

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

LANDUSE PLAN / MASTER PLAN

BAHUBAL UPAZILA SHAHAR

HABIGANJ ZILA

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HABIGANJ ZILA

CONSULTANT

ASSOCIATED CONSULTING ENGINEERS (BANGLADESH) LTD.

333, SEGUN BAGICHA (FIRST FLOOR)

DHAKA - 1000, BANGLADESH

1990

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- DRG : UDD/UZ/09 Land Use Proposal Map.

বাহার জন্য প্রযোজ্য

এই মর্মে প্রত্যয়ন করা যাইতেছে যে, মেসার্স এসোসিয়েটেড কনসালটিং ইঞ্জিনিয়ার্স (ব্যং) লিঃ কর্তৃক হবিগঞ্জ জেলার বাহুবল উপজেলার ভূমি ব্যবহারের মাস্টার প্ল্যানটি নিম্নলিখিত পরিবর্তন সাপেক্ষে অনুমোদনের জন্য সুপারিশ করা হইল।

পরিবর্তনের নিয়ম :

- (ক) ফেটভিয়ামের স্থান পরিবর্তন হইয়া ১ ডি'র পাশ্ববর্তী এলাকায় হইবে (আলোচনামতে)
- (খ) ২ ডি (কেন্দ্র) পরিবর্তিত হইয়া ডেকার্ড ন্যান্ড'র বাঁচে যাইবে (আলোচনামতে)
- (গ) মেয়েদের স্কুল আলোচনামতে পরিবর্তিত হইবে।
- (ঘ) আলোচনামতে হেনিপ্যাডের স্থান চিহ্নিত করা হইল।

[Signature]
চেয়ারম্যান,
উপজেলা পরিষদ
বাহুবল।

চেয়ারম্যান,
উপজেলা পরিষদ
বাহুবল, সিলেট।

CHAPTER - 1INTRODUCTION1.1 Background

In the Government's present policy of decentralization of administration, upazila centres are now made the focal point of all activities of the Government as a whole and of the autonomous, semi-autonomous, commercial and industrial bodies related to economic, social, cultural and educational development.

This is a long awaited decentralization of the administration and bring the same close to the people, in other words to the doorstep of common mass of the people, and to make this viable, and fully operable without let or hindrance, the essential steps required to be taken are to provide or create the infrastructure and the infrastructural services in the upazilas. The facilities that must immediately be made available in the upazila centres for due operation of the expanded set-up are the following :

- (1) Land required for the residences of staff working for Government and other agencies in addition to what are now owned by the Government and other public agencies;
- (2) Land required for offices;
- (3) Land required for schools, colleges, madrasas etc.;
- (4) Land required for hospitals;
- (5) Land required for community centres and information centres;
- (6) Land required for markets;
- (7) Land required for roads, feeder roads, river transport facility and related needs essential for smooth operation of transport system;
- (8) Land required for rail lines and rail station with approaches etc.; and
- (9) Land required for future as estimated by projection in the future.

This gigantic but interesting and very urgent work has devolved on the Urban Directorate. The thana centres have to be developed to meet the present expanded needs with planned provision for future expanded needs based on a scientific projection of expansion upto the end of this century.

Based on these premises and to ensure planned development from the very start, preparation of land use map of all thana centres, that is, upazila shahars have been taken up. The master plan of the upazila centres is of great importance. Associated Consulting Engineers (Bangladesh) Ltd. (ACE) have been assigned this task for three upazilas namely -

- (1) Chunarughat;
- (2) Bahubal; and
- (3) Lakhai

in the greater district of Sylhet. These are thana centres of old but are now centres of all administrative, economic and social activities and are to be a replica of the district head quarters of old but of smaller magnitude.

1.2 Land Use Survey

The objective of the land use survey is to identify a viable core areas of 200 acres covering the existing thana centres (if possible), conduct the land use survey and prepare map showing how the land is occupied or being used by the different agencies of the government, other agencies, public bodies and individuals. Based on these information, plan is to be prepared for the development of the core area into a well planned township, in a systematic and orderly manner in the immediate future along with increase in civic facilities to meet the needs of a progressive society. Besides the immediate expanded needs of the administration this planning has to take into consideration and provide for agriculture, forestry, commerce and industry, education, health, recreation, socio-

culture, urban services such as markets, feeder roads, major road (existing or proposed), domestic amenities, residences and housing. This must also allocate and provide land to be kept in reserve for housing etc. for future immigrants into the upazila shahars.

This survey is to be conducted in the study area. Information collected from different sources will provide the basis for sorting out a guide line to be adopted for the development of the social and economic development of the upazila and to improve quality of life.

Objectives of survey is to identify 200 acres of land as the core area of the existing upazila centre, plotting all the establishments such as administrative buildings, educational institutions, residential buildings, social and physical infrastructure, road net work, water bodies and others that stands on this 200 acres i.e. a detail survey of the core area is to be conducted.

1.3 General Methodology

In conducting the land use and socio-economic survey the following methodology has been followed :

Before starting land use survey, a base map of the study area was prepared from the mauza maps (scale 1" = 330'-0"). A team of two surveyors were sent to each mauza with this base map and other necessary equipments. To ensure correct identification of how the land is being used, field books were used to write down on the spot land use characters of individual plots of land and the area being used for different purposes, using notations as per terms of reference, and types of land use so determined were directly plotted on the base map. Surveyors visited all necessary plots of the base map, marking and plotting its uses and recorded the same in the field book also. The plotting of land use in the field on the base map, was checked by other teams of surveyors.

After checking the land use map, prepared on the base map, in the field, it was plotted as per requirement of the terms of reference, thus identifying different category of existing land use. Then the area of land in acres required for each category of use was reproduced in tabulated form.

For socio-economic survey necessary questionnaire were prepared and printed. Questionnaire include queries on all aspects of socio-economic required for the study. This include questions on the aspects of the socio-economic and replies and information thus collected are recorded in the questionnaire form. These information would meet the requirement of this study and planning of the township.

The interviewers were assigned to fill in the questionnaire. East interviewer was to fill in definite category of information from a particular area. Mauzas where socio-economic survey was conducted are adjacent to each other and were within the walking distance. There are cases where mauzas are separated by khals, rivers etc. but this situation nowhere created any problem because these are more or less compact areas.

The information collected by interviewers were checked to verify the correctness. The information, data etc. collected from field investigation was tabulated, processed and transferred in different ways.

CHAPTER - 2THE UPAZILA IN THE CONTEXT OF THE DISTRICT2.1 Location and Physical Characteristics of the Upazila

Location: Bahubal Upazila is in Habiganj Zila and lies between 24°15' and 24°28' north latitude and 91°28' and 91°37' east longitude. It is bounded on the north by Nabiganj upazila, on the south by Chunarughat upazila, on the east by Sreemangal upazila and on the west by Habiganj Sadar upazila. It comprises a total area of 250.6 sq km (96.8 sq miles) including an area of 0.3 sq km of river.

Climate: As no meteorological station is located in the upazila, exact data for the area are not available. Nevertheless, the meteorological data recorded at the Sylhet Centre may be considered to be largely valid also for Bahubal upazila. The data indicate that the climate of the upazila is fairly comfortable. The maximum temperature is observed in August which is about 31.4°C, and the minimum temperature is observed in January which is 12.9°C. Generally rainfall starts in March and continues upto August. The average rainfall is about 60 inches. Mean monthly wind velocity varies between 1.0 mile per hour to 4.0 miles per hour.

Physical Characteristics: Soils of the Old Piedmont plains of the Pritimpasa soil association are found in the form of the sandy or silty clay loams. The Old Flood plain gray clay soils of the phagu soil association are visible in the north. The sandy clay loams of the Dupi Tila soil formation are available in the east.

2.2 Population and Settlement Distribution

According to 1981 population census the total population of the upazila is 116,604 of which 58,723 are males and 57,881 are females. There are 101 males for every 100 females in the upazila. The population density of the upazila as in 1981

census shows that there are 465 persons per sq km. About 44.5 percent of the total population belong to the age group less than 15 years, whereas, 50.5 percent of the total population are voters or above 17 years of age. Dependency ratio for this upazila is found to be 93.2 for every 100 population of age group 15-64. The upazila has 20,577 married women in the fertile age group of 15-44. Some general information on the area and its household and population characteristics are presented in Table 2.1. Besides the age pyramid of the study area is also presented in Table 2.2

Table 2.1

General Information on the Area and its
Population and Household Characteristics

Bahubal Upazila

Total Area	: 250.6 Sq.km (96.8 Sq.miles)
Number of Union	: 07
Number of Mouza	: 142
Number of Village	: 337
Total Population (1981 Census)	: 116,604
Male Population	: 58,723
Female Population	: 57,881
Sex Ratio (No.of males per 100 females)	: 101
Total Number of Household	: 22,433
Average size of the Household	: 5.2
Density of Population/Sq.mile	: 1,205
Literacy Rate	: 17

Source : BBS (Bangladesh Population Census 1981) P.XXIX

TABLE - 2.2

AGE PYRAMID OF STUDY AREA POPULATION
U.Z. BAHUBAL, ZILA - HABIGANJ

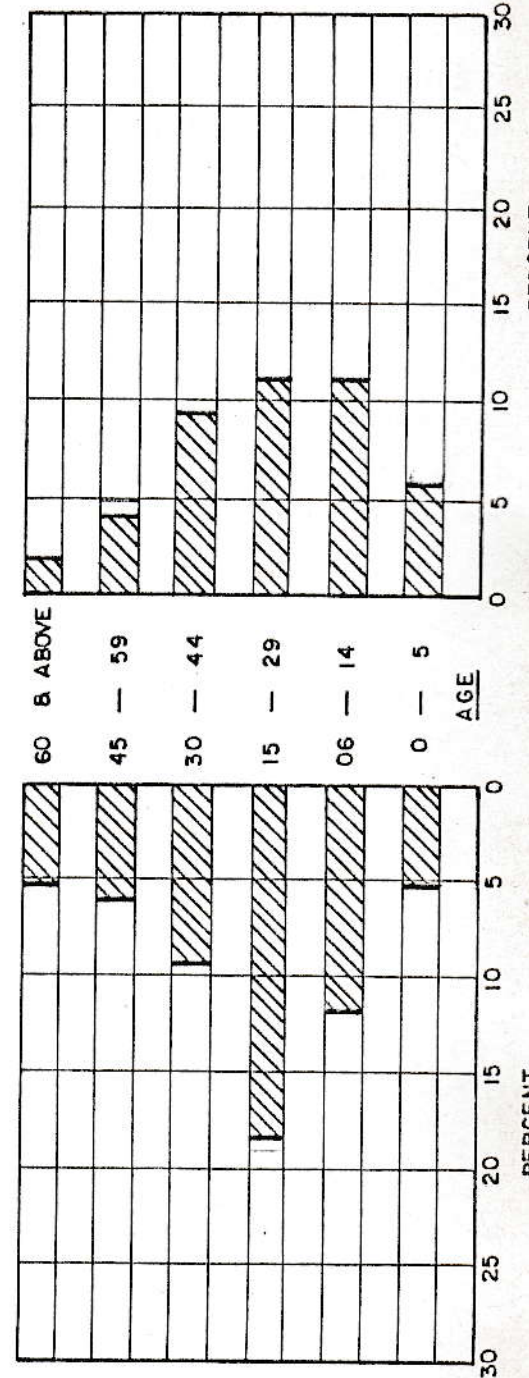
MOUZA	AGE												TOTAL
	0-5		6-14		15-29		30-44		45-59		60 & ABOVE		
	M	F	M	F	M	F	M	F	M	F	M	F	
1. BAHUBAL	1	9	17	11	24	19	19	15	5	5	6	6	137
2. SATPARIA	8	7	7	7	13	7	5	3	3	3	3	2	68
3. ISLAMPUR	5	2	9	2	8	2	3	5	7	2	3	-	48
4. DAULATPUR (NORTH)	2	4	5	7	7	6	5	2	1	4	6	1	50
5. SATKAPAN	4	1	10	19	21	12	5	10	9	5	4	-	100
6. JAINABAD	2	1	6	-	10	3	3	4	3	3	2	-	37
7. KARIMPUR	1	2	-	3	-	-	1	2	1	-	-	-	10
	23	26	54	49	83	49	41	41	29	22	24	9	450

5.11% 5.78% 12.00% 10.89% 18.44% 10.89% 9.11% 9.11% 6.44% 4.89% 5.33% 2.00% **99.99%**

Source : Field Survey

MALE

FEMALE



Migration: Permanent migration is caused normally when men become landless and homeless due to erosion by rivers, poverty, other social or political causes etc. Migration towards the upazila or study area is considered as inward migration and migration from the upazila or study area is considered as outward migration. Most of the inward migration is caused for better prospect of employment, business, better educational facilities and living conditions. However, after a certain interval of time the man, who migrated go back to his original home. These are mainly temporary type of migrations. The intensity of inward migration is denser within and around the upazila complex. Most of the immigrants come from within a distance of 10 miles from the upazila township. Most of the inward temporary migrations are on individual level looking for better prospect and earning and not on family level.

Most of the cases of outward migrations from the study area were to Dhaka Metropolitan City, Great Britain, America, Middle-East, Sylhet town etc. Reasons for these outward migrations were service, business, education. Here also these migrations were mostly of temporary type of migrations and on individual level and not on family level. Table 2.3 describes a picture of the inward and outward migration of the study area.

Table 2.3

Migration

Sl. No.	Name of Mouza	Cases of inward migration in the study area during the last 10 years	Cases of outward migration from the study area to other Zila, Upazila during last 10 years
1.	Bahubal	3	-
2.	Satparia	-	2
3.	Islampur	-	-
4.	Daulatpur (North)	1	-
5.	Satkapan	-	1
6.	Jainabad	-	2
7.	Karimpur	-	-
Total		4	5

Source : Field Survey, 1988

2.3 Economic Performance and Transport Linkage

Economic Performance: Habiganj Zila is purely an agricultural and rural country side. The economy is largely under-developed and stagnating. Economic performance of the Zila and Upazila Bahubal is expressed here in terms of agricultural activities. Almost all types of crops (found in this region) can grow here. All common varieties of rice are produced here. The soil can nourish most of the principal crops of Bangladesh and this includes Rabi crops like Mash Kalai, Masuri dal, Mustard oil, til, linseed oil grow here. Chilli, sugarcane, gram, wheat, potato and tomato etc.

Table 2.4 shows the per acre yield of Aus, Boro, Wheat, Jute of which yields unfortunately are lower than the zila average. On the other hand per acre yield of Aman and potato is higher than the zila and Bangladesh average.

A project of rubber plantation and a number of tea gardens are located in this upazila.

Table 2.4

Per Acre Yield of Crops 1981-1982

Crops	Crops production in maunds per acre		
	Bahubal Upazila	Habiganj Zila	Bangladesh
Aus	12.96	15.85	11.27
Aman	13.74	12.91	13.00
Boro	15.83	17.35	26.23
Wheat	3.00	22.50	19.63
Jute	3.17	3.40	16.00
Potato	180.08	159.82	110.31

General Employment Situation: Employment situation obtained by the sources of the Bangladesh Bureau of Statistics is produced below in Table 2.5 as comparison to population 10 years and over (working age) in the context of zila and all other upazilas.

Table - 2.5

Employment Situation in Upazila Bahubal
Compared to Zila Habiganj and all other
Upazilas

Total Population (10 years & above)	Not Working	Engaged in						
		Household work	Agriculture		Manufac- ture	Business	Others	
			Cropping	Non-cropping				
Zila	12,77,366	1,62,536	3,24,276	2,42,987	12,398	17,255	28,350	70,506
Bahubal	1,16,604	12,242	29,891	23,550	2,406	3,425	2,159	4,699
All other Upazilas	11,60,762	1,49,694	2,94,385	2,19,437	9,992	13,830	26,191	65,807

Source : BBS; Habiganj District Statistics, 1983, pp. 10 & 11.

Income and Expenditure: Income is expressed here in Table 2.6 in terms of average daily wage rates of construction works and rural labour because very few people are engaged in regular employment. Besides Table 2.7 describes the annual average daily wage rate by type of profession. Table 2.8 describes the major income earning activities of male adult members within the different mouzas of the upazila.

Table 2.6

Average Daily Wages of Unskilled Agricultural Labour of Upazila Bahubal in the context of Habiganj Zila and Bangladesh (1979-80 to 1981-82)

Year	Bahubal	Habiganj	Bangladesh
1986-87	40.00	45.00	40.00
1987-88	45.00	50.00	40.00
1988-89	50.00	60.00	45.00

Source : Field Survey 1988

Transportation Linkage: Most areas of the Zila do not have adequate transportation linkage, and some areas have the following types of transportation services.

Road Transportation: There are pucca roads in the upazila Bahubal which is connected to the Zila head quarters. The Upazila head quarters is connected with most of the union parishads by kutcha roads. Bus and rickshaws are the most important mode of transportation within the upazila.

Railways: Besides, bus and rickshaws the train has been plying a pioneer role to help solve the transportation gap.

Waterways: Country boat play a vital role in communication during the rainy season.

Table : 2.7

Annual Average Daily Wage Rate by
Type of Profession (1979-80 to 1981-82)

Category		1979-80	1980-81	1981-82
Agriculture Labour	Skilled	23.08	24.36	25.18
	Unskilled	13.47	15.27	16.63
Fishery	Skilled	30.00	35.00	37.72
	Unskilled	14.36	15.18	21.54
Turner	Skilled	27.00	28.83	35.00
	Unskilled	20.00	20.00	22.00
Bread & Biscuit Factory	Skilled	20.00	20.42	22.73
	Unskilled	12.00	12.25	15.91
Fitter of Motor Vehicle	Skilled	25.00	27.33	35.41
	Unskilled	16.00	16.33	19.45
Casual Workers of Railway Workshop	Skilled	-	-	-
	Unskilled	-	-	-
Casual Labours working in Railway station for loading, unloading goods	Skilled	24.00	25.00	24.73
	Unskilled	15.00	15.00	16.64
Book Binder	Skilled	20.00	21.44	22.73
	Unskilled	12.00	12.66	16.54

Source : BBS District Statistics (P.259)

Table - 2.8

Major income earning activities of male adult members

Upazila - Bahubal, Zila - Habiganj

Mouza	No. of Family (Total)		No. of Member		Income earning activities of male adult members						
	Male	Female	Male	Total	Agriculture	Agri Labour	Non-Agri Labour	Business	Provisional	Service	Total
1. Bahubal	26	73	64	137	38	2	-	1	-	7	48
2. Satparia	11	39	29	68	7	-	2	5	-	3	17
3. Islampur	10	34	14	48	5	-	10	1	-	3	19
4. Daulatpur (North)	8	26	24	50	13	1	2	2	-	-	18
5. Satkepan	18	55	45	100	20	-	1	6	-	7	34
6. Jainabad	7	26	11	37	9	-	4	5	-	2	20
7. Karimpur	2	3	7	10	2	-	-	-	-	-	2
Total	82	256	194	450	94	3	19	20	-	22	158
					59.49%	1.90%	12.03%	12.66%		13.92%	100%

Source : Field Survey

2.4 Social Infrastructure

Market, Commerce: The Table 2.9 shows the status of Upazila in the context of hats and commercial centres.

Table 2.9
Number of Hats and Bazars

Zila/Upazila	Daily Bazar	Weekly/bi-weekly Hat
	No.	No.
Zila Habiganj	32	104
Upazila Bahubal	2	12
All other Upazila	30	92

Source : BBS District Statistics (1983), p.207

Education: The number of educational institutions within the upazila may be described in Table 2.10. The level of education within the upazila may be described in Table 2.11.

Table 2.10
Educational Institutions

Sl. No.	Category	Total No. of Educational Institution	
		With Study Area	Within Upazila
1.	Primary School	1	88
2.	Junior High School	-	-
3.	High School	1	5
4.	College	-	-
5.	Senior & Dakheli Madrasa	1	11

Source : U.N.O's Office.

Health : The position of health facilities is stated in Table 2.12.

Utilities: The present position of Electricity and water supply may be described in Table 2.13 and Table 2.14 respectively.

Table - 2.11

LEVEL OF EDUCATION

Upazila - Bahubal, Zila - Habiganj

Sex	Total Population	Literate Population		Level of education (Percent of total literate population)									
		No	%	Primary	Upto Class VIII		S.S.C	H.S.C	Graduation and above				
					No.	%				No.	%	No.	%
Male	256	130	65	66	64.71	44	61.11	11	68.75	6	85.71	3	100.00
Female	194	70	35	36	35.29	28	38.89	5	31.25	1	14.29	-	-
Both Sex	450	200	100	102	100.00	72	100.00	16	100.00	7	100.00	3	100.00

Source : Field Survey

Table - 2.12

Health Facilities

Zila/Upazila	Upazila Health Complex No.	Charitable Dispensary No.	Others No.	Physicians		Others No.
				MBBS No.	Homeo No.	
Zila Habiganj	8	17	18	59	319	104
Upazila Bahubal	1	1	2	5	8	4
All other upazila	7	16	16	54	311	100

Sources : BBS (District Statistics, 1983) P.P. 197, 199

Table : 2.13

Electricity Facilities

Zila/Upazila	Electricity provided to number of				
	Village	Household	Deep Tubewell	Industries	
			Large Scale	Small Scale	
Zila	181	4,659	9,482	14	22
Upazila Bahubal	7	145	559	-	-
All other Upazila	174	4,514	8,923	14	22

Source : BBS (District Statistics, 1983). P.P. 207, 215

Table - 2.14
Sources of Water Supply
Upazila - Bahubal, Zila - Habiganj

Use	Hand Tubewell		Well	Pond	River/ Khal	Total
	Deep	Shallow				
Drinking	-	85.00%	-	12.00%	3.00%	100%
Bathing	-	10.00%	-	80.00%	10.00%	100%

Source: Field Survey

2.5 Current Development Project

As per recent policy of the Government, upazila centre has become nucleus of government activities at the village level. Thus to run government activities, upazila offices of the Chairman, Nirbahi Officer, Courts, Engineers, Health Complex, Statistical Officer, Fisheries Officer and other related and necessary offices has been constructed in the upazila centre. The government officials have been provided with residential accommodation.

People has started to set up now business in the upazila centre. Many residential and commercial buildings have been constructed by public and are going up in the upazila centre. There are continuous activity in the upazila centres to provide the inhabitants with more urban facilities and for over all development.

A list of current development projects may be described in Table 2.15.

Besides, a large number of schemes for roads, communication, housing, education, social welfare and building construction has been taken up for completion during this year (1988-89). A total of Tk. 18 lakh (approximately) will be utilized for

Table - 2.15

Current Development Project
under FFW Scheme
Bahubal Upazila

Projects	Estimated Cost (Wheat)	Remarks
Road Construction from		
1. Sananghat to Bagdai	52.983 M.T	
2. Zila Parishad to North & South Dubai	60.347 M.T	
3. Zila Parishad to Chakso Khachar, Kalayapur	46.923 M.T	
4. Manikpur to Gakulpur	29.415 M.T	
5. Bahubal Girls School to Islampur	52.103 M.T	
6. Lanatashi Primary School to Manab-Kallan	46.984 M.T	
7. Habizpur to Lakripara	55.402 M.T	
8. Chichir Coat to Alipur	34.751 M.T	
9. East Khilgram to Jujunalkhal	95.776 M.T	

Source : U.N.O. Office, Bahubal, Habiganj (1989)

the communication sectors. These includes mainly construction of bridges and culverts. About Tk.2 lakhs will be spent for the housing and 4 lakhs 50 thousand for the education sector. For gaves, culture and social welfare activities about Tk.5 lakhs is expected to be utilized.

2.6 Synthesis : Identification on Hierarchy of Settlements

Synthesis: The data provided in the foregoing paragraphs reveal statistical account of the location of various services in the context of Zila or Upazila, Geographic distribution and localization of services and economic activities in the growing and potential places are important. The importance has relevance to the distribution of future increment and population within upazila Bahubal. These growth centres would share the growing population of the upazila. Therefore, these central places would have impact in the determination of land requirements for the upazila shahar.

Hierarchy of Settlement: Human settlement hierarchy has been studied mainly focusing on identification of potential settlements within the upazila in a hieraretical order. The basis for determining are concentration of population and administration and growth of physical and social services.

Bahubal Upazila is located in Habiganj Zila. The upazila centre is located at Bahubal Union. Bahubal upazila has a total of 146 mouzas which are from administrative point of view, the primary units of settlement.

The most important determinents of hierarchy are administrative, educational institution, commerce, etc. which have been identified in these settlements. Table 2.16 and 2.17 show the range of services available in these mouzas.

Details of service available in the selected Mouzas are presented in Annexure-A.

Table - 2.16
Zila: Habiganj, Upazila: Bahubal
Hierarchy of Important Places With their Order and Weightage

Function/Service		Weight
1st	Primary School, Permanent retail and household repair shop	1
2nd	High School, Senior Madrasha, weekly and Biweekly hat, wholesales shop, Union Parishad Office, Tashil Office, Post Office, Charitable dispensary, Hosking Mills, Wheat Milling, Oil Mills, Bus stop.	2
3rd	Daily Bazar, College, Cinema Hall, Bank, Railway Station, Hospital, Upazila Complex, Court.	3
4th	Electricity Post Office Telephone/Telegraph Office	10
5th	Roads Metalled Unmetalled	10 15
6th	Population	
	0 - 200	5
	201 - 400	10
	401 - 600	15
	601 - 800	20
	801 - 1000	25
	1001 - 1500	30
	1501 - 2000	35
	2001 - above	40

Table 2.17

Important Centres in the Upazila
Zila: Habiganj, Upazila: Bahbul

Name of Mouza	Type of centre	Distance from UZ HQ	Type of road which connects	Centrality score nominal & ordinal score.
Bhabul	Upazila HQ, Market service and communication centre.	-	Pucca	107
Satrapan	Union HQ important market and service centre	2 Mile	Pucca	80
Sathparia	Union HQ, small market and service centre.	1.25 Mile	Pucca+Kutcha	65
Daulatpur (North)	Small market and imp. communication centre.	1/2 Mile	Pucca+Kucha	50
Islampur	Important service centre and Union HQ.	1/2 Mile	Pucca+Kucha	48
Jainabad	Small Market and service centre.	3 Mile	Kutcha	37
Karimpur	Market and service centre	5 Mile	Kutcha	30
Khojrabad	Service centre	7 Mile	Kutcha less than	25
Vabanipur	Small market and communication centre	3 Mile	Pucca+Kutcha	23
Guhaura	Union HQ and small market	7 Mile	Kutcha	20
Akilpur	Small market and service centre	4 Mile	Kutcha	15
Bourauri	Small market and service centre	5 Mile	Kutcha	12
Daulatpur Dakshia	Small market and service centre	8 Mile	Kutcha	10
Bindezwar Paschim	Small village and service centre	8 Mile	Kutcha	10
Rampur T.G	Small village and service centre	9 Mile	Kutcha	10
Shoudiat-aki	Small village and service centre	5 Mile	Kutcha	10

Note : Detail break-up of available services are presented in Annexure-A.

CHAPTER - 3THE UPAZILA HEADQUARTERS3.1 Definition of Sphere of Influence/Attractiveness

Government offices located in the upazila centre has been assigned with particular responsibilities. All the Government works and activities in the upazila are controlled and administered by the offices located in the upazila. In a broad sense all the activities, private, public or of individual concern, government, semi-government and other organisations are strongly influenced by the government offices located in the upazila. Government plans, decision, orders, circulars etc. are executed and implemented through the offices located at the upazilas. Therefore all organisations, government and/or otherwise are attracted very naturally towards the offices located in the upazila.

3.2 Definition of Shahar Area

As per terms of reference a land use map has been prepared covering an area of 2-3 square miles of the upazila centre. The same area (of 2-3 square miles) has been considered as Upazila Shahar. Considering on the present condition of the upazila shahar there appear to be little chance of expansion of the upazila shahar to an area of 2-3 square miles within next 5-10 years. The existing developed upazila shahar area is much less than 2-3 square miles. Most of the lands within this 2-3 square miles are being used for agricultural and residential purposes. The location and position of the upazila shahar is considered suitable for expansion and development into a much greater shahar in the future.

3.3 Existing Land use Facilities and Utilization Characteristics

The study area comprises an area of about 2,330 acres, that is about 3.64 sq.miles. As might have been the general idea about the land uses in the area, agricultural use dominates the whole area. Existing land use pattern is described in Table 3.1.

BAHBUL UPAZILA

Table - 3.1

Existing Land Use of the Study Area

	<u>Area in Acres</u> (Hectare)	<u>Percentage</u>
Agriculture. Forestry	2107.9	90.4
Commerce & Industry	7.0	0.30
Education	4.3	0.18
Health	5.7	0.25
Administration (Govt. dept)	15.0	0.65
Recreation	7.0	0.30
Socio Culture	7.5	0.32
Urban Services	4.7	0.23
Residential	118.7	5.10
40 feet Road	11.2	0.48
24 feet Road	12.0	0.51
River & Khal (Reserved)	20.0	0.85

TOTAL:	2321.0 (940.0)	100%

SOURCE: Field Survey. 1988

3.4 Physical Opportunities and Constraints

Physical Opportunities: Most of the study area is available for building. There are chunks of khas land here and there, but these are in small parcels and cannot be proposed to allocate for considerable extent of any uses.

The road and rail as local and external transportation network are important determinants of locating residential and non-residential functions.

Constraints: Major constraint is the bifurcation of the study area by the railway line.

CHAPTER - 4FORECAST4.1 Population, Household Structure, DensityPopulation

In preparation of land use plan, population of the catchment area and planning area play a vital role. Provision for land use requirement of land for this planning has been calculated on the basis of projected population of the catchment area and planning area upto 2000 A.D. The land use plan has been made on the basis of medium range of growth rate. The growth rates as presented in Table 4.0 are as follows : Low - 1.553, Medium - 2.022 and High - 2.407. Density of population in the catchment area is calculated on the basis of projected population from 1985 to 2000 A.D. is presented in Table 4.1.

Table 4.0
Growth Rate Calculation

	1961	1974	1981	1985	Rate
High	5190	7070	8351	9185	2.407
	2773	3778	4833	4907	2.407
Medium	5190	7070	8351	9047	2.20
	2773	3775	4833	4834	2.20
Low	5190	7070	8351	8882	1.553
	2773	3775	4833	4746	1.553

Table 4.1
Project Population 1985-2000 A.D.
(On the basis of Medium Growth Rate)

A r e a	Y e a r				
	1981	1985	1990	1995	2000
a) Population within the sphere of Influence	8,351	9,047	9,999	11,052	12,215
b) Population within the planning area	4,833	5,127	5,342	5,905	6,526

Source : Computed from 1981 census with the help of population projection.

Household Structure

The average household structure of Bahubal Upazila is 5.5 and of Habiganj Zila is 5.7 and of Bangladesh is 5.8. So the average household size of Bahubal Upazila is smaller than the Zila and Bangladesh average size.

Population Density

The population density per acre within the sphere of influence and within the planning area in the year 1985, 1990, 1995 and 2000 A.D. may be described in Table 4.2 and 4.3. In addition, population for preparation of land use plan 1985-2000 A.D. is presented in Table 4.4.

Table 4.2

Sphere of Influence Area & Density of Population
(On medium growth rate basis)

Indicators	Year				
	1981	1985	1990	1995	2000
1. Population	8,351	9,047	9,999	11,052	12,215
2. Area in acres	3,346	3,346	3,346	3,346	3,346
3. Density/acre	2.49	2.70	2.98	3.30	3.65

Note : Growth Rate

High : 2.407

Medium : 2.022

Low : 1.553

Table 4.3

Planning Area & Density of Population
(On the basis of medium growth rate)

Indicators	Y e a r				
	1981	1985	1990	1995	2000
1. Population	4,833	5,127	5,342	5,905	6,526
2. Area in acres	665	665	665	665	665
3. Density/acre	7.26	7.70	8.03	8.88	9.81

Source : Growth Rate

High	2.407
Medium	2.022
Low	1.553

Table 4.4

Population for Preparation Land Use Plan for 1985-2000

A r e a	Y e a r				
	1981	1985	1990	1995	2000
1. Sphere of Influence	8,351	9,047	9,999	11,052	12,215
2. Planning Area	4,833	5,127	5,342	5,905	6,526
Total	13,184	14,174	15,341	16,957	18,741

Aspects of Migration

It has been observed from the field survey that there is no inward migration in the study area during the last 10 years (Ref: Table 2.3). The number of outward migration from the study area to other zila, upazila during the last 10 years stands to 5 Nos.

4.2

Labour force and Employment

Population of age 10 years and above are considered as the labour force. The total number of labour force in the upazila is 45.9% of the total population of the upazila. The number of population of age 10 years and above is 78,972. The number of male labours is 40,030 and female labours is 38,942. The number of agricultural labours is 25,956 and that of non-agricultural labours is 10,283.

Most of these labours are under-employed or ill-employed and many of them are unemployed. Some of them are under seasonal employment. Table 4.5 represents the projected labour force for the year 1985-2000 A.D.

4.3

Land Requirements Provision Standards

In calculating land requirements for land-use-plan by 2000 A specific standards of provision as in pages 7 & 8 of annexure of Terms of Reference have been followed. The population of catchment area and planning area in 1981 have been considered as the base population. These base population have been projected to 1985 to 2000 A.D. and the requirements of land have been calculated on the basis of these projected population. No standard for provision of land have been laid down in the Terms of Reference for calculation requirements of land for the land use plan by 2000 A.D. for water bodies, roads and reserves.

Table 4.5

Labour Force Projection for 1985 - 2000 A.D

(On the basis of population of Sphere of Influence Area)

Percent of Labour force	Popula- tion 1985	Labour Force 1985	Popula- tion 1990	Labour Force 1990	Popula- tion 1995	Labour Force 1995	Popula- tion 2000	Labour Force 2000
45.90	9,047	4,152	9,999	4,589	11,052	5,072	12,215	5,606

Table - 4.6

Area and population of Catchment Area 1981
Zila: Habiganj, Upazila: Bahbul

Sl.No.	Name of Mouza	Area in Acres (hectare)	Population
1.	Khoyrabad	161	456
2.	Guhaura	368	700
3.	Vabanipur	178	438
4.	Sathparia	100	874
5.	Akilpur	93	314
6.	Sathkapon	348	982
7.	Daulatpur North	356	750
8.	Joynabad South	99	608
9.	Bahubal	100	349
10.	Karimpur	151	400
11.	Islampur	467	832
12.	Bourauri	306	393
13.	Daulatpur Dakshia	86	456
14.	Bindezwar Paschim	91	391
15.	Rampur T.G.	380	430
16.	Shoudiateki	67	339
		3346 (1354.05)	8351

Table - 4.7

Population of Planning Area 1981
Zila: Habiganj, Upazila: Bahubal

<u>Sl.No.</u>	<u>Name of Mouza</u>	<u>Area in Acres (hectare)</u>	<u>Population</u>
1.	Vabanipur	120	438
2.	Sathparia	76	874
3.	Sathkapan	90	982
4.	Daulatpur North	36	750
5.	Joynabad South	110	608
6.	Bahubal	100	349
7.	Islampur	33	832
		665 (269.11)	4833

CHAPTER - 5LAND USE PLAN5.1 Approach, Concept, Planning PrinciplesApproach

As an approach to the upazila land use plan following points have been considered :-

- (a) Determination of the hierarchy of settlements within the upazila as a whole, based on population, economic activity, social infrastructure provision, transport links and related characteristics.
- (b) Identification of the upazila shahar have been done on the basis of socio-economic spheres of influence of the catchment area and its attractiveness. It is this catchment area which will be the basis of forecasting population and thereby determining the extent of social services and other land uses that will need to be provided in the upazila shahar itself.
- (c) Forecasts of population and employment based on past trends, with allowances for the induced attraction, effect of the government's commitment to upgrade development activity immediately and indicatively, to the year 2000 A.D. It is anticipated that forecasts will include High, Medium and Low Projections and that urban land use requirements and plans will be based on the Medium Projection. An allowance of an additional 10% of the specified urban land requirements should be categorised as urban allocation deferred.
- (d) Determination of the boundary of the upazila shahars is based on the existing built up area and future land requirements for urban development. It is expected that this area will not exceed a radius of two miles from the settlement's central point.
- (e) Preparation of the zoning plan for use of land for the upazila shahar by identifying suitable location for social, administrative, economic, circulatory and other appropriate uses. The existing features and current plans (if any) are incorporated in the land use plan.

Concept

2-3 square miles of the upazila head quarter has been taken as the study area and this area has been considered as head-quarter and the upazila shahar area. The existing land use plan give an idea of the present use of lands of the upazila shahar area. This picture of use of land as now existing

is very important, because based on this current use, improvement, modification and preparation of land use plan according to desired and needed requirement can be planned. The total areas of all the involved mouzas have been taken as the catchment area. Influence of this catchment area is also taken into consideration during preparation of land use plan for the future extending upto 2000 A.D.

Planning Principles

In planning the upazila shahar, due consideration has been given to the conditions and principles development involved so that planned, systematic and standard development of the upazila is ensured and encouraged. For this the planning area was surveyed and the findings from socio-economic survey, land use survey etc. were processed to obtain the desired information. Practical aspects for planning have been given importance. Principles stated in the Terms of Reference were used as the guideline. For future land use plans are prepared on the basis of projection population upto 2000 A.D. Provisions have been made for due observance of all formalities, standards etc. involved in planning a shahar. The symbol and legends used in the existing land use map and in the land use plan for future, that is, upto 2000 A.D., for indicating different type of land use, is similar to the symbol and legends given in the Terms of Reference.

5.2 Plan Description

From the existing land use map it is seen that, the commerce and industry are increasing and developing in a linear way along the road side. It is proper to assume that this development of commerce and industry will continue to follow the same pattern and will increase in a linear way in future along the road side. The residential settlements are increasing side by side on land adjacent to the existing residential settlements.

The provision for roads in this proposed land use plan by 2000 A.D. has been increased by 50% as per Terms of Reference. Land reserved for major road is 60 feet with a road crest

of 30 feet in the proposed plan. Land to be reserved for major road will be 90 feet with road surface of 45 feet. For local roads, land to be reserved will be 36 feet having a road surface of 18 feet.

As per Terms of Reference the standard provision of land is to be made for administration/judiciary (including officers' residences) is 12 acres for each upazila shahar. But in most of the cases the existing land that are in use for these purposes is much more than this 12 acres. Hence an area of 20 acres has been considered for this purpose. The Terms of Reference do not indicate that increase of land for this purpose is to be considered for this proposed plan for development upto 2000 A.D. Over the period 2000 A.D. many new ponds, khals etc. will be excavated and many water bodies that exists now will be filled up by earth. There will no doubt be changes in the water boies, but no specific standard for taking into account such changes have been made in the Terms of Reference. The details of the plan description has been given below. For this purpose the land requirements for roads are not included here.

Commerce and Industry: Commerce and Industry includes shopping and business. Market center offices and small scale industry. The plan proposes 30.0 acres of land which covers 6.0 percent of the total proposed land. Proposed land use of this type can be shown in Table 5.1.

Table 5.1

Proposed Commerce and Industrial Land Use

Land Use	Area in Acres (ha)	Percentage
Commerce	18.0	3.6
Small Scale Industry	12.0	2.4
Total	30.0 (12.14)	6.0

Note : The above proposal has been made on the basis of TOR.

Education: Education includes primary school, madrasa, Secondary school (both girls and boys), college and vocational training centre. The distribution of proposed land use for this purpose in the planning area is described in Table 5.2. The plan assumes that the educational institutions are located according to their suitability and local demands throughout the planning area.

Table 5.2
Proposed Education Land Use

Land Use	Area in Acres.(ha)	Percentage
Primary School	2.5	0.50
Madrasha	1.5	0.30
Secondary School (Girls) :		
Secondary School (Boys) :	2.5	0.50
College	1.5	0.30
Total	8.0 (3.23)	

Note : The above proposal has been made on the basis of TOR.

Health: Health include as health centre, hospital and dispensary. The plan proposes 12.0 acres of land for this type of use. The distribution of land use is given in Table 5.3.

Table 5.3
Proposed Land Use of Health

Land Use	Area in acres.(ha)	Percentage
Hospital	8.0	1.6
Dispensary	4.0	0.8
Total	12.0 (4.86)	2.4

Note : The above proposal has been made on the basis of TOR.

Administration

A plan for general administration regulatory and judiciary, development administration and professional services have been proposed at the center of the upazila center. It includes 20.00 acres out of which 15 acres for different administrative work and 3 acres for officers residence/guest house and 2 acres for heliport etc.

Recreation

Recreation includes areas for parks, open space, cinema, club, play ground and sports stadium. The plan proposes 22.0 acres of land for this type of use. Details breakup is given in Table 5.4.

Table 5.4Proposal Land Use for Recreation

Land Use	Area in Acres (ha)	Percentage
Park/Open space	12.0	2.4
Stadium	8.0	1.6
Total	20.0 (8.09)	4.0

Note : The above proposal has been made on the basis of TOR.

Social Culture

Socio-culture includes area of community center, religious facilities (Mosque, Eidgah & others) and cemetery. The plan proposes 12.0 acres of land as described in Table 5.5 for this purpose.

Table 5.5Proposed Land Use Plan for Socio Culture

Land Use	Area in Acres (ha)	Percentage
Community centre	2.0	0.4
Religious	4.0	0.8
Cementary	6.0	1.2
Total	12.0 (4.86)	2.4

Note : The above proposal has been made on the basis of TOR.
Urban Services

Urban Services include post office, telephone exchange, police station, bus/baby taxi/rickshaw stations and others. According to the plan a total of 12.0 acres of land is proposed for the purpose. Table 5.6 illustrates it clearly.

Table 5.6Proposed Land Use for Urban Services

Land Use	Area in Acres. (ha)	Percentage
Post Office	1.0	0.20
Telephone Exchange	1.0	0.20
Police Station	4.0	0.80
Fire Service	2.0	0.40
Bus Stand	4.0	0.80
Total	12.0 (4.86)	2.4

Note : The above proposal has been made on the basis of TOR.

Residential Area

Residential area includes private housing, government and semigovernment housing. The plan proposes a total of 260.0 acres of land for this purpose. It is about 53% of the total land.

Urban Deferred

For the future urban expansion of the upazila head quarters 30.0 acres of land is proposed to be reserved which will accommodate the needs of growing population at the end of planning period. It is about 10% of the total proposed area.

5.3 Actual Requirement of Land

The above proposal has been made on the basis of certain frameworks presented in the Terms of Reference (TOR). It has been found (as per TOR) that the total area identified under each functional facilities seems to be much higher than the existing available land use pattern. This is because the TOR prepared on the basis of certain basic assumptions which differs in the context of existing socio economic condition of the country. However, the assumptions are ideal in fact.

As the upazila (considered) is in the remote area of the country and urban services, so far provided is negligible. Although the objective of the present plan preparation is to ensure a comprehensive land use plan for the upazila but considering the present land use pattern certain changes in the actual proposal has been made.

With these changes the actual proposal for field level execution may be presented in Table 5.7.

Design Population

	i) Catchment area	: 12,215 No
Table - 5.7	ii) Planning Area	: 6,526 No
	Total	: 18,741 No

Proposal for Actual Land Use
Zila: Habigang, Upazila: Bahbul

Identified Functions of Land-Use-Plan	Standard *(TOR) (NOS)	Land Req'd. as per *TOR (ACRE)	Existing land in use (ACRE)	Total Land Provided (Including existing) (ACRE)	% of land for Indv. functions (%)
1. Commerce and Industry		30.0			4.4
1a Commerce	.375/1000		6.0	10.0	
1b Small Industry	.375/1000		1.0	6.0	
			7.0	16.0	
2. Education		8.0			2.2
2a Nursery/Madrasha	1/5000		1.3	2.0	
2b Primary	1/50000		1.0	2.0	
2c Secondary	3/20000		1.0	2.0	
2d College	1/20000		1.0	1.0	
2e Vocations	1/20000		-	1.0	
			4.3	8.0	
3. Health		12.0			3.3
3a Dispensary	.5/5000		0.7	2.0	
3b Hospital	2/20000		5.0	10.0	
			5.7	12.0	
4. Administrative Heliport	12 acre	15.0	13.6	13.6	4.1
			1.4	1.4	
			15.0	15.0	
5. Recreation/Socio-Cult.		20.0			2.2
5a Park	1/1000		4.0	4.0	
5b Stadium	3/20000		3.0	4.0	
			7.0	8.0	
6. Socio-Culture		12.0			2.4
6a Community	1/20000		0.5	1.0	
6b Religious	.5/5000		1.0	2.0	
6c Cemetry	5/20000		6.0	6.0	
			7.5	9.0	

* TOR: Terms of Reference

Contd. to next page

Proposal for Actual Land Use
Zila: Habigang, Upazila: Bahbul

Identified Functions of Land-Use-Plan	Standard *(TOR) (NOS)	Land Reqd. as per *TOR (ACRE) /ha	Existing land in use (ACRE) /ha	Total Land Provided (Including existing) (ACRE) /ha	% of land for Indv. functions (ACRE)
7. Urban Services		12.0			2.2
7a Post Office	.5/20000		1.0	1.5	
7b Telephone Office	.5/20000		1.0	1.5	
7c Bus	1/20000		1.7	2.0	
7d Police	2/20000		1.0	2.0	
7d Fire	2.5/20000		-	1.0	
			4.7	8.0	
8. Housing	1/100	260.0	118.8	200.0	54.0
9. Urban Deffered	10% of Total	30.0	-	20.0	7.0
10. Reserve		-	20.0	20.0	5.4
11. Roads		80.0			11.8
11a 60 ft Road			-	11.0	-
11b 40 ft Road			11.2	24.0	
11c 24 ft Road			12.0	8.0	
			23.2	43.0	
	TOTAL:	499.0 (202)	213.2 (86.2)	364.0 (147)	100%
12. Others (Agricultural/Forestry)			2107.8	1957.0	
	TOTAL (ha)		2321.0 (940.4)	2321.0 (940.0)	100%

CHAPTER - 6PROGRAMMING AND IMPLEMENTATION6.1 Priority Actions, Cost ImplicationsPrincipal Consideration

Bahubal is a slow growing upazila head quarters. Due to lack of communication the upazila headquarter is lying far away from the district headquarter both interms of development and other social activities.

In the present planning lot of emphasis has been given on demographic trends and possible concentrated efforts of the government and non-government developments. Yet the sectoral and special growth are not likely to pickup before 1990. All development upto 1990 and beyond are likely to concentrate on the areas to

Priority

Top priority should be given to develop the roads and communication system. Roads within the study area, roads connecting the upazila shahar to zila head quarters and other places should be developed. Number of transport should be increased to meet the increase requirement.

During programming and implementation priority should be given to the Government's decision and the financial status of the projects. It must also be kept clearly in view that this land use plan is used as the guide during implementation.

For implementation, phasing, control of construction, control of quality and time schedule etc. should be thought out with due care and adheared to Upazila Chairman, U.N.O. Upazila Nirbahi Officer and also representative of local people must be closely associated with all these works of development and their openions and suggestions heard and given due consideration

Cost Implications

In general on the basis of this land use plan, an approximate estimate of cost may be prepared for all the works to be taken up for implementation. Cost should be calculated individually for each sector, to determine the cost for the implementation of the whole of the land use plan. The plan suggests expansion of revenue income base; first by way of population increase and their distribution and second, by way of identifying revenue bearing measures like expansion of commercial and industrial activities. Implementation are therefore advised to follow the structure and contents of the plan throughly.

6.2 Phasing, Urban Deferred

Phasing

Phasing depends on volume of development works to be executed, the time required, man power and material available, availability of man-power, material and fund. Depending on these factors phasing may be over 1-yearly, 2-yearly, 3-yearly, 4-years, 5-yearly or even more. Each phase should have definite and clearly defined target and volume of development works to be completed within definite period of time. After completion of 1st phase, 2nd phase may be started, or 1st phase, 2nd phase and even more number of phases may be started simultaneously depending on the nature of phasing. Progress report may be maintained for each phase.

Urban Deferred

Approximately 10% of the total built up area is to be reserved for future urban expansion. Land reserved for urban services will be required either to service a population which might be larger than what has been forecast and/or to accommodate the needs of a growing population upto 2000 A.D. If these lands are not required during this plan period, the land will be kept on reserve for the next plan projects and/or for appropriate other uses.

6.3 Development Control

Development is the vital and important factor of this land use planning. Success of this plan will depend on percentage of successful implementation and completion of the development works. Before start of development works, schedule of works, man-power, estimated cost, schedule of completion time and expenditure etc. should be prepared.

One Board/Committee should be formed to control the development works. This board/committee will act as an advisory body and will have appropriate power. This board/committee should be headed by an administrator with experience in planning, design and direct management of project under implementation.

All general rules and regulations for control of development works should be followed. Progress report of the on-going development projects at a definite interval of time should be maintained. Related and respective offices should co-operate with the advisory board/committee for necessary control and management of the development works.

6.4 Monitoring, Review

Monitoring

Monitoring will increase the quality, efficiency and speed of implementation of shahar development plans. Monitoring should include, evaluation and analysis of data, project out-put, identification of objectives and programmes.

Monitoring should include scrutiny and comments on the progress reports and on the progress of implementation of the development work of the plan and thus done will vastly activate the upazila in the progress of nation building work. Monitoring should be done by really experienced personnel/board and having adequate knowledge regarding this type of project. Proper monitoring will help to make this land use plan a successful and practical plan.

Review

The land use plan as proposed should be reviewed from time to time in relation to the progressive growth of township. There may be changes in government policy, change due to natural calamities and for other causes and this plan should be reviewed in the light of such changes with the permission of the Urban Development Directorate. During implementation and execution of the development works practical problem may arise for which it may be necessary to review the plan. In such an eventuality plan should be reviewed and along with any financial adjustment called for or arising out of allocation of fund by the Government from time to time. Such review will make this land use plan more practical and workable. In brief, review from time to time must be made a part and parcel of this development operation for its successful execution and implementation.

SERVICES IN SELECTED MOUZAS
U.Z., BAHBUL, ZILLA: HABIGANJ

Sl No	Name of Mouza	Popula- tion	Elec. city	Hat	Bank	Teleg-Coll- raph ege	High- Pri. School Sch.	Madr- asha	Dispen- sary	Rice- mill	Road	
1	Bahbul	Nos 649	*	5	3	*	1	2	2	5	5	*
	TOT:107	C.Score 20	10	10	6	20	3	2	4	10	10	10
2	Sathkapon	Nos 982	*	3	1	X	X	1	2	1	1	*
	TOT:80	C.Score 25	10	6	2	20	-	1	2	2	2	10
3	Sathparia	Nos 874	*	2	X	X	X	1	2	2	3	*
	TOT:65	C.Score 25	10	4	-	-	-	2	4	4	6	10
4	Daulatpur North	Nos 750	*	3	X	X	X	X	X	X	2	*
	TOT:50	C.Score 20	10	6	-	-	-	-	-	-	4	10
5	Karimpur	Nos 832	*	1	X	X	X	1	X	X	X	*
	TOT:48	C.Score 25	10	2	-	-	-	1	-	-	-	10
6	Joynabad South	Nos 608	2	X	X	X	X	X	1	X	3	*
	TOT:37	C.Score 20	4	-	-	-	-	-	-	-	6	5
7	Karimpur	Nos 400	1	1	X	X	X	1	1	1	X	*
	TOT:30	C.Score 15	2	2	-	-	-	2	2	2	-	5
8	Khoyrabad	Nos 456	X	1	X	X	X	X	1	X	1	*
	TOT:25	C.Score 15	2	2	-	-	-	-	1	-	2	5

Contd...

SERVICES IN SELECTED MOUZAS
U.Z., BAHBUL, ZILLA: HABIGANJ

Sl No	Name of Mouza	Popula- tion	Elec- city	Hat	Bank	Teleg- raph	Coll- ege	High- School	Pri. Sch.	Madr- asha	Dispen- sary	Rice- mill	Road
9	Vabanipur	Nos 438	X	X	X	X	X	X	X	1	X	X	*
	TOT:22	C.Score 15	-	-	-	-	-	-	-	2	-	-	5
10	Guhaura	Nos 700	X	X	X	X	X	X	X	X	X	X	X
	TOT:20	C.Score 20	-	-	-	-	-	-	-	-	-	-	-
11	Akilpur	Nos 314	X	X	X	X	X	X	X	X	X	X	*
	TOT:15	C.Score 10	-	-	-	-	-	-	-	-	-	-	5
12	Bourauri	Nos 391	X	1	X	X	X	X	X	X	X	X	X
	TOT:12	C.Score 10	-	2	-	-	-	-	-	-	-	-	-
13	Daulatpur Dakshia	Nos 356	X	X	X	X	X	X	X	X	X	X	X
	TOT:10	C.Score 10	-	-	-	-	-	-	-	-	-	-	-
14	Bindezar Paschim	Nos 391	X	X	X	X	X	X	X	X	X	X	X
	TOT:10	C.Score 10	-	-	-	-	-	-	-	-	-	-	-
15	Kampur T.G	Nos 330	X	X	X	X	X	X	X	X	X	X	X
	TOT:10	C.Score 10	-	-	-	-	-	-	-	-	-	-	-
16	Shoudiateki	Nos 339	X	X	X	X	X	X	X	X	X	X	X
	TOT:10	C.Score 10	-	-	-	-	-	-	-	-	-	-	-

Ref: Field Survey 1988, Note: C. Score indicates Centrality Score

* :Service Available, X :Service Not Available

C.Score=10 for Metalled Road, C.Score=5 for Unmetalled Road