Table 2-4: Number of Different Types of Industries in the Project Area

Union	Number of Building for Industrial Use			
	Heavy	Medium	Light	Total
Kalatia (Partial)	0	0	3	3
Ruhitpur (Partial)	0	1	15	16
Sakta	0	7	36	43
Taranagar (Partial)	0	1	9	10
Total	**0**	**9**	**63**	**72**

Source: Physical Features Survey 2005-2006

2.1.1 Utility Services

Water Supply System

Table 2-5 shows that tubewell is the main source of water supply all over the area. Most of the houses has own hand tubewells that provide necessary water supply for the people. However, there are some multi storied buildings that has own water reservoir to provide water supply. They use private motor to store water in their water reservoirs. Beside these about twentyseven (27) deep tube-wells and three (3) pump houses are available in the project area, which are being used for irrigation purposes.

Table 2-5: Water Supply Facilities

Union	Deep Tube-well	Overhead Tank	Pump House	Total
Kalatia (Partial)	12.00	0.00	1.00	13.00
Ruhitpur (Partial)	1.00	0.00	0.00	1.00
Sakta	4.00	0.00	2.00	6.00
Taranagar (Partial)	10.00	0.00	0.00	10.00
Total	**27.00**	**0.00**	**3.00**	**30.00**

Source: Physical Features Survey, 2005-2006

Sewerage System

Sewerage system is a drainage system that carries sewage, waste and polluted water from the household latrines, community latrines and other wastewater. It is very important component from the environmental point of view. But, no sewerage system exists in the project area. Most of the households are using pucca and semi-pucca sanitary latrines that are mostly built on own initiatives and others are provided by NGOs. They build individual septic tanks for disposal of human excreta.

Gas Supply System

The gas supply system does not cover the project area.

Electricity

Electricity is supplied in the project area by PDB by the 11 KV lines. The high voltage electricity is used for industrial purposes and low voltage electricity is used for residential purposes. The physical feature survey reveals that there are about 9.17 km. high voltage electricity and 119.85 km. low voltage electricity supply network is available in the project area.

Electric poles of different sizes exist in the project area to carry power network. They cover almost every union in the project area. High voltage towers are distributed evenly and transformers are used to transform the high voltage to low voltage for distributing to the clients. There are HT/LT transformer stations, which step down high voltages into low voltages and reach various mohallah, villages and community areas through this electric supply line. Union wise electricity supply is shown in Table 2-6.

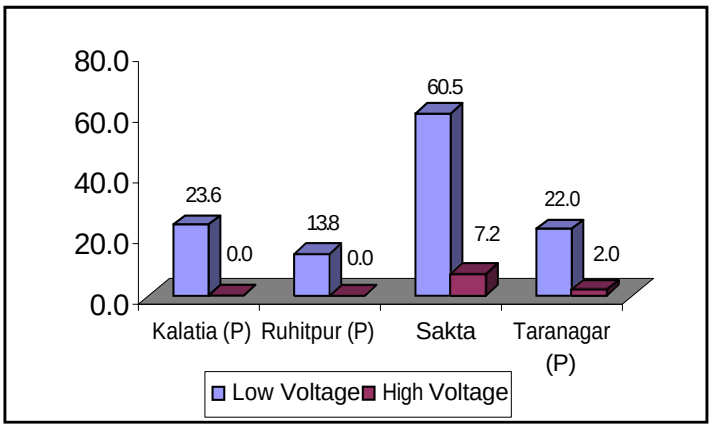


Figure 2-1: Existing Electricity Supply Network of the Project Area (in km)

Source: Physical Features Survey, 2005-2006

Table 2-6: Electricity Covrage of the Project Area

Union	Length of Electricity in Km.	
	Low Voltage	High Voltage
Kalatia (Partial)	23.63	0
Ruhitpur (Partial)	13.79	0
Sakta	60.47	7.16
Taranagar (Partial)	21.99	2.01
Total	**119.88**	**9.17**

Source: Physical Features Survey, 2005-2006

The existing electricity network is not sufficient for the project area. In most of the remote areas, the electricity network is absent. Beside these, the existing users are not satisfied with the present electricity supply; because most of the time they have to suffer for load shedding.

Garbage Disposal

The project area is located out side of municipal area, so the overall garbage disposal system of the project area is not satisfactory. There is no provision for the disposal of household and other solid waste. Most of the dwellers dispose their garbage sporadically and some times, it is used to produce compost in unhealthy manner, which reduces the aesthetic view of the respective area. For the lack of final disposal site, the daily gathered waste is polluting the surrounding environment continuously.

Tele- Communication

The Tele-Communication system is provided by BTCL through Telephone exchange located in different points of the project area. Extensive mobile network introduced by private companies has met the short falls experienced in the government sector operated Telephone system.

2.1.2 Infrastructure: Physical

Road Network

The physical feature survey of existing road network revealed that various types of road exist, having different width and not follow any proper circulation pattern. There are different categories of roads like pucca, semi-pucca and katcha roads in the project area. The total length of roads, linking different unions of the project area, is 127.86 km and among them pucca roads are 60.86 km where maximum pucca road is available in Sakta union (18.31 km). The condition of roads is not same in all unions in the project area. Some roads are good and some are in poor condition. The length of semi pucca

roads is about 28.08 km in the project area. The rest of the roads is katcha which are rural roads and its length is 60.86 km. Sakta union is covered by maximum katcha roads (30.03 km). Union wise road network is shown in theTable 2-7 and **Map 2-4**.

Table 2-7: Union-wise Road Network in the Project Area

Union	Road Length in Km.			
	Pucca	**Semi-Pucca**	**Katcha**	**Total**
Kalatia (Partial)	7.81	2.74	15.08	25.63
Ruhitpur (Partial)	5.93	1.24	7.62	14.79
Sakta	18.31	17.14	30.03	65.47
Taranagar (Partial)	6.88	6.97	8.14	21.98
Total	**38.92**	**28.08**	**60.86**	**127.86**

Source: Physical Features Survey, 2005-2006

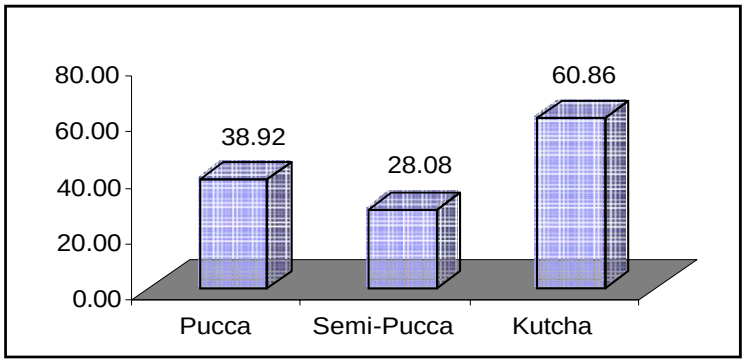


Figure 2-2: Road Length in the Project Area (in km.)
Source: Physical Features Survey, 2005-2006

The analysis of circulation network shows that there is no planned circulation pattern in the project area. Due to the preponderance of low residential, industrial and mixed land uses, transport network have not been developed in a planned manner. Tertiary and access roads are also inadequate and very narrow. Again, none of the existing roads has followed any proper circulation pattern. Within the project area, a number of agencies have some responsibilities for the provision, operation and maintenance of roads. These include:

- **RAJUK:** RAJUK is responsible for construction of new roads and widening of important existing roads in the DMA as well as construction of roads in newly developed housing estates.
- **LGED:** LGED is responsible for construction and maintenance of national and regional highways and roads.
- **RHD:** RHD is responsible for construction and maintenance of some major roads.

Foot Paths and Road Islands

In the project area, there is no specific footpath along the roads. Only part of the roads is used as walkways.

Drainage

The physical feature survey revealed that only natural drainage exists in the project area. The total length of natural drain is about 55.77 km., which includes both river (5.09 km.) and khal (50.68 km.). Most of the khals are passed through the Kalatia and Sakta union, which are 16.07 km. and 22.83 km respectively and are shown in Table 2-8. However, man-made drain is totally absent in the project area except 0.30 km. of katcha drain.

Table 2-8: Drainage Channel of the Project Area

Union	Pucca drain	Katcha drain	Khal	River	Total
Kalatia (Partial)	0.00	0.00	16.07	0.00	16.07
Ruhitpur (Partial)	0.00	0.06	4.78	0.00	4.84
Sakta	0.00	0.24	22.83	5.09	28.16
Taranagar (Partial)	0.00	0.00	7.00	0.00	7.00
Total	**0.00**	**0.30**	**50.68**	**5.09**	**56.07**

Source: Physical Features Survey 2005-2006

The physical feature survey revealed that only natural drainage is available in the project area. Total length of natural drain is about 69.54km includes both river (8.48km Buriganga river) and khal (61.05km) and its total area is about 728.4 acres. Existing drainage network is shown in **Map-2-5**.

Table 2-9: Existing Waterbodies of the Area

Type	Number	Area (Acre)	Percentage
River	1	371.2	36.3
Khal	12	357.2	35.0
Pond	331	127.7	12.5
Marshland	28	122.2	12.0
Ditch	120	43.1	4.2
Irrigation Canal	1	0.1	0.0
Total	**493**	**1021.5**	**100.0**

Source: Physical Features Survey, 2005-2006

2.1.3 Infrastructure: Social

Educational Facilities

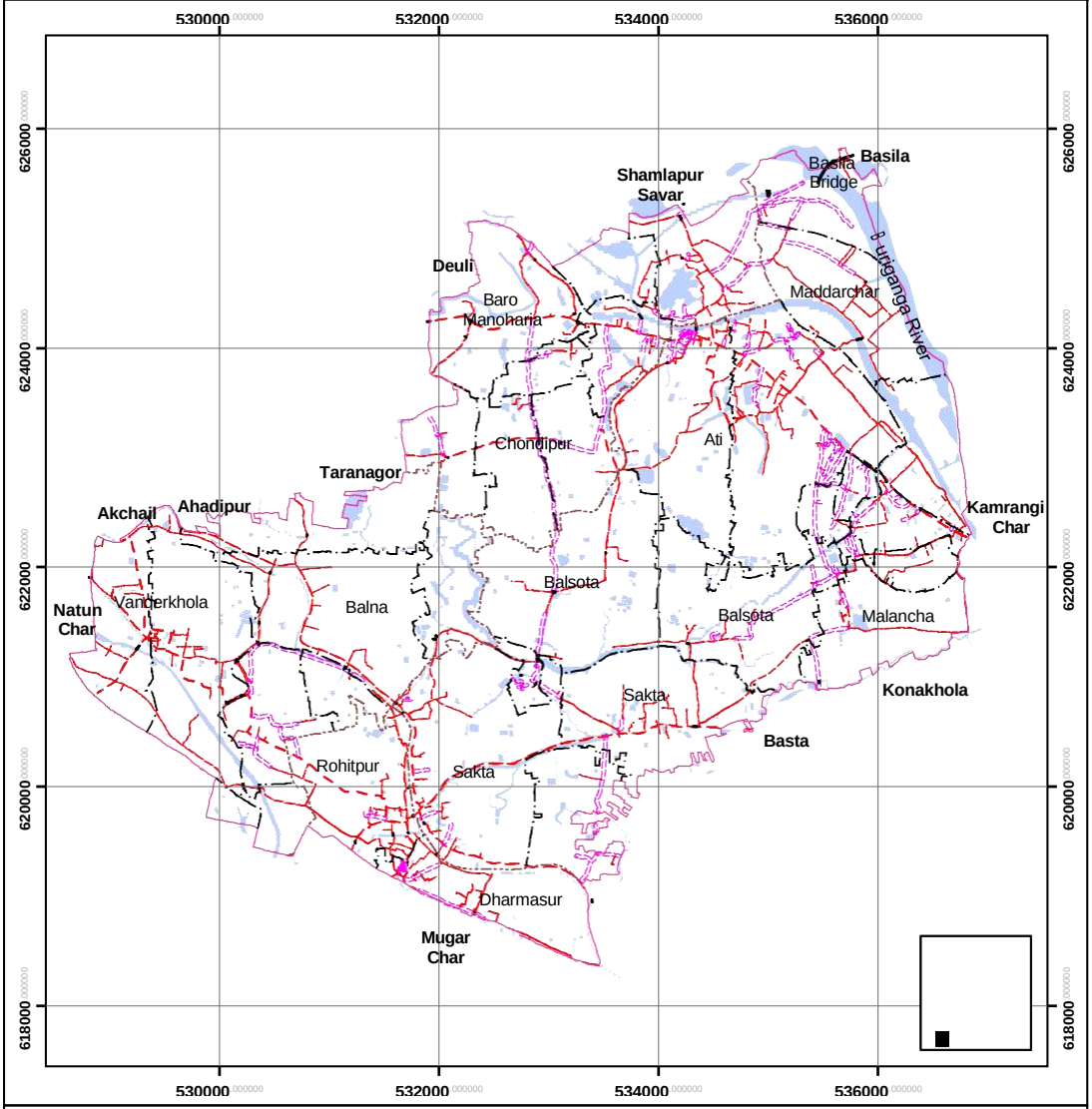
Educational institution, which includes school, college, madrasha, university, training centre etc., is an important issue for an area. From the physical feature survey 45 various educational institutions have been identified in the total project area**.** Among them, there are 20 primary schools, 7 secondary schools, 3 colleges and 15 madrasha, which are scattered in different location of the project area. The location of educational institution is shown in **Map-2-6.** In the project area, Sakta union has seven primary schools, five secondary schools, two colleges and eight madrashas. Higher educational institutions like university; training centre is absent in the project area.

Table 2-10: Different Types of Educational Institutions

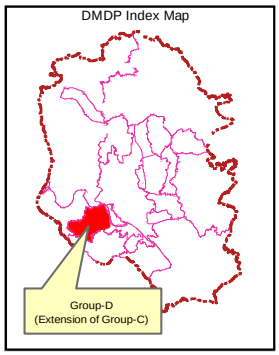
Union	Number of Educational Institution						
	School		College	Madrasha	University	Training centre	Total
	Primary	Secondary					
Kalatia (Partial)	3	0	0	5	0	0	8
Ruhitpur (Partial)	5	1	1	1	0	0	8
Sakta	7	5	2	8	0	0	22
Taranagar (Partial)	5	1	0	1	0	0	7
Total	**20**	**7**	**3**	**15**	**0**	**0**	**45**

Source: Physical Feature survey 2006

Map 2-4: Existing different types of Road Network of the Project Area



Preparation of Detailed Area Plan (DAP) for DMDP Area [Group-D (Extension of Group-C)]



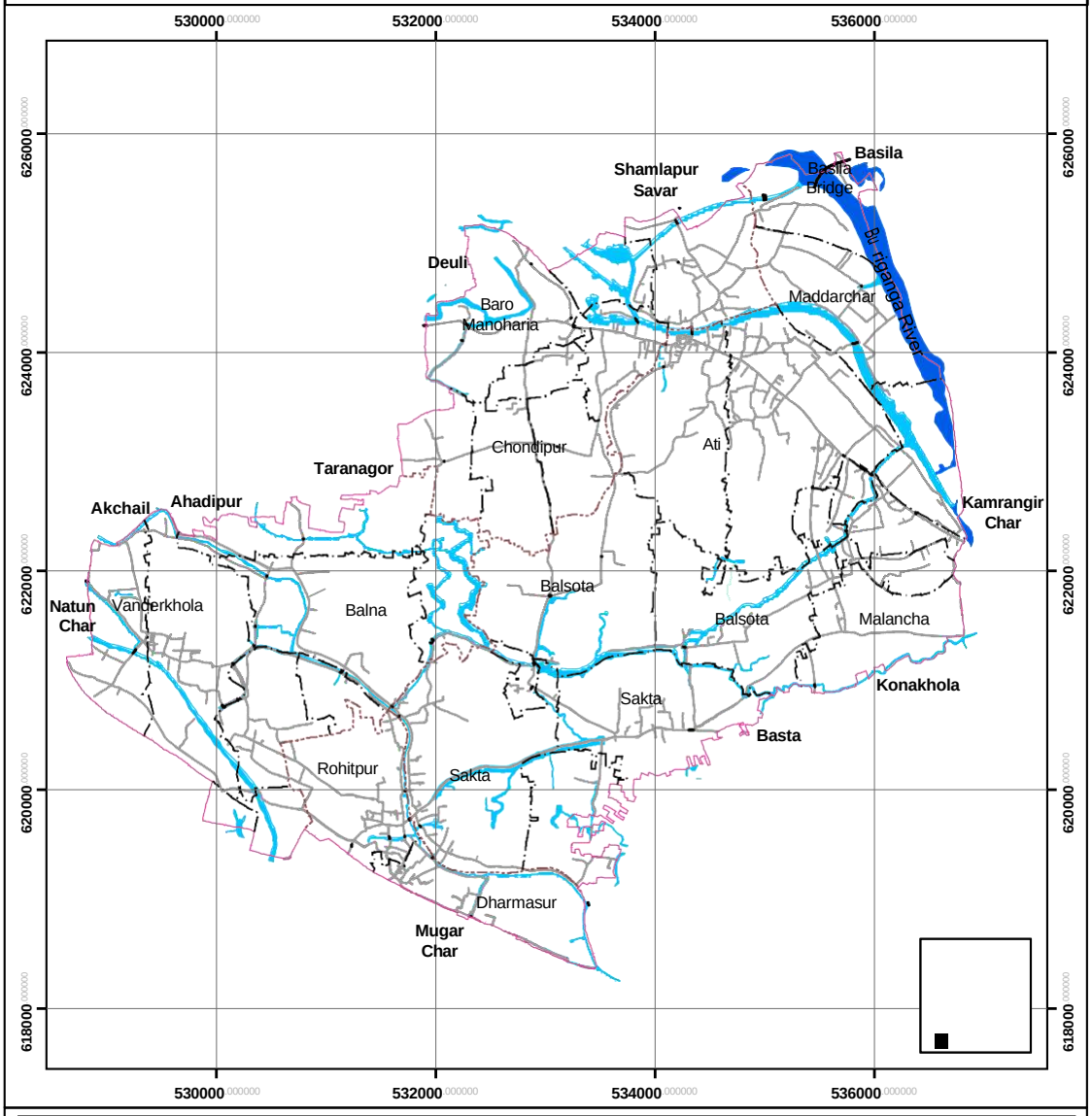
0 625 1,250 2,500 3,750 5,000 Meters

Legend

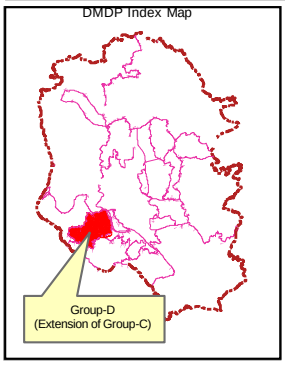
Group boundary
Union boundary
Mauza boundary
Sheet boundary
bridge_poly
Waterbody
Road Type
Road (Pucca)
Road (Semi-pucca)
Road (Katcha)

Source: Physical Features Survey, 2005-06

Map 2-5: Drainage Network in the Project Area



Preparation of Detailed Area Plan (DAP) for DMDP Area [Group-D (Extension of Group-C)]



0 625 1,250 2,500 3,750 5,000 Meters

Legend

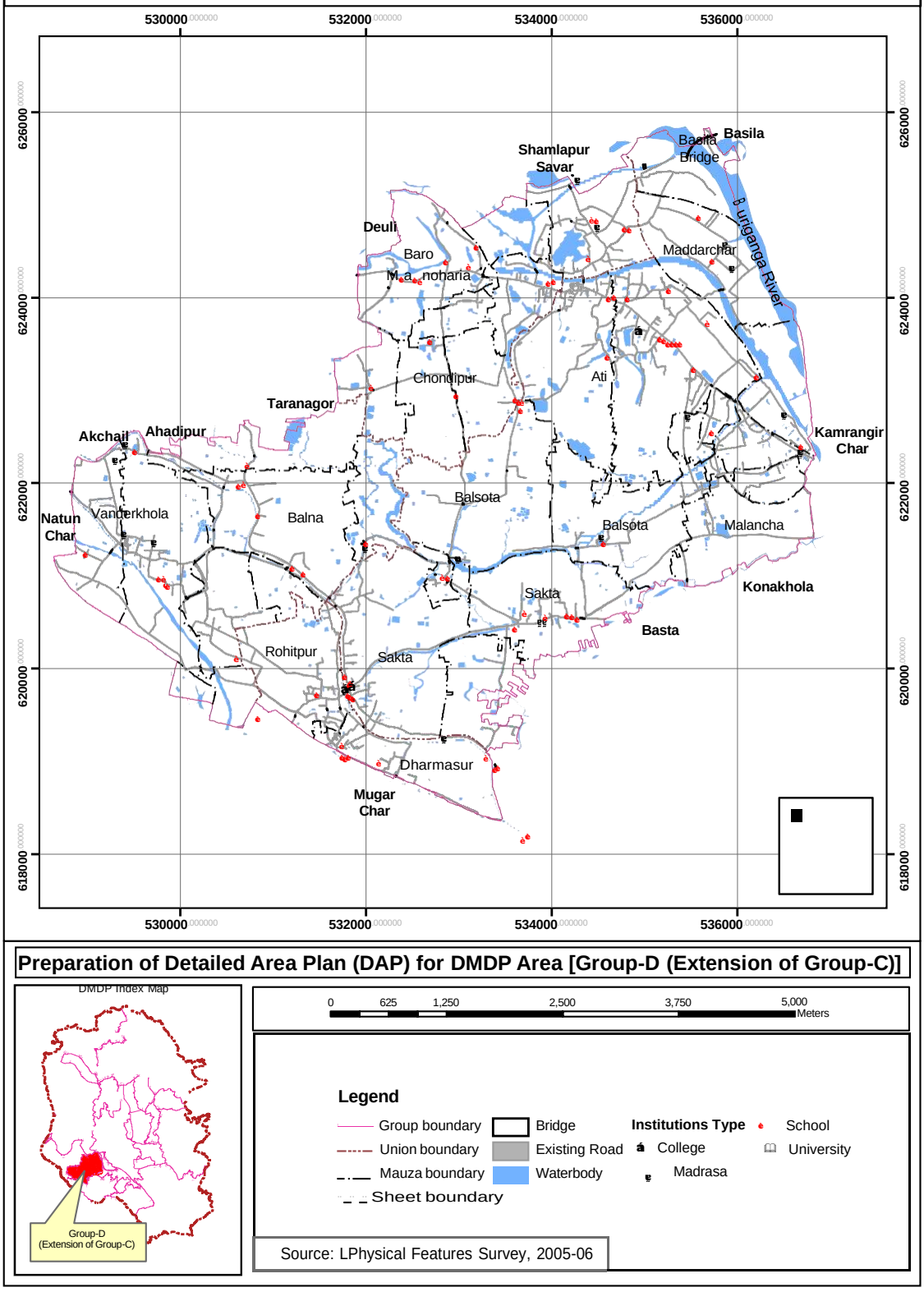
- Group boundary
- Union boundary
- Mauza boundary
- Sheet boundary
- bridge_poly
- Existing Road

Natural Drainage Type

- Irrigation canal
- Khal
- River

Source: Physical Features Survey, 2005-06

Map 2-6: Location of the Educational Institution



Map 2-7: Location of Religious and Health Services in the Project Area