

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

**LAND USE/MASTER PLAN  
KANAIGHAT UPAZILA SHAHAR  
SYLHET ZILA**

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**1991**

**DACCA CONSULTING LIMITED  
9/A TOYENBEE CIRCULAR ROAD  
NIRALA BHABAN (3RD FLOOR)  
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গণপ্রজাতন্ত্রী বাংলাদেশ সরকার  
কানাইরঘাট উপজেলা পরিষদ কার্যালয়  
কানাইরঘাট, সিলেট ।

স্মারক নং - উঃপরিঃ ২৪৫

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প্রেরক : চেয়ারম্যান  
উপজেলা পরিষদ  
কানাইরঘাট, সিলেট ।


প্রাপক : ব্যবস্থাপনা পরিচালক  
ঢাকা কনসালটিং লিঃ  
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বিষয় :- কানাইরঘাট উপজেলা শহরের ভূমি ব্যবহার/মাফটার গ্রান অনুমোদন প্রসঙ্গে ।

আমার কার্যালয়ে আপনার প্রতিনিধি এর সাথে পূর্ত মন্ত্রণালয়ের নগর উন্নয়ন পরিদপ্তর কর্তৃক নিয়োজিত " ঢাকা কনসালটিং লিঃ " প্রস্তুতকৃত কানাইরঘাট উপজেলা শহরের ভূমি ব্যবহার/মাফটার গ্রানটি পরীক্ষা নিরীক্ষা করে বিস্মৃতিত আলাপ আলোচনার পর উক্ত মাফটার গ্রানটি অনুমোদনের জন্য সুপারিশ করা গেল ।

ধন্যবাদান্তে -

আপনার বিশ্বাস,

  
চেয়ারম্যান  
উপজেলা পরিষদ কার্যালয়  
কানাইরঘাট, সিলেট  
২৭/১১/১০

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## CHAPTER - I

### 1.0 INTRODUCTION

The Upazila has been recognized as the most significant base of the administration in the Government's policy of overall administrative reorganization. In this regard Upazila Centre will be the focal point of all Upazila level administration and commercial activities. With a hope that it will be planned and developed to accommodate all social economic administrative and infrastructural services of the Upazila region. The National policy is to bring development administration and services facilities to the door step of rural masses to better delivery of Governmental services to the people. This requires identification and development of probable activities and services not only for the centre itself but also for keeping it functional to the Upazila region. As such development administration in the Upazila Town is a critical point in a well articulated system for linking Urban and Rural function providing facilities for administrative, judicial, economic, social and infrastructural services. The town will provide the locations for administrative, judiciary, cottage and small scale industries, education, health, social and utility services, commercial, cultural and recreational facilities.

In the light of above circumstances it is felt that the Upazila Centre should grow up expeditiously and the

preparation of landuse/master plan for such centre is of utmost importance for better utilization of land, people and natural resources.

The main objectives of the preparation of Landuse/Master Plan of the Upazila Shahar are:

- To bring improvement in the quality of life in the rural areas through adequate provision of Government Services and facilities of the basic needs.
- To prepare the Landuse/Master Plan in order to serve as locational/spatial guidelines indicating places of work, residence and recreation.
- To facilitate public and private developments at the Upazila Centre through planning approach.
- To serve as technical backup for planned growth of human settlements in the country specially at the Upazila level so that a significant segment of rural migrant to cities are induced to work and live there.

With this aim the present study defines the limit and extension of future Upazila Shahar. Also incorporates the existing condition with particular reference to

the infrastructure in the Upazila Shahar area together with the Upazila subregion.

Other matters relating to implementation of the plan in the framework of investment policies, legal framework and institutional arrangement have been dealt with.

## 1.1 METHODOLOGY

This chapter present the detailed methodology followed to prepare the report. It elaborates the methods of field survey, Collection of primary and secondary data, compilation and analysis of data, etc.

Information collected through secondary sources as well as primary sources.

Relevant maps e.g. Upazila Map. Mouza maps, Contour maps, maps from roads and highways and relevant literature such as Census Reports. District Gazetteers, District Statistics etc. were collected and consulted for the study.

### Field Survey

A detailed land use survey within the study area was carried out on mouza maps scale 1"=330'. The other survey was household Questionnaire survey. Two teams with adequate knowledge and expertise perform the surveys.

### Household Questionnaire

A 8% sample of the total households in each mouzas included in the study area was taken for Questionnaire Survey.

### Study Area Survey

The study area was preliminary determined during reconnaissance survey was mostly the same with a few changes done during field survey. The household samples were proportionately distributed on income and occupation groups in all the mouzas of the study area.

### Catchment Area Survey

To determine the catchment area of the Upazila Shahar, interview and discussions was made with knowledgeable persons and the users of services like market, health, education transport etc. were undertaken. On the basis of these and field observation the catchment area or the zone of influence of the study area has been determined.

### Identification of hierarchy of Settlements.

To identify heirarchy of settlements in the Upazila, mouza wise population, services and facilities were listed using a structured format. Population of mouzas in the Census year 1981 and the concentration of services and facilities were considered to determine the hierarchy of settlements.

### Town Service Centre Map Preparation

The Contour maps available from Water Development Board were used to prepare town service Centre Map. This existing map was upgraded noting all changes from the previous one and plotting all man made structures and physical features.

### Data Processing Analysis and Fore-casting

The data and information collected were processed manually and in most cases presented in tabular and graphical forms.

Analysis has been made to visualize the trends and growth of the Upazila economy within the economy of Zila region. Population trends together with social and economic development & goals of Government at Upazila level has been considered. Basically, the analysis leads to indicate sectional development in spatial content i.e. at the levels of identifiable growth centres including the study area.

Population Projection has been made in terms of population growth in the next 10 years with indications upto the year 2000 in such a way.

- High projection : Based on the trend of growth rates between 1961-1974
- Low Projection : Based on the trend of growth rates between 1974-1981
- Medium Projection : Based on the growth rates between the years' 1974-81.

THE UPAZILA IN ITS DISTRICT CONTEXT

2.0 LOCATION AND PHYSICAL CHARACTERISTICS

Location of the Project

Kanaighat Upazila situated in the north eastern part of Sylhet Zila. It is at a distance of 53 km (33 miles) from the Zila Headquarter. It lies between  $24^{\circ}53'$  and  $25^{\circ}06'$  north latitude and  $92^{\circ}01'$  and  $92^{\circ}26'$  east longitude. It is bounded in the north by Jaintiapur Upazila and India, in the east by Zakiganj Upazila and India, in the west by Gowainghat and Jaintiapur Upazila. It comprises a total area of 400.7 sq. km (154.7 sq. miles) including 7.1 sq.km. of river. The urban area of the Upazila covers 3.9 sq. km.

Physical Aspects

Physiography

In general the Upazila is flat plain. During rainy season mostly the low lying area goes under water.

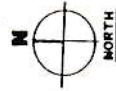
Soil

The Whole Upazila is covered by the Surma Kushiyaara flood plain scattered by series of Gowainghat grey

# ZILA SYLHET

1:50,000  
1:50,000  
1:50,000  
1:50,000

- SYMBOLS AND ABBREVIATION**
- 1 INTERNATIONAL BOUNDARY
  - 2 DISTRICT BOUNDARY
  - 3 UPAZILA BOUNDARY
  - 4 FOREST
  - 5 METALLED ROAD
  - 6 UNMETALLED ROAD
  - 7 RAILWAY LINE
  - 8 DISTRICT HEAD QUARTERS WITH MARKET
  - 9 HOUSEHOLD BOUNDARY WITH POST'S TELEGRAM OFFICE
  - 10 OTHER IMPORTANT VILLAGE
  - 11 EMPLOYERS' CLUB BUILDING
  - 12 HOSPITAL BUILDING
  - 13 PROJECT LOCATION

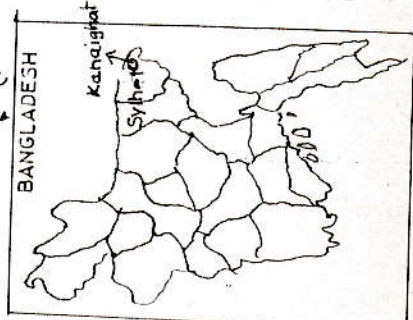
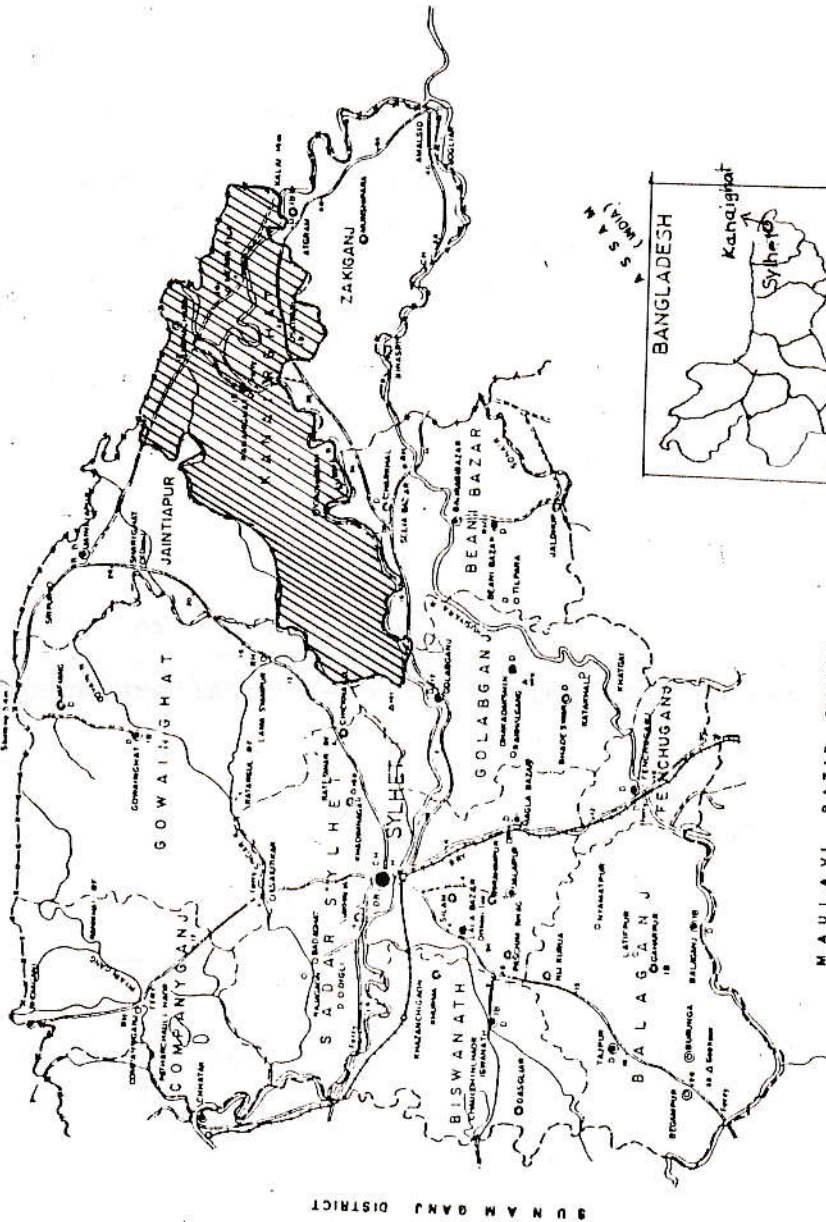


MAP-1

LOCATION MAP

DACC CONSULTING LIMITED	
PLANNERS, ARCHITECTS, ENGINEERS AND ECONOMISTS MANAGEMENT CONSULTANTS	
14, CIRCULAR ROAD, INDUSTRIAL COMMERICAL AREA, DAKKA-2	
DATE	7-1-88
APPROVED	
DR. M. N. H. BISWAS	
CHECKED	
DWG. NO.	

KASHIA B JAIN TIA MILLS  
(INDIA)



4

silty loams or phagu grey firm clays. The subrecent piedmont plains with the sandy clay loams of the Pritympasa association are prevailing in the north. Almost all soils are acid, but top soil becomes neutral when flooded for more than about two weeks. 35 percent of soil are Doash, 5 percent Bele, 50 percent Ete.

### River

River Surma flows through Kanaighat. Water routes constitute the main communication lines in the locality .

### Climate

Rainfall recorded highest in this region. Despite the higher rainfall, the climatic regime is similar to that of remainder of the province. The maximum average temperature is 80° - 85° F during June to September. Annual average rainfall has been observed as 59.16 inches. The mean humidity recorded is 80 percent.

### Agriculture

About 78 percent people belong to agriculture for survival. The principal crop of the district is rice which is of three varieties Aman, Sail and Aus. Other important crop are tea, jute, wheat.

## 2.1 POPULATION AND SETTLEMENT DISTRIBUTION

### WITHIN THE ZILA

Sylhet was the second largest Zila in respect of physical area, which occupies a physical area of 4783 sq. miles before its division into 4 separate Zilas. Among the 4 new Zilas Sunamganj Zila is largest regarding area, Next is Sylhet Zila Sadar. The Biggest Upazila within the Greater Sylhet District is Kulaura with 262 acres next Gowainghat 218 acres. The smallest area is Fenchuganj.

Newly designated Sylhet Zila has 98 Unions, 1683 Mouza. The Total member of households are 279046. Total population 1777784. The average size of household 6.4. Density per sq. mile is 1369. Out of 11 Upazilas under Sylhet Zila the highest number of population and household are in Kotwali Upazila.

TABLE: 1 AREA AND POPULATION STATISTICS WITHIN ZILA. 1981

NAME/UPAZILA	AREA IN SQ MILES	AREA IN SQ KM	POPULATION 1981	TOTAL HOUSE HOLD	AVER- H/H SIZE	DENS- ITY MILES
BALAGANJ	148	383	196772	30387	6.5	1330
BEANIBAZAR	97	251	161235	24436	6.6	1662
BISHWANATH	82	212	146043	22657	6.4	1780
COMPANIGANJ	60	155	53293	8432	6.3	888
FNCHUGANJ	42	109	63913	10667	6.1	1521
GOLAPGANJ	106	275	190865	30155	6.3	1802
GOWAINGHAT	218	565	160893	26949	5.9	738
JAINTIAPUR	78	202	55614	9355	5.9	713
KANAIGHAT	155	401	143003	23583	6.0	923
KOTWALI	207	537	442829	65337	6.7	2139
ZAKIGANJ	106	275	163224	27088	6.1	1540
SYLHET ZILA SADAR	1299	3364	1777784	279046	6.4	1369
GREATER SYLHET DISTRICTS	4783		5655543	932710	6.1	1182

SOURCE: SYLHET DISTRICT STATISTICS. 1983.  
BANGLADESH BUREAU OF STATISTICS.

Companiganj Upazila was created after liberation. The 20 years population statistics from 1961 reveals that population in this Zila has increased about 73.09 percent. Where as in Greater Sylhet District the percentage is about 62 percent: Sylhet Zila for availability of raw materials, developed handloom and cottage industries. Settlements are developed along the road sides and River Banks. In fair weather all the Upazilas are connected by road from Zila Shahar Centre.

Table: 2 Population in 1961, 1974 and 1981 and percentage variation.

UPAZILA	Population			Percentage variation		
	1961	1974	1981	1974 over 1961	1981 over 1974	1981 over 1961
Balaganj	128347	168295	196772	31.13	16.92	53.31
Beanibazar	103334	137047	161235	32.63	17.65	56.03
Biswanath	90541	122208	146043	34.98	19.50	61.30
Companiganj	-	-	53293			
Fenchuganj	43954	96202	63913	118.87	-(33.56)	
Golapganj	114713	158355	190965	38.05	20.59	66.47
Gowainghat	85897	139760	160893	62.71	15.12	87.31
Jaintiapur	28165	45469	55614	61.44	22.31	97.46
Kanaighat	88489	123502	143003	39.57	15.79	61.61
Kotwali	237788	350971	442829	47.60	26.17	86.23
Zakiganj	105856	136898	163224	29.33	19.23	54.19
Sylhet Zila	1027084	147807	1777784	43.97	20.23	73.09

Source: Sylhet District statistics 1983  
Bureau of statistics.

### WITHIN THE UPAZILA

The total population of Kanaighat Upazila is 143003 as in 1981 statistics. Population density per sq. mile is 923 persons. Average size of household is 6.0. Out of total population 143003., 72521 are Males and 70482 are Females. There are 23583 households in the Upazila of which 23467 are dwelling units and the rest are institutional and business/industrial units. About 95 percent of the dwelling units are owned by owner occupiers.

There are 283 villages/mouzas within the Upazila out of which 199 are small villages with a maximum of 100 households, 83 are medium villages with more than 100 but less than 501 households and 1 is big village having more than 500 households. The density of population within the Upazila are 357 person per sq. km. Dependency ratio for this Upazila is found to be 107 for every 100 population. Settlements are mostly developed in scattered way in different cluster. Table 3 shows union wise population within Kanaighat Upazila.

Table: 3 UNION WISE POPULATION DISTRIBUTION  
KANAIGHAT UPAZILA

UNION	POPULATION	HOUSEHOLD
Bara Chatul	12757	2111
Dakshin Banigram	17833	2836
Dighirpar Paschim	11202	1848
Jhingarbari	20200	3310
Kanaighat	25395	3959
Laxmiprashad East	14559	2435
Laxmiprashad West	11611	1926
Purba Dighirpur	11133	1866
Rajaganj Union	18313	3288
<b>Kanaighat Upazila</b>	<b>143003</b>	<b>23583</b>

Sources: Community tables. Sylhet District. 1985.  
Bangladesh Bureau of Statistics.

## MIGRATION

Upazila level information on migration was not available. There are data on both in and out migration in the context of the Zila. According to the Bangladesh Bureau of Statistics, the net life time in migrant in Greater Sylhet District was 112243 and life time out migrants was 35787 counted in the census year 1961. The percentage of male/female in and out migration was 49.3%, 50.7% and 51.2%, 48.8% respectively.

The net in migrants for the census year 1974 was 184476 of which 93990 and 90586 are males and females respectively. The net out migrant was 53901 of which 27070 are males and 26831 are females.

Table: 4 Life time Migration in Greater Sylhet District.

	1961			1974		
	In Migrants	Out Migrants	Net Migrants	In Migrants	Out Migrants	Net Migrants
Male	55353	18326	73679	93990	27070	121060
Female	56890	17461	74351	90586	26831	117417
Total	112243	35787	148030	184476	53901	238477

Source: Statistical year Book of Bangladesh.

Statistical year book of Bangladesh 1984 P. 119.

From the table it is clear enough that the trend of net migration is increasing in Sylhet District.

The Upazila information reveals that within the Upazila 2 families migrated from other Upazila under Sylhet Zila. No migration from outside Zilas other than Sylhet has been observed.

## 2.2 ECONOMIC PERFORMANCE AND TRANSPORTATION LINKAGES

In the following paragraphs the aspects of employment situation, income, economic performance of different sectors and transportation linkages in the Kanaihat Upazila compared with Sylhet Zila are discussed.

### Employment Situation and Income.

As information on employment situation at Upazila level is not available therefore, the information available with the Bangladesh Bureau of Statistics are used to have an overview of the employment situation in the Upazila. Table 5 shows that compared with Bangladesh the percentage of economically active population over the years are gradually increasing in the Zila.

Table: 5 Economically active population

(Figure in '000)

	1961			Total	1974			1981		
	Total	Male	Female		Total	Male	Female	Total	Male	Female
Greater Sylhet District	1302	1028	274	1456	1381	75	1758	1627	131	
Bangladesh	17443	14802	2640	20519	19650	869	23619	22430	1189	
Zila as % of Bangladesh	7.46	6.94	10.37	7.09	7.03	8.6	7.44	7.25	11.02	

Source: Statistical year book 1984

Bangladesh Bureau of Statistics.

According to 1981 statistics major occupation status indicates that about 62% population engaged in cultivation. 7.9% engaged in Business 5.4% in manufacturing and 3.50% in fishery, forestry, and live stock,. Estimated labour force for Sylhet District illustrated in table 6.

Table: 6 Estimated Labour Force.

(Figure in million)

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-92
Sylhet District	2.04	2.09	2.14	2.18	2.24	2.29	2.33
Bangladesh	28.0	28.70	39.40	30.10	30.73	31.41	31.63
Sylhet District as % of Bangladesh	7.3	7.3	7.3	7.2	7.3	7.3	7.4

Source: Sylhet district statistics 1983

Bangladesh Bureau of Statistics.

According to Upazila statistic under Sylhet Zila, in Kotwali Upazila people engaged in non-agriculture is higher than Agriculture. In Kanaighat Upazila about 77% population engaged in Agriculture (Crop+non Crop), remaining 5.1%, 16.9% and 0.5% are engaged in Business, others and manufacturing activities.

Table 7 reflects labour force as % of population 10 years + in Sylhet Zila and Greater Sylhet District, which shows that in Sylhet Zila about 38.7% are labour force of population 10 years and above, which is 42.0% for Greater Sylhet

Table : 7 . Population and Labour Force 1981.

	Population 10 years & above			Labour Force 10 years & above			Labour Force as % of population(10 years & above)
	Male	Female	Total	Male	Female	Total	
Balaganj	67524	64447	131971	39542	13446	52988	40.2
Beanibazar	53876	53588	107464	15068	15697	30765	28.6
Biswanath	49477	47692	97169	23748	13448	37196	38.3
Companiganj	18441	16364	34805	13344	2645	150189	45.9
Fenchuganj	22498	20052	42550	8543	8342	16885	39.7
Gopalganj	62564	61584	124148	24650	17065	41715	33.6
Gowainghat	55491	48804	104295	35314	11761	47075	45.1
Jaintiapur	19169	17453	36614	11389	4677	16066	43.9
Kanaighat	46986	45202	92188	27093	7879	34972	37.4
Kotwali	168232	137012	305244	47194	78034	125228	41.0
Zakiganj	55481	53131	108621	27288	12068	39356	36.2
Sylhet Zila	619731	565329	1185040	273173	185062	4582365	38.7
Greater Sylhet District	1979663	1838300	3817963	1056993	545562	1602555	42.0

Source: Sylhet District Statistics 1983  
Bangladesh Bureau of Statistics.

## INCOME EXPENDITURE PATTERN

Upazila level information on income expenditure pattern of the population are not available. Therefore information on daily wage rates of different occupation categories in the Zila has been considered as the basis of overviewing the situation on income expenditure pattern in the Upazila.

Table: 8 shows the daily average wage rate of agricultural labour in Sylhet Zila.

Table : 8 Daily average wage rate of agricultural labour

(Wages in Taka per day)

Year	Sylhet	Bangladesh
1973-74	8.86	6.69
1974-75	11.52	9.05
1975-76	11.55	8.82
1976-77	10.29	8.93
1977-78	11.17	9.44
1978-79	12.42	10.88
1979-80	15.00	12.46
1980-81	15.00	15.97
1981-82	15.40	15.48
1982-83	22.00	16.93

Source: Sylhet District Statistics 1983

Bangladesh Bureau of Statistics.

## Gross District Product

Table 9 present information on gross district products of Greater Sylhet District. It shows that there is an increasing trend in all sectors. Though a slight decline in Agriculture sectors has been observed. As Upazila level information are not available we hope that this statistics would be representative for Upazila.

Table : 9 Gross district product at current prices.

Sectors	(in million Taka)				
	1977-78	1978-79	1979-80	1980-81	1981-82
1. Agriculture	56.2	53.11	53.6	50.5	49.0
i) Crops	47.3	43.3	44.6	42.8	41.4
ii) Forestry	1.6	1.7	1.3	1.4	1.4
iii) Livestock	5.6	6.7	6.6	5.3	5.2
iv) Fishery	1.7	1.4	1.2	1.0	1.0
2. Mining & Quaring	0.1	0.1	-	-	-
3. Industry	7.0	6.9	6.8	6.6	6.7
4. Construction	4.4	6.2	4.7	5.6	6.1
5. Power, Gas, water sanitary services	0.3	0.3	0.3	0.3	0.3
6. Transport, storage communication	6.1	5.7	5.6	7.6	8.3
7. Trade services	8.5	8.6	9.8	9.0	8.4
8. Housing services	7.8	8.2	7.9	7.6	7.5
9. Public Admin & defense	2.3	2.2	2.1	3.3	3.5
10. Banking Insurance	1.1	1.5	1.7	1.9	1.7
11. Professional /Misc.	6.2	7.2	7.5	7.6	8.5
12. G.D.P at current market price	100.0	100.0	100.0	100.0	100.0

Source: Sylhet district statistics 1983, Bureau of Statistics

## Performance in Agriculture Sector

Although non agricultural activities are expanding in the Upazila. agriculture is yet the principal economic sector. Paddy, wheat etc. are main agricultural products. Table 10 and Table 11 presents some information on crops and live stock & poultry in different Upazila of Sylhet Zila.

Table: 10 Area and Production of major crops

	Total Area (in acre) and Production in Mound.	Balaganj Upazila	Beani-bazar Upazila	Biswanath Upazila	Compagniganj Upazila	Fenchuganj Upazila	Golaganj Upazila	Gowainghat Upazila	Jaintiapur Upazila	Kanai-ghat Upazila	Kotwali Upazila	Zakiganj Upazila
Rice Area (in acre)	632000	58000	41000	68000	2000	31000	65000	104000	46000	1077000		59000
Production Mounds	9155	276100	560000	157000	28000	492000	646000	125900	585000	1077000		837000
Mustard Area	11650	133	333	40	-	40	40	732	40	200	24	66
Production	14074	967	3108	414	-	331	373	6078	414	165	249	483
Jute Area	685	495				190						
Production	2200	1596				610						
Tobacco Area (in acre)	485	110	50	40	-	170	140	90	-	-	45	40
Production in Mounds	4474	830	452	322	-	1190	601	488	-	-	304	481
Pine apple area (acre)	3440	10	1350	225	-	-	45	480	800	70	350	110
Production Mounds	54185	1508	216742	35029	-	-	7663	70058	124548	10217	57895	18196

Table: 11 Number of selected livestock and poultry.

	Buffaloves		Goats		Sheep		Chicken	
	Holding	Number	Holding	Number	Holding	Number	Holding	Number
Balaganj	148	478	4747	12140	153	463	8558	64651
Beanibazar	531	1560	3823	12286	746	2258	6808	46341
Biswanath	62	142	1273	2605	83	142	7250	61650
Companiganj	-	-	-	-	-	-	-	-
Fenchuganj	57	285	2440	4400	88	164	3974	17141
Golapganj	158	769	1226	3392	21	63	7554	81199
Gowainghat	731	2619	3395	10098	1138	3254	13796	120608
Jaintiapur	79	211	1100	2529	50	210	-	-
Kanaighat	763	2503	1821	3772	-	-	-	-
Kotwali	605	1663	2414	6392	138	562	12341	93239
Zakiganj	1422	2090	3163	7915	60	120	8799	55911
Sylhet Zilla	4556	12320	25402	65529	2477	7200	69035	550740

Source: Sylhet District Statistics 1983

Bangladesh Bureau of Statistics

## Performance in Industrial Sector

The major industries within Kanaighat Upazila are cottage industries. Other than these some rice mills, husking mills was found in the Upazila. Table 12 shows the position of cottage industries as in 1981.

Table: 12 Performance in Cottage Industry 1982

	Zila	Upazila accept Kanaighat	Kanaighat Upazila
Unit	5629	5202	427
Fixed Investment (Lac Taka )	82584	804.18	21.66
Persons engaged (Total)	18050	17256	794
Production cost (Lac Taka)	1218.72	1203.86	14.23
Sales value (Lac Taka)	1960.91	1939.68	31.23

Source: Sylhet District Statistics 1983  
Bangladesh Bureau of Statistics.

### 2.3 SOCIAL INFRASTRUCTURE

The existing social infrastructure within Kanaighat Upazila compared with other Upazilas in Sylhet Zila are presented. This include Market and Commerce, Education, Health and Other Urban Services and Utilities.

### Market and Commerce

There are 3 daily bazars and 19 weekly or bi-weekly huts in Kanaighat Upazila. This indicates that for every 6,500 persons one hut/bazar is available. 6 Bank branches in Kanaighat Upazila. has been observed.

Table: 13 Upazila and Zila wise trade and Commerce facilities.

	Sylhet Zila	Balaganj Upazila	Beani bazar Upazila	Biswanath Upazila	Compagniganj Upazila	Fenchuganj Upazila	Golapganj Upazila	Gowainghat Upazila	Jaintiapur Upazila	Kanaighat Upazila	Kotwali Upazila	Zakiganj Upazila
Daily bazar	35	1	4	2	1	2	3	6	2	3	8	3
Weekly hut	245	46	24	31	8	6	23	33	3	19	28	24
Bank branch		10	18	13	1	7	12	8	2	6	54	3

Source: Sylhet District Statistic 1983 Bangladesh Bureau of Statistics.

The Upazila has 3 Food Godown and 1 Fertilizer Godown with capacity of 39200 tons & 1580 tons respectively.

## Education

Within Kanaighat Upazila as has been found to be 8 high schools, 3 Junior high school, 93 Primary schools and 6 Madrashes. There are 9 Gono-Shikhya Kendra's remain in the Upazila. Statistics shows that there is one high/junior school, One madrasha and one primary school for, every, 1747 persons in the age group of 10-14 years; 11,164 persons in the age group of 5-24 years and 270 persons in the age group of 5-9 years respectively. Table 14 shows Zila and Upazila wise educational facilities.

Table: 14 Number of Education Institutions

Area	College	Secondary School	Junior High School	Primary School	Madrasha
Balaganj	1	15	3	144	49
Beanibazar	1	16	4	116	4
Biswanath		10	3	77	12
Companiganj		3	3	33	2
Fenchuganj	1	7	-	33	8
Golapganj	1	14	2	132	11
Gowainghat		5	3	102	20
Jaintiapur		2	-	30	1
Kanaighat		8	3	93	6
Kotwali	4	33	5	172	10
Zakiganj		6	2	105	4
Sylhet Zila	8	119	28	1037	127
Greater Sylhet District	20	350	79	3402	968

Source: Sylhet District statistic 1983. Bangladesh Bureau of Statistics.

Table: 15 : Other Urban Services.

Upazila	Telegraph Office	Post Office	Bang- low & Rest House	Govt. Office	Chinema Halls	Registe red Clubs
Balaganj	1	29	1	29	-	-
Beanibazar	1	18	1	19	-	18
Biswanath	1	17	1	33	-	9
Companiganj	-	-	-	5	-	-
Fenchuganj	1	6	2	25	1	3
Golapganj	1	23	1	22	-	-
Gowainghat	1	6	1	26	-	-
Jaintiapur	1	3	1	22	-	-
Kanaighat	1	12	1	32	-	2
Kotwali	11	30	1	19	4	24
Zakiganj	1	16	1	29	-	3
Sylhet Zila	20	160	11	261	5	59

Source; Sylhet District Statistics 1983  
Bangladesh Bureau of Statistics.

## Health

There is a hospital with 31 beds within the Upazila. Table 16 shows health facilities within Kanaighat and other Upazilas under Sylhet Zila. In all the Upazilas under Sylhet Zila has one health complex except in Companiganj Upazila. Kotwali and Fenchuganj Upazila experienced other health centre units 1 and 4 respectively.

Table: 16 - Position of Health Facilities

Upazila	Thana Health Complex	Cheritable dispensary	other health centre
Balaganj	1	6	
Beonibazar	1	5	
Biswanath	1	2	
Companiganj	-	1	
Fenchuganj	1	1	1
Golapganj	1	2	
Gowainghat	1	1	
Jaintiapur	1	-	
Kanaighat	1	-	
Kotwali	1	3	4
Zakiganj	1	2	
Sylhet Zila	10	23	5

Source: Sylhet District Statistics. 1983  
Bangladesh Bureau of Statistics.

## TRANSPORT LINKAGES

The transport network within Kanaighat Upazila is not satisfactory. The Upazila is connected with the district headquarters by road and waterways. The basic means of transports available in the Upazila are bus, truck rickshaw and boat. The Upazila Headquarters is connected with most of the Union Parishads by kutchha roads. Country boat play a vital role in communication during rainy season. There are 24 km. metalled and 169 km unmetalled roads.

The road pattern within the Upazila Shahar are not wide enough to comply with existing vehicular types. The major pucca roads passes through Dalairchar Mouza upto Jaintia Mouza. The Kanaighat Ferrighat plays an important role for trade and goods movement. No railway connection exists there. In Kanaighat Upazila river transport is the major one to motivate its trade and business with others parts of Bangladesh.

Table 17 shows road length according to pucca, Semi pucca and Kutchha roads within Upazila and Zila.

Table: 17 Road Length according to category

Zila/Upazila	Pucca		Semi Pucca		Kutcha	
	Mile	Kilometer	Mile	Kilometer	Mile	Kilometer
Sylhet Zila	224	360.6	33	53.13	2126	3422.9
Balaganj Upazila	23	37.0	1	1.6	48	135.2
Beanibazar "	22	35.4	-	-	152	244.7
Biswanath "	13	20.9	-	-	68	109.5
Companiganj "	-	-	-	-	17	27.4
Fenchuganj "	6	9.7	-	-	93	149.7
Golapganj "	23	37.0	-	-	195	313.9
Gowainghat "	27	43.5	-	-	131	210.9
Jaintiapur "	15	24.2	1	1.6	41	66.0
Kanaighat "	15	24.2	-	-	120	193.2
Kotwali "	62	99.8	15	24.6	427	687.47
Zakiganj "	18	29.0	16	25.8	399	642.4

Source: Sylhet District Statistics. 1983  
Bangladesh Bureau of Statistics.

Within Sylhet Zila Total Number of Bus Stoppages are 87, of which 16 are in Kotwali, 12 in Kanaighat. Table 18 represents Zila and Upazila wise Railway Station, Steamer/Launch ghat and Bus Stoppages.

Table: 18 Number of Railway Station, Buss Stoppages Steamer/Launch Station.

Zila/Upazila	Railway Station	Steamer Launch ghat	Bus Stoppages
Sylhet Zila	4	36	87
Balaganj Upazila	-	4	10
Beanibazar Upazila	-	10	8
Biswanath Upazila	2	-	5
Companiganj Upazila	-	-	-
Fenchuganj Upazila	2	3	1
Golapganj Upazila	-	8	10
Gowainghat Upazila	-	-	10
Jaintiapur Upazila	-	-	8
Kanaighat Upazila	-	-	12
Kotwali Upazila	2	1	16
Zakiganj Upazila	-	10	7

Source: Sylhet District Statistics 1983.  
Bangladesh Bureau of Statistics.

#### 2.4 DEVELOPMENT PROJECTS

The Upazila Parishad was not able to provide list of any development project. So it was not possible for the consultant to provide any such.

#### 2.5 IDENTIFICATION OF HIERARCHY OF SETTLEMENTS.

The hierarchy in terms of settlements classified with the ranges of population concentration and the ranges of services provided by them are presented in table 19.

There are a few implications which are related to the growth of Upazila Shahar in terms of shaving developments and population of Upazila sub-region along with other important settlements in the next 10-15 years.

Smaller settlements with population upto 500 and 501-1000 are decreasing all the time since 1961. Other than these other settlement with population 1000-2000, 2000-3000 are increasing gradually, may be the reason migration of population from the small size settlements are taking place or small size settlements are also rapidly growing and thereby becoming identified as settlements at the higher order.

Table: 19 Hierarchy of Settlement in terms of Service concentration

Mouza	Population (1981)	Services with score																															
		Upazila Administrative Complex	Other Govt. Office	Upazila Health Complex	Other Health Services	Hat	Market	Post Office	Telephone Exchange	Electrical Sub-station	Police Station	Police Fari	College	High School	Primary School	Madrasha	rail Station	Electricity	Rice Mill	Saw Mill	Bank	Shop	U.P. Office	Mosque	Cinema Hall	Club	Play ground	Community Centre	Godown	Metalled Road	Bus stand	Industry	Total
Delairchar	101165		4	6	8	4	6		3				4	2				2	6	3	6			4	5								70
Agtona Narayanpur	102460		6		4	4	6	3	3				4	4	2			2					2	5	5								65
Purba Nandirai	101171		4					3	3		6		4	2	2			2	2	3			2	6								3	58
Bhatidini	101175					4							4	4									4									25	
Birdul purba	153381				3	4	6	3					4	4	2			4					5									49	
Chhotadish	102079					4						4	4										9									31	
Bhatibara pati	101531					4		3					4										5									26	
Darpanagar paschim	101966				3	4	6					4	4	2				2		2			2									39	
Durgapur	101706											4	4										5									23	

Mouza	Services with score																																	
	Population (1981)	Upazila Administra- Live Complex	Other Govt. Office	Upazila Health Com- plex	Other Health Services	Hat	Market	Post Office	Telephone Exchange	Electrical Sub- station	Police Station	Police Fari	College	High School	Primary School	Madrasha	Rail Station	Electricity	Rice Mill	Saw Mill	Bank	Shop /Bazar	U.P. Office	Mosque	Cinema Hall	Club	Play ground	Community Centre	Godown	Metalled Road	Bus stand	Industry	Total	
Brahmangram paschim	10 1642														2				2					4										18
Dak shin Bangram	10 1309																		2				2											14
Lamadallair kandi	10 1016																		2				5											17
Tinchhati Narayanpur	10 2398														4								4											18
UPAR Jhingabari	10 1988				3	4	6								2																			28
Bayangpur	10 2063													4	4	2			2				2											32
Nij Bardesh	10 1234					4							6										8											28
Nij Bardesh Uttar	10 1147												4	2	2																			18

		Services with score																																		
Mouza		10	4	6	3	4	6	3	3	3	6	3	6	4	2	2	2	5	2	2	2	3	2	1	2	1	5	2	3	3	3	4	3	3	6	
	Population (1981)																																			
Nij Bardesh Pashim	10 1689				5	4	6	6						4	2	2			2	2					2	10									54	
Nij Dabair Kandi	10 2478		4				6								2	2			2	2		2	2			7									35	
Charipara	10 1531						6						4	2	2				2	2						8			3						37	
Julai	10 2206					4								2	2				2	2						6			3						35	
Lama Dhingabari	10 1804													2	2				2	2						8									24	

Population: 4000 - 5000 Score 20  
 3000 - 4000 15  
 1000 - 300 10  
 below 1000 5

From table 19 it is revealed that Mouza Dalairchar is occupying the highest score of 70 regarding population concentration and services facilities available. Next to it is mouza Agfoud Narayanpur. The Mouzas under different category are given here.

Category	- Score
A	- 70 +
B	- 50 + 69
C	- 30 - 44
D	- 10 - 29

Category	Name of Mouzas
A	Dalairchar
B	Agfoud Narayanpur, Purba Nandirai, Nij Bardesh Paschim.
C	Bridhal Purba, Chhorodish, Darponagar Paschim, Bayangpur, Nij Dabir Kandi, Chanipara Julai.
D	Lama Jhingabari, Nij Bardesh Uttar, Upar Jhingabari, Tinchati-Narayanpur, Lamadalair-Kandi, Dakshin Bangram, Brahmangram, Paschim Durgapur, Bhatibara Pati, Bhatidini.

THE UPAZILA HEAD QUARTERS

3.0 SPHERE OF INFLUENCE/ATTRACTIVENESS

Sphere of Influence is the immediate hinterland surrounding the shahar area within a distance of 3 to 4 Miles (5-6 Kilometer). People from surrounding areas normally commite such distance to take the advantages of various services of the shahar area. The catchment areas of Kanaighat Upazila Shahar was determined on the basis of spatial distribution and immediate hinterland which is likely to get benefits from different services of socio-infrastructure. The criteria to determine boundaries of the area is to consider the influence of Hats in which case the boundary line is almost equidistant from both the Upazila centre and the Hat concerned. Table 20 shows the catchment area and population settled. The catchment area of Kanaighat Upazila Shahar is about 4810 acres. (1947.50 hectres).

Table-20 Catchment Area Population

Sl. No.	Name of Mouza	Total Area		Involved Area		Total Population			Involved Population		
		In acre	In hectre	In acre	In hector	1961	1974	1981	1961	1974	1981
1.	Sonatola (Part)	102	41.3	68	25.1	177	114	134	118	76	90
2.	Sonatalar Kandi (Part)	116	47.0	87	35.2	193	305	356	229	228	267
3.	Sripur	114	45.7	114	45.7	306	492	580	306	492	580
4.	Sibnagar (Part)	639	258.7	320	129.4	672	948	1088	336	474	544
5.	Khelurband	224	90.7	224	90.7	83	135	150	83	135	150
6.	Gouripur (Part)	224	90.7	112	45.3	125	176	201	63	88	101
7.	Chapnagar (Part)	212	85.8	141	42.9	252	341	415	168	227	275
8.	Dalairmati	185	74.9	185	47.4	351	436	455	351	436	455
9.	Dhanpur	93	37.7	93	37.7	243	350	414	243	350	414
10.	Radhanagar	125	50.6	125	50.6	230	314	362	230	314	362
11.	Jaintipur	127	51.4	127	51.4	111	150	204	111	150	204
12.	Sutargaon	247	100.0	247	100.0	356	454	498	356	454	498
13.	Bridhal (Part)	588	238.1	392	79.4	726	2916	3381	484	1944	2254
14.	Kuyarkerhala	40	16.2	40	16.2	7	12	13	7	12	13
15.	Bayangpur (Part)	867	351.1	650	263.2	1432	1809	1103	1074	1357	806
16.	Lalarchalk	182	73.7	182	73.7	29	362	402	290	362	402
17.	Boro chatul (Part)	565	228.7	283	114.36	476	632	361	238	316	181
18.	Nijcharua Uttar	931	376.9	931	376.9	919	1339	644	919	1339	1644
19.	Sonapur	100	40.5	100	40.5	400	614	673	400	614	673
20.	Satghari	46.31	18.7	46.31	18.7	54	66	68	54	66	68
21.	Sadiyaler Mati	137	55.5	137	55.5	63	260	300	163	260	300
22.	Rampur (W)	206	83.4	206	83.4	394	500	600	394	500	600
Total :		6070.31	2457.3	4810.31	1947.50	7599	12725	12402	6617	10194	10882

### 3.1 DEFINITION OF SHAHAR AREA

The Upazila Shahar area has been identified on the basis of the spread of Urban and Semi Urban functions around the Upazila Complex and the principal transportation network. The area wholly or partially will be considered as the planning area of future township by the assisment of land requirement. Size of future township was rigulized on the basis of the service demands of the Upazila. The proposed study area has been determined is about 229094 acres (927.50 hectre) and comprised of 13 mouzas. Table 21 shows study area according to mouza.

Table-1: 21 Upazila Shahar Study area and Population

Sl. No.	Name of Mouza	Total Area		Involved Area		Total Population			Involved Population		
		In acre	In hectre	In acre	In hectre	1961	1974	1981	1961	1974	1981
1.	Raighar	194	78.5	194	78.5	358	526	697	358	526	697
2.	Durllabpur	373	151.0	373	151.0	776	1098	1346	776	1098	1346
3.	Moheshpurer Khala	195	78.9	195	78.9	227	372	230	227	372	230
4.	Noyataluk	56	22.7	56	22.7	200	268	310	200	268	310
5.	Nandirai	280	113.4	280	113.4	773	993	1171	773	993	1171
6.	Noyakhala	86.44	35.0	86.44	35.0	118	148	176	118	148	176
7.	Dalair char	211	85.4	211	85.4	678	436	1165	678	436	1165
8.	Noyamati uttar	174	70.4	174	70.4	60	97	125	60	97	125
9.	Uttar Gobindapur (Part)	100	40.5	73.47	29.7	153	183	226	112	134	191
10.	Bayangpur (Part)	867	351.0	8.03	3.3	1432	1809	1103	14	18	11
11.	Dharampur	151	61.1	151	61.1	259	373	427	259	373	427
12.	Shonartuluk	45	18.2	45	18.2	79	121	149	79	121	149
13.	Bishnopur	448	181.4	444	179.8	720	1018	1062	713	1001	1052
	Total :	3180.44	1287.5	2290.94	927.50	5833	7442	8187	4367	5585	7050

### 3.2 EXISTING LAND USE FACILITIES AND UTILIZATION CHARACTER

The existing landuse pattern in the Upazila Shahar Kanaighat is an outcome of a long constant process involving various socio-economic, political and natural factors. Map 3 shows the existing landuse pattern, provision of facilities within the shahar area. About 2290.94 acres of land is included in the study area. The study area is grown with mixed land uses of residence, administrative and Govt. offices, educational institutes commercial and industrial establishments, water bodies, roads agriculture etc. These use pattern scattered all over the area. Major parts of the study area is still under agricultural use representing about 83 percent of the total land area in the study area. The remaining 17 percent of the land is used as other than agricultural purposes. Table 22 shows major land use in the study area. The details are shown separately for each major category.

Table : 22 Existing Landuse Pattern in the Study Area.

	Area		
	In Acre	In Hectare	%
1. Agricultural	1895.56	767.43	82.74
2. Residential	303.76	122.98	13.26
3. Educational	4.13	1.67	0.18
4. Administrative Govt. Offices. etc.	15.23	6.16	0.66
5. Health	7.10	2.87	0.30
6. Commercial	4.28	1.73	0.18
7. Socio-cultural	8.93	3.61	0.38
8. Urban Services	6.92	2.80	0.31
9. Roads	28.05	11.36	1.22
10. Water Bodies	15.38	6.22	0.67
11. Industrial	1.60	0.64	0.08
Total	2290.94	927.47	100.00

Source: Landuse Survey. 1989

Dacca Consulting Ltd.

### Residential Landuse

Residences are scattered all over the survey area. Except in western part of Upazila Parishad the central part and north eastern part the settlements are comparatively dense. The total Upazila mostly goes under water during rainy seasons. Permanent structures are mainly developed in high land areas. Residential area within the study area comprises about 13.2% of the total land area. The houses are mostly kutchha in nature. Some two storied buildings were found in Upazila central area.

### Administrative and Govt. Departments.

According to table 22 existing land used by administrative and Govt.. Departments comprise an area of about 15.23 acres (6.17 Hectres). Which is about 0.66 percent of the total study area. Field survey indicates, the uses are for Upazila Office building, jail, court building. Forest office in Kanaighat Upazila. The total area for Upazila Complex is 12.92 acres (5.23 hectres) Jail 2.10 acres (.85 hectres).

### Commercial Landuse

There is a daily bazar, 2 Banks and small shops were found exists within the study area. Commercial activities occupied about 4.28 acres (1.73 hectare) of land, which is about .14 percent of the study area.

Table: 23 Commercial Landuse

Landuse	Area in	
	Acre	Hectre
1. Bazar	0.50	0.20
2. Bank	0.27	0.11
3. Shops/dispensary etc.	3.51	1.42
Total	4.28	1.73

Source: Landuse Survey (Study area) 1989  
Dacca Consulting Limited.

### Educational Landuse Pattern

Within the study area it has been observed that there are 5 primary schools. 1 high school for boy and 1 for girls and 1 madrasha. Total land utilized for educational purpose is 4.13 acres (1.67 hectares). This area comprises about 0.19 percent of the study area.

Table : 24 Educational Landuse Pattern

	No of Unit	Area	
		In acre	In hectre
Primary School	5	1.13	0.46
High School	2	2.15	0.87
Madrasha	1	0.85	0.34
Total	8	4.13	1.67

Source: Landuse Survey 1989.

Dacca Consulting Limited.

#### Recreational Land uses

Recreational facilities as such was not found within the Upazila. Some open spaces are there for playing within the school boundary. That area has been included within the education land use area.

#### Health

There is a health complex with 31 beds has been observed within the study area. Within this boundary a family planning clinic is also there. Total area of the Health Complex is about 7.10 acres (2.87 hectares).

### Socio-Cultural

12 Mosque, 10 graveyards, and an Idgah has been found within the study area. Total area of the Mosque and Idgah is 4.93 acres (1.99 hectares). The total area of graveyard is about 4.0 acres (1.62 hectares). The Idgah is included within a Mosque. The total socio cultural area is about 0.39 percent of the total area.

### Urban Services

The total area of Urban Services within the study area is 6.92 acres (2.80 hectares). The percentage of the area to total study area is 0.30 percent.

Table : 25 Urban Services

	Area	
	In acre	In hectare
Post Office	0.10	0.04
T & T	0.60	0.24
Food Godown	1.52	0.62
Dak Bunglow	1.70	0.69
Police Station	3.0	1.21
Total	6.92	2.80

Sources: Landuse Survey 1989.

Dacca Consulting Limited.

### Industrial

Kanaighat Upazila is less developed in industrial sector. Small and cottage industries within household developed. Within the study area 2 saw mills were observed with an area of 1.60 acres (0.64 hectares).

### Agricultural Landuse

About 82 percent land under the study areas goes under agricultural use. Total land under agriculture is 1901.13 acres (769.68 hectares).

### Water bodies

Water bodies constitute about 15.38 acres (6.22 hectares) those include tanks Khals etc.

### Roads

Roads comprise about 28.05 acres (11.35 hectre) of land. The percentage is 1.22 percent of total study area. The total area of Kutcha road is 23.42 acres (9.48 hectares) and pucca road 4.63 (1.87 hectares). On average roads width is about 10' wide.

### 3.3 PHYSICAL OPPORTUNITIES AND CONSTRAINTS

#### Opportunities

Kanaighat Upazila situated on the north eastern part of Sylhet Sadar Zila and on the boarder of India. Still vast land within and around Upazila Shahar area which promotes better development in planned way, There is a pucca road passes through Upazila Shahar area upto Jaintiapur Upazila. The inter and inter Upazila road network is not satisfactory area. The economy of the Upazila totally depends on the agricultural production. Agrobased industry, cottage industry and trade centre in the upazila shahar would support the additional demand of consumer good. This would also creat employment in this upazila for good regional transport link through waterways. As with Sylhet road linkage prevails development of the area with industries would help to envasige the economic situation in a batter way.

#### Constraints

The major problem of the Upazila is that most of the areas goes under water during wet season. Intra communication within the Upazila is not good. People mostly settled in the high and medium high lands. Some portion on the west- etn part of the Zila shahar areo is mostly agricultural

land and not appropriate to transfer into other uses. Within the right corner that is within Nayamati Uttar Mouza some area is totally low land and very difficult for development. Due to river Surma the Upazila than this the Upazila Shahar area would be expanded on all other sides.

#### Land Level

With reference of Water Development Board contour map the land level of the study area has been ascertained. It has been observed that a vast area is still low lying and floodable. With the increase of propulation and demand for lands new settlements are being buklt by raising low lands by earth filling. Details of land level has been shown on contour map.

#### Land Value

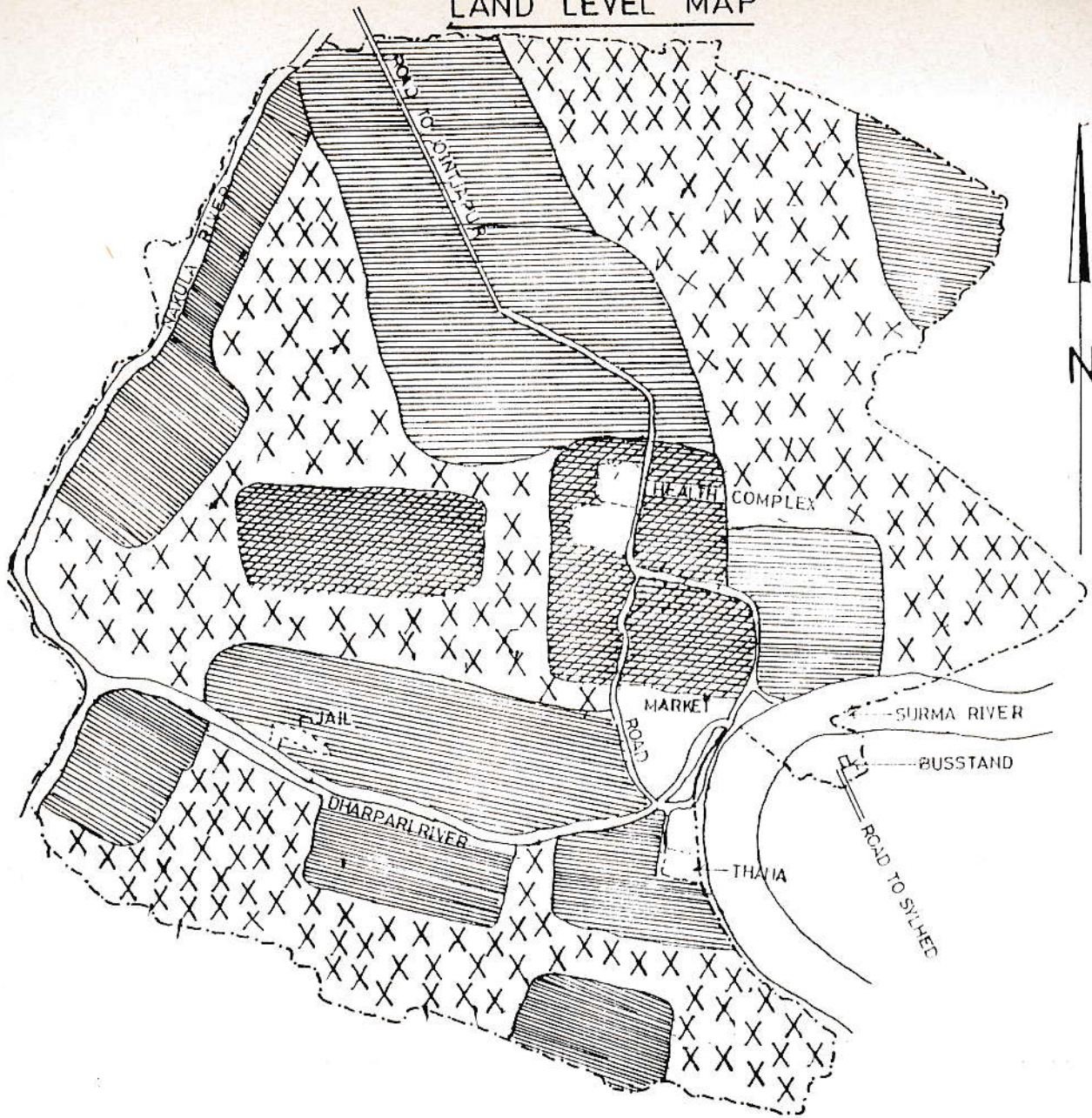
Land in the study area has been classified into five categories according to their prices prevailing in the land markets collected from Upazila revenuw office. Table 26 shows land value within the study area.

Table : 26 Land Value

Category of land	Average price per acre	Land level
Land surrounding Upazila Complex	150,000	High
Residential	120,000	High
Agricultural	90,000	High
Agricultural	60,000	Low
Pond Ditch	30,000	Very low

Source: Upazila Revenue Office.

# LAND LEVEL MAP



## LEGEND

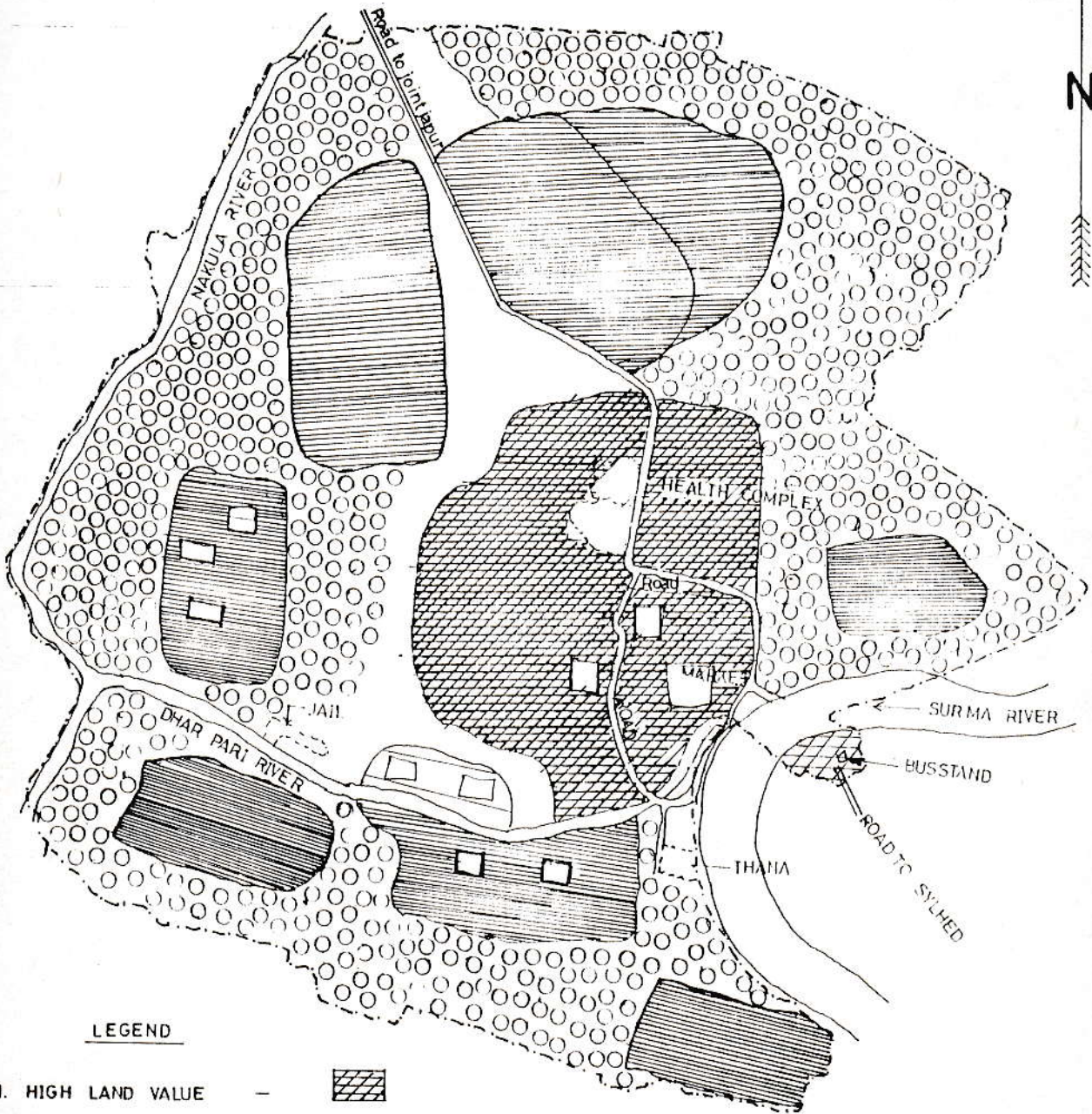
- 1. ROAD -
- 2. RIVER
- STUDY AREA BOUNDARY
- SETTLEMENTS AND SURVIVICE.
- 1. HIGH LAND VALUE -
- 2. MEDIUM LAND VALUE -
- 3. LAW LAND VALUE -







MAP - 3

KANAI GHAT UPAZILA

# LAND VALUE MAP



LEGEND

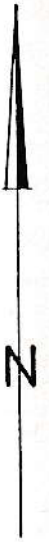
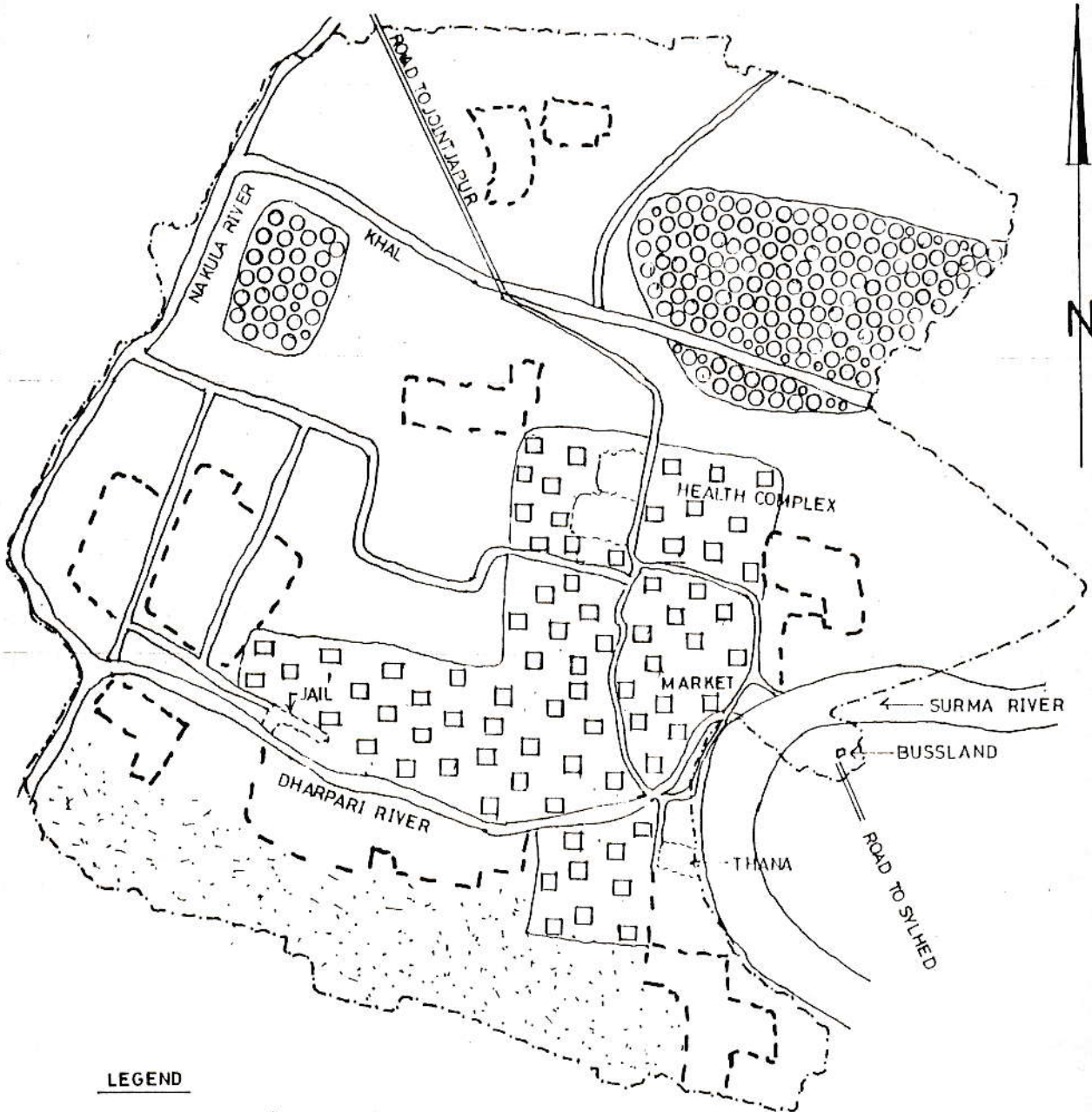
- |                      |   |   |
|----------------------|---|---|
| 1. HIGH LAND VALUE   | - |  |
| 2. MEDIUM LAND VALUE | - |  |
| 3. LOW LAND VALUE    | - |  |
| 4. SETTLEMENTS       | - |  |



MAP - 4

KANAI GHAT UPAZILA

# POTENTIAL AND CONSTRUCTS AREAS



### LEGEND

- 1. ROAD
- 2. RIVER
- 3. STUDY AREA
- 4. SETTLEMENTS
- 5. AREA POTENTIAL FOR DEVELOPMENT
- 6. " " " REDEVELOPMENT
- 7. " " " CONSTRAINTS TO DEVELOPMENT



MAP - 5

KANAI GHAT UPAZILA

CHAPTER - 4

FORECAST

4.0 Population Household structure and density within catchment area

Population Projection

Within the catchment area twenty two mouzas were included either partly or fully. The population projections made for the catchment area are on high, medium and low level projection. The base population for projection is 1981 population.

Table: 27 Population Projection 1981-2000 according to High, Medium and Low growth rate

Year	High gr. rate		Medium gr. rate		Low gr. rate	
	Popu- lation 1961	Popu- lation 1974 (Growth rate) 3.38	Popu- lation 1961	Popu- lation 1981 (Growth rate) 2.5	Popu- lation 1974	Popula- tion 1981 (Growth rate) 0.93
1981 (Base year)	10882		10882		10882	
1990	12429		12012		11292	
1995	17329		15388		12387	
2000	20462		17410		12974	

### Population Density

Population density according to per acre and hectare has been shown according to medium range projection level in the catchment area.

Table: 28 Population density according to medium growth rate 2.5

	Year				
	1981	1985	1990	1995	2000
Population	10882	12012	13601	15388	17410
Area acre (Hectare)	4810.31 (1947.50)	4810.31 (1947.50)	4810.31 (1947.50)	4810.31 (1947.50)	4810.31 (1947.50)
Density/acre Hectare	2(6)	2(6)	3(7)	3(8)	4(9)

### Household Structure

Household size as has been found in 1981 was 5.61. This rate would decrease time to time with the impact of urbanisation. Table shows household size upto 2000.

Table: 29 Household Structure. 1981-2000

	Year				
	1981	1985	1990	1995	2000
Population	10882	12012	13601	15388	17410
No of Household	1938	2402	3022	3847	4974
Size of Household	5.61	5.0	4.5	4.0	3.5

4.1 Population household structure, density within study area.

Population Projection

The calculated growth rate for Kanaighat Upazila are 3.38, 2.43 and 1.91 as High, Medium and Low rates respectively.

The medium growth rate has been adopted population projection upto 2000.

Table: 30 Population Projection in study area

Year	Growth Rate					
	High gr. rate 3.38	Medium gr. rate 2.43	Low gr. rate 1.91	Popu- lation 1974	Popu- lation 1981	Popu- lation 1974
	5585	7050	4367	7050	4367	5585
1985	8053	7761				7604
1990	9509	8751				8358
1995	11228	9867				9187
2000	13258	11126				10099

Note: Population figure of 1981 is 7050

Household Structure

According to 1981 census the size of household in the study area was 6.40. Table 31 shows household structure from 1981 to 2000.

Table: 31 Household Structure

	Year				
	1981	1985	1990	1995	2000
Population	7050				
No. of Household	1101	1350	1750	2193	2782
Household size	6.40	5.75	5.0	4.50	4.0

Population Density

Population density in 1981 was 3.07 persons per acre (7.60 persons per hectare ) in the study area. This rate would increase gradually as an impact of urbanisation and related services and facilities. The density of population per acre (per hectares) would be 3.81 ( 9.43) , 4.31 (10.63) and 4.86 (17.0) in the years of 1990, 1995 and 2000 respectively.

4.2 Migration pattern/labour force employment

Migration both internal and external was not found tremendously during the socio-economic survey within Kanaiġ-hat study area. Very few families has permanently came to Upazila Shehar. Some male members has shifted to the town for some job there. But it is hoped with the new investment in different infrastructure and development projects would induce population to the study area, mine in future.

There is hardly any dependable data for estimating labour-force in the urban area and employment in urban and rural areas of Bangladesh. Labour force as percentage of population 10 years and above was found 37% in Kanaighat Upazila.

#### 4.3 Land requirements provision standards

Land requirement upto 2000 and the standard provision are described in the following chapters for Kanaighat Upazila Shahar and catchment area. The land proposed for residential and primary services are mainly based on study area. Major services are based on both study and catchment area.

The design population for housing and other primary services are 11126 for the year 2000. and the design population for study and catchment area are 28536.

Table: 32 Land Area Proposed upto 2000  
 Study area population: 11126  
 Study and Catchment area  
 Population: 28536

Land Use Category	Existing Area		Standard as per TOR	Land reqd. as per TOR		Land Area Proposed		% of land
	Acre	hac.		Acre	hac.	Acre	hac.	
1.a Commercial	4.28	1.73	1000/1.5 ac.	43	17.4	15	6.07	0.65
2.b Industrial	1.60	0.64	1000/1.5 ac.	43	17.4	15	6.07	0.65
Education	4.13	1.67		16.63	6.73	13.10	5.30	0.56
- Primary School	1.13	0.46	5000/1. ac.	2.25	0.91	2.25	0.91	0.09
- High School	2.15	0.87	20000/5. ac.	7.19	2.91	5.0	2.02	0.22
- College	-	-	20000/5. ac.	7.19	2.91	5.0	2.02	0.22
- Madrasa	0.85	0.34	-	-	-	0.85	0.35	0.04
3. Health	7.10	2.87	5000/1. ac.	5.74	2.32	7.10	2.87	0.31
4. Administration	15.23	6.16	-	-	-	17.54	7.10	0.77
- Upazila Complex	12.92	5.23	-	-	-	15.23	6.17	0.66
- Jail	2.10	0.85	-	-	-	2.10	0.85	0.09
- Forest Office	0.21	0.08	-	-	-	0.21	0.08	0.009
5. Recreation	-	-	-	11.12	4.50	7.50	3.04	0.32
- Park	-	-	-	11.12	4.50	3.0	1.21	0.13
- Play Field	-	-	1000/1 ac.	-	-	4.0	1.53	0.17
- Closed	-	-	-	-	-	-	-	-
- Chinama Hall	-	-	-	-	-	0.50	0.20	0.02

Table: 32 Land Area Proposed upto 2000  
Study area population: 11126  
Study and Catchment area  
Population: 28536

Land Use Category	Population		Existing Area		Standard as per TOR		Land reqd. as per TOR		Land Area Proposed		% of land
	Acres	ha.	Acres	ha.	pop/acre	ac.	Acres	ha.	Acres	ha.	
6. Socio cultural	9.03	3.65	6.67	2.70			11.03	4.46			0.48
- Mosque/Idgah	5.56	2.25	1.11	0.46	5000/0.5 ac.		5.56	2.25			0.24
- Graveyard	3.47	1.40	2.18	1.12	20000/5 ac.		3.47	1.40			0.15
- Community Centre	-	-	2.18	1.12	20000/5 ac.		2.0	0.81			0.09
7. Urban Services	6.92	2.80	1.44	0.58			7.32	2.96			0.32
- Post Office	0.10	0.04	0.72	0.29	20000/0.5 ac.		0.50	0.20			0.02
- Food Godown	1.52	0.62	-	-			1.52	0.62			0.07
- T & T	0.60	2.24	0.72	0.29	20000/0.5 ac.		0.60	0.24			0.02
- Dak Bunglow	1.70	0.69	-	-			1.70	0.69			0.07
- Police Station	3.0	1.21	-	-			3.00	1.21			0.13
8. Residential	303.76	122.98	188	76.11	60 persons		303.76	122.98			13.26
9. Urban Deffered	-	-	50.0	20.24	10% of built up area		50.0	20.24			2.18
10. Road	28.05	11.36	-	-			70.0	28.34			3.06
11. Agriculture	1895.56	767.43	-	-			1758.21	711.83			76.75
12. Water Body/Tank ditch	15.38	6.22	-	-			-	-			-
13. Reserve	-	-	-	-			15.38	6.23			0.67
Total	2290.94	927.47	2290.94	927.47			2290.94	927.47			100.00

LANDUSE MASTER PLAN

5.0 Approach, Concept, Planning Principles.

The planning concept for the preparation of landuse master plan for the Upazila Shahar is primarily related to the Government's policy of administrative decentralization. It is hoped that the Upazila Centres would be planned and developed to accommodate all social economic, administrative and infrastructural services for the Upazila itself. The development of Upazila Centre is the Government's key strategy for social, economic and infrastructural upliftment of the Upazila. The pertinent legislation enjoins upon the Upazila Parishad is a mandate of services provision to the rural areas. It is hoped that the upazila will carry out economic development and employment generating activities by Government agencies at the Upazila Shahar and other growth centres. Construction of new public building and infrastructures such as roads industries etc. would help development as well as employment creation.

The development would include:

- Functions to be located at the Upazila Shahar will be in balance with existing social and physical infrastructure and requirements of Shahar's projected population in addition to functions related to the economic and employment generating activities shared by the shahar and other growth centres.

- Projected population of the Zila will be shared by the Upazila Shahar, other growth centres within the Upazila and outmigration of the Zila population.
- The land requirements for housing are catered to the needs of the population of the Upazila Shahar itself. Requirements for social facilities such as college, mejor markets, health service administrative units would be to cater the need of both shahar and catchment area population.

In the present plan the following aspects have been considered:

- Identification of sizeable township around the Upazila Complex on the basis of total land requirements.
- The urban form and structure at Kanaighat is considered in terms of present developments and the local physical conditions as well as interupazila transportation service.
- Optimum uses of land.

In the process of identifying projects, cost effectiveness in terms of supporting population and eligibility for national and international financing have been considered.

### 5.1 Plan Description

The Table earlier shows the different land uses proposed in the plan. Proposed Landuse Map attached herewith shows the different landuse.

### Urban Structure

The structure of the town has been proposed in a way to have the existing major employment zones and services areas. One problem is that the areas are full of low lands haors bills and small hills. A continuous development and concentration of one area is very diffices. The major activities an in mouza Dolairchar. The interest of the local authorities is to extend services on the northern part of the town from the existing concentrated area.

Existing settlements are scattered all over the area. The plan tries to extend the transport system though whole study area. One bill just at the northern part of Dolairchar make it difficult to extend services in that area. The plan has been prepared so that the residential areas would at least have primary school and small shops. Industrial sector in this area is not that much developed, but if incentives are provided through Upazila Parishad some new employment could be created through developing small scale industries. This is why some areas are kept for industrial use in future. The facilities of high school, college, markets, parks, industry and other urban services are proposed for the neighbourhood of the Upazila Shahar and the catchment area population.

### Infrastructure Development

The network of roads has been proposed keeping in view the existing intra Upazila roads, linking the central area with the surrounding areas. Internal access roads are to be worked out at the time of preparing detail plans of all areas. The number of educational institutions are also not satisfactory so in different neighbourhood primary schools are proposed, one college also proposed for the area. The area for health facilities is adequate but the services facilities are not satisfactory. So it is hoped care should be taken to improve the services facilities.

## CHAPTER - 6

### PROGRAMMING AND IMPLEMENTATION

#### 6.0 Priority actions, cost implications and related factors

Development of a large number of Upazila and Zila Shahars throughout Bangladesh is a gigantic task for the Government. Mobilization of financial and other resources is also a problem. Availability of international and local funds are generally linked with cost recovery in most cases. Considering this view the following priorities are relevant:

- development of revenue earning project sites
- development roads and communication
- acquisition and development of proposed road and commercial spaces.

The plan shows these road spaces, commercial, industrial and social service sites (school, health etc.). Development of the Upazila site is in developing phase. New site has been taken to develop as Upazila Complex in Kanaighat Upazila priority action areas. It is expected that residential areas will be densified gradually with the increase of economic activities. Expansion of services should go ahead according to population increase.

#### 6.1 Phasing of Development and Urban Deferred

The following Table illustrates phased development of services including land development for housing on 5 years time base:

Table: 33 Phasing of development, 1985-2000

Sectors/Services	1985-90	1990-95	1995-2000
Land development for housing (acres)	20%	40%	40%
Commerce	25%	40%	25%
Industry	30%	40%	30%
Infrastructure	20%	40%	30%
Administrative Offices	40%	50%	10%
Others	20%	30%	50%

Urban deferred areas are shown on the plan. These areas would be utilized when necessary, specially if actual population exceeds the Projection made.

#### 6.2 Development Control

In the context of Upazila re-organization ordinance 1982 the development control measures are difficult to enforce. Because there is no adequate legal provision to prohibit and to under take preventive measures against unauthorised development. Under the Local Government system the Pourashava Ordinance and probably the East Bengal Building Construction Act. 1952 can be adopted for the Upazila Parishad unless other suitable measures are adopted by the Government. In any case the Upazila Parishad should be the main authority to persue the plan.

### 6.3 Monitoring and Reviewing

**Monitoring:** The Upazila Parishad will act as the key agency in the Government for monitoring all developments and development controls within the Upazila Shehar as stipulated in this plan. Five Years Plans, and Annual Development Plans should be prepared by the Parishad and approved by the Government on project basis. Since all the development agencies at the Upazila level have been integrated for the purpose of carrying out developments, the Upazila Parishad will also monitor the progress with the sectoral agencies at the regional and national level.

**Review:** Review of the plan should be made in terms of planning studies and landuse surveys after about 10 years. Because beyond this period generally population projection may not hold good. The major road network proposed in the plan at present should be followed strictly so as to ensure general developments consistent with the urban structure envisaged. Revision may be made in accommodating unavoidable and contra landuses. The review of plan would help to improve the plan proposed time to time.