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

FINAL REPORT

LANDUSE/MASTER PLAN
KAZIPUR UPAZILA SHAHAR
SIRAJGONJ ZILA

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Submitted by:

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भारत वर है एक ब कार २० 🗸 🗎

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(भुद्रका - वर, व, पश्चिम , ह्याह्मपार, विश्ववा पश्चिम, माविष्ट्र, भिद्राद्यका ।

প্রাপারঃ — পরিচালক, বশ্র উদ্ভাব অধিবশুর, সেশুর কাপাচিচ লাইটো

বিষয়ঃ- হাতিপুর উপজেলা শহরের তুমি কাবহার পরিকলপনা মধা এম্যুন এসংগো

ই কি নিয়ারিং সাই কারি যিটো কুর্তিক প্রসূত্রত হাজিপুর উপজেলা পহরের তুমি বংবহার পরিত্রপানীর নপ্তা থানায় আমাদের মতামতের প্রতিক্লান আকায় উথা এই প্রৱের উন্নয়নের রক্প রেখা হিসাবে বিবেচনা করা ঘাইতে পারে।

এত এব উএম বঞা খানি এই শহরের তুমি বাবহার পরিকরণনার নজা বিপাবে গ্রহন সরা বাইতে পারে।

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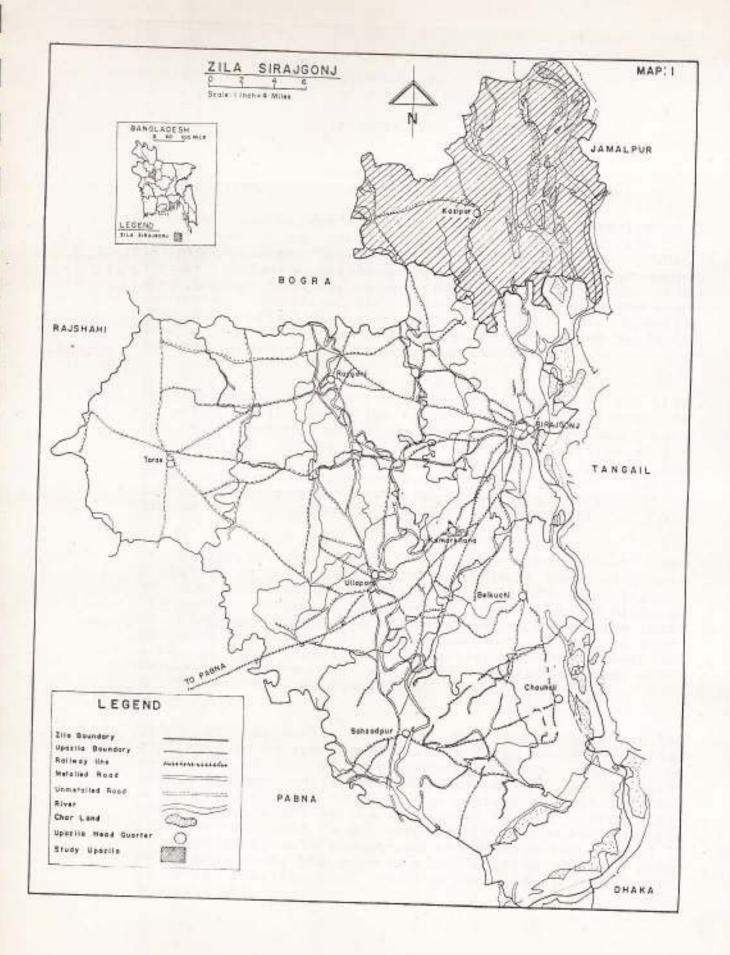
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CHAPTER I

INTRODUCTION

- 1.0 INTRODUCTION
- 1.1 This is Final Report and it is submitted in a series of four reports as per Contract Agreement signed with the Urban Development Directorate on 3rd April 1989. This report contains existing Land-use and socio-economic condition of the Upazila and its town area including the projected situation for those parameters upto the year 2000 A.D. Proposed land-use/Master plan of the Upazila shahar has also presented in this report on the basis of design population and their requirements.
- Upazila study area was identified tentatively at the time of preparing the Inception report. After collection of C.S. maps, contour maps and reconnaissance for the physical feature and expansion of urban activities at and around the existing C.B.D. area was help to select the study area for landuse and socio-economic survey. Recent land-use phenomenon and the socio-economic status of the shahar area are describe briefly in Chapter III.
- 1.3 The assembled data and land-use survey reports have been presented to bring into focus the general trend of growth of the upazila and its impact on the growth centres of the upazila including the upazila urban area. Although no economic model has prepared to illustrate the incidence of development in spatial context, a general overview on the impact of upazila-wide economic growth and demographic trend will feature as a basis for the land-use plan of the upazila shahar.
- 1.4 Other than agricultural product no natural resources are available in Kazipur upazila. Any large scale industries yet to established in this upazila. Only some medium size handloom units are present here. Insignificant percentage of small handloom and cottage industries are the main component of the industrial sector. Large scale yielding of jute in and around this region may initiate to established jute industries in the upazila. About 25 to 35 percent of the sugercane of Sirajganj Zila is grown in this upazila, but no sugercane industry has established there.

The geographic position of this upazila has distitute it 1.5 from the development effort. The north and eastern boundary of this upazila is encircled by the river Jamuna and south and western zone are depressed area. Therefore the spatial position of the upazila was the major constraint of development of its transportation network. Intra and inter upazila transportation and communication systems are in poor condition. In the present situation the development of communication system would be the prior objective of the upazila parishad. Development of communication system is the precondition of the trial development of this area. Agrobased industries like, jute mill, sugarcane industries and cold storages may have greater prospect in Kazipur provided to the improvement of the transport and communication systems. Thus employment generation activities "as one of the target objectives of the local government administration decentralization ordinance of 1982" is expected to be adhered to by the upazila parishad in the longer term.

1.6 The subsequent chapters will be devoted to illustrate.

- o The upazila in its zila context in terms of :
 - population and settlement distribution
 - Economic performance and transport linkages
 - Social infrastructures
 - priority projects
 - General identification of human settlement hierarchy
- The upazila headquaters describing the existing socio-economic conditions, its land-use pattern and physical growth of the area.
- Preparation of the land-use/Master plan of the Upazila town area on the basis of land requirement for the projected population of proposed town and its sphere of influence.
- General consideration on programming and implimentation of the plan.

CHAPTER II

THE UPAZILA IN ITS ZILA CONTEXT

- 2.0 KAZIPUR UPAZILA IN THE CONTEXT OF SIRAJGONJ ZILA
- 2.1 Location and Physical Characteristics of the Upazila
- 2.1.1 Locational Aspects of the Upazila

Geographical Location

Kazipur upazila stands at the northern end of the zila Sirajgonj and the river Jamuna flowing through the eastern region of this upazila. It is situated at a distance of 25 km (16 miles) north from the Sirajganj Zila headquarter. It is located roughly between 24°33° and 24°47° north latitude and 89°33° and 89°40° east latitude. It is bounded in the north by Bogra Zila, in the south by Sirajganj Sadar Upazila, in the east by Jamalpur Zila and in the west by Bogra Zila. Map-1 has shown the spatial position of the Kazipur Upazila in the Zila Sirajganj.

Administrative and Functional Location

Administratively this is one of the nine upazilas of the Sirajganj Zila. The date of creation of this thana is not available. Existing upazila headquarters has shifted from Kazipur mouza to Alampur after the massive erosion of Kazipur by the river Jamuna. The upazila was upgraded from thana in 1983. This upazila has facilitates to connect the different char areas of Sirajganj and Jamalpur Zila through the water ways of Jamuna. The upazila shahar is situated at adjacent to the Sirajganj-Kazipur road and which is about three miles west from the river bank of Jamuna.

- 2.2 Population and Settlement Distribution
- Population: Population within Sirajganj Zila and Kazipur Upazila is stated below in Table-2.1.

Table 2.1 : Population distribution within the zila and upazila 1961-81

Upazila/Zila	Population							
	1961	1974	1981					
Kazipur Upazila	1,31,768	1,78,389	2,12,810					
Sirajganj Zila	11,08,459	15,59,007	18,65,939					
Upazila as % of Zila	11.88	11.45	11.40					

Source: Pabna District Statistics, 1983, P-5, Table-1.03, BBS.

Table-2.1 shows that population ratio between Kazipur upazila and entire Sirajganj zila is in decreasing trend. It is an exceptional situation and indicates the significant rate of out migration. Which may causes due to river erosion, backward communication system and poor investment in industrial sectors. As a result employment opportunities may be gradually squized and upazila reduced its attractiveness.

The variation of population of the Sirajganj Zila and Kazipur Upazila region is given in Table-2.2.

Table 2.2 : Percentage variation of Population in Zila and Upazila

Upazila/Zila	1	Variation	of	population	in	percent
	1	1974 over 1961	:	1981 over 1974	1	1981 over 1961
Upazila Kazipur	******	35.38		19.29		61.50
Zila Sirajganj		40.65		19.69		68.34

Source: ibid, P-5, Table-1.03 BBS.

Since 1961, growth rate of population in Kazipur upazila compare to that of Sirajganj zila is also help to realize the situation visualized in Table-2.1.

The population distribution according to age and sex of the zila and upazila area are given in Table-2.3 and 2.4 respectively.

Table 2.3 : Population distribution of Greater Pabna Zila by age and sex in 1981

Age	Group	1	Both se	ч %	Í	Male	%	1	Female	7.
0	~ 4	;	607938	17.8	1	307436	17.5	;	300502	18.0
5	- 9	1	583685	17.0	1	298854	17.0	;	284831	17.1
10	-14	;	468784	13.7	1	251200	14.3	:	217584	13.1
15	-19	1	327240	9.6	1	164984	9.4	1	162256	9.7
20	-24	ı	262090	7.7	;	122538	7.0	1	139552	8.4
25	-29	1	243242	7.1	;	124378	7.1	1	118864	7.1
30	-34	1	180945	5.3	ı	90875	5.2	1	90070	5.4
35	-39	Ţ	158462	4.6	1	83950	4.8	1	74512	4.5
40	-44	1	134213	3.9	1	68113	3.9	1	66100	4.0
45	-49	1	102571	3.0	1	55496	3.2	1	47075	2.0
50	-54	1	99734	2.9	1	51230	2.9	ī	48504	2.9
55	-59	1	62837	1.8	1	34834	2.0	1	28003	1.7
60	-64	1	75319	2.2	ţ	38813	2.2	1	36506	2.2
65	-69	1	35297	1.0	1	19608	1.1	1	15689	0.9
70	+	l	81347	2.4	;	45330	2.6	1	36017	2.2
ota			3423704	100.0	1	1757639	100.0	m m	1666065	100.0

From Table-2.3 about 36.3 percent population are found in between the age 19 and 59. Therefore it may assume that about 36.3 percent of the population of Pabna region is economically active i.e. (Gross). Comparing the male and female population 36.10 percent male and 36.0 percent female are economically active. In the context of our rural economy we may consider the economically active male population is directly involved in rural activities. Therefore net economic active population in Pabna region may be about 36.0 percent. From Table-2.4 it reveal that net economically active population in Kazipur upazila is 37.80 percent.

Gross economically active population in Kazipur also 37.80 percent. So the demographic view of Greater Pabna zila is nearly similar to those of Upazila Kazipur.

Table 2.4 : Population distribution of upazila Kazipur by age and sex (1981)

Age		1	Both) Sex		11	Male		l Fe	emale
Group	-	1	Total	%		Total	7.		Total	7.
0 - 4	_		37384	17.5	1	18568	17.4	-	18816	17.
5 - 9		:	37367	17.5	1	18557	17.4		18810	17.
10 -14		1	26613	12.4	1	13924	13.0	1	12689	11.
15 -19		1	19244	9.0	1	9301	8.7	1	9943	9.
20 -24			15290	7.1	;	6611	6.2	1	8679	8.
25 -29	20		15358	7.2	1	7504	7.0	1	7854	7.0
30 -34			11963	5.6	1	5880	5.5	1	6083	5.7
35 -39	1		10802	5.1	1	5612	5.3	1	5190	4.6
40 -44	1		9181	4.3	t	4431	4.2	;	4750	4.4
15 -49	1		6902	3.2	1	3678	3.4	!	3224	3.0
50 -54	1		7175	3.4	ı	3623	3.4	1	3552	3.3
5 -59	1		4159	1.9	1	2280	2.1	ī	1879	1.8
0 -64	1		5293	2.5	:	2708	2.5		2575	2.4
5 -69	3		2152	1.0	1	1175	1.1	-	977	0.9
0 + =====	1	2.00	5012	2.3	ī	2862	2.7	!	2150	2.0
otal:		2	13985	00 0		10/714	100.0		====== 107171	-
Durce:	===	-53	angladesh		==	*======		Luci		Dist.,

2.2.2 Settlement Distribution: The settlement distribution in Sirajganj zila and Kazipur upazila may be expressed in terms of statistical and geographical distributive pattern. Statistically the number of mouzas and villages are presented in Table-2.5.

Table 2.5 : Number of Mouzas and Villages, 1981

Upazila/Zila		rban Settlement	H	Rural	Settlement
AND FILE AND DESCRIPTION	1_		1	Mouza	! Villages
Kazipur Upazila	1	(upazila shahar)	1	114	185
Sirajganj Zila	1	(paurashava)	1	1460	2101

Source: Community Table of all thana;
 and Pabna District Statistics 1983,
 P-3 & Table 1.01 respectively of BBS.

The mouzas are the original settlements and the villages, mohollas and wards grow over time within the mouzas as new settlements.

Geographic Distribution: The geographic distribution of settlements has been influenced by the physiographic conditions imposed by rivers, char land and low-lying areas. In the low-lying areas the villages are not clustered, they are scattered over raised places. Char or Island are formed scatterdly in the river and settlements naturally developed at the central position depends upon the agricultural potentiality of the area. It is easy to say where one village start and where end in individual island.

2.2.3 Migration: It is difficult to ascertain hard data on, in and out-migration from the zila and upazila. The position regarding greater Pabna zila is given in Table-2.6.

Table 2.6: Life time net migrants by Kazipur upazila and Greater Pabna zila 1961-81

Upazila/Zi	la :	Ne	t migran	ts in	differer	nt year	s
	- 1		1961	ı	1974	7.0	1981
Jpazila Ka	zipur		4750	-	5904	-	426
Greater Pa	bna zila		70615		99166		6837

(+) indicates net in-migrants to the region,

(-) indicates net out-migrants from the region.

Source: Statistical Year Book 1981, P-78.

- 2.3 Economic Performance and Transport Linkages :
- 2.3.1 Economic Performance: The economic performance of the Kazipur upazila has been illustrated in the report in terms of agricultural and non-agricultural activities together with employment situation income level and per capita GDP. The given data have been assembled from the sources of BBS.

Agriculture: Table-2.7, 2.8 and 2.9 indicate the agricultural status of the upazila Kazipur compare to zila Sirajganj.

Table 2.7: Utilization of Land for Agriculture, 1980-81 & 1981-82

Upazila/	Total	1	980-81				1981	-82	
Zila	Area (Acre)	Cropped	d Area	(Acre)		Cropped	d Area	(Acre)	
		Single	Double	Triple	Inten- sity	Single	Double	Triple	Inten- sity
Kazipur	91520	25702	23602	4280	160.02	43002	13863	4519	137.31
Sirajganj	616960	219860	183596	58950	165.20	262287	151489	61111	144.77
Source:	BBS, ibid	PP-20,	21 Tab	1e-3.04	& 3.05	(adopte	1).		

Table 2.8: Area & Production of crops 1980-81 & 1981-82 in Kazipur upazila

Crops 1980-81		0-81	198	1-82
	Area (in thousand Acre)	Quantity (in '000 maunds)	Area (in thousand Acre)	Quantity (in '000 maunds)
Aus rice	25	254	38.0	278
Aman rice	52	559	46.0	510
Boro rice	0.9	26	1.2	33
Jute	44	14	1.0	18
Sugarcane	2.5	1750	2.0	1211
Wheat	4.6	100	4.2	86
Potato	0.3	22	0.3	22.5

Source: BBS, ibid, P-38, 39, 40 & 42.

Table 2.9 : Area and Production of Crops in Sirajganj Zila in 1980-B1 & 1981-B2

Crops	2rops		980-81	- 1	1981-	82
	į	Area (in thousand Acre)	Quantity (in '000 Maunds)		Area (in thousand Acre)	Quantity (in '000 Maunds
Aus rice	1	204	1991	1	217	2007
Aman rice	1	316	3168	1	311	3219
Boro rice	ţ	13	357	t	16	368
Jute	1	45	159	1	20	370
Sugarcane	1	10	4639	1	10	6240
Wheat	;	55	1208	1	52	1199
Potato	1	5	280	1	5,3	340

Source: BBS, ibid, P-38, 39, 40 and 42.

From Table-2.7 it reveals that cropping intensity is nearly similar to that of Sirajganj zila. Comparison between Table-2.8 and 2.9 is also help to realize the speciality of Kazipur upazila in agricultural production. Production rate of sugarcane in Kazipur upazila is significantly higher (700 maunds/Acre) than that of Sirajganj zila (463 maunds/Acre) in 1980-81. Area & production of jute also deminising both in upazila and zila.

Industrial Situation in Pabna region: Establishment of both the large and small industries are negligible in Pabna zila. From the sources of industrial survey by Bangladesh Bureau of Statistics 1982-83 it was found that less than one percent of the major industries of Bangladesh were available in Greater Pabna zila. Number of industries in Sirajganj zila were not different from the situation that of Greater Pabna zila. Any large agrobased industries are not available in Kazipur though yielding rate of sugarcane, potatos and jute are relatively higher in this upazila. Only one jute and four cotton mills are the major industries of Sirajganj zila. On the basis of BBS survey report it has also found that the large number of handloom industries (10672 Nos) have been occupy the higher position in industrial sector. About 40 percent of handloom industries employees of Bangladesh have been serving in those industries of Greater Pabna zila. It is true that handloom products from greater Pabna have been an attractive items in this

subcontinent since early of 20th century. So appropriate policies for handloom industries may initiate as one of the major issue in industrial development in Pabna region.

Position of Industries in Zila Sirajganj and Upazila Kazipur: The position of the industries in Kazipur and Siraigani zila in respect of their units, employees and investment cost etc. have been evolve in the Table-2.10.

Table 2.10 : Position of industries in Zila and Study Upazila 1982

Industries		*			in Zila and		
		Units	1	Fixed Cost (:	investment (in '000 Tk)		
	Zila	Upazila	1	Zil=	the second part and the second part and the second	emplo)	/RES
Cottage	3661	263			Upazila ;	Zila	Upazila
Handloom	10672			59045 	2946	10547	922
Jute mills		65			_	160062	
	1	-	Ans	2522550			342
Ice-cream	2				oduction)	4027	~
Biscuit/					~	70	
Confectionery	10	3					
Food Manu- facture						120	-
	8	~		-			
Brick field	17	1				400	-
lood/ urniture						1200	25
	4	~					
ource: ibid,	P-72					49	-

Employment, Under-employment: Data on employment and under-employment are not available for zila and upazila.
But with the help of Tables 2.3 and 2.4 we may realise the approximate position of employment and underemployment both in zila Pabna and upazila Kazipur. It is reiterate that about 36.0 percent population may be employed in Greater Pabna zila and 37.80 percent in upazila Kazipur in considering gross figure of economiIncome levels: The Bangladesh Bureau of Statistics have assembled data on greater Pabna zila in terms of annual daily wage rate of workers by types and gross district product at current prices. Table-2.11 have been prepared on the basis of BBS sources, 1983.

Table 2.11: Annual average daily wage rate of workers by type in Pabna zila 1977-78 to 1981-82 (in Taka)

Туре	Skilled/ Unskilled	1977-78	1978-79	1979-80	1980-81	1981-82
Land Farmer	Skilled	8.25	10.30	13.18	13.50	18.00
	Unskilled	5.00	6.88	5.75	8.50	14.00
Cotton	Skilled	11.80	16.78	21.52	21.50	22.52
Industry	Unskilled	7.80	12.67	15.37	15.37	15.37
Handloom	Skilled	11.00	15.08	18.43	19.61	26.67
Industry	Unskilled	5.50	6.34	6.33	7.41	20.33
Jute	Skilled	12	8.08	12	20.00	-
Industry	Unskilled	(*	4.99	-	B.00	-
Bread Bis-	Skilled	8.00	8.08	9.00	11.58	19.45
cuit Factory	Unskilled	4.50	4.99	4.67	7.67	11.67
Match	Skilled		-	-	-	14.00
Factory	Unskilled	-	2	-	-	11.00
Machinery	Skilled	12.00	12.42	17.00	17.00	26.58
Workshop	Unskilled	8.00	8.17	10.00	10.00	18.50
Pottery	Skilled	11.00	13.27	17.00	17.00	23.65
	Unskilled	7.00	8.61	10.00	10.00	14.58
Di l	Skilled	8.00	8.29	12.67	15.00	15.00
Factory	Unskilled	6.00	6.17	9.07	11.00	11.00
Railway	Skilled	6.00	6.60	6.68	6.67	20.00
Labour	Unskilled	10000000000	0.000	-	-	-
Book	Skilled	8.00	8.80	12.31	14.50	15.00
Binder	Unskilled	-	-		- 1.5	100
Compositor	Skilled	10.00	10.00	11.54	12.00	12.83
	Unskilled	745	32	-	1000	

Source : ibid, P -115, BBS- 1983.

Table 2.12 : Gross district product (Greater Pabna) at current prices from 1977-78 to 1981-82 in million Taka

Sector	1 1977- 1 1978	: 1978- : 1979	1 1979- 1 1980	1 1980- 1 1981	1 1981-
	- 100 (decision				
Agriculture	1 2939	3305	3319	7055	
i) Crops	2471	2737	2655	3855 3208	4679
ii) Forestry	1 2	9	2033	11	4004
iii) Livestock	: 184	383	476	456	12
iv) Fishery	177	176	179	180	446 197
Minning and Quarrying	-	70	-	-	
Industry	260	70.	-		
i) Large Scale	116	321	389	463	511
ii) Small Scale	144	168 153	203 186	242 221	267 244
Construction	224	356			
	1	330	343	483	623
Power, gas, Water &					
sanitary service	13	15	18	22	26
Transport, storage					
and communication	283	284	371	616	650
Trade services	417	505	623	682	780
Housing Service	310	404	474	538	617
Public administration					
and Defence	136	141	167	2000	0.42
285 Med 3 5 5	100	* 7.4	167	320	371
Banking & Insurance	59	77	105	140	142
Professional and					
Misc. services	268	313	369	442	534
5.D.P. at current					
market prices	4909	5721	6178	7561	B933
Indirect Tax, net					
of subsidies (-)	282	351	408	529	543
5.D.P. at current					
actor cost	4627	5370	5770	7032	8390
opulation(in million)	3.29	3.37	3.46	3.53	3.60
er Capita GDP at					
actor Cost (Taka)	1406	1593	1668	1992	2331

Although the income tables presented in Table-2.11 may not reflect the position of the upazilas and zila Sirajgonj, such levels of information, if assembled, may be of use in the analysis of household and macro-economic feature.

- 2.3.2 <u>Transport Linkages</u>: The transport linkages have been described in this study in terms of (A) transportation network and (B) transportation services.
 - Transportation Network: Transportation networks in zila Sirajgonj had developed historically since during British administration period, when raw jute, tobacco etc gradually became important trading commodities. period railway had established to connect the eastern and western parts of undivided Bengal. The natural barrier (i.e. Jamuna river) had resisted the expansion of that railway from Sirajgonj to opposite bank of river Jamuna. To face this problem inland water ways have been using to connect the eastern part of Bangladesh with Sirajgonj Port. The role of the Sirajgonj Port has been increasing consequently upon the economic growth. In recent years significant development in highway system of this region is going to influence the transport as well as economic development of North Bengal. Map-1 has shown the railways, highways and water ways network of Sirajganj zila.

However, the Table-2.13 has shown the present position of rail, road and water ways transportation modes and medias in zila Sirajganj and upazila Kazipur. It may be mention there that inter and intra upazila transportation development have seriously constrained due to peculiar physiographic conditions imposed by rivers, flood and islands etc.

Table 2.13 : Transportation network, 1982

Mode	of transport	Zila Sirajganj	Kazipur Upazila
Ι.	Road (miles) - Pucca - Semi-pucca - Katcha	108 92 812	5 16 20
II.	Railway stations	10	-
III.	Steamer/Launch stations	13	6
IV.	Bus stoppages	8	1

Source: ibid, P-103 & 104, BBS-1983.

Table-2.14 reveal that only 4.5 percent of pucca road of Sirajganj zila passing through Kazipur. No railway tract and station is present here. Single bus stoppage serve for the people. But out of 13 steamer and launch stations 6 are present in this upazila, such that half of the steamer and launch stations of Sirajganj zila present in Kazipur area. Therefore it may realise the situation of the transportation network of Kazipur. Where waterway predominant the other mode of transportations.

B. Transportation Services: Table-2.14 has describes the public services provided to upazila and zila in recent years.

Table 2.14: Transportation Services in zila Sirajganj & Kazipur upazila, 1982.

Tr	ansportation Services	Zila	Upazila
1.	- Railway station	10	
	 Launch/Steamer station Bus stoppage 	13 B	6
2.	Buses & Micro-buses	34	2
3.	Trucks	49	-
4.	Auto-Rickshaw	2	-
5.	Rickshaw	3049	17
6.	Boats	2571	329
7.	Bullock carts	7379	413

Source: ibid, P-104, 105 & 106, BBS - 1983.

From Table-2.14, the transportation service facilities have in frustrated condition in Kazipur. Boats and Bullock carts have taken the major role in communication sector. So, the Table-2.13 and 2.14 have express the poor and backward condition of the transportation system of Kazipur.

2.4 Social Infrastructure

2.4.1 The existing social infrastructural services of Kazipur upazila area and Sirajganj zila has given in Table-2.15.

Table 2.15 : Social Infrastruct Category of Services 01 Education	Sirajgani zila	
01 Education		azipur upazil,
= Number of primary schools		K SERVICE TO SER
- Teacher	899	
- Student	4216	199
occident	153680	632
= 96	72200	26505
= Secondary school	202	
- Teacher	1684	36
- Student		270
2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	55127	7252
= Colleges	12	
- Teacher	15	2
- Student	277	38
	7755	855
= Madrasha		000
- Teacher	97	-
- Student	764	5
Communication of the communica	19977	30
= Gongerthus is	750.00	970
= Gonosikhya Kendra - Teacher	767	
- Student	1753	119
arudent	23913	240
2 Health	20713	9600
- nearth		
= Upazila Health Complex	DECOM	
- Number of Beds	.10	1
	181	5
= Charitable Dispensary	NA.	8
masionary Hospital	18	
Other Dealth Compley	_	
Number of qualified de-	21	
= Family planning slip	469	47
= Family planning clinics	37	47
Number of family planning pe	ersonnel 501	.5
Trade Centres	ne-retainment outstiffe	75
≥ Number of acces		
THORNER OF CATTY BEEF	83	
- Weekly/Bi-weekly hats	158	6
	A. G. C.	25
Tubewells (for drinking water)	33262	
	7.4.50 (1.5.5)	1057
TUST Utticae	200	-
Telegraph Offices	147	22
Pak-Danglow	1.2	6
Bank Branch	13	
Number of Government near	87	- 6
NEW MICHIGAN CONTRACTOR .	276	17
Registered Clubs	14	
Public Library	72	5
Orphanage	5	5
Sheba Asram	ĭ	-
oneua MSram	2	~

Source: Pabna District Statistics 1983, P-75 to 95.

- 2.5 Synthesis: Identification of hierarchy of settlements in Kazipur upazila area
- Criteria Adopted : Kazipur upazila like all other 2.5.1 upazilas of Bangladesh have predominant rural characteristics in terms of status of economic pursuit and development of human settlements. Most settlements in the upazila have, however, varying degree of developments. Other than cultivation most of them have no other functions. Considering these settlements at the bottom line the upper level settlements are having expansion of services like hats, secondary schools, bank branches etc. These settlements at higher levels of those at the bottom line only have been classified to indicate the growth points which would perform the role of absorbing increment population and provide expanded services to the bottom line settlements. In order to identify the growth points and to classify them into levels in the hierarchy, initially such settlements have been identified as prominent places or hats and then these have been graded according to marking allocated per item of selected services. The Table-2.16 shows these settlements with grading.
- 2.5.2 Identification of Settlement hierarchy: According to the criteria adopted (ref: Paragraph 2.5.1) important settlements rendering one or more number of socio-economic services in the rural area have been classified. Under each category a number of settlements have been grouped.

Table 2.16 : Brading of Important Settlements in 1981

Population Sizes Edilége High Pry, Mats Daily Mospital/ Dispen- Bank 2000 5000- 10000+ School Sc	***************************************		Andreas and the Parket of the				Ca	Category of Services	Servi	Sab							ii V
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Source: 885 & Field Survey 1989.

According to the marking in the Table-2.17, settlements are classified in terms of hierarchy by ranges of weightage allocable to each settlements. The ranges are shown in Table-2.17.

Table 2.17: Ranges of weightages for classification of settlements in hierarchy

Ranges		Ca	teg	ory in hierarchy
70 and	above	Α	=	Highest Category
40 -	69	В	=	Upper Middle Category
26 -	39	С		Middle Category
Upto	25	D	=	Lower Category

According to Table-2.17, the following settlements emerge as A, B, C and D Categories:-

Category	Name of Settlements
Category A	Meghai, Alampur
Category B	Sonamukhi, Gandail, Kabihar
Category C	Baraitali, Baraipatal, Khuksia, Paschim Betgari and Patgram.
Category D	Lakshmipur, Kunkunia, Rauhabari, Kachihara, Rasikpur, Mathail Chapra, Barshibhanga and Kalikapur.

In course of time the settlements classified above may change their gradation due to intensification of development.

CHAPTER III

THE UPAZILA HEADQUARTERS

- THE UPAZILA HEADQUARTERS AND ITS SPHERE OF INFLUENCE
- 3.1 Definition of sphere of influence/attractiveness
- The sphere of influence of the upazila shahar is identi-3.1.1 fiable in respect of administrative and socio-economic context. In other wards, the upazila shahar as an administrative centre has the whole of the upazila as its catchment area, but as a growing urbanism it has economic linkage with areas around it. Recent sample survey for catchment area determination of the Kazipur upazila shahar shows that majority of the commuters came from nearer places to avail their services. Due to lack of any specialised services in upazila sadar it is not yet influence the people towards its attractiveness. So the basic criteria for the choice of sphere of influence of Kazipur upazila shahar has also adopted on the basis of future development aspects. Because the upazila headquarters has shifted to new area and except some specialised services from upazila parishad no other facilities yet to available in this shahar to attract the people from distant places.

Table-3.1 has shown the percentage of sample population those are commuting this upazila shahar from different places. But for the purpose of land-use planning for the upazila shahar, the immediate hinterland which will consume all services of the shahar except housing may be considered as the most appropriate sphere of influence. Because population base of this hinterland actually would influence requirement of land for services other than housing. The criteria for delination of the boundary of the sphere of influence is to draw a line on Map around the upazila shahar, the boundary line should be laid equidistant between the shahar and the adjoining centres/hats. The boundaries are also to be adjusted in an elongated manner alone roads. Based on this criteria the boundary and mouzas are shown on Map-2 and Table-3.2.

Table 3.1: Table for catchment area determination survey

COMMUTING DISTANCES TO AVAIL URBAN FACILITIES OF UPAZILA SHAHAR (IN MILE)	:	FREQUENCY	PERCENTAGE
0 - 1		9	16.07
1 - 2		18	32.14
2 - 3		6	10.73
3 - 4		10	17.86
4 - 5		5	8.92
5 - 6		1	1.70
6 - 7		=0	-
7 - 8		1	1.78
8 - 9			-
9 +		6	10.72
		56	100.00

Source : Field Survey 1989.

From Table 3.1 it indicates that 76.8 percent of sample population commuting to the upazila centre to avail urban and specialized services is within 4 miles surrounding to the upazila parishad. So the 4 mile areas surrounding the upazila headquarters are mostly dependent on Kazipur upazila centre for getting specialized services from centre.

Sphere of Influence of Kazipur Upazila Shahar ** Table 5.2

		; Total	Total Area	! Invalved	ved Area	Total	Population	tion :	Inval	Involved Population	lation
T I	Name of Mouza	Acre	Hectare	Acre	Hectare	1981	1974	1981	1961	1974	1981
+	Kabihar (Part)	595	240	384	155	1285	1727	2011	829	1115	1298
0	Barsibhanga	181	7.3	181	73	757	1019	1268	757	1019	1268
ró	Mathailchapra (Part)	732	296	320	129	1677	2190	2871	733	457	1255
4	Gandail (Part)	2613	1056	800	323	6483	3935	11171	1985	1204	3420
in.	Baripatal	466	201	357	144	1077	1429	2090	771	1022	1495
.0	Baritala	595	241	550	222	1629	1672	2701	1505	1545	2497
	7. Alampur	829	335	311	126	2150	2779	379B	807	1043	1405
m.	8. Mirarpara	127	51	127	21	330	449	929	330	449	9/9
101	Total	6171	2493	3030	1223	15388	15200	26585	7717	8354	13313

Area and Population of 1961, 1974 and 1981 are census figures of BBS. Source :

- 3.2 Definition of Shahar Area
- 3.2.1 Criteria for Determination of the Study Shahar Area

There are several considerations for determination of the shahar area as follows:

- According to the general guidelines of the National Implementation Committee for Administration Reorganisation (NICAR) the study area should be located within a radius of one mile from the centre of the upazila Headquarters.
- The guidelines of the TOR suggests that an area should be defined for the upazila shahar which will be or likely to be densified to a sufficient level by which per capita investment cost would be reasonably at a lower level.
- 3.2.2 Bearing these two considerations in mind the study area has been determined in order to include the urban and semi-urban activities in and around the headquarters. In doing so conservation of agricultural land, natural barrier and transportation network have also been kept in view.

The spread of urban and semi-urban activities together with natural barriers are shown in Map-3. These aspects are also been examined in details during Land-Use Survey works. The Table-3.3 has shown the mouzas are included in the upazila shahar study area, partially or fully.

Table 3.3 : Study Area of Upazila Shahar Kazipur

	: Tota	Total Area	Invol:	Involved Area	Total	Population	tion	Inval	Involved Population	dation
Name of Mouza	: Acre	Hectare	Acre	Hectare	1961	1974	1981	1961	1974	1981
1. Alampur	829	333	518	209.24	2150	2779	3798	1355	1750	2393
2. Kabihar	595	240	55	22.10	1285	1727	2011	116	155	181
5. Beripatal	466	201	142	57.5	1077	1429	2090	306	404	595
4. Baraitala	595	241	45	18.2	1629	1672	2701	122	125	203
5. Gandiail	2613	1056	75	30.3	6483	3935	11171	186	113	320
Total	5131	2073	835	337.34	12624	11542 21771	21771	2085	2549	3692

Original data is taken from Census Documents for Area and Population of 1961, 1974 and 1981 of BBS. Source :

3.3 Socio-Economic Condition of the Study Area

To find out the existing socio-economic condition of the Kazipur upazila shahar area a random sampling method was adopted to survey the 5% households of the area. Major findings from socio-economic survey have been presented in this article.

3.3.1 Demography of the Study Area:

Table 3,4 : Population distribution by age and sex at Kazipur upazila shahar area

Age	Gr	oup	Sex	:	Male	 Female	1	Total
Upt	a 9	years			72	73		145
10	-	19			88	72		160
20	-	29			63	67		130
30	-	39			55	36		91
40	-	49			30	20		53
50	-	59			24	18		42
40	*	69			15	6		21
70	+				14	8		22
Tot	al	househo	old (12	5)	361	 303		664

Source: Field Survey 1989.

Table 3.3 has already shown the general demographic situation of the study area (BBS 1981). Recent survey data represented in Table-3.4 and which indicates that out of total population 664 there are 361 males and 303 females. Male and female ratio is 1.19 and which dominant of male population in the present status of the shahar area. Table-3.4 also represent the percentages about economically active population (i.e. population between the age of 19 and 60) and which is about 47.50 percent. Where the economically active population of the upazila was 37.80 percent in 1981. It is expected that upto 2000 A.D. growth rate of population will continue to be accelerated.

Table 3.5: Occupational Status of Population by Sex at Kazipur Shahar

	Male		Female	1	Total
	83		2		83
	16		1		17
	53		3		56
	20		-		20
	-		139		139
	_	10 (A) may may per	_		-
		M====	*******	======	
5)	172		143		315
		16 53 20	93 16 53	16 1 53 3 20 - 139	16 1 53 3 20 -

From Table-3.5, Females are not found in agriculture and only 2.8 percent involved in different other services than housewife. Table-3.6 also shown the educational situation of the males and females in study area. The situation is established by the low level of Literacy among females. Out of 184 illiterates about 97 or 53 percent are females, 37 out of 633 are at or above graduate level. Out of 12 percent of SSC/HSC student 4.0 percent are female and out of 41.4 percent of primary and secondary student, 10.4 percent and 9.3 percent are female student respectively.

Table 3.6: Educational status of population by sex at study area

×	M	ale	i Fer	nale	20	otal
	Total	; z	Total		Total	1 %
ars	35	10.23	39	13.40	74	11.70
	87	25.44	97	33.33	184	29.06
	73	21.35	66	22.68	139	21.96
	64	18,71	59	20.27	123	19.43
	51	14.91	25	8.60	76	12.00
!	32	9.36	5	1.72	37	5.85
=======================================	342	100.00	291	100.00		100.00
	ears	Total Total 73 64 51	Total : % Pars 35 10.23 87 25.44 73 21.35 64 18.71 51 14.91 32 9.36	Total : % Total ears 35 10.23 39 87 25.44 97 73 21.35 66 64 18.71 59 51 14.91 25 32 9.36 5	Total % Total % Pars 35 10.23 39 13.40 B7 25.44 97 33.33 73 21.35 66 22.68 64 18.71 59 20.27 51 14.91 25 8.60 2 32 9.36 5 1.72	Total % Total

3.3.2 Income and Expenditure

Income and expenditural pattern of the population of study area have try to reflect from the data shown in Table-3.7 & 3.9.

Table 3.7 : Extent of income of households at Kazipur shahar

Income (per mo	in onth	Taka	Į Ž	Frequency		Percentage
0	-	500		9		7.20
501	-	1,000		25		20.00
1,001	-	1,500		33		26.40
1,501	-	2,000		17		13.60
2,001	=	2,500		11		8.80
2,501		3,000		15		12.00
3,001		3,500		3		2.40
3,501	75	4,000		6		4.80
,001	-	4,500		<u> 70</u>		146
4,501	-	5,000		2		1.60
5,001	+			4		3.20
otal ho	use	holds		125		100.00

Table-3.7 reveals that 41.60 percent of sample house-holds are belongs from middle income groups (i.e. Tk 1,501.00 to Tk 4,000.00 per month). Insignificant percent (4.80) of households are found with higher income range and 53.6 percent are from lower income range. Meanwhile sources of income of the people of shahar area have indicated in Table-3.8.

Table 3.8: Distribution of households by sources of income in Kazipur shahar

Source of Income	! Frequency	Percentage
Only have agricultural income	51	40.80
Only non-agricultural income	74	59.20
Both agricultural & non-agricultural income (Part from agricultural and part from non-agricultural sources)		-
Total Household	125	100.00

Source: Field Survey, 1989.

As given in Table-3.8, source of income from agricultural activities are 40.8 percent where higher participation in non-agricultural functions. Therefore households earning from cultivation is 40.8 percent. Such that non-agricultural source is predominant the agricultural sources of income in Kazipur shahar. Also Table-3.9 reveals the pattern of expenditure at study area. The yearly expenditure is higher in middle income group. The middle income groups earning monthly from Tk 1,501.00 to Tk 4,000.00 and they represents about 42.0 percent of total population and the same range of expenditure is found from 40.8 percent of households. Households are expending upto Tk 1,501.00 per month are found about 42.4 percent.

Table 3.9: Extend of expenditure of study households

Monthly 	Ex	penditure	(in Taka)	1	Frequency		Percentage
0	€	500			2	70 30 00 0	1.60
501	=	1,000			19		15.20
1,001	\approx	1,500			32		25.60
1,501	æ	2,000			19		15.20
2,001	-	2,500			14		11.20
2,501	_	3,000			16		12.80
3,001		3,500			2		1.60
3,501	=	4,000			4		3.20
4,001	-	4,500			5		4.00
4,501	-	5,000			4		3.20
5,001	+	- 11			8		6.40
otal ho	use	holds			125		100.00

Source: Field survey, 1989.

3.3.3 Migrational trend : River erosion is one of the major and chronic problem for the villages at eastern periphery of the upazila and its nearby char lands at river Jamuna. Sever river erosion, force the people to migrate in safer region of the upazila or other places. Thus erosion has become as prime factor for migration in Kazipur. The recent survey is not sufficient to reflect the image of the migrational behaviour of the Kazipur shahar. But it tries to visualize the existing migrational pattern of study area with reference to the Table-3.10.

Table 3.10 : Duration of H/H at study area

Extent of year of Coming in present settlement place	1	Frequency	i	Percentage
Upto 5 years		27	Heriot	21.60
5 - 10 years		5		4.00
10 + above years		4		3.20
Inheritently settle		89		71.20
Total Households		125		100.00

Source: Field Survey, 1989.

From Table-3.10, it is found that 71.20 percent house-holds have been living hereby inheritently and 3.20 percent more than 10 years. Therefore we may assume that remaining 25.60 percent households have inmigrated from other places. With the help of Table-3.11 it may also be realised about the factor of inmigration. From Table-3.11 about 18.00 percent households inmigrated here after affected by river erosion.

Table 3.11: Factors of inmigrations in Kazipur shahar

1	Frequency	1	Percentage
	23		18.40
	6		4.80
	2		1.60
	2		1.60
	3		2.40
	125		28.80
	1	23 6 2 2 2	23 6 2 2 3

Source: Field Survey, 1989.

3.3.4 Composition of Services and Facilities

Accessibility to communal facilities like bus station, launch ghat, school, colleges, post office, etc. for the population of Kazipur shahar have given in Table-3.12. Also Table-3.13 represents the situation of existing facilities for drinking water of urban people.

Field Survey 1989

Source

Accessibility to Communal Facilities at Study Area Table 3.12

Commuting Distance (in Km)	Road	Service	Primary School	High School	Bazar/ Hat	Hospital	Post Office	Bus/Launch Stations
0 - 0.5	11	57	62	28	is.		48	7.7
0.5 - 1.0	14	33	95	45	54	45	29	45
1.0 - 1.5	+	H	ю	7	4	13	ហ	1
1.5 - 2.0	Ü	9	TN.	15	В	32	4	T.
2.0 - 2.5	į.	1		ì	М	28	-	
2.5 + Above		29	1	23	1	8	74	14
Total	125	125	125	125	125	125	125	125

Table 3.13 : Facilities	for Source of Drinking Water	Table 3.13 : Facilities for Source of Drinking Water of Households at Study Area	
Saurce	Frequency	Percentage	
Well	1.6	12.80	
Pand (Neighbour)	1		
Pond (Own) .	q	000	
Tube Well (Neighbour)	45	36.00	
Tube Well (Own)	09	48.00	
River/Khal	1	ı	
Total Households	125	100.00	

From Table-3.13 facilities for drinking water is satisfactory in Kazipur shahar. Dut of 125 sample households only 105 or 84.0 percent have excess to tubewells and rest depends upon ponds, river and kutcha wells etc. Waste disposal system have not yet established in scientific view. Only 14.4 percent households have been use pucca pit latrine and 4.0 percent have no definite place to dispose faecal waste. About 73.0 percent households are using kutcha pit latrine in Kazipur Shahar.

Table 3.14: Facilities for human waste disposal of households at Kazipur shahar

Type	 Frequency	1	Percentage
None	2		1.60
Kutcha pit latrine	91		72.80
Buccet latrine	11		8.80
oucca pit latrine	18		14.40
Others	3		. 2.40
otal Households	 125		100.00

Table-3.15 is represents the approximate range of flood affect to the homesteads of shahar area.

Table 3.15: Whether homestead subjected to flooding at study area

1	Frequency		Percentage
	74		59.20
	5.		
			40.B0
	125		100.00
		74 51	74 51

Out of 125 homesteads about 60.0 percent are frequently affected by natural flood. About 94 percent homesteads was submersed during the highest flood of 1988.

- 3.4 Existing Land-use, facilities and utilization characteristics
- 3.4.1 Existing land-use : Land-use survey of the study area has carried but recently with the help of C.S. map of 1" = 330' scale. The Table-3.16 and Map-3 shows the existing pattern of land-use of Kazipur shahar.

Table 3.16: Existing situation of land-use in Kazipur shahar, 1989

SI	Land-uses	Symbol	Area	Pe	rcentage
No		on Map	Acre	Hectare	of total study area
01	Agriculture		620.67	250.75	74.35
02	Commerce	1A	2.35	0.95	0.28
2.1	Industry	18	-	148	14 <u>8</u> 2
03	Education	2	6.35	2.56	0.76
04	Health	3	=	-	-
05	Administrative Govt. Deptts.	4	22.82	9.22	2.73
06	Recreation (open)	5	-	2	
6.1	Recreation (close)	5C			-
07	Socio-Cultural	ć,	0.25	0.10	0.03
08	Urban Services	7	0.60	0.24	0.07
09	Residential	В	146.90	59.36	17.59
10	Road Pucca Katcha		3.60 12.73	1.45 5.14	0.43 1.52
11	River & Channel		18.73	7.57	2.24
Tota	a1	777	835.00	337.34	100.00

Source: Land-Use Survey, 1989.

It is found from Table-3.16, that utilization of land for agricultural purposes are constitute the highest percentage 74.35 of the total area, followed by Residential uses 17.59 percent.

The existing land-use survey map shows the Sirajganj-Kazipur Road is passing through the eastern part of the Kazipur shahar. The existing development occur only on the western side of this road and following pattern of development and land-uses are going to develop over time.

- A) Existing Pattern of development:
- The township has been growing in the western part of the Kazipur-Sirajganj Road.
- Existing Sirajganj-Kazipur Road is passing through the shahar area.
- Only the upazila parishad complex and its surrounding places has identify as shahar area. A few urban services like office, bank and bus stations etc. are located in the upazila parishad complex area situated at mouza Alampur.
- B) Distributive Pattern of existing land-uses:

Residential Area

Residential areas for the employees of upazila parishad may be recognised as the existing urban residential area. If we consider those semi-urban and rural settlements are included in the present study area than total residential area become 146.90 acre. Therefore out of 835 acres of study area only 17.59 percent has being use for housing purposes.

Administrative Service

Upazila Parishad authority is the principal administrative body in this upazila shahar. It is reiterated that upazila parishad complex is situated on the Sirajganj-Kazipur Road passing through Alampur mouza. About 23.0 acres of area has been covered by the upazila parishad Bhaban and other infrastructures related to the administrative, judiciary, social welfare and agricultural services.

Education

In this shahar area, there are one kindergarden, one primary and five high schools are established on permanent site and those are covered 3.4 acre of land. Only one college of the upazila sadar is located at mouza Meghai and covered 2.64 acre of area.

Health

There is one upazila health complex with 5 beds including family planning facilities. The health complex area is located at mouza Meghai. There are three private dispensaries also present in shahar area.

Commerce

Any distinct commercial areas not yet established at the study area. Few kutcha shops and some semipucca structures has built in Alampur Bazar is recognised as the permanent set-up for business and marketing. The area of Alampur Bazar covered about 2.0 acre. Moreover some shops have been established along the Kazipur road passing through shahar also covered about 0.35 acre of area as commercial purposes.

Industry

Virtually there are no industrial developments so far to any appreciable degree of production and employment. There are only a few handloom units, biscuit and food factory, husking mills and saw mills are available in the peripherial areas of the town.

Recreational Facilities

There are no provision for communal recreational facilities at all. Even a cinema hall yet to established here. A few play fields are located in the school compound. Any specified areas for park, play field and stadium are not available in the town.

Urban Services

Urban services have been delivered from the upazila parished complex. Therefore any isolated area is not yet found for holding urban services.

Road and Transportation

The main transportation services of the town are offered only by the Sirajganj-Kazipur Road. There are enough scope for development of transportation and communication system with the expansion of urban services specially the industrial and trading activities in the town. Existing area under road system is about 16.33 acres.

3.4.2 Urban facilities and their utilization characteristics

The facilities appeared to be under-developed and undeveloped. These means some facilities are still not available or inadequate. The local Union Parishad body is known to be the authority to provide urban services and their maintenances. But the income and expenditure are not balanced and in many cases, grants from central government are indispensable. The services, therefore, are subsidised for which expansion of services are severely constrained. But the pressure of population on services are increasing. This has not yet been closely examined in terms of potentials and problems of services

provision by the authorities. The following Table-3.17 shows the comparative position between the services and consumers.

Table 3.17: Services and their Utilization, 1989

Name	e of Services		: Presen	t state	1	Remarks
 Residential Water supply 			Residenti of the to 23.96 pop per acre.	ulation	imp bas how tot ass to the acc the	on Parishad is cose tax on the cis of 5% of ses value of cesteads and cal amount of cesed tax has distribute on thousehold cording to cir financial ability and lity to pay.
2. W	Jater supply					
	Tubewell		125 tubewe lities are ble at fir mouzas of shahar.	e availa- ve study		
	Tapped		Households upazila pa complex ar ble this f	rishad ea availa	-	
τ. F	lectricity					
	Household conn	ection	163	Nos	Pay	charge as
-	Industrial		4	Nos	per	PDB rule.
700	Commercial	(0)	14	Nos		
-	Street Light	**	70	Nos		
. Sc	ocial Facilitie	5				
	Play ground	7000	7	Nas		
-	Public librar	y I	- 2	NUS		*
-	Daily bazar		2	Nos		
770	Cultural acad	emv	1	-0.164 E		

Source: Upazila Parishad, PHE Office, PDB Office, UP Office and Upazila Engineer.

It will appear from the Table-3.17, the urban facilities in Kazipur shahar is very much limited.

3.5 Physical Opportunities and Constraints

The existing land-use survey map located some constraints of the physical growth of the township. Opportunities in a sense are for to seek.

3.5.1 Opportunities of Urban Growth

The notable opportunities are less possibility of river erosion and normal flood free land at least along the western side of the Sirajganj-Kazipur Road. These will ensure less costly afford for urban development.

3.5.2 Constraints of Urban Growth

The existing land-use survey map shows the growing urban area and which is elongated in a linear pattern along Sirajganj-Kazipur Road. Under such situation transportation costs would be an over burden issue in the household expenditure pattern. In order to tackle the situation efforts are generally made to increase urban expension radially from the linear axis of growth.

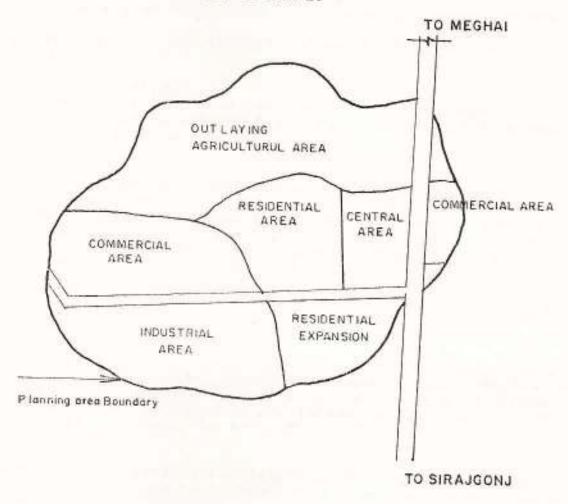
Poorly grown up communication and transportation system have interrupt the tempo of development. Development of transportation sector should be given the priority to overcome this problem. Lack of establishment of any agro-based industry also responsible for the slow development of the shahar area.

3.5.3 Concept Plan

Considering the problems and opportunities of urban growth a concept plan has been traced and is shown in the following diagram:

CONCEPT PLAN

Not to scale.



The diagram strive to retain and densify the central zone with administrative health services and other urban functions. Residential expansion has been emphasised on the western zone of the town. Industrial development may be localised at the south western zone of the town occupy part of Baraitala, Gandail and Alampur mouzas. Commercial areas including daily bazar, shop and trading centers would be established along the eastern side of the road.

CHAPTER IV

FORECASTS

- 4. FORECASTS OF POPULATION, LABOUR FORCE AND LAND REQUIRE-
- 4.1 Forecasts of Population, Household Structures and Density
- 4.1.1 Population, H/H Structure and Density within sphere of Influence

Population: Within the sphere of influence the population increased from 7,928 in 1961 to 8,635 in 1974 and 13,313 in 1981 as given in Table-4.1.

Accordingly, the high growth rate is 6.37% medium rate is 2.63% and low rate is 0.66% which is also close to assumption on national population by 2000 A.D. However, Table-4.2 shows the three projections on these rates.

Table 4.2: Forecasts of Population in the Sphere of Influence on the basis of High, Medium and Low growth rates

11 19 000		1985	1990	1995	2000
(6.88%)	13313	17043	23208	31603	43035
(2.76%)	13313	14769	16816	19147	21800
(0.61%)	13313	13668	14125	14597	15085
	(6.88%)	(6.88%) 13313 (2.76%) 13313	(6.88%) 13313 17043 (2.76%) 13313 14769	(6.88%) 13313 17043 23208 (2.76%) 13313 14769 16816	(6.88%) 13313 17043 23208 31603 (2.76%) 13313 14769 16816 19147

ii) Household Structure

The household structure has been expressed in terms of average size of household. Other aspects such as occupation and age group in the household have not been considered mainly because of the fact that in the rural areas agriculture is the most dominant source of employment and most people aged 10 years and over subsist on agricultural activities. It should, however, be mentioned here that most households are mixed and extended families composed of father, mother, children, grand father etc.

The following Table-4.3 gives the forecast of number of households including new household formation. The household size is assumed to be gradually reduce after 1985. The average size of household in the involved areas is 5.9 persons.

Table 4.3: Household Structure by Size in the Sphere of Influence 1981 - 2000 A.D.

Year Parameters	: 1981 :(Base year)	1 1985 1	1 1990	! 1995 !	1 2000 1
Population	13313	14769	16816	19147	21800
Average size of household	5.9	5,9	5.75	5.60	5.45
No. of household	2256	2503	2924	3419	4000
Formation of new households	_	247	421	495	581

iii) Density

The density according to the projected population is forecasted in Table-4.4.

Table 4.4: Density of Population in the sphere of influence 1981-2000 (medium projection)

Para	Ye	ear S	15 (Base	81 Year)	198	35 ;	1990	1	1995	1	2000
Popu	latio	n	133	13	1476	∍9	16816		19147		21800
Dens			25-50-110					700 101 10			
1	Per Per	acre hectare		4.25 10.54	4.7	222	5.37 13.31		6.12 15.16		6.97 17.26

4.1.2 Population, H/H Structure and Density within Shahar Area

Population

Forecasts of population have been made after adjusting. The historical trend rates by assuming a higher level of growth considering the small size of the bench population of the study area in 1981. The base population is 3692. The population and its growth rates in study area has

Table 4.5 : Forecasts of Population in Study Area

Name of Mouza	Involved Area	Invol	ved Pop	ulation	! Popula	tion gro	uth est-
	(acre)	1961	1974	: 1981	The second second second second	11974-81	
Alampur	518	1355	1750	2393			1961-81
Kabihar	55				1.98	4.57	2.88
Post		116	155	181	2.25	2.24	2.25
Beripatal	142	306	406	595	2.19		
Baraitala	45	122	125			5.56	3.36
Gandiail			+ Z3 	203	0.20	7.17	2.57
	75 	186	113	320	-3.90	16.17	
Total	835	2085	2549	3692			2.76
				3072	1.56	5.27	2.84

From Table-4.5 the population growth rate is found 5.27 percent per year as highest rate and medium rate is 2.84 percent per year and lowest rate is 1.56 percent. In considering the existing situation of the Kazipur shahar and its urbanization characteristics we may adopted the growth rate of 3.00 percent per year.

Accordingly, the forecasted population of the shahar area

Table 4.6: Forecasts of Population of the Kazipur Shahar

Level of Projections	1	1981 Population of	LIBOR	1990		2000
High Projection (5.27%)		3692	4534	5861	7577	9795
dedium Projection		3692	4155	4816		

ii) Household Structure

The structure of household has been expressed in terms of the household. It is reiterate that age groups and occupation have not been considered because of the agriculture as the principle occupation in the semi-urban context. Table-4.7 represents the household size and number of new household formation in Kazipur shahar.

Table 4.7 : Household Structure by Size in Kazipur Shaha

Year ! Parameter !	1981 (Base year)	1985	1990 1	1995 	1 2000
Population	3692	4155	4816	5583	6472
Average size of household	5.8	5.8	5.6	5.4	5.0
No. of households	555	716	860	1034	1294
New household formed	=	161	144	174	260

iii) Density

The forecasted density levels are given in Table-4.8.

Table 4.8: Density of Population in Kazipur Shahar (Medium Projection)

Para	Year meters	1	1981 (Base year)	1	1985	i.	1990	1	1995	2000
Popu	lation		3692		4155		4816		5583	6472
Dens	ity						****			
751	Per acre		4.42		4.97		5.76		6.68	7.75
	Per hecta	AT E	10.95		12.33		14.29		16.57	19.20

4.1.3 Aspects of Migration

There is no reliable basic information on the aspects of Migration for the Kazipur upazila shahar. The Bangladesh Bureau of Statistics has determined the aspects of migration in terms of in and out migration from the greater Pabna zila. But the recent sample survey of shahar area may indicates the nature of migration in the Kazipur town. Table-3.10 represent the migrational pattern of Kazipur shahar. In the context of Kazipur upazila shahar we may assume that in-migration rate is predominant the out-migration rate and thus total growth rate is consisting two main components, and those are mainly natural growth and growth due to net inmigration.

- 4.2 Forecasting of Labour Force and Employment
- 4.2.1 Forecasting of Labour Force and Employment within sphere of Influence

The forecasting of labour or employment within sphere of influence has been made on the basis of the percentage of labour force of the involved population of the study mouzas. Table-4.9 shows the mouzas, their total population, involved population, total labour force and involved labour force of the sphere of influence.

Table 4.9 : Existing Labour Force in the Sphere of Influence as of 1983

	The	DAY COURT		Potal	Total Labour Force of the Moszas	Drice Of	the Mou	52			103	involved Labour torce	Shour	+Or ce		
Mame of Moura (Popula-Popula- tion (1)no	Popula-	Popula- ition	# get get	#/H #ork	Culti- vation	Agra. non- crop	Manu- fac- ture	Buss- ness	Buss-Other ness	i Not i Mart	H/H Nork	Culti- vation	Agri. con- crop	. Manu- tac- ture	Busi- ness	Other
labihar.	2011	1298	122	280	474	73	*	ĸ	46	145	364	28	**	-5	9	30
Barsithanga	1268	1268	691	382	159	9	15	7.7	뀲	169	362	351	*	Æ	12	180 174
Matheri Chapra	2973	2521	366	780	567	55,	10	12	1.0	404 404 414	393	293	00	भ	53	œ
bandail.	17171	3420	1387	2822	2020	1	29	539	404	430	884	626	101	11	107	22
Baripatal	2050	1495	305	544	461	7		东	55	730	395	333		-	38	22
Baritals	2701	7497	263	188	638	n	un.	59	28	242	735	585	64	+	12	+0
Naspur	3798	1465	452	1007	823	75	un.	62	26	167	272	209	24 24	2	22	<u>-</u>
Mararpara	675	673	13	306	171	ю		003	ניע	14	20.6	111	12		œ	10
Total Mo.	26585	13313	3207	3105	5438	77	178	1887	511	1577	3562	2788	E	ř.	404	263
Total X			12.08	28,73	29.42	99.29	88.00	3.33	2,30	11.85	26,36	20.94	0.29	09.0	3,07	1.57

Note: 31 Other means petty jobs.

On the basis of the percentages of each category of occupational labour in respect of the involved population, the labour force of the forecasted population are calculated and given in Table-4.10.

Table 4.10 : Forecasted Labour Force and Employment of the sphere of Influence by 2000 A.D.

Category of Labour	1981 (Base Population)	1985	1990 	1995 	1 2000
Population	13313	14856	17039	19543	22415
Not working (11.85%)	1577	1749		2267	2581
Household work (26.76%)	3562	3952	4499	5122	5832
Cultivation (20.94%)	2788	3093	3521	4009	4565
Agri.non-crop (00.29%)	39	43	49	56	64
Manufacture (00.60%)	79	88	100	144	130
Business (03.07%)	409	453	516	587	668
Others (01.97%)	263	292	332	378	430
Total Labour	8717	9670	11008	12533	14270

Since Kazipur may not grow more than 32% of the present population of 17G39 upto 20G0 A.D., these may not be any substantial change in the growth of labour force in the sphere of influence by categories. On this context the existing rate of growth of each category of labour has been maintained in calculating the forecasting labour.

4.2.2 Forecasting of Labour forces within the shahar area

Labour force and employment pattern in Kazipur shahar has been forecasted by making adjustment in non-agricultural activities. Participation in household works and cultivation has been proposed to be decreasing and participation in business, manufacture, agri.non-crop and other petty jobs have been increased with the expectation that urbanization would bring about such changes. Table-4.11 shows the base information on labour and employment in the study mouzas of the shahar as complied by the EBS. Participation rate of the involved population have been determined for the base year 1981 on pro-data basis.

Table 4.11 : Exceting Labour Force in Kazipur Shahar as of 198)

- Busi- ness 13 33 25 27 27 27 28 1.1 48 1.1 48 1.1		Total	i finy of year.			Total		Force				Inv	Involved Labour force	abour	force		
2011 181 217 560 474 21 - 25 45 50 50 45 52 20 1 2 29 2 2	MARE OF MOUZE	tion	'Yign		Nort	Cults- vation	Agri. non- crop	Manu Fac- ture	1	Other	Nork Nork	HVH Mort	Culti-	Agri. non- crop	fans- fac- ture	Bust- ness	Other
2041 181 217 560 474 21 - 25 46 20 50 45 2 - 3 2040 585 506 569 461 - 1 39 21 86 154 129 - 1 11 2701 205 265 5757 4450 55 6.75 6.30 3.37 2.57 12.18 26.50 21.78 0.60 0.16 1.98 1.5	e] sepur	2758	2382	10	1007	527	23	les.	7,9	8	382	109	70 100	22	m	25	æ
2960 555 566 569 461 1 57 31 86 154 129 1 11 2701 263 264 566 539 404 39 461 57 - 5 11171 326 1387 2853 2020 - 56 539 404 39 80 57 - 2 15 1 21771 3692 2625 5757 4430 55 87 734 559 45.90 477 804 27 6 77 5 21771 3692 2625 5757 4430 55 67 734 559 45.0 977 804 27 6 77 5 21771 3692 2625 5757 4430 55 6.30 3.37 2.57 62.18 26.50 21.78 9.60 50 50 50.10 50.10 50.10 50.10 50.10	abinar	2011	181	217	290	474	Z		53	2	8	20	43	2		P	-
2701 263 28 3 5 69 28 20 59 48 - - 5 11171 320 1387 2853 2020 - 56 539 404 39 80 57 - 2 15 1 21771 3692 2625 5757 4430 55 67 734 559 450 977 804 22 6 73 5 12,50 26.45 20.35 0.25 0.30 3.37 2.57 12,18 26,50 21.78 0.60 0.16 1.98 1.5	States	2989	73 05 15	38	545	195			PS	F5	28	124	0-1 1-1	1		2	•
11171 - 320 1387 2853 2020 - 56 539 404 39 80 57 - 2 15 21771 3692 26.25 5757 4430 55 67 734 559 450 977 804 22 6 73 12.50 26.45 20.35 0.25 0.30 3.37 2.57 12.18 26.50 21.78 0.60 0.16 1.98 1.	araitala	2701	263	292	786	638	PO	ın	69	58	8	59	##		-	60	24
21771 3692 2625 5757 4430 55 67 734 559 950 977 804 22 6 73 12.50 26.45 20.35 0.25 0.30 3.37 2.57 12.18 26.50 21.78 0.60 0.16 1.98 1.	andail.	11171	229		2853	2020		%	539	404	8	8	52		.04	51	=======================================
12,50 26,45 20,35 0.25 0.30 3,37 2,57 12,18 26,50 21,78 0.60 0.16 1,98	otal Mc.	21771	3692		5757	4430	53	29	12.	559	420	423	804	23	-0	73	18
				12,56 2		1		1	3.37	1		26,50	21.78 (0 09.0			1.57

Since Kazipur shahar may grow by 34.38% of its population upto 2000 A.D. from the base year 1990. It is expected that these may be structural change in employment position. Table-4.12 shows the employment position upto 2000 A.D. This table reveal that 12.17 percent population will have no work, 26.45 percent household work, 21.78 percent cultivation & rest 4.27 percent will be involved in different other professions upto 2000 A.D.

Table 4.12: Forecasted labour force and profession of the people of shahar area by 2000 A.D.

Category of Labour	1981 (Base population)	1985	1	1990	1	1995	:	2000
Population	3692	4155		4816		5583	ette e	6472
Not working	450	506		587	975	680	-	788
Hausehold work	977	1099		1274		1477		1712
Cultivation	804	905	===	1049		1216		1410
Agri.non-crop	22	25		29		34		39
Manufacture	6	7		8		9		11
Business	73	82	100	95	-	110		127
Others	58	65		75		87		100
Total Labour	2390	2689		3117		3613	7-	4187

Note: Other means patty jobs.

Figure in parenthesis are percentage.

4.3 Land Requirements, Provision Standards

The standards given in the TOR have been generally followed in the estimating of the land requirements. But considering the future growth of population standards have been adjusted to actual and possible requirements.

For the purpose of housing, ancillary services and primary schools and parks the forecasted population of the shahar has been considered, and for other purposes the forecasted population of the sphere of influence together with that of shahar area have been considered. Table-4.13 shows the forecasted land requirements for different services on the basis of the TOR and lands are actually proposed for the town area.

Land Requirements for proposed Shahar Area of Fazipur Upazija Shahar upto the year 2000 A.D. (Projected population in Shahar Area is 6472 and in influence area 15 21,8000 Table 4,15 :

di .	Description of Land-uses	Standard as per TGR	Population	Land Re as per (in Acr	Land Required as per TOR (in Acre)	Existing (in Acre)	Existing Area (in Acre)	Proposed	Proposed Area (in Acre)	Planning (in Acre)	ng Area
1.	Sas- decital	60 derson/ar	5477		07.88		146.90		7.20	-	154,10
			K					(Sept.)	HOUSELFIED)		
	ESUCATIONS				12.		17		(S)		24,48
	- Primary School	5000/2 acres	6477	27.58		09.0	(1 unst)	1.98	(2 units)	2,5B	13 units
	High School	20000/5 agres	28272	7.00		0.73	(5 units)	1.65	() unit)	14.45	(4 units
	- College	200000/5 acres	28272	7,06		Ť		7.50	(I unit)	1,200	(1 unit)
	Madrasha	20000/5 atres	6477	1.00		1		0.25	Cl unit)	0,25	(1 unit)
	- Vocational Inst.	20000/5 acres	26272	7,00		į		6.75	(lumit)	1. 1 10. 1	(1 unit)
13	Heaith:				8,35	1			8,90		8.80
	- Heaith Complex	20000/5 acres	26272	7.06		1		7.50	(I Dritt)	2,50	41 unit)
	- Dispensary	20000/1 acre	6472	1.30		Ü		1,30		1.30	
-4	Administrative:				17,00		22.82				22,82
	- Umazila Complex	Upazila/12 ac	1	12,00	5.05	22,82		X		17.82	
	- Jail	Upazila/5 ac	ť	5,00		į.		10		3.3	(1 unit)
រូក	Commerce	1000/1.5 ac	6472		9.71		2,32		8,40		11.25
-Ġ	Industry	1000/1.5 ac	28272		42,41		1		44,50		44.50
1.	Recreation and Open Space:	1			17.89		1		14,24		14.24
	- Park	1000/1 ac	6472	6.47		1		2,50	(single)	2,50	(single)
	- Play field	1000/1 ac	6472	6.47		ľ		9.90	(3 nos.)	9.90	(3 nos.)
	red.	200000/0.5 ac	28272	0.71				0,70	(1 pmit)	0,70	(1 unit)
	E:: TT:+0	SOCIONAL SE	CHCHC	A 7.4		1		4 54	(einnie)	4 44	(einnie)

Table 4.13 contd.

SASI DIET IO HOLDE	s Standard	Population	Land Required	Exterior Area	O Transfer	
			as per TOR (in Acre)	(in Acre)	(in Acre)	Flanning Area
B. Socio-Eultural:			02.7			
- Eidoah & Mosgue	5000005 5 ar	000000	20.07	0.25	7.37	7.62
	300007E	7/707	7.83	0.15 (ane)	2.80 (2 units)	1
	2000075 an	2/40	1.62	0.10 (one)	12	4
Panton.	200000 ac	24/5	2.62		13	1.7
	ZUGGU/1 at	5472	0.32	e.	- 53	
9. Urban Services:			,			
	2000000 5 35	200000	77.0	09.0	6.44	7.04
- Harri	200000000000000000000000000000000000000	7/797	0.71		0.74 (I unit)	0.74 (1 moit)
	2000070.0 ac	28272	0.71	0.60 (one)	1)	
	200007 ac	28272	2.82		1	1 2
	20000/1 ac	28272	1.41	3	7 .	-
- Fire Services	20000/1 ac	6472	42	15/0	1.48 (1 unit)	1.48 (1 unit)
- Elec.Sub-Station		5473	7. CF		ij	0.32 (1 unit)
583		4440	70.00	C.	0.32 (1 unit)	0.32 (1 unit)
	200	7/40	B+*5	ľ	0.48 (1 unit)	U
SUB-TOTAL			241.77	179.27	115.58	294.85
10. Road	(5-10% of item 1-9)	em 1-9)	24.17	16.23	00 00	12 75
11. Urban Deferred	CAN'N at Street				00.04	20.00
70	NIOA OF ITEM	1-4)	24.17		32,43	32,43
12. Reserved (Water bodies) (5% of item 1-9)	s) (5% of item	(6-1	12.08	18.73		27. 01
	£:					10.73
is. Uutlaying Agril. Area			532.81	620.67	1	452,66
TOTAL PLANNING AREA;			000			
				CC BAD		

CHAPTER V

LAND USE PLAN

- LAND USE PLAN
- 5.1 Approach, Concept and Planning Principle

The planning approach has been generally described in paragraph 3.5 in terms of Physical Opportunities and constraints and a concept plan has been drawn up. Considering the size of population on the basis of medium projection the plan has been drawn up as a small sized town in the country side. But the alignment of a regional road offers an opportunity to locate the central service area.

Conceptually, the plan has been formulated to capture the potential of land and thereby to increase the economic base for local authorities and as well as to enhance employment opportunities. The central area is the main town centre having the administrative, hospital and transportation centre commercial and industrial areas are placed in isolated area by keeping safer distance from zone of housing area.

- 5.2 Plan Description
 - The proposed plan is described here in terms of the itemised land-uses and urban structure as represented in Table-4.13.
- 5.2.1 Urban Structure: Except upazila parishad complex any considerable urban services and infrastructures are yet to developed in Kazipur shahar. The future township is designed to grow on the western part of the Kazipur-Sirajganj road. The upazila complex area, market and major urban services are located on the main road. The residential areas will be growing behind the central area
- 5.2.2 Residential Areas: 154.10 acres of land has been earmarked for a population of 6472. The gross density is 42 persons/acre. Leaving out the internal non-residential uses like streets (about 25.00% of total residential area) the net residential density becomes about 56 persons/acre. This residential density must be attained so that the cost of services per capita remains within affordable limits of the urban residence.

- 5.2.3 Commercial Areas; The main commercial area has been proposed at the adjacent eastern area of the Kazipur-Sirajganj road. Besides this a number of small sized markets and corner shops have been proposed in the community places. A total area of 8.90 acres has been proposed in the plan.
- 5.2.4 Industry: There is no industrial development so far. In pursuance of government's policy of decentralization an industrial area of 44.42 acre has been proposed on the southern part of the shahar at mouza Alampur. If developed, it will generate some employment opportunities.
- 5.2.5 Educational Facilities: There are three high schools, one primary school and one madrasha are present within the shahar boundary. These services are inadequate for the design population. So, one high school is proposed at mouza Kabihar and which occupied 1.65 acre of land. Two primary schools are also proposed at mouza Alampur covering 1.98 acre of area. Existing College at Meghai is under critical situation due to threating of river erosion. So another college of 7.5 acre area is proposed at mouza Beripatal at southern part of Town. Vocational Institute of 6.75 acre proposed at Alampur.
- 5.2.6 Health Services: Upazila health centre is located on the mouza Meghai near the river Jamuna. This health complex may have possibility to river erosion. So about 4.5 acre of area has proposed at mouza Alampur near Upazila Parishad boundary for reestablishment of Health Complex. The local authority may also like to allow private dispensaries at convenient locations. In view of that public dispensary and Maternity clinic has proposed at mouza Alampur on 1.3 acre area.
- 5.2.7 Administrative Services: There is about 22.82 acres of land under administrative services including Judiciary and Jail area. Considering future requirements for office establishments other than upazila administrative services, additional areas have been proposed near the upazila complex area.
- 5.2.8 Recreation: There are two types of recreation facilities as mentioned below:
 - Open recreation: A stadium has been proposed adjacent to the hally pad in mouza Alampur and covered 4.44 acre area. In addition to this, the college and schools would have play fields. Parks have been proposed in mouza Alampur and covered 2.5 acre of area.

- ii) Closed recreation: There is no cinema hall existing at present, so a cinema hall has been proposed at meeting part of Alampur and Meghai road. The total area under closed recreation is about 0.70 acre.
- 5.2.9 Socio-Cultural Services: Socio-cultural services like mosque, graveyards and community centres have been located as mentioned below:

a) Graveyard at mouza Alampur, Beripatal and covered 1.25 and 1.5 acre land respectively.

b) Mosque and Eidgah at mouza Alampur & Beripatal covered 1.8 acre & 1.0 acre area respectively.

c) Cemetarial plots is over 1.5 acre of area at mouza Alampur.

 d) Community Centre at mouza Alampur on 0.32 acre of area.

- 5.2.10 Urban Services: Urban services, e.g. post office 1 unit, telephone office 1 unit, bus station 1 unit & one electric supply station, one fire service station, and one Dak Bangloo also been proposed in plan over 6.44 acre of land area.
- 5.2.11 Circulation System: Now only Sirajganj-Kazipur road serve the people for communication. This road has occupy about 16.33 acres of the land area of Kazipur shahar. To face the growing demands for urbanization of Kazipur shahar a new road network has been proposed and it is covered about 20.00 acre of shahar area.
- 5.2.12 Urban Deferred: In Kazipur Upazila township area, about 32.43 acre of land have so far been proposed as urban deferred. One deferred position is located near hally pad. Similar deferred positions are located adjacent to the Govt. housing estate, stadium, Alampur bazar, Upazila parishad complex area etc. Such areas may further be used to meet the expanding demand of urbanization after 2000 A.D.
- 5.2.13 Reserved Area (Water bodies): In proposed plan water bodies are essential for ecological balancing of the town. Existing canal, ditches and ponds should be utilize without break down of their natural speciality. Therefore, about 18.73 acre of such areas have proposed to use as reserved land for Kazipur upazila shahar.
- 5.2.14 Dut lying Agricultural Areas: Within the proposed shahar area about 452.66 acres of land has been reserved for agricultural activities. These lands may also be used for the purpose cultivation until the need of further urban services expansion.

CHAPTER VI

PROGRAMMING AND IMPLEMENTATION

- 6. PROGRAMMING AND IMPLEMENTATION
- 6.1 Priority Actions, Cost Implications
- 6.1.1 Priority Actions: The proposed land-use plan seeks to achieve harmonic development of social and physical infrastructure for the betterment of the sub-urban people. The plan serves as a document for the local authorities to develop the township gradually in a planned manner. This, however, is an instrument for the authorities. For the people dispensation of welfare measures are important. These are employment, shelter, education, water supply, sanitation and recreations. It is important for the local authorities to develop these facilities on priority basis.

In this regard the local authorities should make a choice of priority projects out of the proposals made in the plan. For the time being the following priority projects are identifiable.

- Employment generation: Government may like to develop the industrial estates to provide employment to the people. In the context of Kazipur upazila, the development of communication system should be given priority as a precondition of industrial development at this zone.
- ii) Housing: Government should acquire the area earmarked for housing estate and develop housing facilities considering affordability of the low-income group.
- iii) Sanitation Programme: With the growth of township the local authority should be taken steps to improve the physical environment of the shahar. The water supply facilities, sanitation and related other services should be expanded with the time.
- iv) Road System : Local authority should have under taken a programme in urgent basis to construct the necessary roads in shahar area.

- v) Protection from flood and erosion: River Jamuna is flowing near the Kazipur shahar so river erosion protective measure should be taken by concern authority. Meanwhile urban physical infrastructures (i.e. building, road etc.) should be constructed in such a way that possibility of flood affect would be minimum. Also public and private bodies should come forward to protect the areas from river erosion through the afforestation at the char land and lands nearer the river basin.
- 6.1.2 Cost Implications: In general the local authorities like the Pourashava experience acute shortage of financial resources. The Pourashava finds it extremely difficult to maintain the services. Expansion of services are hardly possible. There are various reasons underlying the problems. These are lack of institutional capabilities to estimate the potential revenue income and their realisation. The plan presupposes a break through. It will be seen from the report and the plan that a reasonable level of density of residential areas, The recommended density must be achieved so that the percapita cost of development is within the reasonable range and affordable to various income groups.

Locations of higher level non-residential land-uses have been proposed in central zone where the cost of land due to this locational factor is also higher than in the peripheral areas. It is, therefore, recommended that the locational factors should be considered to be important by the concerned authorities.

It is further recommended that the cost of development and maintenance services should be recovered. The local authorities are advised to maintain all land and property records and update them with never developments. Based on these land records rates and taxes should be reviewed from time to time and collect the rates and taxes accordingly.

- 5.2 Phasing, Urban Deferred
- 5.2.1 Phasing: The plan may be implemented within the next 11 years, i.e. by 2000 A.D. Participation of private and public sector would be necessary. Local authorities and government agencies should prepare detailed survey and designs for expansion of all physical and social infrastructures. Private sector should be encouraged to

develop the housing and services individually and/or collectively. For this purpose the pivotal elements of urban growth should be energised in the first phase (5 years). These are acquisition of land and development of industrial estates, roads, central areas and intensive developments of the housing estates to be sponsored by the government. Therefore the housing areas, away from the central area, should be taken up in the successive stage. The agricultural areas should be under intensive use from the beginning. Instead of giving priority of cereal crops production of vegetables, milk dairy and poultry should be encouraged.

In the last few years i.e. 5 years before the end of this century, should be devoted to review of the plan and further intensified use of land and property should be ensured.

6.2.2 Urban Deferred: 32.43 areas have been earmarked as urban deferred. This is in view of fulfilling the requirements of additional areas beyond the quantum of lands allocated for different uses at present in the plan. It appears from the projected population that lands for housing development seem to be adequate. Therefore, the local authorities may use the deferred areas for other functions like, administration services, recreations, etc.

6.3 Development Control

Present relevant Ordinance of 1982 does not fully cover administration of development control measures. It is, however, important to note that the upazila parishad may find the proposed land-use plan as a legal document to prevent non-conforming use of lands by any private individual or a group or any agency.

But in order to make use of this opportunity certain specified legal measures are to be undertaken. Those steps are suggested:

i) The proposed land-use plan should be given a legal status through approval by a competent authority, viz Ministry of Works under whose supervision the urban landuse plans are being prepared.

- ii) Unless and until a Paurashava is instituted and the planning areas of the proposed plan are brought under its control, the local Upazila Parishad may be designated as the local authority to prepare the detailed plans, review of plan and to prepare building codes.
- iii) Unless and until a suitable enactment is made for non-municipal towns Building Construction Act of 1953 may be adopted. Detailed building codes comprising locational analysis and set-back of buildings and landuses should be prepared. In giving planning permission and to control non-fonforming uses of lands and haphazard constructions the building codes should be the guiding principles. The legal measures should apply to all private and public sector agencies. Where appellate jurisdiction should lie with the Zila Judge Court.
- 5.4 Monitoring and Review
- 6.4.1 Monitoring: The local authority will monitor the progress in respects of implementation of the plan. Which relates mainly to expansion of physical and social infrastructure by different agencies. The progress of work should be charted according to 5-years phases split into yearly annual development Programmes (ADPs). Concerted efforts must be made to achieve the phased targets. Delay in project implementation will bring about the problems of unnecessary upward revision of project costs and complications in the expansion of services.
- 6.4.2 Review of Plan: The town is now a small area. But as the time goes on, the population of this town would be increasing possibly with greater number of low-income groups. The costs of urban services specially of serviced lands may be beyond the rectification of the low income groups. There may be squatters and floating population.

On the other hand, government's programme of providing adequate housing, services and employment scopes may not be contribute as per requirements of the swelling number of population.

Considering all these institutional and demographical situations the local authority should review the plan and recast it, if needed, after every five years.