

# **OUTLINE DEVELOPMENT PLAN SILIGURI**

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**List of Mouzas included under outline Development plan for Siliguri**

SL. No.	Name of Zone/Mouza	Police Station	District
A.	Siliguri municipal town	Siliguri	Darjeeling
B.	Siliguri Rural	Siliguri	Darjeeling
1.	Kamalabari	"	"
2.	Khoklong Chhat	"	"
3.	Paharu	"	"
4.	Chhoto Adalpur	"	"
5.	Khoklong	"	"
6.	Bara Adalpur	"	"
7.	Khaprul	"	"
8.	Fulcra Chhat	"	"
9.	Fulcra Patoner Chhat	"	"
10.	Rohinin Chhat	"	"
11.	Khopalashi	"	"
12.	Jhauguri	"	"
13.	Jhauguri Chhat	"	"
14.	Rajpaini	"	"
15.	Chamtaguri Chhat	"	"
16.	Chamta	"	"
17.	Panchanai	"	"
18.	Nanu Bairagi	"	"
19.	Nanu	"	"
20.	Mohorganje tea State	"	"
21.	Purba Kharibari Chhat	"	"
22.	Gulma Khari	"	"
23.	Salbari Chhat	"	"
24.	Champasari	"	"

SL. No.	Name of Zone/Mouza	Police Station	District
25.	Kharaibari	''	''
26.	Duramari Chhat	''	''
27.	Champashari Chhat	''	''
28.	Champasari Chhat	''	''
29.	Shisha Bari	''	''
30.	Rupam Chhat	''	''
31.	Palash	''	''
32.	Kalkut	''	''
33.	Kalarar	''	''
34.	Malahar	''	''
35.	Mahishmah	''	''
36.	Jadubhita	''	''
37.	Damra Gayap Chhat	''	''
38.	Mahatram	''	''
39.	Udaysing	''	''
40.	Shalbari	''	''
41.	Dhakuria	''	''
42.	Nichitpur	''	''
43.	Baniya Khari	''	''
44.	Guria	''	''
45.	Nimai	''	''
46.	Jugi Bhita	''	''
47.	Panchkul Guri	''	''
48.	Pataner Chhat	''	''
49.	Dumri Guri Chhat	''	''
50.	Lal Sara Chhat	''	''
51.	Latchka	''	''

SL. No.	Name of Zone/Mouza	Police Station	District
52.	Bataliguri	"	"
53.	Rangia	Siliguri	Darjeeling
54.	Nengti Chhara	"	"
55.	Tari	"	"
56.	Jitu	"	"
57.	Bairatisal	"	"
58.	Pelka	"	"
59.	Thinikata	"	"
60.	Kawe Khari	"	"
61.	Bara Mohan Singh	"	"
62.	Kalem	"	"
63.	Patiram	"	"
64.	Nawakhali	"	"
65.	Tomba	"	"
66.	Mathapahi	"	"
67.	Matigara Hat	"	"
68.	Gour Charan	"	"
69.	Baraghariya	"	"
70.	Daknikata	"	"
71.	Faut Singher Chhat	"	"
72.	Mandlaguri	"	"
73.	Ujanu	"	"
74.	Patanjhar Chhat	"	"
75.	Patan Chhat	"	"
76.	Patan	"	"
77.	Gouri	"	"
78.	Purba Pashunath Barua	"	"

SL. No.	Name of Zone/Mouza	Police Station	District
79.	Pashim Pashunath Barua	“	“
C.	Uttar Bagdogra (urban)	Naxalbari	Darjeeling
1.	Rupsing	“	“
2.	Bhujiabari	“	“
3.	Dakshin Bagdogra	“	“
4.	Putimari	“	“
5.	Bhujiabari Chhat	“	“
6.	Lalman	“	“
7.	Bharat Singh	“	“
8.	Rajhar	“	“
9.	Ranidanga	“	“
10.	Siavita	“	“
11.	Rangapani	“	“
D.	Bagdogra (Rural)		
1.	Bounibhitar Chhat	“	“
2.	Dhemal	“	“
3.	Tarabarir Chhat	“	“
4.	Tarabari	“	“
5.	Bounibhita	“	“
6.	Pashim Karaibarir Chhat	“	“
7.	Barabhita	“	“
8.	Mayaram	“	“
9.	Batlabari	“	“
10.	Kamalpur	“	“
11.	Dumriguri	“	“
E.	Dabgram (urban)	Rajganj	Jalpaiguri
	Binnaguri (Rural)	“	“



## **PART - A**

### **(Socio-Economic Variables)**

#### **I The Outline Development Plan Area :**

##### **I. (a). Location :**

The planning area of Siliguri stands on the verge of Terai and at the foot-hills of Himalayas. It is bounded by Kurseong Police Station on the North, Phansidawa Police Station on the south, Ragging Police Station on the east and Naxalbari on the west.

##### **I (b).Area & Size :-**

The Outline Development Plan Area of Siliguri is 260.0 Sq. Km. which is 22.47 per cent of the Authority area. The ODP area is comprised of the following segments:-

1. Siliguri Municipality.	15.5 sq. Km.
2. Siliguri Police Station (Rural).	102.2 sq. Km.
3. Bagdogra Urban Area of Darjeeling District	1.6 sq. Km.
4. Bagdogra (Rural).	35.9 sq. Km.
5. Dabgram Urban Area of Jalpaiguri District	45.9 sq. Km.
6. Binnaguri Rural Mouza of Jalpaiguri District	58.9 sq. Km.

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**260.0 sq. Km.**

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##### **I. (c) Accessibility :**

The ODP area is located in the main corridor that connects the entire North-Eastern India. Siliguri has developed as an important node for all surface communication systems of this region. Siliguri is linked to the other parts of India and the neighboring Himalayan Kingdoms by N.H. 31-A, Lateral Road and a number of major state highways. All the three

types of railway links viz. broad gauge meter gauge and narrow gauge connect the ODP area with National Capital and a large number of other state Capital and Darjeeling Hill Station. The ODP area is also connected by Air-links from Bagdogra With the national capital and a number of other state capitals by daily services.

**I. (d) Physical Features of Planning Area :**

The climate of Siliguri is pleasant except during the month of June to August when it is generally hot. The annual rainfall is about 2810 mm. the annual temperature varies between 31.8 °C during winter. The prevailing wind directions are eastern and north-eastern. Siliguri is 392 feet above sea level. The main rivers are Mahananda, Balason, Fulcra, Laske which flow from north to south. The soil is generally loam and sandy-loam.

**II. (a) Population :**

The declared 'urban' segments in the ODP area constitute only 63 sq. Km. Siliguri Municipality (15.5 sq. Km.), Dabgram (45.9 sq. Km.) and Bagdogra (1.6 sq. Km.). The balance 197 sq. Km. is still 'Rural' with undeclared urban pockets experiencing fast urbanisation. Siliguri municipal town, the rural areas of Siliguri Police Station and Dabgram urban area which are contiguous, have marked high rate of population growth owing to the process of natural growth supplemented by migration. The area of each zone and growth of population are shown in table number-1.

**TABLE - 1.**

**Area and Growth of Population (in ODP)**

Sl. No.	ZONE	AREA in Sq. Km.	POPULATION (in ,000)			
			1951	1961	1971	1981
1.	Siliguri (M)	15.5	32.5	65.5	97.5	154.5
2.	Siliguri P.S. (R)	102.2	18.5	26.3	35.4	75.0
3.	Bagdogra Urban	1.6	0.9	1.5	5.6	8.7
4.	Bagdogra Rural	35.9	4.8	12.9	14.5	16.2
5.	Dabgram Urban	45.9	7.0	12.9	38.8	76.4
6.	Binnaguri	58.9	6.6	8.6	12.7	20.0
	<b>T O T A L</b>	<b>260.0</b>	<b>70.3</b>	<b>127.7</b>	<b>204.5</b>	<b>350.7</b>

Source : Census of India.

**Projected population and Households :**

The Projection of population for the ODP area is given in Table No.2.

**TABLE - 2.**

**Projected population and Households of ODP area 1991 & 2001.(units in thousand)**

SL No.	Z O N E	1991		2001	
		H.H.	P.Pn.	H.H.	P.Pn.
1.	Siliguri Town	42.7	220.6	57.6	297.3
2.	Siliguri Rural	21.4	109.8	30.2	155.0
3.	Bagdogra Urban	3.1	12.9	4.4	18.2
4.	Bagdogra Rural	4.0	19.5	4.9	24.2
5.	Dabgram	24.5	124.4	38.1	193.4
6.	Binnaguri	5.9	31.1	9.2	48.3
	<b>T O T A L</b>	<b>101.6</b>	<b>518.3</b>	<b>144.4</b>	<b>736.4</b>

The population growth pattern in the ODP area from 1961 to 2001 is illustrated in figure No. 1.

## II.(b) Housing in the ODP area

In the year 1981 the ODP area had a total number of 66892 occupied residential houses against a total number 67721 households with an average size of 5 persons per family.

**TABLE - 3.**

### **Number of occupied Residential House and the Total number of Households and Size of Family in the Planning Area by Zones 1981.**

<b>Z O N E</b>	<b>Population (in ,000)</b>	<b>No. of Occupied Residential Houses</b>	<b>No. of House Holds</b>	<b>Average Size of Family</b>	<b>No. of H. Holds without Residential Houses</b>
<b>1. Siliguri (M)</b>	154.4	28235	28938	5.0	703
<b>2. Siliguri PS (R)</b>	175.0	14583	14601	5.0	18
<b>3. Bagdogra (U)</b>	8.7	2041	2095	4.0	54
<b>4. Bagdogra (R)</b>	16.2	3223	3251	5.0	28
<b>5. Dabgram (U)</b>	76.4	15007	15030	5.0	23
<b>6. Binnaguri (R)</b>	20.0	3803	3806	5.0	3
<b>T O T A L</b>	<b>450.7</b>	<b>66892</b>	<b>67721</b>	<b>5.0</b>	<b>829</b>

Source : Census of India.

## II. (c) Density :

The index of growth of density showed a marked increase in Dabgram and Bagdogra urban areas with 1951 as the base.

**TABLE - 4.**

**Index Growth of Density in ODP Area 1951 to 2001.**

Z O N E	DENSITY (Sq. Km)	I N D E X			
	1951	1951	1961	1971	1981
1. Siliguri (M)	2095	100	202	300	475
2. Siliguri PS (R)	181	100	142	182	405
3. Bagdogra (U)	581	100	163	604	936
4. Bagdogra (R)	35	100	268	299	334
5. Dabgram (U)	153	100	185	554	1088
6. Binnaguri (R)	103	100	142	210	330
<b>T O T A L</b>	<b>269</b>	<b>100</b>	<b>183</b>	<b>292</b>	<b>501</b>

Source : Census of India.

**II. (d) Sex Ratio :**

There was a preponderance of males in Siliguri Municipal town in 1961. The sex ratio in municipal area increased from 652 in 1961 to 794 in 1981. Preponderance of males was also observed in Siliguri Police Station (rural), Dabgram and Bagdogra urban areas. The change in sex ratio from 1961 to 1981 and expected sex ratio during 1991 to 2001 are given in Table No. 5.

**II. (e) Schedule Caste and Schedule Tribe Population :**

In the year 1981 the ODP area had a total number of 86411 Schedule Caste and Schedule Tribe population which constituted 24.6 per cent of the total population. The S.C. and S.T. population is however significantly low in urban areas as is evident from the Table-6.

**TABLE - 5.**

**Zone-wise Sex Ratio in ODP Area 1961-2001.**

A R E A	1961	1971	1981	1991	2001
1. Siliguri (M)	652	736	794	815	868
2. Siliguri PS (R)	832	727	849	875	901
3. Bagdogra (U)	666	666	778	815	849
4. Bagdogra (R)	870		864	910	915
5. Dabgram (U)	882	764	863	875	896
6. Binnaguri (R)	1073	881	875	895	912
<b>T O T A L</b>	<b>753</b>	<b>747</b>	<b>828</b>	<b>851</b>	<b>886</b>

Source : Census of India.

**TABLE - 6**

**No. of Schedule caste and Schedule Tribe Persons in the ODP Area by Zones 1981.**

ZONE	S.C.	S.T.	S.C. & S.T. TOTAL	% to Total Population
1. SILIGURI (U)	10165	512	10677	6.9
2. SILIGURI (R)	14792	17784	32576	43.4
3. BAGDOGRA (U)	1155	436	1591	18.2
4. BAGDOGRA (R)	7641	2230	9871	60.8
5. DABGRAM (U)	18710	979	19689	37.3
6. BINNAGURI (R)	11752	255	12007	59.9
<b>T O T A L</b>	<b>64215</b>	<b>22196</b>	<b>86411</b>	<b>24.6</b>

Source : Census of India.

**III. Occupational Structure :**

In the year 1981 the ODP area a total work force of 1,11,461 persons which constituted 31.8 per cent of the total population. In the same year participation rate in urban areas was 30.0 per cent in comparison to 35.5 per cent for the rural areas. Female

participation rate in rural areas with 14.3 per cent in 1981 is found to be much higher in comparison to 4.0 per cent for the urban areas.

From an analysis of decadal changes in the participation rate as shown in Table 7, it is observed that there has been a consistent decline in work force participation rate in all zones of the planning area.

The reasons for the sharp decline in work force participation rate especially in respect of male population had been owing to :-

- (a) fast conversion of agricultural land in peripheral mouzas into non-agricultural uses.
- (b) influx of migrant population.
- (c) failure of the economy to keep pace with this increased rate of population growth.

The trends of economic growth of the ODP area visa-visa population growth substantiate the above. During 1961 to 1981 the population in the ODP area went up by 174.4 per cent when the rise in work force over the same period was only 127.1 per cent. In the case of Siliguri Municipal town when the rise in population was 135.8 per cent during 1961 to 1981 the work force went up only by 104.5 per cent. These clearly indicate that despite creation of additional work opportunities for nearly 24.8 thousand workers, the urban economy of the township could keep pace with the huge influx of migrants. This typical economic phenomenon had been visible in the rural mouzas also.

All the three urban zones in the ODP area are predominantly service oriented and the role of tertiary sector has gained further importance over the period 1961 to 1981.

**TABLE-7****Work Force Participation Rate by Sex in the ODP Area 1961-1981**

Z O N E	1961			1971			1981		
	T	M	F	T	M	F	T	M	F
1. Siliguri (M)	36.2	57.9	3.0	30.9	51.6	2.9	31.4	52.6	4.7
2. Siliguri (R)	45.3	58.3	29.6	39.2	59.0	11.6	37.0	52.7	18.5
3. Bagdogra (U)	39.9	60.7	9.2	35.9	58.0	3.7	27.6	47.0	2.8
4. Bagdogra (R)	29.5	43.6	13.1	31.6	53.6	5.2	32.8	52.1	10.5
5. Dabgram (U)	48.0	79.8	31.4	53.5	2.8	27.5	49.5	49.0	2.6
6. Binnaguri (R)	32.2	57.6	8.5	24.5	45.9	0.1	32.1	56.2	4.0
<b>T O T A L</b>	<b>38.4</b>	<b>58.7</b>	<b>11.4</b>	<b>32.4</b>	<b>53.5</b>	<b>4.6</b>	<b>31.8</b>	<b>51.0</b>	<b>7.4</b>

Source : Census of India.



All the three urban zones in the ODP area are predominantly service oriented and the role of tertiary sector has gained further importance over the period 1961 to 1981. The Dabgram urban area, Which is predominantly rural, however continues to offer substantial employment in primary sector activities.

The role of industries in the entire ODP area with reference to creation of employment opportunities has remained relatively insignificant. During the period 1961 to 1981 Siliguri Township actually marked a decline in secondary sector employment whereas Dabgram Mouza revealed an increase. The impact of urban transformation is also revealed from the change in the economic structure. The rural areas under Siliguri Police Station which had nearly 80 per cent office work force in primary sector in 1961 has now only 32.6 per cent in the same category. The picture is same in the two other agricultural rural zones of the ODP area, although in their cases the phenomenon is less pronounced. Table No. 8 & 9 & Figure No. 2 give the sectoral employment pattern both existing and projected, in the ODP area by zones.

#### **IV. Industries :**

In the year 1985 the ODP area had around 1000 industrial units employing 8619 persons and occupying 313.6 acres of land. In addition to the above 17 medium scale industrial units are also operating in the ODP area.

The spatial distribution of industrial units by categories and by zones are given in Table No.-10.

**TABLE - 8****Sectoral Distribution of Work Force in ODP area by Zones 1961-1981 (in percentage)**

ZONE	1961			1971			1981		
	P	S	T	P	S	T	P	S	T
1. Siliguri Town	1.5	24.2	74.3	3.0	18.5	78.5	2.8	18.0	78.2
2. Siliguri PS (R)	79.3	1.0	19.7	57.4	4.3	38.3	32.6	8.5	58.9
3. Bagdogra (U)	19.3	3.1	77.6				9.9	9.2	80.9
4. Bagdogra (R)	75.8	2.2	22.0				50.5	4.6	34.9
5. Dabgram (U)	60.0	7.8	32.2	21.1	17.0	61.9	16.5	18.3	65.2
6. Binnaguri (R)	95.7	0.7	3.6	92.8	2.1	5.1	76.5	7.5	16.0

(Please refer figure 2). Source : Census of India

**TABLE - 9****Projected Employment by Primary, Secondary and Tertiary Sectors for ODP Area 1991 & 2001 (Unit in 000)**

ZONES	1981			1991			2001		
	P	S	T	P	S	T	P	S	T
1. SILIGURI (M)	1.4	8.7	38.4	1.2	12.3	54.3	1.3	14.4	69.6
2. SILIGURI PS (R)	9.0	2.4	16.3	18.1	4.4	17.1	21.9	6.7	24.8
3. BAGDOGRRA (U)	0.2	0.3	1.9	0.3	0.4	3.0	0.4	0.6	4.2
4. BAGDOGRA (R)	3.2	0.2	1.9	3.7	0.3	2.2	4.0	0.5	3.2
5. DABGRAM (U)	3.5	3.8	13.7	4.1	6.2	22.4	5.2	9.7	34.4
6. DABGRAM (R)	4.9	0.5	1.0	6.9	0.8	1.9	0.8	1.3	3.4
<b>TOTAL</b>	<b>22.2</b>	<b>15.9</b>	<b>73.2</b>	<b>34.3</b>	<b>24.4</b>	<b>100.9</b>	<b>33.6</b>	<b>33.2</b>	<b>139.6</b>

**TABLE - 10**

**Units, Employment and Space in Small Industries in ODP Area in 1985**

ZONE	Number of Registered Units		Total Unit	Total Employment	Space (in Acres)
	Inspector of Factories	Director of Small Scale			
1. SILIGURI (T)	36	588	624	4228	77.23
2. SILIGURI PS (R)	20	92	120	1504	494.69
3. BAGDOGRA	--	55	55	216	6.61
4. DABGRAM	32	203	235	2671	145.99
<b>T O T A L</b>	<b>96</b>	<b>938</b>	<b>1034</b>	<b>8619</b>	<b>724.52</b>

N.B. The total area 724.52 given in the Table number 10 includes 410.9 acres of brick field located behind Dagapur Tea Estate.

**Industrial Prospects :**

There is an excellent scope for future promotion of industries in the ODP area as is evident from the following favourable factors.

- (1) The strategic location of the ODP area supplemented by an excellent communication net work as outlined in the introductory chapters, and the proximity of the area to raw material and marketing centers, point out the industrial potential of the place.
- (2) Industrial Power is assured in the North Bengal area with the commissioning of Chukha Hydal Power Station of Bhutan (336 M.V.)
- (3) The ODP area has the advantage of cheap labour
- (4) The infrastructural facilities in the ODP area have scope for further expansion.

The line development plan projects a total area of around 1500 acres for future industrial growth.(refer map No. 2)

The types of industries, in which large scale expansion is anticipated are Furniture-making, Automobile and two-wheeler clinics, Engineering work-shops, Brick manufacturing and cloth-making. In other industrial activities only marginal or average growth is expected.

#### **V. Trade & Commerce :**

The ODP area has been growing as a distribution center centering to North Bengal, North-East India Sikkim and Bhutan. during the period 1955-66 to 1979-1980 the wholesale trading units marked an increase from 440 to 720 units (61 per cent).

In retail trade year were 7235 units. In this category major activities are food items like choroals, pulses, sugar, and spices etc. (1302 numbers) tobacco, bidi and cigarette (708 numbers) sweet-meet and other confection areas (425 numbers) cloth and ready-made garments (457 numbers) medicines (315 numbers) transport and electrical equipments (311 numbers) stationary goods (344 numbers) hardware and sanitary equipments (139 numbers).

Commercial tax collection in Siliguri circle had gone up from 1.64 Crore in 1976 to 6.08 Crore in 1985 which is an index of commercial growth in ODP area.

From the past trends of growth, it is evident that Siliguri will continue to be one of the most important trading centers of the region.

For a projected population of 736.4 thousand in 2001, the ODP area will require an additional 8000 retail outlets and 700 whole-sale trading units (refer to Map No. 2.)

#### **VI. Power :**

At present Siliguri ODP area like the rest of the state suffer from irregular power supply. In the year 1980-1981 Siliguri division of West Bengal State Electricity Board had a total number of 17,870 consumers of various types. The aggregate consumption in the said year was 33849461 kWh.

Table No. 11 gives the number of consumers category wise and quantum of power consumed for 1980 to 1981.

According to information available from the W.B.S.E.B. the ODP area has a peak-hour demand of 15.5 MW. With a declining demand ranging between 9.5 MW. to 7.5 Mw. Siliguri ODP area receives its power mainly from South Bengal and Jaldhaka Hydal Project.

The perspective Division of the W.B.S.E.B. has estimated the further demand of power in North Bengal by types of consumers and district wise.

**TABLE - 11**

**No. of consumers and consumption of Power (KWH) in Siliguri Division During 1980-1981.**

NAME of Division	Domestic		Commercial		Industrial		Public Lighting		Public Water Works.		Agriculture		Total	
	Conr	Conn	Conr	Conn	Conr	Conn	Conr	Conn	Conr	Conn	Conr	Conn	Conr	Conn
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
<b>Siliguri</b>	11121	5435323	5953	8934094	778	16519461	10	38290	-	-	6	24752	17870	33849461

Source: West Bengal State Electricity Board.

N.B. 'Conr' meant to consumer & 'Conn' meant to Consumption.

**TABLE - 12**

**Breakup of Zonal Additional Demand of Power up to 2000 AD**

Existing District	Existing Load.	Industry Load	Agriculture	Rural	Domestic/commercial/other	Total	Grand Total
1. Darjeeling	30	24	13	2	7	46	76
2. Jalpaiguri	38	25	36	2	6	69	107
3. Coochbehar	8	24	36	2	6	68	76
4. west Bengal	9	21	36	2	5	64	73
5. Malda	9	20	33	6	4	63	72
6. North Bengal	94	114	154	14	28	310	404
7. Calcutta	1015				30	30	1045
8. Remaining South Bengal	1924	989	716	92	9	66	4065
<b>Total W.Bengal</b>	<b>2010</b>	<b>1103</b>	<b>870</b>	<b>115</b>	<b>37</b>	<b>244</b>	<b>4469</b>

Source : Perspective power division for W.B. 1984-2000 A.D. Dept. of power, Govt. of West Bengal.

It is anticipated that, chukha power would cater to the future domestic, industrial and general requirements. It is desirable if the Board, design the sub-stations and transmission alignments in tune with land use proposals of the ODP area (refer to Map No. 2).

## **PART - B**

### **(Basic Concept of ODP)**

#### **VII. Land Use :**

##### **VII.(a) Existing Land Use :**

The broad land use pattern of the planning area indicates congested and unplanned growth in Siliguri municipal town and its neighboring agglomerations. Dabgram the urban agglomeration and Champasari Gram Panchayet are fast growing areas around Siliguri municipal town. The multipurpose satellite township adjacent to New Jalpaiguri Railway Station at Dabgram and the linear developments on either side of NH-31 at Champasari (adjacent to Siliguri municipal town), Jitu and Bairatisal (extending up to N.B. University area) are the indicators of urban expansion. The urbanising Matigara is another potential area for further expansion.

Significant changes in land use have been evident in and around the University area and Bagdogra area owing to catalytic roll of Military bases and North Bengal University. Substantial commercial and residential activities have already taken place. This area affairs a bright prospect to contain the future growth of the planning area because of :-

- (1). Its proximity to Siliguri (approximately 0 to 10 Km.)
- (2). Availability of existing infrastructure and
- (3). The prospect for creating additional infrastructural facilities for future expansion.

The land use pattern herein is shown in the existing land use Map No. 2). The land use structure of the ODP area along with its break up of individual zones has been analysed in Table 13 and have shown in figure No. 3.



**TABLE -- 13**

**Percentage Distribution of Existing Land-use in ODP area by Zones.**

<b>LAND-USE</b>	<b>SILIGURI (M)</b>	<b>SILIGURI ®</b>	<b>BAGDOGRA</b>	<b>DABGRAM</b>	<b>BINNAGURI</b>
1. RESIDENTIAL	38.30	3.71	8.28	13.88	7.02
2. COMMERCIAL	4.44	0.34	0.22	1.98	0.22
3. INDUSTRIAL	2.45	2.04	0.05	1.35	0.02
4. MIXED USED	8.18	0.41	0.75		
5. PUBLIC/SEMI PUBLIC	5.24	2.32	0.56	2.97	0.68
6. TRANSPORT & COMMUNICATION	17.58	2.18	3.26	17.28	1.16
7. DEFENCE	0.55	7.46	26.30	3.09	
8. WATER BODIES	3.78	6.73	3.06	4.66	4.77
9. AGRICULTURE		57.72	54.93	43.43	78.91
10. VACANT	19.48	17.09	2.69	11.36	6.92
	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

## **VII. (b) Future Land Use :**

It is anticipated that future population if the ODP area would grow to an additional 3.8 lac by 2001.

- 1) In order to provide accommodation and other urban facilities a new urban center extending over an area of 800 acres and catering to the needs of 67,000 persons is suggested at North Bengal University area in view of the already explained favourable factors of the locality.
- 2) Another urban center (taking advantage of the developing infrastructural facilities, and the future national highway alignment of Phansidawa to NJP) is also proposed at Fulcra Mouza comprising an area of 1120 acre (in two segments) to cater to the needs of 93,000 population.
- 3) Controlled and regulated growth at Dabgram urban agglomeration is called for to accommodate 54,000 people over an area of 640 acres is also suggested (in two segments).
- 4) A township to accommodate 1,33,000 people extending over an area of 1500 acre near North Bengal Medical College is another future land-use proposal.
- 5) An area of 240 acre to accommodate 20,000 people at Champasari is another urban center proposed.
- 6) In view of the overgrown existing land use pattern in the municipal area where scope for future planned growth is minimum strict development control is the strategy recommended horizontal development may be discouraged in the crowded areas. Building rules are to be strictly enforced by single agency. Civic facilities like electricity, water. telephone connections etc. to be frozen at the existing level in the crowded areas as disincentives to future growth.

- 7) Public offices including State Government establishments, inconveniently located, and adding to the congestion and traffic bottlenecks must be shifted out and the area must be commercially put to use. Moreover in order to accommodate the Government establishments located in rented places, a civil station is proposed near Medical College, along with the completion of the new road alignments. (refer to Map No. 2 and Figure No. 3) Revitalization of civic bodies, land management and traffic management constitute the only solution to the irking problems of the ODP areas.
- 8) The Defense and para-military establishments, as well as the tea-gardens, in and around the ODP area remain untouched for obvious reasons.
- 9) In view of the established fact that towns with large agricultural hinterland can become the gateways for a rewarding entry into the potential market areas, the ODP area by virtue of this geo-physical location with the vast hinterland, can undoubtedly, be one of the ideal gateways, if properly developed.
- 10) Scientific Channelisation of future industrial and commercial infrastructure with allied residential areas to be planned along the State High-way number 12 in order to realize a complementary “Twin-city-growth” combining Siliguri and Jalpaiguri.

### **VIII. Housing:**

In the year 1981 the ODP area had a total number of 66,892 occupied residential houses. Siliguri, Dabgram urban agglomeration and the Bagdogra urban area accounted for 45,283 housing units; the rural areas account for 21,600 housing units. The organised housing estates of State Government and Central Government including the Satellite Housing Scheme of the State Government contribute only marginally to systematic housing accommodation.

Table No. 14 gives the existing deficiency and projected demand of housing units in ODP area zones wise.

**Proposals :**

- 1) The additional demand for housing is estimated at 77,500 by 2001. The six locations for residential areas as shown in land use Map No. 2 to be exploited by private individuals, statutory bodies and organised housing co-operatives for developing the land and housing units.
- 2) The building rules are to be enforced by a single agency to prevent irregular and unauthorised building constructions within the municipal area and in the proposed new locations.

**TABLE - 14**

**Deficiency Projected Demand for Housing Units in ODP Area.**

<b>ZONE</b>	<b>No. Of Occupied Residential Houses</b>	<b>Housing Deficiencies In 1981</b>	<b>Additional Requirement 1981-1991</b>	<b>Additional Total Requirement 1991-2001</b>	<b>Total Additional Demand By 2001</b>
1. Siliguri (M)	28235	703	13762	14900	29365
2. Siliguri Ps	14583	18	6799	8800	15617
3. Bagdogra (U)	2041	54	1005	1300	2359
4. Bagdogra (R)	3223	28	749	900	1677
5. Dabgram (U)	15007	23	9470	13600	23093
6. Binnaguri (R)	3803	3	2094	3300	5397
<b>T O T A L</b>	<b>66892</b>	<b>829</b>	<b>33879</b>	<b>42800</b>	<b>77508</b>

## **IX. Traffic and Transportation :**

In view of its strategic locational importance, Siliguri receives the entire traffic bound for North East India. With the opening up of the new road bridge over the river Teesta near Jalpaiguri town, there has been an appreciable change in the flow pattern of east-bound traffic. At present most of this traffic avoid Sevoke Road route and generally follow the above shorter route along Siliguri Jalpaiguri State High-way. As a result this entire long distance traffic has to pass through the urban core of Siliguri town thereby causing regular traffic dislocation. It is established by survey that nearly 22,000 vehicles negotiate Mahananda Bridge over a period of 12 hours during day time out of which 7200 are fast moving vehicles. The peak hour (11 A.M. to 12 noon) average is 2162 vehicles of which 794 is fast moving.(Source : the volume count survey by SJDA year 1985.).

Except a few, majority of the roads are narrow and traffic bottleneck are created mainly due to :-

- (a) Railway level crossing.
- (b) Mixing up the slow and fast moving vehicles.
- (c) Increased volume of goods traffic, indiscriminate parking, loading and unloading operations.
- (d) No highway by-pass for reducing long distance traffic within the city.

Proposals are given under three heads:-

(1) New road alignments, (2) railway schemes and (3) traffic management (refer to Map No. 3.).

## **Proposals :**

### **(A) New alignments :**

- I) A highway specification road from National Highway 31 near 'Akashbani' passing through the urbanising Dabgram Mouza and New Jalpaiguri Railway Station touching the Teesta-Mahananda link canal road, aligning with the National Highway 31 to Calcutta, (The advantage of the proposed alignment is that the entire traffic that might originate from National Highway 31, Sevoke road and the new urbanising areas can by-pass the congested Siliguri town by getting connected to Siliguri Jalpaiguri State Highway at "Gandar More" and National Highway 31 via Fulcra).
- II) The second new proposal is an alignment connecting Burdwan road with Medical College area by constructing a second bridge over river Balason near North Bengal Medical College. Implementation of either of the above is an emergent necessity. Both the alignments are shown in the road Map No. 3.

### **(B) Railways :**

The three suggestions for diversion of the rail-road connection between N.J.P. and Siliguri Junction are :-

- 1) Removal of Siliguri town station and the railway track that cuts the town into two.
- 2) Consequent to the above a new alignment parallel to the existing broad gauge line leading to Siliguri Junction Station is the second alternative.
- 3) Retain the town station and existing track mentioned at (I) above with provision for fly-over at town station.

**(c). Traffic Management :**

- 1) Space management on the major roads by stopping irregular parking at the road side and enforcement of traffic regulations.
- 2) Widening the internal road.

Complementary to the new road alignment and implementation of railway scheme, truck terminals at Fulcra and Matigara is proposed.(Location of truck terminals shown in the Map No. 2). In addition to the above suggestions for traffic management and bus terminals to cater to the needs of local traffic, hill traffic inter district and inter-state traffic are also proposed. Location are shown in the Map No. 2.

**X. Water Supply :**

The present water supply system of the township consists essentially of ring-wells sunk by private residents.

The Public Health Engineering Department has a skeleton water supply system run by a pumping station at Ashrampara, Bidhan Market, D.I.F. Market and Babupara. The total quantum of daily water supply through the P.H.E. system is 1.32 Lac1 gallons by means of 115 stand-posts when the pumping stations are not operating owing to high iron content.

It is expected that the ongoing water supply scheme of Siliguri municipality at Dabgram colony night bring marginal relief to Dabgram urban agglomeration. The only long time solution to the water supply problem in the sub area is implementation of the water-supply scheme of the P.H.E. directorate which has been given the technical sanction by the Government of India on a priority basis. The scheme alone can supply portable water to the ODP area is tune with the projection of water requirement as shown in Table No. 15.

It is desirable that the Public Health Directorate will install the storage tanks keeping in view of the broad features of future land use pattern of the ODP area. (Refer Map No. 2).

**TABLE -- 15**

**Demand for Water in the ODP Area 1981-2001.(in thousand liters)**

Name of The Zone	Estimated @ 90 Liters Per Head	Estimated @ 135 lpcd for urban and @ 90 Liters for Rural Areas	
	1981	1991	2001
1. Siliguri Town	13896.0	19854.0	40135.5
2. Siliguri Rural	6750.0	9882.0	13950.0
3. Bagdogra Urban	783.0	1161.0	2457.0
4. Bagdogra Rural	1458.0	1755.0	2178.0
5. Dabgram Urban	6876.0	11196.0	26109.0
6. Binnaguri Rural	1800.0	2799.0	4347.0
	<b>31563.0</b>	<b>46647.0</b>	<b>89176</b>

**XI. Drainage :**

The uneven topography of the Terai region with heavy rainfall during monsoon and absence of proper drainage system create serious water-logging problem in the ODP area. The three rivers viz., Mahananda, Fuleswari and Jorapani serve as natural outlet in the Siliguri-Dabgram urban area; but the internal drainage system do not serve as proper links. They are not maintained according to sound public health engineering standards.

A nominal drainage system is in existence within the municipal areas; there is not even minimum drainage system in the urbanizing peripheral areas. Moreover the municipal effluents get discharged into down stream areas intensifying the problems further. The comprehensive drainage scheme for the urban and urbanizing area being prepared by the L.G.U.D. and N.B.F.C. Commission require to be implemented early.

Soil protection measures and removal of river-bed encroachments are also to be synchronized with the comprehensive drainage plan proposals.



### **Sewerage and Conservancy :**

There is no sewerage system or sewage treatment plant in the ODP area. The mode of night soil disposal in the town is partly by service privies and partly by septic tanks. The municipality arranges for collection of night soil and garbage and dumps the same at trenching ground. The actual condition of drainage and sewage disposal in Siliguri municipal town and urbanizing areas of Dabgram immediately calls for a underground sewerage system.

In the absence of hygienic urban services the ODP area suffers from acute health hazards. The introduction of sanitary system is long overdue in an arbitrarily grown town like Siliguri.

### **XII. Health :**

The health facilities available in the ODP area are given in Table No 16. In addition to this the Railways and Tea Gardens have their exclusive health facilities.

### **Future Requirement :**

As per the Muddaliar Commission recommendation of one public hospital bed for every thousand population, one doctor for every three thousand persons and one nurse for every 500 persons, the requirement of health facilities and personnel in the ODP area are projected in Table No. 17.

**TABLE -- 16**

**Availability of Health Facilities in the ODP Area.**

<b>ZONE</b>	<b>TYPE</b>	<b>No. Of Units</b>	<b>No. of Doctors</b>	<b>No. of Nurses</b>	<b>No. of Beds</b>
<b>1. Siliguri Town</b>	1) Government	1	40	68	250
	2) Private Nursing Home	10	38	60	140
	3) Charitable Dispensary	6	6		
		<b>17</b>	<b>84</b>	<b>128</b>	<b>390</b>
<b>2. Siliguri PS</b>	1) North Bengal Medical College	1	88	160	659
	2) S.H.C.	2	4	7	25
	3) Charitable Hospital	1	3	5	291
		<b>4</b>	<b>95</b>	<b>172</b>	<b>975</b>
<b>3. Bagdogra</b>	Sub-Health Centre	1	2	3	10
<b>4. Dabgram</b>	1) State Govt. Clinic	1	2	-	-
	2) Private Nursing Home	1	3	6	19
	3) Charitable Hospital	1	2	4	30
		<b>3</b>	<b>7</b>	<b>10</b>	<b>49</b>

**N.B.** 1. Public Hospital Beds in ODP area are only 285 excluding North Bengal Medical College.

2. The Sub-Divisional Hospital Bed strength which is meant for the entire Sub-divisional also shown in the Table

Source : SJDA Survey.

**TABLE -- 17**

**Estimated Demand for Health Service.**

Z O N E	HOSPITAL BEDS			D O C T O R S			N U R S E S		
	1981	1991	2001	1981	1991	2001	1981	1991	2001
<b>Siliguri (R)</b>	154	221	297	51	74	99	388	442	594
<b>Siliguri P.S.</b>	75	110	155	25	37	52	150	220	310
<b>Bagdogra (U)</b>	9	13	18	3	4	6	18	26	36
<b>Bagdogra (R)</b>	16	20	24	5	7	8	32	40	48
<b>Dabgram (U)</b>	76	124	193	25	41	64	152	248	306
<b>Binnaguri (R)</b>	20	31	48	7	10	16	40	62	96
<b>T O T A L</b>	<b>350</b>	<b>519</b>	<b>735</b>	<b>116</b>	<b>173</b>	<b>245</b>	<b>700</b>	<b>1030</b>	<b>1470</b>

**XIII. Education :**

In 1981 the literacy percentage in the ODP area was 57.6 per cent and 4.8 per cent male and female literacy rate respectively. The municipal area recorded a higher literacy rate compared to the other segments of the ODP area.

Table No. 18 shows the enrollment and units by type zone-wise in the ODP area in 1985.

**XIV. Communication :**

There are two telephone exchange in the ODP area; one at Siliguri and the other at Bagdogra. The jurisdiction of the Siliguri Telephone Exchange is up to Balason river and the present capacity of the exchange is 6000 connections; out of which 5121 connections have been provided. A scheme for the expansion by providing additional 1008 new connections is on the anvil. The Bagdogra Telephone Exchange starts its jurisdiction from the west of Balason river. There are 256 subscribers under this exchange. The expansion of Bagdogra Telephone Exchange is also being executed.

**TABLE -- 18**

**Enrollments and Units in ODP Area (enrollment in thousand).**

Type of Institute	Siliguri Town		Siliguri Rural		Dabgram Binnaguri		Bagdogra		Total Nos.	
	Enrol	Units	Enrol	Units	Enrol	Units	Enrol	Units	Enrol	Units
1. Primary	133	21.1	45	6.3	42	8.0	16	2.5	236	37.9
2. Middle	5.0	0.5	-	-	5.0	1.0	-	-	10	1.5
3. Secondary	16	7.6	4.0	2.3	10	3.9	2.0	1.6	32	15.6
4. H.Secondary	8.0	9.4	-	-	1.0	1.0	-	-	9.0	10.4
5. College	2.0	Na	-	-	-	-	-	-	2.0	Na
6. ITI	-	-	-	-	1.0	Na	-	-	1.0	Na
7. University	-	-	1.0	Na	-	-	-	-	1.0	Na
8. Med.College	-	-	1.0	Na	-	-	-	-	1.0	Na

Source : SJDA Survey

The projected requirement of primary and secondary level institutions in ODP area have been given in Table No. 19.

**TABLE -- 19**

**No. of Primary Schools and Madhyamik Schools required for the year 1991 and 2001.**

Z O N E	No. of Primary Schools			No. of Madhyamik School		
	1985	1991	2001	1985	1991	2001
1. Siliguri (M)	133	165	219	24	33	43
2. Siliguri P.S. (R)	45	98	130	4	5	7
3. Bagdogra	16	26	32	2	3	4
4. Dabgram *Binnaguri	42	101	148	11	14	18
<b>T O T A L</b>	<b>236</b>	<b>390</b>	<b>529</b>	<b>41</b>	<b>55</b>	<b>72</b>

For Madhyamik School the percentage enrolled in 1985, has been taken as the norms for 1991-2001

\* The figures for 1985 is based on the current survey on schools in the ODP area.

Source : (1) S.I. of Schools, Govt. of west Bengal.

(2) School Survey by SJDA.

Siliguri municipal town and Dabgram areas together account for 19 nos. of post offices for a population 2.30 lakhs with a further demand for three new post offices at south Bharat Nagar, Ghugumali and Hyderpara. By the standard of one rural post office for every 2000 persons, the rest of the ODP area require to be located in line with the land use proposals.

## **XV. Other Community Facilities :**

### **Parks and Playground :**

There are six play-ground on the ODP area of which 4 are within the municipal town and the remaining two are exclusive Railway Play-ground.

There are 8 children parks in the ODP area of which 5 are located in the municipal town. In view of the inadequacy of play-ground and parks in the ODP area a future projection of required open space is given Table No. 20.

**TABLE - 20**

### **Projected requirement of open space in ODP Area.**

<b>Sl. No.</b>	<b>Name of the Zone</b>	<b>Population</b>	<b>Requirement in Acres</b>
<b>1.</b>	Siliguri Municipality	2,97,300	298.0
<b>2.</b>	Siliguri Police Station	1,55,000	310.8
<b>3.</b>	Bagdogra	4,24,000	05.0
<b>4.</b>	Dabgram *Binnaguri	2,41,700	483.0
	<b>T O T A L</b>	<b>7,36,400</b>	<b>1176.0</b>

Norms :- (A) One acre per thousand population in the municipal area.

(B) Two acre per thousand population in the rest of ODP area.

**XV. (B). Public Auditorium :**

There are six auditoriums in the municipal area of which 2 belong to N.F. Railway. With the accepted standard of one public auditorium for every one lakh population, the availability of 4 public auditoriums is insufficient by 2001, an additional 4 Nos. of public auditoriums might be sufficient.

**XV. (C) Clubs & Libraries :**

In the ODP Area there are altogether 74 clubs of different types including three meant exclusively for skill-drain.

At present there are 19 libraries in the ODP area of which 10 are located within the municipal limits. Majority of these libraries are organised under the Rural Library Schemes of the State Government.

The projected requirement of clubs and libraries in the ODP area have been estimated at 247 by 2001 (The additional requirement is 154)

**XV. (D) Cinema Hall :**

At present there are 6 Nos. of Cinema Houses in municipal town and 2 in the rest of ODP area. It is estimated that an additional 11 cinema houses will serve the requirement till 2001.

**XV. (E). Crematoriums :**

The existing disposal arrangements at Mahananda river banks in the heart of the town should be immediately shifted to a convenient location and construction of the same electrification in figure.

## **XVI. Conclusion :**

Siliguri ODP area has got the promise and potentiality to grow as a counter-magnet to state capital in North Bengal area. Making it grow on desired lines assumes added importance in the context of 'uni-centric nature' of the state of West Bengal. The Outline Development Plan prepared under section 31 of West Bengal Town & Country (Planning & Development) Act 1979, may be taken by the regulatory, developmental and local self-government agencies as a launching-pad for their respective activities in order to achieve the desired objective of 'Siliguri an urban rural continuum'.