

অসম



ৰাজপত্ৰ

স্বাধীনতা

THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্বৰ দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

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No. 316 Dispur, Tuesday, 26th December, 2006, 5th Pausa, 1928 (S.E.)

GOVERNMENT OF ASSAM
ORDERS BY THE GOVERNOR
URBAN DEVELOPMENT DEPARTMENT

NOTIFICATION

The 9th June, 2006

No. UDD (T) 304/2005/2. - In exercise of the powers conferred by Sub-Section (2) of Section 10 of Assam Town & Country Planning Act, 1959 (as amended) and the Assam Town & Country Planning (amended) Act, 1994 (Assam Act, XXIII of 1994) read with the Assam Town & Country Planning (Publication of Master Plan and Zoning Regulation) Rules 1964, the Governor of Assam is pleased to publish the following Notification regarding the publication of the Final Master Plan and Zoning Regulation for "Barpeta".

NOTICE FOR THE PUBLICATION OF THE FINAL MASTER PLAN FOR BARPETA:

1. It is notified that the Final Master Plan for Barpeta is prepared by the Director, Town & Country Planning, Government of Assam under Section 10(2) of the Town & Country Planning Act, 1959 read with 3 (2) of the Assam Town & Country Planning (amendment) Act, 1962 for the area described in the schedule below is hereby published.

2. The Final Master Plan and Zoning Regulation for Barpeta together with all relevant papers and maps may be inspected free of cost during the office hours at the office of the Director, Town & Country Planning, Government of Assam, Dispur, Guwahati-6, Deputy Director, Town & Country Planning, District Office Barpeta; Sub-Divisional Officer (Civil), Bajali and Office of the Executive Officer, Barpeta Municipal Board, Barpeta. Copies of Final Master Plan also available at the office of the Director, Town & Country Planning Government of Assam, Dispur, Guwahati-6 and the Deputy Director, Town & Country Planning, District Office Barpeta for sale on payment.

SCHEDULE:

Location and Area	-	Barpeta Master Plan Area
District	-	Barpeta
Sub-Division	-	Barpeta
Approximate Area	-	2149.85 Hectore.

Revenue areas included in the Final Master Plan Area, Barpeta.

1. Barpeta Municipal Area.
2. Other Revenue Area as shown below.

<u>Mouza</u>				<u>Village</u>
Barpeta	-	-	-	Metuakuchi Town
- do -	-	-	-	Metuakuchi Village
- do -	-	-	-	Jati Town
- do -	-	-	-	jati Town
- do -	-	-	-	Ganak Kuchi Town
- do -	-	-	-	Badrartup Town
- do -	-	-	-	Soonaridia
Ghilajari	-	-	-	Sonkuchi
- do -	-	-	-	Dangarkuchi.

CHAPTER - I

Introduction :- The seriousness felt regarding the management of urban development hardly needs any introduction upon the pretext of the multifarious problems brought in the evils of unplanned urban growth. Urban problems are unfolding themselves in greater acuteness and on a wider scale. Wide ranging issues starting from improper and ineffective use of land, ill health and under recreation etc. are the topics of the day concerning the urban planners. This are the vital fronts, calling for newer and newer approach to tackle them.

Fortunately, the Barpeta Town, a small urban centre on the north bank of the Brahmaputra, is yet to experience the multi-furious problems of urbanization. The town is crawling on the process of urbanization at a snails pace. While for the state as a whole the growth rate of urban population between 1971 and 1991 was 46.5% and whereas for Barpeta it was 4.12% over the years. The picture remains more or less static.

But this slow rate of urbanization or its "not-so-important" impact on the town of Barpeta does not in any way undermine the necessity to prepare a Master Plan, following which the physical development of the town be steered through a Master plan from the very beginning before the situation worsens and goes out of control.

It is from the above point of view, that the Barpeta Master plan has thus been prepared. The whole project report has been divided in three parts:

- (i) Part A dealing with the town "as it is to-day".
- (ii) Part B dealing with the town "as it should be to-morrow".
- (iii) Part C dealing with the "Zoning Regulation" for proper implementation of Master Plan.

Many a legends are there regarding the growth of the town and origin of the name "Barpeta". Regarding the growth of the town, according to one legend, there was a small locality besides "Barpeta bill" where Sri Sankardev stayed for a temporary period and where from he preached. His teaching in course of time, probably influenced by the vaisnavite culture and ideology, people started flowing to Barpeta and got settled there. And thus, as a result the once-small to locality began to experience a continuous gain in population. Coming to the origin of the name Barpeta, according to one legend, the town was originally developed beside a big water body, called "Barpit" (in local dialect) and from this "Barpit" derived the name "Barpeta". Again, somebody held the view that the name Barpeta has been derived from the "Barpeta", meaning a great holy place (Bar means "Great" and "Peeth" means Holy place)

The town was accorded and administrative-center status and civic administration came into being in the year 1886 with the formation of Barpeta Municipal Board. Subsequently, the town was promoted as a sub-divisional head quarter of east to kamrup District and finally in 1983 the town has been elevated as a district head quarter with the conversion of Barpeta Sub-Division into Barpeta District.

The town is primarily an administrative center with trade and commerce supporting it.

CHAPTER - II

2:1 LOCATION :- Barpeta Town (with a Municipal Area of 366.64 Hector) is located on the North bank of the mighty Brahmaputra, at distance of 140k.m. north west of Guwahati, the capital of the State of Assam. The status of town, as per 2001 census, is class-III; and its poor economic is primarily dependent upon a feeble trade cum-economic and service sector.

The town is connected to Guwahati by state highway via Doulasal, Hajo. There is also an alternative roadways to Guwahati via National Highway 31 which by pass the town at a distance of about 12 k.m. from the town center. Although the railways does not connect the town, the town can said to have a prevalent of railway linkage on the ground that the railway station is located at Barpeta Road, just about 23 k.m. away from Barpeta.

2:2 BARPETA MASTER PLAN AREA :- Considering the trend of physical extension of the town several contagious villages (as mentioned in the schedule), towards which the town is tending to be extended, have been included in to the Barpeta Master Plan (BMP), taking into account the Barpeta Municipal Area and the areas of the villages inducted in BMP has been estimated at 2149.85 hector with a population of 41,898 on 1991.

2:3 PHYSICAL FEATURES :- Surrounded by a pictures que green paddy field, Barpeta Town is located in a low lying area, intercepted by river Chawolkhowa, a tributary of the Brahmaputra. This tributary serves as a natural drainage course and it is used for domestic as well as for farming purpose. The topography of the town is more or less plain. There is no hill or hillocks within the BMP boundary. Being a low lying area, most of the part of town (BMP) area, specially part of the BMP area gets submerged during flood causing untold suffering to the urbanizes thereby collapsing the town life. The cardinal point of the town area 26°19'25" north latitude and 90°00'25" east longitude.

2:4 PHYSIOGRAPHY - CLIMATE :- Barpeta town occupied its position on a flat alluvial plan land. River Chawlkhowa flows by the town.

Climatically, the town resembles with other towns of the Brahmaputra valley, a monsoonal climate, hot humid summer followed by cool dry winter. Climatically, for Barpeta the whole year can be divided into three parts (a) February to May - dry and moisture less weather with moderate heat; (b) June to October - oppressive heat accompanied by excessive rainfall; (c) November to January - cool and foggy weather.

The annual average total rainfall in Barpeta Town is 1660m.m. while minimum temperature recorded in the town is 7.80 C on an average, in maximum temperature touches 37.80 C. Although all this rainfall and temperature figures, represent the study year of 1984 but with slight variation, the figure remain more or less the same all the year.

2:5 DEVELOPMENT OF THE TOWN :- Over the year, Barpeta has been coming up as a prominent seat of Vaisnative Culture. The social reformers of Assam, Mahapurush Sri Sri Sankar Dev and Sri Madhabdev, preached the ideology of vaisnavite religion and spreads its cultural aroma by establishing a number of Satras in and around Barpeta Town. The town has grown spontaneously and organically.

CHAPTER - III

3:0 POPULATION :- Population is the most important focal point in any kind of development planning. Therefore a comprehensive study of population growth, distribution, composition and other characteristics which are essential to access further planning needs such as housing, civic facilities and amenities etc. has been made for Barpeta Town in order to enable the planners and policy makers to design and formulate plans and policies.

3:1 POPULATION GROWTH :- The population growth rate of the town has been observed a slow in an absolute figure whereas there has been seen a fluctuation rate of growth from 1941 to 1971 (Table I). Another interesting facts shows that there is a sudden fall of population in the Municipal area in the last two decades and which is about 4.12 percent. Although there has been a decrease of population in the Municipal area, an increase of population of about 11.45 p.c. is also observed in the Master Plan area. This is due to the increase of population in the village that come under Master Plan area.

3:2 POPULATION GROWTH WITHIN THE TOWN :- It is interesting to note that over the last two decades Barpeta Town has experienced a negative growth of population as per the provisional census of India 1991. From the ward wise growth rate of population it is observed that out of the twelve wards except ward 1, 9 and 12 the other nine wards have experienced a growth rate of population in that period (1971 - 91), Table II shows it.

DECADE WISE POPULATION GROWTH IN BARPETA MUNICIPAL AREA AND MASTER PLAN AREA

Year	Population		Decadal increase		Decadal Percentage variation	
	Master Plan Area	Municipal Area	Master Plan Area	Municipal Area	Master Plan Area	Municipal Plan Area
1941	---	18,466	---	---	---	---
1951	---	21,137	---	2,671	---	14.46
1961	30,871	22,307	---	1,070	---	5.06
1971	35,592	26,479	6,721	4,272	21.77	19.24
1981	---	---	---	---	---	---
1991	42,898	25,467	4,306	1,090	11.45	- 4.12
2001	44,297	22,493	2,399	-2,974	5.73	-11.68

* Census was not conducted in Assam.

- Source :
1. Census of India 1941, 1951, 1961, 1971 (Assam)
 2. Census of India (Provisional).

TABLE - II
WARD-WISE POPULATION GROWTH

WARD NO	POPULATION '91	POPULATION '01	INCREASING RATE IN PER CENTAGE
1	2907	2492	- 16.65
2	2088	1778	- 17.44
3	986	956	- 3.14
4	1896	1801	- 5.27
5	4106	3533	- 16.22
6	1616	1421	-13.72
7	2168	1867	- 16.12
8	935	797	- 17.31
9	3174	2583	- 22.88
10	2274	2206	- 3.08
11	1286	1113	- 15.54
12	2031	1946	- 4.37
Total -	25,467	22,493	-13.22

The fall of population is supposed to be for the following factors -

The whole town is a low lying one, lack of open spaces, unhealthy condition for living due to congestion. Migration of educated people to the fringe area, higher cost of material and labour, growth of Barpeta road as a commercial town in the region. Most of the town of Assam are growing horizontally and Barpeta has also no exception. The growth in terms of physical and demographic can be observed more in Master Plan area. As population is increasing the fringe area so in order to bring a harmonious relationship between different urban functions the provision for urban facilities and other physical amenities in the Master Plan area should be taken into consideration.

3:3. SEX RATION:- The sex ratio of an urban settlement is often influenced by the migrant trends of work force and the housing situation in that settlement. The job seekers leaves his family behind and remains alone in the new settlement until and unless he acquires a regular employment and some accommodation of high migration rate and short housing supply and thus less consolidations the settlement. The over all sex-ratio of the town has increased from 967 in 1991 to 1010 in 2001. All the wards show a drastic increase except ward no.2 which has insignificant increase in sex-ration (Table III), Thus it signifies that the town is growing at a snail pace or in other word it is stagnating. A fast growing town would however have low sex-ratio but in case of Barpeta it is diagonally opposite.

TABLE - III
WARD-WISE SEX - RATIO OF BARPETA TOWN

Sl. No	1991				2001			
	Total - Population	Male	Female	Sex-Ratio	Total Population	Male	Female	Sex Ratio
1	2907	1419	1488	1048	2492	1234	1258	1019
2	2088	1055	1033	979	1778	868	910	1048
3	986	486	500	1028	956	479	477	995
4	1896	945	951	1066	1801	881	920	1044
5	4106	2185	1921	879	3533	1800	1733	962
6	1616	803	813	1013	1421	706	715	1012
7	2168	1121	1047	934	1867	928	939	1011
8	935	470	465	989	797	396	401	1012
9	3174	1623	1551	956	2583	1297	1286	991
10	2274	1151	1120	971	2206	1106	1100	994
11	1286	658	628	954	1113	549	564	1027
12	2031	1023	1088	982	1946	949	1000	1057
Total -	25,467	12,942	12,52	967	22,493	11,190	11,303	1010

3:4 DENSITY :- The density of population in the municipal area is also decrease in accordance with the decrease of population. In 2001 it is 6128 persons per sq. k.m. and the corresponding density for 1991 was 6939 (Table IV).

In the Master plan area there has been observed slight increase of density of population. It is 2060 persons per sq. km. in 2001 compared to 1873 persons per sq.km. of 1991. This is evident that the town is stagnating in the municipal area and corresponding growth is found in the peripheral area.

TABLE - IV

YEAR	MUNICIPAL AREA		MASTER PLAN AREA	
	Total Population	Density per sq. k.m	Total Population	Density per sq. k.m
1961	22207	6051	30583	1423
1971	26479	7215	36319	1689
1991	25467	6939	40275	1873
2001	22493	6128	44297	2060

OCCUPATION AND EMPLOYMENT PATTERN

3:5:1 OCCUPATION RATE

The capacity of an urban area to provide various jobs and to absorb its working population in various economic sector is an indicator of the economic viability of urban areas. The participation rate also gives an idea of the share of gain fully employed persons against the dependent and nonworking population. Generally the participation rates are high in an urban areas. The table V shows the participation rate with an insignificant increase from 24.42 percent in 1971 to 24.64 percent in 1991. This insignificant increase conclusively results that the town is growing very slowly or it's tending towards stagnation.

3:5:2 OCCUPATIONAL PATTERN

OCCUPATIONAL PATTERN :- The occupational pattern in the Barpeta town does not make any major change even after becoming the district headquarter. It was almost similar when it was only the district sub - divisional town. Broadly, tertiary sector has gained at the cost of secondary and primary sector. The share of works in this sector has an insignificant increased from 75.63 percent in 1991 to 76.88 percent in 2001. In the similar period the share in the secondary sector has a light decrease from 20.31 percent to 18.98 percent and increased in the primary sector it from 4.0 percent to 4.16 percent respectively. The Table No. V shows that in the tertiary sector, it is the Government service which has rapidly increased to 36.95. The trade and commerce though comes in the second place have experience a sharp fall in percentage from 29.24 percent to 29.56 in 2001. Thus it indicates that trade and commerce has raising its importance in the town. And it is obviously supported that the town is surviving because of its administrative importance. As the head quarter of the district, here trade and commerce has only supplemented it. However, it will be right to say that the trend would continue with administration being the main function of the town in the near future.

Year	Total Population	sp. k.m.	sp. k.m.
1961	22207	1206	1423
1971	26479	7212	1689
1991	25467	6939	1873
2001	22992	6128	2060

TABLE - V
OCCUPATION STRUCTURE IN BARPETA TOWN

	1991		2001	
	No. of Workers	P.C. to total Workers	No. of Workers	P.C. to total Workers
PRIMARY SECTOR				
1. Cultivator	55	0.88	25	0.37
2. Agriculture labour	14	0.22	14	0.21
3. Live stock, forest fishing	181	2.9	242	3.58
Total	250	4.0	281	4.16
SECONDARY SECTOR				
4. Mining & Quarrying	4	0.06	4	0.06
5. Manufacturing, household industry	694	11.10	700	10.35
6. Construction	572	9.15	580	8.57
Total	1270	20.31	1284	18.98
TERTIARY SECTOR				
7. Trade & Commerce	1828	29.24	2000	29.56
8. Transport, Storage & Communication	648	10.37	700	10.37
9. Other Services	2255	36.07	2500	36.95
Total	4731	75.63	5200	76.88
Grand Total	625	1100.00	6765	100.00

Source : a. Census of India (Assam) 1971

b. Census of India (Provisional).

PARTICIPATION RATIO (M.B. AREA)

YEAR	Total No. of workers	Total Population	Participation Ratio
	(I)	(II)	I%II
1991	6251	25467	24.55
2001	6765	22493	30.08

3:5:3 MAJOR URBAN FACILITIES :- Urban areas are attached with intangible values like status, character and function which are very keen to human personality. Activities of the urban dwellers which emerge from the urban-function are manifested in the physical development of the town. A harmonious blending of the "Function" and the "Activities" lead to a healthy and orderly development of the urban areas reflecting, its true "personality" and "character".

It is universally accepted that "Form" flows functional. The clarity of function reveals a true form. If the functions are not well defined and harmoniously blended the "Form" may not be clear and results in urban disorder.

TABLE - V
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3:5:3 (A) ADMINISTRATIVE :- Barpeta after becoming the district headquarter, administration is going to be the major functions, even now this certifies the predominant function of the town.

3:5:3 (B) COMMERCIAL :- This constitutes the next important function of Barpeta town. It is the least important and has become eroding over the decade due to the fact that, the coming up of the near by town Barpeta Road as the major commercial centre of the region. Thus it helps only to supplement few village and town itself.

3:5:3 (C) INDUSTRIAL :- The town does not gain much industrial activities or manufacturing units. Some few are the leading industrial unit.

3:5:3 (D) EDUCATIONAL :- The town serve as the primary education centre of the region. Presently, it has one General College, one law College, One B.T. College and an Industrial Training Institute besides schools. ALL these institutions serve surrounding region besides the town.

3:5:3 (E) RECREATIONAL :- The town does not have much of developed recreational facilities but this are a limited number of recreational facilities like Library, Playground, Parks and Theater Hall.

3:5:3 (F) HEALTH:- The town has one Civil Hospital which serve not only the town but also the surrounding village. There are eight Health Sub Centre in the Master Plan Area.

CHAPTER - IV

4: PHYSICAL GROWTH AND EXISTING LAND USE PATTERNS:-

Urban sprawl or expansion is mainly by the growth of population and increase of various activities which again depends on physical condition of the areas such as hills, water bodies, man-made physical barriers etc. Therefore, it is imperative to understand the land use pattern of Bapeta Town.

4:1 PHYSICAL :- The town has generally grown linearly along the major routes. The trend of growth has been along the road to Bhawanipr in the north. And another few development has come up towards Mondia road in the South. Besides that the major development has been taken place along the Barpeta-Howly road towards the North-West of the town.

However, at present the growth trend does not take any major change over the decades in any of the wards as in observed from occupied Residential houses. but the trend is expected to continue toward the North- West to the Howly Road, which is beyond the Municipal boundary.

4:2 LIMITING FACTORS :- Barpeta town being located in the low lying areas is very often affected by flood during monsoon, so the entire town itself acts as the barrier for taking place any major development. For this reason the town is growing at snail pace part from this there are rivers and tributaries which act as barrier for any further expansion of the town. To the North-West stands the Chawolkhowa river and Nakhanda river to the eastern side.

4:3 EXISTING LAND USE PATTERN :- After a through study of the survey record on existing land use it has been found that entire Master Plan area is almost dominated by the use of agriculture, which cover an area of 1408.58 hectares out of 2149.85 hectares (65.52%) of the Master Plan Area. The residential area with 13.85% to the total area comes next agricultural land use. With the increase of population it requires more residential area to accommodate the increased population and accordingly the area under different category of uses shall have to be accommodated from the land under agriculture. The land under public and semi-public is 13.25% to the developed area in Municipal area and 7.45% in the Master Plan Area which reflects the expansion under these uses. This is due to the introduction of Head Quarter of the district and for which the new establishment of offices and others have to be accommodated in the Master Plan Area in future. The town does not gain much in the field of industry. It shares the least of all and caters only 0.24% to the total Master Plan Area. Therefore more incentive may be provided to the local center to encourage the establishment of industry in and within the town table VI reveals this.

TABLE -VI
EXISTING LAND USE PATTERN OF MASTER PLAN AREA
(AREA IN HECTARES)

MUNICIPAL AREA					MASTER PLAN AREA		
Sl. No.	LAND USE	Area in Hencares	P.C. to Total Area	P.C. to Dev. Area	Area in Hectares	P.C. to Total Area	P.C. to Dev Area
1.	Residintial	122.03	33.28	53.50	297.75	13.85	51.05
2.	Commercial	9.57	2.61	4.20	15.05	0.70	2.58
3.	Public & Semi Pubic	30.23	8.25	13.25	43.43	2.02	7.45
4.	Industry	1.20	0.33	0.53	5.16	0.24	0.88
5.	Recreational	4.58	1.25	2.0	6.88	0.32	1.18
6.	Transpor - tation	60.50	16.50	26.52	214.99	10.00	38.86
7.	Total Develo- ped Area	228.11	62.22	100.00	583.26	27.13	100.00
8.	Water Bodies	42.20	11.56	---	158.01	7.35	
9.	Agriculture	96.13	26.22	---	1408.85	65.52	
		366.64	100	100	2149.85	100	100

Source : Survey by Town & Country Planning Department, Barpeta.

CHAPTER - V**HOUSING :**

Housing area which covers a large portion of an urban settlement at any point of time influence the quality of urban life which in turn affect the efficiency of the settlement. In fact the total urban form the character emerge from the quality of Housing areas and the inter relation of housing areas with work centre and other non-residential areas. Normally all work housing and the problems related to it are taken to mean dwelling units in terms of quality and quantity along housing on quality of life is more dependent on other elements of housing areas such as disposition of various working areas layouts development of land, provision of roads, water supply, sewerage, drainage and provision of basic amenities like shops, school etc. It is in this context that the problems of housing experienced in Barpeta Town has been studied in its totality.

The problems of housing in Barpeta Town is aggravated because of low density of residential units and linear development. This large spread of population residing stretches the infrastructure and thus increase cost where as the revenue generated remain very low.

5:1 LIVING CONDITION :- Living conditions of residential areas is inter related with the environmental aspect of city life. In order to understand and identify the problems of these areas it is essential to examine the living conditions of these areas both qualitatively as well as quantitatively. Qualitative aspect of living environment covers study of housing areas in terms of structural conditions, standard of services, relationship of housing areas and work centres, provision of amenities like education, health and recreation, provision of service like water supply, drainage, residential density, occupancy rate etc.

5:2 HOUSING AREAS :- The urban housing is mainly found about 84% within the Municipal Areas. The residential areas shown outside the Municipal boundaries are rural housing where as 51.21% are found to thatch houses.

The residential spread or housing within the Municipal area is round 4.8 hectares per 1000 persons and in the Master Plan Area the rate of housing spread 7.4 hectares per 1000 persons. Thus it is obvious that the utilization rate of residential areas is found to be very low in the Master Plan area than in the Municipal Area.

5:3 OCCUPANCY RATE :- The occupancy rate of the town has been seen decreasing from 6 persons in 1991 to 5 persons in 2001 per housing unit. It is evident enough that the town is growing at a slow pace or stagnating. The following Table VII shows that almost all the wards in the town are improving in the occupancy rate has changed since 1991.

5:4 STRUCTURAL CONDITION :- The town mostly Assam type houses either pucca or thatched. They constitute 81.43% and 5.69% of both pucca and thatched respectively as R.C.C. constitute 7.55% and 5.33% respectively. It is evident that the physical development of the town seems to be very low. And thus the capacity to invest on housing is quite low.

TABLE - VII
WARDWISE OCCUPANCY RATE OF BARPETA

Ward No.	1991			2001			Increasing and Decreasing Rate in P.C.
	Occupied Residential House	Total Population	Occupancy rate in persons/housing rate	Occupied Residential House	Total Population	Occupancy Rate in persons housing rate	
1.	415	2827	7.0	478	2492	5.0	-13.44
2.	309	2088	7.0	343	1778	5.0	-17.43
3.	165	986	6.0	190	956	5.0	-3.14
4.	310	1896	6.0	321	1801	6.0	-5.27
5.	726	4106	6.0	741	3533	5.0	-16.21
6.	253	1616	6.9	259	1421	5.0	-13.72
7.	343	2168	6.0	336	1867	6.0	-16.12
8.	152	935	6.0	159	797	5.0	-17.31
9.	526	3174	6.0	519	2583	5.0	-22.88
10.	358	2274	6.0	415	2206	5.0	-3.08
11.	216	1286	6.0	216	1113	5.0	-15.54
12.	334	2831	6.0	367	1946	5.0	-45.48
	4,108	25,387	6.0	4,344	22,493	5.0	-12.87

Source :- a. Census of India 1991(Provisional)

b. Census of India 2001.

TABLE - VIII
STRUCTURE AND CONDITION OF THE BUILDING (ALL TYPE)
UNDER BARPETA MASTER PLAN

AREA	TYPE OF STRUCTURE						Condition		
	R.C.C	%	Semi	%	Assam	%	Katcha	%	Total
Municipal Area	515	7.55	364	5.33	5564	81.43	388	5.69	6831
Outside the Municipal Area	55	1.66	453	13.63	1113	33.49	1702	51.21	3323
Master Plan	229	2.45	1159	12.39	5192	55.50	2774	29.65	9354

Source:- Survey by Town & Country Planning Department 2001.

CHAPTER - VI

SERVICE FACILITIES

6:1 EDUCATION :- Education is equally important like food and shelter, In a democratic country unless the voters are literate and literate educted, there may be deficiency for smooth functioning of democracy. Therefore more educational facilities should be extended as far as possible.

From the point of view of literacy, Barpeta is in an advantages position. The P.C. of literacy in Barpeta is 60.95% which is higher than many other towns of Assam. However educational facilities available in the Barpeta Master Plan Area is also too educated, Educational Institutes presently available in the Master Plan Area given below.

**TABLE -IX
EDUCATIONAL INSTITUTE IN BARPETA MASTER PLAN AREA**

SL	TYPE OF INSTITUTE	NO.OF	NO.OF STUDENT
1	L.P.School	40	4638
	Secondary School		
3	Vocational Institute	7	901
4	B.T. College	1	60
5	Law College	1	320
6	College for general education	5	4120

Source : Socio -Economic survey by Town and CountryPlanning Department 2004.

Due to the shortage of educational institute in all level existing Institute are over crowd with students with increasing number of students every year ma more educational institute particularly number of vocational Institute should be established in Barpeta.

6:2 HEALTH:- Out of all civic amenities available in the town, health is one of the most important amenity of civic life. Present position relating to the Medical facilities of Barpeta Town could be seen from the table X given below :

TABLE - X
EXISTING HEALTH FACILITIES IN THE BARPETA MASTER
PLAN AREA

SL.NO.	AREA	HEALTH CLUB CENTRE	PRIMARY HEALTH CENTRE	CIVIL HOSPITAL
1	Municipal Area	-----	-----	-----
2	Master Plan Area	-----	-----	

6:3 RECREATION :- For a healthy town, there should have more recreation facilities. Like other towns of Assam, Barpeta is also taking in having sufficient recreational facilities. At present there are only a limited number of recreation facilities like library, Playground, Park, Cinema hall etc. as per given in the Table XI.

TABLE - XI
RECREATION FACILITIES IN BARPETA TOWN

SL NO.	SOURCE OF RECREATION	TOTAL NO.
1	Cinema Hall	2
2	Theatre Hall	3
3	Public Library	35
4	Play Ground	5
5	Park	4

Source : Socio-Economic survey by Town and Country Planning Department 2004.

6:4 WATER SUPPLY :-

Water is a vital need for sustenance of life. Potable water for drinking purpose in Barpeta Town in scarcity. Presently the pipe water supply from the P.H.E. Department has covered an insignificant population of 4.86% out of total population. It is obvious that the rest of majority population are depending from various other sources of drinking water. They are mainly from underground source such as Tube well, Ring Wells, Tanks etc. It is apparent that the town has quite inadequate of potable water.

There are two water tanks in two zones one each with the capacity of 1,25,000 gallons and 1,00,000 gallons. This covers 200 households (4.86% of the total household) and has only 22.27 LPCD. This is very low in compare with the national standard from 135 LPCD. And this is also quite below other town of Assam. Therefore, there is an urgent need of pipe water supply to prevent them from tapping water from other sources. Since the town also lies in the low lying areas most of the ring wells and tube wells gets submerged under water during summer monsoon and left quite unhygienic from drinking purposes.

TABLE - XII
DISTRIBUTION OF WATER SUPPLY IN BARPETA TOWN

SL NO.	DISTRIBUTION ZONES	DISTRIBUTION LTS. PER DAY IN	DURATION OF DISTRIBUTION
1	ZONE - I	10 LACS LITERS	1 HOUR
2	ZONE-II	6 LACS LITERS	1 HOUR
TOTAL			

Source : Public Health Engineering, Barpeta.

TABLE - XIII
WATER SUPPLY IN BARPETA MASTER PLAN AREA

SL NO.	SOURCE	NO. OF FACILITIES	P.C.
1	Tube Well	7,000	55.47%
2	Ring Well	3,000	23.77%
3	Tank	50	0.40%
4	Others	2,570	20.36%

Source : Socio-Economic survey by Town and Country Planning Department 2004.

6:5 ELECTRICITY :- Electric facility is unavailable in the town/ Only about 80% of the total families are taking electric connections for domestic use. Connection of electricity for industrial and commercial consumption are very negligible.

6:6 SANITATION :- The existing sanitation condition of Barpeta is unhygienic and unsatisfactory socio-economic survey conducted by Town & Country Planning Department, Govt. of Assam, reveals that only a limited number of families are using sanitary latrines as shown in the table below :-

TABLE - XIV
SANITATION IN BARPETA MASTER PLAN AREA

SL NO.	TYPE	NO. OF FAMILIES	P.C. TO TOTAL FAMILIES
1.	Sanitary Latrine	3792	41.33%
2.	Service	178	1.94%
3.	Others	1798	19.60%
4.	Pit	3406	37.13%

Source : Socio-Economic survey by Town and Country Planning Department 2004.

The Table reveals that maximum number of families(37.13%) use pit latrines. It is also seen that for about 20% of the families there is no provision of latrine at all. This in sanitary condition of the town leads to the various disease in the town off and on.

In view of the situation arising out of in sanitary condition of the town of Assam Govt. of Assam has decided to construct some low cost sanitary latrine to replace the existing service and pit latrines in the 15 project towns of Assam. Barpeta is one of these towns. There is provision of constructing 4062 dry latrine in the town to replace the existing one.

6:7 DRAINAGE :- The existing drainae system is not based on any scientific approach. Only the usual drains are being made pucca partly, Where necessary for provision of footpath and all other drains are almost kutchha. The drainae proplem in Barpeta is acute one and it should have a scientific approach to solve the drainage problem, since the most of the areas under Barpeta Master Plan an low lying area. Due to lack of proper drainage system the present outletof drains serving the Baza area of the Barpeta town become very ineffective. As a result, the aea nearby the outlet is affected by heavey rains during moonsoon. So it is necessary to take almost care for improee the existing outlet scientifically to release all the over flooded water of the area.

6:8 COMMUNICATION :- The importance of the town has increased primarily due to it fairly good rail and road linkages to and from others parts of the country.

6:8:1 ROAD COMMUNICATION :- Transport and Communication facilities are one of th most important factor of economic development of a place. Although Barpeta is one of the oldest town of Assam, its transportation system is not satisfactory. No direct rail communication and ai communication are available to and from Barpeta Town. Nearest Railway station in Barpeta Roa and it is standing at a distance of 23kms and Barjarh Airport s at a distance of 144k.m. nea Guwahati.

Industrial and commercial sectors of the economy of the town much affected du to the absence of direct rail communication to and from Barpeta.

However, road comunication is satisfactory in comparison to the other town c Assam which is evident from the tale given below:-

TABLE-XV
ROAD TRANSPORT IN BARPETA (PASSENGER)

SL.NO.	ROUTE	FROM	TO	TOTAL NO OF VEHICLE	MOOD OF TRANSPORT	OTHERS
1.	Barpeta	Barpeta	Barpeta Road	105 nos.	Private	
2.	-do-	-do-	Tarabari	42 nos.	-do-	
3.	-do-	-do-	Mondia	60 nos.	-do-	
4.	-do-	-do-	Kanara	10 nos.	-do-	
5.	-do-	-do-	Jania/Kadong	10 nos.	-do-	
6.	-do-	-do-	Sarthebari	12 nos.	-do-	
7.	-do-	-do-	Ananda bazar	8nos.	-do-	
8.	-do-	-do-	Gobardhana	20 nos	-do-	
9.	-do-	-do-	Guwahati Via Doulashai	31nos.	A.S.T.C	
10.	-do-	-do-	Guwahati Via Howly	31nos.	A.S.T.C	
11.	-do-	-do-	Salbari	10 nos	Private	
12.	-do-	-do-	Sarupeta/ Rupahi	15 nos	-do-	
13.	-do-	-do-	Barpeta Road to Guwahati Via Barpeta	15 nos	-do-	
14.	-do-	-do-	Guwahati via Sarthebari	15 nos	-do-	
15.	-do-	-do-	Guwahati Via Doulashai	25 nos	-do-	
16.	-do-	-do-	Baghmara	8 nos	-do-	
17.	-do-	-do-	Simla	8 nos	-do-	
18.	-do-	-do-	Barala	8 nos	-do-	
				Total-433 nos		

Source: Survey by Town and Country Planning Department 2004.

Besides the state transport busses mentioned above 3055 nos. of provate ve-
hicle move by road via Barpeta to different places.

Road communication to Barpeta Road and Howly is satisfactory 40 buses ply
between Barpeta and Barpeta Road and 20 Buses ply between Barpeta and Howly. Table belowl
given an idea slow moving vehicle like Ricksaw, Thella ans Bicycle.

TABLE - XV

YEAR	RICKSAW	THELA	BICYCLE
1994 - 1995	521	950	3732
1995 - 1996	550	1100	4443
1996 - 1997	578	1205	5697
1997 - 1998	601	1320	6552
1998 - 1999	628	1430	7434
1999 - 2000	648	1507	8402
2000 - 2001	663	1605	9900
2001 - 2002	680	1711	10,720
2002 - 2003	706	1802	11,500
2003 - 2004	730	2000	12,000

Source : Municipal Board, Barpeta.

SL. NO.	ROUTE	FROM	TO	TOTAL NO. OF VEHICLE	MODE OF TRANSPORT	OTHER
1.	Barpeta	Barpeta	Barpeta Road	100.nos	Truck	

6:8:2 TRAFFIC TERMINALS :- There is no any organized parking space for all type of vehicles serving the area. However, there are two small bus stands, one at Gandhi Nagar near Bazar, which is used for private buses and other one at Muslimpatty, which is use for A.S.T.C. Buses. So, the two small Bus stands don't provide the sufficient parking area for all buses playing over the town. A park from this the parking areas used by different type of vehicle like car, Thela etc. are not organize parking space only the roads are used for parking. So, it is necessary to have organized traffic terminal having sufficient parking space for uses.

TABLE-XVIII
COLLECTION OF INFORMATION VEHICULAR PARKING (M.P.. AREA)

SL.NO.	ROAD	FROM	TO	TOTAL NO OF OFVEHICLE	PARKING
1.	Barpeta	Barpeta	Barpeta Road, Tarabari, Kanara, Gobardhana	177 nos.	Barpeta Bus
2.	-do-	-do-	Sarthebari	12 nos.	-do-
3.	-do-	-do-	Guwahati via Doulashal	25 nos.	-do-
4.	-do-	-do-	Anaanda Bazar, Salbari, Mandia, Kadang, Jania	88 nos.	-do-
5.	-do-	-do-	Sarupeta, Ruphi	15 nos.	-do-
6.	-do-	-do-	Baghmara, Simla, Barala	14 nos.	-do-
7.	-do-	-do-	Guwahati	62 nos.	Roadside parking near ASTC Bus stand
8.	-do-	-do-	Guwahati via Sarthebari	15 nos.	Barpeta Bus stand
9.	-do-	-do-	Guwahati via Barpeta	15 nos.	Roadside parking near ASTC Bus stand

Source: Survey by Town and Country Planning Department.

6:9: TRADE AND COMMERCE:- Commercial activity of Barpeta is too poor due to lack of transportation facilities. There is no rail, Air and water communication to and from Barpeta. Road communication is not satisfactory. Most of the trades are disrupted during the monsoon period.

There is no wholesale Market in the town . However there are a few retails commercial establishments are listed bleow in the Table XIX

TABLE-XIX
COMMERCIALS ESTABLISHMENT OF BARPETA TOWN

Sl No.	CATEGORIES OF ESTABLISHMENT	TOTAL NO.OF ESTABLISHMENT
1.	Grocery	196
2.	Hardware	35
3.	Stationery	108
4.	Medicine	32
5.	Book Stall	13
6.	Restaurant, Hotel	49
7.	Electrical Goods	21
8.	Cloth Store	110
9.	Radio and Watch	12
10.	Motors Parts	17
11.	Cycle Stores	25
12.	Wood and Bamboo Products	10
13.	Utensils	7
14.	Mica	5

Source: Survey by Town and Country Planning Department.

It is seen from the table above that there are only limited number of commercial establishment in Barpeta which generate little economy.

6:10 INDUSTRY:- Industrially, Barpeta is one the most backward town in Assam. There are only a few in Barpeta which generate little economy.

TABLE-XX
INDUSTRIES IN BARPETA MASTER PLAN AREA

Sl No.	CATEGORIES OF INDUSTRIES	NO.OF UNITS	NO.OF EMPLOYEES
1.	Wood (Furniture House)	20	160
2.	Motors Body building works	5	107
3.	Bakery	10	110
4.	Printing	18	183
5.	Candle making	5	25
6.	Soap factory	2	15
7.	Ivory Industry	2	8
8.	Brick Industry	9	650
9.	Ayurvedic Products	6	72
	TOTAL	77	1330

Source: Socio-Economic survey by Town and Planing Department Barpeta

CHAPTER-VII

7:1 FUTURE POPULATION : In case of Barpeta Town the prevailing factors of growth of population is likely to continue till 2021 with no major change in socio-economic structure. The advancement of medical science is supposed touch Barpeta Town to reduce death rates and the family welfare programmes will relatively decrease the birth rate as well.

An assessment of future population and its future characteristics is a basic requirement for the preparation of a development plan of a city. Though it is difficult to work out exact estimates of future population of a city because the factors on which growth depend cannot be foreseen with accuracy, number of methods have been used namely entrapopulation by arithmetic rate extra population by geometric rate, exponential rate etc. It is observed that the trend given by means of geometrical rate of increase explain the phenomena better than the other methods. The following table no XXI shows the population growth of Barpeta Master Plan.

TABLE-XXI

YEAR	POPULATION IN MASTER PLAN AREA	PROJECTD POPULATION IN MASTER PLAN AREA
1971	37,592	-----
1991	41,898	-----
2001	44,297	-----
2011	-----	46,833
2021	-----	49,514

7:2 PROPOSED LAND USE : For proper utilization of land on the difference urban activities, the area of the Mater Plan have been shown categorically under the following different land use components. The total area of the Master Plan are 2149.85 hectares of land. This includes 17% of develop and the remaining portion of the land to be developed with a view expansion of the town. The proposed land use under the different land use component have been shown in Table No.22.

TABLE - XXII
PROPOSED LAND USE OF BARPETA MASTER PLAN AREA
(Including Municipal Area)

Sl. No	CATAGORIES	Area	P.C. of Total Area	P.C. of Development Area
1	Residential Area	585.82	27.27	51.43
2	Commercial Area	54.82	2.55	4.81
3	Public and Semi Public	88.14	4.10	7.73
4	Industry	67.93	3.16	5.97
5	Recreational	73.78	3.43	6.47
6	Traffic & Transportation	268.73	12.51	23.59
	Total Developed Area	1139.22		
7	Water Bodies	158.01	7.35	
8	Agriculture	383.10	17.84	
9	Green Belt	468.23	21.79	
10	Total	2148.56	100%	

7.3: RESIDENTIAL USE :- Considering the overall residential density, the population as proposed may need the sufficient land for the accommodation, the overall residential density is also taken into account broadly to cover the requirement of land for all the convenient amenities and infrastructure for the residential use as such and area of 585.82 hecters has been earmarked in the proposed Master Plan Area. The population density is also shown to have a systematic planned residential area within the Master Plan. So, that there should not be any scope for irregular development for haphazard growth of the residential land.

The area as earmarked for residential use should be use for only residential use and also for the use as permissible in residential zone. Residential zone to be regulated under zoning regulations prepared for the Master Plan, the Table No.XIII shows the distribution of the land under the different residential density.

TABLE - XXIII
DISTRIBUTION OF LAND UNDER DIFFERENT RESIDENTIAL DENSITY

Sl.No.	DENSITY	PERSONS/ACRE	REQUIREMENT OF LAND
1	High density	85 to 100	97.64 hecters
2	Medium Density	50 to 75	195.27 hecters
3	Low Density	20 to 50	292.91 hecters

The overall land earmarked for the residential use will constitute 27.75 % of the total land of use Master Plan Area.

7:4: COMMERCIAL USE :- The existing commercial activities mostly developed road side, should be provided in a plan manner and in - organized in commercial complex where the necessary infrastructure for commercial development will be necessary.

The present market centre of the Barpeta Town, which consist of the Municipal market buildings and private shops with the busy street should be however properly develop with necessary facilities for parking, marketing etc. Since the commercial activities are one of the major urban component for the rapid growth of urbanization of an area. The commercial complex in different part of the Master Plan Area are proposed to be created. Such areas as located in Master Plan along with proposed ones will cover total area of the 54.82 hectares of the Master Plan Area. While proposing such commercial units in different parts of the Master Plan Area, the following major points have been looked into.

- (i) Accessibility to the site from residential area.
- (ii) Proper axis from the major roads.
- (iii) Equidistance from the residential area to be develop near by.

As it is a characteristic of India town and cities, the commercial activities growth in a type of ribbon development both side. The aspect is also taken into account while proposing the commercial use in some important roads as shown below.

- (a) Banikanta Kakati Road,
- (b) Kamala kanta Road.
- (c) Barpeta Baghbar Road
- (d) Ram Prasad Road.
- (e) L.N.B.B Road.
- (f) Court Approach Road

The total area of the land under this use is 54.82 hectors which constitute 2.55% of the total Master Plan Area.

7:5 INDUSTRIAL USE :- Though the Barpeta is not fully industrially developed but with the affect of the hinterland there is every scope for expansion of the activities. The total land undr existing industrial activities is 5.14 hectors, which includes only small scale industries growing under private sector also. And there must be encouragement for growing by product industries in Barpeta town. Considering all, an area of 67.93 hectors has been earmarked in the Master Plan Area which constitute 3.16% of the total land use. This includes the proposed industrial complex also, where the necessary infrastructural facilities providing for industrial development. Since the transportation facility is directly related to the development of industrial activity, the road axis, division of proposed road etc. are also look into while proposing such industrial complex. The area as named for such complex will consist of 67.93 hector also earmarked for the development of small and medium industries and also some agro-based industries.

7:6 PUBLIC AND SEMI PUBLIC :- Barpeta town is a district Head quarter, where some important facilities like education must be provided to maintain the standard of living. So, as a district headquarter, this head quarter town should have all type of educational institution, imparting the necessary knowledge in the field of both general and technical. To run required number of educational institutions in all level, there is need of public land for thier expansion. The present area used by each of the institution is not sufficient to provide all other facilities like open space, playground etc. The total area of land under this land use component covers 43.4 hectors for future expansion of the educational facilities like school, college and also for some technical institution, some area are proposed for public and semi-public use has been earmarked.

Most of the Government offices are located in a rented house and with expansion of various administrative activities in this Head quarter town, there need sufficient Govt. land to accommodate the Govt. and Semi-Govt offices. For provision of such Govt. and Semi-Govt. activities some area has been proposed in organized manner to have office complex etc. The areas, mentioned below has been shown in the Master Plan for development of office complex.

Under the public and semi-public use the use like temple, mosque etc. are also consider to be developed in future according to the need of the population as earmarked for the Master Plan.

As for Health facility, the present Civil Hospital is not sufficient to cater the need of the present population and it is very much essential to provide required numbers of beds which may not be accommodated in the existing set up according to the need of the total number of requirements of the bed and also some public centre will be necessary in different location of the Master Plan area for future provision of the Health facilities.

- (i) Educational Institution,
- (ii) Religious Institution
- (iii) Offices (Public and Semi Public)
- (iv) Hospital and Health Unit

Considering the standard of utilization of land on the basis of which the following categories of educational are shown with requirement of land as necessary :

- (1) Higher Education (General)
- (2) Higher Education (Technical)
- (3) Higher School and Higher Secondary School
- (4) Primary and L.P. School
- (5) Nursery Standard.

With the expansion of administrative activities this Head Quarter town, there shall not be less than hundred offices to run the administration in the field of development works for them future improvement of the town as well as the district. Considering the minimum requirement of land for such use of the rate of 10 Bighas each, there will be basic requirement of land for expansion of this activities, will be one thousand Bighas. (1,000,Bighas)

As soon as the Master Plan Area will be developed, the residential area will be coming up where the facility for religious institution will be very much essential. As a basic need for the people the convenient location for such use has been prepared which cover total land of 3.33 A.cres. The Table will shows the required standard and the utilization of land under the different uses of public and semi-public.

TABLE - XXIV
STANDARD FOR COMMUNITY

USES	REQUIREMENT		REQUIREMENT OF LAND	
	STANDARD	NO	STANDARD	AREA
L. P. SCHOOL	ONE PER 5,000 POPULATION	20	25 BHIAGS/SCHOOL	50B
HIGH SCHOOL	ONE PER 10,000 POPULATION	10	10 BHIAGS/SCHOOL	100B
COLLEGE	ONE PER 35,000 POPULATION	4	50 BHIAGS/SCHOOL	200B
TECHNICAL INSTITUTION	ONE PER 50,000 POPULATION	2	50 BHIAGS/ INSTITUTION	100B
RELIGIOUS INSTITUTION	ONE PER 10,000 POPULATION	10	1 BHIAGS/ INSTITUTION	10B
HOSPITAL INSTITUTION	ONE PER 50,000 POPULATION	2	50 BHIAGS/ HOSPITAL	100B
HEALTH UNIT	ONE PER 10,000 POPULATION	10	18 BHIAGS/ HEALTH UNIT	100B

7:7 RECREATIONAL :- Better environments for a health township, the organized open space in the form of park playground etc. are very much essential. Without proper recreational facilities the town can not grow as healthy as necessary for both urban life. The more will be population increase, the necessary for recreational facilities become more inhabitant for creating better opportunity for physical exercise.

Considering the standard for provision of recreational facilities the land utilization at the rate of per thousand population 1 acre. is proposed. The total and for this use is earmarked about 73.78 hectares. The includes proposed park to be created at a convenient location and also in proposed residential area.

As the town ship will grow in future having a projected population of 49,514 by 2021 and it will also remain as the Head Quarter of the district, there will be great demand for major recreational facilities like museum, stadium and also better swimming pool etc. For this purpose, the required area have also been earmarked in the proposed Master Plan Area. The vacant land of Bilortarihathi near five Nakhanda can be proposed site for stadium situated near by river. Nakhanda and the vacant land at Ganakkuchi, about 25 Bighas of land can be proposed as site for museum. The river Mora Chowkhowa can be used for recreational purpose like swimming pool, small lake, which may enhance for beautification of town.

7:8 UTILITIES AND FACILITIES :- The infrastructure facilities in respect of water supply, drainage and electricity are very less as per requirement for the total population in the existing town. As it has been proposed to extend more area to be included in the greater Barpet, the need of utilities and facilities will be much more in future.

7:9:1 WATER SUPPLY:- The Present water reservoirs installed for supplying water to the town have the capacity of 2,25,000 gallons. But as per requirement, the total requirement of the water for the total number of population of the town will be 3,74,664 gallons by 2011. So the capacity of the existing reservoir appear to be insufficient in order to distribute the required quantity of water. As per standard for requirement of water, the total quantity of water will be 3,74,664 gallons and additional reservoir will be necessary.

Since the master plan area will cover the projected population of 49,514 by 2021 it will be required to project the quantity of drinking water on the whole area and there must be water treatment plant with the provision of the required quantity of reservoir and overhead tank system in the suitable location of the area properly distributed. On the basis of standard for supplying sufficient quantity of water for all type of uses i.e. 8 gallons per capita per day, it has been estimated about 3,96,112 gallons of water to be required by 2021.

The suitable location for the new reservoir and over head tank should be such that the necessary flow of water by the required size of the distributing pipes will be properly maintained. It is all necessary to provide drinking water to the residents, who may not be able to get household water connection in such cases a system of community tap, where people can get water as may be made available. The network of distribution of drinking water should be very much scientific and the concerned authority should have proper study for installing water treatment plant and reserving as well as well the overhead tank for quick and proper distribution of drinking water to almost all the residential areas for their domestic use.

7:9:2 :- The requirement of electricity for different uses like domestics, industry etc. Can be based on the table No. XXI of population of the Master Plan Area. Since the total projected population of the Master Plan area will be 49,514 by 2021 and requirement of power as per this standard will be 4.67 MW. And this required power shall have to be supplied through the different type of power line like High Tension and also lines having 25KVA to 500 KVA. At present the existing power is not self sufficient even to cater the need of the existing population of the town. As the town will grow, the number of urban activities like industry etc. will expanded rapidly for which there will be great demand for power for all such uses.

7:9:3: DRAINAGE AND SANITATION :- Due to absence of proper outlet in the Barpeta Town, the existing drainage system are practically ineffective. The major channel originally as named as Harijan is almost functionless, as it has been blocked in several places by the residents. It is an important channel which can be properly used as a main outlet for draining out the surface water through all small and medium type of drains so far existed.

The existing drains should be properly developed for discharging the heavy rain water during monsoon. It is very much essential to have a scientific look for laying out a perfect drainage network covering the entire area of the Master Plan, so that there will be a permanent solution one for all to have an effective drainage system in future.

As per existing report, there are about 85% of total house hold which are not having sanitary latrine. It is very much essential to avoid environmental pollution of the town. All such type of latrines should be converted into sanitary latrine or in better form of such provision as provided by UNICEF.

For creating healthy environment in the town there should some provision for clearing the town as well removed of sludge etc. to a certain distance place which should be used as solid waste after necessary treatment. All the waste collected from the different -

places of town should be dump in the trenching ground as per proposed in the Master Plan.

7:9:4 CREMATION AND BURIAL GROUND :- The cremation ground and burial ground are also one of the important land use component under utility and service use for which the necessary areas of such use have been proposed according to the requirement of the future population. The total land under this use is 36 acres.

7:9:5 TRAFFIC AND TRANSPORTATION SYSTEM :- The circulation pattern in the greater Barpeta town are most irregular. The hierarchy of the road are practically found absence. It is necessary to improve the circulation system, through an efficient road network through out the Master Plan Area. The road network as proposed in the Master Plan will have the following category of the roads. So, that the segregation of traffic can be made to have the highest level of mobility and also as well as to avoid any chaos that may be created by mixed traffic.

- (A) National High Way,
- (B) Arterial Road,
- (C) Sub - Arterial Road,
- (D) Local /Collector Road.

As circulation plan will have a better transportation facility, considered to improve the existing circulation system and to have the efficient plan for maximum utilization of road network.

- (i) Effecting intra town and inter settlement linkage.
- (ii) Direct linkage to the extent possible, between different areas.
- (iii) Separations of town traffic from regional traffic.
- (iv) Providing separate but integrated pedestrian and vehicular circulation plan.
- (v) Formulation of efficient traffic operation plan for maximum utilization of road network.

The existing area of the road, used in the greater Barpeta constitute about 10% of the total Master plan Area. The proposed width of the roads are shown as below:-

Type of Road	Width
(a) National High Way	200
(b) Arterial	80
(c) Sub Arterial Road	60
(d) Local / Collector Road	40

(a) NATIONAL HIGH WAY :- The Barpeta town has a through axis through a Barpeta Howly Road to the National Highway 31 and it is located about 12 km. from National High way. So this through axis should be used as a major road under the specification of the National High way to connect the Barpeta Town. Since, the Barpeta is one of the important regional centre and it is away from Guwahati just by a distance of 90 km. This portion of the road connecting Barpeta-Guwahati via Hajo can be converted into National High way and it will cover major part of the district Barpeta, Nalbari containing the important town like Sorbhog, Bapeta Road, Howly, Barpeta, Doulasal, Hajo, Guwahati. This there be a great improvement of required mobility through this regional transportation system.

(b) ARTERIAL ROAD :- These are the primary roads connecting the important urban growth within the district and it provide major inter urban traffic movement for all type of goods and passenger. The arterial roads as shown in the Master Plan are the roads connecting Barpeta Road-Barpeta, Mondia- Patbaushi, Doulasal-Nagaon and Bapeta-Bhawanipur. This roads are connecting the important places like Barpeta Road, Howly, Mondia, Patbaushi, Nagaon, Doulasal, Bhawanipur, Pathsala.

(c) SUB ARTERIAL ROAD :- Arterial roads are as classified as sub-arterial roads, these roads are meant to ensure physical proximity between the localities and also to lead the city centres of the Master Plan Area. These roads will have will have the axis to arterial roads connecting the major urban center as well as some important growth centre to the city centre. These roads practically connect all the localities within the Master Plan Area. To have the efficient circulation system, the sub arterial roads are proposed to have linkage with all collector roads.

(d) LOCAL COLLECTOR ROADS :- These roads are meant to provide easy axis to all localities through out the Master Plan Area and to minimize the travel distance between the localities. This plays an important role to have a effective circulation system in Master Plan Area for all type of small and medium type of vehicular traffic.

It is very much essential for providing parking space for all type of vehicular traffic in the convenient location as proposed in the Master Plan. For loading and unloading of the heavy vehicles, the suitable parking areas are also proposed as shown in the Master Plan. Since, the city center is already very much congested, no heavy vehicle would be allowed to parking this location. And for this purpose, some areas are also reserved for parking as shown in the Master Plan. The off-street parking yards is also to be provided.

The existing Bus Standing is not at all sufficient to cope with the demand of the present population of thBarpeta Town and it is proposed to have an additional bus stand having an area of 200 Bighas near Congress Office by the site of Barpeta-Howly roads is earmarked in the Master Plan.

It is also necessary to bifurcate the heavy vehicular traffic for loading and unloading purpose, for which a parking area covering 300 Bighas of land is proosed at Bilortarihathi near river Nowkhanda. For segregation of all type of vehicular traffics, all the traffic norms should be maintained and necessary traffic square, traffic inland etc. shall be provided in almost all the major street of the Master Plan Area.

Since the Bapeta Town is an important regional centre and also the Head Quarter of the district, the extension of railway line from Barpeta Road to Bpeta is very much essential . Railways is an important communication facility and plays an impotant role for economic development of a particular zone, the extension of the railway id proposed in the Master Plan Area also.

CHAPTER - VIII

8:0 PLAN ACCOMPLISHMENT AND ENFORCEMENT :-

8:1 ZONING PLAN :-

Zoning means the methods of accomplishing a suitable arrangement of different land use components of a town. Although it is an integral part of the overall plan yet it does not mean the only arrangement. Good zoning ensures right use of available land.

In order to achieve the goals and objective of the plan a zoning plan is prepared earmarking different use areas with suitable boundaries. This zoning plan should be read in conjunction with the land use plan and zoning regulation appended here with.

8:2 ZONING REGULATIONS :- Zoning Regulations play a very important role in controlling and promoting urban development and redevelopment in rational lines. They are also useful in limiting urban growth and in a broader sense can also be used for laying down broad directives in regional plan. Zoning regulations form an integral part of any Master Plan and these have been used extensively to control development of urban areas.

Zoning Regulations have been widely accepted as legal instrument of control and promotion of development and in fact it is the zoning regulation that an ordinary developer comes into contact with while undertaking the development within the framework of any Master Plan. Thus these regulations can do a great service in portraying the intension of the Master Plan and promotion its objectives.

Zoning Regulations would help in controlling density of development and land use in each zone in appropriate manner. Zoning regulation for Barpeta Master Plan Area will follow the uniform zoning regulations as approved and notified by the vide Govt. Notification No. 226 Dispur, Dated the 12th June 2000 published in Assam Gazette Extra ordinary on 16th December 2000.

8:3 PLAN IMPLEMENTATION :- All the proposal of the Master Plan shall have to be carried out by an implementing authority which should be constructed under the provision of Town and Country Planning Act, 1959. Thus implementing authority should carefully read the entire proposal and go for detailing for taking up the development schemes. This implementing authority to be constituted as development authority will have power for endorsement control and implementation for development programme as proposed in Master Plan. This development authority must play an important role for all round development of the Master Plan Area by getting necessary co-ordination and co-operation with all other State Government agencies, Department and under taking etc. The zoning regulation will be an instrument for all necessary control to stop the haphazard growth and to have a systematic plan of the Master Plan Area.

All plan proposals will be implemented through Uniform Zoning Regulation approved by the Govt. vide Notification No. TCP/31/2000/54, Dated the 12th June 2000.

CHAPTER-IX

9:1 SLUM AREAS:- There are 10 Nos. of slum pockets in Barpeta Master Plan Area. The slum pockets with its population is indicated below. For improvement and development of basic infrastructure, these pockets are proposed to be included under National Slum Development Programme (NSDP), Valmiki Ambedkar Malin Basti Awas Yojana (VAMBAY) and various other centrally sponsored schemes.

Slum Pocket No.	Ward No	Population (Approx.)	Holding Nos (Approx.)	Remarks
1.	1 & 2	4000 Nos.	445 Nos.	Infrastructure proposed to be developed are road & pavement Drainage, shelter up gradation, watersupply and low cost individual and Community toilets etc.
2.	11 & 12	5000Nos.	560 Nos.	
3.	6 to 8	3000 Nos.	495 Nos.	
4.	2 & 3	3000 Nos.	330 Nos.	
5.	4	4000 Nos.	335 Nos.	
6.	5	2100 Nos.	442 Nos.	
7	Out side of Municipal area	3780 Nos.	350 Nos.	
8.	Out side of Municipal area	2400 Nos.	630 Nos.	
9.	Out side of Municipal area	720 Nos.	400 Nos.	
10.	2	4,000 Nos.	120 Nos.	
Total : 10		32,000 Nos.	4107 Nos.	

9:2 SOLID WASTE DISPOSAL :- At present garbage are disposed in a plot of land near Sluice gate by the side of Caowlkhoa embankment. For scientific disposal of waste, new site is proposed. The site is (A) Bhat Kuchi Reserve.

It is proposed that the hazardous waste of the Master Plan area be disposed away from the residential areas for the threat of health hazards.

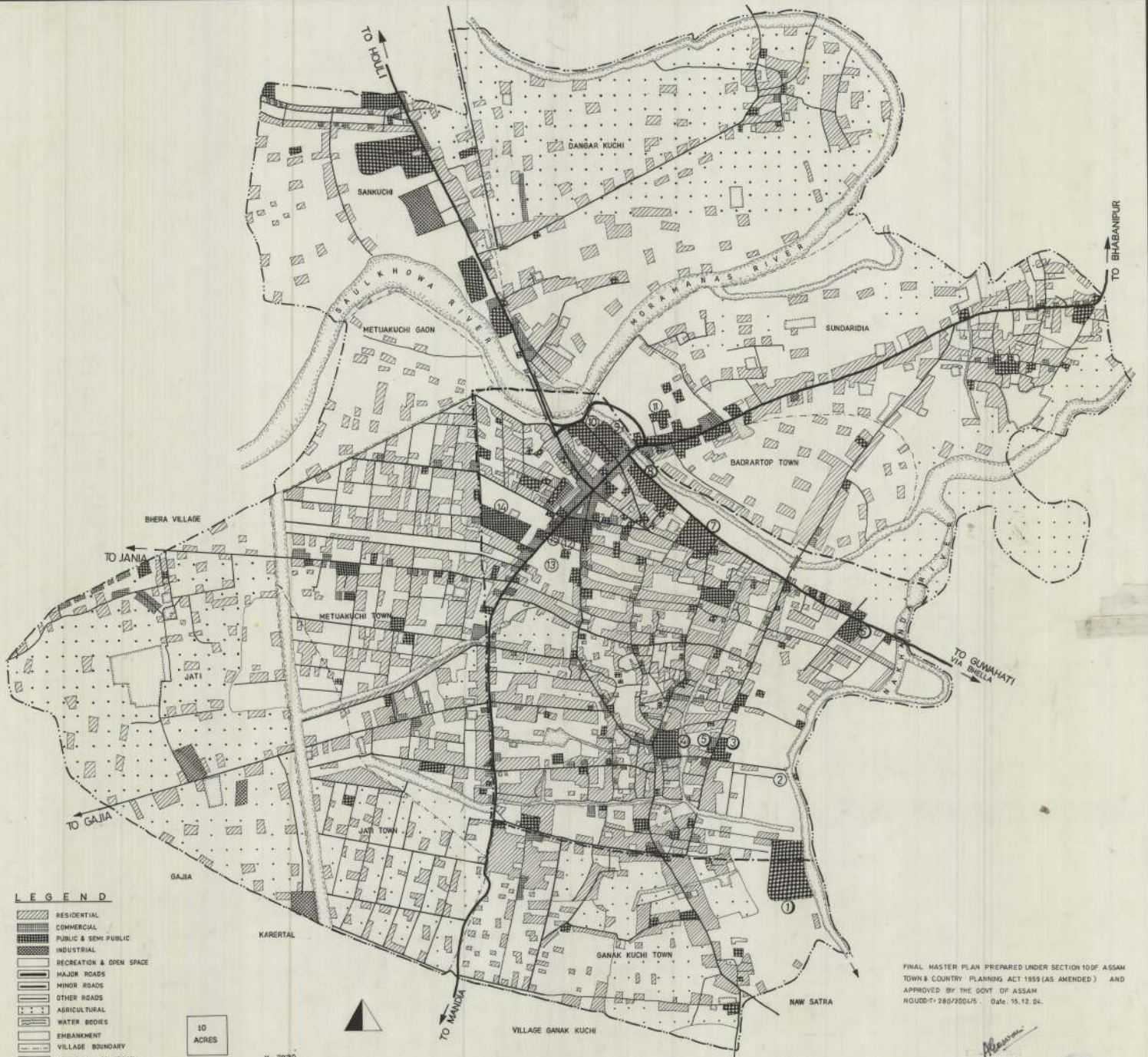
9:3 FISCAL PLAN :- The Master Plan proposed for Barpet is to be gradually implemented over a period up to 2021 from now. In order to avoid scattered growth and to minimize development cost. Phasing is necessary in implementation process. In the first phase, development should confine to the areas within the existing township. In the second phase new areas proposed for development should be bought under implementation of various schemes.

9:4 CONCLUSION :- The Master Plan has been prepared by examining the problems faced under the existing situation and also the future requirement of the peoples for all urban activities to come. Since, Barpeta town is a Head Quarter Town of a district, there is every possibility for rapid organization near future. So, it is kept in mind that the development must be oriented to suit this urban growth in respect of better administration facility, educational facilities etc.

DAG NOS. SHOWING GOVT. LAND WITHIN PLAN AREA

Dag No.	Area of Land	Location of land	Use of land.
1	156 Bighas	Sankuchi	Reserve.
19	85 Bighas	Budarartp	
1	10 Bighas	Sundaridia	
90	15 Bighas	Jatigaon	Reserve 15 B.
- do -	<u>72 Bighas</u>	- do -	Hospital 72 B.
162	4 Bighas	Ganakkuchi	
157	5 Bighas	- do -	
158	3 Bighas	- do	L. P. School.
33	13 Bigha	- do -	Gara bat.
22	20 Bighas	- do -	- do -
26	10 Bighas	- do -	- do -
28	31 Bighas	- do -	- do -
482	9 Bighas	- do -	
6022	38 Bighas	Town barpeta	
6028	1B-1K-7L	- do -	
768	46 Bighas		

BIREN DUTTA,
 Commissioner & Secretary to the Govt. of Assam,
 Urban Development Department.



LEGEND

- RESIDENTIAL
- COMMERCIAL
- PUBLIC & SEMI PUBLIC
- INDUSTRIAL
- RECREATION & OPEN SPACE
- MAJOR ROADS
- MINOR ROADS
- OTHER ROADS
- AGRICULTURAL
- WATER BODIES
- EMBANKMENT
- VILLAGE BOUNDARY
- MUNICIPAL BOUNDARY
- MASTER PLAN BOUNDARY

SERVICES & FACILITIES

- | | | |
|--------------------|----------------------|----------------------|
| 1 STADIUM | 6 PRASANTI | 11 LAW COLLEGE |
| 2 CREMATION GROUND | 7 GOVT H.S. SCHOOL | 12 MUNICIPAL PARK |
| 3 PH.E.NET PLANT | 8 POLICE STATION/PT. | 13 S.B.S. PLAYGROUND |
| 4 BARPETA SATRA | 9 COURT | 14 M.C.COLLEGE |
| 5 MILAN MANDIR | 10 MILLENNIUM PARK | 15 HOSPITAL |

FINAL MASTER PLAN PREPARED UNDER SECTION 100F ASSAM TOWN & COUNTRY PLANNING ACT 1955 (AS AMENDED) AND APPROVED BY THE GOVT OF ASSAM NG/OD/P-286/2004/5 Date: 15.12.04.

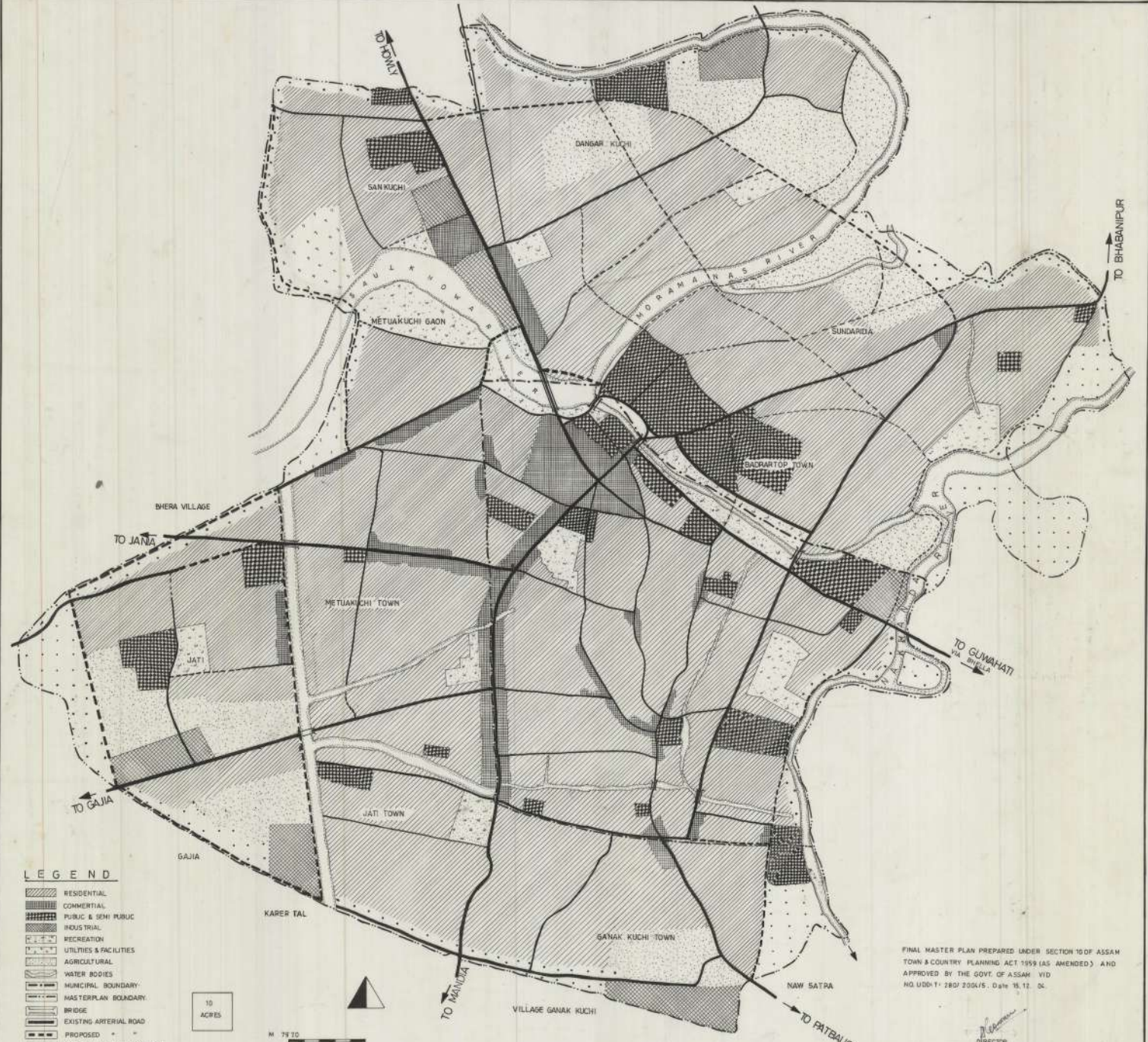
[Signature]
DIRECTOR
TOWN & COUNTRY PLANNING
REGUR GUWAHATI
IN CHARGE OF
COUNTRY PLANNING
BARPETA
SK. 1

**EXISTING LAND USE PLAN
MASTER PLAN FOR BARPETA**

GATEWAY

GATEWAY

GATEWAY



- LEGEND**
- [Pattern] RESIDENTIAL
 - [Pattern] COMMERCIAL
 - [Pattern] PUBLIC & SEMI PUBLIC
 - [Pattern] INDUSTRIAL
 - [Pattern] RECREATION
 - [Pattern] UTILITIES & FACILITIES
 - [Pattern] AGRICULTURAL
 - [Pattern] WATER BODIES
 - [Pattern] MUNICIPAL BOUNDARY
 - [Pattern] MASTERPLAN BOUNDARY
 - [Pattern] BRIDGE
 - [Pattern] EXISTING ARTERIAL ROAD
 - [Pattern] PROPOSED ARTERIAL ROAD
 - [Pattern] EXISTING SUB ARTERIAL ROAD
 - [Pattern] PROPOSED SUB ARTERIAL ROAD
 - [Pattern] EXISTING LOCAL/COLLECTOR ROAD
 - [Pattern] PROPOSED LOCAL/COLLECTOR ROAD
 - [Pattern] GREEN BELT

10 ACRES

1 CM = 0.762 KM
OR
1:7620

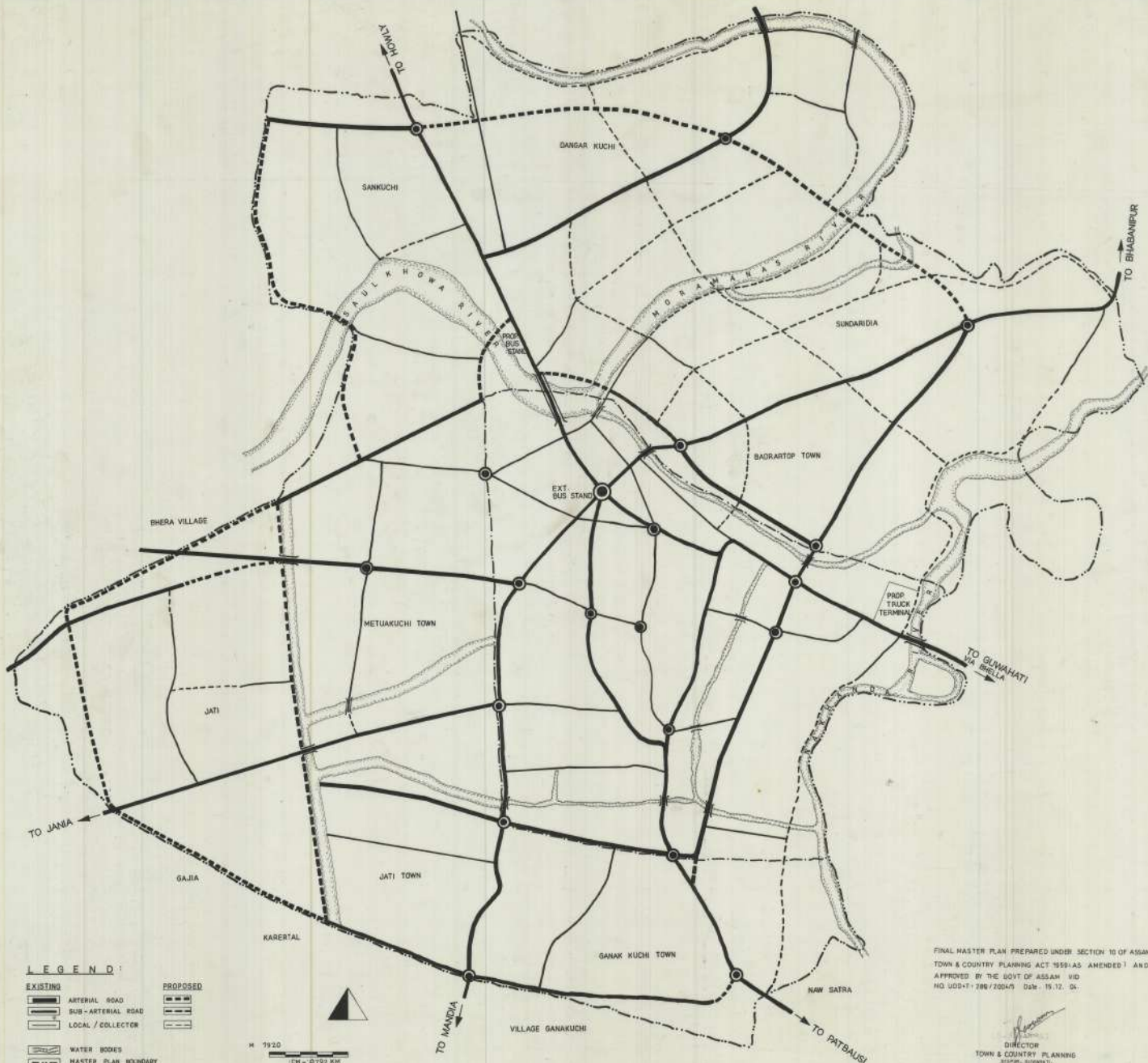
PROPOSED LAND USE PLAN 2021 MASTER PLAN FOR BARPETA

FINAL MASTER PLAN PREPARED UNDER SECTION 10 OF ASSAM TOWN & COUNTRY PLANNING ACT 1959 (AS AMENDED) AND APPROVED BY THE GOVT. OF ASSAM VID NO. UDD-1/280/2001/S. D. dt. 15.12.04.

DIRECTOR
TOWN & COUNTRY PLANNING
DISCRETIONARY

PREPARED BY:
TOWN & COUNTRY PLANNING
BARPETA.
R.S. 2

GATEWAY
GATEWAY
GATEWAY



PROPOSED ROAD CIRCULATION MASTER PLAN FOR BARPETA

FINAL MASTER PLAN PREPARED UNDER SECTION 10 OF ASSAM
TOWN & COUNTRY PLANNING ACT 1956 (AS AMENDED) AND
APPROVED BY THE GOVT OF ASSAM VID
NO. UOD-1/286/2004/9 Date: 15.12.04.

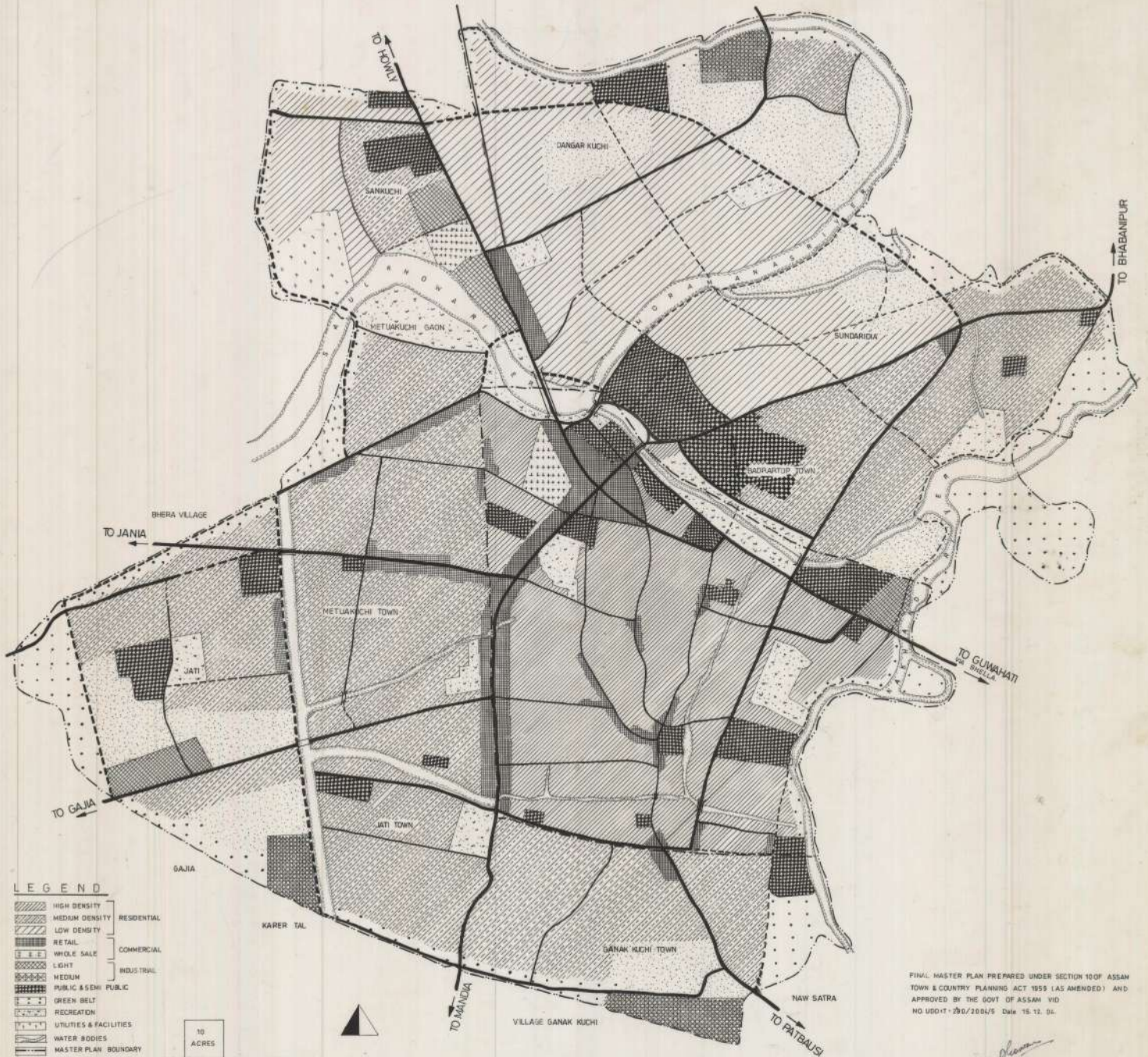
DIRECTOR
TOWN & COUNTRY PLANNING
DISPUR, ASSAM

PREPARED BY
TOWN & COUNTRY PLANNING
BARPETA
A.S.A.

GATEWAY

GATEWAY

GATEWAY



LEGEND

- | | | |
|----------|--------------------------|--------------|
| [Symbol] | HIGH DENSITY | RESIDENTIAL |
| [Symbol] | MEDIUM DENSITY | |
| [Symbol] | LOW DENSITY | |
| [Symbol] | RETAIL | COMMERCIAL |
| [Symbol] | WHOLE SALE | |
| [Symbol] | LIGHT | INDUSTRIAL |
| [Symbol] | MEDIUM | |
| [Symbol] | PUBLIC & SEMI PUBLIC | RECREATION |
| [Symbol] | GREEN BELT | |
| [Symbol] | UTILITIES & FACILITIES | WATER BODIES |
| [Symbol] | BRIDGE | |
| [Symbol] | EX. ARTERIAL ROAD | ROADS |
| [Symbol] | EX. SUB. AR. ROAD | |
| [Symbol] | EX. LOCAL/COLLECTOR ROAD | |
| [Symbol] | AGRICULTURE | |
| [Symbol] | PR. ARTERIAL ROAD | ROADS |
| [Symbol] | PR. SUB. AR. ROAD | |
| [Symbol] | PR. L.C. ROAD | |

10 ACRES



PROPOSED ZONING PLAN 2021
MASTER PLAN FOR BARPETA

FINAL MASTER PLAN PREPARED UNDER SECTION 10 OF ASSAM TOWN & COUNTRY PLANNING ACT 1959 (AS AMENDED) AND APPROVED BY THE GOVT OF ASSAM VID NO. UDD-1-290/2004/S Dated 15.12.04.

DIRECTOR
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 DISUR, DISANAGARI,
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