

URBAN DEVELOPMENT DIRECTORATE
MINISTRY OF WORKS
GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

LAND USE PLAN
MITHAPUKUR UPAZILA SHAHAR
RANGPUR ZILA

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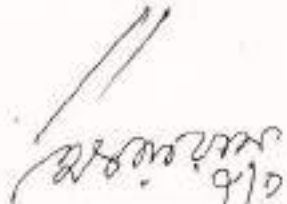
ENGINEERING - PLANNING - RESEARCH - DEVELOPMENT

প্রতি : পরিচালক,
নগর উন্নয়ন অধিদপ্তর,
৯২, মেগনাবাগিচা,
ঢাকা।

মিঠাপুকুর উপজেলা মহর প্রান এবং রিপোর্টের উপর মনুবা।

কনসালটেন্ট মেম্বার্স গনি বাংলা লিমিটেড কর্তৃক মিতাপুকুর উপজেলা
মহরের খসড়া প্রান ও রিপোর্ট আমরা উপজেলা পর্যায়ের পর্যালোচনা করেছি।

খসড়া প্রান ও রিপোর্ট আমাদের নিকট গ্রহণযোগ্য বলে বিবেচিত হইয়াছে।
আমরা উহা ঘাণিষ্ঠ চূড়ানু করবের ও বাসুবাধনের জন্য বদক্ষেপ গ্রহনের অনুপ্রোথ
জানাইতেছি।


১১/১০/৮৯
চেয়ারম্যান
উপজেলা পরিষদ
মিঠাপুকুর উপজেলা
রংপুর।

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1. INTRODUCTION

In the Government's recent policy of overall administrative re-organization, the upazila has been reorganized as the most significant tier of administration. Each upazila centre will be the focal point of all upazila level administrative activities. Thus the development of upazila centre is the Government's key strategy for social, economic and infra-structural upliftment of the upazila region. This also reflects the national policy of bringing the development activities to the door step of vast majority of rural population. The administrative re-organization has delegated more power to the upazila authority for planning, programming, implementing and controlling development activities within the upazila region. It is expected that with geared up administrative, social and economic activities the upazila headquarters will gradually emerge as sprawling urban centre. It is evident that most of the urban centres of the country have already been grown in an unplanned haphazard way leading to a jumbling civic problem. The newly created upazila headquarters can be relieved of the curse and ills of unplanned growth through the preparation and implementation of the land use plan.

The upazila headquarters is conceived as focal point of development of the upazila as a whole. The activities performed in the headquarters will act as propulsive factors for generating development trends of upazila. The Land Use Plan prepared for the headquarters will serve as a guideline for a planned and co-ordinated development of prospective headquarters' town upto the year 2001. When successfully materialised, the land use plan will cause orderly growth of the town and its landuses. It will provide efficient transport network, promote development of commerce and industries, extended marketing facilities resulting in generation of more employment opportunities^{and} will indicate more rational use of scarce land resources. The plan will make all provisions necessary for modern civic life

It is a promise to the potential dwellers of the headquarters for a healthy, pleasant and functionally efficient living environment. Preparation of land use plan is the first step of the programme for bringing the whole of the upazila under planned development. It is expected that other important alternative settlements of the upazila based on hierarchy of settlements will be taken up soon for planning and development to render them healthy, pleasant and growth generating centres.

Planned development is the prime objective of the land-use plan. However, there is a common feeling that planning means a total development involving huge volume of fund. But such an idea is not fully correct. Planned development, to a large extent, can be ensured through effective enforcement of development control regulations. But before regulations are formally passed the land use plan itself will require to be given legal cover in the form of Act.

In the light of the above circumstances, it is felt that the upazila centre should grow up expeditiously and the preparation of land use plan for such centre is of utmost importance for better utilization of region's land, people and natural resources. With this end in view, the Government has planned to engage Consultants for preparation of land use plan for some of the upazila shahar of Bangladesh.

2. METHODOLOGY

The objectives and scope of services for preparing the land use plan for upazila shahar have been stated in section-2 and section-3 of the terms of reference (TOR) respectively. To fulfill the requirements of objectives and scope of services it was needed to go through the following methodology.

2.1 Existing Land Use Survey :

Mouza maps in the scale of 1 inch equal to 330 feet were collected from the Directorate of Land Records (DLR) covering whole of the designated study area, traced out with plot boundaries and numbers. Thus the field survey sheets were prepared. Survey of plot to plot, uses of land were completed and marked on the survey sheets. The layout of the special features like mosques, schools, offices, mazars etc. were drawn on the survey sheets as well as on the survey note book. Thus the survey for the whole of the designated study area was completed.

2.2. Preparation of Existing Land Use Map :

The survey sheets were compiled and existing land use map was prepared. The land use map was examined and analysed and finally shahar area was delineated. According to the instructions given in page-11 of the TOR, the base map of existing land use was prepared in graphics.

2.3. Existing Land Use Analysis :

The quantity of land under different uses were calculated by grid method and a table on it was prepared. The percentage of land under different uses were also calculated.

2.4. Socio-Economic Survey :

A format of questionnaire containing two pages was prepared and administered to collect data on socio-economic condition of the people of the shahar area. Five percent of the households were interviewed by field investigators on random basis. The data thus collected were tabulated and analysed to find out the socio-economic characteristics of the shahar area.

2.5. Detailed Land Use Survey :

A detailed land use survey was conducted and completed by the survey team for 200 acres of core area of upazila shahar using a map in the scale of RP 1:1000. Layouts of all man-made and physical structures were plotted to the correct scale. The level of land and flooded area were demarcated through physical verification of land in and around upazila shahar. Contour maps were collected from the BWDB and compared with the survey map. Finally, the contours were interpreted on the survey map in the correct scale.

2.6. Determination of Hierarchy of Settlements :

In order to determine the hierarchy of settlements, necessary socio-economic indicators were selected. Data and information on selected indicators were collected during the field survey from the upazila head-quarters. These data were tabulated and they were given assumed weightage to find out the functional gravity of each mouza. According to the weights ranking have been made.

2.7. Determination of Catchment Area and Shahar Area :

To determine the sphere of influence or the catchment area, data on commuting distance of the upazila shahar were collected during the field survey. The physical features in and around the upazila shahar were analysed. The catchment area was determined and delineated through studies on commuting distance, service area and physical features of surrounding of the upazila shahar. The shahar area was determined on analysis of existing land use survey. Trend of development of settlements, availability of buildable land and physical features of surroundings have been given due consideration.

2.8. Projections :

The projections were made for the years upto 2001. The population and labour force of 1981 were used as base. The past trend of rate of growth of population, labour force and migration were given due consideration.

2.9. Planning the Landuse :

The requirements of land were calculated on the basis of provisions in the TOR. Reasons were provided during land allocations. The methodology applied in forecasting involves forecasting in intensification of existing landuse and extension to new areas.

2.10. Final Landuse Plan :

A comprehensive and integrated final landuse plan were prepared. Special attention was given in organizing the functional uses of land.

3. THE UPAZILA IN ITS DISTRICT CONTEXT

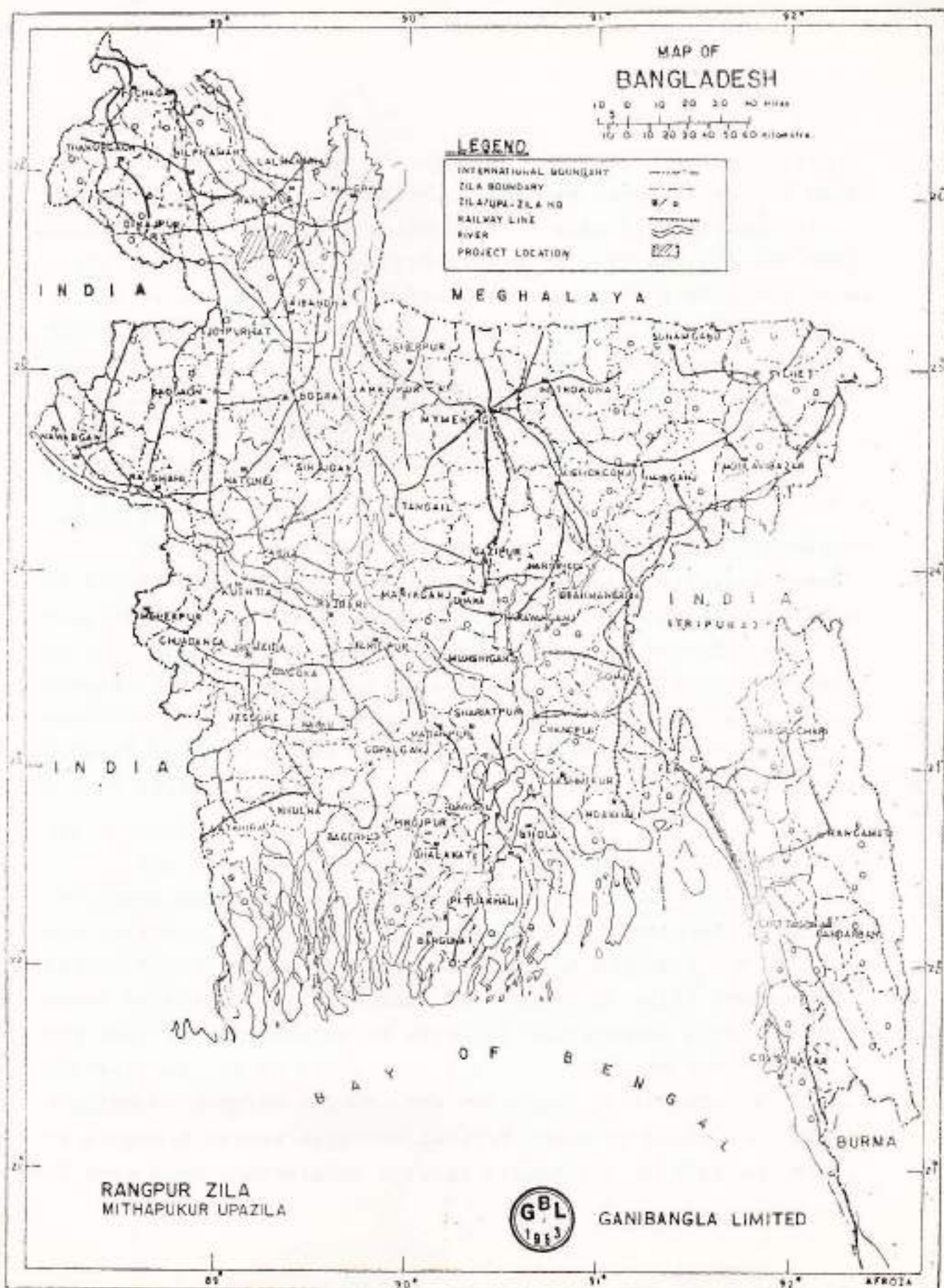
3.1. Location and Physical Characteristics

3.1.1. Background

The upazila of Mithapukur is said to have been created as a thana in 1885. There is a legend that Mirjumla, the subedar of Bengal during the period of his military expedition in Bengal set up a camp in the present place of the upazila headquarters. His forces faced an acute problem of scarcity of water for which a pond (meaning 'pukur' in Bengali) was dug near the camp. The water of the pond was very sweet (meaning 'mitha' in Bengali) for which he named it the 'Mithapukur'. Consequently, the place became known as Mithapukur which also became the name of the thana at the time of its creation and later on the same name of the newly created upazila.

3.1.2. Location And Area :

The Upazila of Mithapukur belongs to the newly created zila of Rangpur. It lies on the south of the zila headquarters, and located at a distance of 19 km. (12 miles). The upazila lies between 25° 25' and 25° 42' north latitude and 89° 06' and 89° 27' east longitude. It is bounded in the north by Kotwali Thana, in the south by Pirganj upazila, in the east by Pirgacha and Sunderganj upazilas and in the west by Badarganj upazila. It comprises a total area of 514.90 sq. km. (198.80 sq.miles) including an area of 2.80 sq. km. of river.



3.1.3. Topography :

The greater zila of Rangpur is a vast alluvial plain without any natural elevation. There are large extent of high sandy plains. A strip of high land is also found along the west. The rest of the greater zila specially towards the east is low level and most of which are inundated during the rains. The surface gently slopes down from the north-west to the south-east as displayed by the flow of the great Himalayan rivers. The presence of the net-works of rivers, smaller streams and channels expose a vivid appearance of the topographical features of the greater zila of Rangpur.

3.1.4. Geology :

There is no marked features in the geological formation of the greater zila of Rangpur. It is a large alluvial tract composed of sand and clay brought down by the great Himalayan rivers. The tract in the west and south-west boarding the greater zila of Bogra and Dinajpur is composed of old alluvium known as pali. The chars which are generally found along the bank of the rivers are formed by the deposits of the most recent origin.

3.1.5. Soils :

The greater zila of Rangpur is generally divided into two major parts for the purpose of soil classification. A narrow strip of the zila in the west is a continuation of the Barind Tract of the greater Dinajpur and Rajshahi and is locally known as khayar. It is mainly an outcrop of stiff reddish clay. The soil in this region is strongly impregnated with iron and contains kankor or nodules of carbonate of lime and is of reddish or greyish colour. The remainder of the greater zila is composed of new alluvium locally known as pali. The soil of this area consists of varying proportion of clay and sand.

Moreover, the high land in the north which do not receive silt from the beels and rivers are known as bala or reti. The soil of these lands consist of more sands than of clay.

3.1.6. Climate :

The climate of greater zila of Rangpur is that of sub-tropical country with special characteristics derived from its physical conformation due to the proximity at the Himalayas and Garo Hills. Thus the climate is mild with equable temperature, high humidity and plenty of rainfall. The average maximum temperature during summer becomes 29°C. December, January and February are the cold months and dry. The monsoons usually sets in June and continues till September. The rainfall is generally observed during the months of July and August. The maximum rainfall is generally observed during the months of July and August. The average rainfall of 1979-'84 are 209 Cm.

3.1.7. River System :

The Brahmaputra flows along the eastern boundary of the greater zila of Rangpur separating it from Goalpara (in Assam) and the Mymensingh zila, but owing to changes in the course of the river, a tract of alluvial land at Rowmari, which belongs to greater Rangpur zila, now lies on the east bank. The Brahmaputra is navigable by big country boats and steamers throughout the year. During monsoon navigation is impeded by the strong current; whilst in the dry season a large number shoals and sand banks obstruct the channel. The most noticeable features in this great river are the immense number of islands and sand banks formed by its course. The principal tributaries of the Brahmaputra on its western bank, within greater Rangpur, are the Tista, Dharla, Samkas and Dudkumer.

Note: Summery of Physical characteristics have been adopted from District Population Census Report, Rangpur of 1961 (Pages 1-5 & 1-6). Data have been updated from the District Statistical Report of Rangpur -1983.

3.2. Population and Settlement Distribution

3.2.1. Distribution of Settlements :

There is only one paurashava area in the new zila of Rangpur. The zila of Rangpur consisted of 7 upazilas and one thana. There are 82 unions containing 1194 mouzas. Highest number of unions and mouzas are there in Mithapukur upazila and those of lowest are in Taraganj upazila. For details table no.1 may be seen.

Table No. 1
Distribution of Settlements

Upazila/Thana	Urban Settlements		Rural Settlements	
	Poura-shava	Upazila Shahr	Union Head Qtrs	Mouzas
1. Kotwali(Sadar)	1	-	12	149
2. Kaunia	-	1	6	80
3. Gangachara	-	1	8	73
4. Mithapukur	-	1	17	310
5. Pirganj	-	1	15	308
6. Pirgacha	-	1	9	170
7. Badarganj	-	1	10	64
8. Taraganj	-	1	5	40
Total	1	7	82	1194

Source: 1. Rangpur District Statistics - 1983, p.3

2. Upazila Statistics, Vol. 1, 1985, p-27

Bangladesh Bureau of Statistics

3.2.2. Distribution of Population :

According to the census report of 1981, the total area of Rangpur zila (new) is 2313 sq. km. out of which 92.4 sq. km. or 3.99 percent is urban (urban area of Mithapukur and Taraganj are not available). The total population in 1981, is 1,703,357 persons of which 206,937 persons or 12.15 percent are urban (the urban population of Taraganj are not available). The urban population are distributed mainly in Rangpur paurashava (153, 174 persons in 1981) and also in 6 upazila centres.

The gross density of population of the Rangpur zila is 679 persons per sq. km. and that of urban area is 2,240 persons per sq. km.

The total area of Mithapukur Upazila is 515 sq. km. The urban area of the upazila is not available. The total number of population of the upazila in 1981 is 327,097 persons of which 7,579 persons or 2.32 percent is urban. The gross density of population is 635 persons per sq. km.

3.2.3. Migration

The natural growth rate of population of Rangpur Zila (new) is 3.00 percent between the census period of 1974-'81. The growth rate of urban population is 6.09 percent in the same period. The rate of urban migration may be assumed to be $6.09 - 3.00 = 3.09$ percent.

The natural growth rate of population of Mithapukur Upazila is 2.87 percent in the census period of 1974-'81. The growth rate of urban population is not possible to estimate because it is the first time that the upazila centres of Bangladesh have been treated as urban irrespective of their area, population and level of urbanization. Under this circumstances, it may be assumed that due to upgradation of upazila of Mithapukur, a considerable number of population have been migrated to the upazila centre but reliable data are not available. For details of population distribution table no. 2 may be seen.

Table No. 2
Rangpur Zila
Mithapukur Upazila
Distribution of Population

Locality	Area In sq. km.		Population 1974		Population 1981		Density of Popul 1981		Growth Rate 1974 - 1981	
	Total	Urban	Total	Urban	Total	Urban	Total	Urban	Total	Urban
Zila	2313	92.4	1380623	728229	1703367	206937	679	2240	3.00	6.09
Upazila	515	N/A	267530	N/A	327097	7579	635	N/A	2.87	N/A

Source: 1. Rangpur District Statistics-1983, Table No.1.02 and 1.03, p.4-5
2. Upazila Statistics Vol.I, 1985, Table No. 2.03, p. 57
3. District Population Census, Rangpur 1981, BBS
4. Bangladesh Population Census - 1981, Thana Series

3.3. Economic Performance and Transport Linkages :

3.3.1. Employment and Underemployment :

The total population of Rangpur zila (new) is 1,707,264 persons out of which 879,071 persons are male and 828,193 persons are female. The total number of population at the age group of 10 years and above is 1,108,801 persons or 64.94 percent. The total number of persons employed in different sectors of economy is 491,554 persons or 44.33 percent labour force and rest are house-wives., students and under-employed. Employed male are 92.36 percent and that of female are 8.64 percent. In agricultural sector 326,886 persons or 66.50 percent are employed. In non-agricultural sectors 164,668 persons or 33.50 percent are employed. For details table no.3 and 4 may be seen.

The total number of population of Mithapukur Upazila is 328,680 persons, out of which 167,439 persons are male and 161,241 persons are female. Total number of population at the age group of 10 years and above is 213,317 persons or 64.90

Table No. 3
Mithapukur Upazila
Rangpur Zila
Population and Labour Force - 1981

Locality	Population			Pop. 10 yrs & above			Employed		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Zila	1707264	879071	828193	1108801	577743	531058	491554	449072	42482
Upazila	328680	167439	161241	213317	109617	103700	93436	86077	7359

Source: Upazila Statistics Vol.I.1985, Table No.2.02, p.42, BBS

Table No. 4 : Mithapukur Upazila, Rangpur Zila
Occupational Classification of Population-1981

Locality	Agriculture		Non-Agriculture		Others
	Cropping	Non-cropping	Manfg.	Business	
Zila	321656	5230	16148	36835	111685
Upazila	67894	1059	546	4653	19284

Source: Upazila Statistics, Vol.I, 1985, Table No.2.04, p.72, BBS

percent. The number of population employed in different sectors of economy ^{are} 93,436 persons or 43.80 approximately and the rest are house-wives, students and underemployed. The rate of employment of upazila is lower than that of the Zila by 0.53 percent. Employment of male ^{are} 92.12 percent and that of female are 7.88 percent. Employment rate of female in the upazila is less than that of zila. In agricultural sector 68,953 persons or 73.80 percent approximately are employed. In non-agricultural sectors 24,483 persons or 26.20 percent are employed. Employment in non-agricultural sectors in the upazila are less than that of zila by 7.30 percent. For details table no. 3 and 4 may be seen,

The total number of population of Mithapukur Upazila is 328,680 persons, out of which 167,439 persons are male and 161,241 persons are female. Total number of population at the

age group of 10 years and above is 213,317 persons or 64.90 percent. The number of population employed in different sectors of economy 93,436 persons or 43.80 percent and the rest percent are house-wives, students and underemployed. The rate of employment of upazila is lower than that of the Zila by 0.53 percent. Employment of male^{are} 92.12 percent and that of female are 7.88 percent. Employment rate of female in the upazila is less than that of zila. In agricultural sector 68,953 persons or 73.80 percent (approximately) are employed. In non-agricultural sectors 24,483 persons or 26.20 percent are employed. Employment in non-agricultural sectors in the upazila are less than that of zila by 7.30 percent. For details table no. 3 and 4 may be seen.

3.3.2. Income and Expenditure :

Data on income and expenditure structures of the zila and upazila as a whole are not available. Data on income and expenditure structures of the study area have been collected through the questionnaire survey which will be discussed in the section of socio-economic data analysis of this report.

3.3.3. Transport Linkages :

In the new zila of Rangpur, there are 5447.70 kilometres of road net-work out of which 211 kilometres are metalled road, 46.70 km. are semi-metalled road and rest 5190 km. are non-metalled road.

The total road net-work of the upazila is 1144.30 km. out of which 17.30 km. are metalled and 1127 km. are non-metalled. The upazila headquarters of Mithapukur is well connected with the zila headquarters by 19.30 km. of metalled road. The main mode of transport are buses.

Table No. 5 : Mithapukur Upazila, Rangpur Zila
Roads and mode of Transports 1981 - 1982

Locality	Road Kilometre by Type			Distance from Zila H.Q.	Mode of Transport
	Metalled	Semi-Metalled	Non-Metalled		
Zila	221.00	46.70	5190.00		Bus, Train
Upazila	19.30	-	1127.00	19.30	Bus

Source: Upazila Statistics, Vol.I. 1985, Table No. 6.01, p.201, BBS

3.4 Social Infrastructures

3.4.1. Markets/Commerce :

Village markets are the centres of commerce and play an important role in the rural economy of Bangladesh. There are 68 hats/bazars in Mithapukur upazila. This indicates that there is one hat/bazar for every 4,834 persons in the upazila.

3.4.2. Education :

There are 2 colleges, 42 high/junior high schools, 34 madrasahs and 155 primary schools in this upazila. This shows that there is one college for 164,340 persons, one high/junior school for 7,825 persons, one madrasa for 9,667 persons and one primary school for 2,120 persons. The teachers-students ratio in college is 1:20, in high/junior high 1:16, in madrasa 1:12 and in primary school 1:32 only.

3.4.3. Health :

There are 2 hospitals and 11 dispensaries/clinics with 20 beds, 9 doctors and 10 paramedics in this upazila. This shows that there is one doctor, one bed, one paramedic and one clinic available for every 36,520; 16,434; 32,862 and 29,880 persons respectively.

3.4.4. Urban Services and Utilities :

There is one police station in the upazila. There are 24 post offices and one post office serves 13,695 persons. There are 600 mosque, 32 temples and 2 churches. Out of 333 villages of the upazila, 310 villages have so far been provided with electricity. This indicates that 93.0 percent of the total villages of the upazila have electricity facilities. Currently sanitary facility is available in the upazila headquarters. There are 9 bank branches in this upazila. There is no cinema hall, no telegraph office and no public library.

3.5 Current Development Projects :

The total approved allocation for development projects amounts to Tk.20,84,000/- only for the financial year 1988-89. In the first instalment Tk.13,75,498/- have been disbursed and out of which Tk.3,53,938/- have been spent for various projects. The financial progress is 25.73 percent.

According to the guideline supplied by the Planning Commission, 9 major projects have been taken in hand out of which 6 projects are found progressing and 3 projects have been remained untouched.

The progress of miscellaneous sector is 100 percent. In order of financial progress rural works occupies second position and cottage industries third position. For details table no. 6 may be seen.

3.6. Synthesis : Identification of Hierarchy of Settlements in the Upazila :

In the upazila region of Bangladesh, functions are neither concentrated in one particular centre nor fully dispersed. They have unique characteristics of their own and differ from one region to another. Sometimes commercial activities are found to be concentrated with social activities and sometime they are also found located in different places. For this reason, it will be a wise policy to determine the hierarchy of settlements on mouza basis to find out the exact location of functions. Hierarchy of settlements has been determined depending on population, economic and social infrastructures provisions, transport linkages and related other characteristics.

Table No. 6 : Development Projects of Mithapukur Upazila 1988-89
(Total Allocation Tk.20,84,000.00)

Sl. No.	Approved Projects	Allocation 1st. Inst.	Expenditure	Progress %
1.	Agriculture and Irrigation	2,70,000	95,500	35.37
2.	Cottage Industries	14,805	9,800	66.19
3.	Housing ...	1,92,000	-	-
4.	Education ...	2,60,000	-	-
5.	Health and Welfare	1,39,000	25,500	18.35
6.	Sports and Culture	70,000	10,000	14.30
7.	Rural Works ...	1,56,300	1,28,138	82.00
8.	Renovation ...	1,88,393	-	-
9.	Miscellaneous ...	85,000	85,000	100.00
Total		13,75,498	3,53,938	25.73

To determine the hierarchy of settlements, 20 main socio-economic indicators have been selected (See Table No.7). Data on selected indicators have been collected from the upazila headquarters during the field survey. The distribution of socio-economic indicators have been shown in Table No.8.

Selected socio-economic indicators have been given assumed weightage for each function (See Table No.7). According to the given weight the gravity of each function located in related mouza have been calculated (See Table No.9). Finally, the total weight of each mouza have been found out.

According to the respective weights, order of mouza have been found out. They are connected with the upazila centre by shortest roads. According to the analysis, the first position is occupied by Satibari Haripur mouza located at a distance of more than 3 km. south of upazila headquarters. The second position is occupied by Chittali Dahkinpara mouza where the upazila complex is located. For details of order Table No.9 may be seen.

Table No.7 : Indicators of Hierarchy of Settlements and Their Assumed Weights

Sl.No.	Indicators	Abbreviation	Weights
1.	Public Institution	Pi	5 - 10
2.	Commerce/Markets	Ch	1 - 5
3.	Industrial Establishment	In	1 - 5
4.	Police Station/ Outpost	Ps	1 - 5
5.	Health and Welfare	Hw	1 - 5
6.	College	Ec	4 - 8
7.	High School	Eh	3 - 6
8.	Primary School	Ep	1 - 2
9.	Madrasha	Em	1 - 2
10.	Post Office	Po	1 - 5
11.	Telegram and Telephone	Tt	1 - 3
12.	Electricity	Et	2 - 5
13.	Religious Institution	Ri	1 - 5
14.	Road Pucca	Rp	1 - 5
15.	Station (Rail, Water, Bus)	St	1 - 5
16.	Recreation (Park, Play Ground, Cinema)	Re	1 - 5
17.	Bank	Bk	1 - 5
18.	Cooperative	Co	1 - 2
19.	Area 100 Acres	Ar	1 - 6
20.	Population 1000 Persons	Pn	1 - 6
		Total	30 - 100

Table No. 8 : Mithapukur Upazila
Indicators of Hierarchy of Settlements (Mouza-wise)

JL No.	Name of Mouza	Pl Ch In Ps Hw Ec Eh Ep Em Po Pt Et Rt Rp St Re Bk Co Ar Ph																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
254	Satibari Haripur	2	1	17	-	1	1	2	1	1	1	1	1	4	1	1	5	2	1	417	2730
130	Idatpur	1	1	4	-	1	-	1	1	1	1	-	-	3	1	-	1	2	-	142	871
294	Shib Deulpara	-	1	-	-	1	-	1	1	-	1	-	-	1	2	-	1	1	-	1528	3987
239	Alipur	1	1	2	-	1	-	-	2	4	1	-	-	4	-	-	1	-	-	499	2471
172	Lahani	1	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	2	-	486	959
169	Joyrampur Anwar	-	1	-	-	-	-	1	1	-	-	-	-	-	2	1	-	-	-	988	2812
252	Chittli Dahkinpara	5	1	10	-	1	-	1	1	-	-	1	1	2	-	1	1	4	-	424	800
253	Kasipur	14	1	2	-	1	-	1	1	-	-	-	-	3	2	-	-	1	-	257	974
122	Krishnapur	1	-	3	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	184	690
123	Mithapukur	1	-	-	1	1	1	-	1	-	1	-	-	1	-	-	2	-	1	213	812
24	Gonarpura	1	1	8	-	1	-	1	1	-	1	-	-	4	-	-	-	1	-	656	1849
11	Ranipukur	1	1	2	-	-	-	1	1	-	1	-	-	1	-	-	1	-	-	154	1178
138	Mirzapur	1	-	2	-	-	-	1	1	-	-	-	-	1	-	-	1	-	-	378	1027
68	Palipara Masimpur	1	-	1	-	-	-	1	1	-	1	-	-	1	-	-	1	-	-	1022	2059
225	Buzruk Jhalai	1	1	1	-	-	-	2	2	1	1	-	-	1	-	-	-	-	-	915	3431
17	Moyenpur	1	-	1	-	-	-	1	1	-	-	-	-	1	-	-	-	-	-	2430	6898
260	Serudanga	1	1	2	-	-	-	1	1	1	1	-	-	1	-	-	-	-	-	806	2694

Table No. 9 : Mithapukur Upazila
Determination of Hierarchy of Settlements by Weightage Method (Mouza-wise)

Sl. No.	Name of Mouzas	Rank																				
		P1	Ch	In	Ps	Hw	Ec	En	Ep	Em	Pe	Tt	Et	Ri	Rp	St	Re	Bk	Co	Ar	Ph	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
254	Setibari Haripur	3	5	5	-	3	5	6	1	1	3	2	3	4	3	3	4	4	2	4	3	63
130	Idalpur	2	5	3	-	3	-	3	1	1	3	-	-	3	3	-	2	4	-	2	1	36
294	Shib Deulpara	-	5	-	-	3	-	3	1	-	3	-	-	1	5	-	2	2	-	6	6	37
239	Alipur	2	5	2	-	3	-	-	2	2	3	-	-	4	-	-	2	-	-	5	6	36
172	Lehani	2	-	-	-	-	-	-	-	-	3	-	-	1	-	2	4	-	-	5	1	16
169	Joyrampur Anwar	-	5	-	-	-	-	3	1	-	-	-	-	-	5	2	-	-	-	5	6	27
252	Chittli Dakkinpara	6	8	4	-	4	-	3	1	-	-	3	3	2	-	3	1	5	-	4	1	47
253	Kasipur	10	5	2	-	4	-	3	1	-	-	-	-	3	5	-	2	-	-	3	1	39
122	Krishnapur	3	2	3	-	-	-	-	1	1	-	-	-	1	-	-	1	-	-	2	2	15
123	Mithapukur	2	-	-	10	5	5	-	1	-	5	-	-	1	-	-	2	-	2	2	1	36
24	Genarpara	2	5	4	-	3	-	3	1	-	3	-	-	4	-	-	2	-	-	5	2	34
11	Ranipukur	2	5	2	-	-	-	3	1	-	3	-	-	1	-	-	1	-	-	4	1	23
138	Mirzapur	2	-	2	-	-	-	3	1	-	-	-	-	1	-	-	1	-	-	4	1	15
68	Palipara Kasimpur	2	-	1	-	-	-	3	1	-	3	-	-	1	-	-	1	-	-	6	3	20
225	Buzruk Jhalai	2	5	1	-	-	-	6	2	1	3	-	-	1	-	-	-	-	-	6	6	33
17	Moyenpur	1	-	1	-	-	-	3	1	-	-	-	-	1	-	-	1	-	-	6	6	20
260	Serudanga	1	5	2	-	-	-	3	1	1	3	-	-	1	-	-	1	-	-	6	6	30

4. THE UPAZILA HEADQUARTERS :

4.1. Definition of Sphere of Influences/Attractiveness :

Functions located space have dynamic influences on surrounding areas. It may be assumed that the zone of influence of any functional centre varies directly with the potentiality of that centre. Physical barriers and discontinuation of settlements are the main constraints of the zone of influence. But specialized functions have greater zone of influences.

In an upazila headquarters, located government services have their zone of influences over whole of the upazila region. The special functions like Hospital, College, Sports Stadium etc. may have greater zone of influences spreading even beyond the territorial boundaries of the upazila region.

The zone within the communicating distances of the upazila shahar may be called catchment area/zone of influences. It generally varies from 4 km. to 7 km. radius from the centre of the shahar. It can not be arbitrarily a complete circle. Due to existence of the physical barriers and having advantage of transport linkages, its expansion varies in different directions. The information and data collected during socio-economic survey have been analysed in the chapter on "Socio-economic condition of the study Area". Here a little light is thrown on it.

The Mithapukur Upazila Headquarters lies on the Bogra-Rangpur Dinajpur highway. Therefore, government and non-government officials, workers in various establishments and buyers and sellers of the market can commute from distant places along the line of the highway. Different studies shown that along the line of the highway people can commute more than 12 km. away. In this respect Mithapukur upazila headquarters has a special advantage of having the highway passing through it. But walking distances of people have given here special consideration in delineating the zone of influences. From analysis and assumptions it may be said that the zone of influence may vary 5 km. to 7 km. from the headquarters of Mithapukur. Considering the above analysis and giving due importance to all factors, approximately 26 mouza having total area of 7,012 acres or 2,837 hectares of land included in the zone of influences of Mithapukur

Table No.10 : Mithapukur Upazila
Area and Population of Zone of Influence
(Excluding designated Shahar Area)

JL. No.	Name of Mouzas	Total Area		Total Population			Involved Area		Involved Pop.		
		Ac.	Hec.	1961	1974	1981	Ac.	Hec.	1961	1974	1981
255	Dulahapur	415	168	592	923	1551	213	86	292	458	785
135	Batasan Fatepur	475	192	251	304	501	240	97	130	160	280
128	Janakinathpur	373	151	93	129	162	373	151	93	129	126
243	Jalalpur	216	87	286	464	595	216	87	286	264	595
136	Abdullapur	309	125	621	891	1095	309	125	621	891	1095
137	Hatimpur	235	95	416	592	657	235	95	416	592	657
124	Rashidpur	303	122	461	605	772	303	122	461	605	772
244	Idgarpur	216	87	186	263	286	216	87	186	263	286
127	Pairaband	202	82	206	287	325	202	82	206	287	325
	Harinathpur										
245	Jadabpur	713	288	809	1094	1532	370	150	430	577	787
118	Baluchar										
	Kasinathpur	176	71	173	208	248	176	71	173	208	248
119	Sasulpur	179	72	280	435	503	179	72	280	435	503
121	Bhabanipur	110	45	91	137	207	110	45	91	137	207
120	Aladipur	125	51	135	217	255	125	51	135	217	255
102	Musapur	175	71	489	679	803	175	71	489	679	803
103	Nayani Faridpur	126	51	183	242	268	126	51	183	242	268
98	Joyantipur	230	93	197	294	326	230	93	197	294	326
99	Sultanpur	112	45	217	304	398	112	45	217	304	398
100	Tulshipur	365	148	423	571	687	365	148	423	571	687
254	SathibariHaripur	417	169	1114	1905	2730	417	169	1114	1905	2730
268	Sitalgari	424	172	1024	1423	1938	424	172	1024	1423	1939
256	Rampura	456	184	489	821	943	456	184	489	821	943
257	Kasba	181	73	204	298	336	181	73	204	298	336
258	ChithaliPaschim P.	390	158	460	688	915	390	158	460	688	915
250	Chithali P. Para	423	171	479	709	833	423	171	479	709	833
251	Chithali M. Para	446	180	428	638	800	446	180	428	628	800
Total		7792	3153	10307	15121	19666	7012	2837	9507	13995	17934

Source : Bangladesh Population Census 1961, 1974 and 1981

Rate of Growth 1961 - '74 = 2.97 percent
 " " " 1974 - '81 = 3.54 "
 " " " 1961 - '81 = 3.17 "

Upazila Shahar (Excluding Shahar Area). The total population of zone of influences/catchment area are 9507, 13,995 and 17,934 persons in 1961, 1974 and 1981 respectively. For details table no. 10 and the map of Hierarchy of Settlements (Upazila Map) may be seen.

4.2. Definition of the Shahar Area :

To prepare the landuse plan for Mithapukur Upazila Shahar in order to serve as locational guide lines indicating the places of work, residence and recreations and to facilitate the public and private developments in the upazila shahar through physical planning approach, a detailed plot to plot survey of current uses of land was completed for the study area. The survey map was analysed very carefully and was found out that almost all the non-agricultural functions including the residential areas have been concentrated in and around the upazila centre. The land of peripheral areas are mainly under the use of agriculture with a few scattered housesteads. By careful examination of the existing land use map, considering the trend of development and giving due importance to physical features in and around the upazila centre, 7 mouzas having total area of 1740 acres or 704 hectares have been included in the shahar area of Mithapukur. The total population of the designated shahar area are 3,036, 4,713 and 6,402 persons in 1961, 1974 and 1981 respectively. For details table no. 11 and the existing land use map may be seen.

4.3. Existing Land Use : Facilities and Utilization Characteristics :

The designated area of Mithapukur Upazila Shahar are 1740 acres or 704 hectares. The current uses of land that found under actual uses are discussed here. The current uses of land have been classified according to the instructions given in the TOR and discussed with facilities and utilization characteristics with their locations. For details of current uses of land table no. 12 may be seen.

4.3.1. Agriculture/Forestry :

For agriculture 1476.30 acres or 84.84 percent of the designated shahar area are used. There is no forestry land use in the shahar area. Community type of forests are found around the homesteads which have been included in residential areas. The builtup areas including residential are surrounded with agricultural land.

Table No.11 : Mithapukur Upazila
Area and Population of designated Upazila Shahar

Sl. No.	Name of Mouzas	Total Area			Total Population Involved			Involved Pop.		
		Ac.	Hee		1961	1974	1981	Ac.	Hee	
122	Krishnapur	184	74	347	486	690	184	74	347	486
123	Mithapukur	213	86	408	688	812	213	86	408	688
125	Chithali U. Para	329	133	545	764	943	307	133	545	764
252	Chithali D. Para	425	172	709	1091	1791	425	172	709	1091
253	Kasipur	257	104	507	765	974	257	104	507	765
255	Dulahapur	415	168	592	923	1551	210	82	300	465
101	Jibanpur	202	82	220	354	426	144	82	220	354
Total		2025	819	3328	5071	7187	1740	733	3036	4713

Source : Bangladesh Population Census 1961, 1974 and 1981

Rate of Growth 1961 - 1974 = 3.26 percent

" " " 1974 - 1981 = 4.37 "

" " " 1961 - 1981 = 3.65 "

4.3.2. Commerce :

Areas used for commerce cover 6.60 acres or 0.38 percent of the shahar area. There is a market covering 4.25 acres of land in Chithali Dakshinpara just on the east of the Bogra-Rangpur Highway. The tobacco purchasing centre is located in Krishnapur mouza.

4.3.3. Industry :

For industrial purpose 9.00 acres of land are used. Most of the industrial land are used for rice mills. In Chithali Dakshinpara mouza 4.00 acres of lands are used for industry and they are found along the highway and around the bazar area. In Kasipur mouza 2.00 acres of land are used for industries. They are located along the highway.

4.3.4. Education :

Total land used for education are amounted to 12.25 acres or 0.70 percent of the shahar area. The college is located on 5.50 acres of land in Mithapukur mouza. It lies on the west of the highway just opposite the Upazila Health Complex. The boys high school is located in Chithali Dakshinpara mouza on 4.25 acres of land. It lies on the east of the upazila Health Complex. The girls high school is located 3.00 acres of land in Kasipur mouza. It lies just on the west of the highway. There are two primary schools in the shahar area.

4.3.5. Health :

Land used for health are amounted to 5.50 acres. The upazila health complex is located in mouza Chithali Dakshinpara mouza and lies on the east of the highway. The Veterinary hospital is located in Kasipur mouza on the west of the highway.

4.3.6. Administration :

The upazila Administrative Complex is located in Kasipur mouza on the west of the highway covering 11.00 acres of land. In Chithali Dakshinpara mouza, the north and east of the Upazila Health Complex are covered by administrative land uses.

4.3.7. Recreation :

For a cinema hall 0.50 acre of land is used. It is located in Mithapukur mouza. It stands on the west of the highway at the

Table No. 12 : Mithapur Upazila Shabar
Existing Land Use Analysis

Mouzas Panchion	Krish- napur	Mitha- pukur	Chithali U. pare	Chithali D. pare	Kasipur	Jiben- pur	Dulha- pur	Total in Acre	Total in Hec.	Percen- tage
1. Agriculture/ Forestry	137.50	170.65	282.25	356.15	210.50	132.50	186.75	1476.30	597.43	84.84
2. Commerce	2.00	0.10	-	4.25	0.25	-	-	6.60	2.67	0.38
3. Industry	1.00	-	-	4.00	3.00	-	1.00	9.00	3.64	0.52
4. Education	0.25	5.50	-	4.25	1.50	-	0.75	12.25	4.96	0.70
5. Health	0.50	-	-	5.00	-	-	-	5.50	2.22	0.32
6. Administration	-	0.25	-	5.50	11.00	-	-	16.75	6.78	0.96
7. Recreation	-	0.50	-	-	-	-	-	0.50	0.20	0.03
8. Socio-cultural	0.25	0.50	-	0.50	1.25	1.00	-	3.50	1.42	0.20
9. Urban Services	-	5.50	-	1.10	-	-	-	6.60	2.67	0.38
10. Residential	20.00	16.00	4.50	25.25	13.50	7.50	13.00	109.75	44.41	6.31
11. Roads	6.00	13.75	9.00	14.50	12.00	3.00	8.00	66.25	26.81	3.81
12. Water Bodies	17.00	0.25	1.25	4.00	4.00	-	0.50	27.00	10.92	1.55
Grand Total	184.00	213.00	307.00	425.00	257.00	144.00	210.00	1740.00	704.14	100.00

extreme north of the shahar area. There are small playing fields attached to the College and boys high school. No organized playing field exists.

4.3.8. Socio-Cultural :

Total land used for socio-cultural functions are amounted to 3 - 50 acres. There are mosques and small graveyards scattered throughout the shahar area.

4.3.9. Urban Services :

For urban services 6.60 acres of land are used. The Thana/ Police Station is located in Mithapukur mouza. It lies on the west of the highway. The T & T office is located in Chithali Dakshinpara mouza and lies on the east of the highway.

4.3.10. Residential :

Total land used for residential purposes are amounted to 109.75 acres or 6.31 percent of the shahar area. Residential areas are found scattered throughout the shahar area.

4.3.11. Roads :

Roads cover 66.25 acres or 3.81 percent of the shahar area. The Bogra-Rangpur highway passes through the core area of the shahar. There is no other mentionable road. All the roads are local and kutcha.

4.3.12. Water Bodies :

Water bodies cover 27.00 acres of land. There is a very big pond covering 17.00 acres of land in Krishnapur mouza. It lies on the west of the College and Police Station. There are ponds and low lands in Chithali Dakshinpara and Kasipur mouzas. There is no river in the shahar area.

4.4. The Concept Plan :

4.4.1. Potential Areas for Future Urban Development :

It has already been mentioned that the Bogra-Rangpur highway passes through the core area of the Upazila Shahar of Mithapuk. The potential areas for future urban development lies on both side of the road.

4.4.2. Areas Liable to Major Flooding :

In the designated shahar area of Mithapukur Upazila Shahar, there is no such an area which is liable to major flooding.

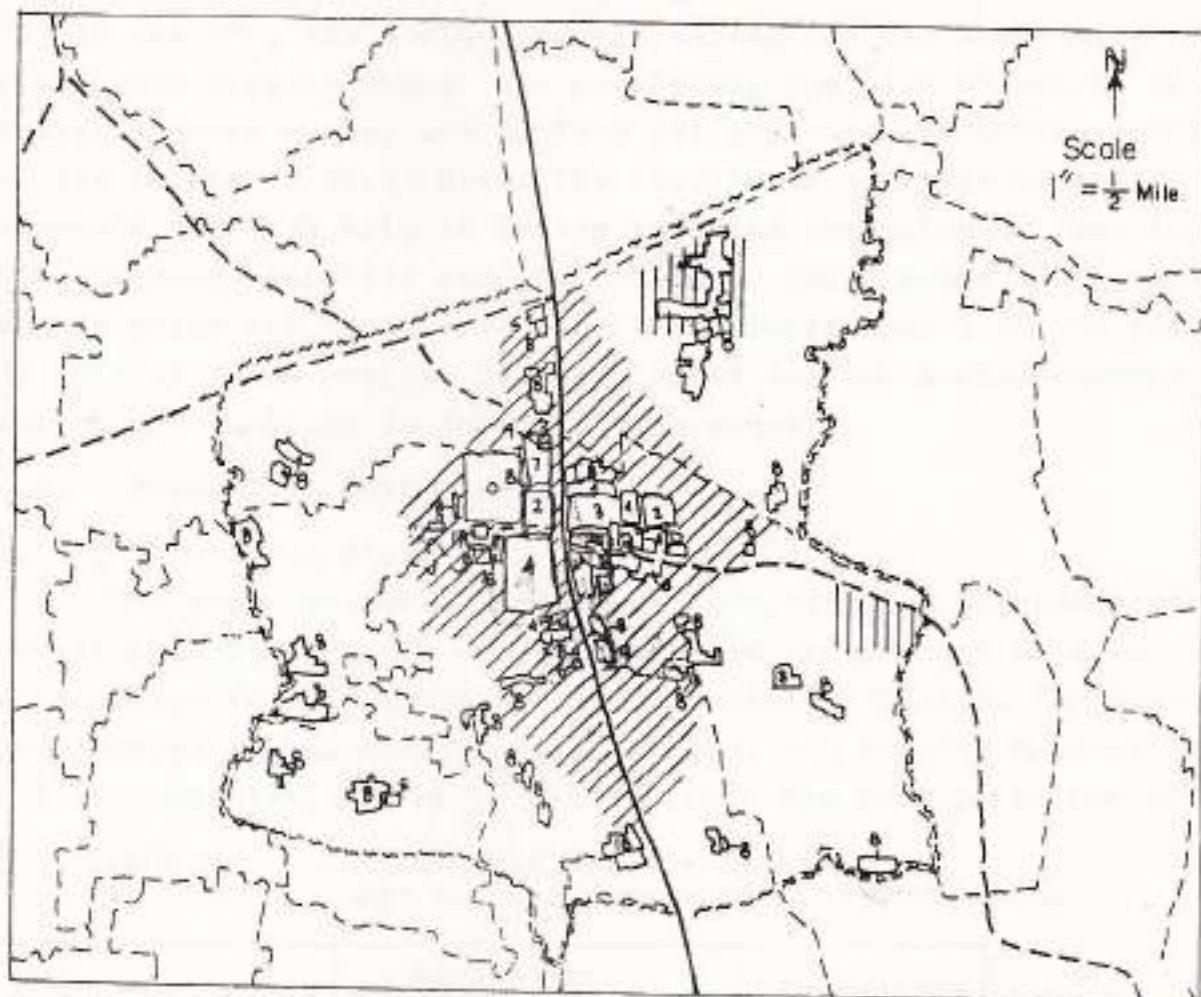
4.4.3. Areas of High Yielding Agricultural Production :

In the shahar area 263.70 acres of land are used for non-agricultural functions. Except these areas all the 1476.30 acres are or 84.84 percent of the shahar area are fertile agricultural lands.


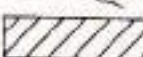

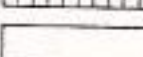

4.4.4. Areas of Constraints :

In these area there is no physical and territorial constraints which may hamper the urban development.

CONCEPT PLAN MITHAPUKUR UPAZILA SHAHAR



LEGEND

Mouza Boundary	-----	River & khal	
Shahar Area "	-----	Potential Area	
Major Road	=====	Flooded "	
Secondary "	-----	Agriculture Land	
Local "	-----	Constraints	

5. SOCIO-ECONOMIC CONDITION OF THE STUDY AREA

According to the instruction given in the scope of services 5.3 of the TOR, the socio-economic survey for the study area of Mithapukur Upazila Shahar was completed. The main objective of the socio-economic survey was to find out the socio-economic condition of the people of study area. The results of analysis of socio-economic data may help to locate adequate provision of functions of government services and facilities of basic needs in the upazila shahar which may bring some significant improvements in the quality of life of rural people. Data collected through socio-economic survey are analysed in the following pages.

5.1. Population Characteristics :

5.1.1. Population Size :

The socio-economic survey was completed for 50 households, containing 306 persons, out of which 160 persons are male and 146 persons are female. There are approximately 110 males for every 100 females in the study area as against 104 for the upazila and 105 for the zila. It may be assumed that due to upgradation of the

Table No.13 : Mithapukur Upazila Shahar
Age and Sex Composition of Population

Age Group	Population			Percentage
	Male	Female	Total	
0 - 5 yrs	20	29	49	16.00
6 - 10 "	27	26	53	17.32
11 - 15 "	26	17	43	14.05
16 - 20 "	28	20	48	15.69
21 - 25 "	10	6	16	5.23
26 - 30 "	7	7	14	4.58
31 - 35 "	10	14	24	7.84
36 - 40 "	14	9	23	7.52
41 - 45 "	5	9	14	4.58
46 - 50 "	8	5	13	4.25
51 - 55 "	0	3	3	0.98
56 - 60 "	0	1	1	0.33
61 + above	5	0	5	1.63
Total	160	146	306	100.00

of the upazila, economic activities have been started in the upazila headquarters and which have resulted in generation of jobs. Consequently some males have come to the upazila headquarters for job leaving their families behind. This is a sign of urbanization. For more details table no.13 may be seen.

5.1.2. Age and Sex Composition :

The age and sex composition of population of the study area shows that the age group of 11-40 years contains 55 percent of the population. The population of this active age group has come to the upazila headquarters for jobs and education. Above in the active age group the percentage of population falls sharply. For details table no. 13 may be seen.

5.1.3. Literacy :

According to the socio-economic survey, there are 257 persons in the age group of 5 years and above out of which 161 persons or 62.65 percent are literate as against 18.4 percent for the upazila and 18.10 percent for the zila. The rate of literacy for the males are 66 percent and for the female are 34 percent. For details table no. 14 may be seen.

Table No. 14: Mithapukur Upazila Shahar
Literacy

Literacy	Male	Female	Total	Percentage
Literate	106	55	161	62.65
Illiterate	41	55	96	37.37
Total	147	110	257	100.00

5.1.4 Marital Status :

There are 161 persons in the age group of 15 years and above out of which 91 persons or 56.52 percent are married. Amongst the married, the males are 54 percent. For details table no.15 may be seen.

Table No. 15 : Mithapukur Upazila Shahar
Marital Status

Marital Status	Male	Female	Total	Percentage
Married	49	42	91	56.52
Unmarried	33	37	70	43.48
Total	82	79	161	100.00

5.2. Household Characteristics :

5.2.1. Household Size :

Survey for 50 households containing 306 persons have been completed. The average size of households in dwelling units is found to be 6.12 as against 5.3 for upazila and 5.5 for the zila. The size of households of the study area varies from 3 persons to 11 persons. Highest number of households are found to be 5 persons. For details table no. 16 may be seen.

Table No. 16 : Mithapukur Upazila Shahar
Size of Household

Size of Family	Number of Family	Percentage
3 Persons	4	8
4 "	6	12
5 "	11	22
6 "	9	18
7 "	9	18
8 "	6	12
9 "	1	2
10 "	3	6
11 "	1	2
3 - 11 persons	50	100

5.2.2. Structure of Households :

In the study area there are two pucca structures, Kucha structures dominates accounting 37 households or 74 percent of the households. There are 6 percent thatched households. For details table no. 17 may be seen.

Table No. 17 : Mithapukur Upazila Shahar Household Structures

Structures	Pucca	Semi-Pucca	Kutcha	Thatched	Total
Number	2	8	37	3	50
Percentage	4	16	74	6	100

5.3. Economic Performance :

5.3.1. Employment and Unemployment :

The total number of population at the age group of 10 years and above is 216 persons out of which 83 persons or 38.42 percent are employed in different sectors of economy as against 43.80 percent for the upazila and 44.33 percent for the zila. The number of persons unemployed are 133 which includes housewives, students and under-employed at the same age group. Structure of Employment and unemployment have been shown in table no. 18.

Table No. 18 : Mithapukur Upazila Shahar Employment Structure

Sl.No.	Employment Structure	Persons	Percentage
1.	Employed	83	38.42
2.	Unemployed	133	61.58
	Total	216	100.00

5.3.2. Professional Structure :

The total number of population at the age group of 10 years and above are 216 persons. The number of persons employed in different sectors of economy are 83, out of which 53 persons or 24.54 are engaged in agriculture, 15 persons or 6.94 percent ^{are} engaged in business and 15 persons are employed in other professions. There

are 83 or 38.43 percent student. Females engaged household works are 50 persons or 23.15 percent. For details table no. 19 may be seen.

Table No.19 : Mithapukur Upazila Shahar
Professional Structures

Sl.No.	Profession	Male	Female	Total	Percentage
1.	Household	-	50	50	23.15
2.	Agriculture	53	-	53	24.54
3.	Business	15	-	15	6.94
4.	Others	15	-	15	6.94
5.	Students	52	31	83	38.43
	Total	135	81	216	100.00

5.3.3. Income and Expenditure :

Households under survey are 50 having 306 persons. The total income of 50 households are Tk. 1,05,150/- per month or Tk.12,61,800/- per year. The per capita annual income is Tk.4,123.53 only. The total expenditure of 50 households is Tk. 1,02,450 per month or Tk. 12,29,400/- per year. The per capita annual expenditure is 4,017.65 only. The average of per capita annual savings is Tk. 105.88 only.

Table No.20 : Mithapukur Upazila Shahar
Monthly Income and Expenditure

Range In Tk.	Income		Expenditure	
	Households	Percentage	Households	Percentage
Upto 1000	6	12	9	18
1001 - 2000	23	46	25	50
2001 - 3000	17	34	14	28
3001 - 4000	2	4	1	2
4001 - 5000	-	-	1	2
5001 - 6000	2	4	-	-
	50	100	50	100

The rate of saving is almost zero for the households having income upto Tk. 2000/-. The rate of saving is accountable for the

households having income upto Tk. 3000/-. The savings of only 4 households having income Tk. 4001 - 6000/- is considerable. For details table no. 20 may be seen.

5.4. Small Scale Cottage Industries :

There are 2 rice husking mills and 3 saw mills in the study area together covering 5.00 acres of land. They are installed in semi-pucca and kutchha structures. The total number of workers are 41 persons. The commuting distance of workers varies from 2 to 8 km. For details table no. 21 may be seen.

Table No. 21 : Mithapukur Upazila Shahar
Small Scale Industries

Sl No	Kinds of Industries	Location Mouza	Area in Acres	Structure	No. of Worker	Commuting Distance Km.
1.	Rice Mills	Chithali D. Para	2.00	Semi-Pucca	5	2
2.	Saw Mill	- do -	0.50	- do -	6	8
3.	Rice Mill (Boiling & Husking)	- do -	1.00	- do -	15	4
4.	Saw Mill	- do -	0.50	Kutchha	8	8
5.	- do -	Krishnapur	1.00	- do -	7	5

5.5. Educational Institutions:

5.5.1. Primary Schools:

There are two primary schools together covering on 0.75 acres of land. They together enrolled 200 boys and 150 girls. The total number of teachers are 10, out of which 5 are male and 5 are female. Teachers and students ratio is 1:35. These primary schools are devoid of facilities of playing and drinking water.

5.5.2. High Schools :

There are 2 high schools, one for boys and another for girls. The boy's high school is located on 4.25 acres and that of land girls on 2 acres of land. They are located in Chithali D. Para and Kasipur. The structure of the boys' high school is semi-pucca and that of the girls is partly pucca and partly semi-pucca. The number

of student enrolled in boys high school are 350 and that in girls high school are 260 only. There are 10 male teachers in boys high school and that in girls high school there are 7 male and 3 female teachers. The ratio teachers and students are 1:35 for boys High school and 1:26 for girls High school. Facilities of playing and drinking water are adequate.

5.5.3. College :

The college is located on 5.25 acres. The structures of the college is partly pucca and partly semi-pucca. At present there are 1000 boys and 300 girls students in this college, There are 33 teachers. Teachers student ratio is 1:39. For details of educational Institution table no. 22 may be seen.

Table No. 22 : Mithapukur Upazila Shahar
Educational Institutions

Institutions	Location	Area in Acres	Structure	Students		Teacher	
				M	P	M	P
Mithapukur Degree College	Kashipur	5.25	Pucca & Semipucca	1000	300	33	-
M. Boys High School	- do -	4.25	Semipucca	350	-	10	-
M. Girls High School	- do -	2.00	Pucca & Semipucca	-	260	7	3
Begum Rokeya Kindergarten	- do -	0.25	Semipucca	100	50	2	3
M. Primary School	- do -	0.50	- do -	100	100	3	2

5.6 Administrative Institutions:

There are 16 government and semi-government offices in this upazila centre. Most of the offices are located in pucca structures. There are 21 officers and 173 staffs serving these offices. The commuting distances of officers and staffs varies from 3 km. to 10 km.

5.7. Health and Welfare :

There is only one health centre named Mithapukur Upazila Health Complex. The structures of this hospital is pucca having located on 5.00 acres of land. There are 31 beds in this hospital. There are 6 qualified doctors and 37 employees. The average outdoor patients are 200 per day. The Rokeya Shishu Sadan is located in Krishnapur mouza on 0.50 acre of land.

5.8. Hat/Bazars :

There is a market in the study area called Goshai Bazar covering 4.25 acres of land. This is the centre for selling and buying the agricultural goods. At hat day about 20,000 buyers and sellers come to this market from about 10 km. distances.

5.9. Land Value

The average value of urban land is Tk. 8,00,000/- only. The value of same land is highest in Chithali Daksin Para and was found to be Tk. 12,00,000/- per acre. The value of urban land is also high in Mithapukur and Kasipur mouzas. In these above mentioned mouzas the value of residential land as well as the value of agricultural land are also very high. Because they are located in and near the centre of upazila shahar and the level of land is also high. They are also free from major floods. For details of land value table no. 23 may be seen.

Table No. 23 : Mithapukur Upazila Shahar
Present Land Value (Taka/Acre)

Sl	Name of Mouza	Urban	Residential	Fertile Ag	Medium Ag	Poor Ag
1.	Mithapukur	10,00,000	8,00,000	1,00,000	80,000	60,000
2.	Kashipur	10,00,000	8,00,000	2,00,000	1,00,000	80,000
3.	Jibanpur	-	2,00,000	1,00,000	80,000	60,000
4.	Krishnapur	6,00,000	3,00,000	1,50,000	1,00,000	80,000
5.	Chithali D. Para	12,00,000	10,00,000	2,00,000	1,50,000	1,00,000
6.	Chithali U. Para	5,00,000	3,00,000	1,50,000	1,00,000	80,000
7.	Dulhapur	5,00,000	2,00,000	1,00,000	80,000	60,000
	Average	8,00,000	5,14,285	1,42,857,	98,571	74,285

6. FORECASTS :

6.1. Population, Household Structure, Density.

6.1.1. Population Projections :

In order to estimate the amount of land may be required for various urban functional uses, it is necessary to estimate the growth of population of the shahar area as well as the catchment area. To achieve the above objectives, the population projections for the years upto 2001 A. D. are prepared with five year intervals. For population projections, the population statistics of 1981 are used as base year data.

Main objectives of Government's administrative decentralization is to provide employment opportunities and service facilities of government, semi-government and private locally. As a result the upazila shahar will be a service centre for the people of the upazila.

Under this circumstances, it may be assumed that migration of population from the surroundings to the upazila shahar will take place. It is also necessary to give special importance to the threshold population due to the upgradation of upazila and decentralization of administration. Past growth rate of population is a inseperable part of studies of population growth.

The rate of growth used for population projections for the year upto 2001 A. D. are determined by careful considerations and giving special importance to those above factors. To estimate the future growth of population of the shahar area and the catchment area, the following assumptions for high, medium and low projects have been made.

i) The total population of Rangpur new zila were 9,35,400 , 13,80,600 and 17,03,300 persons in 1961, 1974 and 1981 respectively. The natural rate of growth of population in between the census period of 1961 - '74, 1974 - '81 and 1961 - '81 were 2.99, 3.00 and 2.99 percent respectively.

ii) The total population of Rangpur Paurashava were 40,657, 72,829 and 1,53,174 persons in 1961, 1974 and 1981 respectively.

The rate of growth of population in between the census period of 1961 -'74, 1974 -'81 and 1961 -'81 were 4.42, 10.62 and 6.63 percent respectively.

iii) The rate of urban migration of Rangpur new zila in between the census periods of 1961 -'81 are $6.63 - 2.99 = 3.64$ percent.

iv) The total population of Mithapukur Upazila were 188745, 267530 and 327097 persons in 1961, 1974 and 1981 respectively. The natural rate of growth of population in between the census periods 1961 -'74, 1974 -'81 and 1961 -'81 were 2.68, 2.87 and 2.75 percent respectively.

v) The population of the catchment area, excluding shahar area were 9507, 13995 and 17,934 persons in 1961, 1974 and 1981 respectively. The rate of growth of population in between the census periods of 1961 -'74, 1974 -'81 and 1961 -'81 were 2.97, 3.54 and 3.17 percent respectively.

vi) The population of the designated shahar area were 3036, 4713 and 6402 persons in 1961, 1974 and 1981 respectively. The rate of population growth in between the census periods of 1961 -'74, 1974 -'81 were 3.26, 4.37 and 3.65 percent respectively.

vii) From above analysis, the rate of population growth for the catchment area for low, medium and high projections may be assumed to be 3.00, 3.50 and 4.00 percent respectively.

viii) The rate of growth of population for the shahr area for low, medium and high projections may be assumed to be 3.50, 4.00 and 4.50 percent respectively.

According to the medium projections, the population of the shahar area and that of catchment area will be 14027, 35685 persons respectively. The total population of shahr area plus catchment area will be 49632 persons. For details tabe no. 24, 25 and 26 may be seen.

6.1.2. Household Streture :

To estimate the amount of land may be required to accomodate the forecast population, it is necessary to estimate the number of households may be required up the year 2001 A. D. The average size of households in dwelling units are found 6.2 as against

Table 24. Mithapukur Upazila Shahar
Population Projections for the Shahar Area

Projections	Population 1981	Rate of Growth	Population 1986	Population 1991	Population 1996	Population 2001
Low	6402	3.50	7603	9030	10725	12738
Medium	6402	4.00	7789	9476	11529	14027
High	6402	4.50	7978	9942	12389	15439

Table 25. Mithapukur Upazila Shahar
Population Projections of the Catchment Area

Projections	Pop. 1981	Rate of Growth	Pop. 1986	Pop. 1991	Pop. 1996	Pop. 2001
Low	17934	3.00	20790	24101	27940	32390
Medium	17934	3.50	21300	25298	30046	35685
High	17934	4.00	21819	26546	32297	39294

Table 26. Mithapukur Upazila Shahar
Population Projections
(Shahar + Catchment Area)

Projections	Pop. 1981	Rate of Growth	Pop. 1986	Pop. 1991	Pop. 1996	Pop. 2001
Low	24336	-	28393	33131	38665	45128
Medium	24336	-	29089	34774	41575	49632
High	24336	-	29797	36488	44686	54733

5.3 for the upazila and 5.5 for the zila. To estimate the number of households may be required for the shahar area upto the year 2001 A. D. the size of households are assumed to be 5.3, 5.6 and 6.00 for high, medium and low projections. The estimation of households are made simply dividing the forecast population of medium projections of the shahar area by the assumed size of households. According to the low, medium and high projections, the number of households may be required by the year 2001 A. D. are 2338, 2505 and 2646 respectively. For details table no. 27 may be seen.

Table 27. Mithapukur Upazila Shahar Household Structures

Projections	No.H.H. 1981	Size of H. H.	No.H.H. 1986	No.H.H. 1991	No.H.H. 1996	No.H.H. 2001
Low	1088	6.00	1298	1579	1921	2338
Medium	1088	5.60	1391	1692	2059	2505
High	1088	5.30	1470	1788	2175	2646

6.1.3. Density Projections :

The land use survey for the designated shahar area has been conducted and completed at the beginning of 1989. According to the land use survey 109.75 acres of land are found under residential use. The total population of the shahar area was 6402 persons in 1981. For mid level population projections, the rate of growth used are 4.00 percent. If the population of the shahar area will grow at the rate of 4.00 percent it will be amounted to 8761 persons at the beginning of 1989. Accordingly net residential density of population are $8761/109.75 = 80$ (approx.) persons per acre at the time of land use survey.

In the TOR, the net density for residential areas has been instructed to be 100 person per acre. This instruction may not hold good, because no legislation exists to control the private

use of land. It may be possible to assume that the density of population will increase in the existing residential areas. To accomodate the estimated population for the year upto 2001 A. D., extension of existing residential areas and creation of one new housing estate may be needed.

According to the medium projections, the population of the shahar area will be 14024 persons in 2001 A. D. The density of population of the existing residential areas may be assumed to be 90 persons per acre by the year 2001 A. D. If so happens, it will be possible to accomodate $109.75 \times 90 = 9877$ persons in the existing residential areas. A housing estate of 10 acres may be created with assumed density of 100 persons per acre. In the proposed housing estate $100 \times 10 = 1000$ persons will be accomodated with residential facilities. For remaining $14024 - (9877 + 1000) = 3147$ persons, extension of residential areas will be needed. For newly extended residential areas, the density of population may be assumed to be 70 persons per acre. Then $3147/70 = 45$ acres (approx.) of land may need to be extended. Therefore, the total land may be needed for residential use are amounted to $109.75 + 10 + 45 = 164.75$ acres. The average net density of the residential areas of Mithapukur upazila shahar will be $14024/164.75 = 85$ persons per acre. Details of distribution of estimated population will be discussed and shown in the section of Plan Description.

6.1.4. Aspects of Migration :

It has been noted in the national volume of population census that the upazila headquarters have been declared as an urban area without delineating the shahar and without considering the level of urbanization. For this reason the trend of migration could not be found out for the designated shahar area. But the cause and affects of administrative decentralization on concentration of urban functions in the upazila shahar have been stated in the introductory chapter of this report. From analysis of socio-economic data of the upazila region and the shahar area and from the analysis of population growth in the preceding pages, the main aspects of population migration may be summerised as follows :

- a) the induced population to the designated shahar area due to upgradation of the upazila.
- b) concentration of population in the private and service sectors for perceived employment and income in the upazila shahar.

6.2. Labour Force and Employment :

According to the census report of 1981, the total population of the shahar area plus catchment area are 24336 persons, out of which 15794 persons or 64.90 percent are at the age group of 10 years and above. The total number of persons employed in different sectors of economy are 6918 persons or 43.80 percent. The total of not working persons are 884 persons or 5.50 percent of the active labour force (Pl. see table no. 28).

Table 28. Mithapukur Upazila Shahar
Labour Force and Employment

Locality	Total Pop. 1981	Labour Force (10 yrs.+)	Employed (10 yrs+)	Not Working (10 yrs +)
Shahar Area	6,402	4,155	1,820	224
Catchment Area	17,934	11,639	5,098	660
Total	24,336	15,794	6,918	884

In order to find out the requirements of land for various functional uses, it is necessary to estimate the amount of labour force for the year upto 2001 A. D. For estimated labour force necessary provision of jobs may be created and for which the functions will be located in space. Therefore, provisions of space should be kept in the upazila shahar area, so that surplus labour force can be employed there.

For labour force projections, the rate of growth of labour force are determined based on the estimates of the World Bank. The World Bank estimates that the national rate of growth of labour force per annum in Bangladesh in 1977 - 2001 A. D., is 2.7 percent as compared with respective rate of population growth 2.6 percent. (Pl. see World Bank Development Report - 1979, page- 162).

The growth rate of labour force is a little higher than that of the population growth rate. From this hypothesis the rate of growth of labour force may be assumed to be 4.20 percent for the shahar area and 3.70 percent for the catchment area which are a little more than those used for medium population projections of the shahar area and catchment area respectively. For details table no. 29 may be seen.

According to the labour force projections, the total of labour force of shahar area and catchment area together will be 33530 persons by the year 2001 A. D. At present 5.50 percent of the labour force are not working in any job. Due to growth of more labour force and also due to mechanisation in agricultural and other sectors more and more active labour force will be jobless. Let it be assumed that 7.50 percent of the total labour force will be jobless. If so happens, the number of not working population of the shahar area and catchment area together will be amounted to 2515 persons. To employ the jobless labour force, employment opportunities must be created in non-agricultural sectors. Provisions of land should be earmarked in the upazila shahar land use plan.

Table 29. Mithapukur Upazila Shahar
Projections of Labour Force

Locality	L. Force 1981	Rate of Growth	L. Force 1986	L. Force 1991	L. Force 1996	L. Force 2001
Shahar Area	4,155	4.20	5,104	6,270	7,702	9,461
Catchment Area	11,639	3.70	13,957	16,737	20,071	24,069
Total	15,794	-	19,061	23,007	27,773	33,530

6.3. Land Requirements According to the Provisional Standards :

Land allocations are provided in multiples of the unit provisions noted in the TOR. It may be noted that land use standards, except residential, park, playground, primary school and graveyard relate to the whole of catchment area plus shahar area. In allocating the amount of land for planned use, whenever any deviation of provisional standard is found, necessary strong reasons are provided in support. Land allocation are made and explained with reasons in the following paragraphs and shown in the table no. 30. It is important to note that the population of the medium projections of shahar area as well as the catchment area are used in estimating the requirements of land for different urban functional uses. According to the medium projections, the population of the shahar area and that of the catchment area, are 14027 and 35605 persons respectively and they together are amounted to 49632 persons in 2001 A. D.

Table 30 Mithapukur Upazila Shahar
Land Requirements

Shahar Area Population = 14,027 Persons
Catchment Area Population = 35,605 "
Total " 49,632 "

Sl. No.	Functions	Shahar/Catchment Area	Standards as per TOR Acres	Land Req. as per TOR Acres	Existing Landuse Acres	Proposed Landuse Acres
1.	COMMERCE & INDUSTRY	Shahar Catchment	1.5 ac/ 1000	74.44	15.60	45.00
1.1	Commerce	- do -	-	37.22	6.60	20.00
1.2	Industry	- do -	-	37.22	9.00	25.00
2.	EDUCATION	-	-	30.40	12.25	15.75
2.1	Primary School	Shahar	2.0 ac/ 5000	5.60	0.75	2.75
2.2	High School	Shahar Catchment	5.0 ac/ 20,000	12.40	6.00	7.25
2.3	College	- do -	-do-	12.40	5.50	5.50
2.4	V. D. P. Inst.	-	-	-	0.25	0.25

Table 30. Mithapukur Upazila Shahar ... contd.

Sl. No.	Functions	Shahar Catchment	Standards as per TOR	Land Req. as per TOR Acres	Existing Landuse Acres	Proposed Landuse Acres
3.	HEALTH	-	-	44.64	5.50	7.50
3.1	Dispensary	Shahar Catchment	1.0 ac/ 5,000	9.92	0.50	0.50
3.2	Maternity/Child Care	- do -	- do -	9.92	-	2.00
3.3	Health Centre	- do -	5.0 ac/ 20,000	12.40	-	-
3.4	Hospital	- do -	- do -	12.40	5.00	5.00
4.	ADMINISTRATION/JUDICIARY (Including Officers' residences)	-	-	26.50	16.75	25.50
4.1	Administration Govt.	-	12.0 ac/ upazila	12.00	14.50	12.00
4.2	Jail	-	2.5 ac/ upazila	2.50	-	2.50
4.3	Semi-Govt. and other Offices	-	12.0 ac/ upazila	12.00	6.00	8.50
5.	RECREATION	-	-	22.71	0.50	11.00
5.1	Park, Open Spaces	Shahar	1.0 ac/ 1,000	14.03	-	6.00
5.2	Cinema, Closed Spaces	Shahar Catchment	0.5 ac/ 20,000	1.24	0.50	0.50
5.3	Sports Stadium	- do -	3.0 ac/ 20,000	7.44	-	5.00
6.	SOCIO-CULTURAL	-	-	9.20	3.50	10.00
6.1	Community Centre	Shahar	1.0 ac/ 20,000	0.70	-	0.75
6.2	Religious Facility	- do -	0.5 ac/ 5,000	1.50	1.25	1.25
6.3	Grave Yard	- do -	5.0 ac/ 20,000	3.50	2.25	5.75
6.4	Central Mosque	-	0.5 ac/ 5,000	3.50	-	3.00

Table 30. Mithapukur Upzila Shahar ... contd.

Sl. No.	Functions	Shahar Catchment Area	Standards as Per TOR	Land Req. as per TOR Acres	Existing Landuse Acres	Proposed Landuse Acre
7.	URBAN SERVICES	-	-	12.40	6.60	10.30
7.1	Post Offices	Shahar Catchment	0.5 ac/ 20,000	1.24	-	1.20
7.2	Telephone Exchange	- do -	- do -	1.24	1.10	1.10
7.3	Police Station	- do -	2.0 ac/ 20,000	4.96	5.50	5.50
7.4	Bus, Ghat, Rly. Station	- do -	1.0 ac/ 20,000	2.48	-	2.00
7.5	Others	- do -	- do -	2.48	-	0.50
8.	ROADS	Shahar	5% to 10%	87.00 to 174.00	66.25	80.00
8.1	Major	- do -	60'	-	18.25	18.25
8.2	Secondary	- do -	40'	-	3.00	15.55
8.3	Local	- do -	24'	-	45.00	46.20
9.	RESIDENTIAL	-	1.0 ac/ 100 pers	140.27	109.75	164.75
9.1	Housing Estate	Shahar	- do -	-	-	10.00
9.2	Extension	Shahar	-	-	-	45.00
10.	URBAN DEFERRED	Shahar	10% Built Area	30.00	-	30.00
11.	RESERVE	Shahar	-	-	1503.30	1420.15
11.1	Water Bodies	- do -	-	-	27.00	27.00
11.2	Govt. Reserve	- do -	-	-	-	-
11.3	Agriculture	- do -	-	-	1476.30	1393.15
Total					1740.00	1740.00

Emphasis on sectoral development of economy such as agriculture, industries, transportation, education, health and rural electrification etc. in the upazila region will result in diversification of activities and also urban and regional development at this level. This requires identification and development of probable activities and services not only for the shahar itself but also for the upazila region. The upazila shahar will be the nodal point in a well articulated system for linking urban and rural functions providing facilities for administrative and socio-economic infra-structural services.

7.3. Planning Principles :

The planning of upazila shahar means the land use zoning plan of the upazila shahar. Practically it encompasses the entire field of urban and regional planning. To start with it was, therefore, necessary to analyse traditional land use and then rationalise the future use of land through physical planning principles.

The site for upazila headquarters has been selected before the preparation and formal approval of the land use plan. It is now needed to prepare an integrated urban land use plan for the upazila shahar. Due to the pre-selection of the site for upazila administrative zone it has become difficult to organize the rational urban land use in the upazila shahar.

In land requirements estimation, the approved terms of reference of Urban Development Directorate has been followed. Based on the population projections, land requirements for functional uses have been estimated.

7.4. Plan description :

According to the instructions given in the TOR, all land use provisions except residential, park, playground, primary school and grave yard relate to the whole catchment area plus upazila shahar. The land use survey for the shahar area was completed at the begining of 1989 when the estimated population of shahar area, catchment area and the shahar plus catchment area are 8761, 23616 and 32377 persons respectively. According to the forecast the population of the shahar area and shahar area plus catchment area will be 14027 and 49632 persons respectively by the year 2001 A. D. The ratio of population increase are 1:1.6 for the shahar area and 1:1.53 for the shahar plus catchment area. Land use proposal will be made in consideration of provisional stands as well as the ratio of population increase.

7.4.1. Commerce :

At present 6.60 acres of land are used for commerce. According to the provisional stands, 37.22 acres of land are needed for commerce. It may be assumed that some 20 acres of land may be needed for planned development of commerce. According to the existing land use survey, the land used for commerce are found along the Bogra - Rangpur highway. Future expansion of commerce may be expected to follow the same trend of development. For details of use of land for commerce table no. 31 may be seen.

Table 31. Mithapukur Upazila Shahar
Distribution of Commercial Area (In Area)

Functions	Existing	Proposed	Total (Ex+Pro)	Location
Market / Bazar	4.25	2.75	7.00	Chithali D. Para
Shopping Centre	-	5.00	5.00	- do -
Shops	2.00	3.50	5.50	Krishnapur
Shops	0.10	1.40	1.50	Mithapukur
Shops	0.25	0.75	1.00	Kasipur
Total	6.60	13.40	20.00	Shahar Area

7.4.2. Industry :

According to the existing land use survey, 9.00 acres of land are found under industrial use. According to the provisional standards 37.22 acres of land are needed for industrial use. Location of industries in upazila level has given importance by the Govt. Supply of power is available in the upazila shahar. It may therefore assumed that 25 acres of land may be needed for industrial use. For details table no. 33 may be seen.

Table 32. Mithapukur Upazila Shahar
Distribution of Industries (Area in Acres)

Functions	Existing	Proposed	Total (Ex+Pro)	Location
Cottage Industr	4.00	7.50	11.50	Chithali D.Para
Brickfield and Cottage Ind.	3.00	2.00	5.00	Kasipur
Rice Mills etc.	1.00	3.50	4.50	Krishnapur
Cottage Industry	-	4.00	4.00	Chithali U.Para
Total	8.00	17.00	25.00	Shahar Area

7.4.3. Education :

For education 12.25 acres of land are used. According to the provosional standard 30.40 acres of land are needed for education.

a) Primary School :

There is a primary level madrasa in Dulhapur mouza located on 0.75 acres of land. It needs no extension. According to the provisional stand^{ard}/two more primary school are needed. One may be located on one acre of land in Mithapukur mouza on the west bank of the pond. Another primary school may be located on one acre of land in Dhaksin Chithalipara mouza.

b) High School :

The boy's high school is located on 4.25 acres of land in Dakshin Chithalipara mouza. No more land is needed for its extension. The girls' high school is located in Kashipur mouza on 2.00

acres of land. It needs extension of at least one acre of land.

c) College :

The college is located in Mithapukur mouza on 5.50 acres of land. It is situated just on the high way. It can accomodate the institution buildings as well as domitories.. No more land is need for the college. For distribution of educational institutions table no. 33 may be seen.

d) There is a V. D. P. institution in Krishnapur mouza located on 0.25 acres. There is no scope of its expansion.

Table 33. Mithapukur Upazila Shahar
Distribution of Educational Institutions

Institution	Existing	Proposed	Total (Ex+Pro)	Location
Primari School	0.75	-	0.75	Dulhapur
- do -	-	1.00	1.00	Mithapukur
- do -	-	1.00	1.00	Chithali D. Para
Boys' High School	4.25	-	4.25	- do -
Girls' H. School	2.00	1.00	3.00	Kasipur
V. D. P. Inst.	0.25	-	0.25	Krishnapur
College	5.25	-	5.50	Mithapukur
Total	12.50	3.00	15.75	Shahar Area

7.4.4. Health :

At present 5.50 acres of land are used for health services. According to the provisional standard 44.64 acres of land are need for health service. The Shisu sadhan named Begum Rokaya Shisu Sadan is in Krishnapur mouza. There is no scope for its expansion. The Upazila Health Complex is located in Chithali Dhaksinpara mouza on 5.00 acres of land. No more land is needed for its expansion. Two Maternity and Child Care centres are needed for this upazila shahar. One may be located in Chithali Dhaksinpara mouza on one acre of land and another in Krishnapur mouza on one acre of land. For distribution of health services table no. 34 may be seen.

Table 34. Mithapukur Upazila Shahar
Distribution of Health Services

Health Services	Existing	Proposed	Total (Ex+Pro)	Location
Rokeya Shisu- Sadan	0.50	-	0.50	Krishnapur
Hospital	5.00	-	5.00	Chithali D. Para
Maternity and Child Care	-	1.00	1.00	- do -
- do -	-	1.00	1.00	Krishnapur
Total	5.50	2.00	7.50	Shahar Area

7.4.5. Administration :

For administration 16.75 acres of land are used. According to the provisional standard 26.50 acres of land are needed. At present 12.00 acres of land are used for upazila parishad. No more land is needed for upazila parishad. From studies and experience it were realised that for semi-govt. and autonomous bodies equal amount of land are needed as used for govt. offices. In the upazila parishad of Mithapukur it were found that there are other govt. and semi-govt. offices and even non-official use are found amounting 6.75 acres of land. This site is found suitable for office use. It may therefore be assumed that other official development may take place on the west of the upazila complex and for which more 6.00 acres of land have been earmarked there. According to the recent decision of the government one Jailkhana on 2.50 acres of land is needed to be located near the upazila parishad which is also earmarked. If more land would be need for official use in future they will be available from the deferred land. For details of administrative land use table no. 35 may be seen.

Table 35. Mithapukur Upazila Shahar
Distribution of Administrative Lands

Functions	Existing	Proposed	Total (Ex+Pro)	Location
Administration	11.00	6.00	17.00	Kasipur
- do -	5.25	-	5.25	Chithali D.Para
- do -	0.50	-	0.50	Chithali U.Para
Jailkhana	-	2.50	2.50	Kasipur
Administration	0.25	-	0.25	Mithapukur
Total	17.00	8.50	25.50	Shahar Area

7.4.6. Recreation :

There is no organized recreational facilities in this upazila shahar. There is only one cinema hall in Mithapukur mouza located on only 0.50 acre of land. It needs extension but land are not available. According to the provisional standard 22.71 acres of land are needed for creating recreational facilities in this upazila shahar. One sports stadium of 5.00 acres may be located in Dhakshin Chithalipara mouza. Parks of 6.00 acres may be created along the east and north banks of the pond located in Krishnapur mouza. Other playing facilities will be available attached to the educational institutions. Total land requirement for recreational purposes are amounted to 11.50 acres.

7.4.7. Socio-Cultural :

For socio-culture 3.50 acres of land are used. According to the provisional standard 5.60 acres of land are needed for socio-cultural use.

There is no community centre in this upazila shahar. One community centre of 0.75 acre may be located in Dhakshin Chithali mouza on the east south of the cottage industrial state. Religious facilities like mosque etc. together cover 1.25 acres of land. They are dispersed throughout the shahar area. One central mosque and Eidgha of 3.00 acres may be located in Dhakshin Chithalipara mouza. The grave yards are also found dispersed through

the shahar area. One organized grave yard of 3.50 acres may be located in Mithapukur mouza. For details of Socio-cultural land use table no. 36 may be seen.

Table 36. Mithapukur Upazila Shahar
Distribution of Socio-Cultural Functions

Functions	Existing	Proposed	Total (Ex+Pro)	Location
Mosque	0.25	-	0.25	Krishnapur
- do -	0.50	-	0.50	Mithapukur
- do -	0.50	-	0.50	Chithali D. Para
Grave Yard	1.25	-	1.25	Kasipur
- do -	1.00	-	1.00	Jibanpur
- do -	-	3.50	3.50	Mithapukur
Central Mosque and Eidgha	-	3.00	3.00	Chithali D. Para
Total	3.50	6.50	10.00	Shahar Area

7.4.8. Urban Services :

For urban services 6.10 acres of land are used. According to the provisional standard 12.40 acres of land are needed. The Police Station located in Mithapukur mouza covers 5.50 acres of land. No more land is needed for the police station. According to the provisional standard 1.24 acres of land are need. One post office can be located on 1.00 acre of land in Kashipur mouza on the south of the upazila parishad. The total land requirement for post office is 1.20 acres. The telephone and telegraph office is located on 1.10 acres of land in Chithali Dhakshinpara mouza. No more land is needed for it. There is no bus terminal in this upazila shahar. According the provisional standard 2.48 acres of land are needed for Bus/Ghat/Rail Station. One bus terminal of 2.00 acres may be located in Dulhapur mouza. For a autorickshaw and rickshaw stand 0.50 acre of land may be

earmarked in Dhakshin Chithalipara mouza. For details table no. 37 may be seen,

Table 37. Mithapukur Upazila Shahar
Distribution of Urban Services

Urban Services	Existing	Proposed	Total (Ex+Pro)	Location
Post Office	-	1.00	1.00	Kasipur
T & T	1.10	-	1.10	Chithali D.Para
Police Station	5.50	-	5.50	Mithapukur
Bus Terminal	-	2.00	2.00	Dulhapur
Auto-rickshaw Stand	-	0.50	0.50	Chithali D.Para

7.4.9. Roads :

Roads of all categories cover 66.25 acres of land. The Bogra - Rangpur high way passes through the upazila centre which covers 18.25 acres of land. The secondary road proposed for better internal communication which together cover 15.55 acres. The local roads cover 46.20 acres of land. For roads 80. acres of land will be required.

7.4.10. Residential :

During survey it was found that 109.75 acres of land are used for residences when the estimated population were 8771 persons. Net average density of population was 80 person per acre. According to the medium projections the population of the shahar will be 14027 persons by the year 2001 A. D. One housing estate of 10 acres with population density 100 persons per acre will be created in Dhakshin Chithalipara mouza. To accomodated the estimated population with residential facilities extension of 45 acres will be needed. Extension will be made around the existing residential areas. The final net average density of the Mithapukur upazila shahar will be 85 persons per acre. For more details the sub-chapter 6.1.3 on Density projections may be seen.

7.4.11. Deferred :

Total land proposed for non-agricultural use are amounted to 289.85 acres and 10 percent of which are 30 acres approximately. The Urban Deferred land will be kept as reserve for future urban development. They are distributed in different mouzas as shown in the map.

7.4.12. Reserve :

There are water bodies covering 27.00 acres of land. They may be kept as reserve for immediate any need of water and for fish culture. There is no govt. reserve land in this upazila shahar. Land reserve for agriculture are amounted to 1393.15 acres.

Table 39. Mithapukur Upazila Shahar
Planned Landuse Analysis

Functions	Mouza	Krishna pur	Mitha- pur	Chithali U. Para	Chithali D. Para	Kasi- pur	Jiban- pur	Dulha- pur	Total Acres	Total in Hectare	Perce- ntage
1. Commerce		5.50	1.50	-	12.00	1.00	-	-	20.00	8.09	1.15
2. Industry		3.50	-	4.00	11.50	5.00	-	1.00	25.00	10.12	1.44
3. Education		0.25	6.50	-	5.25	3.00	-	0.75	15.75	6.27	0.89
4. Health		1.50	-	-	6.00	-	-	-	7.50	3.03	0.43
5. Administration		-	0.25	0.50	5.25	19.50	-	-	25.50	10.32	1.47
6. Recreation		6.00	0.50	-	5.00	-	-	-	11.50	4.65	0.66
7. Socio-Culture		0.25	4.00	-	3.50	1.25	1.00	-	10.00	4.05	0.57
8. Urban Service		-	5.50	-	1.60	1.00	-	2.00	10.10	4.09	0.58
9. Residential		25.00	24.00	12.00	45.00	20.00	15.00	23.75	164.75	66.67	9.47
10. Urban Deferred		4.00	-	6.00	16.00	5.00	-	-	30.00	12.14	1.72
11. Roads		6.00	17.00	11.00	21.00	15.00	4.00	4.00	80.00	32.37	4.60
12. Reserves		17.00	0.25	1.25	4.00	4.00	-	0.50	27.00	10.93	1.55
13. Agricultural		113.00	153.75	272.25	293.90	182.25	124.00	176.00	1393.15	563.78	75.47
Total		184.00	213.00	307.00	425.00	257.00	144.00	210.00	1740.00	704.14	100.00

8. PROGRAMME AND IMPLEMENTATION :

8.1. Priority Actions and Cost Implications :

Priority has been given to the construction of the UNO complex with all ancillary structures. At present, socio-cultural facilities are inadequate in the upazila shahar. Recreational facilities are inadequate. To create living environment socio-cultural and recreational facilities are needed. An integrated land use plan needs the development of local roads on priority basis.

Determination of costs to implement all the proposed projects are out of the scope of this report. Only the preparation of the land use plan is the objective of this report. At present 126.95 acres of land are used for urban functions (excluding private residential land and water bodies). For planned development 289.80

acres of land will be needed. The requirements of new lands are amounted to $289.85 - 126.95 = 162.90$ acres. Studies of land value showed that the average value of one acre of buildable land is Tk.8.00.000/. Therefore to acquire the lands required for planned development will cost Tk.130,320.000/ only.

8.2. Phasing and Urban Deferred :

Development projects earmarked in the plan may be divided into two main phases. Phase - I, upto the year 1995 and Phase - II, 1996 - 2001 A. D.

Internal roads should be developed on priority basis which will help to integrate the existing and proposed functions and consequently accelerate the rate of growth and development. It has been mentioned before that the upazila shahar is lacking of social and recreational facilities. They should be developed on priority basis to create living environment in the shahar.

In the next phase, remaining other functions like the housing estate, industrial development, etc. should be developed to create a healthy, pleasant and functionally efficient living environment in the upazila shahar. Details of phasing are shown in the table no. 40 depending on population growth and priority of the projects.

Table 39. Mithapukur Upazila Shahar
Phasing of Development Proposals

Phase - I : Up to 1995		Phase - II : 1996 - 2001	
Projects	Location	Projects	Location
Shopping Complex	Chithali D. Para	Markets & Shops	Krishnapur
Industrial Estate (50%)	- do -	Industrial Estate (50%)	Chithali U. Para Kasipur
U N O Complex	Kasipur		
Govt. & Semi- govt. Offices	as shown in Table of Dist- ribution of admn. lands		
Primary School	Chithali D. Para	Primary School	Mithapukur
Maternity & Child Care	Chithali D. Para	Girls' H. School	Kasipur
- do -	Krishnapur		
Community Centre	Chithali D. Para	Central Mosque and Eidgha	Chithali D. Para
Graveyard	Mithapukur		
Bus Terminal	Dulhapur		
Stadium	Chithali D. Para		
Park	Krishnapur	Park	Mithapukur
Cinema Hall	Mithapukur		
Internal Roads	Shahar Area	Housing Estate	Chithali D. Para
Jailkhana	Kasipur		

For urban deferred 30 acres of land have been earmarked in different sectors. They will be developed if the allocated lands do not fulfill the requirements. It may be noted here that the urban deferred land will continue their present use untill they are required to be developed for any urban use.

8.3. Development Control :

The implementation of the land use plan will spread over many years and planning is a continuous process. It is essential that all planning matters should be administered by a single authority and should be controlled. It is an essential part of the Upazila shahar development. The land use plan must be kept under continuous review, but in itself only constitutes a small part of the planning work. Urban planning is a profession in its own right, the Upazila Engineer should take its charge.

8.4. Monitoring and Review :

The monitoring of all activities regarding the implementation of plan of the upazila shahar should be left with a technical person who understands the job. The Upazila Parishad may look after the proper implementation of the upazila shahar. The land use plan prepared will fulfill the stated objectives of the TOR. It is very important to note that the present use of land should not be disturbed and will continue untill the lands are required to be developed for urban use as proposed in the plan.