

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

LAND USE PLAN
ZAKIGANJ UPAZILA SHAHAR
ZILA — SYLHET

MARCH — 88

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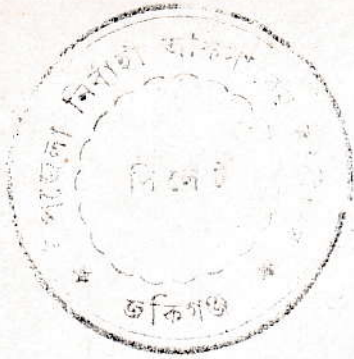
ZILA - SYLHET

AMIN ENGINEERING CONSULTANT

KAZI MANZIL,

648, BARA MAGH BAZAR DHAKA-17

MARCH - 88



TO WHOM IT MAY CONCERN

This is to certify that M/S, Amin Engineering Consultants, 648, Bara Moghbazar, "Kazi Manzil", Dhaka-17 have successfully completed the work of preparation of Master Plan (Land Use Survey and Socio-economic Survey) of Zakiganj Upazila Shahar under Sylhet District, in consultation with us.

We sincerely comment that we provided all out cooperation to the consultant. We are hereby giving our consent for the plan as prepared by M/S, Amin Engineering Consultants for Zakiganj Upazila.

04/04/88

উপ-জেলা নির্বাহী কর্মকর্তা
জকিগঞ্জ, সিলেট।

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CHAPTER - I
INTRODUCTION

CHAPTER - 1

1. INTRODUCTION.

Overall administrative re-organisation is one of the important policies of the present Government in which upazila centre is the focal point of all upazila level administrative activities. It will plan and develop all social, economic, administrative and infrastructural services which is needed for upazila region. It will ensure better delivery of facilities and Government services to the door step of the rural masses.

In the light of the above circumstances, it is felt that the upazila centre should grow expeditiously and the preparation of land use plan for such centre is of utmost importance for better utilization of region's land, people and natural resources.

Physical plan for the upazila shahar to ensure orderly development in the period to 2000 A.D. which will eventually include plans for the remainder of the upazila.

This is the final report (Report-4) for the final land use plan of Zarkigonj upazila shahar. This report includes approach, concept, planning, principles and description of the final plan with other requirements as mentioned in ANNEX-3 of terms of reference (TOR).

CHAPTER - II
THE UPA ZILA IN ITS
DISTRICT CONTEXT

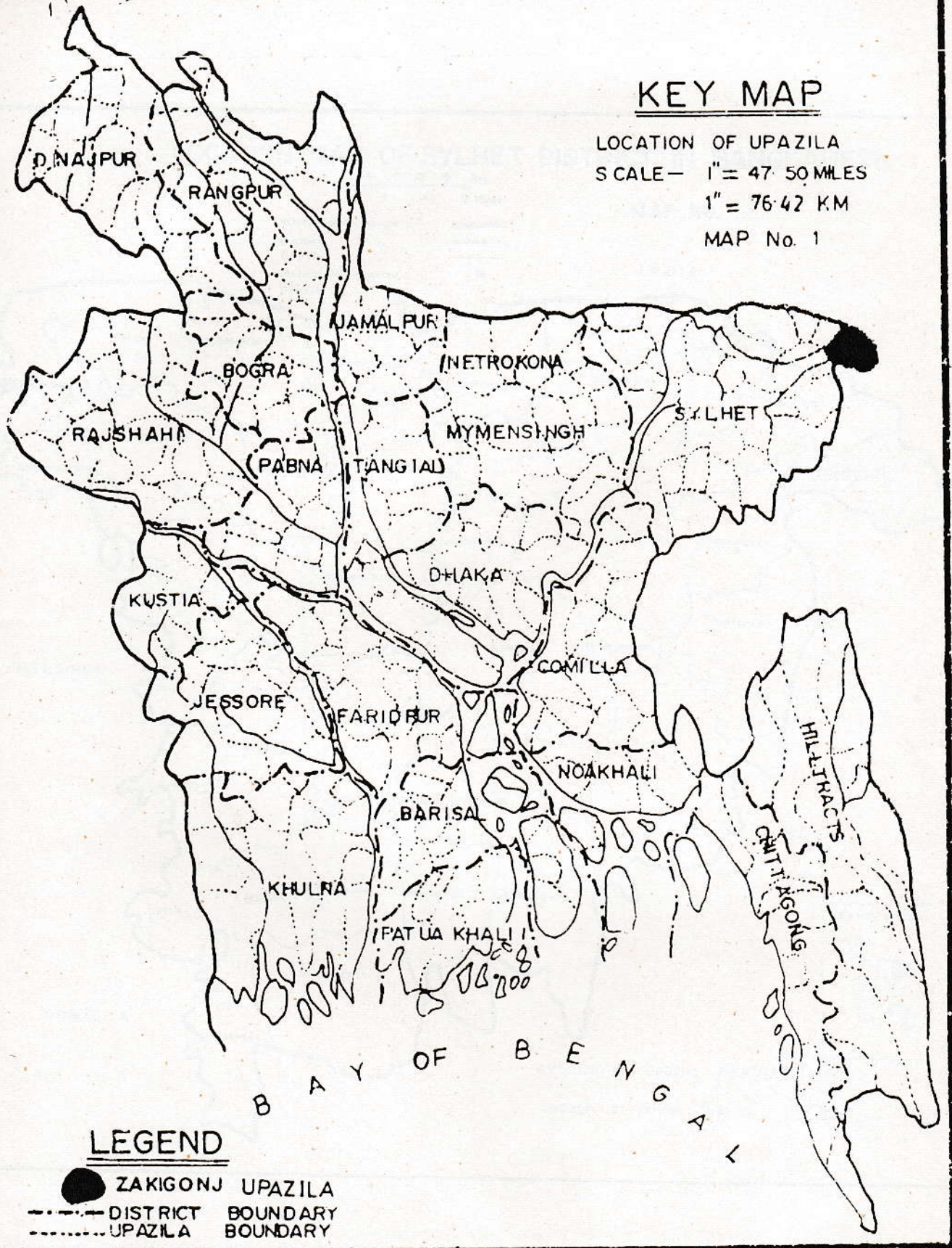
KEY MAP

LOCATION OF UPAZILA

SCALE - 1" = 47.50 MILES

1" = 76.42 KM

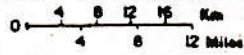
MAP No. 1



LEGEND

- ZAKIGONJ UPAZILA
- - - DISTRICT BOUNDARY
- UPAZILA BOUNDARY

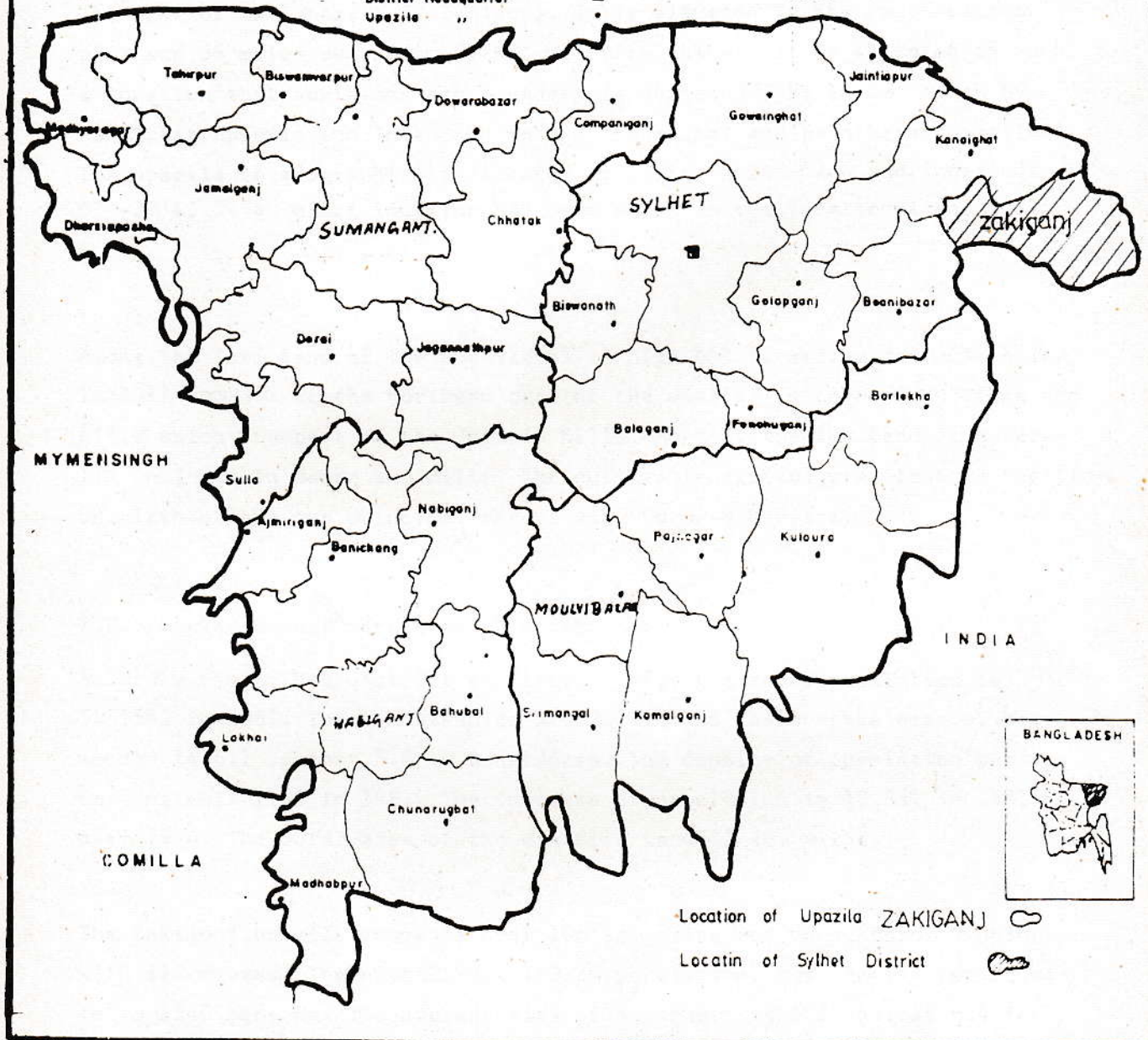
LOCATION MAP OF SYLHET DISTRICT IN BANGLADESH



MAP NO. ...2....

- International Boundary
- District "
- Upazila "
- District Headquarter
- Upazila "

INDIA



Location of Upazila ZAKIGANJ

Location of Sylhet District

CHAPTER - 2

2. THE UPAZILA IN ITS DISTRICT CONTEXT.

2.1. Location and physical characteristics of the upazila

The name of the upazila is Zakigonj. It is situated in the south-eastern part and 56 miles away from Sylhet district shahar. It is situated in such a location that south-eastern boundary is surrounded by India, North by Kanaighat upazila and India and west by Kanaighat and Beanibazar upazila. The upazila is geographically located at latitude 24°-52'N and longitude 92°-22'E. It's exact location has been shown in the locational map No.1 & 2.

Among the farm land of the upazila, 5% is high, 65% is medium and 30% is low land. 1) A portion of the northern part of the upazila is covered by Tilas and hills which are part of the Jaintia Hills. Most of the low land is generally included in Haors and Bills. The cultivable agricultural land is the flood plain of the two principal rivers viz, Surma & Kusiara.

2.2. Population and settlement Distribution.

According to Sylhet district statistics 1983, the total population is 5655543 in 1981. Total households are 932710 and the average size of household is 6.1 against 5.8 in Bangladesh. The density of population per square mile is 1182 in 1981. The increase of population is 18.83% in 1981 over 1974. The total area of the district is 4783 sq. miles.

The Zakigonj upazila commands over 106 sq. miles and consists of 9 unions with 117 mouzas. The upazila has 163224 population, the density per sq. mile is 1540 persons. The average size of household is 6.1 against 6.4 for Sylhet district. Variation of population of Zakigonj upazila is 19.23% in 1981 over 1974.

(1) Source - Sylhet District statistics - 1983.

Reliable data is not available in respect of migration. Although 1974 Bangladesh population census provides some information regarding life time net migration in the district. For Sylhet district life time net in migrants number is 58492 in 1951, 96813 in 1961 and 130675 in 1974 from the districts. Migration statistics for Zakigonj upazila has been obtained through socio-economic sample survey. Out of the total 103 sample families there are 5 families who have migrated to Zakigonj upazila shahar from different places. The percentage of migration rate is 4.85% of the total families.

2.3. Economic performance and Transport Linkages.

The main occupation of the people of the zila is cultivation. According to the 1977 agricultural census 16.91 lac areas of land i.e. about 35% of the total area of the district were under the operational control of farm holding against 62% in the whole country. About 30.68 lacs people covering about 56% of the total population of the district are farm population which is also the national average. 91% of the gross cropped area of the district is under rice against 79% for the whole country. The production of wheat in the district is almost insignificant. The district occupies the foremost position in the production of tea. A large number of persons are employed in tea production. Moreover, the district produced about 49% pineapples in the country in 1981-82.

The district out-standingly contributes in the field of production and reservation of gas products. The contribution of the industrial sector to gross district income is about 7% against 10% for Bangladesh. The total number of small scale and cottage industrial units of the district are 36,234 about 11% of the national total and employ about 9.17 lacs people. Number of handloom establishment in the district is 3005 about 2% of the national total and employ about 3688 persons. There are 1284 physicians in the district of which 310 are modern doctors.

The main transportation means in the district are auto-rickshaws and cycle rickshaws. Trucks, buses and railway transport ply regularly to carry goods and passengers. The district possesses 6% metalled roads, 4% non-metalled roads and 4% earthened roads of their respective national total. There is an air field at Sylhet. Bangladesh Biman operates internal air services regularly to Sylhet. The country boats also play a significant role in the field of transportation and communication in the district. According to Sylhet district statistics of 1983, the total area of Zakigonj upazila is 106 sq. miles out of which 103 sq. miles are land area. The main crops of the upazila are rice, tobacco, pineapple, potato etc. In 1981-82 season the rice production of the upazila accounted as 3.19 lacs maunds.

Sylhet is very much rich in respect of some specified cottage industries. Upazila Zakigonj is also endowed with this facility. A large segment of people are engaged in cottage industries. In 1982 there employed 1418 persons in 522 units. In 1981 total 160 persons were employed in cane and bamboo industry. And in 1978 total 105 persons were employed in handloom industry. In the upazila there are 18 miles of pucca road, 16 miles semi-pucca road and 365 kutchra road to provide transport facility to the people. According to Sylhet district statistics-1983 there are 10 steamer/launch stations and 7 bus stations are in the upazila. Transport linkage within the upazila has been shown in the map No.3

2.4. Social infrastructure.

Markets.

In every upazila shahar there is an established market and in this upazila shahar there is a big market. According to 1983 statistics there are 133 daily bazars 566 weekly hats in Sylhet district. The same in case of Zakigonj upazila has 3 Nos. of daily bazars and 24 weekly or bi-weekly hats.

Commerce.

As per 1983 statistics there are 351 bank branches in Sylhet district and only these 4 branches are within Zakigonj upazila.

Education.

According to population census, 1981 the general literacy rate of the district is 20% against 24% for Bangladesh. Presently there are 3402 primary schools, 350 high schools and 20 colleges, 280 madrasas, 360 Gono shikkhya kendra and one medical college in the district.

In Zakigonj upazila there are 29495 literate persons and the literacy rate is 21.7%. There is one college, 105 primary schools, 6 high schools, 2 junior high schools and 4 madrasas in the upazila.

Health.

In Sylhet district there are 32 thana health centres, 69 charitable dispensaries, 6 missionary hospitals and other health centres. In the upazila Zakigonj there is one health complex and two charitable dispensaries providing medical services to the people.

Other urban services.

In Sylhet district there are 460 post offices, 40 telegraph offices, 52 dack-bunglows and rest houses. The same for Zakigonj upazila there are 16 post offices, 1 telegraph office and 1 dack-bungalow.

Utilities.

In Sylhet district shahar water supply facility provided to the shahar area. In Sylhet district there are 31951 tube wells and of these number 937 are in Zakigonj upazila that provides drinking water to the people. In Sylhet district 729 villages are electrified including 3 villages in Zakigonj upazila.

2.5. Current Development Projects.

The following development projects are programmed by the Zakigonj Upazila Parishad.

Financial year 1985-86, Zakigonj Upazila Parishad.

Name of scheme	Estimated cost in Tk.	No. of projects
1. Agriculture & irrigation	6,08,250	16
2. Small & cottage industry	2,02,750	1
3. Transport & communication	12,16,500	15
4. Housing	5,11,000	13
5. Dev. of Education	3,04,125	6
6. Health & social welfare	3,04,125	8
7. Rural works programme	3,04,125	31

Source :- Zakigonj Upazila Parishad, Zakigonj, Sylhet.

2.6. Synthesis : Identification of heirarchy of settlements in the upazila.

Heirarchy of settlements depend on many variables. An attempt has been made to determine the heirarchy of settlements within the upazila as a whole based on population, economic activity, social infrastucture provision, transport links and other related characteristics. Mouza has been considered as unit or centre to determine the heirarchy of settlements grades. Grading of settlements on the basis of population and services are shown in the tables below :

T A B L E - 1

Population.

Population range	Nos of settlements	Distribution of grade
1	2	3
Up to 500	26	1
501 to 1000	22	2
1001 to 1500	25	3
1501 to 2000	8	4
2001 to 2500	3	5
2501 to 3000	4	6
3001 to 3500	3	7
3501 to 4000	3	8
4001 to 4500	2	9
4501 to 5000 and above	6	10

Services.

Sl.No.	Category of services	Distribution of grade
1.	Primary school	1
2.	Tube well	1
3.	Mosque/Mondir	1
4.	Hat	1
5.	High school	2
6.	Bazar	1
7.	College	3
8.	Hospital	1
9.	Health centre	4
10.	Post office	1
11.	Telegrame office	2
12.	Police fari	1
13.	Electricity	2
14.	Bank	3
15.	B.A.D.C.	1
16.	Upazila complex	3
17.	Railway station	3
18.	Bus station	2

On the basis of above findings the mouzas are classified in to A,B & C categories may be seen from the table below.

T A B L E - 2

Category	Nos.of mouza	Name of mouza
1st Category "A"	1	1. Alam Nagar
2nd Category "B"	4	1. Gangadatta 2. Gangajal 3. Charigram 4. Khaladapania
3rd Category "C"	10	1. Khilgram 2. Nidanpur 3. Bepak 4. Khalishara 5. Mudhudata 6. Maijkandi 7. Syeddabad 8. Mizband 9. Uttarkhul 10. Kash Kandapur

One mouza namely Alam Nagar is in the "A" category, 4 in "B" category, 10 in "C" category and the rest 94 mouzas are 4th category. The categories of A, B & C have been shown in the map No. 3.

T A B L E - 2 A

DETAIL STATISTICS OF PLANNING AREA WITH POPULATION OF ZAKIGANJ UPAZILA SHAHAR.

Sl. No.	J.L. No.	Name of mouza	Total area		Involved area		Population(Total)			Population(Inv.)		
			acre	hectare	Acres	hectare	1961	1974	1981	1961	1974	1981
1.	72	Alam Nagar(P)	526.00	212.95	205.00	82.99	248	506	3247	97	198	1267
2.	74	Biler band(P)	191.00	77.32	100.00	40.48	290	882	1814	152	468	962
3.	75	Maij Kandi(P)	262.00	106.47	45.00	18.22	759	986	2249	130	178	405
4.	73	Madhudatta(P)	411.00	166.39	220.00	89.00	642	1252	1492	344	664	791
5.	71	Sakar pur (P)	230.00	93.11	70.00	28.34	142	194	258	44	61	80
Total			1621	656.24	641.36	259.09	2081	3820	9060	767	1569	3505

Total Involved Area - 1.00 sq. miles (App.)

T A B L E - 2B

Detail statistics of catchment area of Zakigonj upazilla shahar.

Sl. No.	J.L. No.	Name of mouza	Total area		Involved area		Population (Total)		Population (Involved)			
			Acre	Hectare	Acre	Hectare	1961	1974	1981	1961	1974	1981
1.	81	Sadarpur	1967	796.35	1967	796.35	478	539	1955	478	539	1955
2.	69	Gangadatta (P)	1901	769.63	1859.22	752.72	401	670	3733	392	650	3621
3.	71	Sakarpur (p)	230	93.11	160	64.77	142	194	258	98	133	178
4.	70	Khalichara	417	168.82	417	168.82	-	1568	2895	-	1568	2895
5.	41	Khalachara	196.47	79.54	196.47	79.54	-	850	894	-	850	894
6.	77	Shaisakuri	231.40	93.68	231.40	93.68	-	281	309	-	281	309
7.	40	Beur	512.80	207.61	512.80	207.61	913	915	2331	913	915	2331
8.	80	Husnabad	221	89.47	221	89.47	481	552	633	481	552	633
9.	43	Shandersrikuna	1021.80	413.68	1021.80	413.68	320	630	812	320	630	812
10.	42	Chandsrikuna	1285.81	520.57	1285.81	520.57	1428	-	3970	1428	-	3970
11.	110	Elabaj	420.58	170.27	420.58	170.27	817	1107	2462	817	1107	2462
12.	111	Majban	339	137.24	339	137.24	127	181	1078	127	181	1078
13.	82	Gajkapan	291	117.81	291	117.81	-	236	503	-	236	503
14.	109	Gangajal	1099	444.93	1099	444.93	499	764	4943	499	764	4943
15.	108	Ichhapur	2013	814.97	2013	814.97	347	340	1711	347	340	1711
16.	113	Ganipur	411	166.39	411	166.39	647	1148	1438	647	1148	1438
17.	114	Anandapur	499	202.02	499	202.02	176	208	730	176	208	730
18.	107	Dariapur	737	298.38	737	298.38	502	667	846	502	667	846
19.	106	Baragati	178	72.06	178	72.06	660	225	1451	660	225	1451
20.	115	Uttar bhag	1345	544.43	1345	544.53	642	788	3687	642	788	3687
21.	117	Mirzapur	320	129.55	320	129.55	--	--	1899	--	--	1899
22.	116	Amalsid	691	279.75	691	279.75	--	1699	1468	--	1699	1468
23.	104	Uttarkul	1578	638.86	1578	638.86	466	607	3648	466	607	3648
24.	68	Manikpur pasehim	139.92	56.64	139.92	56.64	255	1582	1412	255	1582	1412

T A B L E - 2 B

Sl. No.	J.L. No.	Name of mouza	Total area		Involved area		Population (Total)			Population (Involved)		
			Acre	Hectare	Acre	Hectare	1961	1974	1981	1961	1974	1981
25.	67	Mansurpur (E)	572.36	231.72	572.36	231.72	---	---	1215	---	---	1215
26.	66	Eolasar	163	65.99	163	65.99	---	578	1409	---	578	1409
27.	36	Godadhar	548	221.86	435	221.86	435	621	1048	435	621	1048
28.	34	Liakatpur	151	61.13	151	61.13	--	427	578	--	427	578
29.	35	Badapur	167	67.61	167	67.61	104	158	758	104	158	758
30.	44	Keshorekona	963	389.87	963	389.87	---	---	---	---	---	---
31.	79	Tejam pur	330	133.60	330	133.60	653	848	1085	653	848	1085
32.	45	Joraaitala	279	120.24	297	120.24	---	250	---	---	250	---
33.	46	Nilambarpur	734	297.16	734	297.16	1182	1231	1489	1182	1231	1489
34.	61	Kajalsar	161	65.18	161	65.18	476	670	730	476	670	730
35.	60	Palashpur	220	89.06	220	89.06	305	361	496	305	361	496
36.	62	Fultala	469	189.87	469	189.87	931	1336	1583	931	1336	1583
37.	65	Sirajpur	128	51.82	128	51.82	165	305	315	165	305	315
38.	64	Ekapurba	213	87.23	213	87.23	305	334	389	305	334	389
39.	63	Jeapur	418	169.23	418	169.23	708	837	1061	708	837	1061
40.	85	Oasar	164	66.39	164	66.39	---	396	496	---	396	496
41.	87	Mohammedpur	166	67.20	166	67.20	314	443	---	---	314	443
42.	86	Nurpur	133	53.84	133	53.84	161	732	-	161	732	-
43.	88	Purba Manikpur	315	127.53	315	127.53	---	---	---	---	---	---
44.	97	Shahajalpur	131	53.03	131	53.03	1038	1389	1716	1038	1389	1716
45.	98	Kashari	449	181.78	449	181.78	622	732	831	622	732	831
46.	84	Konagram	278	112.55	278	112.55	366	333	399	366	333	399
47.	96	Kaisthkan	258	104.45	258	104.45	648	857	1388	648	857	1388
48.	101	Biabail	563	227.93	563	227.93	377	620	712	377	620	712

T A B L E - 2 B

Sl. No.	J.L. No.	Name of mouza	Total area		Involved area		Population (Total)			Population (Involved)		
			Acre	Hectare	Acre	Hectare	1961	1974	1981	1961	1974	1981
49.	73	Madhudatta	411	166.39	191.00 244.61	77.44 99.03	642	1252	1492	298	588	701
50.	74	Bilerband (P)	191	77.32	91.24	36.84	290	1882	1814	138	414	852
51.	72	Alam Nagar (P)	526	212.95	321	129.95	248	506	3247	151	308	1980
52.	102	Kashkanakpur	358	144.93	358	144.93	260	332	412	260	332	412
53.	103	Biabail	563	227.93	563	227.93	---	---	5802	---	---	5802
54.	80	Hosnabad	476	192.71	476	192.71	1036	1190	1363	1036	1190	1363
55.	75	Naijkandi (P)	263.00	106.47	218	88.25	759	986	2249	629	808	1844
		Total	28825.14	11670.09	28083.97	11370.02	21012	34228	79586	22197	33639	75969

CHAPTER - III

THE UPAZILA HEAD QUARTERS

C H A P T E R - 3

3. THE UPAZILA HEADQUARTERS.

3.1. Definition of sphere of influence/attractiveness.

An attempt is made to identify the upazila shahars socio-economic sphere of influence or catchment area through personal interviews in the bazar, shops, upazila office etc. The opinion of the U N O, upazila education officer, statistical officer, upazila Engineer and other important knowledgeable persons have been considered with particular emphasis in the process of the work. Two spheres of influence viz, primary and secondary have been identified of the present shahar area. The primary influence spread over approximately 41.53 sq. miles excluding the proposed shahar area. The constituent unions of the catchment area are Khalachara, Manikpur(P), Zakigonj, Sultanpur, Barathankuni, Kaskanakpur & Kazalsha(P), People of this union generally come to the shahar to perform a wide variety of functions of their day to day life. The secondary influence spread over the longer distances and even exceeds the upazila boundary. People from Beanibazar upazila, Golabgonj upazila, Kanaighat upazila, Sylhet district shahar etc. area occasionally visit Zakigonj upazila shahar mainly for business purpose. We have determined the catchment area considering the primary sphere of influence. This may be seen from the map No. 4. The details of involved mouzas furnished in table No. 2 B.

3.2. Definition of shahar area.

At present in the shahar area there exist the thana office, upazila complex, health complex and college. There is a daily bazar facilitated with banks, hotels, dispensaries etc. Other facilities like post office, duck-bungalow and schools are also present. The present headquarters area are divided into two parts one adjacent to the present bazar and the other part is growing due to establishment of the upazila complex. In between bazar and upazila complex there are gardens, trees and home steads. As the shahar is situated adjacent to the boarder so the area is not densely populated. There are two slow trends of development - one along the road that runs to Sylhet district and the other taking place due to the establishment of upazila complex.

3.3.1. Agriculture.

Out of the total land the share of agriculture is 2278.32 acres or 77.62 percent which is the highest percentage. The second highest percentage is 426 acres of residential land which covers 18.70 percent of the land. The remaining percentage covers by commercial, educational, socio-cultural, urban services, roads etc. land uses.

3.3.2. Commerce and industry.

Among the total land there are commercial uses in the study area. The commercial land uses comprise with bazar, shops and banks. The commercial land use has been presented below :

T A B L E - 4

Distribution of land in commercial use.

Sl. Land use No.	Total area in acres	% of the total area in com.	% of the total study area.
1. Commerce	-	-	0.38
a) Daily bazar	3.50	40.00	0.15
b) Shops	3.15	36.00	0.13
c) Banks	2.10	24.00	0.09
Total	8.75	100.00	0.38

Source : Land use survey - 1986 (AMIN ENGINEERING CONSULTANTS)

The total commercial land is 8.75 acres which accounts only 0.38 percent of the total land. The commercial uses centralised in Alam Nagar mouza with bazar 3.50 acres or 0.15 percent, shops 3.15 acres or 0.13 percent and banks 2.10 acres or 0.09 percent of the total project area.

3.3.3. Educational land uses.

The distribution of land uses in different category of educational institutions have been illustrated in the following table :

T A B L E - 5

Educational land uses.

Land uses	Area in acres	% of the total educational land	Degree of angles in pie-chart
Primary school	1.15	14.83	53.38
High school	2.50	32.25	115.20
College	2.40	30.96	108.00
Madrasha	1.70	21.93	75.60
Total	7.75	100.00	360.00

Source : Land use survey - 1986 (AMIN ENGINEERING CONSULTANTS.)

In the study area there are primary school, high school, Madrasha and college. All these institutions covers 7.75 acres or 0.34 percent of land of the total area. Primary school covers 14.83 percent, high school covers 32.25 percent. College covers 30.96 percent and madrasha covers 21.93 percent of land of the total educational land uses.

3.3.4. Health.

T A B L E - 6

Distribution of land in health facilities.

Land uses	Area in acres	% of the total area in health facilities
Hospital	2.00	66.67
Veternary service	1.00	33.33
Total	3.00	100.00

Source : Land use survey - 1986.

The upazila hospital covers, 2 acres of land commanding 66.67 percent of land used in health services, Veternary service is available there which covers 1 acre of land and the respective percentage is 33.33 percent of the total land under the mentioned services. The total land under the health facilities is inadequate which is only 0.09 percent of the total land uses in the project area.

3.3.5. Land uses in administration, Government departments and Autonomous Bodies.

In the table below the different category of land uses relating to administration, government department and autonomous bodies have been shown.

T A B L E - 7

Land uses in administration, government department and autonomous bodies.

Land uses	Area in acres	% of the total Govt. & etc. land	% of the total study area
Thana Headquarters	4.00	33.33	0.17
Upazila Headquarters	6.00	50.00	0.26
Food Godown	.50	4.17	----
Union parishad	.60	5.00	----
Sub-registry Office	0.90	7.50	----
Total	12.00	100.00	0.43

Source : Land use survey - 1986.

Land use under the above heading includes Thana Headquarters, Upazila Headquarters, Food Godown, Union Parishad and Sub-registry Office. The total land is 12 acres or 0.43 percent of the total land of study area. The upazila headquarters occupies 6 acres of land or 50 percent of the total land counted in the mentioned categories.

3.3.6. Land in Socio-cultural uses.

Here land use has been identified with the socio-cultural activities. This includes Mosque, Eid-gah and Graveyard. Table below represents the distribution of land of these uses :

Distribution of land in socio-cultural uses.

T A B L E - 8

Land use	Area in acres	% of the total area in socio-cultural land.
Mosque	1.85	49.33
Eidgah	1.00	26.67
Graveyard	.90	24.00
Total	3.75	100.00

Source : Land use survey - 1986.

From the table it appears that total land is 3.75 acres or 0.16 percent of the total study area land. Mosque occupied 1.85 acres with a percentage of 49.33 percent, Eidgah covers 1.00 acres or 27 percent and Graveyard covers only 0.90 acres of land.

3.3.7. Urban services.

TABLE - 9

Land use in Urban services.

Land use	Area in acres	% of the total land in study area.
Electric supply	0.50	3.00
Tank	15.70	94.18
Post office	0.47	2.82
Total	16.67	100.00

Source : Land use survey - 1986.

Among urban services our project area is enriched with the facility of Electricity supply, tank and post office. Total land used in these services is 16.67 acres or 1.28 percent of the whole land uses. Electricity supply covers 0.50 acres or 3 percent land, postal service covers 0.47 percent land and tank covers 94 percent of the total land uses in this category.

3.3.8. Lands under roads.

In the study area there are both katcha and pucca road available. The total land uses in roads are 42.67 acres which covers only 1.28% of the study area. The katcha roads are 25.42 acres and pucca roads are 17.25 acres.

3.3.9. Land under residential area.

Total residential land use has been distributed according to the different category of houses. Included in it are the pucca house, bamboo wall with thatched roof house and mud house. Category wise data has been shown in the table below :

T A B L E - 10

Residential land uses.

Category	Area in acres	% of the total residential area	% of the total study area
Pucca	8.77	2.05	.38
Puccawall C.I. roof	184.30	43.27	8.08
Bamboo wall with thatched roof	49.35	11.58	2.18
Bamboo wall with C.I. roof	175.60	41.24	7.72
Mud House	7.95	1.86	.34
Total	425.97	100.00	18.70

Source : Land use survey - 1986.

From the table it is seen that 8.77 acres or 1.71 percent of the total residential land belongs to pucca house. Pucca wall with C.I. roof house occupies 184.30 acres or 43.27 percent in total residential land and 8.08 percent in total study area land which is the highest percentage over all types of land uses in the residential land uses. The second highest percentage is 41.23 percent belongs to bamboo wall with C.I. roof house covering 175.60 acres of land. Total residential land is 425.97 acres which is only 18.69 percent of the study area land.

3.4. Physical opportunities and constraints.

The following are the opportunities for planned development of Zakigonj upazila shahar :-

- (a) Existing trend of development.
- (b) Plain land.
- (c) Buildable high land.
- (d) Buildable agricultural land.
- (e) The existing scattered and sparse settlement.

It is found that there are two fold trends of development, one along the road that runs to Sylhet district and the other along the road that connect the upazila complex, health complex and Zakigonj college.

The second trend of development is comparatively new and generated due to the establishment of upazila complex, health complex and college.

Surrounding area is characterised by fallow and high land which is very suitable for planned development. The former trend towards Sylhet district is comparatively slow due to the establishment of upazila complex on the western side which is identified as the new trend of development. In between these two trends of development there are sparse settlement and agricultural land. This areas also potential for planning purpose. It is no table that trough the middle area is mainly used for agricultural purpose but not high yielding cultivable land.

More-over this area is just adjacent the present growth area and there is no alternative to this area because the southern and western part are bounded by river which form the international boundary.

Therefore, the existing these two fold trends have been identified as potential areas for planned development incorporating the existing major uses.

Physical constraints :-

- (a) Meandering river - Danger zone
- (b) Territorial boundary by river
- (c) Groyne
- (d) Flood problem

Zakigonj upazila shahar is just situated on the bank of river Kushiara and part of mouza Kalachara J.L.No.70 grasped by the cruel river Kushiara. The southern part is bounded by the river and south bank of the river forms the part of Indian territory. The midstream of the river is the International boundary between Bangladesh and India. So the river and International boundaries stand as physical and legal barrier towards the southern trend of development. But the former trend was towards the south. More over the main past land uses have taken place within very adjacent to the bank of the river. Alam Nagar mouza J.L.No.72. which is the attached mouza with the river that contains the following institutions and land uses viz: Magistrate court, Munsef court, Ansar adjutant office, Water Development Board office, Govt. school, Girls school, Registry office, 3 No. Banks, Rest house, Checkpost, Police out post, Custom office, Post office, Madrasa, Market all these are situated in this Alam Nagar mouza No.72. There is a fear that all these institutions and market may toppled down by the cruel erosion of the meandering river Kshiara. More over, the Indian authority has constructed a groyne near opposite to the Market which causes serious hit to the Bangladesh territory of existing 72 No. Alam Nagar mouzas by changing stream which is a main constraint to the aforesaid area. There-fore this area has been identified in the plan as Danger zone; special measure must be taken to protect this area. An other problem is the spate of river Kushiara. Flood protection embankment is to be made to solve this problem.

CHAPTER - IV
FORECASTS

C H A P T E R - 4

4. FORECASTS.

4.1. Population, Household structure, Density.

Within sphere of influence.

Forecast of population is made based on past trend taking into consideration the induced attraction effect of the Govt. upgrading commitment. It includes high, medium and low projection over the years 1985, 1990 and 2000 A.D. in the table below forecasted population of catchment area of Zakigonj upazila shahar has been shown.

T A B L E - 11

Forecasted population of Zakigonj (catchment area) upazila shahar.

1961	1974	1981	1985	1990	1995	2000	Growth (1) rate	Level of projection
22197	33639	75969	108065	167910	260848	405228	9.21%	High
22197	33639	75969	90594	112896	140688	175322	4.5%	Medium
22197	33639	75969	84183	95710	108816	123717	3.26%	Low

Forecasted population stands as 90594 in 1985, 112896 in 1990, 140688 in 1995 and 175322 in 2000 A.D. as per medium growth rate.

(1) Assumed comprising the growth rate 3.26% of 1961-74 and growth rate 9.21% of 1974-81.

With in shahar area.

Forecasted population for Zakiganj upazila shahar area has been shown in the Table No.12.

T A B L E - 12

Projected population of Zakiganj (study area) upazila shahar.

1961	1974	1981	1985	1990	1995	2000	Growth rate l	Level of projection
2285	4547	11894	20576	40740	80665	159716	14.71%	High
2285	4547	11894	14986	19931	26508	35255	6%	Medium
2285	4547	11894	14629	19017	24723	32139	5.43%	Low

The table shows that the population stands as 14986 in 1985, 19931 in 1990 26508 in 1995 and 35255 in 2000 A.D.as per medium growth rate.

T A B L E No.13

Projected population of Zakiganj upazila shahar (Planned area)

1961	1974	1981	1985	1990	1995	2000	Growth rate	Level of projectio
767	1569	3505	5534	9795	17337	30686	12.10	High
767	1569	3505	4423	5917	7916	10591	6.00	Medium
767	1569	3505	4384	5800	7673	10151	5.76	Low

Note :- For Table -12 Assumed comprising the growth rate 5.43% of 1961-74 and growth rate 14.71% of 1974-81.

For Table - 13 Computed from the growth rate 5.76% of 1961-74 and growth rate 12.1% of 1974-81.

Household structure and density in catchment area :

Forecasted population, Household structure and density of catchment area of shahar area have been shown in the table below :

T A B L E - 14

Household structure and density of catchment area of Zakigonj Upazila Shahar (According to medium forecast)

Years	Population	Nos. of household (1)	Density per Sq. mile
1985	82982	13603	1998
1990	100408	16460	2417
1995	121493	19916	2925
2000 A.D.	147007	24099	3539

To find out total household 6.1 persons per household has been taken as calculated for Zakigonj upazila in Sylhet District Statistics - 1983. The table reveals that the No. of household and density per square mile increase of population over time.

(1.) Taking 6.1 persons per household for Zakigonj upazila in 1981.

(Source : Sylhet District Statistics - 1983.)

Household structure and density in shahar area :

The table no.11. shows the household structure and density of population per square mile for Zakigonj upazila shahar.

T A B L E - 15

Household structure and density of Zakigonj upazila shahar.
(According to medium forecast)

Years	Population	No. of household(2)	Density per square mile
1985	15585	2143	4390
1990	20728	2851	5838
1995	27568	3792	7765
2000 A.D.	36665	5043	10328

To find out total household 7.27 persons per household has been taken as found in socio-economic survey. From the table it follows that the density of population is more in the shahar area than the catchment area.

- (2) Taking 7.27 persons per household for Zakigonj upazila shahar as reveals in socio-economic survey - 1986 by Amin Engineering Consultant.

MIGRATION

To find out total population 0.12% migration rate has been considered for catchment area as found in socio-economic survey. For shahar area 4% population increase is assumed as induced effect for Government upgrading programme. The respective figures can be seen for both catchment area and shahar area from the table No. 16 & 17.

T A B L E - 16

Migration catchment area of Zakigonj upazila shahar.
(According to medium forecast)

1985	1990	1995	2000 A.D.	Migration rate 0.12 (1)
79791	96547	116821	141353	
3191	3861	4672	5654	
82982	100408	121493	147007	Total

T A B L E - 17

Migration Zakigonj upazila shahar area (According to medium forecast)

1985	1990	1995	2000 A.D.	Migration rate 4.12 (2) (Adding 4% induced effect)
14986	19931	26508	35255	
599	797	1060	1410	
15585	20728	27568	36665	Total

(1.) 0.12 migration rate as found from survey report - 1986 by
AMIN ENGINEERING CONSULTANTS.

(2.) 0.12 migration rate as found from survey report and assumed 4% induced effect.

T A B L E No. 18

Migration of Zakiganj upazila shahar (Planned area).
(According to medium forecast)

1985	1990	1995	2000A.D.	Migration rate 4.12 (Adding 4% induced effect)
4423	5917	7916	10591	
182	243	326	436	
4605	6160	8242	11027	T O T A L .

Note:- Migration rate 0.12 is taken from Socio-economic survey- 1986 by AMIN ENGINEERING CONSULTANTS and 4% is assumed as induced attraction effect.

4.2. Labour force and employment.

Labour force and employment projection for catchment area of Zakiganj upazila shahar has been shown in the Table below :

T A B L E No.19

Projected labour force and employment of catchment area of Zakiganj upazila shahar.

SL. No.	As per medium projected population in the years.				
	Years	1985	1990	1995	2000 A.D.
1.	Total population	82982	100408	121493	147007
2.	Student & dependent 50% of the total.	41491	50204	60746	73503
3.	Total male labour 50% of the above- 2.	20745	25102	30373	36751
4.	Total female labour 2.93% of the above-3.	622	753	911	1102
5.	T O T A L	21367	25855	31284	37853

The same stands as 21367 in 1985, 25855 in 1990, 31284 in 1995 and 37853 in 2000 A.D.

The same projection for Zakigonj upazila shahr area has been shown in table No. 20.

T A B L E - 20.

Projected labour force and employment of Zakigonj upazila shahar area.

Sl. No.	As per medium projected population in the years.				
	Years	1985	1990	1995	2000 A.D.
1.	Total population	15585	20728	27560	36665
2.	Student & dependent 50% of total	7792	10364	13780	18332
3.	Total male labour 50% of the above - 2.	3896	5182	6890	9166
4.	Total female labour 2.93% of the above -3.	116	155	206	274
5.	Total labour force	4012	5337	7096	9440

The respective figures stands as 4012 in 1985, 5337 in 1990, 7096 in 1995 and 9440 in 2000 A.D.

DESIGN POPULATION.

The total design population for which the services and facilities have been proposed is illustrated below :

T A B L E - 21

Design population of Zakigonj upazila shahar.

Years/area	1985	1990	1995	2000 A.D.
Upazila Shahar	15585	20728	27560	36665
Catchment area	82982	100408	121493	147007
Total	98567	121136	149053	183672
1/5 of C/A. population 1	16596	20081	24298	29401
Total (H.Q.+1/5 of C/A. population)	32181	40809	51858	66066

The table shows that the total population stands as 32181 in 1985, 40809 in 1990, 51858 in 1995 and 66066 in 2000 A.D.

1 The reasons have been furnished in chapter 4.3 of land requirements, provision standards.

T A B L E - 22

Provision standard and land requirement over the years according to (TOR) for Zakigonj upazila shahar.

Services	Provision standard Population in thousand	Unit requirements				Land requirements/acres			
		1985	1990	1995	2000 A.D.	1985	1990	1995	2000 A.D.
Market/industry	1 Pop. 1.5 acres	98	121	149	183	147	181.5	223.5	274.5
Primary school	5 Pop. 2 acres	19	24	29	36	38	48	58	72
High school	20 Pop. 5 acres	4	6	7	9	20	30	35	45
College	Do	4	6	7	9	20	30	35	45
Dispensary	5 Pop. 1 acre	19	24	29	36	19	24	29	36
Maternity centre	Do	19	24	29	36	19	24	29	36
Hospital	20 Pop. 5 acres	4	6	7	9	20	30	35	45
Upazila centre	12 acres								
Park/open space	1 Pop. 1 acre	98	121	149	183	12	12	12	12
Cinema hall	20 Pop. 0.5 acres	4	6	7	9	98	121	149	183
Stadium	20 Pop. 3 acres	4	6	7	9	2	3	3.5	4.5
Community centre	20 Pop. 1 acre	4	6	7	9	12	18	21	27
Religious facilities	20 Pop. 0.5. acres	19	24	29	36	4	6	7	9
Cemetery	20 Pop. 5 acres	4	6	7	9	9.5	12	14.5	18
Post office	20 Pop. 0.5 acres	4	6	7	9	20	30	35	45
Telephone exchange	20 Pop. 0.5. acres	4	6	7	9	2	3	3.5	4.5
Police station	20 Pop. 2 acres	4	6	7	9	2	3	3.5	4.5
Bus station	20 Pop, 1 acre	4	6	7	9	8	12	14	18
Residential	100 person per acre	4	6	7	9	4	6	7	9
Total						155	207	275	366
						611.5	800.5	989.5	1254

4.3 Land requirements and provision standard.

The table No. 19 shows the provision standard and land requirements according to the guide lines given in Annex - 2 of terms of reference (TOR). As per this guide lines the land requirements stand as 611.5 acres in 1985, 800.5 acres in 1990, 989.5 acres in 1995 and 1254 acres in 2000 A.D. Here some variations are made for the following reasons. As per guide lines services are to be provided for the population of shahar area and its catchment area. But there are some services and facilities for which people of catchment area will not come to the shahar area, for example, Mosque, grave yard and primary school. In the like manner for some other services and facilities people will not regularly come to the shahar area. For example, weekly hut, daily bazar and even for high school level education. Because there are some weekly huts, daily bazars, primary schools, high schools are already existed in the catchment area. So for such cases we have considered 1/5 of the population of catchment area to provide facilities in the shahar area. In some other cases the whole upazila is considered. For example, hospital, maternity centre, stadium, telephone exchange, thana, bus station, college, upazila complex etc. The details of proposed land uses have been included in Table No. 23.

Here it is worth mentioning that we do not fully followed the guide lines given in Annex - 2 of (TOR) considering peculiar feature, practical situation and assuming future requirement. This is done on the basis of verbal instructions given by Urban Development Directorate.

TABLE No.23

Proposed land uses for Zakiganj upazila shahar area.

Services	Standards as per TOR	Provision as per TOR in 2000 A.D.	Existing	Additional Proposed/ Acres	Total Proposed
Market/ Industry	1 Pop.1.5 acres	274.5	Com.A-8.75 Ind.B-0.00	6 25	14.75 25.00
Primary school	5 Pop.2 acres	72	0.5 DZ	(6.00)	6.50
High school	20 Pop.5 acres	45	1.87DZ	(9.00)	10.87
College	Do	45	2.50	(7.50)	10.00
Dispensary	5 Pop.1 acre	36	-----	-----	-----
Maternity Centre	Do	36	-----	-----	-----
Hospital	20 Pop.5 acres	45	2.00	8.00	10.00
Upazila Centre	12 acres	12	6.00	6.00	12.00
Park/Open space C.P.	1 Pop. 1 acre	183	0.00	(7.00)	7.00
Cinema Hall	20 Pop.0.5acre	4.5	0.00	(0.5)	0.5
Stadium	20 Pop.3 acres	27	0.00	4.00	4.00
Community centre	20 Pop.1 acre	9	0.00	0.50	0.50
Religious facilities	20 Pop.0.5acre	18	3.90	---	3.90
Cemetary	20 Pop.0.5acre	45	0.50	2.00	2.50
Post office	20 Pop.0.5acre	4.5	0.47Dz	0.5	0.5
Telephone Exchange	20 Pop.0.5acre	4.5	0.00	0.5	0.5
Police station	20 Pop.2 acres	18	4.00Dz	---	3.00
Bus station	20 Pop.1 acre	9	0.00	2.00	2.00
Residential	100 person per acre	366.65	179.89	178.00	357.89
Auditorium	20T.Pop.1acre	1.5	-----	0.5	0.5
Library	20T.Pop.0.5acre	1.00	-----	0.5	0.5
Eidgah +Central Mosque	5T.Pop.0.5acre	3.5	-----	3.00	3.00
Madrasa	20T.Pop.5acres	45.75	2.60	3.00	5.60
Waste dumping	20T.Pop.1acre	1.50	-----	1.00	1.00
Housing Estate			-----	25.00	25.00
Water supply station	20T.Pop.1acre	1.50	-----	1.00	1.00

Table - 23 (contd.)

Services	Standards as per T O R	Provision as per T O R	Existing acres	Additional Proposed	Total Proposed
Jail Khana	20 T.Pop.lAcre	9.15	-	2.00	2.00
Launch ghat	20 T.Pop.lacre	45.75	0.00	0.00	5.00
Reserves		5%of P.A.32.00	5.00	-	5.00
Roads	10% of P.A.	64.00	21.48	32.5	53.98
Urban Deferred	10% of P.A.	64.00	-	-	64.00
	T O T A L	1533.45/ 2.40 Sq.miles		TOTAL	641.36
Danger Zone					147.00

NOTE :

T = Thousand

Pop = Population

D.Z. = Danger zone

P.A. = Planning area

According to this estimates the total land requirement stands as 641.80 acres or 1.00 sq. miles approximately.

Here another feature is very important to note that as per (TOR) the existing land uses should be included in the planned and proposed land uses. But we have to exclude the main existing built up area which comprises the existing bazar, police station, post office, high school, girls school and Dak-bunglow. Because there is a fear that this area may be broken down by the river. As the river erosion is a main constraints of this area. How ever we have included these land uses in the plan as extra land use area without proposing any new land use in this area. But alternative provision for all these land uses have been made in the planned area. The total danger zone is calculated as 147 acres.

TABLE NO - 24

Proposed land uses for zakigonj upazila shahar

SL NO.	Services	Existing	Additional proposed	Total proposed	Percentage	Remarks
1.	Agriculture + Forestry	433.00	----	----	-----	
2.	Commerce - A	8.75	6	14.75	2.30	Including danger zone use
	Industry - B	---	25.00	25.00	3.90	
3.	Education					
	Primary school	0.50	6.00	6.5	1.01	Including danger zone use
	High school	1.87	9.00	10.87	1.68	Do
	College	2.50	7.5	10.00	1.56	
	Madrassa	2.6	3.00	5.60	0.87	Including danger zone use
4.	Health	2.00	8.00	10.00	1.56	
5.	Administration	6.00	6.00	12.00	1.87	
6.	Recreation (open)	---	11.00	11.00	1.72	
	Recreation (closed)	---	0.50	0.50	0.08	Including danger zone use
7.	Socio - cultural	4.4	6.00	10.40	1.62	Do
8.	Urban services	4.97	13.00	19.47	3.04	Do
9.	Roads - Major		17.49			
	" - Secondary	21.48	5.97	53.98	8.42	
	" - Local		9.04			
10.	Residential	179.89	203.00	382.89	59.70	Including danger zone use
11.	Urban Deferred	--	--	64.00	9.98	
12.	Reserves	5.00	---	5.00	0.78	
	Total	672.56	336.5	641.36	100.00	
13.	Danger zone	147.00	---	147.00	---	
	TOTAL	----		----	----	

Note:-All prominent existing land uses of danger zone are included as additional. Alternative provision has been kept reserve in Planned area.

CHAPTER-V
LAND USE PLAN

CHAPTER FIVE

5. LAND USE PLAN

5.1. Approach, Concept, Planning principles.

Firstly, a reconnaissance survey is under taken by the consultant planners to determine the study area.

Secondly, a land use survey is made through C.S. map to identify the existing land use character. Simultaneously a socio-economic survey is under taken to have socio-economic condition of the people. Determination of the catchment area is made on the basis of the direct or primary socio-economic influence of the shahar area. It is this catchment area on which the basis of population forecasting is made.

Finally, land allocations and determination of planning area is made on the requirements of the forecasted population following the guidelines of planning provision standard given in the Annex - 2 of TOR.

Master plan does not deal with detail planning. Rather we can call it land use plan as mentioned in the TOR identifying suitable locations for social, administrative, economic, circulatory and other appropriate land uses. Broad land use zones have been proposed. Detailed planning would be done under zonal plan.

Effort is made for maximum utilization of the scarce land. As a policy to retain existing urban land uses as far as practicable we have tried to incorporate the existing urban land uses in the planning proposals so that maximum possible facilities and services can be provided with minimum disturbances of the existing land use pattern.

5.2. Plan description

Commerce, Industry

In the plan there existed 8.75 acres of land under commercial use but all this area is in the danger zone. So we have considered this as additional and a new proposal of 6 acres of land has been made for Commercial use.

In the area there is no Industry, we have proposed 25 acres of land for Industrial estate in a side which is connected by 40' proposed road and a launch terminal is proposed on the river side at the end of this road. So that Industrial development will be facilitated by transportation.

Education.

In the study area there exist one boys, one girls high schools, one Madrasa and one primary school. All these institutions are in danger zone. Alternative provision has been made for all these institutions in the planned area. In the planned area we have proposed two Colleges, one incorporating with required additional land as Boys' College which existed and other new one for girls College. One existing Madrasa has been incorporated with additional required land and other two as it is existed. For all these land uses there are 32.97 acres of land are utilised.

Health

There is a Health Complex existed in the study area. Total 10 acres of land are earmarked for this service on the assumption that maternity services and all kinds of medical facilities will be provided from this Health Complex.

Administration

The existing upazila Complex is incorporated with additional 6 acres of land.

Recreations (open)

At present there is no recreational facilities in the area. We have proposed Park, Open space, Sports stadium for recreational source. We have also assumed that the Schools, College grounds will also provide open recreational facilities. The stadium will provide mass recreational facilities in special occasions and will be utilised through out the year for general recreational use. Total 11 acres of land have been proposed for open recreational facilities.

Recreation (closed)

In respect closed recreation also there is no present scope. We have proposed one cinema hall for this purpose.

Socio-cultural

In the area there are mosque,grave yard etc.are present. We have proposed one central mosque with Eid gah in central area and one community centre. The existing mosque are incorporated as it is. Total 10.40 acres of land have been proposed for this purpose.

Urban Services

For this important service we have made provision for Post office,Telegraph office,Police station,Bus station,Launch ghat,Water supply station and Electricity supply station. The total land has been earmarked for these uses are 19.47 acres.

Roads

There are total 21.48 acres of roads are available in the area -both pucca and katcha. Additional 32.50 acres of land have been proposed for all categories one 60'-road is proposed over the existing road which connects the upazila Complex,Health Complex and the existing College.Road net work has been distributed in such a way that all proposed services will be connected by roads.

Residential

There existed 179.89 acres of residential land including the residential use of danger zone. We have proposed total 382.89 acres for residential use.

Urban Deferred

As per (TOR) provision approximately 10% of the total planned area has been earmarked for urban deferred for any future requirement.

Reserves

There are only 5 acres of land are existed as tanks. We have kept this as reserves

Danger zone

We have identified some 147 acres of land as danger zone which has been shown in the plan.Beacuse there is a fear that this area may be broken down by the

river erosion. As all ready a portion of this area has been toppled down in the river, the situation and causes have been elaborately explained in chapter 3.4 of physical opportunities and constraints. However, this area has been incorporated in the plan as additional area without proposing any new land uses and substituting the existing prominent land uses in the planned area.

CHAPTER-VI

PROGRAMMING AND IMPLEMENTATION

CHAPTER - 6

6. PROGRAMMING AND IMPLEMENTATION.

6.1. Priority actions, cost implications.

The first and foremost emphasis is to be given to save the "Danger Zone"
For this the following measures should be taken :

- (a) Embankment is to be made for flood protection along the river bank that has been shown in the plan.
- (b) Gravels and stones is to be placed on the slope of the river to protect erosion of the river bank.
- (c) Groynes is to be constructed to change the river stream.

A priority schedule is framed for phasing the proposed services to be provided over time.

- | | | |
|---|--|-----------------------------|
| <ol style="list-style-type: none"> 1.a) Revenue earning. b) Production and employment oriented. | | Infrastructure development. |
|---|--|-----------------------------|
2. Housing.
 3. Education -Health facilities.
 4. Recreational facilities.

Revenue earning and industrial landuses should be started first. It will help to boost up revenue for Govt. expenditures and at the same time will generate employment for the growing population. And at the same time the sale proceeds of the developed land will recover the cost expenditures by the Government. For these two facilities the required infrastructure should be provided. In the second phase the housing facilities to be created for the growing population to meet the basic need. Education and health facilities should be given 3rd emphasis. Recreation facilities to be provided at the fourth stage.

Cost estimates made roughly on the basis of present land value and development cost. It may be seen from the table No 16 It is no-table that specific cost estimate will be prepared by the concerned authority at the time to provide the facility at the current value and cost as it is variable.

However, at the present estimates average land value has been taken as Tk. 1,05000/- per acre for land acquisition and Tk.1200/- per 1000 cft. for land development cost. Total land acquisition cost stands as Tk.166.44 lakh and land development cost as Tk.165.68 lakh for total 158.5 acres of land for different category of land uses. The cost estimates has been shown in Table No.25

TABLE - 25

Cost estimates for proposed services for Zakiganj upazila shahar.

Services	Area to be developed in acre	Cost components Land acquisition	Lakh Taka Land development	Remarks / cost covers
Commerce + Industry	31.00	32.55	32.40	Market, Industry, Commercial office.
Education	25.50	26.78	26.65	Primary school, High school, College, Madrasa.
Health	8.00	8.40	8.36	Health Complex.
Administrative.	6.00	6.30	6.27	Administrative uses
Socio - cultural.	6.00	6.30	6.27	Community centre, Mosque, Library.
Recreational	11.50	12.08	12.02	Open spaces only.
Urban services	13.00	13.65	13.59	P.O., T.O., Bus station, PBS station.
Roads	32.5	34.13	33.98	Major, secondary, local roads.
Housing Estate	25.00	26.25	26.14	Housing and rehabilitation.
Total	158.5	166.44	165.68	

Note :- Costing is made on the basis of socio-economic survey findings and land development rates given by the upazila Engineer of Zakiganj upazila parishad.

6.2. Phasing, urban deferred.

Implementation of the proposed services will be made at an interval of 5 years up to 2000 A.D. at three phases. It should be related to the national 5 years development plans. Development activities, for approval by the govt. should be broken up into Annual development programme. Phasing of development activities according to the plan is shown below :-

T A B L E - 26

Sl. No.	Sectors	Years	Years	Years
		1985-90	1990-95	1995-2000
1.	Land development for housing.	35%	45 %	20 %
2.	Administrative.	70%	20%	5%
3.	Industry.	40%	55%	5%
4.	Commerce	40%	50%	10%
5.	Educational	45%	50%	5%
6.	Health	50%	40%	10%
7.	Recreation	45%	50%	5%
8.	Roads	60%	30%	10%
9.	Others	35%	40%	25%

URBAN DEFERRED:-

10% of the planned area has been earmarked in the plan as urban deferred for unforeseen future activities.

6.3. Development control.

To ensure timely implementation of the plan provisions the implementing authority must have some legal power. The plan should be passed by the government. To implement the upazila plans on an uniform basis there should be some rules and regulations containing powers to acquire land to impose development control etc. Like East Bengal Building construction Act-1952 or Town improvement Act etc. there should be provision in the Govt. Annual Budget to

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allocate money for upazila parishad to implement the plan provisions.

6.4. Monitoring, review :

The upazila parisad will be the custodian of the plan. There are many govt. autonomous organisations to function in the upazila level. They have to construct their office or acquired land for their project purpose. The upazila parisad will inform the Govt. agencies bodies about the plan provisions, so that the landuses can be regulated as per plan provisions. The upazila authority should implement the plan provision in consultation with the District Planner.

The plan has been formulated on certain assumption, conditions or requirements may be changed in future. So to cope up with the changing conditions the plan should be revised after every five years.

LAND USE SURVEY INSTRUCTION SHEET
FRACTIONAL CODE SYSTEM

The following lists almost all the features that you are liable to come across in your field survey. However, in the course of your work you come across some unutilised features, devise your own symbols.

NUMERATOR OF THE FRACTION CODE
 (Man made Aspects)

First Digit (Land use class)

1. Agriculture: Forestry
2. Commerce and industry (name of industry)
 - a) Daily bazar, b. Weekly bazar, c. Bank
 - d. Heavy industry, e. Small industry.
 - f. Brick field, g. Shop, h. Pucca market
 - I, II, III
3. Education: a) Primary school, b. High school, c. College, d. Madrasa).
4. Health: a) Hospital, b. health centre)
5. Administration, Govt. Deptt. a. Thana headquarter, b. Upazila H. Qt. c. Food godown, d. UP, e. Mohila unnoyn prokalpa, f. Sub-registry office, g. Dak Bunglow, h. REST House.
6. Recreation Open: a. park, b. Play ground etc.
7. Recreation closed, a. Cinema hall, b. Club, c. Auditorium etc.
8. Socio-cultural a. Mosque, b. Eidgha, c. Grave yard etc.
9. Urban services, a. Electric supply with location of pole, b. Water supply, c. Tube well, d. Tank etc,
10. ROADS: MAJOR :

SECONDARY	Write down dimension in feet and also
LOCAL	trace new road.
11. Residential; a. Pucca I II etc.
 b. c. i. p. w.
 c. C. I. Roof K. W.
 d. Mud house
 e. Tarja & thatched roof
12. Urban Deferred
13. Reserves (Khas land & acq. land by Govt.).

Second Digit

(Agriculture)

- A. Single cropping
- B. Double cropping
- C. Multiple cropping
- D. Inter Culture

3rd Digit

(Irrigation intensity)

- A. Regular
- B. Infrequent
- C. Not practised

4th Digit

1. Land value per bigha.

Denominator of the code
(Physical character)

1st Digit

(Land levels)

- | | | | |
|-------------------------------------|-------|---------|----------------------------------|
| 1. Highest level (use local name) - | Tilla | (hight) | |
| 2. 2nd | " | " | Danga/vity |
| 3. 3rd | " | " | Nama (Depth) Demarcate area |
| 4. 4th | " | " | Bila |
| 5. 5th | " | " | Haor |

2nd Digit

(Floodability)

- A. Flooded regularly
- B. Flooded frequently
- C. Not flooded

3rd Digit

(Soil fertility)

- A. Good
- B. Medium
- C. Bad

৩। বাৎসরিক কৃষি আয় ও ভূমি ব্যবহার তথ্য।

ভূমির ব্যবহার ও প্রকৃতি	পরিমাণ (একরে)	উৎপাদন (মনে)	আয় (টাকায়)
১	২	৩	৪
মোট ভূমি			
বসত বাড়ী			
চাষ যোগ্য			
চাষযোগ্য নয়।			
চাষ যোগ্য পতিত			
পুকুর / মাঠ / ডোবা			
এক ফসলী			
দুই ফসলী			
অধিক ফসলী			
অন্যান্য :			

৫। বাৎসরিক অকৃষি আয় :

অন্যান্য উৎস	পরিমাণ (টাকায়)
১	২
(ক) চাকুরী	
(খ) ব্যবসা	
(গ) রিক্সা চালনা	
(ঘ) হস্ত শিল্প	
(ঙ) বাসা ভাড়া	
(চ) দিন মজুরী	
(ছ) ফেরী	
(জ) ক্রি গিটি	
(ঝ) অন্যান্য	
সর্বমোট।	

৬। পরিবরের আয়- ব্যয়।

আয়-ব্যয়	পরিমাণ (টাকায়)
১	২
আয় (কৃষি + অকৃষি)	
ব্যয়ের উৎস	
(ক) খাদ্য	
(খ) কাপড়	
(গ) শিক্কা	
(ঘ) ছালাবি + আলো	
(ঙ) আনন্দ	
(চ) সামাজিক অনুষ্ঠান	
(ছ) চিকিৎসা	
(জ) অন্যান্য	
মোট ব্যয়	

৭। পরিবরের সুচ্ছলতা (১ টিক চিহ্ন দিব)

- (ক) আয় ব্যয় সমান
 (খ) উদ্ভূত
 (গ) ঋণ গ্রহণ

(৪)

৮। বাড়ীর সংখ্যা ও প্রকৃতি।

বাড়ীর ধরণ	সংখ্যা
১	২
(ক) একতলা বাড়ী	
(খ) দুই তলা বাড়ী	
(গ) বহুতলা বাড়ী	
(ঘ) পাকা দেওয়াল টিনের ঘর	
(ঙ) বাঁশ ছনের বেড়া টিনের ঘর	
(চ) মাটির দেওয়াল টিনের ঘর।	
(ছ) মাটির দেওয়াল টাইল ছাদ।	
(জ) মাটির দেওয়াল ছনের ছাদ	
(ঝ) ছনের ঘর পাট শোলার বেড়া	
(ঞ) অন্যান্য	

৯। বাড়ীর সমস্যা (টিক, চিহ্ন দিন)

(ক) নির্ধারিত সামগ্রীর সমস্যা :- হ্যাঁ / না

সমস্যার ধরণ (১)

(২)

(৩)

(খ) ঘড়ের সমস্যা -

:- হ্যাঁ / না (টিক, চিহ্ন দিন)

১। ঘর নাই।

২। আরও ঘর দরকার

৩। ঘর মেরামত করা দরকার

৪। অন্যান্য (উল্লেখ করুন)

(ক)

(খ)

- ১০। শহানাবুর গমন
 আপনি কি এখানকার শহায়া বাসিন্দা? হ্যাঁ/না।
 যদি "না" হয় তবে
 কোথা হইতে এবং কেন আসিয়াছেন? (ক) কারণ
 (খ) শহান
 (গ) কোন সনে।

- আপনার কি এই উপজেলা ত্যাগের ইচ্ছা আছে? হ্যাঁ/না
 যদি "হ্যাঁ" হয় তবে
 কেন, কোথায় এবং কখন উপজেলা ত্যাগ করিবেন
 (ক) কারণ
 (খ) শহান
 (গ) কোন সনে।

- ১১। পানির উৎস (৭ টিক চিহ্ন দিন)
 (ক) ট্যামের পানি
 (খ) টিউব ওয়েলের পানি।
 (গ) নদীর পানি।
 (ঘ) পুকুরের পানি।

- ১২। আলোর উৎস (৭ টিক চিহ্ন দিন)
 (ক) বিজলী বাতি
 (খ) হ্যারিকেন
 (গ) কুপি।

- ১৩। এই উপজেলা উন্নয়ন সম্পর্কে কোন মতামত থাকিলে বলুন :-