

**URBAN DEVELOPMENT DIRECTORATE  
MINISTRY OF WORKS  
GOVERNMENT OF THE PEOPLES REPUBLIC OF BANGLADESH**

**Land Use/Master Plan  
Raninagar Upazila Shahar  
NAOGAON ZILA**

**May-1990**

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Naogaon Zila

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The Land Use/Master Plan of the Raninagar Upazila  
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## 1. INTRODUCTION

In the Government's recent policy of overall administrative re-organization, the upazila has been recognised as the most significant tier of administration. Each upazila centre will be focal point of all upazila level administrative activities. Thus the development of upazila centre is the government's key strategy for social, economic and infrastructural 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-organisation has delegated more power to the upazila authority for planning, programming, implementing and controlling 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 centres. 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 from 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 trend in the upazila. The land use plan prepared for the headquarters will serve as a guide line for a planned and co-ordinated development of prospective

headquarter's town upto the year 2001. When successfully materialised, the land use plan will cause orderly growth of the town and its land uses. 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 reserve 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 legislative validity 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 regions land, people and natural resources. With this end in view, the Govt. has planned to engage consultants for preparation of land use plan for some of the upazila shahars of Bangladesh.

## 2. METHODOLOGY OF SURVEY AND ANALYSIS

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 for conducting existing land use and socio-economic survey.

### 2.1. Existing Land Use Survey:

Mouza maps in the scale of 1"inch equal to 330' feet were collected from the D.L.R. covering whole of the designated study area and traced out with plot boundaries and numbers. Thus the field survey sheets were prepared. Detailed and plot to plot survey of current uses of land were marked on the survey sheet. 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. The survey for current uses of land was completed for the whole of the designated study area.

### 2.2. Preparation of Existing Land Use Map:

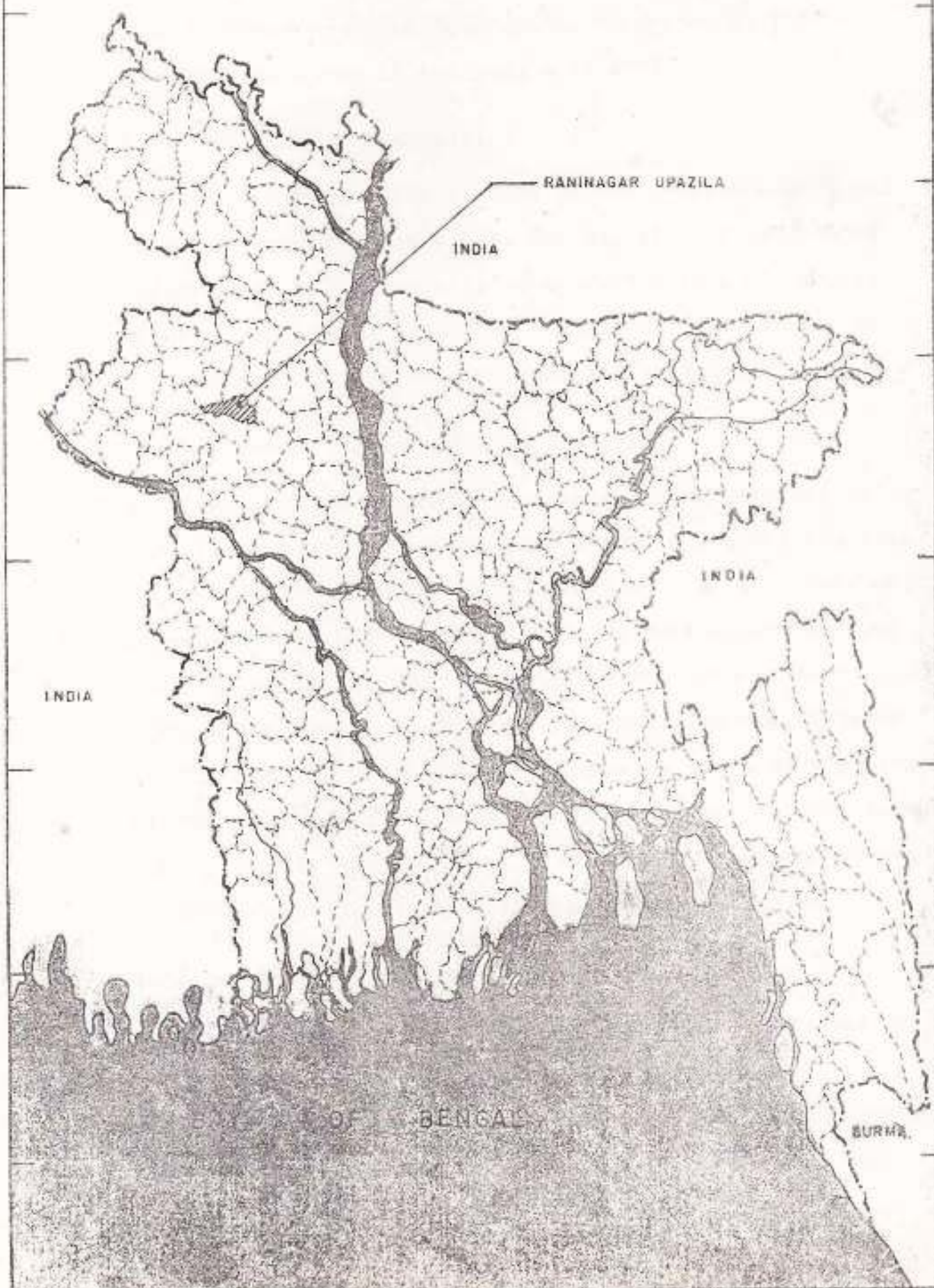
The survey sheets were compiled in the laboratory and existing land use map were prepared in colours. The land use map was examined and analysed and finally study plan area was delineated. From the survey sheets a base map of existing

# MAP OF BANGLADESH

SCALE:— 1: = 48' 28 K.M.

LOCATION OF THE PROJECT

4



land uses was prepared in graphics according to the instructions given in the page - 11 of the TOR.

### 2.3. Existing Land Use Analysis:

A table on current uses of land of the upazila centre was prepared from the survey map. The quantity of land under different uses were calculated by grid method and consequently there might have some errors. The percentages of land under different uses were also calculated.

### 2.4. Socio-Economic Survey and Data Analysis:

A format of questionnaire containing nine items and 115 variables was prepared and administered to collect the data on socio-economic condition of the people of the study area. Three percent of the total households were interviewed by field investigators on random basis. The data collected through socio-economic survey were tabulated and analysed to find out the socio-economic characteristics of the people of the study area. The land use plan will be prepared based on this survey and analysis to meet the socio-economic needs of the people of the study area and catchment 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 (Scale of R.F. 1:1000). Layout of man-made 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 headquarters. Contour maps were collected from the BWDB and compared with the survey map and finally the contours were interpreted on the survey map in a correct scale.

## 2.6. Determination of Hierarchy of Settlements:

The hierarchy of settlements were determined on mouza basis depending on population, economic activities, social infrastructures provisions, transport linkages and related other characteristics. 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 headquarters. These data were tabulated and they were given assumed weightages to find out the gravity of each mouza of the upazila. According to the weights ranking of mouzas were made. According to the weight of each mouza socio-economic infrastructural developments will be suggested. Special attention will be given to the linkage developments for the whole of the upazila region so that the service provisions located in the upazila shahar can serve the upazila region properly.

## 2.7. Determination of Catchment Area and Study Area:

To determine the sphere of influence of the catchment area, data on commuting distance and service area of the upazila shahar were collected during the field survey from the upazila headquarters. The physical features in and around the upazila shahar study area were analysed. The sphere of influence or the catchment area was determined and delineated through studies on commuting distances, service area and physical features of the upazila headquarters and surroundings. Population and labour forces would be forecasted for the delineated catchment area to provide service provisions in the upazila shahar. The shahar area was determined on analysis of existing land use survey map of the study area. Trend of development of settlements, availability of buildable lands and physical features of the centre and surroundings have been given due considerations.

### 3. THE UPAZILA IN ITS DISTRICT CONTEXT

#### 3.1. Location and physical characteristics:

##### 3.1.1. Background:

The administrative reorganization initiated by the Government has been acclaimed by the people as epoch-making for development of the country. The reorganized hierarchy at the upazila level is the most significant pivot of the new administrative set up. This has transferred a good number of permanent civil servants of the government to the Upazila Parishad which is to be an elected local body to initiate plan and develop its own area. Development control or its implementation requires first the preparation of a Land Use Plan, its approval and then execution. Thus the government have rightly decided to prepare the Land Use Plans for the Upazila Shahars by phases by the UDD.

##### 3.1.2. Location:

The Upazila Raninagar is one of the upazila of Naogaon Zila. It is at a distance of 100 km. from the Zila Headquarters. It lies between  $24^{\circ}38'$  and  $24^{\circ}47'$  north latitude and  $88^{\circ}51'$  and  $89^{\circ}10'$  east longitude. It is bounded in the north by Naogaon Bogra Zila and in the south by Atrai Upazila in the east by Bogra Zila and in the west by Manda Upazila. It comprises a total area of 256.2 sq.km. (98.9 sq. miles) including an area of 0.50 sq.km. of

river with 8 union, 190 mouzas and villages. The density per sq.km. is 485 and the average size of household is 5.6 and the sex ratio is 103 male for every females in the upazila as against 105 for the Zila.

### Principal Topographical Features:

Geologically, Naogaon Zila was a sub-division of Rajshahi Zila is a part of Indo-Gangetic trough which includes almost all of Sind, Northern Rajasthan, almost the whole of the Punjab, Uttar Pradesh, Bihar, Old Bengal (Bangladesh and West Bengal) and part of Assam. Several theories have been suggested concerning the origin of Indo-Gangetic trough. Compression, depression and tension are considered to be the main force responsible for the origin of the trough. Oldham (R.D.) has suggested that the primary force was the weight of the sediments deposited by the rivers from the Himalayan mountains, whatever be the reasons, the alluvial deposits are fairly thick. We know that the Zila lies in the sub-merged Indian Platform known here as the Dinajpur Slope and the thickness is not more than 2,000' ft. developing a sedimentary complex above the bed rocks.

Naogaon was a small Trading Centre on the right bank of the river Januna. The records of the collectorate show that the East India Company had a factory here as early as 1782, which was under the resident at Kumerkhali. Later, when in 1877 a sub-division was formed with the northern thanas of Rajshahi District it was made the headquarters of this new sub-division, which was also named after it.

The Zila is intersected by the river Atrai, to the east of which there is much swampy water logged land; on the north-west in the elevated, slightly undulating tract called the Barind. The Atrai river flows past Mahadebpur and Manda on

the south of the Barind and is joined by Jamuna, which runs from north to south near the Bogra border and passes through Naogaon town. East of the junction, the Atrai bifurcates, and most of the water passes down the northern branch known as the Gull, the southern branch is a narrow shallow stream choked with weeds and moribund. The high bank of these rivers are fringed with villages, and there are several large river-marts on the Atrai. Beyond the villages, the land slopes away to cultivated paddy land or perennial marsh. The most notable of these beels is the Munda Beel near Thakur Manda, a clear sheet of water with rapidly sloping banks. It continues in a chain of beels to the south and east. There is also an enormous stretch of perennial swamp all round Dabulhati village in the angle between the Atrai and the Jamuna. The area west of the Atrai beyond the beels, in Manda and Mahadebpur upazilas, is typical Barind. It is undulating country cut up by streams, called kharis, flowing in deep channels. The gentle slopes leading down to these streams are terraced into rice fields.

#### Soil:

The kind of soil found in the Naogaon Zila is known as stiff soil of reddish clayey loam distinguishes it from the remainder of the Zila. 'Barind' is the part of old alluvium of middle pleistocene age, later slightly raised and compressed to the surrounding area due to tectonic movement. A characteristic feature of this old alluvium is the abundance of impure calcareous matter in the form of irregular concretions - locally

known as 'Kankar'. The 'Kankar' concretions are formed due to the separation of calcareous and ferruginous material of the alluvial deposits in the nodules.

The red clay of the 'Barind' contains an excess of iron and lime but is deficient in silicious matter as it gets no deposits of sand from flood water. When dry this soil becomes slippery rather than soft. Winter rice is practically the only crop grown in this tract. In the south of the Zila this soil is known as 'Pali' and is very valuable. It produces those crops which are most profitable to the cultivator namely; Jute, Sugarcane, Potato, Turmeric, etc. as well as autumn rice. The higher land along the bank of the Ganges is not so fertile but also produces a variety of autumn and spring crops. The soil is ordinarily black loam, very fertile, most suitable for paddy and, where not too low, for jute. The soil of the 'Beels' of some depth contains black clay enriched by vegetable matter.

#### Climate:

Naogaon does not characterised by great extremes of heat and rainfall, owing to the geographical situation of Zila which ensures it against the direct action of disturbing influences, such as the sea in the south, the strong monsoon current in the east and the Himalaya to the north. Humidity is fairly high during the monsoon period, decreasing gradually from August. Humidity in June is 82 percent, in July-August it is 83 percent, in September 82 percent, and in October 78 percent. For more clarification, the chart below shows the Mean Monthly and Annual Evaporation, in inches, of the Naogaon Zila.

The mean temperature increases from 63°F in January to 85°F in April, May and June. It is about 83°F during the monsoon months, and falls to 72°F in November and 65°F in December. The highest average maximum temperature is 96°F in April, and the highest average minimum is 78°F in July and August. The lowest average minimum is 51°F in January. The daily variation is often great e.g. in May the temperature rises to 106°F and falls at night to 78°F.

The rainfall is very light from November to February, increases somewhat in March and April, the season of local disturbances and continues uniformly at about 10 inches during the monsoon months, June to September, at Raogaon. In May and October, the rainfall is about 5 inches and is due to the occasional incursion of cyclonic storms when heavy rain may fall for several days at a time. The main causes of rainfall are shallow land depressions, which frequently, form during the monsoon months, and the shifting winds which, with the small oscillations of the atmospheric pressure and the high humidity then prevailing are sufficient to maintain daily and, at times, heavy rainfall.

The hot season commences early in March with the cessation of the northerly winds, which are a marked and agreeable feature of the cold weather. South-westerly and hot westerly winds prevail during the closing days of March and the whole of April, when dust storms are of frequent occurrence. Southerly winds prevail in May and south-easterly winds during the monsoon from June to middle of October when cool nights begin to give indication of the approach of the season.

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Source: Bangladesh District Gazetteers Rajshahi, 1976, P.17-18.

### 3.2. Population and Settlement Distribution:

#### 3.2.1. Zila:

According to the district census report of Rajshahi-1981, the total area of Naogaon Zila is 3434 Sq.km. out of which 9.1 Sq.km. or 0.26 percent of the total area of the Zila is Urban. According to the same report the total population of the Zila in 1981 was 17,21,959 persons of which 52,975 persons or 3.07 percent of the district population was urban. The total number of households was 307,258 and that of the total of urban was 7156. The average density of population of the district was 951 persons per sq.km. and that of urban area is 5321 persons per sq.km. The annual rate of growth of population in the Zila and Urban area are 2.73 and 1.92 percent respectively.

### 3.2.2. Upazila:

The total area of Raninagar Upazila is 256.2 Sq.km. out of which 31.0 Sq.km. or 4.7 percent of the total area of upazila are covered by the urban area. The total number of households of the upazila is 22,233 and that of urban area is 757. The total population of the upazila in 1981 is 124,187 persons and that of the urban area is 3,644 persons or 2.93 percent of the upazila population. The average density of population of the upazila is 485 persons per Sq.km. and the density of population of the urban area is 118 persons. The annual rate of growth of population of the upazila is 2.66 persons and that of the urban area is unknown, because the population of the upazila centre has been declared recently as urban.

### 3.2.3. Migration:

As per the district census report of Rajshahi -1981, the annual rate of growth of population in between the census years 1974 -1981 has been recorded as 2.90 percent. The population of Naogaon Pourashava in 1974 and 1981 were 39,955 and 56,754 persons respectively. The annual rate of growth of population inbetween these census period was 5.01percent. From this analysis we may assume that the annual rate of migration is  $5.01 - 2.59 = 2.42$  percent. The cause of migration may be due to movement of people from rural areas to urban areas for socio-economic reasons.

Table No. 1  
Distribution of Population and Settlement  
Raninagar Upazila  
Naogaon Zila

	Area in Sq. km.		Households		Population		Population		Density of Pop.		Rate of Growth	
	Total	Urban	Total	Urban	1961	1974	1981	1981	1981	1981	1961-81	1981-81
Upazila	256.20	31.0	22233	757	73150	N/A. 103928	N/A. 124561	3644	505	118	2.59	-
Zila	3434	9.1	307258	7156	997315	N/A. 1424082	N/A. 1721959	52975	501	5321	2.73	10.52

Source: 1. Rajshahi District Statistics - 1983.

2. Upazila Statistics Vol. I, 1985.

3. Bangladesh Population Census, Thana Series.  
Rajshahi District Part-I.

According to the census report of Rajshahi District-1981 the urban population of Raninagar upazila is recorded as 3644 persons. The density of urban population of the upazila is higher than that of the surroundings rural areas. It is not possible to determine the rate of migration from rural areas towards the urban centres, because it is the first time that all rural upazila centres of Bangladesh have been treated as urban irrespective of its area, population and level of urbanization. Under this circumstances, it may be assumed that due to upgradation of upazilas, a considerable number of population have been migrated to the upazila centre.

### 3.3. Economic Performance and Transport Linkages:

#### 3.3.1. Employment and Underemployment:

##### Zila:

The total population of Naogaon Zila is 17,30,078 persons out of which 8,81,642 persons are male and 8,48,436 persons are females. The total number of population at the age group of 10 years and above is 11,52,147 or 66.6 percent of the total of Zila population. The total number of labour force are 4,75,229 persons or 41.24 percent and the rest 58.76 percent are house-wives, students and underemployed. In the total labour force the percentage of male are 93.92 and that of female are 6.08% .

The total number of employed persons of Naogaon Zila are 475229 out of which 365010 persons or 76.81 percent are employed in agriculture. In non-agricultural sector 110,219 persons or 23.19 percent engaged which is not reliable. For details Table No. 2 and 4 may be seen.

Upazila:

The total number of population of Raninagar upazila is 124561 persons out of which 62,566 persons are male and 61,995 persons are female. The total number of population at age group of 10 years and over is 81,640 persons or 65.74 percent of the total population. The total number of employed persons of the upazila are 30,470 persons or 37.32 percent and the rest 62.68 percent are house-wives, students and underemployed. The percentage employed of upazila labour force is higher than that of the zila by 0.48 percent. In the total labour force, the participation of male is 91.80 percent.

The total number of persons employed are 30,470 persons out of which 22,911 persons or 75.19 percent are engaged in agriculture. In non-agricultural sector 7,559 persons or 24.80 percent are employed. For details Table No.2 may be seen.

Table No. 2  
Population and Labour Force - 1981  
Reminagar Upazila  
Naogaon Zila.

Locality	Population		Population (10 Years +)		Labour Force (10 yrs. +)	
	Total	Male	Total	Male	Total	Male
Upazila	124187	62566	81640	41304	40336	27971
Zila	1730078	881642	1152147	598372	558775	446376
					2499	28853

Source: Upazila Statistics Vol. I, 1985  
Table No. 2.02, Page-41  
Bangladesh Bureau of Statistics.

Table No. 3  
Occupational Classification of Population - 1981.  
Raninagar Upazila  
Naogaon Zila

Locality	Agriculture		Non-agriculture		Others
	Cropping	Non-cropping	Manufac-ture	Business	
Upazila	21,412	1,499	181	2,625	4,753
Zila	3,56,514	8,496	3,888	33,775	72,556

Source: Upazila Statistics Vol.I, 1985.  
Table No.2.04, Page-71.  
Bangladesh Bureau of Statistics.

### 3.3.2. Income and Expenditure:

The data on income and expenditure structures of the Zila and upazila are not available. The data on income and expenditure structures of the people of study area have been collected through the questionnaire survey which will be discussed in the section on 'socio-economic data analysis' of the report.

### 3.3.4. Transport Linkages:

The Naogaon Zila has a total network of roads 2626 kilometres, out of which 114.26 kilometres are metalled, 56.32 kilometres are semi-metalled and rest 4055.54 kilometres are non-metalled.

The total network of roads in the Raninagar upazila is 350 kilometres, there is no metalled and non-metalled roads in the upazila.

The communication system of Naogaon Zila is very good. The zila headquarters is well connected with the surrounding regions by rail, road and by water ways. It is also connected with capital city both by roads and rail ways.

Table No. 4  
Road Kilometres by type, Distance & Modes  
of Communication 1981-1982.  
Raninagar Upazila  
Naogaon Zila.

Area	Road Kilometre by type			Distance from D.H.Q.	Modes
	Metalled	Semi- metalled	Non- metalled		
Upazila			350	100 Km.	Train, buses.
Zila	114.26	56.32	4055.54	-	Bus, Auto- rickshaws, Rickshaws

Source: Upazila Statistics. Vol.I, 1985  
Table No. Page-200  
Bangladesh Bureau of Statistics.

The upazila headquarters of Raninagar is well connected with the zila headquarters both by rail and roads. The distance between the zila headquarters and the upazila headquarters by rail is 100 km. The upazila is also connected with zila headquarters by kutchha road.

The mode of transportation are train, Bus and auto-rickshaws. In rainy season small country boats also play a dominant role. The upazila headquarter is connected with most of the union parishads by kutchha road.

### 3.4. Social and Economic Infrastructures of Upazila Region:

#### 3.4.1. Markets/Commerce:

In most cases the village markets are the centre of commerce and they play an important role in the rural economy of Bangladesh. According to the information collected from upazila headquarters, there are 15 hat/bazars or centre of commerce in Raninagar upazila. They meet once or twice in a week. Most of the markets have daily morning bazar facilities. There is one market for 730 persons of the study area.

#### 3.4.2. Education:

There is no college, 17 high high/junior high schools, 2 madrasas and 58 primary schools in this upazila. This shows that there is one college a high/junior high school a madrasa and a primary school for every 9,172 persons in the age group of 15-24 years; 762 persons in the age group of 10-14 years; 2,510 persons in the age group of 2-24 years and 435 persons in the age group of 5-9 years respectively. The teacher-student ratios in college, high/junior school, madrasa and primary school, are 31, 16, 15 and 51 respectively.

#### 3.4.3. Health and Welfare:

There are 1 hospital with 31 beds 6 doctors and 9 paramedics in the upazila. This shows that there is one doctor, One bed and one paramedic available for every 36,926, 14641 and 23605 persons respectively.

#### 3.4.4. Urban Services and Utilities:

There is only one police station in the Raninagar upazila. There are 9 post and 1 telegraph offices in the upazila. One post office is serving 1550 persons. There are electricity in 2 villages of the upazila have so far been provided with electricity. This means that 0.20% of villages of the upazila have electricity facilities. Playing fields exist in almost all unions, there are 4 bank branches in the upazila, 2 cinema halls having 500 and 425 seats.

#### 3.4.5. Current Development Projects:

There is no such notable development projects in the upazila region. Mentionable development project is the development of upazila headquarters only. In the UNO Complex the construction of Halipad and most of the structures have already been completed. The construction of some ancillary structures yet to be completed. The structures for residential accommodation of officers and staff of government department are yet to be started construction.

#### 3.4.6. Synthesis: Identification of Hierarchy of Settlements in the Upazila.

In the upazila region of Bangladesh, functions are found neither concentrated in one particular centre nor fully dispersed. They have unique characteristics of their own and differ from one region to another. Sometime commercial activities are found to be concentrated with social activities and sometime they are also found dispersed in different places. For this reason, it will be a wise policy to

determine the hierarchy of settlements on mouza basis. Determination of hierarchy of settlements on mouza basis will indicate specific location of functions. The hierarchy of settlements are determined depending on population, economic and social infrastructures provisions, transport linkages and related other characteristics.

To determine the hierarchy of settlements 18 main socio-economic indicators have been selected (See Table No.5 ). Data on these selected indicators have been collected on mouza basis from the upazila headquarters during the field survey in the month of May-1989. The mouza-wise distribution of socio-economic indicators have been shown in Table No.5. Selected socio-economic indicators have been given assumed range of weightage for each (See Table No.6 ). According to the given weight, the gravity of each function located in related mouza have been calculated (See Table No.7 ). Finally, the total weight of each mouza have been found out. According to the respective weights, and ranking of each mouza have been made. The mouzas having score below ten avoided. According to the analysis, the highest score is gained by Chak monu and Balu Bhara mouza where the upazila administrative headquarters, police station, College and high school are located. It is also found that most of the important functions are located in the upazila centre. The ranking of scores gained by mouzas are categorized as shown in the Table.

Table No.5  
Raninagar Upazila  
Naogaon Zila  
Indicators of Hierarchy of Settlements and their Weights.

Sl. No.	Infrastructures	Abriviation	Weight
1.	Public Institution ...	Pi	5 - 10
2.	Commerce ...	Ch	1 - 5
3.	Industrial Establishment	In	1 - 5
4.	Police Station ...	Ps	1 - 5
5.	Health and Welfare ...	Hw	1 - 5
6.	College ...	Ec	5 - 10
7.	High School ...	Eh	3 - 6
8.	Primary School ...	Ep	1 - 2
9.	Post Office ...	Po	1 - 5
10.	Telegram and Telephone ...	Tt	2 - 5
11.	Electricity ...	Et	2 - 5
12.	Religious Institution ...	Ri	1 - 5
13.	Road Pucca ...	Rp	1 - 5
14.	Station (Rail, Water, Bus)	St	1 - 5
15.	Recreation (Park, Playing Field, Cinema)	Re	1 - 5
16.	Bank ...	Bk	1 - 6
17.	Area 500 Acres ...	Ar	1 - 6
18.	Population 500 Persons ...	Pn	1 - 5

Table No. 6

Raninagar Upazila  
Maogaon Zila

## List of Indicators of Settlement of Hierarchy

J.L. No.	Name of Mouza	Pi	Ch	In	Ps	Hw	Sc	Sh	Ep	Po	Tt	St	Ri	Rp	St	Re	Bk	Ar	In
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
59	Gahelapur	1	1	-	-	-	-	-	1	1	-	-	-	-	-	-	-	621	1373
13	Khatteswar Rand	1	1	-	-	-	-	1	1	1	-	-	1	-	-	-	-	836	4308
163	Hajipur	-	1	1	-	1	-	1	1	1	-	-	1	-	-	1	-	313	792
7	Kasimpur	1	1	1	-	1	-	-	1	1	-	1	1	-	-	-	1	692	1522
3	Chak Monu	1	1	1	1	-	1	-	1	-	-	1	1	1	-	1	-	257	1712
15	Bhutpara Rajapur	1	1	1	-	-	1	1	1	-	-	1	1	1	1	1	-	386	2603
1	Lulubhara	1	1	1	-	1	-	1	3	1	1	1	1	1	1	1	3	318	3644
317	Ataikhola	1	-	1	1	-	-	-	1	-	-	1	1	-	-	-	-	1335	2443
19	Parail	1	1	1	-	-	-	-	1	1	-	-	1	-	-	-	-	1983	3249
151	Bhandargram	1	1	1	-	-	-	-	-	-	-	1	1	1	-	-	-	652	2127
309	Mirat	1	1	1	-	-	-	1	1	1	-	1	1	1	-	1	1	1457	2708
4	Chak Kutub	-	1	-	-	-	1	2	1	-	-	-	1	-	-	-	-	164	777
6	Enayetpur	1	1	-	-	-	-	1	1	-	-	-	1	-	-	-	-	218	1766

Source : Upazila Statistical office.

Table No. 7

## Determination of Hierarchy of Settlements by Weightage Method.

Raninagar Upazila

Naogaon Zila.

J.L. No.	Name of the Mouzas	Pi	Ch	In	Pa	Hw	Ec	Bh	Ep	Po	Tt	Rt	Ri	Rp	St	Re	Bk	Ar	Pn	Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
59	Gahelapur	5	2	-	-	-	-	-	1	2	-	-	-	-	-	-	-	1	2	11
13	Khatieswar Ranô-5	5	2	-	-	-	-	3	1	2	-	-	1	-	-	-	-	1	2	17
163	Hafipur	-	2	2	-	2	-	3	1	2	-	-	1	-	-	1	-	1	4	19
7	Kasimpur	5	3	3	-	2	-	-	1	2	-	3	2	-	-	1	2	1	6	31
3	Chak Monu	6	3	3	5	-	7	-	1	-	-	4	2	3	-	1	-	1	6	42
15	Bhutpara Rajapur	7	5	3	-	-	-	3	1	2	-	5	2	5	-	1	1	1	4	40
1	Balubhara	7	5	3	-	5	-	6	3	2	5	5	2	4	2	1	6	1	6	63
317	Ataikhola	5	-	3	3	-	-	-	1	-	-	3	2	-	-	-	-	1	5	23
19	Parail	3	3	2	-	-	-	-	1	2	-	-	1	-	-	-	-	1	3	16
151	Bhandargram	3	3	3	-	-	-	-	1	2	-	-	1	-	-	-	-	1	4	18
309	Mirat	3	3	2	-	-	-	3	1	2	-	3	2	3	-	1	3	3	5	34
4	Chak Kutub	-	3	-	-	-	5	6	1	-	-	-	1	-	-	-	-	3	6	25
6	Enayetpur	3	3	-	-	-	-	3	1	-	-	-	1	-	-	-	-	3	6	20

Note : Weightage used on assumptions.

## Range of Score

41-60 and above

21-40

11-20

## Category of Settlement

A-Balubhara, Chak Monu

B-Bhutpara Rajapur, Mirat &amp; Kasimpur

C-Chak Kutub, Ataikhola and Enayetpur.

The ranking of mouzas are marked by 'A', 'B' and 'C' as per the calculated respective gravity and weights of each mouza. Here the highest score 'A' are gained by Balubhara and Chak Monu mouzas. The second highest score 'B' are gained by Bhutpare Rajapur, Mirat and Kasimpur mouzas. The third ranking 'C' are gained by Chak Kutub, Ataikhola and Enayetpur etc.

#### 4. SOCIO-ECONOMIC CONDITION OF THE STUDY AREA

According to the instruction given in the scope of work 4.3 of the TOR, the socio-economic survey for the study area of Raninagar Upazila Shahar was completed. The main objective of socio-economic survey was to find out the socio-economic conditions of the people of study area. The results of analysis of socio-economic data may help to locate adequate provision of functions of government's services and facilities of basic needs in the upazila centre which may bring some significant improvements in the quality of life of the rural people. The data so collected through socio-survey are analysed in the following paragraphs.

##### 4.1. Population Characteristics:

##### 4.1.1. Population Growth:

For the study area of Raninagar upazila headquarters the socio-economic survey was completed for 60 dwelling households containing 315 persons, out of which 186 persons are male and 129 persons are female. There are 112 males for 100 females in the study area. It is possible to assume that due to upgradation of the upazila economic activities have been started in the upazila headquarters of Raninagar which resulted in generation of jobs. Males have come to the upazila headquarters for job.

#### 4.1.2. Age and Sex Composition:

The age and sex composition of the people of the study area shows that the age group of 11-45 years contains 137 persons or 33.25 percent of the total population. Above this age group population of the study area falls sharply.

#### 4. 3. Literacy:

According to the socio-economic survey there are 215 persons in the age group of 6 years and above out of which 181 persons are literate. The rate of literacy is 84.18 percent. The rate of literacy of the upazila as a whole is 22.36 percent only and that of the national is 23.80 percent. The rate of literacy of the study area of Raninagar is much higher than that of the upazila and than that of the national.

#### 4.2. Household Characteristics:

##### 4.2.1. Household Size:

It has been observed that there is a tendency of increasing the households in the study area. But the exact number of households could not be ascertained. According to the socio-economic survey 60 dwelling houses contains 315 persons that is the size of households is 5.25. But according to the census report of 1981, the average size of households of the upazila was 5.6 persons. Accordingly, we may say that the size of households of the study area is smaller than that of the upazila average.

Table No. 8  
Raninagar Upazila  
Naogaon Zila  
Age and Sex Composition of Population of the Study Area  
May -1989

Age Group	Population			Percentage
	Total	Male	Female	Total
0 - 5 years	48	22	26	15.24
6 -10 "	58	34	24	18.41
11 -15 "	43	35	8	13.65
16 -20 "	28	15	13	8.89
21 -25 "	18	11	7	5.72
26- 30 "	38	13	25	12.06
31- 35 "	24	16	8	7.62
36- 40 "	26	21	5	8.25
41- 45 "	12	6	6	3.81
46- 50 "	7	5	2	2.22
51- 56 "	5	2	3	1.59
56- 60 "	4	3	1	1.27
61 + above	4	3	1	1.27
	315	186	129	100.00

Source: Socio-Economic Survey.

#### 4.2.2. Household Structures:

According to the socio-economic survey there is a pucca structure and households are semi-pucca. Most of the structures are kutcha. We may say that the structural conditions of households of the study area are poor. The classification according to the household structures and their percentage are shown in Table No. 9

Table No. 9  
Raninagar Upazila  
Naogaon Zila  
Household Structures of Study Area  
May -1988

Type of Structures	No. of Households	Percentage
Pucca	144	7.40
Semi-pucca	1649	84.78
Thatched	152	7.81
	1945	100.00

#### 4. Economic Performance

The total number of population of age group 10 years and above is 147 persons, out of which 56 persons or 38.09 percent are employed in different sectors of economic activities. The number of persons unemployed are 91 or 61.91 percent which includes housewives, students and underemployed persons. One person or 0.68 percent is invalid.

Table No.10  
Raninagar Upazila  
Naogaon Zila  
Employment Structures of Study Area  
May - 1988

Sl. No.	Employment Structures	Persons	Percentage
1.	Employed	56	38.10
2.	Unemployed	90	61.22
3.	Invalid	1	0.68
	10 + Population	147	100.00

#### 4.3.2. Professional Structures:

The total number of employed persons are 56, out of which 12 persons or 21.43 percent are agricultural labour force. Percentage of agricultural labour force is low because there are many rice mills and jute godowns in and around the upazila centre of Raninagar. The number of professional and technical labour forces are 2 persons. In business sector, 24 persons or 42.86 percent are employed. The production and transport sector employ 17 persons. For details of professional structures Table No.11 may be seen.

Table No.11  
Raninagar Upazila  
Naogaon Zila  
Professional Structures of Study Area  
May - 1988

Sl. No.	Profession	No. of Persons	Percentage
1.	Agriculture	12	21.43
2.	Professional and Technical	2	3.57
3.	Administrative and Management	1	1.78
4.	Business	24	42.86
5.	Production and Transport	17	30.36
		56	100.00

### 4.3.3. Income and Expenditures:

The annual income of 11 households or 27.50 percent of the total households lie between Taka 18,000 to 25,000/- only. The income of highest income group lies between Taka 26,000/- to 50,000/- and number and percentage of households in this income group are 26 and 65.00 respectively. Only 2.50 percent of households have income between Taka 76,000-100,000/- only. The analysis of expenditure group shows the same trend.

The lowest income of households is Taka 18,000/- only. The highest income of households is Taka 80,000/- only. The average annual income and expenditure of the households are Taka 33,800/- and 33,425/- respectively. The average annual savings of per households are Taka 375/- only. For details Table No.12 may be seen.

According to the survey, the main sources of income of households are agriculture and business or both. The mentionable fields of expenditure are food and dress. Only a small amount of money is spent for education.

Table No.12  
Raninagar Upazila  
Naogaon Zila  
Average Annual Income and Expenditure of Study Area  
May-1989

Rank in Thousand Tk.	Income		Expenditure	
	Households	Percentage	Households	Percentage
+ 25	11	27.50	11	27.50
26 - 50	26	65.00	26	65.00
51 - 75	2	5.00	12	5.00
76 - 100	1	2.50	1	2.50
	40	100.00	40	* 100.00

#### 4.4. Small Scale and Cottage Industries:

There are 13 small scale and cottage industries in the study area of Raninagar. Most of them are rice husking and flour mills. There is one Ice-cream factory, one oil mills and 3 saw mills.

The total area covered by these industries is 0.88 acre. The average area covered by an industry is 0.06 acre only.

The average number of workers in a mill are 3 persons. The highest number of workers found in a saw mill are 9 persons. Even a single person works in a rice husking mill.

Most of the workers live near the mills. Maximum distance of a worker is 5 km. some of workers come from 2 to 5 km. distance.

#### 4.5. Educational Institutions:

##### 4.5.1. Primary Schools:

There are 5 primary schools in the study area having 1820 children and covering only 2.18 acres of land. The land used by primary schools are inadequate. The average of land used by a primary school is approximately 0.46 acre. The average of enrolment in a primary school is 623 children. The average of teachers in a school is 11 persons. There is one teacher for 56 children. Most of the primary schools have facilities of drinking water and toilets. The space for playing field is inadequate.

#### 4.5.2. Secondary Schools:

There is one secondary school for boys and one for girls. The area of the boys' secondary school is 0.4 acre enrolling 1107 students. The total number of teachers is 16 persons. The ratio of teacher and student is 1 :69. There is a secondary school for girls, which is located on 0.50 acre of land. There are 562 girls and 12 teachers in this school. The ratio of teacher and student is 1:47.

#### 4.5.3. College:

There is a college in the study area. The college has been located on 1.0 acre of land. The college enrolls 1860 males and 260 females students. There are 29 teachers in the college. The ratio of teacher and student is 1:73 only.

#### 4.6. Administrative Institutions:

Administrative institutions include both the public institutions and semi-government institutions. Besides the upazila complex, there are other offices. The total number of officers are 12 and that of staff are 83 only. The commuting distance of officers and staff ranges 1-5 km. The land use analysis of upazila complex will be dealt later on in the existing land use survey and analysis section of this report.

#### 4.7. Financial Institutions:

There are 4 financial institutions in the study area namely the Agrani Bank, the Sonali Bank and the Bangladesh Krishi Bank. There are 13 officers and 59 staff working in these banks.

#### 4.8. Health and Welfare:

There is only one health centre in the study area. The area of the health complex is 1.50 acres. There is a 31 bed hospital in the health complex. The number of doctors and employees are 8 and 110 respectively. The average of outdoor patients per day is 210 only.

#### 4.9. Recreational Facilities:

There are playing fields attached to the college and the boys' secondary school is for general sports and games. There are clubs and two cinema halls in the upazila.

#### 4.10. Distance of Important Places From Homes:

The distance of main roads, working places and other service centres from residences of the people is needed to analyse the adequacy of services in any urban area. The following analysis showed the distances of service facilities from the residences.

##### 4.10.1. Main Road:

The distance of almost all households are approximately 0.50 km. and the average distance of households is 0.35 km. only.

##### 4.10.2. Working Place:

The place of working is very nearer for most of the people of the study area. The average distance households from the places of work is 0.80 km. The maximum distance of working place from the households is 2.5 km. only.

#### 4.10.3. Primary School:

The average distance of households is 0.67 km. from the primary schools. This distance can be the desirable walking distance of primary school children. The maximum distance of some households from primary school is 1.50 km. It is necessary to locate more primary schools in the study area.

#### 4.10.4. High School:

The average distance of the households and the high school is 0.74 km. One kilometre distance may be considered as desirable walking distance of high school going boys and girls. The maximum distance from the households to high school is 2.00 km.

#### 4.10.5. Hospital:

The average distance of households from the hospital is 2.75 km. The maximum distances of hospital from households is 6.00 km. The hospital has not been located in the centre of the upazila study area. It means more health centre is needed to be located in the study area.

#### 4.10.6. Post Office:

The postal service of the study area is not quite good. The average distance of households from the post office is 1.54 km. Even the distance between the households and post office ranges 5-6 km.

#### 4.10.7. Rail/Bus Stations:

The distance of the households from the Bus/Rail station is 1.82 km. The maximum distance is 4.00 km.

#### 4.11. Available Facilities:

According to socio-economic survey almost all facilities are available in the study area. Water is available from tube-well. Supply of electricity is not adequate. Telephone service is very poor.

## 5. THE UPAZILA HEADQUARTERS

### 5.1. Definition of Sphere of Influences/Attractiveness:

Functions located in 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 the 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 zone of influences over whole of the upazila region. The social 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 commuting distance of a upazila headquarters may be called the catchment area of that upazila headquarters. The information and data collected during our socio-economic survey from the upazila headquarters and surroundings have been analysed and described in the preceeding chapter on "socio-economic condition of the study area". Here we shall throw a little light of socio-economic analysis.

The Raninagar upazila headquarter lies on south of Santahar railway track. It is connected by a semi-metalled road with Naogaon. It is also connected with other upazilas by road. The officials both government and non-government, workers in industries and customers can commute from distant places. Studies on commuting distances of govt. officials showed that their distance ranges 3 km. to 5 km. and average distance is 4 km. The industrial workers come from 2 km. to 5 km. distances and average distance of workers is 3 km. The buyers and sellers of Raninagar Hat and Bazar comes from 8 km. distances.

Due to the location of upazila headquarters on railway line and good semi-metalled road, the analysis above showed a special facilities of commuting. But walking distance must be considered here to define the zone of influences. From analysis and assumptions, we may say that zone of influence may vary 3-5 km. distance from the headquarters of Raninagar upazila (See the map of heirarchy of settlements).

Details of area and population of 1961, 1974 and 1981 of catchment area Table No. 13 may be seen.

Table No. 13

Mouza-wise Area and Population of  
1961, 1974 and 1981 (Catchment Area)  
Raninagar Upszila.

J.L. No.	Name of Mouzas	Total Area		Total Population		Involved Area		Involved Population			
		Acres	Hac.	1961	1974	1981	Acres	Hac.	1961	1974	1981
	Gahelapur	621	252	775	1127	1373	621	252	775	1127	1373
	Barabaria Bejoy- kandi	416	169	522	770	943	416	169	522	770	943
	Bhabanipur	417	169	1364	1863	2205	417	169	1364	1863	2205
	Chak Balaran	130	53	263	282	438	130	53	263	282	438
	Durgapur	135	55	415	688	807	135	55	415	688	807
	Gona	2123	863	1600	2112	2554	2123	863	1600	2112	2554
	Khajuria	101	41	110	257	310	101	41	110	257	310
	Paschim Gobindapur	101	41	271	264	295	101	41	271	264	295
	Pirera	238	97	195	220	252	238	97	195	220	252
	Chak Adin	338	137	1337	1749	2031	338	137	1337	1749	2031
	Chak Kujail	199	81	690	764	989	199	81	690	764	989
	Chak Kutub	164	66	451	643	777	164	66	451	643	777
	Chak Monu	257	104	755	1079	1712	257	104	755	1079	1712
	Enayetpur	218	88	1072	1472	1766	218	88	1072	1478	1766
	Kasimpur	692	281	2399	3307	3012	692	281	2399	3307	3012
	Mangalpara	97	39	278	350	407	97	39	278	350	407
	Nizampur	128	52	344	419	423	128	52	344	419	423
	Pali Bahadurpur	167	68	570	814	952	167	68	570	814	952
	Sarba Ranipur	219	89	239	292	382	219	89	239	292	382
	Balu Bhara	25	10	2146	2953	3644	25	10	2146	2953	3644
	Belbari	210	85	412	516	636	210	85	412	516	636
	Bhutpara Rajapur	386	157	1508	2105	2603	386	157	1508	2105	2603
	Khatreswar Rani- nagar	836	340	2590	3641	4308	836	340	2590	3641	4308
	Lohachura	757	307	909	1306	1570	757	307	909	1306	1570
	Ranasinga	74	31	213	290	342	74	31	213	290	342
	Sonakania	328	133	223	N.A.	292	328	133	223	N.A.	292
		9379	3808	2165	29289	35023	9379	3808	21651	29289	35023

Growth Rate : 1961-'74 = 2.32 (Low)

1974-'81 = 2.55 (High)

1961-'81 = 2.40 (Medium)

### 5.2. Definition of Shahar Area:

To prepare the land use plan for Raninagar Upazila shahar in order to serve as locational guidelines indicating places of work, residence and recreation and to facilitate public and private developments at the upazila centre through physical planning approach, a plot to plot survey of current uses of land was completed for 1558 acres of land in and around the upazila headquarters. The survey map was analysed very carefully and found that most of the non-agricultural functions including the residential areas have been concentrated in between and along the railway line and metalled road. The land of peripheral areas of centre are mainly under the use agriculture with a few home-steads which should not be brought under any non-agricultural use. A branch river of the Jamuna bounds the centre from the east. Finally, 1558 acres of land have been included in the shahar area of Raninagar. The shahar area includes the mouzas are shown in the Table No. 14 with area and population of 1961, 1974 and 1981.

### 5.3. Existing Land Use; Facilities and Utilization Characteristics:

The study area of Raninagar upazila includes 1558 acres of land. According to survey, the current uses of land of Raninagar upazila shahar planning have been classified as shown in Table No. 16. The facilities and utilization characteristics with locational description have been discussed in the following paragraphs.

Table No. 14

Mouza-wise Area and Population of  
1961, 1974 and 1981 (Study Area)  
Raninagar Upazila

Naogaon Zila.

J.L. No.	Name of Mouzas	Total Area		Total Population			Involved Area		Involved Population		
		Acres	Hac.	1961	1974	1981	Acres	Hec.	1961	1974	1981
	Chak Monu (Part)	257	104	755	1079	1712	161	104	473	676	1072
	Pali Bhabdurpur	167	68	570	814	952	167	68	570	814	952
	Balu Bhara	318	10	2146	2953	3644	418	10	2146	2953	3644
	Khatteswar Raninagar	836	340	2590	3641	4308	836	340	2540	3641	4308
	Renasinga	76	31	213	290	342	76	31	213	290	342
		1654	553	6274	8777	10958	1558	553	5972	8374	10318

Bangladesh Population Census -1981  
Rajshahi District Part-I

Growth Rate : 1961-74 = 2.64 (low)

1974-81 = 2.98 (high)

1961-81 = 2.76 (medium)

Table No. 15

Mouza-wise Existing Land Use Analysis  
Raninagar Upazila Shahar  
Naogaon Zila  
1989

Name of Mouza	Agriculture Forestry	Commerce and Industry	Education	Health and Welfare	Administrative Govt. & Semi-Govt.	Recreation and Cultural	Socio-Cultural	Urban Services	Roads	Residential	Reserve water bodies	Total Area
Chak Monu (Part)	136.40	1.00	0.50	-	-	0.10	-	-	4.00	14.00	5.00	161
Pali Bahadurpur	148.25	-	0.50	-	-	-	2.50	2.00	3.00	11.00	2.00	167
Balu Bhara	226.35	10.00	3.90	4.00	13.50	2.50	0.25	0.50	6.00	44.00	7.00	318
Khattewar Raninagar	736.20	-	0.90	-	-	-	-	-	4.50	70.50	24.00	136
Ranasinga	62.50	-	-	-	-	-	-	-	2.00	0.0	3.50	76
Shahar Area	1309.70	11.00	5.70	4.00	13.50	2.60	2.75	2.50	19.50	147.5	41.50	151
Percentage	84.06	0.71	0.36	0.26	0.87	0.17	0.18	0.17	1.25	9.47	2.66	100

### 5.3.1. Agriculture and Forestry:

The total land covered by agriculture and forestry amount 1310.70 acres or 84.13 percent of the shahar area. The land on the south of the Raninagar-Atrai metalled road is char land which can not be brought under any urban uses. The agricultural lands should be kept reserve.

### 5.3.2. Commerce and Industry:

Commerce and industry together cover 11.00 acres or 0.71 percent of the Shahar Area. Market and shops cover 2.25 and 3.75 acres respectively. For small scale and cottage industrial purposes 4.50 acres of land are used. The market is located beside the railway station and the D.C. Road on mouza Balu Bhara.

### 5.3.3. Administrative:

The total land used for administrative purposes amounts to 13.00 acres or 0.83 percent of the shahar area. Office and quarters are located in the north of the metalled road of Balu Bhara mouza. The govt. godown is also located on the Balu Bhara mouza. The U.P.O. Complex alone uses 10.00 acres of land. The land used by other government departments amount; to 3 acres only.

### 5.3.4. Socio-cultural:

The land used for socio-cultural activities amounts to 1.00 acres or 0.06 percent of the available land. For Mosque and Eddgah 0.6 acre of land is used.

### 5.3.5. Urban Services:

The total land used for urban services amounts to 6.00 acres or 38 percent of shahar area. The land used for post office is 0.50 acre. Telephone exchange used 0.05 acre and the land used by police station amounts to 1.25 acre. Bus and rail stations covers 30.00 acres of land. The police station is located in between the play field and the high school on Balu Bhara mouza. The railway station is located on the east of the bazar. The T & T and Post office is located on the east of the railway tract opposite the rice mill and Graveyard. The site for upazila Helipad is selected on the western side of the Health Complex in Pali Bahadurpur and Part in Balu Bhara mouza.

### 5.3.6. Recreational:

This sector used only 3.90 acres or 0.68 percent of the shahar area is covered by recreational facilities. Recreational facilities are insufficient in the study area. There is a playing field of only 3.00 acres and located on the north of the road on mouza Balu Bhara. Cinema halls cover 0.90 acre of land and located on the western side of the U.P. Complex and opposite the bus stand in Balu Bhara and Chak Monu mouzas.

#### 5.3.7. Roads:

Roads cover 68.50 acres or 4.31 percent of land of the shahar area. The metalled road on which most of the functions are located covers 5.0 acres of land. The railway track cover 21 acres and the local roads covers 22.50 acres of land approximately.

#### 5.3.8. Residential:

Existing residences cover 155.50 acres or 9.38 percent of the shahar area. Residences are concentrated in between and along the metalled road and mostly found scattered through out the shahar area.

#### 5.3.9. Urban Reserve:

Ponds and canals cover 35 acres or 2.11 percent of the shahar area. They cannot be brought under any urban use. They should be reserved for fish cultivation as well as for irrigation. They are found scattered through out the shahar area.

#### 5.4. Physical Opportunities and Constraints:

North-Western part of the shahar area is a tract of high land where most of the urban functions are located. The level of land in between the metalled road and rail line is 35 feet or more. Lands on the southern parts of the shahar is low and bounded by 25' contour is very low and not buildable. Lands on the west of the railway line has agricultural value and should be kept reserved. The char lands are low and easily flooded during rainy season. The land within 30 feet contour is low and not buildable.

#### 5.4.1. Land Tenure:

The land tenure system in Naogaon is similar to that of almost whole of Bangladesh. The land revenue system introduced by the British Ruler was inherited after Independence in 1947. By a legislation known as the East Bengal Estate Acquisition and Tenancy Act 1950 all proprietary rights of the middlemen that is the Zamindars and other sublessees were abolished and agricultural tenants were given permanent, heritable and transferable rights in their hands. They were entitled to use the land in any way they liked. They were to pay rent direct to the government. Thus direct relation was established between government and the majority of the governed and the tillers of the soil became also its real proprietors.

Recently the present government has made an important amendment that land used by dwelling houses are not transferable. The government has also distributed acres of lands to the landless cultivators and clucher which are not transferable.

#### 5.4.2. Land Value:

As the information collected during the field survey, the value of land in and around the upazila headquarters has greatly been increased due to the upgradation of upazila. At present the value of an acre of residential land ranges from Tk. 15 to 11.25 lacs. The value of fertile agricultural land ranges from Taka 1.20 to 2.25 lacs per acre.

The value of medium agricultural land which produces two crop in a year lies between Taka 1.20 to 1.50 lacs. The value of poor agricultural land which produces one crop ranges from Taka .75 - .90 lac per acre. The poor agricultural land includes low lands of the upazila. The mouza-wise land value in detail has been shown in Table No.16

Table No. 16  
Raninagar Upazila  
Naogaon Zila.  
Shahar Area  
Value in Lacs Taka.

S.L. No.	Name of Mouza	Category of Lands			
		Residen- tial Land	Fertile Ag.Land	Medium Ag. Land	Poor Ag. Land
	Chak Monu	13.00	3.60	2.25	1.25
	Pali Bahadurpur	13.00	2.25	2.00	0.90
	Balu Bhara	15.00	2.50	2.00	1.15
	Khatteswar Raninagar	12.00	1.50	1.00	0.50
	Manasinga	11.50	1.75	1.25	0.75

Source: Chairman, Boalia Union Parishad 3.5.89.

## 6.0 FORECASTS :

Forecasting is an important planning tool. Prediction of population, household structure and density of population is necessary to estimate land for various functional uses. Projections of population under different growth conditions and rates are often pursued for formulating plan alternatives.

In this study for Radibagar Un-za three population projections were considered, viz. high, medium and low. These growth rates have been calculated with an interval of 7 years 13 years and 20 years. The highest figure among these 3 is considered as 'high' and lowest one is 'low' and the rest figure as 'medium'. The population figure of 1981 was considered the base for these projection which are shown in 5(five) years intervals upto 2001 A.D.

### 6.1 POPULATION, HOUSEHOLD STRUCTURE AND DENSITY OF POPULATION.

#### 6.1.1. Within the Sphere of Influence:

The sphere of influence or the 'catchment area' recorded 21651, 29289 and 35023 persons in the year 1961, 1974 and 1981 censuses respectively. Here the annual growth rate is 2.32, 2.55 and 2.40 is calculated in between the year 1961-1974, 1974-1981 and 1961-1981 censuses. This indicate that the average growth rate is almost same the national growth rate(2.36). We have indications that the growth rate in urban areas will be on the higher side. We therefore assumed 2.75 as medium growth rate for the Catchment areas.

Population projection from 1981 to 2001 A.D. for the catchment area are shown in Table 17. The base population of 1981 for the catchment area , i.e. 35023 is projected to 60254 in the year 2001 A.D. following a medium growth rate.

Household projections for the Upazila catchment area are given in Table 18. Average family size of the Upazila was used to divide the figures of catchment area population projection to reveal the household projection. The average household size of the upazila and the catchment area are approximately the same, i.e. 5.6, which is comparatively similar to that of the national average of 5.9 persons per household. According to the medium projection the number of households in the catchment area is expected to be 9874 in the year 2001 A.D.

Table 17  
Raminagar Upazila  
Naogaon Zila  
Population Projection for the Catchment area

Projection Types	Projected Population and years				
	1981	1986	1991	1996	2001
High	35023	39722	45051	51096	57952
Medium	35023	40111	45938	52611	60254
Low	35023	39279	44081	49404	55407
Growth rate: L= 2.3%					
M= 2.75(assumed)					
H= 2.95					

Population density in the catchment area in 1981 was 3.73 persons per acre. It is projected to be 6.00 persons per acre in 2001 A.D. in a medium growth rate. Projection of population density in the catchment area is shown in Table - 19 .

Table -18  
Raninagar Upazila  
Naogaon Zila  
Household Projections for the Catchment Area

Projection Types	H.H. Size	1986		1991		1996		2001	
		Pop.	H.H.	Pop.	H.H.	Pop.	H.H.	Pop.	H.H.
High	5.8	39722	6048	45051	7767	51006	8009	57952	9992
Medium	5.7	40111	7037	45938	8059	52611	9230	60254	9992
Low	5.6	39279	7014	44051	7066	49404	8822	55407	9094

Table-19  
Raninagar Upazila  
Naogaon Zila  
Density Projections for the Catchment area

Projection Types	Projected density and years				
	1981	1986	1991	1996	2001
High	3.73	4.23	4.80	5.45	6.18
Medium	3.73	4.20	4.73	5.33	6.00
Low	3.73	4.19	4.69	5.27	5.91

### 6.1.2. WITHIN THE SHAHAR AREA

The Raninagar Upazila Shahar area induced a comparatively higher annual growth rate than the catchment area in between 1961-1981 censuses. Here we have assumed growth rate 3.0% as the growth rate in urban areas are normally on the higher side.

Population projection for the shahar area is given in the Table-20 . The medium projection of the Table show a base population of 10318 of 1981 will increase to 17786 by the year 2001.

Household projections for the Shahar area are provided in Table-21 . Average household size of the Shahar area is approximately same as the catchment area, which is 5.3 . A medium projection according to Table 21, Shahar area will have to sustain 3120 households by the year 2001. This figure also relate the amount of residential land that will be required by 2001 A.D. and is discussed later in this report.

Population density of the shahar area is shown in Table-22 . The 1981 density of 6.24 persons per acre in the Shahar area is expected to increase to 10.75 in the medium growth rate. It is important to note that the Raninagar Upazila Shahar area population density(6.24 persons per acre) is higher than the catchment area, which in 1981 was 3.73 persons per acre.

### 6.1.3 ASPECTS OF MIGRATION :

Migration are common population phenomena, however, the most important type of migration in Bangladesh that frequently draw planners attention, is rural to urban migration. Factors for this category of migration are numerous, but economic reason is the general one. As the centre will grow as a Upazila Shahar, the need for administrative, social, professional and other related services will also be gradually growing . Such job opportunities will attract population from areas around the upazila shahar.

As discussed earlier the annual rate of growth of such rural to urban migration in the Zila is around 3.45% . from the analysis of socio-economic data gathered during the field survey in Raninagar Upazila region and the Shahar area, two categories of migration into the shahar area can be expected. These will be due to the upgrading of the Upazila and establishment of Upazila headquarter and they are :

- (1) Induced by the public sector- inflow of population to saturate the government and semi-government administrative positions; and
- (2) Induced by the private sector - concentration of population in service sectors as transportation, business and commerce, professional and other urban services.

Table-20  
Raninagar Upazila  
Naogaon Zila

Population Projection for the Shahar area.

Projection Types	Projected population and years				
	1981	1986	1991	1996	2001
High	10318	11949	13839	16028	18563
Medium	10318	11961	13866	16075	18635
Low	10318	11753	13389	15252	17375

Growth Rate : High = 2.98  
Medium = 3.00  
Low = 2.64

Table- 21  
 Rahinagar Upozila  
 Naogaon Zila  
 Household Projection for the Shahar Area

Projection Types	Projected HouseHolds and years				
	H.H. Size	1986	1991	1996	2001
High	5.80	2060	2386	2763	3200
Medium	5.70	2098	2432	2820	3269
Low	5.6	2098	2391	2723	3102

Table -22  
 Rahinagar Upozila  
 Naogaon Zila  
 Population Density Projection for Shehar Area

Projection Types	Projected Population per acre and years				
	1981	1986	1991	1996	2001
High	6.24	7.22	8.36	9.69	11.22
Medium	6.24	7.15	8.19	9.38	10.75
Low	6.24	7.10	8.09	9.22	10.50

## 6.2. LABOUR FORCE AND EMPLOYMENT:

General types of employment in an upazila are broadly classified, by the Bangladesh Bureau of Statistics(BBS), as (1) Agricultural (with two sub-categories of i) Cropping and ii) Non-Cropping) and (2) Non-Agricultural(with three sub-categories as i) Manufacturing, ii) Business, and iii) others).

BBS considered population with age 10 years and over as target labour force.

The 'Bangladesh Population Census 1981 Rajshahi District Part-I' published in January 1986 by the BBS, illustrated distribution of this target labour force in different employment types (listed above) in Table C04, on page 506-508.

It is from this BBS Table, using the percentages of population aged 10 years and above to that of the total population in different type of employment in the Upazila as a template over the medium growth population projection of the catchment area (table-17), it was possible to project the labour force for the catchment area upto 2001 A.D. This projection of labour force is shown in Table 23 .

Table-23, however, need to be treated with caution. The projected labour force indicated in Table is the total number of labour force that would be available in the projected year of intervals. It is important to note here that according to the socio-economic survey conducted by this consulting agency, it was found that, of the total sample population of age group of 10 years and above more than 62.68% were unemployed. This unemployed group includes housewives, students and the actual unemployed. Definite figures unemployed or under employed persons in the catchment area were not available.

Table -23

Raninagar Upazila  
Naogoon Zila

Medium Projection of Labour Force for Catchment Area  
(Population age 10 years and above)

Type of Employment	10 Yr+Pop. as% of Total Pop.	Projection				
		1981	1986	1991	1996	2001
<u>Agricultural :</u>						
Cropping	26.23	9186	10343	11645	13111	14762
Non-Cropping	1.83	640	721	812	915	1030
<u>Non-Agricultural:</u>						
Manufacturing	0.22	77	87	98	110	124
Business	3.21	1124	1266	1425	1604	1806
Others	5.82	2038	2295	2584	2909	3275
Total L.F.	37.32	13065	14712	16564	18549	20997

- \* Calculated from 'Bangladesh Population Census 1981 Rajshahi District' BBS January 1986, Table CO4 page 506-508
- \*\* Based on Catchment area medium population projection of this Report, Table .

Another point also worthy to note here from the socio-economic survey is that business and commerce as occupation accounts to more than one half and is followed by jobs in agriculture which constitutes only one third of the total number of persons employed.

### 6.3. LAND REQUIREMENTS AS PER PROVISION STANDARDS :

The terms of reference (TOR) for the Consultancy Services for the preparation of Land Use/ Master Plan of Upazila Shshars' circulated by the Urban Development Directorate (UDD) in December 1988 outlines some specific standards for preparing Upazila Shshar Land Use/Master Plans. All provision standards, as listed in page 7 of the TOR, relate to the catchment area of the Upazila Shshar except the residential land use allocations, which are for Shshar populations only.

In calculating the land requirements as per TOR a medium population projection for the catchment/shshar area, whichever appropriate, was based. The resulting calculations are provided in Table .

Table-24  
Remained Upazila  
Moulvibazar Zila

Land requirements as per Provision Standard  
(Catchment area)

Sl. No.	Land Use Classes	Provision Standard Acres/Pop.	Medium Projection to 2001 year	Break up of land reqd. as per TOR	Existing Land Uses in Acres	Proposed Land Uses in Acres	Total of Existing + Proposed Landuses
1.	Commerce & Industry				<u>11.00</u>	<u>30.00</u>	<u>41.00</u>
1.1	Commerce					<u>10.00</u>	
1.2	Industry	1.5/ 1,000	60,254	90.38		<u>20.00</u>	
2.	EDUCATION :				<u>5.7</u>	<u>10.00</u>	<u>15.70</u>
2.1	Primary	2.0/ 5,000		24.10		<u>6.00</u>	
2.2	Secondary	5.0/20,000	"	15.06	-	<u>4.00</u>	
3.	HEALTH :				<u>4.00</u>	<u>8.00</u>	<u>12.00</u>
3.1	Disp.Mat.Clt.	1.0/ 5,000	"	12.05		<u>5.00</u>	
3.2	Health Comp.	5.0/20,000	"	15.06	-	<u>3.00</u>	
4.	ADMINISTRATIVE: 12.0/Upazila			-	<u>13.50</u>	-	<u>13.50</u>
5.	RECREATION:				<u>2.60</u>	<u>19.00</u>	<u>21.60</u>
5.1	Park, Open Sp.	1.0/ 1,000	"	60.25		<u>15.00</u>	
5.2	Cinema, Closed	.5/20,000	"	1.50		<u>1.00</u>	
5.3	Sports	1.0/20,000	"	9.04		<u>3.00</u>	
6.	SOCIO-SERVICES:				<u>0.50</u>	<u>4.50</u>	<u>5.00</u>
6.1	Commer. Cent.						
	Library	1.0/20,000	"	3.01		<u>1.50</u>	
6.2	Mosque/Church	.5/ 5,000	"	6.02		<u>3.00</u>	
7.	URBAN SERVICES :				<u>2.50</u>	<u>13.00</u>	<u>15.50</u>
7.1	Post Office	.5/20,000	"	1.50	<u>2.50</u>	<u>1.00</u>	<u>15.50</u>
7.2	Tele. Exchange	.5/20,000	"	1.50	-	<u>0.50</u>	
7.3	Police Station	2.0/20,000	"	6.02	-	<u>3.00</u>	
7.4	Bus, City, Dist	1.0/20,000	"	3.01	-	<u>2.00</u>	
7.5	Graveyard	5.0/20,000	"	15.06	-	<u>5.00</u>	
7.6	Other (fire)	1.0/20,000	"	3.01	-	<u>1.50</u>	
8.	RESIDENTIAL :						
	(Shahr area)	1.0/100	18,635	186.35	<u>147.50</u>	<u>50.00</u>	<u>197.50</u>
9.	ROADS				<u>19.50</u>	<u>5.00</u>	<u>24.50</u>
10.	Reserves				<u>41.50</u>		<u>41.50</u>
11.	Urban Deferred					<u>21.00</u>	<u>21.00</u>
12.	Agriculture/Forestry						<u>1139.90</u>
	Total			452.92	<u>248.50</u>	<u>170.5</u>	<u>1558.00</u>

1355.40

## 6.3 THE LAND USE PLAN

### 6.4.1 APPROACH, CONCEPT AND PLANNING PRINCIPLES

#### 6.4.2. APPROACH:

Land use plans are normally prepared within a given guideline and regulation based on available land and priority of its use for a target population in a specific period of time. The underlying theme of land use planning is to enable effective and economic use of a given piece of land in terms of its location, value and functionality. In the regional or urban planning view, a land use plan is prepared for controlled and balanced growth of human settlements in a related hierarchical system.

In the past most of the lower tier urban centres of Bangladesh grew in an uncontrolled and uncoordinated way. Many of these centres failed to bring out a development that is rational in term of environment, accessibility, shelter and services point of view. The Upazila Shahar land use planning is a measure recently adopted by the government to remedy the situation. Upazila head quarters or the Shahar area is conceived as a focal point of development of the Upazila as a whole. The land use plan prepared for the head quarters will serve as a guideline for a planned and coordinated development of prospective headquarters town upto the year 2001. When successfully materialized, the land use plan will cause orderly growth of town and its land uses.

### 6.4.3 CONCEPT :

With a view to prevent excessive congestion and to limit concentration of people and their activities upto the year 2001 A.D. The present Government has taken a plan programme to provide an orderly and co-ordinated growth of the urban areas through the decentralisation policy. The basic aim of the policy is to make an upgradation of the services that have been concentrated in the heart of the city now allowed in the sub-urban areas. A well managed plan have been prepared to establish this sectoral development as social, commercial, industrial infrastructural and economic services provisions at the Zila level.

Various factors have been taken into consideration before preparing the landuse plan for the upazila shahar, such as :

1. The hierarchy of settlements, on the basis of population, economic activities and social infrastructural provisions.
2. The transportation and communication system in relation to the density of the area so that the roads do not become over crowded.
3. The standard for community facilities.
4. The new development area which would not prove to be uneconomical in the future.
5. The minimum standard of living accomodation that is going to be adopted.
6. The rural electrifications and
7. The standard of open spaces.

Taking all the above factors into consideration the plan proposed an appropriate amount of land allocation that have been allocated at various purposes according to the development needs of the

respective areas, and of course keeping in mind the population projection up to the year 2001 A.D.

#### 6.4.4 PLANNING PRINCIPLES :

The present proposed planning is prepared mainly on the basis of various factors, discussed before. Most of the sectoral uses has been selected by considering its past and present functions, its sphere of influences, its accessibility or simplification of circulation system in relation to the upazila shahar. In turn the planning also highly considered its existence to the whole regional context.

Due to the previously unplanned buildup area and accessive land uses in the same area, it was very difficult to propose a site for a particular sectors. Finally the area has been detached by considering its location, services and its sphere of influences. The catchment area has been determined by calculating its commuting distances and services area and physical features of the upazila headquarters and surroundings. For the determination of the shahar area, existing land uses, trend on development of settlements, availability of buildup area, and physical features of the headquarters and surroundings have been taken into consideration. The UNO office has built before the plan was proposed. Besides this, the proposed land requirements for each sectors has been given on the basis of TOR.

## 6.5 PLAN DESCRIPTION :

The Shahar area of Raninagar upazila includes 1558 acres of land. Table shows the total land requirements for the Raninagar upazila Shahar as per provision standard TOR 1558.00 acres. Where as the existing land uses is 248.30 acres. The Table also shows that the additional requirements for land as per TOR is 180.50 acres. Land in over used as per TOR under administration is 1.50 acres.

Present survey reveals that Raninagar Upazila shahar is a comparatively new grown up shahar. It needs careful planning. The proposed plan has determines its catchment area in the centre parts of the zila, along both sides of the rail road. However rail communication plays an important role in the development of the area planning. The plan proposed in some what different kind of sectoral uses. It devides the whole planning into 3 different parts, which mostly follows the intersected transportation system of the Upazila shahar.

Table shows existing and proposed use of lands and break-up of each uses. Let us describe the plan which is prepared carefully and logically.

## 6.6 COMMERCE AND INDUSTRY :

Total land requirements as per provision standard TOR for this sectoral uses 30.00 acres of land have been allotted. At present Commerce and Industry together cover only 11.00 acres or 1.75 percent of the available lands of the shahar area. The site selection for Commerce and Industry proposed for the Raninagar upazila shahar is unlike to others. Here this two has been placed in three different areas. The area along the western side of the railway line in Balubhara mouza for Industry and Shops and Markets are in Ranasinga, Chakmanu and in Balubhara mouzas. Both the areas have well established communication and transportation system. Let us describe the importance of setting the proposal categorically.

#### 6.6.1 Shopping Centre :

The Commercial zone includes shopping and bazar has been plotted inbetween the Atrai - Raninagar link road in mouza Chakmanu and Ranasinga and the other one in the western part of the Khatteswar Raninagar muza. The commercial offices and the financial institutions will also be located here under the commercial area.

#### 6.6.2 Whole sale and Warehouse :

The location for whole sale and warehouse are selected where the communication and transportations are better off in Balubhara mouza. The road pattern will be great help to transport the goods and materials at lower cost and in time.

#### 6.6.3 Industry :

The site for the Industries has been earmarked at the Balubhara mouza. The area has direct road linkage from the Upazila headquarter and the Railway station. Besides this the area is isolated from the rest of the service areas. Here any large or small industries like brick field, rice breaking and any other industries which make noise and pollution can be built up easily.

#### 6.7 EDUCATION :

Educational Institutions have been placed in a way that could serve the whole catchment area of the Raninagar upazila shahar. Total land requirements for Educational Institutions as per the provisions standard TOR is 36.58 but at present only 5.70 acres of land are in use under this sector. Eight different sites have been selected for educational Institutions, of which one college and two schools are located in the south of the Health complex is the college and a primary and a high school on the Bhutpara Rajapur road on the eastern side of the Rail way station. Two primary schools in Chakmanu

Two Primary schools are in the southern part of the Chak-monu mouza, the rest three of the institutions one primary school is located in Ranasinga mouza and the other one high school and a primary school are in Khattesar Raninagar mouza. These educational institutions are for both sexes,.

#### 6.8 HEALTH :

The existing land uses for the health services in the Raninagar upazila shahar is only 4.00 acres, where as the total requirements as per provision standard TOR is 25.32 acres of lands. It reveals that 8.00 acres of additional land is required for the health and family planning services. The proposed plan has selected 6(six) sites for the health and family planning services of which one in Pali Bahadurpur mouza, two in Chak Mond mouza, one each in Ranasinga and Khattesar mouza and the rest two in Balubhara mouza along the main road. It includes dispensaries, maternity clinic and Child care health centre.

#### 6.9 ADMINISTRATION :

Existing land use for the administrative purposes is 13.50 acres, the total land requirements as per provision standard TOR is 12.0 acres of land of the shahar area. The figure shows that the provision of land allocation for the administrative purposes was quite satisfactory,.

#### 6.10 RECREATIONAL :

Recreational facilities are almost absent in this upazila shahar only 2.60 acres of land is under this sectoral use, where as land requirements as per provision standard TOR is 66.13 acres. At present there is only one play ground and two cinema halls in the upazila shahar. The present plan has proposed a wide range of recreational facilities at western and eastern part of the Railway line and along the northern

side of the Atrai-Raninagar link road. The area is well communicated by all other parts of the shahar area, with good road system. Under this sectoral uses - Parks, Stadium, Open and Closed spaces have planned to be developed.

#### 6.11 SOCIO-CULTURAL :

This sectoral uses shows another existing negligible amount of land uses in the Raninagar upazila shahar. Table-15 shows only 0.50 acre of land is existingly used under this purposes where as the total land requirements as per provision standard TOR is 8.44 acres of land. The site allotted for this socio-cultural purposes is in Balubhara and in chak Monu mouza. The Atrai-Raninagar road have gone through the area. The site for the Central mosque and Community Parishad road and on the south of existing play ground respectively. Another site for socio-cultural is located on the south of Chak Monu mouza and the Atrai link road. Due to the absence of enough socio-cultural facilities at the area, all the developemnt for this sectoral uses need to be developed in a new location,

#### 6.12 URBAN SERVICES :

Existing land under the Urban Services is 2.50 acres. According to the TOR, total land requirements for the urban services is 28.14 acres, the sites allotted for these purposes are-Bus-Terminal, T&T, P.O., and Police station on the south of the cinema halls and both sides of the Atrai road. Graveyard and Garbage disposal are placed in the south of Polisshadurpur and north end of the Balubhara souza along the east of the road.

#### 6.13 ROADS :

The Roads including the railway track covers 19.50 acres of the available land. The area has well road circulation system only the development and an additional of 5.0 acres is proposed.

#### 6.14 RESIDENTIAL :

The total land requirements for the residential uses as per provision standard TOR is 177.86 acres of the available land. At present residences covers 147.50 acres of land. Residential areas are found scattered throughout the area. There is no housing estate at all. Only staff quarters for the Upazila Health complex. The present plan proposed some new Residential areas at eastern side of the Railway line and western parts of Railway line in the Ranasinga and in Khatteswar mouzas along the Atari-Raninagar road. It has good internal road pattern, and perhaps this is the most suitable site for the residential purposes, because it is located at a suitable distances from other crowded and service areas. Various new housing estates, Govt. Staff quarters and private housing required to be developed in these areas.

#### 6.15 URBAN DEFERRED :

As per provision standard TOR 10% of the builtup area is required to keep as deferred for future uses. The Plan proposed an area for urban deferred at the western part of the Khatteswar and Balubhara mouzas.

#### 6.16 RESERVES :

The existing land uses under the reserve area is 41.50 acres. The present plan proposed a location for the reserves at the south western parts of the Khatteswar Raninagar mouza just west of the Railway line. The area includes water bodies and cultivation etc.

## 6.17 PROGRAMMING AND IMPLEMENTATION :

### 6.17.1. Priority actions and cost implecations :

Priority has already been given on the immediate construction of Upazila Headquarters and construction of their ancillary uses like Upazila Jail, Officers quarters and Staff quarters. In first place socio-cultural infrastructure should be developed according to the need at the population of 1990. Next priority may be given to the social facilities like health and welfare and educational facilities. As we know that the Upazila urban centre will be the tier of all the development activities and more than two thousand people will concentrate, there should have necessary social facilities and infrastructures. There should have commercial institutions, utility services, electricity and telephones. Roads connecting the Upazila region should be constructed immediately so that people may come to the centre. As well the internal roads of the upazila centre should be constructed on priority basis. Along with the development of roads, the transport facilities should be developed.

### 6.17.2 Phasing and Urban Deferred:

For development of the Upazila centre, we may suggest two phases one upto 1990, when most of priority given infrastructures are required to be constructed according to the requirements of the people of 1990. The second phase may be 1990-2001 A.D. when other infrastructure including social infrastructure will be required. The speed of developments will depend upon the growth of the centre and growth of the potentiality. If the proposed projects are not required to develop within the plan period, the land will be deferred to next phase of development. It is needed to review the plan by 1990 to study the speed of growth and development and to review the land use plan prepared.

### 6.17.3 Development Control :

It is essential that all planning matters should be administered by a single authority. All development whether private or government should be subject to control. The implementation of land use plan will be spread over many years. Planning is an ever continuing work and an essential part of local government administration. The land use plan must be kept under continuous reviews, but in itself only constitutes a small part of the planning work of the upazila shahar area. Urban planning is a profession in its own right and is recommended that an experienced planner should take its charge.

### 6.17.4 Monitoring and Review :

The monitoring of all activities may remain under the charge of UNO or of Chairman Upazila Shahar who is well aware of the upazila as a whole. If the manpower of the UDD is sufficient an officer may be placed in every Zila to look after the urban development. The plan prepared should fulfil the settled objectives of the TOR and may be reviewed in the light of land allocation and distribution.

The site for administrative headquarters has already been selected by the government. The land use plan prepared has the provision for other Govt. and Semi-Govt. institutional locations near the administrative headquarters, so that Government services can be provided to the door step of the masses of Upazila.

In any shahar big or small, the most essential zones are places of work, residences and recreation. In the Upazila Shahar the buildable lands are shown in an organised way through urban planning principles. The public and private facilities have also been provided through urban planning concept.

The land for small and cottage industries has been earmarked and shown on the plan with justifications. Land allocated in terms of available labour force and density per acres Land for social facilities has also been provided, which will help the people to live and work in the upazila shahar and resulting in reducing the rate of migration to big cities. The plan if implemented will provide the people of the upazila shahar and region with comfort, amenity and security.