

**URBAN DEVELOPMENT DIRECTORATE**

**MINISTRY OF WORKS**

GOVERNMENT OF

THE PEOPLE'S REPUBLIC OF BANGLADESH

**LAND USE PLAN**

**KAMALGONJ UPAZILA SHAHAR**

**MOULVIBAZAR ZILA**

**MARCH, 1988**

# উপজেলা পরিষদ কমলগঞ্জ

জেলা - মৌলভীবাজার।

জাহির উদ্দিন চৌধুরী এ্যাকটিং চেয়ারম্যান।

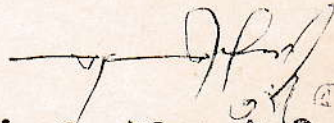
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মৌলবী বাজার।

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প্রাপক পরিচালক  
নগর উন্নয়ন অধিদপ্তর  
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ঢাকা।

বিষয় ভূমি ব্যবহার পরিকল্পনা।

উপরোক্ত বিষয়ের উর্ধ্বি দিয়া মহোদয়ের সদয় জ্ঞাতার্থে  
ও কার্যার্থে জানানো যাইতেছে যে অত্র উপজেলার ভূমি ব্যবহার পরিকল্পনাটি  
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আলোচিত হইয়াছে। কথিত ভূমি ব্যবহার পরিকল্পনাটি সনোষজনক বলিয়া  
বিবেচিত হইয়াছে।

  
( জাহির উদ্দিন চৌধুরী )  
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JANOPAD PROKOUSHALI LTD.  
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DHAKA-1205.

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## Chapter I

### INTRODUCTION

This Report (Report -iv), Landuse Plan is submitted in accordance with the Agreement signed between the Urban Development Directorate (UDD) and Janopad Prokoushali Limited in July 1986. The Report is prepared as per the guidelines provided in the Terms of Reference (TOR). It contains the following chapters :

- i. Introduction
- ii. The Upazila in Its Zila Context
- iii. The Upazila Headquarters
- iv. Forecasts
- v. Landuse Plan
- vi. Programming and Implementation

#### 1.1 Background of the Project

The Government, considering the present socio-economic conditions of the country, recently took the decision of implementing administrative re-organization. Through this decision, the Upazila has been recognized as the most significant tier of the administration. So it is expected that each Upazila centre will be the focal point of the Upazila level administrative activities relating to law and order and socio-economic development. The Upazila Parishad will plan and develop all social, economic and infrastructural upliftment of the Upazila region. This also reflects the national policy of bringing development administration and service facilities to the doorstep of the rural masses and to ensure better delivery of governmental services to the people.

The decentralization of administration has made an impact on the increase of population and urban activities at the Upazila Shahar. Therefore, the Upazila Headquarters will require to provide the locations for all necessary urban services and facilities.

In the light of the above circumstances, it is felt that the Upazila Shahar should grow up expeditiously and the preparation of Landuse Plan for the Upazila Headquarters is of utmost importance for better utilization of scarce land, people and natural resources.

#### 1.1.1 Project Objectives

The Terms of Reference (TOR) of the Urban Development Directorate (UDD) mentions the following objectives of the Landuse Plan of the Upazila Shahar :

- o Improvement of quality of life in the rural areas.
- o Provision of locational and spatial guidelines of landuses at micro-regional level.
- o Control of public and private development through physical planning approach.
- o Provision of technical back up for planned growth of human settlements.
- o Enhancement of physical planning capability in the private sector.
- o Detailed landuse plan of the Upazila Shahar to help formulation of spatial setting of urban activities with certain design standards.

#### 1.1.2 Scope of Services

The Study will cover the following major aspects related to the preparation of landuse plan of the Upazila Shahar :

- o Determination of the Study Area for survey and data collection.
- o Detailed existing landuse survey.
- o Collection of socio-economic and demographic information.

- o Analysis and compilation of the data and information to forecast future population and land requirements for various services and facilities.
- o Preparation of detailed Plan for Upazila Shahar.
- o Provision of development plan for economic activities and investment facilities.
- o Development of framework and strategy for management and control and institutional arrangement for effective implementation of the plan.

## 1.2 Methodology Adopted in the Study

The Report presents information collected from surveys, forecasts and the Landuse Plan. The detail methodologies for these are discussed below.

### 1.2.1 Collection of Information from Secondary Sources

Relevant maps e.g. Upazila maps, mouza maps, contour maps and useful literature such as Census Reports, District Gazetteer etc. were collected for a thorough study of the project.

### 1.2.2 Field Survey

Field survey included a wide range of data collection. The survey was carried out by the groups of trained investigators and surveyors. One team performed the socio-economic survey and the other the landuse survey of the Upazila Shahar. The questionnaires and checklists used in the survey are given in the Appendices.

#### Socio-economic Survey

Socio-economic survey was carried out through household questionnaire survey. Catchment Area Survey, hierarchy of settlements survey and interviews with some selected persons from Government officials and private individuals at Upazila level.

### Household Questionnaire Survey

A 5% sample of the total households in each mouza included in the Study Area was considered for household questionnaire survey (Appendix I). The Study Area was determined earlier by a reconnaissance 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 Zone of influence or the Catchment Area of the Upazila Shahar, interviews with local knowledgeable persons and the users of services like market, health, education, transport, administration etc. were undertaken. On the basis of these interviews and field observations on existing transportation network and distribution of sub-centres/growth points, the Catchment Area or the Zone of Influence of the Shahar is determined.

Hierarchy of Settlements Survey : To identify a hierarchy of settlements in the Upazila, mouza wise population and services and facilities were listed using a structured format. Population by mouzas in 1981 census together with the concentration of services and facilities were also considered to determine the hierarchy.

Interviews : Interviews with relevant persons were useful to gather various information related to the preparation of landuse plan and for a cross-check of the collected data through other surveys. This also helped to conceptualize the various issues in respect of landuse plan of the Upazila Shahar.

### Landuse Survey of the Upazila Shahar :

Landuse survey was conducted in the Study Area of the shahar identified during the reconnaissance survey. The mouza map of scale 1" = 330' was used in the survey to plot the existing landuses. Boundary and layout of different categories of landuse were recorded on the map.

## Survey of the Town Service Centre

The Town Service Centre (Core Area) of the Upazila Shahar was surveyed using the contour map of Bangladesh Water Development Board. This map was upgraded noting all changes from the previous ones and naming all existing man-made structures and physical features.

### 1.2.3 Data Processing and Analysis

The data and information collected through field surveys have been processed manually and in most cases presented in tabular forms. The required maps for the project have been developed using the relevant information.

### 1.2.4 Forecasting and preparation of Landuse Plan

For forecasting the population upto the year 2000 A.D., high, medium and low projections are followed considering the trend of growth rate in different inter-census periods. Estimates on labour force and migrants are done considering the available information of the Bangladesh Bureau of Statistics and possible spatial distribution of these labour force and migrants within the Zila, Upazila and Upazila Shahar. Medium projection of population is considered to estimate the design population of the Upazila Shahar in the Plan period.

The Landuse Plan is prepared on the basis of the guidelines and standards of planning provisions provided in the Terms of Reference (TOR). A moderate approach is mostly adopted in the provision of services and facilities. Alongwith this, the existing landuses and natural physical condition of the Upazila Shahar are considered. The details are discussed in the subsequent stages of the study.

## Chapter II

### THE UPAZILA IN ITS ZILA CONTEXT

For the Landuse Plan of the Upazila Shahar, its background, location and physical characteristics are important. Its position in respect of population, settlements, socio-economic and physical infrastructural performance compared with the broader region are discussed below.

#### 2.1 Location and Physical Characteristics of the Upazila

The location, background and physical setting of the Upazila are essential elements to be considered in the preparation of Landuse Plan. In the following paragraphs, these aspects are discussed.

##### 2.1.1 Location, Area and Background

Upazila Kamalganj was established as a Police Station (Thana) in January 1922. From then the Upazila Headquarters at Bhanugach was connected by good railway line. Bhanugach (Kamalganj) is an old railway station.

It is said that Zamindar Kingkar Nath Roy appointed one Naveb named Komal Narayan to run the administration of the present area of the Upazila. He took keen interest in some social work in order to earn fame for himself. For this end in view, he set up a bazar named Komal Narayan Bazar after his name. The local people are in the opinion that the name of the Upazila has been derived from the name of this bazar (Bangladesh Bureau of Statistics, District community Tables, Sylhet, 1985).

Upazila Kamalganj is located on the southern part of Moulvibazar Zila. It is situated on the Dhaka-Sylhet railway line on the east of Sreemangal Upazila. Road communication of the Upazila is restricted by the small hillock of the Bhanugach hill ranges. Jeep services are available to communicate with the Upazila Shahar from Sreemangal by an unmetalled hilly road which also connects some other growth points with Kamalganj.

The Upazila lies between  $24^{\circ}-08'$  N and  $24^{\circ}-29'$  N Latitude and  $91^{\circ}-45'$  E and  $91^{\circ}-57'$  E Longitude. It is bounded in the north by Moulvibazar and Rajnagar Upazilas, in the south and in the east by the Indian State of Tippera and in the west by Sreemangal and Moulvibazar Upazilas.

The Upazila Shahar is located approximately at the intersection of Latitude  $24^{\circ}-31'$  N and Longitude  $91^{\circ}-22'-30''$  E. Map-1 shows the location of the Upazila in the context of the Zila and the country.

### 2.1.2 Physical Characteristics

Kamalganj Upazila has a diversified physiographic characteristics. Of the total land in the Upazila, 46% is high, 51% is medium and only 3% is low. The Upazila has 50% doash soil, 30% bele soil and 20% kankar soil.<sup>1)</sup> The Bhanugach hill ranges have frequent small hillocks and plain lands within the hillocks. The plain lands are fertile for rice cultivation. The hillocks are rich for tea plantation and fire and timber woods.

A small river Dholai navigable throughout the year flows through the Upazila Shahar. The lower basin of the river Dholai is sometimes flooded by heavy rains during monsoon and increase in the flow of water from the hill streams on their upper parts.

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1) Bangladesh Statistical Bureau (BBS), Sylhet District Statistics, 1983.

**Climate;**

The climatic characteristics of the Upazila is similar to that of the Zila Sylhet (old). Sylhet (old) is the wettest Zila in Bangladesh. However, the mean annual rainfall of Kamalganj Upazila is 90 inches. The highest and lowest temperature of the year are usually found in the month of May and January respectively.

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2) Bangladesh Govt. Press, District Gazettters, Sylhet, 1975.

## 2.2 Population and Settlements Distribution

The population and settlements distribution within the Zila and Upazila are discussed in the following paragraphs.

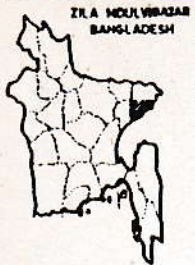
### 2.2.1 Within the Zila

The Upazila wise population distribution within the Zila Moulvi-  
bazar is shown in Table 1. The population density and percentage  
variation over inter-census periods present that the Upazilas of  
the Zila have almost similar pattern. The density however is much  
higher in the Moulvibazar Shedar Upazila and the lowest in Upazila  
Kamalganj. The percentage variation of population over the census  
period 1961-81 is the highest (66.35%) in Upazila Sreemangal.

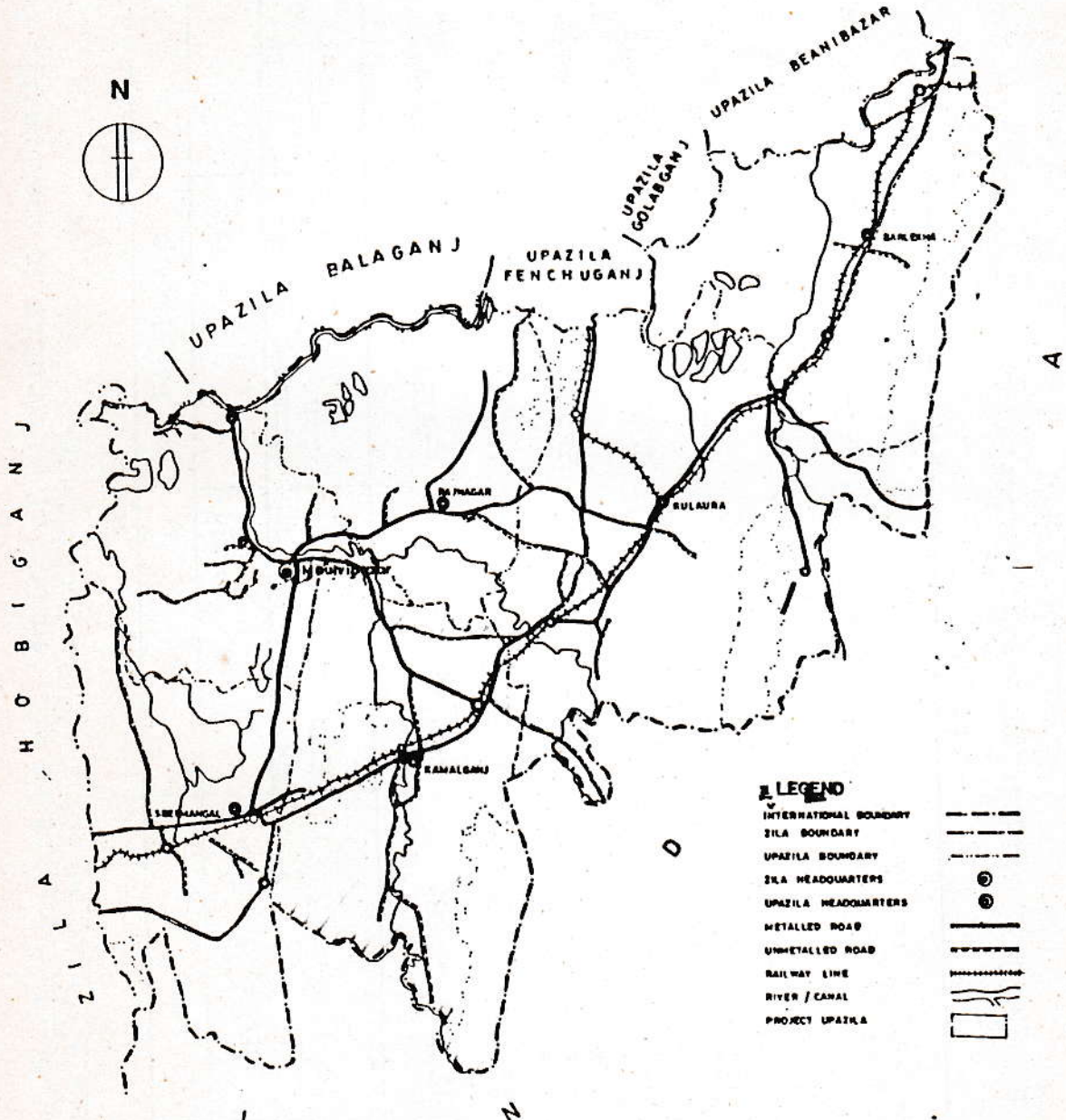
The Zila Moulvi bazar has uneven distribution of settlements due to  
its diversified physiography. Settlements are densely grown in plain  
lands not subject to floods and sparse in hilly parts and flood  
affected areas. Table 2 shows Upazila wise distribution of area,  
Union and mouza within the Zila. There are 9 Unions, 114 mouzas  
and 233 villages in Kamalganj Upazila.

### 2.2.2 Within the Upazila

A good number of tribal population live in the hilly areas and  
labour colonies of tea gardens. In Table 3 Union wise distribution  
of population in the Upazila is shown.



# ZILA MOULVIBAZAR



### LEGEND

- INTERNATIONAL BOUNDARY
- ZILA BOUNDARY
- UPAZILA BOUNDARY
- ZILA HEADQUARTERS
- UPAZILA HEADQUARTERS
- METALLED ROAD
- UNMETALLED ROAD
- RAILWAY LINE
- RIVER / CANAL
- PROJECT UPAZILA

MAP-1

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Table 1 : Area, Population changes and density of population in the Upazila compared to other adjoining Upazilas and the Zila Moulvibazar.

Upazila	Area		Population						percentage variation	
	Sq. mile	Sq. Km.	1961		1974		1981			
			Population	Density per sq. mile	Population	Density per sq. mile	Population	Density per sq. mile		
Barlekha	177	458	106005	599	145781	823	169515	958	16.28	59.91
Famalganj	187	484	108001	577	143314	766	163581	902	17.63	56.09
Fulaura	262	679	19583	71	249008	950	293455	1120	17.83	57.91
Moulvibazar	131	339	135732	1036	170886	1304	204103	1558	19.44	50.37
Rajnagar	130	337	97200	748	127008	977	154468	1137	21.46	58.57
Greenanjal	156	404	109420	700	135771	1098	161684	1155	16.64	66.35
Moulvibazar District	1043	2701	742081	711	901768	950	1171516	1123	18.13	57.83

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

Table 2 : Upazila-wise area, Union, Mouza and Villages in the Zila.

Upazila/Zila	Area		Union/Ward (No.)	Mouza/Mahalla (No.)	Village (No.)
	Sq.mile	Sq.Km			
Barlekha	177	458	12	156	304
Kamalganj	187	484	9	114	233
Kulaura	262	679	16	173	575
Moulvibazar	131	339	13	200	403
Rajnagar	130	337	8	140	267
Sreemangal	156	404	9	110	205
Moulvibazar Zila	1043	2701	67	893	1987

Source : Sylhet District Statistics, 1983.

Table 3 : Union-wise distribution of population in the Upazila.

Name of Union	Population			Households in Number
	Total	Male	Female	
Adampur	17832	8992	8840	2886
Alinagar	20320	10373	9947	3353
Islampur	19083	9642	9441	3728
Kamalganj	22550	11704	10846	3841
Madhabpur	20406	10412	9994	3357
Munshi bazar	10993	5585	5408	1731
Patanusher	15099	7486	7613	2576
Rahimpur	21581	10934	10647	3314
Shamsher Nagar	20717	10550	10167	3590
Kamalganj Upazila	168581	85678	82903	28376

Source : Bangladesh Bureau of Statistics, Population Census, 1981  
Union Statistics, November, 1983.

### 2.3.3 Migration Pattern

Generally it is believed that there is outmigration in Sylet Zila. This is due to the employment of its population outside the Zila and abroad. Hower, the migration patterns within the Grater sylhet Zila and Kamalganj Upazila are not discussed here elaborately due to lack of available data.

### 2.3 Economic Performance and Transport Linkages

Information collected from primary and secondary sources on economic performance and transport linkages of the Upazila compared with the Zila and other Upazilas are presented in the following paragraphs.

#### 2.3.1 General Economic Performance

The economic performance of the Upazila Kamalganj in terms of gross district products and performance in agricultural and non-agricultural sectors are presented.

##### Performance in the Agricultural Sector :

Table 4 presents information on land utilization in Kamalganj Upazila.

The Table shows that cropping intensity of the Upazila Kamalganj is higher than the average cropping intensity in the Zila. This indicates that the Upazila Kamalganj is advanced in agriculture. Table 5 shows information on crop production. It is noted from the table that compared with the Zila it has potentials for production of certain agricultural products, especially wheat.

##### Performance in the Industrial Sector :

Table 6 shows that the Upazila Kamalganj has some industrial development. Its development in handloom, cottage and small scale industries are appreciable.

Table 4 : Land utilization in the Upazila compared to its adjoining Upazilas and Zila Moulvibazar 1982-83.

Upazila/Zila	Total area (Acre)	Current fallow land (acre)	Single cropped area (Acre)	Double cropped area (Acre)	Triple cropped area (Acre)	Net cropped area (Acre)	Total cropped area (Acre)	Intensity of cropping percentage
Barlekha	113000 (16.89)	3000 (13.04)	34000 (16.66)	16000 (11.94)	2000 (10.52)	52000 (14.60)	73000 (13.85)	140
Kamalganj	120000 (17.93)	5000 (21.73)	30000 (14.70)	26000 (19.40)	2000 (10.52)	58000 (16.29)	39000 (16.88)	153
Zulaura	167000 (24.96)	5000 (21.73)	47000 (23.03)	32000 (23.88)	7000 (36.84)	86000 (24.15)	133000 (25.23)	155
Moulvibazar	85000 (12.70)	2000 (8.69)	30000 (14.70)	22000 (16.41)	3000 (15.78)	52000 (14.60)	80000 (15.18)	154
Rajnagar	84000 (12.55)	5000 (21.73)	29000 (14.21)	25000 (18.65)	-	54000 (15.16)	79000 (14.99)	146
Sreemangal	100000 (14.94)	4000 (17.39)	34000 (16.66)	14000 (10.44)	3000 (15.78)	51000 (14.32)	71000 (13.47)	139
Zila Moulvi bazar	669000 (100)	23000 (100)	204000 (100)	134000 (100)	19000 (100)	356000 (100)	527000 (100)	148 (100)

Note : Figures in parentheses indicate percentage.

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

Table 5 :Crop production of the Upazila compared to its adjoining Upazila and the Zila Moulvibazar, 1981-82.

Production	Zila	Upazila Barlekha	Upazila Kamalganj	Upazila Kultura	Upazila Moulvibazar	Upazila Rajnagar	Upazila Sreemangal
Rice (Maunds)	6058000 (100)	587000 (9.68)	441000 (7.27)	1591000 (26.26)	1608000 (26.54)	955000 (15.76)	875000 (14.46)
Wheat (Maunds)	20000 (100)	5000 (25.00)	4000 (20.00)	2000 (10.00)	3000 (15.00)	3000 (15.00)	3000 (15.00)
Jute (Sales)	3048 (100)	-	-	203 (15.00)	813 (26.67)	1219 (39.99)	813 (26.67)
Potata (Maunds)	558725 (100)	50936 (9.11)	59217 (10.59)	87237 (15.61)	176814 (31.64)	92367 (16.53)	92156 (16.49)
Pulses (Maunds)	1521 (100)	263 (17.29)	114 (7.49)	344 (22.61)	490 (32.21)	226 (14.85)	84 (5.52)

Note : Figures in parentheses indicate percentage.

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

Table 6 : Industries in the Upazila compared to its adjoining Upazilas and the Zila Moulvibazar, 1982.

Types of Industries	Zila Moulvi bazar	Upazila Barlekha	Upazila Kamalganj	Upazila Kultura	Upazila Moulvibazar	Upazila Rajnagar	Upazila Sreemangal
<b>Cottage industries :</b>							
a. No. of units	5707 (100)	676 (11.84)	403 (7.06)	1077 (18.87)	585 (10.25)	510 (8.93)	548 (9.60)
b. No. of persons engaged	9660 (100)	1871 (19.56)	844 (8.73)	2683 (27.77)	1483 (15.35)	1430 (14.80)	1349 (13.96)
c. Sales value of the product (lac Tk.)	274.18 (100)	25.85 (9.42)	10.60 (3.85)	178.31 (65.03)	28.56 (10.41)	15.44 (5.63)	15.42 (5.62)
<b>Small scale industries:</b>							
a. Rice Mills	265 (100)	20 (7.54)	36 (13.58)	50 (18.86)	93 (35.09)	39 (14.71)	27 (10.18)
b. Oil Mills	1 (100)	-	-	-	1 (100)	-	-
c. Saw Mills	6 (100)	-	1 (17.00)	-	-	-	5 (83.33)
d. Ice-cream factories	2 (100)	-	-	1 (50.00)	-	-	1 (50.00)
e. Sweetmeat factory	162 (100)	8 (4.93)	12 (7.40)	64 (39.50)	53 (32.71)	16 (9.87)	9 (5.55)
<b>Hand loom industries:</b>							
a. No. of looms	3206 (100)	332 (10.35)	2193 (68.40)	215 (5.70)	385 (12.00)	24 (.37)	57 (1.77)
b. Operational looms	62 (100)	6 (9.67)	23 (37.09)	2 (3.22)	30 (48.38)	-	1 (1.61)

Note : Figures in parentheses indicate percentage.

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

### 2.3.2 Employment Situation

Since information on Upazila level employment and underemployment are not available, some related indicators of Bangladesh Bureau of Statistics are used in this Report. Table 7 shows information on economically active population in the Greater Zila Sylhet over different census years.

Table 7 shows that there has not been any substantial change over the census periods in the percentage distribution of economically active population in the Zila Sylhet compared to Bangladesh.

### 2.3.3 Income and Expenditure

The available information on income and expenditure pattern within the Zila and Upazila are readily available. Therefore, the information available with the Bangladesh Bureau of Statistics on daily wage rates are used to have an overview of the income-expenditure pattern.

Table 8 presents information on daily wage rates of agricultural and construction labour in the greater Sylhet Zila. It is also assumed that Kamalganj Upazila may have similar pattern of daily wage rates of agricultural and construction labour.

### 2.3.4 Transport Facilities

Kamalganj Upazila has 8 Km (5 miles) of pucca road, 3 Km (2 miles) semi-pucca road and 128 Km (80 miles) katcha roads. As per Bangladesh Bureau of Statistics (1983) information, this Upazila occupies 5.6%, 9.0% and 12.2% of pucca, Semi-pucca and Katcha road respectively of the total road having within Moulvibazar Zila.

Table 9 shows number of vehicles available within Moulvibazar Zila and its Upazila.

Table 7 : Economically active population (employed) by sex in the Greater Sylhet District  
over different Census Years.  
(In thousand)

	Economically active population								
	1961		1974			1981			
	Male	Female	Both sex	Male	Female	Both sex	Male	Female	Both sex
Greater Sylhet District	1028 (6.95)	274 (10.38)	1302 (7.46)	1381 (7.03)	75 (8.63)	1456 (7.09)	1494 (6.66)	109 (9.17)	1603 (6.79)
Bangladesh	14802 (100)	2640 (100)	17443 (100)	19650 (100)	869 (100)	20519 (100)	22430 (100)	1189 (100)	23619 (100)

Note : Figures in parentheses indicate percentage.

Source : Bangladesh Bureau of Statistics, Statistical years Book, 1982.

Table - 8 : Average daily wage rates of construction and agricultural labour by type of labour in the Greater Sylhet Zila in different Years.

Year	Types of construction labour (Taka per day)			Agricultural labour (Taka per day)
	Mason	Helper (Jogaly)	Carpenter	
1975-76	20.25	9.48	18.09	11.55
1976-77	24.17	10.67	22.50	10.29
1977-78	25.00	12.34	22.34	11.17
1978-79	26.03	13.66	21.00	12.42
1979-80	32.48	14.78	23.84	15.00
1980-81	42.86	24.32	25.29	15.00
1981-82	42.26	24.32	34.36	15.42

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

Table 9 : Number of buses, track, auto-rickshaws, rickshaw and country boats in the Upazila compared to other Upazilas.

Upazila/Zila	Bus	Track	Autorickshaw	Rickshaw	Country Boar
Barlekha	15 (8.00)	35 (18.00)	10 (6.00)	100 (3.00)	45 (23.00)
Kamalganj	10 (5.00)	25 (13.00)	5 (3.00)	125 (4.00)	-
Kulaura	25 (13.00)	30 (16.00)	20 (11.00)	300 (10.00)	50 (26.00)
Moulvibazar	100 (50.00)	60 (31.00)	105 (60.00)	1700 (57.00)	50 (26.00)
Rajnagar	10 (5.00)	16 (8.00)	10 (6.00)	168 (6.00)	-
Sreemangal	40 (20.00)	25 (13.00)	25 (14.00)	590 (20.00)	50 (26.00)
Zila Moulvibazar	200 (100)	191 (100)	175 (100)	2983 (100)	195 (100)

Note : Figures in parentheses indicate percentage.

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

#### 2.4 Social Infrastructure

There is a health complex having 31, beds in Kamalganj Upazila. The distribution of health facilities in Kamalganj Upazila with respect to other adjoining Upazilas within Moulvibazar Zila is similar.

It is noted from Table 10 that the Kamalganj Upazila has good education facilities compared to its adjoining Upazila.

Table 11 shows that the number of administrative services and facilities units are fairly located within Kamalganj, Upazila with respect to other Upazilas of Moulvibazar Zila.

The Upazila has at present 3 daily hats and 5 weekly hats which serve its population (Upazila Parishad Office, Kamalganj).

#### 2.5 Current Development Projects

The Upazila Parishad undertakes annual development programme in each year. It is noted from Table 12 that these development projects are distributed in all Unions of the Upazila. The Projects include several aspects under the general guidelines of the Government. It may be assumed that if the process of this annual development programme by the Upazila Parishad continues, there will be substantial development of services and facilities within the Upazila as well as in the Upazila Shanar.

Table 10 : No. of Primary School, College, Madrasa and Garo Sikha Kendra in the Upazila compared to its adjoining Upazilas and Zila Moulvibazar, 1982.

Upazila/Zila	Primary School		Secondary Schools		Colleges		Garo-Sikha Kendra		Madrasa	
	No. of Schools	No. of Students	No. of Schools	No. of Students	No. of Colleges	No. of Students	No. of Kendra	No. of Students	No. of Madrasa	No. of Students
Barlekha	122 (17.00)	15583 (15.00)	3 (20.00)	-	-	-	12 (19.00)	300 (23.00)	23 (52.00)	2700 (41.00)
Kamalganj	84 (12.00)	27277 (26.00)	5 (33.00)	750 (39.00)	1 (25.00)	300 (23.00)	1 (2.00)	30 (2.00)	2 (5.00)	256 (4.00)
Kulaura	160 (23.00)	11326 (11.00)	-	-	1 (25.00)	406 (24.00)	20 (32.00)	425 (33.00)	4 (9.00)	600 (9.00)
Moulvibazar	169 (24.00)	25350 (24.00)	3 (20.00)	550 (29.00)	1 (25.00)	542 (32.00)	12 (19.00)	200 (15.00)	2 (5.00)	780 (12.00)
Rajnagar	100 (14.00)	16297 (15.00)	2 (13.00)	300 (16.00)	-	-	8 (13.00)	155 (12.00)	2 (5.00)	300 (5.00)
Sreemangal	64 (9.00)	10455 (10.00)	2 (13.00)	314 (16.00)	1 (25.00)	340 (20.00)	10 (15.00)	205 (16.00)	11 (25.00)	1895 (29.00)
Zila Moulvi bazar	699 (100)	106288 (100)	15 (100)	1914 (100)	4 (100)	1678 (100)	63 (100)	1305 (100)	44 (100)	6531 (100)

Note : Figures in parentheses indicate percentage.

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

Table 11 : Number of Government Office, Post Office, Telegraph Office, Bank branch and Dak Bangalow of the Upazila compared to its adjoining Upazilas and the Zila Moulvibazar.

Upazila/Zila	No. of Govt. Office	Number of Post Office	No. of Telegraph Office	No. of Bank Branch	No. of Dak Bangalow
Barlekha	25 (13.00)	11 (9.00)	1 (17.00)	9 (12.00)	4 (21.00)
Kamalganj	22 (11.00)	9 (8.00)	1 (17.00)	9 (12.00)	4 (21.00)
Kulaura	47 (24.00)	34 (28.00)	1 (17.00)	12 (16.00)	3 (16.00)
Moulvibazar	35 (18.00)	40 (33.00)	1 (17.00)	26 (35.00)	2 (11.00)
Rajnagar	32 (16.00)	11 (9.00)	1 (17.00)	8 (11.00)	1 (5.00)
Sreemangal	43 (22.00)	15 (13.00)	1 (17.00)	11 (15.00)	5 (26.00)
Zila Moulvi Bazar	194 (100)	120 (100)	6 (100)	75 (100)	19 (100)

Note : Figures in parentheses indicate percentage.

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

## 2.6 Hierarchy of Settlements

In Table 13 and 14, the hierarchy of settlements in the Upazila are presented. Table 13 shows that over different census years, the number of settlements have been increasing. This may be due to the division of large mouzas into smaller ones. Also, it is notable that in some settlements, the population has largely increased over the census year.

Table 14 shows the hierarchy of settlements by services concentration. It shows that some settlements have higher concentration of services and some other have a very minimum level of services while a large number of settlements have at all no services and facilities. The settlements having no services depend on others.

It is further notable that the total score obtained by the settlements (mouzas) within the Study Area is much higher than any other settlements. Therefore, it is assumed that the services of the Upazila Shehar reach the distant population within the Upazila.

The hierarchy of settlements in the Upazila is shown in Map-2.

Table 12 : Major Annual Development Projects in the Upazila Headquarters.

Name of projects	Allocated amount in Taka.
1. Demonstration project of transplanted Aman.	18,625/-
2. Farmers Training project.	20,000/-
3. Spray machine repairing project	10,000/-
4. Construction of 4' culvert on Kurma Munsibazar-Baragas road.	24,500/-
5. Construction of 3' culvert on veterinary hospital road.	20,600/-
6. Upazila Tailoring Training centre.	63,250/-

Source : Upazila Office, Kamalganj, January 1987.

Table 13 : Distribution of Settlements by No. of Score obtained in the Upazila.

Score Range	Name of Mouzas	Total No. of Mouzas	Category
Unto 50	Gopalpur Alepur Dughar Jalalpur Katabil Konagaon	6	C
51 to 75	Nasratpur Mohadebpur	2	B
76 and above	Baragach Kumrakapon	2	A



## Chapter III

### THE UPAZILA HEADQUARTERS

In the detail survey of the Upazila Shahar, information on the existing demographic, socio-economic and landuse pattern were collected. The sphere of Influence (Catchment Area) of the Upazila Shahar and the tentative area of the Upazila Shahar were also identified.

#### 3.1 Definition of sphere of Influence/Attractiveness

The Catchment Area or the Zone of Influence of the Upazila Shahar is considered to be an area encompassing the Upazila Headquarters from where maximum population usually avail the services of the Shahar. In determining this area interviews of users of different services were conducted. On the basis of this interview, information obtained from the Upazila level office sources and the existing transportation network, the Catchment Area is demarcated as identified in Map-2. The population and area of the Catchment Area are presented in Table 15.

#### 3.2 Definition of Shahar Area

The future Shahar Area includes the existing built-up parts and the adjacent areas likely to grow as urban centre in the near future.

This Area is tentatively decided to be the Study Area which has been identified for existing landuse and socio-economic surveys. The boundary of the future township is finally identified after estimating the design population and land requirements for the future township area.

Table 15 : Area and population in the Catchment Area

Name of mouza	Total Area		Involved Area (Catchment Area)		Total population			Involved population within Catchment Area		
	acres	hectares	acres	hectares	1961	1974	1981	1961	1974	1981
Chalkebar (part)	368	148.99	120.77	48.90	103	416	501	93	375	451
Chirattour (part)	257	104.05	192.56	77.96	545	673	890	-	-	-
Chenur (part)	381	154.25	102.54	41.51	560	737	885	-	-	-
Chirakkon (part)	1687	683.00	504.00	204.05	982	2449	9224	294	735	1766
Chalakkal	167	67.61	80.50	32.59	242	312	361	117	150	174
Chirakkon	110	44.53	70.00	28.34	48	71	112	30	45	71
Chirakkon	716	289.88	716.00	289.88	545	673	1140	545	673	1140
Chirakkon	122.31	49.52	122.31	49.52	770	980	1216	770	980	1216
Chirakkon	239	96.76	239.00	96.76	431	512	638	431	512	638
Chirakkon	112	45.34	112.00	45.34	412	519	592	412	519	592
Chirakkon	318	128.74	318.00	128.74	518	723	1048	518	723	1048
Total	447731	181.68	2577.68	1043.59	5156	8065	16607	3210	4712	7096

Note : Some areas of the mouza are outside the catchment Area and the Study Area.

Source : Bangladesh Bureau of Statistics, Population census 1961, 1974 and 1981; and field survey January 1987.

To demarcate the Study Area, following major aspects were considered :

- i. Existing Pourashava area and proposed new areas.
- ii. Existing pattern of development of urban services in the built-up parts of the Upazila Shahar.
- iii. Pattern of existing transportation network of the Upazila Shahar and its adjacent parts.
- iv. Tendency of landuse changes from agricultural to non-agricultural uses.
- v. Vacant spaces and availability of buildable land within the Shahar area.
- vi. Potentials for future development of urban services.

The area and population within the Study Area are shown in Table 16

### 3.3 Existing Landuse, Facilities and Utilization Characteristics

In the following paragraphs, the existing landuse pattern, facilities in the Shahar and their utilization characteristics are discussed.

#### 3.3.1 Existing Landuses

The existing landuse pattern in the Study Area have developed through years of time. During the British rule, the development took place only near the railway station where the bazar is existing. Later, some development took place in the middle part of the existing Upazila Shahar where the police station is located. The most recently built up part is the Upazila Administrative complex and its adjacent areas where Kamalganj college and electric sub-station are also located. Through this development, urban area has been substantially expanded into the agricultural lands.

The existing pattern of landuses in the Upazila Shahar Kamalganj shows that all important development excepting the Upazila Hospital have linearly developed along the Sreemangal-Shamshernagar road. The existing landuses of the Upazila Shahar are presented in Table 17 in summary form and their details are presented in table 18 to 19 . The existing landuses are also shown in Map-3.

Table 16 : Area and population within the Study Area

Name of mouza	Total Area		Involved Area		Total population			Involved population (Study Area)		
	Acre	Hectare	Acre	Hectare	1961	1974	1981	1961	1974	1981
Gopalnagar (part) 10%	368	148.99	37.00	14.98	103	416	501	10	41	50
Nesretpur (part) 100%	257	104.05	257.00	104.05	545	673	890	545	673	890
Baregach (full)	197.78	80.16	197.83	80.07	338	464	1126	338	464	1126
Alepur 100%	381	154.25	381.00	154.25	560	737	885	560	737	885
Kumrakapor (part) 25%	1687	683.00	421.00	170.45	982	2449	9224	2431	612	2306
<b>Total</b>	<b>2890.78</b>	<b>1170.45</b>	<b>1293.83</b>	<b>523.80</b>	<b>2528</b>	<b>4739</b>	<b>12626</b>	<b>1696</b>	<b>2527</b>	<b>5257</b>

Source : Bangladesh Bureau of Statistics, Population Census, 1961, 1974 and 1981 ; and Field Survey, January 1987.

Table 17 : Existing landuses in the Upazila Chahar Kamalganj

Sl. No.	Type of use	Name of Mouza (acres)						Total area		percentage of the grand total
		Gotalnagar	Nasretpur	Baragech	Alepur	Kumrakapon	Acre	Hectare		
1.	Residential	7.50	33.55	19.14	45.98	52.78	158.95	64.35	12.21	
2.	Administration Govt. Deptt.	3.04	4.91	5.90	2.45	3.26	19.56	7.90	1.55	
3.	Health	1.43	-	-	0.30	-	1.73	0.70	0.02	
4.	Education	-	1.50	1.82	0.33	1.75	5.40	2.19	0.38	
5.	Recreation	-	-	1.06	-	0.58	1.64	0.66	0.12	
6.	Commerce	0.08	-	0.40	-	3.85	4.33	1.75	0.31	
7.	Industry	0.11	-	6.51	0.05	0.98	7.65	3.10	0.54	
8.	Socio-culture	0.15	-	1.36	3.48	2.54	7.53	3.05	0.54	
9.	Urban services	-	1.50	0.28	0.06	0.21	2.05	0.83	0.15	
10.	Water bodies	7.00	7.40	16.82	21.31	26.81	79.34	32.12	6.18	
11.	Roads	4.66	1.29	3.82	3.81	9.33	22.91	9.28	1.63	
12.	Agriculture	13.03	206.85	140.67	303.23	318.96	982.74	397.87	76.02	
Grand total		37.00	257.00	107.78	381.00	421.00	1293.83	523.79	100.00	

Source : Landuse survey, November, 1986.

### 3.3.2 Facilities and Utilization Characteristics

The existing facilities in the Upazila Shahar are not adequate. The Shahar lacks in commercial facilities like bazar, department stores, shopping centres, etc. The internal road system is not much developed. Its administrative, health and education facilities are notable. The railway station in the Upazila Shahar is a good transport facility for the urban dwellers to communicate with the Sylhet Shahar and other urban centres like, Sreemangal, Shaistagonj, Hobiganj etc.

The existing urban facilities are shown in Tables 18 to 27 and their utilization characteristics are discussed below :

Table 18 shows the administrative landuses in the Upazila Shahar. The major uses of this type are found under railway department, Upazila administrative complex and Polic Station.

Table 19 presents industrial landuses which shows that brick field comprises major part of the industrial land. The location of this brickfield is almost in the middle of the existing Shahar area.

Table 20 presents that Upazila health complex located at the northern margin of the Upazila Shahar comprises most of the land under health facilities.

Table 21 presents information of commercial landuses which indicate that Shops, markets and Bank are the major commercial developments in the Upazila Shahar.

Total landuses under recreational facilities is only 1.64 acres. The existing recreational facilities in the Upazila Shahar are the play field and cinema hall (Table 22 ).

The educational landuses in the Shahar are located in different parts. It is noted from Table 23 that College, madrasa and girls' high School comprise the major landuses of educational facilities. The amount of land under education is only 5.40 acres.

Table 24 shows that of the total land under socio-cultural uses, 71.15% is graveyard. Area under other socio-cultural uses is negligible.

The utility services in the Upazila Shahar include post office, petrol pump, electric Sub-station and Telephone Office. Total land under this landuse category is only 2.05 acres (Table 25 ).

Table 26 presents information on waterbodies. It shows that 79.34 acres of land is under waterbodies. Of the total area under waterbodies, 58% is under river Dholai which flows through the existing Shahar, land under other waterbodies are also not negligible.

Table 27 shows that in the Upazila Shahar, there is about 22.21 kilometre roads of different types. Pucca road is shorter in length but comprises maximum area followed by semi-pucca and katcha roads respectively.

### 3.3.3 Land Value

Land value in the Study Area varies by type and location. The price is higher in the built up parts and lower for low land and ditches. The highest land value is found in the old part of the Shahar where the Bazar is located. This higher land value is due to the commercial importance of the land. However, the land value is increasing at present in the newly growing parts specially near the Upazila Administrative Complex. Table 28 and figure-1 present the land value in the Upazila Shahar.

Table 18 : Landuse under administrative offices

Sl. No.	Landuse	Area		percentage of the total
		Acre	Hectare	
1.	Upazila Complex	11.44	4.63	20.36
2.	Police Station	11.65	4.72	2.63
3.	Revenue Office	0.09	0.04	0.18
4.	Sub-Resistary Office	0.50	0.20	1.01
5.	Union Parishad Office	0.08	0.03	0.16
6.	Dak Banglow	1.15	0.47	2.32
7.	Gas Transmission	1.25	0.51	2.52
8.	BADC Office	0.08	0.03	0.16
9.	Godown	2.33	0.94	4.70
Total		19.56	7.92	100.00

Source : Landuse survey, November, 1986

Table 19 : Industrial Area

Sl. No.	Landuse	Area		percentage of the total
		Acre	Hectare	
1.	Rice mills	0.44	0.19	5.75
2.	Brick field	6.43	2.60	84.05
3.	Saw mill	0.53	0.21	6.93
4.	Factory	0.25	0.10	3.27
Total		7.65	3.10	100.00

Source : Landuse survey, November, 1986

Table 20 : Health Facilities

Sl. No.	Landuse	Area		percentage of the total
		Acre	Hectare	
1.	Health Complex	1.43	2.60	95.54
2.	Charitable dispensary	0.30	0.12	4.46
Total		1.73	2.72	100.00

Source : Landuse survey, November, 1986.

Table 21 : Commercial uses

Sl. No.	Landuse	Area		percentage of the total
		Acre	Hectare	
1.	Shops	3.28	1.33	76.00
2.	Market	0.89	0.36	20.57
3.	Bank	0.16	0.06	3.43
Total		4.33	1.75	100.00

Source : Landuse survey, November, 1986.

Table 22 : Recreational facilities

Sl. No.	Landuse	Area		percentage of the total
		Acre	Hectare	
1.	Play ground	1.06	0.43	64.63
2.	Cinema Hall	0.58	0.23	35.37
Total		1.64	0.66	100.00

Source : Landuse survey, November, 1986.

Table 23 : Educational landuses

Sl. No.	Landuse	Area		percentage of the total
		Acre	Hectare	
1.	Primary School	0.54	0.22	10.00
2.	Boys High School	0.33	0.13	6.11
3.	Girls High School	1.43	0.58	26.48
4.	College	1.50	0.61	27.78
5.	Madrasha	1.60	0.65	29.63
Total		5.40	2.19	100.00

Source : Landuse survey, November, 1986.

Table 24 . Socio-cultural landuses

Sl. No.	Landuse	Area		percentage of the total
		Acre	Hectare	
1.	Mosque	0.34	0.14	4.59
2.	Mondir	0.88	0.36	11.80
3.	Graveyard	5.37	2.17	71.15
4.	Eidgah	0.67	0.27	8.85
5.	Club	0.27	0.11	3.61
Total		7.53	3.05	100.00

Source : Landuse survey, November, 1986.

Table 25 : Utility Services

Sl. No.	Landuse	Area		percentage of the total
		Acre	Hectare	
1.	Post Office	0.14	0.06	6.83
2.	Telegraph & Telephone	0.68	0.28	33.17
3.	Petrol Pump	0.13	0.13	6.34
4.	Electric Sub-Station	1.10	0.44	53.68
Total		2.05	0.83	100.00

Source : Landuse survey, November, 1986.

Table 26 : Water bodies

Sl. No.	Types of water bodies	Area		percentage of the total
		Acre	Hectare	
1.	River	44.82	18.15	58.00
2.	Khal	12.23	4.95	15.83
3.	Pond	7.08	2.87	9.16
4.	Ditch	6.92	1.96	6.28
5.	Railway Borrowpit	8.29	3.37	10.73
Total		79.34	31.28	100.00

Source : Landuse Survey, November, 1986.

Table 27 . Landuse by roads

Sl. No.	Nature of road	Width in m.	Length in Km.	Area		percentage of the total
				Acre	Hectare	
1.	Pucca	6.00	4.24	6.38	2.58	27.85
2.	Semi pucca	5.00	6.70	8.06	3.26	35.18
3.	Katcha	3.00	11.27	8.47	3.43	36.97
Total		14.00	22.21	22.91	9.28	100.00

Source : Landuse Survey, November, 1986.

Table 28 : Land value within the Study Area

Land Type	Value in Taka per acre	Land level
Buildable land(commercial)	6,00,000	high
Buildable land(Administrative Area)	4,50,000	high
Residential	4,50,000	high
Agriculture	3,00,000	high
Agriculture	2,00,000	low
Ditch	1,20,000	very low

Source : Field survey, January, 1987.

### 3.3.4 Town Service Centre

The Town Service Centre includes the existing built up part of the Shahar, the Upazila Administrative Complex and other important services and facilities. This part of the Shahar will also be important in the future Landuse Plan. The details of the services and facilities in the Town Service Centre are shown in Map-4.

### 3.4 Physical Opportunities and Constraints

During the Survey, the physical opportunities and constraints of the Upazila Shahar were identified. These are discussed in the following paragraphs. Also figure-2 and figure-3 present land level and agricultural potentiality respectively.

#### 3.4.1 Physical Opportunities

- Increased extraction of forest and hill resources through the services from Upazila Shahar.
- Increase in the activity of tea plantation and industry near the Shahar.
- Availability of vacant land within the existing Upazila Shahar.

#### 3.4.2 Physical Constraints

- Urban services and facilities are scatteredly developed.
- Encroachment of valuable agricultural land will be required to maintain a landuse plan for the Upazila Shahar.

Chapter IV  
FORECASTS

This Chapter presents forecasts on population, household structure and density of population in the Upazila Shahar and its Sphere of Influence over different Plan periods. The estimates of labour force and migrant population are also considered for Design Population.

#### 4.1 Population, Household Structure and Density

In the following paragraphs, population, household structure and density in the Sphere of Influence and the Upazila Shahar are presented.

##### 4.1.1 Sphere of Influence

###### A. Population

The Catchment Area or the Sphere of Influence includes 11 mouzas in full or part and an area of 2577 acres (1043.59 hectares). Total population of the Catchment Area in 1981 was 7026 persons. Table 4-1 shows area of the Sphere of Influence and population on high, medium and low projections for the year 1985, 1990, 1995 and 200 A.D.

Table 29 : Population size in the Sphere of Influence of Upazila Shahar on high, medium and low projection, 1985-2000.

Year	Projection					
	High		Medium		Low	
	Pop.1974	Pop.1981	Pop.1961	Pop.1981	Pop.1961	Pop.1974
	4712	7096	3210	7096	3210	4712
	Growth rate = 6.02		Growth rate = 4.04		Growth rate = 2.99	
1985	8965		8314		7983	
1990	11326		9741		8981	
1995	14309		11413		10104	
2000	18078		13372		11367	

Source : Population of 1961, 1974 and 1981 is quoted from Population Census.

Note : Population in 1981 is considered as base population.

### B. Population Density :

The density of population in the Sphere of Influence is considered to be the number of population per acre over different plan periods. The density of population is shown in Table .

Table 30 Density of Population on medium range projection in the Sphere of Influence of Upazila Shahar, 1985-2000.

Aspects	Year			
	1985	1990	1995	2000
1. Area (acre)	2577.68	2577.68	2577.68	2577.68
2. Population	8314.00	9741.00	11413.00	13372.00
3. Density/acre	3	4	5	5

Note : Area is determined by field survey.

### C. Household Structure :

The household size of the Upazila is 5 as per the Census Report 1981. It is assumed that within the Catchment Area of the Shahar the household size will be similar.

#### 4.1.2 Upazila Shahar

##### A. Population

The effective Study Area identified during the survey is defined to be the Upazila Shahar. The final area and boundary of the Upazila Shahar are presented in chapter V of the Report. In Table 31, <sup>31</sup> population of the Upazila Shahar on high, medium and low projections over different plan periods are presented.

Table 31 : High, medium and low projection of resident population of the Upazila Shahar (Study Area), 1985-2000.

	projection					
	High		Medium		Low	
	Pop.1974	Pop.1981	Pop.1961	Pop.1981	Pop.1961	Pop.1974
	2527	5257	1696	5257	1696	2527
	Growth rate = 7.73%		Growth rate=4.70%		Growth rate=3.11%	
1985	7080		6317		5942	
1990	9536		7591		6716	
1995	12844		9122		7591	
2000	17300		10962		8580	

Source : Population of 1961, 1974 and 1981 is quoted from Population Census.

Note : Population of 1981 is considered as base population.

#### B. Household Structure

The household size in the Study Area was found to be 5. in the survey in 1986.

#### C. Population Density :

The population density in the Study Area is very low. But it may increase gradually with the growth of Shahar.

#### Estimates on Migration

Migration has been considered here in terms of the growth of population in the Zila and a redistribution pattern of the incremental population and labour force within the Greater Zila Sylhet and its Upazilas and outmigration to other Zilas. The net migration estimated by the Bangladesh Bureau of Statistics is quoted in Chapter II of the Report.

## 4.2 Labour Force and Employment

### Labour Force :

There is hardly any dependable data to estimate the labour force and employment in urban and rural areas of Bangladesh. But it may be predicted from the information used in Chapter II of the Report.

Also, it is also difficult to determine employment structure at Upazila level because a correct picture is not available in the published data of the Bangladesh Bureau of Statistics.

## 4.3 Provision Standards and Land Requirements

### Design Population

Table 29 and 31 present information on forecasted population for residential and services requirements of the Upazila Shahar. The population which will be residing at the Upazila Shahar is considered for residential land requirements and primary education facilities. For other uses, mostly the population of the Sphere of Influence of the Shahar is considered.

### Land Requirements

The guidelines provided in the Terms of Reference (TOR) of the Urban Development Directorate in respect of Landuse Plan of the Upazila Shahar are mostly followed to assume the provision standards for different landuses.

Land requirements for different uses of the Upazila Shahar are determined specifically on the basis of the following :

- a. Forecasted population size of the Upazila Shahar over different plan periods.
- b. Provision of existing services and their future land requirements.
- c. Physical environmental condition, e.g., land level, waterbodies, etc.
- d. Circulation system of the Upazila Shahar and its transportation linkage.
- e. The planning standards provided in the TOR.

The estimated land requirements and proposed uses for the Upazila Shahar is presented in Table 32 .

Table 32 : Summary of Existing and proposed landuses (2000 A.D.)

Function	Existing (acres)	percentage	Proposed (acres)	percentage
1. Housing	158.95	12.30	367.00	49.00
II. Infrastructure				
1. Education	5.40	0.42	15.80	2.00
2. Health	1.73	0.13	12.70	1.00
3. Administration/ Judiciary	19.56	1.56	20.70	2.00
4. Recreation	1.64	0.15	15.20	2.00
5. Socio-culture	7.53	0.58	10.40	1.00
6. Urban Services	2.05	0.15	9.90	1.00
7. Commerce and Industry	11.98	0.92	21.50	2.00
8. Roads	22.91	1.77	35.60	4.00
9. Urban deferred			81.60	11.00
10. Agriculture and Reserves(Ponds drainage etc.)	1062.08	82.08	146.60	19.00
	<u>1293.83</u>	<u>100.00</u>	<u>737.00</u>	<u>100.00</u>

Table 33 : Details of Estimated land requirements, upto 2000 A.D. (existing uses incorporated).

Identified projects	Provision standard as per TOR	Existing land(acre)	Land requirements upto 2000 A.D., as per TOR	Proposed land		% of total
				acres	Hect.	
<u>I. Housing</u>	60 persons per acre	<u>158.95</u>	182.70	<u>367</u>	<u>148.58</u>	56.4
- Housing estate						
- Private Housing						
<u>II. Infrastructure</u>						
<u>1. Education</u>		<u>5.40</u>		<u>15.80</u>	<u>6.39</u>	
- Primary/Nursery (Shahar pop.)	2 acre/ 5000 pop.		4.38	4.20	1.70	.0
- Secondary school	5 acre/ 20000 pop.		2.74	1.90	0.77	.0
- College	5 acre/ 20000 pop.		2.74	7.30	2.96	.0
- Social welfare school(Vocational)				2.40	0.97	.0
<u>2. Health</u>		<u>1.73</u>		<u>12.70</u>	<u>5.14</u>	
- Dispensary/ Maternity/ Child Care	1 acre/ 5000 pop.		2.19	.20	.08	
- Health Complex	5 acre/ 20000 pop.		2.74	12.50	5.06	.1
<u>3. Administration/ Judiciary</u>	12 acres/ Upazila Shahar	<u>19.56</u>	12.00	<u>20.70</u>	<u>8.38</u>	.18
<u>4. Recreation</u>		<u>1.64</u>		<u>15.20</u>	<u>6.15</u>	
- Parks/Open space	1 acre/ 1000 pop.		10.96	9.00	3.64	.1
- Cinema Hall	0.5 acres/ 20000 pop.		0.27	1.00	0.40	.0
- Stadium/ Play Field	3 acres/ 20000 pop.		1.64	5.20	2.11	.13

Identified projects	Provision standard as per TOR	Existing land(acre)	Land requirements upto 2000 A.D., as per TOR	Proposed land		% of the total
				acres	hect.	
<u>5. Socio-culture</u>		<u>7.53</u>		<u>10.40</u>	<u>4.21</u>	
- Mosque/Temple	0.5 acres/ 20000 pop.		0.27	.70	.28	.01
- Eidgah				1.20	0.48	.01
- Cemetary/Graveyard	5 acres/ 20000 pop.		2.74	4.70	1.90	.12
- Town Hall				1.80	0.73	.03
- Community Centre				1.00	0.40	.01
- Public Library				1.00	0.40	.01
<u>6. Urban Services</u>		<u>2.05</u>		<u>9.90</u>	<u>4.01</u>	
- Post Office	0.5 acre/ 20000 pop.		0.27	.20	0.08	.01
- Telephone exchange	0.5 acre/ 20000 pop.		0.27	1.20	0.48	.01
- Bus/Ghat/Rail station	1 acre/ 20000 pop.		0.55	3.20	1.29	.03
- Other Services	1 acre/ 20000 pop.		0.55	1.30	0.53	.01
- Fire Service				2.10	0.85	.02
- Water Supply						
- Electric Sub-station				1.10	0.45	.01
- Petrol pump				.80	0.32	.01
<u>7. Commerce and Industry</u>	1.5 acres/ 10000 pop.	<u>11.98</u>	1.64	<u>21.50</u>	<u>8.70</u>	
- Commerce	4.33			11.50	3.03	.05
- Industry	7.65			10.00	4.05	.36
<u>8. Roads</u>	5-10% of the total	<u>22.91</u>	84.24	35.60	14.41	
<u>9. Urban deferred</u>	10% of the total		140.40	81.60	33.03	9.79
<u>10. Agriculture and Reserves(Ponds drainage etc.)</u>	5% of the total	<u>1062.08</u>	70.20	<u>146.60</u>	<u>59.35</u>	17.06
Total		1293.83	523.49	737.00	298.38	100.00

## Chapter V

### LANDUSE PLAN

This chapter presents a discussion on the approach, concept and planning principles for the Landuse Plan of the Upazila Shahar. A description of the Landuse Plan is also included.

#### 5.1 Approach, Concept, Planning Principles

##### Planning Concept and Principles

The main objective of the Landuse Plan is to accelerate and control the development through an appropriate locational and functional arrangement of urban services and facilities in the Upazila Shahar. A cost effective development approach in this respect is also related to the Government's future urban development programmes.

The forecasted population of Kamalganj Upazila Shahar is 10,962 persons. The total area surveyed would not be necessary by the year 2000 A.D. Therefore, a planning area of 737 acres has been proposed.

## 5.2 Plan Description

The Landuse Plan of planning area comprises of a total area of 737 acres (298.38 hectares). The estimated total population of Upazila Shahar in the year 2000 A.D. is 10,962. The plan is prepared to provide residential facilities for the Shahar's population and necessary services and facilities for the Shahar's population and also the Catchment Area population.

The structure of the Shahar is more or less of a rectangular shape. The shape of the Shahar is mainly formed by the existing road network. The Landuses are conveniently located within the major and secondary roads and in areas included along these roads. A short description of major uses are presented in the following paragraphs.

### Road Network :

In the road system of the Shahar, 100' width for highway, 80' width for inter Upazila road, 60' width for major roads and 40' width for secondary roads are considered. It is assumed that 24' road will be used in the detailed plan of each Landuse Zone. In the present plan, existing roads are considered to minimize the cost of road construction.

### Commerce :

Commercial uses are distributed in different parts of the Shahar. Markets and major shopping areas are provided in the central parts along major roads. Small shopping centres are distributed in different parts especially within residential uses.

### Industry :

It is considered that in future there will be some industrial development in the Upazila Shahar. The areas for industrial uses are provided along the major transport route in the peripheral parts so that residential areas are not disturbed.

### Administrative Uses :

Existing administrative landuses are least disturbed in the plan and additional land is provided along it as per requirement. The major administrative area is located in the north-east part. However, changes of extension of areas for this use will be possible since urban deferred areas are provided in different parts of the Shahar.

### Education :

The location of each primary school is selected for approximately a population of 5000. The secondary schools and colleges are provided for both Shahar Population and Catchment Population. Girls' High school is also provided in the Plan.

### Health :

The Health Services in the Plan mainly include a Hospital and a Maternity or Child Care Centre. The existing location of the Hospital is not disturbed but an additional area is included as per planning requirement. The Maternity Centre is located in central part to minimize travel distance for the dwellers.

### Urban Services :

The major urban services proposed in the plan are Post Office, Telephone Exchange, Water supply, Power supply and Fire Service. These are located in a suitable central area of the Shahar. The existing location of Railway Station and Police Station are not disturbed. A Bus Terminal is provided along the major road to maintain services in all directions.

### Socio-cultural Uses :

The important Socio-cultural uses proposed in the plan are Community Centre, Town Hall, Public Library and Central Eidgah. The location for these facilities are selected in a suitable central part of the Shahar. Mosques and Temples are mainly distributed in their existing locations. A Graveyard is also provided in the outskirts of the Shahar.

**Recreation :**

The recreational uses in the Landuse Plan included Park, Shishu Park, Stadium, Play Fields and Cinema Hall. The Stadium is located in a suitable central area accessible from all directions.

**Residential Uses :**

The existing residential uses are least disturbed in the Landuse Plan. The additional areas are included as per requirement of the Plan.

**Urban Deferred and Reserves :**

The Urban Deferred land is distributed in the Landuse Plan keeping scope for future extension of Urban services and facilities and Governmental uses in different parts of the Shahar. The existing low land and waterbodies are mainly kept as Reserves.

## Chapter VI

### PROGRAMMING AND IMPLEMENTATION

This Chapter presents a discussion on programming and implementation of the Landuse Plan of the Upazila Shahar. The major aspects are phasing and priority action of projects, provision of urban deferred lands for future governmental uses and development control, monitoring and review of the Upazila Shahar's Landuse Plan.

#### 6.1 Priority Actions, Cost Implication

The Landuse Plan of the Upazila Shahar enunciates a Banduse Zoning of different urban uses. The Landuse Zones are to be elaborated in future with detailed plans before laying out internal road and services network.

Some important services like, Administration, Health, Education, Market, Shopping Centres, Community Centre, Stadium, Central Park, Telephone and Postal service, Power and Water supply, Fire service etc. are to be developed on priority basis. The idea behind this priority action is that all possible sectors of urban services and revenue income are to be harnessed alongwith expansion of residential facilities.

The standards and provision of services followed in the Landuse Plan of the Upazila Shahar is in line with the present economic situation of the country. In most cases, a moderate approach is adopted in the provision of standards for each services and facilities.

It is considered that for any development of new services and facilities, land filling upto certain level may be required. As a result, cost of any project in the Upazila Shahar may include the cost of land filling.

## 6.2 Phasing, Urban Deferred

The present Plan is prepared keeping in view the requirements for the development of services and facilities consistent with the incremental changes of population. Usually, a 5000 population qualify to be a primary urban neighbourhood. In most cases, each neighbourhood and major Landuse Zones are bounded by service roads. As the plan period is divided into 5-yearly phases, concerned authorities are advised to follow the 5-year development targets to implement the Landuse Plan.

The amount of land against each major landuse category and over different plan periods is determined on the basis of population size and project priorities. The phase-wise development proposal should, therefore, differ in some priority areas such as, expansion of the principal road network for which land should be acquired on priority basis.

The present Landuse Plan is prepared on the basis of medium population projection. As a result, in future, additional land may be required to accommodate changes in population size and urban services and facilities vis-a-vis for any decision regarding new projects in the Upazila Shahar. Considering the above situation, the urban deferred land is distributed over different areas within the Shahar so that a balance may be maintained in the Landuse Plan. The total urban deferred area is 81.60 acres (33.03 hectares) which is 9.79 percent of the total land under the Upazila Shahar.

## 6.3 Development Control

All types of development work including changes of any landuse should be subject to planning control. It is necessary to specify the uses which will be normally permitted in various Zones. Uses which create siting problems, such as filling stations, cinemas, hotels, stadium, etc. will necessitate special consideration. Regulations regarding building heights, density, plot coverage, preservation of natural vegetation, preservation of historic sites incorporated in the planning process. Also for revenue earning and control of landuses, different urban taxes be imposed.

At present, there are no planning rules or regulations to control growth in the Upazila Shahar. The provisions of the Municipal ordinance is applicable only for the declared Municipalities. Hence, an appropriate planning regulation for all Upazila Shahars and potential urban centres should be framed urgently. For the time being Pourashava Ordinance or the Building Construction Act of RAJUK (Rajdhani Unnayan Karttripakha) can be adopted for the Upazila Shahars unless other suitable measures are taken by the Government. In any case, the Upazila Parishad should be the custodian of the Landuse Plan.

#### 6.4 Monitoring and Reviewing

Monitoring : The Upazila Parishad will act as the key Agency in the Government for monitoring the development work and exercising the development control within the Upazila Shahar as stipulated in the Landuse Plan. Five Year Plans and Annual Development Plans should be prepared by the Upazila Parishad and approved by the Government on project basis. The Upazila Nirbahi Officer on behalf of the Upazila Parishad may seek advice from Urban Development Directorate in case of any difficulty in the implementation of the plan.

Since all Development Agencies at Upazila level are integrated for the purpose of carrying out development work the Upazila Parishad will also monitor the progress of work of the sectoral Agencies.

Review of the Plan : The Landuse Plan of the Upazila Shahar is a broad guideline for development work. The proposals of the Plan are evolved on the basis of existing conditions and the trend of future growth. Therefore, for any significant change in the proposal of landuses, reviewing from time to time may be required. Hence, the Landuse Plan should be reviewed periodically. The Urban Development Directorate may undertake a Five-Yearly Programme to review this Landuse Plan.