban fringe area. As a result, haphazard growths of residential areas are developed here. In the present study of DPZ 08, an initiative is taken to determine the proper location of future housing development and ancillary use for the people with some guidelines. It is indispensable to mention that almost land of these areas is flat. This is why, so before taking any housing project land development is necessary, as it requires demand in different parts of the study area. About 9931 acres land is proposed for residential and ancillary use.

b) Mixed Use: Growth centre is such place where economic activities grow. Considering enhancement of economic activities, three growth

centers such as Hathazari, Gahira and Rauzan have been recommended as mixed use areas. These areas will be focal point of economic activities where predominantly commercial use will be allowed. In addition to that, residential use, small scale light industry, community facilities and other urban amenities will also be permitted in these areas. Required number of access road with proper width, traffic circulation and parking facilities are to be provided.

Hathazari union and Rauzan union are proposed for 1st category growth centre and Gahira are proposed for 3rd order growth centre.

c) Education: The existing Chittagong University (CU) will remain here as educational institution.



Pic. 4-46 Chittagong University Campus.

d) Drainage: Storm Water Drainage and Flood Control Master Plan, 1995, did not propose any specific measures to be implemented to alleviate the drainage problem in the DPZ 08 area. The DAP study has identified the drainage works to be done for DPZ-08.

DAP proposals:

1. Rehabilitation of Fotika Khal, Boalia Khal, Sarta Khal, Kochakali Khal, Dabua Khal, Belua Khal, Madari Khal, Dumgara Khal, Bazury Khal, Korkali Khal, Gour Ali Khal, Meghal Khal, Burali Khal, Mithachara Khal, Changkhali Khal, Gour Duara Khal, Pur Awlia Khal, Kerontali Khal, Buri Satta Khal and Titanaris Khal having a total length of about 171.54 km. are proposed. Their locations are identified in the proposed land use

FIGURE 4.16: PROPOSED LAND USE PLAN OF DPZ- 08 (Hathazari-Raozan)

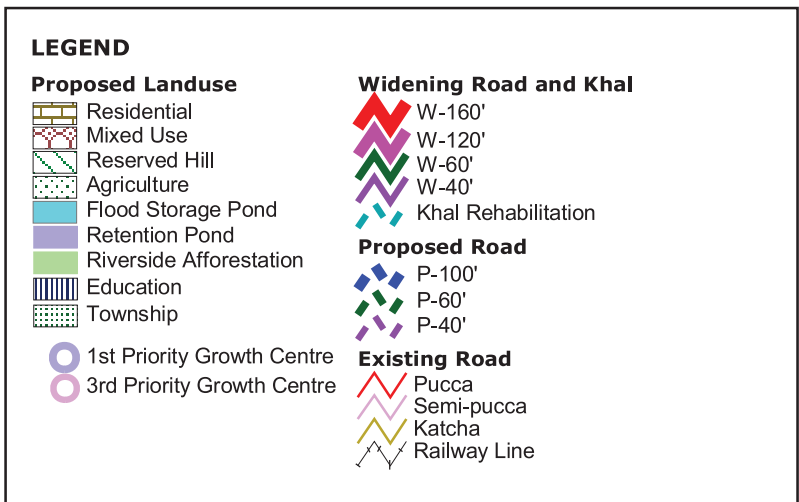
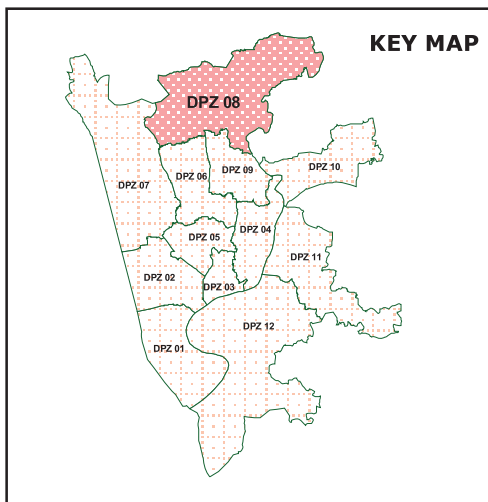
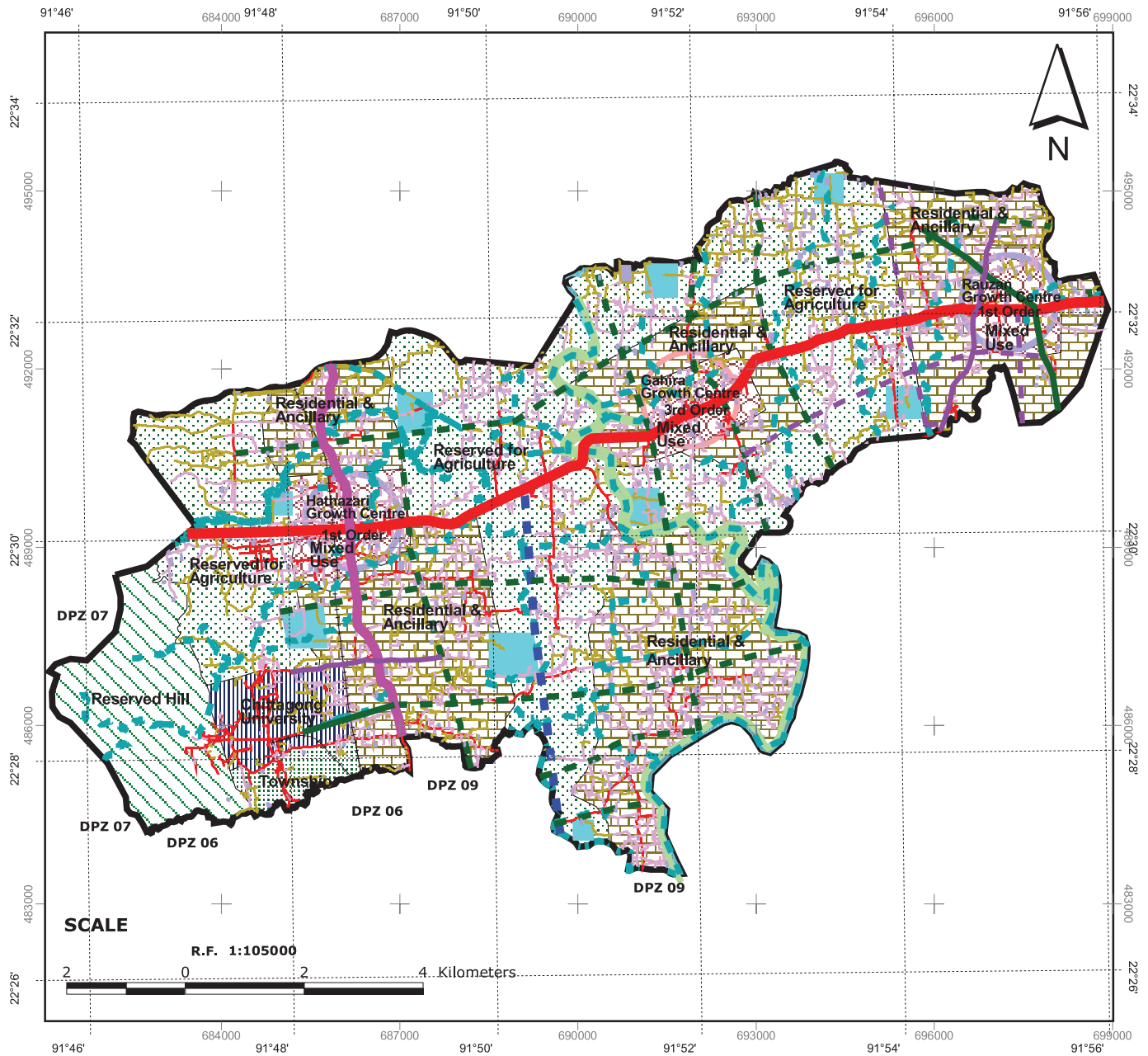


Table 4.12: Proposed land use features of DPZ-08

Sl. No	Type of use	Area (in acre)	Percentage
1.	Residential & Ancillary	9931.35	37.36%
2.	Mixed Use	2002.07	7.53%
3.	Education	781.22	2.94%
4.	Proposed Township	384.29	1.45%
5.	Reserved Hill	1957.43	7.36%
6.	Agriculture	11246.05	42.30%
7.	River side Afforestation	282.59	1.06%
TOTAL		26585	100%

Source: Land use survey, 2006-2007

plan Figure 4.16 of DPZ 08.

2. Retaining and preservation of 461 ponds of 0.5 acres and above are proposed. The accumulated size of these existing ponds proposed to be preserved equal to approximately 364 acres. Their locations are identified in the proposed land use plan Figure 4.16 of DPZ 08.
3. 9 new flood storage ponds / flood plains measuring about 877 acres are proposed. Their locations are identified in the proposed land use plan Figure 4.16 of DPZ 08.
4. Following drainage guiding principles/guidelines C at page 3-3 remaining drainage network is proposed and identified in the proposed land use plan of Figure 4.16
5. Where not shown specifically in the proposed land use plan map, drainage guiding principles/guidelines will apply.

e) Transportation:

The long-term development strategy for traffic and transportation contains two major proposals, which will contribute in improving accessibility and encourage the development of DPZ-08. Figure 4.16 illustrates the proposed road network for the DPZ-08. The details are indicated below:

Primary Roads (District Distributor Roads): It is proposed to widen the east-west Hathazari-Rangamati Road to have a ROW of 160 ft which will be the major primary road. In addition, the north-south Hathazari-Khagrachari Road is proposed to be widening having a ROW of 120 ft. Another new primary road having a ROW of 100 ft

is proposed parallel to Chittagong –Hathazari Road, on the east side, at a distance of around 2 km.

Secondary Roads (Other Distributor Roads):

In order to improve the circulation within this DPZ, a number of secondary roads (other distributors) have been proposed. Three such secondary roads having ROW of 60 ft are proposed between Hathazari-Chittagong Road and the new proposed parallel north-south road. A few more secondary roads having ROW of 60 ft are proposed in north-south direction across the Hathazari-Rangamati Road.

f) Township: This site identified in figure 4.16 is recommended for township development.

g) Agricultural land: Because of the fertile land, east side of the Hathazari growth centre and Gahira growth centre are proposed for the agricultural land and for this, about 12074 acres of lands are reserved for agriculture use.

h) Afforestation: A linear 200ft afforestation programme has been proposed along the Halda River. This afforestation programme may also incorporate other trees and bamboo for systemic felling for building purposes.

i) Reserved Hill: The hills within the DPZ-08 area have been designated as a part of the Strategic open space area and for this, About 1957.43 acres hilly lands of this zone are reserved for open space.

4.8.6 ENVIRONMENTAL PROTECTION AND ENHANCEMENT:

Massive water logging, industrial pollution (water), lack of green belt, loss of water bodies such as ponds, khals and open spaces are the major considerations in the future development activities of this zone. Some of the guiding principles are as follows:

Protection of existing hill areas: No hill cutting and no forest clearing would be allowed in the existing hilly areas. Such hill landscape should be preserved under the guideline of strategic open space area.

Green belt along khals: All major khals should be rehabilitated, and bank lines marked and fixed. Along the bank line there should be a buffer zone of green belt as per drainage guiding principles in Chapter 3.

Protection of water bodies: All the water bodies and pond must be preserved under the guidelines of water body preservation (Chapter 3).

Green pathways: All along the natural khals and creeks a width of 100 ft. land will be kept free from all development and turned into a green walkway

Implementing Agency: CDA/BWD /CCC/ Forest Dept / CBOs/ NGOs

