



# THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্বৰ দ্বাৰা প্ৰকাশিত

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GOVERNMENT OF ASSAM  
ORDERS BY THE GOVERNOR  
DEPARTMENT OF HOUSING & URBAN AFFAIRS.

## CORRIGENDUM

The 28th July, 2022

**No. UDD(T)145/2022/17.**—In pursuance of the Notification vide No UDD(T)145/2022/ 6 dated 17<sup>th</sup> March, 2022, published vide Extraordinary Gazette Notification No. 222, dated 24<sup>th</sup> March, 2022, regarding notice for publication of the Draft Revised Master Plan for Jorhat the following modification are made.

- Please read as “Dist. Office Jorhat” instead of the Dist. Office Kokrajhar in the 4<sup>th</sup> line of point No.3.
- After point B in the schedule, point C is inserted as below.

REVENUE CIRCLE AND MAUZA WISE VILLAGES INCLUDED UNDER PROPOSED DRAFT REVISED MASTER PLAN AREA FOR GREATER JORHAT, 2041

Sl. No.	Census (2011) Code	Type of Settlement	Name of the Town/ village (As in Census of India 2011)	Rural/ Urban	Mouza	Revenue Circle	Subdivision
			<b>All town revenue blocks from block no. 1 to 18 which include-</b>	Urban/ Rural	<b>Jorhat Town 1,2,3 no. Mouzas</b>		
1		TOWN	Jorhat Town (MB)	Urban			
2	293753	TOWN	Chekonidhara (CT)	Urban			
3	293754	TOWN	Kamalabaria N.C. (CT)	Urban			
4	293684	TOWN	Kamalabaria Gaon (OG)	Urban			
5	293744	VILLAGE	Kalakhowa Gaon	Rural	<b>Charigaon Mouza</b>		
6	293745	VILLAGE	No.1 Bamun Gaon	Rural			
7	293746	VILLAGE	Kotoha Boria Gaon	Rural			
8	293747	VILLAGE	Aliamukhia Gaon	Rural			
9	293748	VILLAGE	No.2 Bamun Gaon	Rural			
10	293749	VILLAGE	Naosolia Gaon (Nau Salia Gaon)	Rural			

11	293755	OG	Chengeli Gaon (OG)	Urban		<b>Jorhat East Circle</b>	
12	293756	OG	Gohain Tekela Gaon (OG)	Urban			
13	293750	VILLAGE	Duliapam Gaon	Rural	<b>Garmur Mouza</b>		
14	293751	VILLAGE	Hatigarh Grant	Rural			
15	293752	TOWN	Kumar Kaibarta Gao(CT)	Urban			
16	293757	OG	Duliagaon (OG)	Urban			
17	293758	OG	Cinnamara Grant (OG)	Urban			
18	293759	OG	Toklai Cha Bagicha (OG)	Urban			
19	293730	VILLAGE	No.2 Ghar Pholia Gaon	Rural	<b>Hatigarh Mouza</b>	<b>Jorhat Subdivision</b>	
20	293731	VILLAGE	No.1 Gharpholia Gaon	Rural			
21	293681	OG	Chowdang No.1 (OG)	Urban	<b>Charaibahi Mouza</b>		
22	293686	OG	BarbhetaChapari (OG)	Urban			
23	293633	VILLAGE	Hazari Gaon	Rural	<b>Charaibahi Mouza</b>		
24	293634	VILLAGE	Pakimuri Habi Gaon	Rural			
25	293635	VILLAGE	Bam Chuck	Rural			
26	293661	VILLAGE	Rongai Habi	Rural			
27	293662	VILLAGE	Senchoa Gaon	Rural			
28	293663	VILLAGE	Choudang Gaon No.2	Rural			
29	293664	VILLAGE	Baghmoria	Rural			
30	293665	VILLAGE	Chutiakari	Rural			
31	293671	VILLAGE	Uttar Hatichungi	Rural			
32	293672	VILLAGE	Charingia Gaon	Rural			
33	293675	VILLAGE	BhakatCheuni	Rural			
34	293679	TOWN	Nowsolia Gaon (CT)	Urban			
35	293683	OG	Sonari Gaon (OG)	Urban		<b>Jorhat West Circle</b>	
36	293601	VILLAGE	Dulia Gaon	Rural	<b>Hazari Mouza</b>		
37	293602	VILLAGE	Rajatia Gaon	Rural			
38	293685	OG	Nakari Bamun Gaon(OG)	Urban			
39	293636	VILLAGE	Charingia	Rural	<b>Khongia Mouza</b>		
40	293638	VILLAGE	Goriahabi Grant	Rural			
41	293640	VILLAGE	Ajan Bamun Gaon	Rural			
42	293660	VILLAGE	Chaliha Gaon	Rural			
43	293659	VILLAGE	Kuhar Boria (Kuhia Boria Gaon)	Rural			
44	293630	VILLAGE	Porbotia Gaon	Rural	<b>Sarucharai Mouza</b>		
45	293631	VILLAGE	Bhatemora Gaon	Rural			
46	293682	OG	BohotiaGaon (OG)	Urban			
47	293680	OG	Sarbaibandha (OG)	Urban			
48	293678	TOWN	Charingia Gaon (CT)	Urban	<b>Parbotia Mouza</b>		
49	293875	VILLAGE	Meteli Gaon	Rural	<b>Holongapar Mouza</b>	<b>Teok Circle</b>	
50	293876	VILLAGE	Ghorpholia Gaon	Rural			
51	293891	VILLAGE	Dulakharia Gaon	Rural			
52	294123	VILLAGE	Raidang Kamar Gaon	Rural	<b>Katani Mouza</b>	<b>Mariani Circle</b>	<b>Titabor Subdivision</b>
53	294124	VILLAGE	Hazari Gaon	Rural			
54	294125	VILLAGE	Kamar Hazarika Gaon	Rural			
55	294126	VILLAGE	Katani Gaon	Rural			
56	294127	VILLAGE	Na-Pamua (Na Pam Chowdang Gaon)	Rural			
57	294128	VILLAGE	Kathkatia Gaon	Rural			
58	294129	VILLAGE	Doklongia T.E.	Rural			

OG= Out Growth

CT= Census Town

**KAVITHA PADMANABHAN,**  
Commissioner & Secretary to the Govt. of Assam,  
Department of Housing & Urban Affairs.

# CHAPTER-I

## INTRODUCTION TO MASTER PLAN

Jorhat is one of the major cities of Assam. Jorhat acts as a gateway to upper Assam and to the state of Nagaland. It was the last capital of the Ahom Kingdom and home to many historical monuments of Assamese culture. In the north of the district, the Brahmaputra River forms the largest riverine island of the world, Majuli, which spreads over 924.6 square kilometres with a population of about 150,000. The island, threatened with constant erosion by the mighty and unstable Brahmaputra River, had been the principal place of pilgrimage of Vaishnavites since the age of the Ahom rulers. Several Sattras (monasteries) resembling those of medieval times are headed by Satradhikars teaching Vaishnavism, which was introduced by Srimanta Sankardeva (1449-1568). Each Sattra has an unknown wealth of Vaishnavite scriptures and extensive revenue-free lands cultivated by the Bhakats (celebrated monks) of the Sattras. The cultural diversities which prevailed in Jorhat nearly a century ago has inspired the people to participate in cultural activities through the decades and as a result Jorhat has been able to produce many creative writers, musician, actors, historians and journalists, terming Jorhat "The Cultural Capital of Assam".

### Location and Area..

Jorhat is an administrative district of Assam, located in the central part of Brahmaputra Valley. The district is bounded by Lakhimpur district on north, Nagaland state on the south, Sivasagar on the east and Golaghat on the west. On the North of the district, the river Brahmaputra forms the largest riverine island of the world. The administrative seat is located at Jorhat town.

Earlier Jorhat was a sub-division of undivided Sibsagar district. In 1983 Jorhat was carved out of Sibsagar District and was made a separate district.

### REGIONAL AND SUB-REGIONAL SETTINGS

Jorhat as the potential urban centre has a distinct and unique character. It is a growing and expanding magnet of attraction for people from all across the upper Assam and also a hub for

the region surrounding it. Planning for a town like Jorhat, therefore, cannot be limited within its boundaries.

There are physical potentialities for further urbanization within the Master Plan area and there is a virtual urban continuum between Jorhat and other smaller towns, which happen to be the sub-divisional town or other satellite type towns in nature. With the imperatives of growth and development, the problems of Jorhat have become more complex, which have to be viewed both as a challenge in terms of the pressures of regular and floating in-migration, as well as an opportunity in terms of planning and development in a regional context.

Jorhat is well connected by roads with all the important places of the State. The N.H.-37 passes through the town and therefore all the vehicular traffic running on this National Highway either going from Upper Assam to Lower Assam and vice-versa must pass through Jorhat.

Besides, Jorhat has a good railway connection through Mariani junction situated only at a distance of 16 km. with other important places of the Country. Jorhat is also well connected by Air connected with daily flights to Delhi, Calcutta, Guwahati and other important towns of the North East.

Jorhat is situated at the heart of three famous tourist destinations of the North East. The largest river island in the World-World Heritage site-Majuli, is situated only at a distance of 16 km. from Jorhat across the river Brahmaputra. The Kaziranga National Park-the abode of World famous one horned rhinoceros is situated at a distance of 75 kms from Jorhat. Sivasagar-another place of Archaeological importance of Assam and once the Capital of Ahom Dynasty, is only one-hour drive by road from Jorhat and situated at a distance of 56 kms.

On the north of the district, the river Brahmaputra forms the largest riverine island of the world, Majuli, spreading over 924.6 sq. km. with a population of about 1.50 lakh being threatened by the constant erosion by this mighty, unstable river. Majuli had been the principal place of pilgrimage of Vaishnavites since the ages of the Ahom rules. There are several Satras resembling medieval monasteries headed by Satradhikars preaching and teaching the Vaishnavism which was initiated by Sankardeva (1449–1568). Each Satra has

unknown wealth of Vaishnav scriptures and extensive revenue free lands being cultivated by the "Bhakats" of the Satras.

Jorhat district occupies an area of 2,851 square kilometres (1,101 sq mi), comparatively equivalent to Russia's Zemlya Georga.

Floods frequent the island every year without exception. The mean annual rainfall of the district is 2029 mm.

### **History..**

"Jorhat" or "Jorehaut" means two hats or mandis-"Macharhat" and "Chowkihat" which existed on the two different banks of the river Bhugdoi during the 18th century, Jorhat was the last capital of the Ahom Kingdom. In 1794 the Ahom king Gaurinath Singha shifted the capital from Sibsagar (erstwhile "Rangpur") to Jorhat. This town was a flourishing and commercial metropolis but completely destroyed after a series of the Burmese invasions since 1817 till the arrival of the British force in 1824 under the Stewardship of David Scott and Captain Richard.

The British rule, though, was not free from rebellions and revolutions, contributed to reemergence of this historical town. From the very first decade of the British rule, the great revolutionists who emerged were Gomdhar Konwar, Jeuram and Piyali, British system of administration, came into vogue in 1839 with an established Police Thana. During the great "Sepoy Mutiny" the anti-British plot hatched by Maniram Dewan and Piyali Barua was sabotaged, and these leaders were hanged in public at this very place in 1858.

In 1885, a narrow-gauge train service (Jorhat Provincial Railway) had come into operation and ultimately became instrumental in rapid growth of tea industry.

Though the civil sub-division under Sibsagar district at Jorhat was formed in 1869, this great place was declared as administration head quarter of the undivided Sibsagar district in 1911, which comprised the present Sibsagar, Jorhat and Golaghat and parts of Karbi-Anglong district with Major A. Playfair as the first deputy commissioner.

The modern-day district of Jorhat was created in 1983 when it was split from Sibsagar district.

**CLIMATE**

The climate of Jorhat is characterized by hot and humid summer and cool winter. The mean annual temperature is 27<sup>o</sup> C during summer and 18<sup>o</sup> C during winter. Rainy season starts from mid April and continues till middle of September with average annual rainfall of 2196 mm. About 64 % of the total rainfall is received during Monsoon season, July being the month of maximum rainfall. The month wise mean maximum & minimum temperature and rainfall during the period 1983-2013 are as follows.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean maximum temperature 0c	22.6	24.5	27.1	28.3	30.6	31.7	31.9	32.3	31.5	30.1	27.4	26.6
Mean minimum temperature 0c	10.2	12.2	16.0	19.3	22.6	24.6	25.2	25.3	24.3	21.3	15.9	11.7
Rainfall in mm	16	38	69	161	223	259	334	295	218	110	22	9

**TOPOGRAPHY:**

Jorhat is located at 26° 45' 28.3464" N latitude longitude and 94° 12' 35.3664" E longitude and at an elevation of 95 meters height that is equal to 312 feet. Jorhat is situated at a distance of 315 km. east of Dispur, Guwahati the state capital of Assam.

**SOIL CONDITION:**

Major soil found in Jorhat District are

1. Old Alluvial Soil
2. New alluvial soil of riverine tract
3. Hilly soil

Source: Census of India, 2011

**1.3: City Influence, Settlement Pattern, Rural Urban Scenario, Expansion of Town etc.**

With the influx of population in towns and cities within a limited spatial distribution the concept of Master Plan for such towns or urban centers have come up for its orderly and planned development. This conscious effort to deal with the many fold problems in urban centers in view of perspective outlook evolved Master Plan as an instrument to promote planned physical development for the towns and cities.

With the changing dimensions and nature in the course of continuous process of development, changes in the Master Plan are reflected. Since the adoption of the Master Plan

for greater Jorhat in 1977 by the Government of Assam, there has been considerable changes during the period in regard to the physical and surrounding development in the town which has now necessitated formulation of new physical plan to guide the town for integrated and boost up infrastructure development and cause for sustainable urban development.

The modified Master plan for greater Jorhat and its surrounding has been aimed to bring long term and structural solution for the pressing urban development issues and problems for the premier upper Assam town of Jorhat.

The Master Plan for Jorhat adopted by the Govt. of Assam in 1977 could able to bring about essence of urban planning in Jorhat and realize the same essence through looking back the ideas gifted by the British nearly fifty years ago.

To provide for projected population of 1.22 Lakh and 4.68 Lakh during the Master Plan period, 2041 within the Municipal and the proposed Revised Master Plan area respectively, integrated infrastructure development programmes particularly in respect of road/transportation network, housing, drinking water supply, solid waste management, etc. are to be drawn in a judicious and planned manner. The Revised Master Plan envisions Jorhat to always retain green cultural city- livable, eco-friendly, and humane with adequate and sustainable infrastructure services and facilities by adopting judicious and rational physical development plan coherent with its surrounding physical characteristics.

1. Jorhat, the focus of the socio-economic and political life of Assam, a symbol of ancient values and aspirations and last capital of the largest Ahom Dynasty, is assuming increasing eminence among the great cities of the State.

Growing at an unprecedented pace, the city needs to be able to integrate its elegant past as well as the modern developments into an organic whole, which demands a purposeful transformation of the socio-economic, natural and built environment. The city will be a prime mover and nerve centre of ideas and actions, the seat of national governance and a center of business, culture, education and sports.

2. Apart from critical issues such as land, physical infrastructure, transport, ecology and environment, housing, socio-cultural and other institutional facilities, the cornerstone for making Jorhat an excellent city is the planning process itself and related aspects of governance and management. This needs a coordinated and integrated approach amongst several agencies involved with urban services and development along with a participatory planning process at local levels.

#### **1.4 Need for Master Plan**

Keeping in view the democratic procedure and statutory obligations, the Draft Plan has been prepared and the views of the public will be obtained thereafter the publication of the Draft. The Draft Master Plan preparation involved extensive consultations at the pre-planning stage by involving local bodies, public sector agencies, professional groups, resident welfare associations, elected representatives, and leading citizen etc.

The Draft Master Plan envisages to issue broad guidelines for urban development which inter-alia emphasized the need to explore alternate methods of land assembly, private sector participation, and flexible land use and development norms after discussions on various aspects such as shelter, demography, conservation, transportation, industry, environment, mixed use, infrastructure, trade and commerce etc.

The success of Master Plan depends on conversion of the policies and strategies outlined in it into time bound development and action plans, periodic reviews and close monitoring, besides the people's will and willingness to adhere to discipline in the use of land, roads, public space and infrastructure. Any issue arising from interpretation of the provisions of this Master Plan will be settled in consultation if required within the provisions of Assam Town & Country Planning Act, 1959 as amended.

#### **MAJOR HIGHLIGHTS OF THE PLAN**

The Master Plan incorporates several innovations for the development of the premier town of Upper Assam-Jorhat. A critical reform has been envisaged in the prevailing land policy and facilitating public - private partnerships. Together with planned development of new areas, a major focus has been on restructuring of the city transportation system connecting the hinterlands.

The Master Plan envisages vision and policy guidelines for the perspective period upto 2041. It is proposed that the Plan be reviewed at five yearly intervals to keep pace with the fast changing requirements of the society.



The following critical areas have been the focal points of the Plan:

**(a) Land Policy:**

The land policy would be based on the optimum utilization of available resources, both, public and private in land development and creating housing stock within the Master Plan area to meet the housing requirement during the plan period.

**(b) Public Participation and Plan Implementation:**

Decentralized local area planning by participatory approach; Performance oriented planning and development, with focus on implementation and monitoring.

**(c) Redevelopment:**

Incentivized redevelopment of all the areas;(i) Planned Areas: Influence Zone along Major Transport Corridor; underutilized / low-density areas;Special Area; shopping / commercial centers; Industrial areas / clusters. (ii) Unplanned Areas: Villages; and resettlement of congested residential areas.

**(d) Shelter:**

Development of plotted housing with optimal utilization of land;Private sector participation for development / redevelopment of housing;

**(e) Housing for poor:**

In-situ slum rehabilitation, including using land as a resource for private sector participation;In order to prevent growth of slums, mandatory provision of EWS housing / slum rehabilitation in all grouphousing and plotted housing development.

**(f) Environment:**

Special emphasis on conservation of Environment is taken care of. Rejuvenation of River Bhogdoi, Tarajan, RowriaJan, Tocklaijan, Anthubhangajan, Jao-Kharia Jan, Rangajan,Duborijanetc.through a number of measures including ensuring adequate flow in riverby excavation.

Provision of open spaces / recreational areas and green belt to the extent of 10 to 15 % of land use.Realistic standards of water supply for equitable distribution.

**(g) Mixed Use:**

To meet the growing demand of commercial activities and overcome the shortfall of available commercial space, a liberalized provision of Mixed Use in residential areas has been adopted adhering to the requisites of the environment, while achieving better synergy between workplace, residence and transportation. Small shops of daily needs have been permitted on ground floor, in residential areas.

**(i) Trade & Commerce:**

District & Community Centre are proposed to be developed as facility corridors along major transport networks to prevent unintended and unplanned ribbon development and for better synergy between public transport and work centre.

Development of Integrated Wholesale Markets at the urban periphery. Mandatory provisions for service and repair activities.

Informal shops, weekly markets, handicrafts bazaars, used books / furniture / building materials bazaars to be developed.

**(j) Informal Sector:**

The informal and unorganized sector is a major source of employment in the economic fabric of the city for which the following approach is proposed:

# Earmarking of 'Hawking' Zones at neighbourhood and cluster levels.

# The weekly markets to be identified and planned / developed.

# New areas for informal trade to be developed and integrated with housing, commercial, institutional and industrial areas.

# Provision of common basic services like toilets, water points, etc. Involvement of NGOs envisaged.

**(k) Industry:**

Taking into care of the Environment as a major concern, listing of industries prohibited/restricted has been incorporated in the Zoning Regulation.

# Modernization / up-gradation of existing industries including non-conforming industrial centre.

# Special provisions for service and repair centre.

# Inclusion of new activities like IT industry, etc.

**(l) Conservation of Heritage:**

- # Identification of heritage zones and archaeological parks.
- # Development of Special Conservation plans for listed buildings and precincts.

**(m) Transportation:**

The proposals include the following:

- # A new parking policy including private sector development of parking facilities, enforcement of norms for parking space, multi level parking and underground parking are proposed to take place. Integrated multimodal public transport system to reduce dependence on personalized vehicles is also proposed.
- # Roads: Optimal use of existing road network and development of missing links.
- # Re-structuring of existing network through expressways, arterial roads, distributor roads and relief roads.
- # Provision for introducing cycle tracks, promenade, pedestrian and disabled friendly features in arterial and sub-arterial roads.

**(n) Health Infrastructure:**

- # Health facilities proposed to achieve norms of 5 beds / 1000 population
- # Nursing Homes, clinics etc. also allowed under relaxed Mixed Use norms.

**(o) Educational Facilities:**

- # Rationalization with enforcement of planning norms for educational institutions.
- # Locating new school sites adjacent to parks / playgrounds.
- # Provision for vocational and other educational facilities.
- # Schools and training centre for mentally / physically challenged with differential development norms.

**(p) Disaster Management:**

- # Disaster Management centre provided in each administrative zone.
- # Building regulations for safety of structures as per seismic zone and National Building Code.
- # Land Use zoning as per micro zoning.

**(q) Provision of Sports Facilities:**

# Provisions for sports infrastructure for local, national and international events.

# Incentives provided for sports facilities and swimming pools in schools, clubs and group housing.

**(r) Focus on Infrastructure Development:**

Perspective Plans for Water, Power, Drainage & Solid Waste Management of Service Agencies as part of Draft Revised Master Plan of Jorhat- 2041.

**(s) Alternative Sources of energy and new technology:**

The Plan gives emphasis on energy conservation, efficiency and exploring alternative sources of energy.

## CHAPTER-II

### DEMOGRAPHIC FEATURES

### PHYSICAL FEATURES

#### LOCATION

Jorhat is located at 26° 45' 28.3464" N latitude longitude and 94° 12' 35.3664" E longitude and at an elevation of 95 meters height that is equal to 312 feet. Jorhat is situated at a distance of 315 km. east of Dispur, Guwahati the state capital of Assam.

#### PHYSICAL FEATURES

Jorhat is situated on a flat alluvial plain surrounded by rich tea gardens and paddy fields. The average R.L. is 88.00m varying from 82.00m to 95.00m except in some low lying areas. The soil type is mostly alluvial and consists of sand and clay of varying proportions.

#### CLIMATE

The climate of Jorhat is characterized by hot and humid summer and cool winter. The mean annual temperature is 27<sup>0</sup> C during summer and 18<sup>0</sup> C during winter. Rainy season starts from mid April and continues till middle of September with average annual rainfall of 2196 mm. About 64 % of the total rainfall is received during Monsoon season, July being the month of maximum rainfall. The month wise mean maximum & minimum temperature and rainfall during the period 1983-2013 are as follows.

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Rainfall in mm	16	38	69	161	223	259	334	295	218	110	22	9

## **POPULATION**

As per 2011 Census, the total population of Jorhat town excluding the urban agglomeration area was 71,782 persons. The population of old Jorhat Master Plan area as per 2011 Census was 189,355 and the population of the Revised Jorhat Master Plan Area in 2011 was 242,976. There are 11 (eleven) Out Growths(OG) and 5(five) Census towns around Jorhat which form part of urban agglomeration area. The total population of OGs and CTs account for more than 50% of the total population which exerts pressure on the town's infrastructure facilities.

The following Table No. 4.1.1 shows the general growth of the population of Jorhat Municipal Area.

Table No. 4.1.1  
**Growth of the population of Jorhat Municipal Area.**

<b>Year</b>	<b>Jorhat MB</b>	<b>Decadal Growth Rate</b>
1901	2899	~
1911	5231	80.44
1921	6626	26.67
1931	8334	25.78
1941	11664	39.96
1951	16164	38.58
1961	24953	54.37
1971	30247	21.22
1991*	58358	92.94*
2001	67588	15.82
2011	71782	6.21

Source: Census of India

**4.1 POPULATION GROWTH IN THE OF JORHAT MASTER PLAN AREA**

The population of Revised Master Plan Area for Greater Jorhat has been calculated from the census of India reports for the year 1951, 1961, 1971, 1991, 2001 & 2011 as given below.

Name of Town/ Villages as in Census 2011	No. of HH	Total Population	Male	Female
Jorhat East Circle, Jorhat Town 1,2,3 no. Mouza				
Jorhat (MB)	14508	71782	37474	34308
Chekonidhara (CT)	2182	9026	4510	4516
Kamalabaria N.C. (CT)	2335	10071	5478	4593
Kamalabaria Gaon (OG) Ward No. 029	679	2911	1486	1425
Jorhat East Circle, Charigaon Mouza				
Kalakhowa Gaon	707	3137	1580	1557
No.1 Bamun Gaon	653	2908	1434	1474
Kotoha Boria Gaon	593	2688	1362	1326
Aliamukhia Gaon	412	1848	943	905
No.2 Bamun Gaon	471	1983	972	1011
Naosolia Gaon (Nau Salia Gaon)	573	2591	1349	1242
Chengeli Gaon (OG) Ward No. 020	731	3191	1631	1560
Gohain Tekela Gaon (OG) Ward No. 021	676	2980	1498	1482
Jorhat East Circle, Goromur Mouza				
Duliapam Gaon	525	2620	1554	1066
Hatigarh Grant	242	1045	528	517
Kumar Kaibarta Gaon (CT)	1829	8056	4097	3959
Duliagaon (OG) Ward No. 022	405	1739	888	851
Cinnamara Grant (OG) Ward No. 023	3045	13131	6824	6307
Toklai Cha Bagicha (OG) Ward No. 024	1215	5123	2575	2548
Jorhat East Circle, Hatigorh Mouza				
No.2 Ghar Pholia Gaon	428	1937	964	973
No.1 Gharpholia Gaon	167	800	413	387
Jorhat East Circle, Charaibahi Mouza				
Chowdang No.1 (OG) Ward No. 026	1741	7184	3647	3537
BarbhetaChapari (OG) Ward No. 031	402	1764	868	896
Jorhat West Circle, Charaibahi Mouza				
Hazari Gaon	725	3137	1570	1567
Pakimuri Habi Gaon	394	1630	827	803
Bam Chuck	158	714	373	341
Rongai Habi	195	844	471	373
Senchoa Gaon	731	2880	1436	1444
Choudang Gaon No.2	561	2702	1327	1375
Baghmoia	299	1410	695	715
Chutiakari	306	1306	665	641
Uttar Hatichungi	182	827	416	411
Charingia Gaon	387	1750	897	853

BhakatCheuni	433	1917	975	942
Nowsolia Gaon (CT)	1059	4312	2145	2167
Sonari Gaon (OG) Ward No. 028	960	3915	1976	1939
Jorhat West Circle, Hazari Mouza				
Dulia Gaon	738	3323	1669	1654
Rajatia Gaon	326	1441	713	728
Nakari Bamun Gaon (OG) Ward No. 030	264	1077	555	522
Jorhat West Circle, Khongia Mouza				
Charingia	131	592	300	292
Goriahabi Grant	338	1671	804	867
Ajan Bamun Gaon	369	1563	805	758
Chaliha Gaon	1368	6597	3886	2711
Kuhar Boria (Kuhia Boria Gaon)	399	1787	897	890
Jorhat West Circle, Sorucharai Mouza				
Porbotia Gaon	691	3087	1583	1504
Bhatemora Gaon	908	3835	1949	1886
BohotiaGaon (OG) Ward No. 027	1332	5399	2801	2598
Sarbaibandha (OG) Ward No. 025	1728	6936	3483	3453
Jorhat West Circle, Porbotia Mouza				
Charingia Gaon (CT)	1105	5094	2615	2479
Teok Circle, HolongaparMouza				
Meteli Gaon	234	1061	536	525
Ghorpholia Gaon	313	1324	657	667
Dulakharia Gaon	282	1297	673	624
Mariani Circle, Katani Mouza				
Raidang Kamar Gaon	214	996	521	475
Hazari Gaon	52	292	141	151
Kamar Hazarika Gaon	259	1267	631	636
Katani Gaon	596	2351	1207	1144
Na-Pamua (Na Pam Chowdang Gaon)	293	1245	619	626
Kathkatia Gaon	189	951	478	473
Doklongia T.E.	697	3115	1597	1518
<b>Total</b>	<b>56168</b>	<b>241764</b>	<b>124751</b>	<b>117013</b>

Source: Census of India, 2011

Name of Town/ Villages as in Census 2001	No. of HH	Total Population	Male	Female
Jorhat East Circle, Jorhat Town 1,2,3 no. Mouza				
Jorhat (MB)	14508	67588	36502	31086
Chekonidhara (CT)	1596	7355	3702	3653
Kamalabaria N.C. (OG) - Ward No.25	1899	8389	4397	3992
KamalabariaGaon (OG) - Ward No.30	617	2515	1269	1246
Jorhat East Circle, Charigaon Mouza				
Kalakhowa Gaon	543	2667	1344	1323
No.1 Bamun Gaon	526	2671	1340	1331
Kotoha Boria Gaon	431	2217	1112	1105



Aliamukhia Gaon	283	1407	719	688
No.2 Bamun Gaon	364	1692	860	832
Naosolia Gaon	451	2208	1152	1056
ChengeliGaon (OG) - Ward No.20	566	2827	1465	1362
Gohain Tekela Gaon (OG) - Ward No.21	512	2255	1162	1093
Jorhat East Circle, Goromur Mouza				
Duliapam Gaon	500	2899	1787	1112
Hatigara Grant	380	1699	881	818
Kumar Kaibarta Gaon (CT)	1337	6347	3327	3020
Duliagaon (OG) - Ward No.22	400	1886	986	900
Cinnamara Grant (OG) - Ward No.23	2469	11818	6422	5396
Toklai Cha Bagicha (OG) - Ward No.24	810	3532	1806	1726
Jorhat East Circle, Hatigorh Mouza				
No.2 Ghar Pholia Gaon	267	1369	708	661
No.1 Gharpholia Gaon	229	1004	504	500
Jorhat East Circle, Charaibahi Mouza				
Chowdang No.1 (OG) - Ward No.27	1111	5234	2717	2517
BarbhetaChapari (OG) - Ward No.32	339	1698	963	735
Jorhat West Circle, Charaibahi Mouza				
Hazari Gaon	732	3362	1823	1539
Pakhimari Habi Gaon	190	903	474	429
Bam Chuck	822	3316	1807	1509
Rongai Habi	387	1564	807	757
Senchoa Gaon (CT)	769	3697	1884	1813
Choudang Gaon No.2	460	2408	1208	1200
Baghmora Gaon	354	1757	879	878
Chutiakari	188	952	508	444
Uttar Hatichungi	98	483	260	223
Charingia Gaon	221	1065	552	513
BhakatCheuni	470	2359	1214	1145
Newsolia Gaon (CT)	1183	5683	3391	2292
Sonari Gaon (OG) - Ward No.29	650	2972	1540	1432
Jorhat West Circle, Hazari Mouza				
Dulia Gaon	219	1051	552	499
Rajatia Gaon	269	1370	678	692
Nakari BamunGaon (OG) - Ward No.31	498	2359	1215	1144
Jorhat West Circle, Khongia Mouza				
Charingia	150	751	377	374
Goriahabi Grant	320	1604	831	773
Ajan Bamun Gaon	266	1355	688	667
Chaliha Gaon	474	2610	1577	1033
Kuhar Boria	309	1493	761	732
Jorhat West Circle, Sorucharai Mouza				
Porbotia Gaon	626	3071	1590	1481
Bhatemora Gaon	600	2830	1506	1324
BohotiaGaon (OG) - Ward No.28	793	3408	1819	1589

Sarbaibandha (OG) - Ward No.26	725	3538	1820	1718
Jorhat West Circle, Porbotia Mouza				
Charingia Gaon	884	4250	2215	2035
Teok Circle, HolongaparMouza				
Meteli Gaon	174	843	431	412
Ghorpholia Gaon	261	1307	663	644
Dulakharia Gaon	219	1096	581	515
Mariani Circle, Katani Mouza				
Raidang Kamar Gaon	192	985	508	477
Hejari Gaon	48	279	140	139
Kamar Hajarika Gaon	239	1196	606	590
Katoni Gaon	315	1444	772	672
Na-PamuaChawdang Gaon	199	1011	493	518
Kathkatia Gaon	145	696	371	325
Doklongia T.E.	653	2891	1477	1414
Total	45302	213632	113360	100272

Source: Census of India, 2001

Name of Town/ Villages as in Census 1991	No. of HH	Total Population	Male	Female
Jorhat East Circle, Jorhat Town 1,2,3 no. Mouza				
Jorhat M.B.	11164	58358	32628	25730
Chekonidhara O.G. Ward No. 01	1328	6133	3255	2878
Kamalabaria N.C. O.G. Ward No. 01	386	1930	1025	905
Kamalabariagaon O.G. Ward No. 01	405	2093	1075	1018
Jorhat East Circle, Charigaon Mouza				
Kalakhowa	765	3637	1924	1713
No.1 Bamun Gaon	651	3037	1624	1413
Kotohaparia	790	3827	2024	1803
Ailamukhia	179	1004	497	507
No.2 Bamun Gaon	273	1458	781	677
Naosalia	584	2866	1567	1299
Chengeligaoon O.G. Ward No. 01	481	2662	1456	1206
Gohain Tekelagaon O.G. Ward No. 01	360	1904	952	952
Jorhat East Circle, Goromur Mouza				
Duliapam Gaon	313	1978	1290	688
Hatigarh Grant	270	1285	677	608
Kumar Kaibartta O.G. Ward No. 01	1068	5417	2849	2568
Duliagaon O.G. Ward No. 01	328	1697	878	819
Cinnamara Grant O.G. Ward No. 01	1924	8699	4530	4169
Toklai Chah Bagicha O.G. Ward No. 01	585	2980	1621	1359
Jorhat East Circle, Hatigorh Mouza				
No.2 Gharfalia	278	1513	805	708
No.1 Gharfolia	98	533	267	266
Jorhat East Circle, Charaibahi Mouza				
Chowdang No.1 O.G. Ward No. 01	584	2830	1510	1320

BarbhetaChapari O.G. Ward No. 01	203	981	516	465
Jorhat West Circle, Charaibahi Mouza				
Hazari Gaon	382	2055	1089	966
Pakhimari Habi-Chuck	387	1456	798	658
Bam Chuck	18	101	54	47
Rongai habi	68	305	164	141
Senchoa Gaon C.T. Ward No. 01 & 02	1208	6666	3833	2833
Choudang Gaon No.2	460	2408	1208	1200
Baghmoria	307	1768	904	864
Chutia Kari	178	952	492	460
Uttar Hati Chungi	112	716	351	365
Charingia Gaon	183	885	495	390
BhakatCheuni	274	1620	853	767
Nowsolia Gaon	715	3236	1705	1531
Sonarigaon O.G. Ward No. 01	435	2135	1166	969
Jorhat West Circle, Hazari Mouza				
Dulia Gaon	232	1335	687	648
Rajatia Gaon	227	1222	612	610
Nakari Bamungaon O.G. Ward No. 01	322	1664	871	793
Jorhat West Circle, Khongia Mouza				
Charingia	97	530	252	278
Goria habi Gaon	270	1202	615	587
Ajan Bamun Gaon	211	1183	606	577
Chaliha Gaon	444	2119	1162	1033
Kuhiar Boria	246	1302	629	732
Jorhat West Circle, Sorucharai Mouza				
Parbotia Gaon	510	2618	1380	1238
Bhatemora Gaon	461	2347	1245	1102
Bahotia O.G. Ward No. 01	494	2649	1368	1281
Sarbaibandha O.G. Ward No. 01	609	3232	1662	1570
Jorhat West Circle, Porbotia Mouza				
Charingia Gaon	686	3664	1871	1793
Teok Circle, HologaparMouza				
Meteli Gaon	127	654	339	315
Gharfalia Gaon	231	1215	679	536
Dulakhoria Gaon	167	953	485	468
Mariani Circle, Katani Mouza				
Raidand Kamar Gaon	159	979	477	502
Hezari Gaon	43	263	125	138
Kamar Hazarika Gaon	202	1211	601	610
Katoni Gaon	306	1316	722	594
Na-PamuaChowdang Gaon	158	962	474	488
Kathkotia Grant (Gaon)	133	702	377	325
Doklongia T.E.	463	2110	1081	1029
Total	34334	175706	94724	80982

Source: Census of India, 1991

Name of Town/ Villages as in Census 1971	No. of HH	Total Population	Male	Female
Jorhat East Circle, Jorhat Town 1,2,3 no. Mouza				
Jorhat (M)	5488	30247	18348	11899
Chekomdhara	521	2667	1478	1189
Kamalabaria N.C.	181	1044	555	489
Kamalabaria Gaon	247	866	451	415
Atllagaon	1343	5761	3346	2415
Jorhat East Circle, Charigaon Mouza				
Kalakhowa	375	1876	968	908
No.1 Bamun Gaon	415	2078	1115	963
Kotohabari	305	1528	787	741
Aliamukhia Gaon	117	819	438	381
No.2 Bamun Gaon	214	1071	574	497
Nowsalia Gaon	420	2201	1272	929
Chengaligaon	540	3262	1770	1492
GohamTekelagaon	291	1828	990	838
Jorhat East Circle, Goromur Mouza				
Dulia Pam	68	471	243	228
Hatigar Grant	108	648	325	323
Kumar Kaibarta	492	2524	1367	1157
Duliagaon	295	1473	975	498
Cinnamara Grant	523	2624	1384	1240
Tokalai Chah Bagicha	351	1723	952	771
Jorhat East Circle, Hatigorh Mouza				
Gharphalia No.2	140	973	514	459
Gharphalia No.1	52	367	171	196
Jorhat East Circle, Charaibahi Mouza				
Sowdang	528	2540	1328	1212
BharbthetaChapori	162	850	469	381
Jorhat West Circle, Charaibahi Mouza				
Hazari Gaon	200	1394	727	667
Pokimuri Gaon	101	709	405	304
Bamchuk	32	190	96	94
Rangihabit	35	243	157	86
Senchoa Gaon	710	4122	2608	1514
Chowdang Gaon No.2	338	1692	840	852
Bagmaria Gaon	131	916	453	463
Chutiakari Gaon	133	930	490	440
Uttar Hatichungi	75	525	270	255
Charingia Gaon	68	479	262	217
BhakatChowni	283	1418	751	667
Nowhalia	246	1229	639	590
Sonari Gaon	625	3502	1832	1670
Jorhat West Circle, Hazari Mouza				

Duliagaon	355	2311	1190	1121
Rajatia	140	981	559	422
Nakari Bamungaon	80	457	242	215
Jorhat West Circle, Khongia Mouza				
Charingia Gaon	55	386	205	181
Chakalani Habi Grant (Lahpahia T. E.)	191	1148	590	558
Azar Bamun Gaon	202	1403	724	679
Chaliha Gaon	168	1173	691	482
Kuhar Bari	140	983	521	462
Jorhat West Circle, Sorucharai Mouza				
Parbatia Gaon	367	1836	992	844
Bhatamara Gaon	371	1856	967	889
Bahotia	257	1759	968	791
Sarbaibondha	435	2587	1375	1212
Jorhat West Circle, Porbotia Mouza				
Charingia Gaon	557	2787	1503	1284
Teok Circle, HolongaparMouza				
Metali Chuk Gaon	50	267	145	122
Gbarfalia Gaon	127	693	385	308
Dala Khoria Gaon	123	860	433	427
Mariani Circle, Katani Mouza				
Raidang Kamar Gaon	136	813	407	406
Hazari Gaon	31	189	91	98
Kamar Hazanka Gaon	236	1183	611	572
Katoni Gaon	142	993	548	445
Napam Chowdang	112	784	393	391
Kathkatia Gaon	103	620	327	293
Daklangia T. E.	408	2040	1097	943
Total	20939	114899	64314	50585

Source: Census of India, 1971

Name of Town/ Villages as in Census 1961	No. of HH	Total Population	Male	Female
Jorhat East Circle, Jorhat Town 1,2,3 no. Mouza				
JORHAT TOWN	4102	24953	15774	9179
CHEKANIDHARA GAON	389	2027	1183	844
KAMALABARI GAON	95	653	353	300
KAMALABORI	160	1098	647	451
ATILAGAON	647	3191	1971	1220
Jorhat East Circle, Charigaon Mouza				
KALAKHOWA	273	1594	810	784
BAMUNGAON No. I	292	1878	1006	872
KOLOHABORIA	240	1433	768	665
AILA MUKHIA	240	1433	768	665
BAMUNGAON No.2	142	926	495	431

NAOSOLIA	167	1041	538	503
CHENGELIGAON	504	2783	1528	1255
GOHAIN TEKEIA	232	1388	758	630
Jorhat East Circle, Goromur Mouza				
DULIA PAM GAON	73	407	252	155
HATIGARH GRANT	155	687	360	327
KUMAR KAIBARTTA GAON	314	1589	903	686
DULIAGAON	149	785	458	327
CINAMARA T.E.	724	2589	1399	1190
TOCKLAI T.E.	318	1761	1042	719
Jorhat East Circle, Hatigorh Mouza				
GHURFALIA No. II	95	693	364	329
GHURFALIA No. I	143	395	217	178
Jorhat East Circle, Charaibahi Mouza				
CHANDANG GAON NO. I	400	1597	838	759
BARBHETA CHAPARI	93	483	293	190
Jorhat West Circle, Charaibahi Mouza				
HAJARIGAON	191	1116	585	531
POKIMURI	24	252	137	115
BAMSUK	233	1113	888	225
RONGAIHABIGAON	5	31	11	20
SENSOAGAON	475	3025	2084	941
CHAUDANG GAON NO. II	230	1493	737	756
BAGHMORIA GAON	147	731	351	380
CHUTIAKARIGAON	126	734	361	373
UTTAR HATICHUNGI	75	473	252	221
CHARINGIAGAON	82	426	252	174
BHAKAT CHENNI GAON	186	1206	653	553
NAODOLIAGAON	232	1606	1008	598
SONARIGAON	429	2380	1259	1121
Jorhat West Circle, Hazari Mouza				
DULIGAGAON	314	1952	1040	912
RAJOTIA	141	937	526	411
KALIANI BAMUNGAON	74	372	207	165
Jorhat West Circle, Khongia Mouza				
CHARINGIA GAON	70	423	212	211
GORIA HALI T.E.	248	1066	555	511
AZAN BAMUNGAON	114	650	365	285
CHALIHAGAON	202	832	508	324
KUHIAR BORI GAON	135	818	421	397
Jorhat West Circle, Sorucharai Mouza				
PARBATIA GAON	269	1523	818	705
BHATEMORA	252	1501	782	719
BOHOTIA	222	1247	692	555
SARBAIBONDHA	327	1988	1066	922
Jorhat West Circle, Porbotia Mouza				
CHARINGIA	346	1976	1045	931

Teok Circle, HologaparMouza				
METELICHUKGAON	35	207	108	99
GHARFALIAGAON	173	654	384	270
DOLAKHORIAGAON	114	627	316	311
Mariani Circle, Katani Mouza				
RAIDONG KAMAR	106	709	371	338
HAZARIGAON	19	157	84	73
KUMAR HAZARIKA	129	898	470	428
KATONIGAON	136	770	439	331
NAPAMUA CHANDANG	99	611	310	301
KATHKATIAGAON	75	450	225	225
DAKOLONGIA T.E.	406	2147	1122	1025
Total	16388	92485	53369	39116

Source: Census of India, 1961

Name of Town/ Villages as in Census 1951	No. of HH	Total Population	Male	Female
Jorhat East Circle, Jorhat Town 1,2,3 no. Mouza				
Jorhat Town	3090	16164	9872	6292
Chekonidhora Gaon	226	1211	674	537
Kamala Boriagaon	61	460	247	213
Komolaboria	118	761	378	383
Atuliagaon	503	2433	1428	1005
Jorhat East Circle, Charigaon Mouza				
Kola Khowa	237	1391	732	659
Bamungaon I	134	1608	833	775
Kotoha Boria	222	1177	621	556
Aila Mukhia	102	624	317	307
Bamungaon II	128	768	450	318
Naosoliagaon	101	608	339	269
Chengeligaon	388	2327	1135	1192
Gohain Tekela	179	1093	584	509
Jorhat East Circle, Goromur Mouza				
Duliapangaon	47	205	114	91
Haligarh T. E.	193	1044	541	503
Kumar Kaiborttagaon	167	878	472	406
Duliagaon	149	785	458	327
Chinnamora, Murmuria, Baghdhora	527	4626	2477	2149
Toklai T. E.	301	1390	848	542
Jorhat East Circle, Hatigorh Mouza				
Gharfalia II	155	641	339	302
Gharfalia I	58	295	164	131
Jorhat East Circle, Charaibahi Mouza				
Chowdanggaon	189	1129	601	528
BarbhetiChapari	56	554	317	237

Jorhat West Circle, Charaibahi Mouza				
Hazarigaon	134	908	497	411
Pokimuri	14	129	71	58
Bamsuk	25	320	292	28
Rangaihabigaon	7	29	17	12
Sensoagaon	368	2321	1600	721
Charidanggaon	179	1273	637	636
Bagmaria Gaon	131	916	453	463
Chutiakarigaon	84	587	292	295
Uttar Hatichungi	70	383	205	178
Charingia Gaon	68	479	262	217
BhakatChutiagaon	138	1000	562	438
Naosoliagaon	101	608	339	269
Sonarigaon	304	1917	1016	901
Jorhat West Circle, Hazari Mouza				
Duliagaon	256	1595	845	750
Rojotia	114	752	403	349
NokariBamungaon	87	229	123	106
Jorhat West Circle, Khongia Mouza				
Charingiagaon	55	386	179	207
Goriahabi	248	1066	555	511
Azan Bamungaon	114	650	365	285
Cholihagaon	202	832	508	324
Kuhirboriagaon	135	818	421	397
Jorhat West Circle, Sorucharai Mouza				
Porbotiagaon	216	1277	670	607
Bhatemora	186	1252	674	578
Bohotia	160	1017	566	451
Sorbaibandha	245	1549	844	705
Jorhat West Circle, Porbotia Mouza				
Charingia	346	1976	1045	931
Teok Circle, HolongaparMouza				
Meteligaon	35	207	108	99
Gharphaliagaon	173	654	384	270
Dolakhariagaon	114	627	316	311
Mariani Circle, Katani Mouza				
Raidang Komar	106	709	371	338
Hazarigaon	19	157	84	73
Kamar Hazarika	129	898	470	428
Katonigaon	136	770	439	331
NopomuaChowdang	99	611	310	301
Kath Kotiagaon	75	450	225	225
Daklongia T. E.	406	2147	1122	1025
Total	12560	73313	40987	32326

Source: Census of India, 1951



The following Table No. 4.1.2 shows the general growth of the population of Jorhat Master Plan Area.

**TABLE NO. 4.2.1 GROWTH OF THE POPULATION OF JORHAT REVISED MASTER PLAN AREA.**

Area Year	Jorhat MB	Decadal Growth Rate	Old Jorhat Master Plan Area excluding MB	Decadal Growth Rate	Total Population of Old Jorhat Master Plan	Population of Newly added Master Plan Area	Decadal Growth Rate	Greater Jorhat Revised Master Plan Area
(i)	(ii)	(iii)	(iv)	(v)	(vi)= (ii) + (iv)	(vii)	(viii)	(viii) =(vi) + (vii)
1901	2899	~	~	~	~	~	~	~
1911	5231	80.44	~	~	~	~	~	~
1921	6626	26.67	~	~	~	~	~	~
1931	8334	25.78	~	~	~	~	~	~
1941	11664	39.96	~	~	~	~	~	~
1951	16164	38.58	52229	~	68393	4920	~	73313
1961	24953	54.37	50159	-3.96	75112	17373	26.15	92485
1971	30247	21.22	62602	24.81	92849	22050	24.24	114899
1991	58358	92.94	86674	38.45	145032	30674	52.92	175706
2001	67588	15.82	113652	31.13	181220	32412	21.58	213632
2011	71782	6.21	129492	13.94	201274	40490	13.17	241764

\*Twenty years Growth Rate as in 1981 Census was not held in Assam

Source: Census of India

The total population of Jorhat Revised Master Area as per 2001 Census including Jorhat Municipal area was 213,632 which rose to 241,764 in 2011. The growth of population in Jorhat Revised Master Plan area during the decade is 13.17, which are more than the double as compared to the growth of the population in Jorhat Municipal area. This indicates that the growth of population has been taking place at a faster rate outside the Municipal area, which implies the spatial development of the town.

Moreover, it is clearly indicated that the percentage of the growth of population in the Master Plan area outside the Municipal area is higher than the percentage than the growth in the Municipal area during the last decade too.

#### **4.2 SEX RATIO**

The sex ratio in Jorhat Municipal area was 916 and in Greater Jorhat Revised Master Plan area were 938 as per 2011 census, which is a little bit lower than the national average of 943.

**TABLE NO. 4.3.1 POPULATION SEX RATIO TREND IN GREATER JORHAT REVISED MASTER PLAN**

Year	Population in JMB			Sex Ratio	Population in GJRMP			Sex Ratio
	Total	Male	Female		Total	Male	Female	
1951	16164	9872	6292	637	73313	40987	32326	789
1961	24953	15774	9179	582	92312	53249	39153	735
1971	30247	18348	11899	649	114899	64314	50585	787
1991	58358	32628	25730	789	175706	94724	80982	855
2001	67588	36502	31086	852	213632	113360	100272	885
2011	71782	37474	34308	916	241764	124751	117013	938

\*In 1981 Census was not held in Assam

Source: Census of India

#### **4.3 LITERACY**

The literacy rates in Jorhat Municipal area was 83 and in Greater Jorhat Revised Master Plan area were 81 as per 2011 census, the following table no. 4.1.5 shows that the male, female, total literacy of in Jorhat Municipal area and Jorhat Revised Master Plan area were found higher than the State and national average.

**TABLE NO. 4.4.1 LITERACY RATE TREND IN GREATER JORHAT REVISED MASTER PLAN**

Year	% of Literate Population in JMB			% of Literate Population in JRMP		
	Total	Male	Female	Total	Male	Female
1951	62	63	39	22	33	10
1961	65	70	56	49	58	38
1971	65	68	61	57	64	49
1991	76	78	74	69	74	64
2001	80	82	78	77	81	73
2011	83	85	82	81	84	78

\*In 1981 Census was not held in Assam

Source: Census of India

**TABLE NO. 4.4.2 COMPARISON OF LITERACY RATE OF JORHAT MB & MP AREA WITH NATIONAL AND STATE AVERAGE IN 2011**

Area	Total	Male	Female
India	74	82	65
Assam	72	78	66
Jorhat MB	83	85	82
Jorhat MP	81	84	78

Source: Census of India

#### **4.4 WORK FORCE**

The Main workers are classified based on Industrial category of workers into the four categories, viz. Cultivators, Agricultural Laborers, Household Industry Workers and Other Workers.

Workers were categorized into main and marginal workers since 1981 census. Main Workers are those workers who had worked for the major part of the reference period i.e. 6 months or more. Marginal Workers are those workers who had not worked for the major part of the reference period i.e. less than 6 months

**TABLE NO. 4.5.1 COMPARISON OF WORK FORCE PARTICIPATION RATE OF JORHAT MB & MP AREA WITH NATIONAL AND STATE AVERAGE IN 2011**

Area	Total	Male	Female	Main Worker %	Marginal Worker %
India (Total)	39.79	53.26	25.51	75.20	24.80
India (Urban)	35.31	53.76	15.40		
India (Rural)	41.80	53.00	30.00		
Assam (Total)	38.36	53.59	22.46	72.60	27.40
Assam (Urban)	36.41	56.79	14.90		
Assam (Rural)	38.70	53.10	23.70		
Jorhat RMP (Total)	40.13	58.38	20.69	79.67	20.33
Jorhat RMP (Urban)	39.89	60.44	17.45	84.90	15.10
Jorhat RMP (Rural)	40.24	57.51	22.02	77.50	22.50

Source: Census of India

## CHAPTER – III

### Economic Base and Employment

#### 3.1 FORMAL SECTOR

##### PRIMARY: URBAN AGRICULTURE, MINING AND QUARRYING:

As per 2011 census only 2.44 per cent of the total workers were engaged in primary sector, in Jorhat Municipal Area and its outgrowth; but in the planning area, excluding urban area, it was 15.90%.

**TABLE 3.1.1 AREA UNDER AGRICULTURAL USE IN THE PLANNING AREA**

Village Code	Village Name	Area under Non-Agricultural Uses (in Hectares)	Barren & Un-cultivable Land Area (in Hectares)	Permanent Pastures and Other Grazing Land Area (in Hectares)	Land Under Miscellaneous Tree Crops etc. Area (in Hectares)	Culturable Waste Land Area (in Hectares)	Fallows Land other than Current Fallows Area (in Hectares)	Current Fallows Area (in Hectares)	Net Area Sown (in Hectares)	Total Unirrigated Land Area (in Hectares)	Area Irrigated by Source (in Hectares)
293601	Dulia Gaon	26.2	7.66	9.87	149	7.36	4.1	5.42	78.17	0	78.17
293602	Rajatia Gaon	16.2	7.64	24.5	3.21	4.37	5.84	2.71	64.25	18.75	45.5
293630	Porbotia Gaon	26.2	14.71	4	60.85	33	14.65	12.38	125.5	125.5	0
293631	Bhatemora Gaon	14.99	9.05	7.2	9.23	7.71	6.23	8	150.16	47.21	102.95
293633	Hazari Gaon	15.72	19.25	1	35.32	4	17.2	14.5	47.61	22.29	25.32
293634	Pakimuri Habi Gaon	10.34	3.25	5.13	4.24	6.6	3.7	5.2	40.36	10.12	30.24
293635	Bam Chuck	19.18	12.41	8.34	71.28	7.97	13.35	7.16	180.28	56.13	124.15
293636	Charingia Gaon	11.02	7.4	8	3.17	15.1	8.1	8	89.23	29.11	60.12
293638	Goriahabi Grant	35.24	12.31	23	10.52	1	18.14	9.22	141.67	38.22	103.45
293640	Ajan Baman Gaon	15.71	3.23	6.95	25.42	11.8	14.71	10.2	65.5	5.3	60.2
293659	Kulihar Boria (Kulhia Boria Gaon)	20.14	6.7	5.21	14.16	1.72	4.11	9.42	170.1	91.1	79
293660	Chaliha Gaon	21.17	9.4	3.21	40.35	7.05	10	18.21	76.66	45.12	31.54
293661	Rongai Habi	16.71	7.36	3.43	24.12	4.17	5	2	45.15	15.15	30
293662	Senchoa Gaon	17.36	3.12	5.44	30.45	1.2	9.32	10.61	120	19.8	100.2
293663	Choudang Gaon No.2	27.16	14.14	2	120.64	2	15.36	10.17	222.45	47.4	175.05
293664	Baghmoria	20.21	8.67	6.74	32.12	4.42	5.37	9.21	150.65	30.42	120.23
293665	Chutiakari	8	3.12	2	12.3	5	5	4	201.4	21.4	180
293671	Uttar Hatichungl	20.71	6.34	2.26	21.13	0.25	1.1	3.36	41.45	21.3	20.15
293672	Charingia	9.17	2.36	4.42	30.11	6.37	4.04	3.16	71.05	23.93	47.12
293675	Bhakat Chennai	3	7	4	3	13.1	9	1	260	210	50
294123	Raidang Kamar Gaon	1.98	1.4	0	2.35	0	19.15	200.6	0	0	0
294124	Hazari Gaon	0.18	0.37	1	0	0	0	103.69	0	0	0
294125	Kumar Hazarika Gaon	0.12	2.26	0	0	0	9.13	107.26	0	0	0
294126	Katani Gaon	0.44	7.01	4.82	0	0	0	143.49	63.41	63.41	0
294127	Na-Parnua (Na Pam Chowdang Gaon)	0.05	6.79	0	0	2.7	5.95	175.35	0	0	0

294128	Kathikatia Gaon	47.48	3	0	0	2.45	147.97	4.9	0	0	0	
294129	Doklongia T.E.	0.46	6.19	0	47.56	4.46	123.17	10.8	0	0	0	
293875	Meteli Gaon	6.33	6.53	1.83	42.29	1.32	3.42	1.43	60.61	60.61	0	
293876	Ghorpholia Gaon	55.37	0	0.08	8.14	0	0	84.19	0	0	0	
293891	Dulakharia Gaon	3	0	0	0	0	25	65.12	15	15	0	
293730	No.2 Ghar Pholia Gaon	25.2	12.31	4.5	35.64	6.22	18.37	14.14	187.24	79.24	108	
293731	No.1 Gharpholia Gaon	10.3	2.4	5.25	16.46	1.32	3.61	5.55	42.11	0	42.11	
293744	Kalakhowa Gaon	19.29	7.68	21.7	1	14.62	2	17.17	17.33	185.74	0	185.74
293745	No.1 Bamun Gaon	36.25	14.61	8.3	50.45	1	17.12	12.08	171.65	71.15	100.5	
293746	Kotoha Boria Gaon	30.28	29.81	11.7	5	14.23	1	1.76	8.97	179.24	58.5	120.74
293747	Aliamukhia Gaon	31.71	19.36	7.48	13.11	16.2	24.2	16.35	123.64	22.42	101.22	
293748	No.2 Bamun Gaon	37.11	6.21	8.21	5.78	7.61	10.41	9.72	124.36	23.06	101.3	
293749	Naosolia Gaon (Nau Salia Gaon)	0	0	0	0	0	0	0	307.03	307.03	0	
293750	Dullipam Gaon	0	0	0	0	0	0	0	258.8	258.8	0	
293751	Hatigarh Grant	0	0	0	0	0	0	0	245.2	245.2	0	

Source: Census of India, 2011

The agricultural products in the planning area are as follows-

**TABLE 3.1.1.2 AGRICULTURAL PRODUCTION IN THE PLANNING AREA**

Sl. No.	Name of Crops	Production (MT)
1.	Paddy	15,404.70
2.	Mustard	67.00
3.	Horticulture	148.59
4.	Vegetable	5,677.70

Source: Deptt. of Agriculture, (Jorhat), 2018

### 3.1.1.3 SECONDARY: INDUSTRIES, TRADE & COMMERCE etc.:

The Household industries found in the planning area are, mainly doll making, pickle & juice making, weaving, embroidery, cutting & tailoring etc. Manufacturing units found in the planning area are steel fabrication units, furniture making units. The construction units found in the planning area are civil construction units. The following table shows the industrial establishment by type in the Revised Master Plan area for greater Jorhat. It is seen Food and Allied sector industries are established in the Master Plan area.

**TABLE 3.1.1.3.1: INDUSTRIAL ESTABLISHMENT BY TYPE**

Sl. No.	Type	No. of Units
1.	Micro Industries	
	Food Processing	22 nos.
	Soft Drinks	1 nos.
	Wood based	4 no.
	Paper products	1 no.
	Mineral based	3 nos.
	Chemical based	9 nos.
	Blacksmithy	9 nos.
	Other manufacturing activities	63 nos.
	Other service activities	32 nos.
		144
2.	Small Industries	
	Food Processing	16 nos.
	Paper products	2 nos.
	Other manufacturing activities	21 nos.
	Other service activities	16 nos.
		55
3.	Medium Industries	
	Wood based	1 no.
	Other service activities	1 no.
		2

Source: DICC, Jorhat, 2018

Though there are no large industries in Jorhat, there are 2 nos. medium and 55 nos. small industries in the whole planning area viz. Gattani Ply etc. Within Jorhat Municipality, there are 61 nos. micro, 25 nos. small and 1 no. medium industries found. Chinnamora Village has as many as 29 nos. of micro, 9 nos. of small and 1 no. of medium industry; Kamar Hazarika Gaon has 9 nos. of micro industry and Sarbaibandha has 5 nos. of micro industry. Kathkotia Gaon, Katoni Gaon and Chiringia Gaon has 3, 4, 1 nos. of micro and 3 nos. each of small industry respectively. District Industries Centre, Jorhat has an industrial estate at Cinnamora. Cane work and bamboo work, silver jewelry, furniture making, brass smithing, umbrella making, soap manufacturing, packaged food manufacturing etc.

Commercial establishment in the planning area may be divided into 4 board categories viz. wholesale, wholesale cum Retail Sale, Retail Sale, Service shops. An Industrial Areas is located at Cinnamora having an area of 34788.0 Sq. m. having 29 nos. of shed, out of which 24 nos. of shed have been allotted till date.

The wholesale trading is mostly concentrated in and around the CBD of Jorhat town. Wholesale cloth Market, Hardware market, food and food staff market are located in the CBD area of Jorhat Town. The wholesale vegetable market is located along New Vill Road. Also, weekly markets at neighboring, village like Rowroiah, Nowsolia etc. serve as wholesale

market. The following table shows the villages having Weekly/ Daily markets in the planning Area outside Jorhat Municipal Plan Area.

**TABLE 3.1.1.2.2 DAILY / WEEKLY / BI-WEEKLY MARKET IN THE PLANNING AREA**

Sl. No.	VILLAGE	Daily/Weekly
1.	Rowroiah	Daily & weekly on Sunday
2.	Nowsolia	Weekly on Saturday
3.	Lohpohia (Hatigarh)	Weekly on Sunday
4.	BorbhetaChariali	Daily
5.	Lichubari	Daily
6.	MES Gate	Weekly on Wednesday
7.	Dohabora Chuk road	Daily
8.	Lahoty JEC Road	Weekly on Sunday
9.	Chinnamora	Daily

Source: Field Survey, T&CP, Jorhat.

The CBD area is the main center for retail trade and commercial activity for Jorhat Town and for the whole planning area. It also serves as wholesale market for the nearby towns and rural centers and parts of Nagaland. The other shopping areas presently functions within Greater Jorhat Master Plan Area are A.T. Road, JB Road, KB Road within municipal limit and Cinnamora, Borbheta, Rowroiah, Bamun Gaon, Ajanta Bye pass point outside the municipal area. A study of growth of shops and commercial establishment in Jorhat Town has shown that it has been increased by 44% from 6523 nos. in 2001 to 9413 nos. in 2011. (Field Survey, T&CP, Jorhat)

The CBD area of Jorhat Town is getting congested with the function of wholesale trade and ware housing along narrow roads, due to the shortage of space. It is necessary that these functions of trade and transport agencies be provided with more space at better location.

On the other hand some parts of JB road, Newvillroad, Old circuit house road and A.T. road are used by roadside vendors to sale vegetables, fish etc, which humper the normal traffic flow of those areas and leads to traffic congestion. So it is necessary to locate some areas in CBD as **vendors zone** to minimize the abve problems.



#### **3.1.1.4 TERTIARY : TRANSPORT AND OTHER SERVICES :**

There is altogether a good nos. of auto spare shops, motor repairing units, motor body construction units and 6nos. of oil filling station are located in the municipal area, a good no. of oil filling station in the planning area out side the municipal area. Thus, the workers engaged in transport sector are quite high in the planning area.

Though Jorhat has to function as divisional and district head-quarter, there are all district level offices established at the town. Circle level offices are also located at Jorhat. The head-quarter of Upper Assam Division (Civil) is also located at Jorhat. Institutions like Assam Agricultural University, Women Central University, Regional Research Laboratory, National Institute of Design, Rain Forest Institute, Jorhat Engineering College, JIST, Jorhat Medical College, Air Force Station, MES, ONGC Assam Urkan basin head quarter, Oil India pumping station are also located at Jorhat. Besides all these, a quite no. of educational institutions is found in the planning area. Because of these workers engaged in service sector in the planning area are quite high.

### **3.2 INFORMAL SECTOR**

#### **INFORMAL SECTOR AND URBAN POVERTY ALLEVIATION, INFORMAL TRADE&COMMERCE, TRANSPORT, HOUSEHOLD INDUSTRIES:**

Informal sector trade and commercial activities are generally seen in all the urban centers of the state. Jorhat Town is also not exception in this respect. Roadside retail shops are found here and there in the municipal area as well as in the planning area especially in the villages near the town. Informal transport has been seen in the form of slow moving vehicles only. A large number of rickshaw, thellas, penycarts etc. are playing in the planning area without license. Few household industries are running in the planning area without registration. Weaving, cutting and tailoring, embroidering, doll-making, agarbati making food related items etc. are some of these kind of industries found in the planning area. This informal sector business has been increasing because of urban poverty. Urban poor mainly depend on this type of informal business to day to day earnings.

### 3.3 Occupational Pattern

In the Brahmaputra valley 46.03 percent of the total scheduled castes populations are enumerated as workers in primary sector, 12.06 percent as workers in the secondary sector and 41.01 percent as workers in the tertiary sector. The higher proportion of workers in the primary sector is primarily due to the fact that a major section of scheduled castes population is engaged in agriculture and fishing. During the last thirty years due to the conversion of majority of natural fishing grounds, like beels, ponds, river etc. to commercial fishing grounds, the poor scheduled castes fishermen have to leave this occupation in some places. In the primary sectors the scheduled castes people are engaged mainly in fishing besides working as agricultural labourers and cultivators. Out of the total male workers 33.72 percent are male cultivator and 6.65 percent are agricultural labourer. It is, however, interesting to note that there is also a sizable proportion of female workers in the primary sector who work as agricultural labourers (9.29percent). It is due to poor economic condition of scheduled castes families coupled with very low educational attainment level among the females. The proportions of workers in the secondary and tertiary sectors are though not very high, there are wide variations in the rural urban areas.

*Source: Census Data Handbook*

## CHAPTER – IV

### Housing and Shelter

#### HOUSING AND SHELTER

Shelter is one of the basic human needs and its condition deeply affects the character of human life. As housing constitutes the largest land-use element in a town, it makes significant impact on its proper functioning and urban form.

The structural conditions of houses are classified on the basis of material used for wall and roof. Of the total houses 56,168 in the planning area per census of India, 2011 the different type of houses in Jorhat Municipal Area and Revised Master Plan Area for Greater Jorhat are shown in the table below :

**TABLE 6.15.1 STRUCTURAL CONDITION OF HOUSES – 2011**

Type	No. of Houses		% to the total no. of houses	
	JMA	GJRMPA	JMA	GJRMPA
Good	8845	12949	60.97	31.08
Livable	5078	25302	35.00	60.74
Dilapidated	585	3409	4.03	8.18
Total	14508	41660	100.00	100.00

**JMA:**Jorhat Municipal Area; **GJRMPA:** Greater Jorhat Revised Master Plan Area Source: Census of India, 2011

#### SLUMS IN JORHAT

The housing conditions of the people living in the slum areas are in deplorable condition. There are altogether 19 number of Identified slum pockets in Jorhat Municipal Area. The housing condition of Horizon Colony and other slum areas need immediate attention.

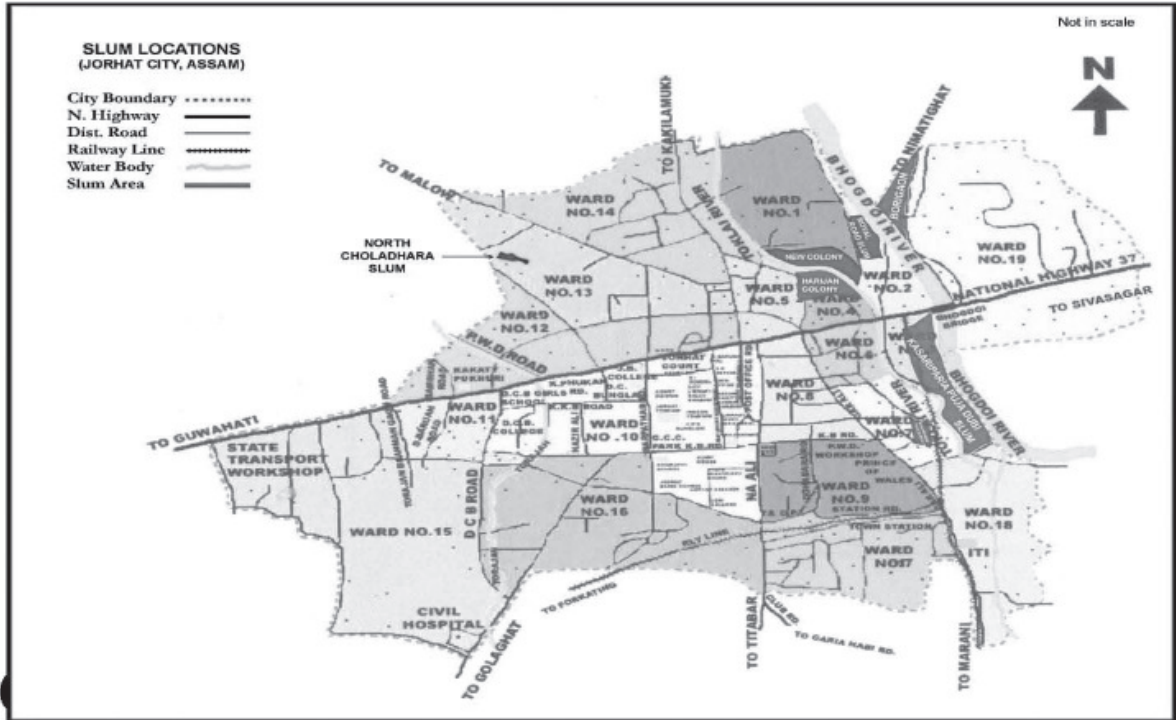
**TABLE 6.15.2 SUMMERY OF BASIC INFORMATION ON JORHAT SLUMS**

<b>Notified Slums</b>							
Sl. No.	Name of the Slum	Ownership of land where Slum is located*	Area in sq. Kms	Slum population	No. of Slum Households	BPL Population	No. of BPL Households
1	Rajamoidam New Colony	04	0.352	2008	490	175	64
2	Royal Road	05	0.22	1933	441	286	58
3	Kachariparia Pujadubi	01	0.45	2466	590	104	24
4	Harijan Colony Dhakaiputty	04	0.3	2550	544	403	92
5	Borigaon	04	0.41	1461	301	105	23
<b>Total</b>			<b>1.73</b>	<b>10418</b>	<b>2366</b>	<b>1073</b>	<b>261</b>
<b>Non-Notified Slums</b>							
Sl. No.	Name of the Slum	Ownership of land where Slum is located*	Area in sq. Kms	Slum population	No. of Slum Households	BPL Population	No. of BPL Households
1	North Cholahara	04	0.066	112	23	22	4
<b>Total</b>	-	-	0.066	112	23	22	4
<b>Grand Total</b>	-	-	<b>1.8</b>	<b>10530</b>	<b>2389</b>	<b>1095</b>	<b>265</b>

(Public: Local Body – 01, State Govt. – 02, Central Govt. – 03, Private – 04, Other – 05)

Source: USHA Survey, T&CP, Jorhat

MAP OF JORHAT TOWN SHOWING THE SLUM POCKETS OF JORHAT TOWN



## CHAPTER – V

### Transportation

**MODE OF TRANSPORT:** The planning area is well connected by Road, Railways, air and water transport. The NH-37 passes through the planning area. A branch railway line connects Jorhat with Mariani and Golaghat from which it has connection, to other part of the state/ country. Jorhat Town is connected by Air too. An Airport is situated at Rowroiah, about 5 kms away from Jorhat Town, is inside the planning area. It is connected with direct flight to Guwahati, Kolkata and Dibrugarh Town. Jorhat is also connected by water transport through the Brahmaputra River mainly to the world's largest river island Majuli as well as to other parts of the state under State Inland Water Transport Dept. and Central Inland Water Transport.

#### 5.1.1 ROAD, RAILWAYS ETC. IN JORHAT URBAN AGGLOMERATION AREA

Town Code	Town Name	Railway Station Name	Railway Station Road Distance (in kms)	Bus Route (Yes/ No)	Bus Route Road Distance (in kms.)	Pucca Road Length (in kms.)	Kutchha Road Length (in kms.)
293678	Charingia Gaon (CT)	JORHAT	15	YES	0	20	9
293679	Newsolia Gaon (CT)	RAWRAIYA	7	YES	0	20	7
801595	Jorhat (MB + OG)	JORHAT	0	YES	0	96	13.25
293752	Kumar Kaibarta Gaon (CT)	JORHAT	3	YES	0	10	8
293753	Chekonidhara (CT)	JORHAT	3	YES	0	11	6
293754	Kamalabaria N.C. (CT)	JORHAT	3	YES	0	6	7

### 5.1.2 LENGTH OF DIFFERENT TYPES OF ROAD WITHIN GJRMP UNDER APWD

Types of Road	Length in KM
Black Topped Road	135.495
Gravelled Road	2.440
Kuttcha Road	Nil
Cement Concrete Road	0.240
Paver Blocks Road	4.424
Total	142.599

Source: APWD, State Roads, Jorhat

### 5.1.3 MAJOR ROADS WITH LENGTH WITHIN GJRMP UNDER APWD

Sl. No.	Name of the Major Road	Length in KM
1	Jorhat Mariani Road	12.00
2	Jorhat TitabarGogonga Road	10.00
3	K B Road	6.00
4	CinamaraTitabar Road	2.00
5	A T Road	7.64
6	Charigaon Road	6.06
7	Nimati Road	7.10
8	J B Road	3.00
9	Mallow Ali	3.00
10	JEC Road	3.64
11	K KHandique Road	1.14
12	TRP Road	1.60
13	Choladhora Road	1.93
14	Dr. PC Bordoloi Road	2.88
15	DCB Road	1.67
16	Borpatra Ali	1.36
17	Agriculture Farm Road	2.38

18	Na Ali to JMM Road	1.09
19	Club Road	2.05
20	KKB Road	0.78

Source: APWD, State Roads, Jorhat

## 5.2 NETWORK OF ROADS, RAILWAYS, WATERWAYS AND THEIR INTERRELATIONSHIP WITH THE MAJOR ACTIVITY NODES :

Roads play an important role in Jorhat Town and the planning area. The NH-37 links Jorhat with upper and middle part of Assam upto Arunachal Pradesh. Primary network of road-rail-navigation in/near Jorhat Town was developed during the British period, mainly to carry forest and agricultural products and tea. As the Jorhat town is like gateway to upper Assam, it serves as a major transport node. Road network inside the municipal and rural area is not upto the requirement except the major roads. Residential localities have their own-separate road pattern unrelated to each other. The total APWD Road length on the planning area is about 143 kms out of which about 95% of the roads are black topped and there no kutchha APWD road within the planning area. Road network inside the planning area needs be strengthened by constructing missing links and improvement of existing roads and junctions. In the CBD area of Jorhat Town, gridiron pattern of road network exists. In other parts of the planning area, there is complete lack of any pattern of existing road network.

A 7 mile narrow gauge line from Gohaingaon a village closed to Kokilamikh Ghat to Jorhat known as Kokilamukh Tramway was opened in September 9, 1883. Later on the name of the “Kokilamukh Tramway” was changed to Kokilamukh state railway. In November 1884 the line was extended up to Dhaliriver near Titabar and the section was opened for goods traffic on 15<sup>th</sup> Dec 1884. The line was further extended up to Titabar on 16<sup>th</sup> July 1887. Again another 7 mile Long Branch line from Chenimora (Cinnamora) station to Mariani completed by December, 1884 and opened for good traffic on January 7, 1885 and passenger traffic on February 26, 1888. In 1928, a meter gauge loop line connecting Jorhat with Furkating via Baruabamungaon, Badulipar was laid. From Mariani Junction to Furkating Junction via Jorhat, Baruabamungaon, Badulipar; the meter gauge line was converted into Broad Gauge (BG) line and opened for traffic on 15<sup>th</sup> August 1998. The present service available at Jorhat Town Station: i) One pair (12067/12068) Janashatabdi Express running between Jorhat Town & Guwahati via Mariani Junction. ii) One pair Intercity Express (15605/15606) running



between Kamakhya-Dibrugarh via Jorhat Town Station. iii) One passenger train (55913/55914) running between Jorhat Town & Tinsukia Junction via Mariani Junction. iv) One pair passenger train running between Mariani Junction and Dimapur via Jorhat Town (55904/55903). v) One pair Intercity Express (15718/15717) running between Mariani Junction - Guwahati via Jorhat Town Station. The Passenger amenities available at Jorhat Town Station: a) 2 (two) nos. High level platform with platform shed over limited portion. b) One FOB (Foot Over Bridge) connecting platform no1 with platform no. 2. c) One second class waiting room. d) One reservation office (PRS) with provision of three counters. e) Unreserved Ticket counters. f) Parking Area. g) 2 nos. Tea Stall. h) Drinking Water taps (both for normal passengers & physically challenged persons). i) Wheel Chair for patients. j) Ramp for using wheel chairs. The local demand are like running of long distance Mail/Express train bound for New Delhi, Kolkata, Chennai, Bikaner/Jaipur and other places are long pending demand of Jorhat people and for which one "Bye pass" line is to be constructed at Mariani Junction for running the Mail/Express train without Engine reversion at Mariani Junction to avoid detention. The following table shows the movement of railways and income generation at Jorhat town station

**TABLE 5.2.1 MOVEMENT OF RAILWAYS AND INCOME GENERATION AT JORHAT TOWN STATION**

Sl. No.	Description	Nos. / Amount
1.	Daily / Monthly Passenger train	5 nos.
	Goods train –weekly -monthly	4 nos. 17 nos.
2.	Yearly Average Passenger	3.64 Cores.
	Goods train	9004 wagons.
3.	Yearly Income from movement of goods	Rs. 0.57 Crores.
	Yearly Income from movement of Passenger	Rs. 10.52 Crores.

Source: NFR, Divisional Commercial Manager, Tinsukia.

Inland water transportation at Jorhat is located at Nimatighat, 20 kms. from Jorhat City, is not within the GJRMP. Regular ferry service to the world largest river island 'Majuli' is available at Nimatighat.

### 5.2.2 AVAILABILITY OF TRANSPORTATION CONNECTIVITY OF THE VILLAGES WITHIN GJRMP

Village Code	Village Name	<b>Railway Station (Status A(1)/NA(2))</b> (If not available within the village, the distance range code of nearest place where facility is available is given viz; a for < 5 Kms, b for 5-10 Kms and c for 10+ kms ). <b>Public Bus Service (Status A(1)/NA(2))</b> (If not available within the village, the distance range code of nearest place where facility is available is given viz; a for < 5 Kms, b for 5-10 Kms and c for 10+ kms ). <b>Private Bus Service (Status A(1)/NA(2))</b> (If not available within the village, the distance range code of nearest place where facility is available is given viz; a for < 5 Kms, b for 5-10 Kms and c for 10+ kms ). <b>National Highway (Status A(1)/NA(2))</b> (If not available within the village, the distance range code of nearest place where facility is available is given viz; a for < 5 Kms, b for 5-10 Kms and c for 10+ kms ). <b>State Highway (Status A(1)/NA(2))</b> (If not available within the village, the distance range code of nearest place where facility is available is given viz; a for < 5 Kms, b for 5-10 Kms and c for 10+ kms ). <b>Major District Road (Status A(1)/NA(2))</b> (If not available within the village, the distance range code of nearest place where facility is available is given viz; a for < 5 Kms, b for 5-10 Kms and c for 10+ kms ). <b>Other District Road (Status A(1)/NA(2))</b>									
293601	Dulia Gaon	2	b	1	1	1	1	1	1	1	1
293602	Rajatia Gaon	2	c	2	a	1	2	a	1	1	1
293630	Porbotia Gaon	2	c	1	1	1	1	1	1	1	1
293631	Bhatemora Gaon	2	c	1	1	2	a	1	1	1	1
293633	Hazari Gaon	2	b	1	2	a	2	a	1	1	1
293634	Pakimuri Habi Gaon	2	a	1	1	2	a	1	1	1	1
293635	Bam Chuck	2	c	2	a	1	2	a	1	1	1
293636	Charingia Gaon	2	c	1	1	1	1	1	1	1	1
293638	Goriahabi Grant	2	b	1	2	b	2	b	1	1	1
293640	Ajan Bamun Gaon	2	c	1	1	1	2	a	1	1	1
293659	Kuhar Boria (Kuhia Boria Gaon)	2	c	1	1	1	1	1	1	1	1
293660	Chaliha Gaon	2	c	1	2	a	2	a	1	1	1
293661	Rongai Habi	2	c	1	1	1	1	1	1	1	1
293662	Senchoa Gaon	2	c	1	1	1	1	1	1	1	1
293663	Choudang Gaon No.2	2	c	1	1	1	1	1	1	1	1
293664	Baghmoria	2	c	2	a	1	2	a	1	1	1
293665	Chutiakari	2	c	1	1	1	1	1	1	1	1
293671	Uttar Hatichungi	2	c	2	a	1	2	a	1	1	1
293672	Charingia	2	c	2	a	1	2	a	1	1	1
293675	BhakatCheuni	2	b	1	1	1	2	a	1	1	1
294123	Raidang Kamar Gaon	2	a	2	c	2	a	2	a	2	b

294124	Hazari Gaon	2 a	2 c	2 c	2 c	2 a	2 a	1	1
294125	Kamar Hazarika Gaon	2 a	1	1	2 c	2 c	1	1	1
294126	Katani Gaon	1	1	1	2 b	2 b	1	1	1
294127	Na-Pamua (Na Pam Chowdang Gaon)	1	1	1	2 c	2 a	1	1	1
294128	Kathkatia Gaon	2 b	2 b	2 b	2 c	2 b	2 b	1	1
294129	Doklongia T.E.	2 b	1	1	2 c	2 c	1	1	1
293875	Meteli Gaon	2 b	1	1	1	2 b	1	1	1
293876	Ghorpholia Gaon	2 c	2 b	1	2 b	2 b	1	1	1
293891	Dulakharia Gaon	2 c	2 b	1	2 b	2 c	1	1	1
293730	No.2 Ghar Pholia Gaon	2 a	1	2 a	2 a	1	1	1	1
293731	No.1 Gharpholia Gaon	2 c	2 a	1	2 a	1	1	1	1
293744	Kalakhowa Gaon	2 b	1	1	2 b	1	1	1	1
293745	No.1 Bamun Gaon	2 c	1	1	1	1	1	1	1
293746	Kotoha Boria Gaon	2 b	1	2 a	2 b	1	1	1	1
293747	Aliamukhia Gaon	2 c	1	2 a	2 b	1	1	1	1
293748	No.2 Bamun Gaon	2	1	2 b	1	1	1	1	1
293749	Naosolia Gaon (Nau Salia Gaon)	2 b	1	2 a	2 b	1	1	1	1
293750	Duliapam Gaon	2	1	2 b	2 a	1	1	1	1
293751	Hatigarh Grant	2	2 b	1	2 b	1	1	1	1

Source: Census of India, 2011

TABLE 5.2.3: MAJOR TRAFFIC NODES (PASSENGER) IN THE PLANNING AREA

Area	Location	Description
<b>A. Main Entrance to Jorhat Town</b>	(i) Bohotia Gaon Bypass Point	Entry to the town and to link administrative HQ.
	(ii) Kenduguri Bypass Point	Entry to the town and to link administrative HQ.
<b>B. Town Area</b>	(i) Baruah Chariali Point	Connecting all major educational institutions including AAU in one side and other side mallow ali and connects Bypass.
	(ii) Na-Ali Point	Connecting Doss & Co., Lissubari MES and Titabor Subdivision
	(iii) Garh Ali Point (Nirmal Chariali Point)	Connecting Lahoti point, Cinamora and Titabor Subdivision
	(iv) Old Cicuit House Road Point	Connecting Bypass via residential areas
	(v) Lahoti Point	Connecting JEC and Town

<b>C. Cinamara</b>	(i) Cinamara Point	Entry to Mariani and Titabor
<b>D. Lichubari</b>	(i) Lichubari Point	Entry to AAU and Baghchung area.
<b>E. Sarbaibondha</b>	(i) Bye Pass Point	Entry to Kokilamukh
<b>F. 1 No. Bamun Gaon (Kenduguri)</b>	(i) 1 No. Bamungaon Point	Entry to bye Pass and Nimatighat.

Source: Field Survey, T&CP, Jorhat

The number of fast and slow moving vehicles given in the Table below pertain to the whole jurisdiction of D.T.O., Jorhat, it is seen that both fast moving and slow moving vehicles have been increased by 24% from 2015-16 to 2016-17. Majority of the vehicles put pressure in the planning area.

**TABLE 5.2.4 : GROWTH OF FAST & SLOW MOVING VEHICLES :**

Year	Tucks	LMV Goods	Bus	Taxi	Car	Total of Fast Moving Vehicle	Auto Rickshaw	Two Wheeler	Tractor/ Trailer/ Crane	Govt. vehicles & Others	Total of Fast Moving Vehicle
2015-16	101	644	6	95	2808	3654	149	7915	183	42	8289
2016-17	109	1042	18	90	3480	4739	50	9994	194	68	10306

Source – D. T. O., Jorhat, 2017.

The growth of two wheelers at Jorhat is quite high during last few years. The slow moving Rickshaws are still a part of transportation in the planning area. A large number of unlicensed rickshaws are seen plying in this town, those come from the nearby villages. There is also increase of number of bicycles in the planning area. The hand thellas and Bullock/ pony carts are still means of transportation of goods for short distance and this trend is likely to continue. CAB service has been come up in the city as a means of mass transportation within the city.

**5.3 TRANSPORT TERMINALS :**

The following are the traffic terminals in the Revised Master Plan for Greater Jorhat.

**TABLE 5.3.1 TRANSPORT TERMINALS**

Terminal Center	Location	Observation
<b>A. Inter-State Bus-Station</b>		
1. Passenger	i) ISBT	- Located at Western Corner of Jorhat Municipality - Well planned - Waiting Room/ Shed / Toilet for Gents & Ladies are Available
	ii) ASTC Bus Terminus	- Located at Western Corner of Jorhat Municipality - unplanned commercial establishment has come up - Waiting Room/ Shed / Toilet for Gents & Ladies are to be renovated
	iii) JDA Bus-Stand	- Bitumen/ pavers block surfacing immediately required. - Not managed properly from the traffic circulation point of view. - Toilets to be renovated
	iii) Nimati&Teok Mini Bus Stand	- Unplanned without any waiting shed/ toilet Facilities in front of ASTC Bus Terminus
	(iv) Delux Omni Bus	- unplanned parking near Baruah Chariali in the morning - Road side parking
	(v) Old Public Bus stand- Near HPO, Jorhat	- Unplanned way side near old public bus stand overwhere Multi Level Car Parking is being constructed
<b>Railway Station</b>		
	(i) JorhatTown Rly Station	- Building to be expanded to provide more passengers creating more space for ticket seekers

	(ii) Rowroiah Rly Station	- Buildings are to be rennovated
	(ii) Chinamara Rly Station	- Building are to be rennovated
2. Goods	(i) Truck Stand	- No Organised stand - Roadside truck parking - onAT Road - Mariani Road speacially at Chinamara.
	(ii) Jorhat Rly Station	- Loading/Unloading yardscreate serious traffic congestion in the town

Source: Field Survey, T&CP, Jorhat

The following table shows the no. of Passenger buses getting in and going out from different Bus Terminals of Jorhar RMPAJG.

**TABLE 5.3.2: NOS. OF BUSES PLYING from Public Bus Stand under JDA**

Sl. No.	Name of Vehicles	Destination	Nos.
1.	Traveller	Nagaon-Jorhat	31
2.	Traveller	Bokakhat-Jorhat	7
3.	Traveller	Sibsagar-Jorhat	6
4.	Traveller	Dibrugarh-Jorhat	21
5.	Traveller	Golaghat-Jorhat	4
6.	Traveller	Guwahati-Jorhat	4
7.	Winger	Golaghat-Jorhat	15
8.	Winger	Sibsagar-Jorhat	11
9.	Day Super	Guwahati-Jorhat	2
10.	Night Super	Lakhimpur-Jorhat	1

Source: Filed Survey by the T& CP, Jorhat

**TABLE 5.3.3: NOS. OF BUSES PLYING from INTER STATE BUS TERMINUS**

Sl. No.	Name of Vehicles	Destination	Nos.
1.	Bus (Ultra)	Dibrugarh-Jorhat	24
2.	Bus (Ultra)	Sivsagar-Jorhat	3
3.	Bus (Ultra)	Lakhimpur-Jorhat	5

4.	Bus (Ultra)	Dimapur-Jorhat	2
5.	Omni Bus (ASTC)	Guwahati-Jorhat	10
6.	Omni Bus (ASTC)	Koch Bihar-Jorhat	4
7.	Traveller	Golaghat-Jorhat	9
8.	Star Bus	Sivasagar-Jorhat	17
9.	Star Bus	Nagaon-Jorhat	4

Source: Filed Survey by the T& CP, Jorhat

Some other buses from Titabor and Sibsagar also operate via Jorhat Town to Guwahati.

The traffic congestion of the town will be reduced after functioning of the Truck Terminus which is constructed by JDA at Ailamukhia Gaon under the NLCPR fund of Govt of India. The parking problems of the CBD will be also reduced to a great extent after completion of the multistoried car parking, which is constructed by JMB under the NLCPR fund of Govt of India.

# CHAPTER - VI

## INFRASTRUCTURE, PUBLIC UTILITIES & SERVICES

**Protected Water Supply- Source and capacity of Storage system:** There are various sources of water supply and its storage system in the town.

**1. Service Reservoir:** A service reservoir is a water storage container that holds clean water after it has been treated in a water plant, and before it is piped to the end users. These containers are covered, and are designed to keep the water safe from contamination. Their main purpose is to provide a buffer within the water supply system so that water supplies can be maintained across periods of varying demand.

**2. River Infiltration Gallery:** Infiltration Galleries are capable of supplying large quantities of water, and are used where wells are unable to supply water needs, i.e. where an impermeable rock barrier affects well efficiency, or where surface water sources are too shallow for intake screens. Infiltration galleries are one or more horizontal screens placed adjacent to (on-shore), or directly underneath (bed-mounted), a surface water source.

**3. Bore Well Pumping System:** A bore well is a well of 6" to 12" in diameter drilled into the earth for retrieving water. The depth of a bore well can vary from 50 feet to 3000 feet. Water is pumped out to surface through electricity/generator.

**4. Pressure Tank:** Tank that is used to ensure consistent water pressure and for storage of water. Usually located in basement of house but sometimes (in older settings) located in well pit.

### **6.1 WATER SUPPLY**

In Jorhat Town, the water supply is mainly provided by Public Health Engineering Deptt, Urban Water Supply & Jorhat Municipal Board. These schemes were constructed and maintained by the respective authorities.



**TABLE 6.1.1: WATER SUPPLY SCHEMES: JORHAT MUNICIPAL BOARD**

Sl. No.	Name of Scheme	Source of Water	Capacity	Nos of home connections	No of stand pipe	Area covered	Ward Nos of Jorhat Town & Name of villages covered by the scheme
1	Bhogdoi Water Supply	Surface Source (Bhogdoi River)	0.72 MLD	1323 Nos	26 Nos	Fancy Ali, Bhogdoi Embankment, Formud Ali Path, RB Lane, Rajamaidam Road, AT Road, New Vill Road, Balibat, Gar Ali, Dewal Road, Rupohi Ali, JPR, PWD Pvt Road, Bez Gohain Ali, Chaliha Lane Road etc.	Ward No-2,3,4 part of 5,6,7,8,9 & 10
2	Nehru Park Water Supply	Under Ground	0.18 MLD	560 nos	14 Nos	TNS Road, OCH Road, TRP Road, Choladhora Road, Malow Ali, AT Road, DCB Road, KB Road & Phukan Ali	Ward No 12,13 & Part of 10
3	Sonari gaon Water Supply	Under Ground	0.18 MLD	515 Nos	10 Nos	Sonari Gaon 1 & 2 No Path, Seuni Gaon Road, Jail Road, Uday Nagar, Ambikagiri Nagar, Nandapur, Sankardev Path, Bordoloi Nagar, Atilagaon Road etc.	Ward No-15 , 16 and 11
4	Macharhat Water Supply	Under Ground	0.13 MLD	502 Nos	21 Nos	Milan Nagar Raod, Gajpuria road, JB Road, Darangichuk Road, Pachani Bora chuk Road, DakhinSarbaibondha Road, Ventilation Road, Boroda Phukan Road etc.	Ward No 1,14 and part of 5
Total				2900 Nos	71 Nos		

Source: Jorhat Municipal Board.

**TABLE 6.1.2 : WATER SUPPLY SCHEMES : ASSAM URBAN WATER SUPPLY**

Sl. No	Name of Scheme	Source of Water	Capacity	Nos of home connections	Length of Pipe	Area covered	Ward Nos. of Jorhat Town & Name of villages covered by the scheme
1	Jorhat Town Water Supply Scheme Phase-I						
	i) NehruPark WSS Zone-I	Underground	4.080 MLD	3159	32.60 KM	Jail Road, Solicitor Road, Porsh Baruah Road, DCB Road,	10,12,13 (part) & 15 (part)

						DCB Hostel Road, Atila Gaon, OCH Road, KKB Road, Choladhora, RB Road, Sastrupith Road, Suagpur, Nehrupark, Smashan Road, Gayan Gaon, Darrangi Chuk, Malow Ali, TRP Road, AT Road, Tarajan etc.	
	ii) Na-Ali WSS, Zone-III	Surface Source (Bhogdoi River)	5.867 MLD	1426	17.70 KM	Atilagaon, Na-Ali, Bongalpukhuri, Bansbari(Part), Pub-Bongalpukhuri	8,9 & 17
	iii) Bhogdoi WSS, Zone-IV	Surface Source (Bhogdoi River)		3125	25.40 KM	Dohaborachuk, Bongalpukhuri, Chandan Nagar, Club Road, JEC Road, Rajabari, Bansbari, Fancy Ali, JPR Road, Old& New Balibat, Thana Road, Mitha Pukhuri, Chamber Road,AT Road, maruwari Patty, Gar Ali, Dewal Road, Itakhuli, Garmur etc.	3,7,8 & 18
	iv) Old Civil Hospital WSS, Zone-VI	Under ground	3.427 MLD	1885	13.68 KM	AT Road Bazar Side, JB Road, OCH Road LH Side, Macharhat, Darrangichuk, Boroda Phukan Road, Sarbaibondha, Rajamaidam Road, New colony, Gajpuria, New Vill Road, Nazironibari, Kabarsthan, RB Lane, Horizon Colony, Royal Road, Formud Ali Path, Subhash colony, Netaji Colony, Naziranibari, Digambarchuk, Kalisthan, kachariporia etc.	1,2,4,5,13(Part) & 14 (Part)
	v)Dhenususa WSS, Zone - VII	Under ground	1.502 MLD	1392	13.07 KM	Dhenususa Gaon, AT Road, Borigaon, Gohaintekela, Kenduguri, Charigaon (Part) , Borbora Tekela, Chandoritekela, Suwanigaon, Seuni Ali, Chengeligaon, Nimati Road, Ananda Nagar,Kenduguri etc.	19

2	Jorhat town WSS Phase-II						
	i) Sonari Gaon WSS , Zone-II	Under ground	3.378 MLD	818	18.00 KM	Sonarigaon NO-1 & 2, Kakotigaon, Bamungaon, Gayangaon, DCB College Road, Jail Road etc.	5 & 16
	ii) MacharhatW SS, Zone-V	Under ground	2.50 MLD	128	18.29 Km	JB Road, Macharhat, Darrangichuk, Baroda Phukan Road, Sarbaibondha, Krishna nagar, Gojpuria Road, Milan Nagar etc	1, 12(part) , 13(Part), 14 (part)
Total				11933 nos			

Source: AUWS & SB, Jorhat.

Though Jorhat Urban Agglomeration is well served by pipe water connection, but the quality of supplied water is not upto the mark. In some cases, presence of Arsenic in the supplied water has been reported now and then.

**TABLE 6.1.3 : WATER SUPPLY SCHEMES: PUBLIC HEALTH ENGINEERING DEPTT.**

Sl. No	Name of Villages	Name of WSS	Source of Water	Capacity (in LTRS)	No. of Home Connections	No. of Stand Pipes
<b>Jorhat East Revenue Circle</b>						
1	Kamalabaria Gaon (PPB)	Kamalabaria Gaon	Deep Tube Well	80,000	120	
2	Chekonidhara (PPB)	BongalPukhuri	Deep Tube Well	1,20,000	250	12
3	Hatigarh Grant	Hatigarh Chah Bagicha	Deep Tube Well	1,60,000		
4	Duliapam Gaon	Dulia Gaon, Duliapam	Deep Tube Well	80,000		
5	Naosolia Gaon	Naosolia	Deep Tube Well	1,00,000	105	3
6	1 No Bamun Gaon	1 No Bamun Gaon	Deep Tube Well	1,00,000	175	2
7	2 No Bmun Gaon	2 No Bamun Gaon	Deep Tube Well	1,00,000	165	2
8	Ailamukhia Gaon	HatigarhPadum oni	Deep Tube Well	80,000	117	
9	Kotohaboria	Kathonikuri Na-Bora	Deep Tube Well	80,000	200	
10	1 No Gharpholia	Gharpholia	Deep Tube Well	50,000	50	
11	2 No Gharpholia	Gharpholia	Deep Tube Well	50,000	50	
12	Chengeli Gaon	Chengeli Gaon	Deep Tube Well	80,000	180	
13	Gohain Tekela Gaon	Gohain Tekela Gaon	Deep Tube Well	1,00,000	135	4
14	Dulia Gaon	Dulia Gaon	Deep Tube Well	80,000	135	
15	Toklai Chah Bagicha Gaon	Toklai Chah Bagicha	Deep Tube Well	1,60,000		
16	Chowdang Gaon	Chowdang Gaon 1No	Deep Tube Well	80,000		
17	Kumar Koiborta Gaon	Kumar Koibarta	Deep Tube Well	80,000		

<b>Jorhat West Revenue Circle</b>							
18	Charingia Gaon	DhapkotaCharig ia	Deep Tube Well	80,000			
19	Porbotia Gaon	PuliborBamun Gaon	Deep Tube Well	80,000			
20	Bhatemora Gaon	BhatemoraPorb otia	Deep Tube Well	80,000			
21	Sensuwa Gaon	Sensuwa	Deep Tube Well	80,000	350		
22	Naosolia Gaon (PPB)	Naosolia	Deep Tube Well	60,000	70		
23	Hazari Gaon (PPB)	Hzari Gaon	Deep Tube Well	60,000	60		
24	Pokimuri Habi Gaon	Pokimarihabi Gaon	Deep Tube Well	40,000	65		
25	Bamchuk	Chirotia Bam Chuk	Deep Tube Well	80,000			
26	Charingia Gaon	Charingia	Deep Tube Well	80,000	130		
27	Goriahabi Grant	Chilakora Basti	Deep Tube Well	60,000	70		
28	Ajan Bamun Gaon	Ajan Bamun Gaon	Deep Tube Well	80,000			
29	KuhiaboriaBamun Gaon	Chaliha Kuhiaboria	Deep Tube Well	80,000			
30	Chaliha Gaon						
31	Rongaihabi		Deep Tube Well				
32	2 No Chowdang Gaon	Na-Ali Chowdang Gaon	Deep Tube Well	80,000	50		
33	Baghmoria	Baghmoria	Deep Tube Well	80,000	150	3	
34	Chutiakari	Chutiakari	Deep Tube Well	80,000	230		
35	Uttarhatchungi	Uttarhati chungi	Deep Tube Well	80,000	75		
36	Dulia Gaon	Kamar Gaon	Deep Tube Well	80,000	110		
37	Rajotia Gaon	Rajotia	Deep Tube Well	80,000			
38	BhakatCheuni	BhakatCheuni	Deep Tube Well	80,000			
39	Sarbaibondha	Sarbaibondha	Deep Tube Well	1,60,000			
40	Sonari Gaon	Kharagerua	Deep Tube Well	1,60,000			
41	Nakari Bamun Gaon	Nakari	Deep Tube Well	80,000			
42	Na PamuwaChowdang Gaon	Napamuwa	Deep Tube Well	80,000			
43	Raidang Komar gaon	RaidangKomarg aon	Deep Tube Well	80,000			
44	Kamar Hazarika Gaon		Deep Tube Well	80,000			
45	Katoni Gaon						
<b>Teok Revenue Circle</b>							
46	Gharphalia Gaon	Gharpholia	Deep Tube Well	50,000			
47	DulakasoriaGharph olia 1 No	Dulakasoria	Deep Tube Well	80,000			
48	DulakasoriaGharph olia 2 No		Deep Tube Well				
<b>Mariani Revenue Circle</b>							
49	Doklongia Tea Garden	Doklongia	Deep Tube Well	80,000			
50	Kathkotia Gaon	Kathkotia	Deep Tube Well	80,000			
Total					3042	26	

Source: PHED, Jorhat.

Though most of the villages within GJRM area are well served by pipe water connection, but the quality of supplied water is not upto the mark. In some cases, presence of Arsenic in the supplied water has been reported now and then.

**TABLE 6.1.4: SOURCE, SYSTEM & CAPACITY WATER SUPPLY SCHEMES IN JORHAT URBAN AGGLOMERATION AREA**

Town Code	Town Name	Protected Water Supply Source-1	System of Storage Source-1	Capacity Source-1 (in kilo-litres)	Protected Water Supply Source-2	System of Storage Source-2	Capacity Source-2 (in kilo-litres)	Protected Water Supply Source-3	System of Storage Source-3	Capacity Source-3 (in kilo-litres)	Protected Water Supply Source-4	System of Storage Source-4	Capacity Source-4 (in kilo-litres)
29367 8	Charingia Gaon (CT)	TT	SR	116	TW/ B	OH T	40						
29367 9	Nowsolia Gaon (CT)	H P	BW P	100	TW/ B	OH T	41						
80159 5	Jorhat (MB + OG)	TT	OHT	1002 0	TW/ B	OH T	39	C W	BW P	27			
29375 2	Kumar Kaibarta Gaon (CT)	TT	SR	112	TW/ B	OH T	40						
29375 3	Chekonidhara (CT)	TT	SR	522	TW/ B	PT	40	HP	BW P	39	TK/P/ L	S R	8
29375 4	Kamalabaria N.C. (CT)	TT	SR	580	TW/ B	PT	77	HP	BW P	33	TK/P/ L	S R	1

Source: Census of India, 2011.

TT: Tap water from treated source, CW: Covered well, HP:Hand pump, TW/B:Tubewell /Borehole, TK/P/L:Tank/Pond/Lake, OHT:Over head Tank, SR:Service Reservoir, BWP:Bore Well Pumping system, PT:Pressure Tank

**TABLE 6.1.5: AVAILABILITY OF TAP WATER, TREATED OR UNTREATED IN THE VILLAGES OF REVISED MASTER PLAN AREA OF GREATER JORHAT**

Village Code	Village Name	Tap Water-Treated (Status A(1)/NA(2))	Tap Water-Treated Functioning All round the year (Status A(1)/NA(2))	Tap Water-Treated Functioning in Summer months (April-September) (Status A(1)/NA(2))	Tap Water Untreated (Status A(1)/NA(2))	Tap Water Untreated Functioning All round the year (Status A(1)/NA(2))	Tap Water Untreated Functioning in Summer months (April-September) (Status A(1)/NA(2))
293601	Dulia Gaon	1	1	1	1	1	1
293602	Rajatia Gaon	1	1	1	2	2	2
293630	Porbotia Gaon	1	1	1	1	1	1
293631	Bhatemora Gaon	1	1	1	1	1	1
293633	Hazari Gaon	1	1	1	1	1	1
293634	Pakimuri Habi Gaon	1	1	1	1	1	1
293635	Bam Chuck	1	1	1	2	2	2
293636	Charingia Gaon	1	1	1	2	2	2
293638	Goriahabi Grant	1	1	1	1	1	1
293640	Ajan Bamun Gaon	1	1	1	1	1	1
293659	Kuhlar Boria (Kuhia Boria Gaon)	1	1	1	1	1	1
293660	Chaliha Gaon	1	1	1	1	1	1
293661	Rongai Habi	1	1	1	2	2	2
293662	Senchoa Gaon	1	1	1	1	1	1
293663	Choudang Gaon No.2	1	1	1	1	1	1
293664	Baghmoria	1	1	1	1	1	1
293665	Chutiakari	1	1	1	1	1	1
293671	Uttar Hatichungi	1	1	1	1	1	1
293672	Charingia	1	1	1	1	1	1
293675	BhakatCheuni	1	1	1	1	1	1
294123	Raidang Kamar Gaon	1	2	1	2	2	2
294124	Hazari Gaon	1	1	1	1	1	1
294125	Kamar Hazarika Gaon	1	1	1	1	1	1
294126	Katani Gaon	1	1	1	1	1	1
294127	Na-Pamua (Na Pam Chowdang Gaon)	1	1	1	1	1	1
294128	Kathkatia Gaon	1	2	1	2	2	2
294129	Doklongia T.E.	1	1	1	1	1	1
293875	Meteli Gaon	1	1	1	1	1	1
293876	Ghorpholia Gaon	1	1	1	1	1	1
293891	Dulakharia Gaon	1	2	1	1	1	1

293730	No.2 Ghar Pholia Gaon	1	1	1	1	1	1
293731	No.1 Gharpholia Gaon	1	1	1	1	1	1
293744	Kalakhowa Gaon	1	1	1	1	1	1
293745	No.1 Bamun Gaon	1	1	1	1	1	1
293746	Kotoha Boria Gaon	1	1	1	1	1	1
293747	Aliamukhia Gaon	1	1	1	1	1	1
293748	No.2 Bamun Gaon	1	1	1	1	1	1
293749	Naosolia Gaon (Nau Salia Gaon)	1	1	1	1	1	1
293750	Duliapam Gaon	1	1	1	1	1	1
293751	Hatigarh Grant	1	1	1	1	1	1

Source: Census of India, 2011.

**TABLE 6.1.6 : STATUS OF AVAILABLE WELLS IN THE VILLAGES OF REVISED MASTER PLAN AREA OF GREATER JORHAT**

Village Code	Village Name	Covered Well (Status A(1)/NA(2))	Covered Well Functioning All round the year (Status A(1)/NA(2))	Covered Well Functioning in Summer months (April-September) (Status A(1)/NA(2))	Uncovered Well (Status A(1)/NA(2))	Uncovered Well Functioning All round the year (Status A(1)/NA(2))	Uncovered Well Functioning in Summer months (April-September) (Status A(1)/NA(2))
293601	Dulia Gaon	1	1	1	2	2	2
293602	Rajatia Gaon	1	1	1	2	2	2
293630	Porbotia Gaon	1	1	1	1	1	1
293631	Bhatemora Gaon	1	1	1	2	2	2
293633	Hazari Gaon	1	1	1	1	1	1
293634	Pakimuri Habi Gaon	1	1	1	1	1	1
293635	Bam Chuck	1	1	1	2	2	2
293636	Charingia Gaon	1	1	1	1	1	1
293638	Goriahabi Grant	1	1	1	2	2	2
293640	Ajan Bamun Gaon	1	1	1	1	1	1
293659	Kuhlar Boria (Kuhia Boria Gaon)	1	1	1	1	1	1
293660	Chaliha Gaon	1	1	1	1	1	1
293661	Rongai Habi	1	1	1	1	1	1
293662	Senchoa Gaon	1	1	1	1	1	1
293663	Choudang Gaon No.2	1	1	1	1	1	1
293664	Baghmoria	1	1	1	1	1	1
293665	Chutiakari	1	1	1	1	1	1
293671	Uttar Hatichungi	1	1	1	2	2	2

293672	Charingia	1	1	1	2	2	2
293675	BhakatCheuni	1	1	1	1	1	1
294123	Raidang Kamar Gaon	2	2	2	2	2	2
294124	Hazari Gaon	1	1	1	2	2	2
294125	Kamar Hazarika Gaon	2	2	2	2	2	2
294126	Katani Gaon	1	1	1	1	1	1
294127	Na-Pamua (Na Pam Chowdang Gaon)	1	1	1	1	1	1
294128	Kathkatia Gaon	2	2	2	1	1	1
294129	Doklongia T.E.	1	1	1	1	1	1
293875	Meteli Gaon	1	1	1	1	1	1
293876	Ghorpholia Gaon	1	1	1	1	1	1
293891	Dulakharia Gaon	1	1	1	1	1	1
293730	No.2 Ghar Pholia Gaon	1	1	1	1	1	1
293731	No.1 Gharpholia Gaon	1	1	1	1	1	1
293744	Kalakhowa Gaon	1	1	1	1	1	1
293745	No.1 Bamun Gaon	1	1	1	1	1	1
293746	Kotoha Boria Gaon	1	1	1	1	1	1
293747	Aliamukhia Gaon	1	1	1	1	1	1
293748	No.2 Bamun Gaon	1	1	1	1	1	1
293749	Naosolia Gaon (Nau Salia Gaon)	1	1	1	1	1	1
293750	Duliapam Gaon	1	1	1	1	1	1
293751	Hatigarh Grant	1	1	1	1	1	1

Source: Census of India, 2011.

At present only 14833 numbers of households have their home connection in Jorhat town. More than 90% per cent of total households of Jorhat Municipal area have water supply connection. Some of the Govt. Offices/Institutions have water supply connection in Jorhat Municipal area and some connections are found outside municipal area of urban water supply projects; only 71 number of street taps are available for community service in Jorhat Municipal Board, in the planning area, 50 number of villages have water supply schemes installed by the PHED Govt. of Assam with only 3042 numbers of home connections and only 26 numbers of stand pipes.

The construction of a treatment plant of 28.2 MLD (Surface water source of Brahmaputra River) is going on at Potiagaon area of Jorhat under Neer Nirmal Pariyojana, which will cover 33 numbers of Gaon Panchyats in Jorhat except JMB area.



## 6.2 DRAINAGE SYSTEM

Water logging has become a serious problem in Greater Jorhat Town with the increase of the construction activities, which made the land congested and disrupted. The drainage system of Jorhat has been disrupting day by day due to unscientific land use system in the town and its surrounding villages, those fall under Jorhat Development Authority. The amount of open surface mainly decreases in the core area of Jorhat town as construction activities with high-rise buildings have occupied this area in recent years. So, water logging is a very common phenomenon, even after small downpour, in this area. Not only core area of Jorhat town, water logging is a persistent problem in some other areas of Greater Jorhat Town. This water logging problem becomes pathetic in the town during rainy season. It is observed that, ward nos. 1, 2, 3, 7, 11, 14, 16, 17, 18, 19, parts of Sarbaibondha, Chekonidhora villages have been experiencing high water logging problems where water remains more than 24 hours and the other wards, viz. 4, 5, 6, 8, 9, 10, 12, 13 & 15 and remaining villages have been experiencing less water logging problem where water remains not more than 24 hours. It has been happening due to inadequate and unscientific provision of drain, improper management of existing drains, unauthorized settlement along the natural channels, de-siltation in the existing natural channels, unscientific road construction by raising the top crust of road almost after every two years and most importantly lack of co-ordination among the drain construction departments viz. Jorhat Municipality, Jorhat Development Authority, Public Works Department, Water Resource Department and last but not the least Rural Development in rural areas of Greater Jorhat.

Thus, water logging has become a major problem in Greater Jorhat by which population, more than 1 Lakh, are affected, badly every year. The history of Jorhat City's evolution is very interesting in respect of physical as well as cultural aspect. The physical feature of Jorhat is flood plain, alluvial soil and on the other hand the social factors like fast growing urbanization and construction of high rise buildings, non-biodegradable solid waste are responsible for this problem of water logging. A study is utmost importance to identify the waterlogged zones of Greater Jorhat, ward/village wise waterlogged situation and its varying depth, waterlogged road and traffic congestion and the people who have been suffered from waterborne diseases (mainly in the slum and the squatter people) etc. Recommendations, such as, setting up new pumping station and maintaining the existing drainage system to its cent percent capacity etc. should be taken care of by the concerned authorities. But all these can be materialized properly with proper interest from every corner of concern.

So, it is the high time to think for a Scientific Drainage Master Plan for Greater Jorhat with the help of the following procedures-

1. Delineation of Basin Boundary: The catchment areas of the tributaries run through Greater Jorhat town have to be fixed with the help of contour survey. For Jorhat, Tocklai basin and Tarajan basins are more important as drainage problem is acute in these basins.

2. Run off Design: With the help of Rational Method after computing Run off coefficient, Intensity of Rainfall i.e. the average rate of rainfall per hour for the period of maximum rainfall of a given frequency of occurrence having a duration equal to the time of concentration and the tributary of a drain; the maximum rate surface run off from the catchment area of a drain can be calculated.

3. Size of Drain: From the maximum surface run off from the catchment area of a particular drain, its size can be calculated and to be designed with the help of Structural Engineering techniques.

Once the Master Plan on Drainage for Greater Jorhat is prepared, it will require considerable time to implement it in totality. Because of the time gap from its preparation to its implementation, certain developments might take place which may lead to modify, alter; some proposals. Hence implementing agencies must have qualified and experienced technical persons with the required knowledge of modification, if required, without changing the basic principle of the plan.

Recently the preparation of a GIS based Drainage Master Plan for Greater Jorhat Revised Master Plan Area has been taken in hand by Gujarat University under a research project of ISRO. Professor Dr.Nandita Goswami of Gujarat University, who hails from Jorhat, has taken the initiative for this project.

**TABLE 6.2.1:AVAILABILITY OF DRAINAGE SYSTEM IN THE JORHAT URBAN AGGLOMERATION**

Town Code	Town Name	Drainage System (Open-1/Closed-2/Both-3/No-4)
293678	Charingia Gaon (CT)	1
293679	Nowsolia Gaon (CT)	4
801595	Jorhat (MB + OG)	3
293752	Kumar Kaibarta Gaon (CT)	1
293753	Chekoniadhara (CT)	3
293754	Kamalabaria N.C. (CT)	3

Source: Census of India, 2011.

The Census Town Nowsolia Gaon does not have any type of drain, Census Town Kamalabaria N.C. Charingia Gaon, Chekonidhora and Jorhat MB and its outgrowths have both open and closed drain.

**TABLE 6.2.2 : AVAILABILITY OF DRAINAGE SYSTEM IN THE RURAL AREAS OF GREATER JORHAT REVISED MASTER PLAN AREA**

Village Code	Village Name	Closed Drainage (Status A(1)/NA(2))	Open Drainage (Status A(1)/NA(2))	No Drainage (Status A(1)/NA(2))	Open Pucca Drainage Covered with Tiles Slabs (Status A(1)/NA(2))	Open Pucca Drainage Uncovered (Status A(1)/NA(2))	Open Kuccha Drainage (Status A(1)/NA(2))	Whether Drain water is discharged directly into water bodies or to sewer plant (For Water Bodies-1/Sewar Plants-2)	Is the Area Covered under Total Sanitation Campaign (TSC)? (Status A(1)/NA(2))
293601	Dulia Gaon	2	1	2	2	2	1	1	2
293602	Rajatia Gaon	2	1	2	2	2	1	1	2
293630	Porbotia Gaon	2	1	2	2	2	1	1	2
293631	Bhatemora Gaon	2	1	2	2	2	1	1	2
293633	Hazari Gaon	2	1	2	2	2	1	1	2
293634	Pakimuri Habi Gaon	2	1	2	2	2	1	1	2
293635	Bam Chuck	2	1	2	2	2	1	1	2
293636	Charingia Gaon	2	1	2	2	2	1	1	2
293638	Goriahabi Grant	2	1	2	2	2	1	1	2
293640	Ajan Bamun Gaon	2	1	2	2	2	1	1	2
293659	Kuhlar Boria (Kuhia Boria Gaon)	2	1	2	2	2	1	1	2
293660	Chaliha Gaon	2	1	2	2	2	1	1	2
293661	Rongai Habi	2	1	2	2	2	1	1	2
293662	Senchoa Gaon	2	1	2	2	2	1	1	2
293663	Choudang Gaon No.2	2	1	2	2	2	1	1	2
293664	Baghmoria	2	1	2	2	2	1	1	2
293665	Chutiakari	2	1	2	2	2	1	1	2
293671	Uttar Hatichungi	2	1	2	2	2	1	1	2
293672	Charingia	2	1	2	2	2	1	1	2
293675	BhakatCheuni	2	1	2	2	2	1	1	2
294123	Raidang Kamar Gaon	2	2	2	2	2	1	1	1
294124	Hazari Gaon	2	1	2	2	2	1	1	1
294125	Kumar Hazarika Gaon	2	1	2	2	2	1	1	1
294126	Katani Gaon	2	2	2	2	2	1	1	1
294127	Na-Pamua (Na Pam Chowdang Gaon)	2	1	2	2	2	1	1	1
294128	Kathkatia Gaon	2	1	2	2	2	1	1	1
294129	Doklongia T.E.	2	1	2	2	2	1	1	1
293875	Meteli Gaon	2	2	1	2	2	1	2	2
293876	Ghorpholia Gaon	2	2	2	2	2	1	2	2

293891	Dulakharia Gaon	2	2	2	2	2	1	2	2
293730	No.2 Ghar Pholia Gaon	2	1	2	2	2	1	2	1
293731	No.1 Gharpholia Gaon	2	1	2	2	2	1	1	2
293744	Kalakhowa Gaon	2	1	2	2	2	1	1	2
293745	No.1 Bamun Gaon	2	1	2	2	2	1	1	2
293746	Kotoha Boria Gaon	2	1	2	2	2	1	1	2
293747	Aliamukhia Gaon	2	1	2	2	2	1	1	2
293748	No.2 Bamun Gaon	2	2	1	2	2	2	1	2
293749	Naosolia Gaon (Nau Salia Gaon)	2	2	1	2	2	2	1	2
293750	Duliapam Gaon	2	2	1	2	2	2	1	2
293751	Hatigarh Grant	2	2	1	2	2	2	1	2

Source: Census of India, 2011.

Most of the villages within GJRMP area have only open drain without any planning which fails to solve rain water logging problem during rainy seasons

### 6.3 Sanitation:

As per 2011 census, most of the total households in the Jorhaturban agglomeration area had toilet facilities. Sanitary latrines are provided in almost all the newly constructed houses (AT & pucca), in the planning area. The discharge water of sanitary latrine has no alternative but to percolate underground, that pollutes the ground water. There is no sewerage network in the planning area.

**TABLE 6.3.1: AVAILABILITY OF LATRINES IN THE JORHAT URBAN AGGLOMERATION**

Town Code	Town Name	Latrines-Pit (Numbers)	Latrines-Flush/Pour Flush (Numbers)	Latrines-Service (Numbers)	Latrines-Others (Numbers)
293678	Charingia Gaon (CT)	585	527		
293679	Nowsolia Gaon (CT)	341	568		1
801595	Jorhat (MB + OG)	3323	24755	1473	75
293752	Kumar Kaibarta Gaon (CT)	232	1442	2	77
293753	Chekonidhara (CT)	99	2024	1	
293754	Kamalabaria N.C. (CT)	247	1783		

Source: Census of India, 2011.

**TABLE 6.3.2: AVAILABILITY OF COMMUNITY TOILET, PRODUCTION CENTRE/ OUTLET OF SANITARY HARDWARE, COMMUNITY WASTE DISPOSAL, BIO GAS IN THE RURAL AREAS OF GREATER JORHAT REVISED MASTER PLAN AREA**

Village Code	Village Name	Community Toilet Complex (including Bath) for General Public (Status A(1)/NA(2))	Community Toilet Complex (excluding Bath) for General Public (Status A(1)/NA(2))	Rural Production Centres or Sanitary hardware outlet availability near the village (Status A(1)/NA(2))	Rural Production mart or Sanitary hardware outlet availability near the village (Status A(1)/NA(2))	Community waste disposal system after house to house collection (Status A(1)/NA(2))	Community Bio-gas or recycle of waste for production use (Status A(1)/NA(2))	No System (Garbage on road/street) (Status A(1)/NA(2))
293601	Dulia Gaon	2	2	2	2	2	2	1
293602	Rajatia Gaon	2	2	2	2	2	2	1
293630	Porbotia Gaon	2	2	2	2	2	2	1
293631	Bhatemora Gaon	2	2	2	2	2	2	1
293633	Hazari Gaon	2	2	2	2	2	2	1
293634	Pakimuri Habi Gaon	2	2	2	2	2	2	1
293635	Bam Chuck	2	2	2	2	2	2	1
293636	Charingia Gaon	2	2	2	2	2	2	1
293638	Goriahabi Grant	2	2	2	2	2	2	1
293640	Ajan Bamun Gaon	2	2	2	2	2	2	1
293659	Kuhlar Boria (Kuhia Boria Gaon)	2	2	2	2	2	2	1
293660	Chaliha Gaon	2	2	2	2	2	2	1
293661	Rongai Habi	2	2	2	2	2	2	1
293662	Senchoa Gaon	2	2	2	2	2	2	1
293663	Choudang Gaon No.2	2	2	2	2	2	2	1
293664	Baghmoria	2	2	2	2	2	2	1
293665	Chutiakari	2	2	2	2	2	2	1
293671	Uttar Hatichungi	2	2	2	2	2	2	1
293672	Charingia	2	2	2	2	2	2	1
293675	BhakatCheuni	2	2	2	2	2	2	1
294123	Raidang Kamar Gaon	2	2	2	2	2	2	2
294124	Hazari Gaon	2	2	2	2	2	2	2
294125	Kumar Hazarika Gaon	2	2	2	2	2	2	2
294126	Katani Gaon	2	2	2	2	2	2	2
294127	Na-Pamua (Na Pam Chowdang Gaon)	2	2	2	2	2	2	2
294128	Kathkatia Gaon	2	2	2	2	2	2	2
294129	Doklongia T.E.	2	2	2	2	2	2	2
293875	Meteli Gaon	2	1	2	1	2	2	1
293876	Ghorpholia Gaon	2	2	2	2	2	2	2
293891	Dulakharia Gaon	2	2	2	2	2	2	2
293730	No.2 Ghar Pholia Gaon	2	2	2	2	2	2	1
293731	No.1 Gharpholia Gaon	2	2	2	2	2	2	1
293744	Kalakhowa Gaon	2	2	2	2	2	2	1

293745	No.1 Bamun Gaon	2	2	2	2	2	2	1
293746	Kotoha Boria Gaon	2	2	2	2	2	2	2
293747	Aliamukhia Gaon	2	2	2	2	2	2	1
293748	No.2 Bamun Gaon	2	2	2	2	2	2	1
293749	Naosolia Gaon (Nau Salia Gaon)	2	2	2	2	2	2	1
293750	Duliapam Gaon	2	2	2	2	2	2	1
293751	Hatigarh Grant	2	2	2	2	2	2	2

Source: Census of India, 2011.

Only one village within GJRMP area has community toilet complex (excluding Bath) for general public, rural production mart or sanitary hardware outlet.

#### **6.4 Sewerage Network:**

There is no sewerage network in the planning area.

#### **6.5 Solid Waste Management**

In the Jorhat Municipal Area, on an average, daily 60-63 tons of solid wastes are produced, including waste generated from hospitals & nursing home, industrial units, slaughter house, markets etc out of which 68% is bio degradable. Daily 90-95 (with drain cleaning staff, it is about 185-190) sweepers are employed to clean the streets, mainly in the core area of the city. 7 numbers of ACE Tipper, 1 number 407 Tipper, 3 numbers of Compactor Truck, 11 numbers of tractor, 1 number of mini Lodger, 1 number of Ape, 1 number of Excavator, 1 number of Back Hoe Loader and Dozzer are engaged to lift the MSW daily and dump in open site located at Garamur Dumping Ground with an area of 15 bigha of land (Approx.). About 22-25 tons of wastes, (38.2%) are left in the street and in drain uncollected daily; that creates a difficult environment problem. 120-130 numbers of bins are provided to store waste within the town and outskirts of town in the master plan area, which are to be removed in order to make the city dustbin free. Open dumping has created lot of environmental problem like foul smelling, source of generations of disease, land-air-and water pollution and attract bird activities that disturb air traffic. An another site of an area of 81 bighas of land about 20 Kms away from the city has been bought by Jorhat Municipal Board but which is not at all suitable for dumping of waste as it touches the Kakodunga River on its western boundary and which will contaminate a natural stream and also affect the flora and fauna of a large area.

Presently, the home collection of solid waste is going on covering all the wards of Jorhat Municipal Board and it is a very good initiative to make the municipal area dustbin free.

#### **6.5.1 : Current site assessment :**

#### **6.5.2 : Land ownership :**

**6.5.3 : Proposed site :** A site of an area of 81 bighas of land about 20 Kms away from the city has been bought by Jorhat Municipal Board but which is not at all suitable for dumping of waste as it touches the Kakodunga River on its western boundary and which will contaminate a natural stream and also affect the flora and fauna of a large area. The distance from the river to the proposed site is about 150 meters. Town & Country Planning has proposed a Grazing ground site on the Jorhat Titabar Road just inside the Master Plan Boundary which is at a distance of approximately 6.5 km from the city. Final decision is awaited.

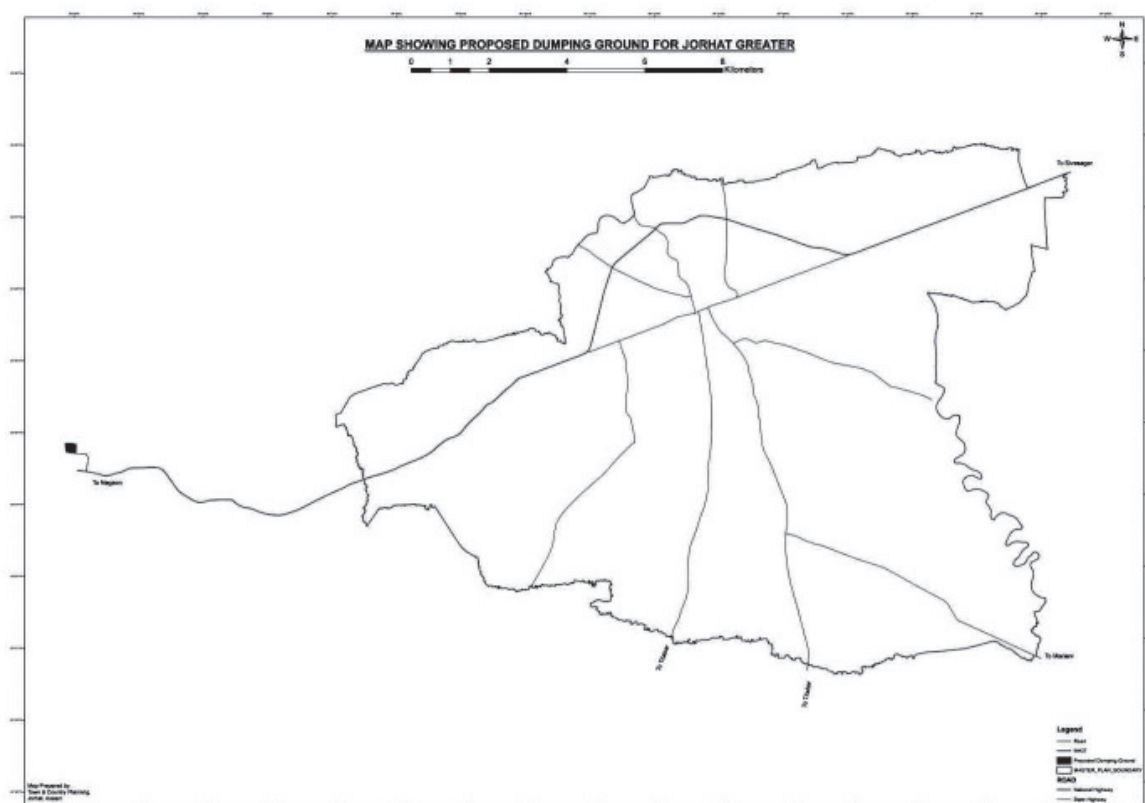


Fig: Map of Proposed Solid Waste Management site

### 6.6 Electric sub-station and major transformers

Jorhat Town and the Rural Areas in the Draft Revised Master Plan area for Greater Jorhat have been electrified by the A.P.D.C.L. Present capacity of power supply in the planning area during peak hours is 35.0 MW. The power supplied to the planning area is from the 132/33 kV Jorhat Sub-station of Transformation Capacity 1x16 + 2x25. The number of households have electrical connection in Jorhat Urban Agglomeration, is 32727 which includes 4917 nos. commercial, 264 industrial and 27 nos. road lighting connections. (Source: Census of India, 2011). Shortage of power during peak hours and in peak seasons is serious.

**TABLE 6.6.1: NO. OF ELECTRICAL CONNECTIONS IN THE JORHAT URBAN AGGLOMERATION**

Town Code	Town Name	Electricity- Domestic Connection (Numbers)	Electricity- Industrial Connection (Numbers)	Electricity- Commercial Connection (Numbers)	Electricity- Road Lighting Connection (Numbers)	Electricity- Others Connection (Numbers)
293678	Charingia Gaon (CT)	764	1	8	0	3
293679	Nowsohia Gaon (CT)	710	0	3	0	2
801595	Jorhat (MB + OG)	19295	260	4857	22	955
293752	Kumar Kaibarta Gaon (CT)	1683	1	25	0	3
293753	Chekonidhara (CT)	2109	2	12	5	3
293754	Kamalabaria N.C. (CT)	1987	0	12	0	5
Total		26548	264	4917	27	971

Source: Census of India, 2011.

### 6.7 Social Infrastructure: Schools, colleges, universities, Hierarchy of hospitals and health centers, etc.

According to 2001 census, literacy rate in the Jorhat Municipal Area is 90.63, while its neighboring census towns/ villages, (included in the Jorhat Urban Agglomeration, 2011), Jorhat (MB), Chengeli Gaon (OG), Gohain Tekela Gaon (OG), Duliagaon (OG), Cinnamara Grant (OG), Toklai Cha Bagicha (OG), Sarbaibandha (OG), Chowdang No.1 (OG), Bohotia Gaon (OG), Sonari Gaon (OG), Kamalabaria Gaon (OG), Nakari Bamun Gaon (OG), BarbhetaChapari (OG), Kamalabaria N.C.(CT), Kumar kaibarta Gaon (CT), Chekonidhara (CT) have a literacy rate of more than 91.00%. As per the primary survey conducted by the



Town & Country Planning, Jorhat and information compiled from Census of India, 2011 as well as Education Department etc., the following Table 6.1.1 is prepared to show the no. of educational institutions upto 10+2 level in the revised master plan area for Greater Jorhat. There are number of English as well as Assamese medium Private Schools from Kinder Garten to 10+2 level in the towns and villages within the planning area under SEBA, CBSC and ICSE and many of these are residential too. A no. of Junior Colleges have been established in the last decade within Jorhat Town & GJRM area namely Luit Valley Academy, NKEM Junior Science College, Crescent Academy, Valley High Academy, Brilliance Academy, Pragya Academy, Eaduhive Junior College, Lucent Academy, Brahmputra Academy Junior College, Sai Vikash Academy Jorhat, Rai Bahadur Heramba Prasad Barua Lane Junior College etc.

There are two Industrial Training Institutes (ITI) in GJRM area. Govt. ITI, located in the town, which offer certificate courses in Draughtsman (Civil), Draughtsman (Mechanical), Dress Making, Electrician, Fitter, Machinist, Mason (Building Constructor), Mechanic (Motor Vehicle), Mechanic (Refrigeration and Air-Conditioner), Mechanic (Tractor), Mechanic Diesel, Mechanic Radio & T.V., Plumber, Sewing Technology, Stenographer & Secretarial Assistant (English), Surface Ornamentation Techniques (Embroidery), Surveyor, Turner, Welder, Wireman And Kenduguri Private ITI located in Gogain Tekela Gaon which provide short-term courses of different trade viz. Electrician, Fitter, Welder, Mechanic Diesel.

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HRH The Prince of Wales Institute of Engineering and Technology was established in 1927 by the British Government within Jorhat municipal limit. It is the first engineering institute established in India's North Eastern Region that was given to British Government in 1922 for establishing a technical school in the name of the 'Prince of Wales' at Jorhat. The institute was founded the following year on 16 January 1928. A four-year certificate course in civil engineering was introduced in 1948. Since 1957, three-year diploma courses have been introduced in the Electrical and Mechanical Engineering Departments in addition to the Civil Engineering Department. In 1976 & 1978 respectively, courses in Automotive and Agricultural Engineering began. Electronic & telecommunications engineering and instrumentation technology programs were later introduced in 1986. The Institution was known as the 'War Technical School' during the time of the Second World War.

The Four general colleges, namely Jagannath Barooah (J.B.) College, Jorhat College and Devi Charan Barooah (D.C.B.) Girls' College, Chadra Kammal Barooah (C.K.B.) Commerce College are located within the municipal limit and three other general colleges namely Jorhat Kendriya Mahavidyalaya located in 2 no. Bamun Gaon, Cinnamara College located in Chinnamara Grant (OG), Jorhat Science College (now known as Jorhat Institute of Science & Technology) located in Gharpholia Gaon, are within GJRMP area and outside municipal limit. The colleges impart education mainly upto graduate level in Arts, Science and Commerce stream and in Jagannath Barooah (J.B.) College, Post-Graduation courses are also available in few subjects.

There are two nos. of B.Ed. Colleges in GJRMP area one is located in heart of the city, namely P.G. Teacher Training College and the other is located in Bohotia Gaon, namely Kamala Bezbaruah Memorial College of Teachers Education.

There are two no. of Engineering Colleges in GJRMP area one is located in Dulia Gaon, namely Jorhat Engineering College and the other is located in Gharpholia Gaon, namely Jorhat Institute of Science & Technology. Jorhat Engineering College offers Post graduate courses in some subjects and MCA. The both engineering colleges are now affiliated to Assam Science and Technology University.

Jorhat Medical College & Hospital (JMCH), the fourth medical college of the state, is located in Sonari Gaon about 3 km west from the heart of the Jorhat city. The college offers MBBS courses and Post Graduate Courses in General Medicine, General Surgery, Orthopedics, Paediatrics, Radiology, Anesthesia, ENT, Ophthalmology & Non clinical departments. Dr. J.K. Saikia Homeopathic Medical College under Govt. of Assam is located at club road, Bongal Pukuri within GJRMP area. School of Nursing, Jorhat Medical College Hospital, Jorhat which is approved by Indian Nursing Council offers Nursing Courses as well as Institute of Paramedical Sciences, Jorhat Medical College offers paramedical courses in Medical Laboratory Technology, Medical Radiographic Technology, Cardiac Care Technology, Physiotherapy, ICU Technology, Physician's Assistant Course, Emergency and First Aid, OT Technology (OT+Anesthesia+Endoscopy), Dialysis Technician Course. The Medical Institute, Jorhat (MIJ) (also known as Jorhat Medical Institute) is an institution imparting medical education, located at Barbheta, within GJRMP area and it trains Rural Health Practitioners (RHP) and nowadays placed as Community Health officer under NHM,

who serve as a medical professional in the rural areas at Sub center & PHC level. This course is known as Diploma in Medicine and Rural Health Care (DMRHC). DMRHC is a three and half years medical course, now known as B.Sc.Family and Community Health.

The North East Institute of Management Science (NEIMS) located in the village Bhatemora, in front of RRL offers under graduate courses in Hotel Management and Catering Technology

The BOSCO Institute located at Baghchung within GJRMP area offers Master's Degree in Social Work (MSW) approved by Dibrugarh University in three specializations viz. Community Development, Medical & Psychiatric Social Work and Family & Child Welfare.

The Eastern Theological College located within the city limit offers Bachelor of Divinity [B.Div] Bachelor of Christian Studies, Master of Theology [M.Th] which has been affiliated to Senate of Serampore college University (Private).

National Institute of Design, Jorhat or NID Jorhat is a design institute located in the village Toklai Chah Bagicha within GJRMP area which offers four year courses in Textile and Apparel design, Communication design and Industrial designs from the academic year 2019-20 with total 60 seats. The Institute's own campus with adequate infrastructure is on the bank of Tocklai River. It is 8 km away from Jorhat Airport and 2.5 km from Jorhat Railway Station.

Assam Agricultural University (AAU) is a state agricultural university and established in the year 1969, having colleges in all over the state of Assam, headquartered at Borbhetta, within GJRMP area. AAU offers UG, PG, as well as Doctoral studies through its various faculties :i) Faculty of Agriculture - B.Sc. (Hons.) & M.Sc. in Agriculture, M.Sc. in Food Technology, MBA in Agri Business, Ph. D. in Agriculture; ii) Faculty of Community Science - B.Sc. (Hons.) in Community Science as well as in Food Nutrition & Dietetics, M.Sc. in Home Science & Ph. D.; iii) Faculty of Horticulture - B.Sc. (Hons.) in Basic Science, Floriculture & Landscape Architecture, Fruit Science, Natural Resource Management, Plant Protection, Post-Harvest Technology, Social Science, and Vegetable Science; iv) Faculty of Sericulture - B.Sc. (Hons.) in Agriculture & Allied Subjects, Basic Sciences & Humanities, Cocoon Crop Production, Host Plant Production, Sericulture Crop Improvement, Silk Production Science

in its Jorhat Campus. Jorhat Christian Medical Centre, Jorhat was established in the year 1924, and affiliated to Assam Agricultural University, Jorhat offers Full Time Professional Courses in Certificate Course in General Nursing and Midwifery (GNM) of Duration: 3 years 6 month and in Diploma General Nursing (DGN) of duration 1 year.

The Assam Women's University was set up as the state university through the act XXII of 2013. The university is located in the Hazari Gaon within GJRMP area. The Assam Women's University offers a several of courses in various streams; undergraduate courses like BA, Bachelor in Physiotherapy and Post graduate courses like MA, MBA, MCA and MTM (Masters in Tourism Management)

There is a good no. of Research Institutions within GJRMP area and some of those are –  
The CSIR- North East Institute of Science and Technology, formerly known as Regional Research Laboratory, Jorhat was established in the year 1961 as one of the multidisciplinary laboratories of Council of Scientific & Industrial Research (CSIR) under its Chemical Science Group of laboratories and has been engaged in multidisciplinary R&D work relevant to the country in general and North Eastern Region in particular. Its major thrust of R&D activities has been to develop indigenous technologies by utilizing the immense natural wealth of India. The North Eastern Region of the country being bestowed with an abundance of material resources like petroleum, natural Gas, Minerals, Tea as well as aromatic and Medicinal plants and hence the laboratories was targeted to undertake research for development of Know-How for a wide a range of industries and extension works. Over the years, the laboratory has generated more than 100 technologies in the areas of Agro-technology, Biological and Oil Field Chemicals of which about 40% were of commercial success culminating in setting up of various industries throughout the country. The laboratory also developed expertise in the areas like Natural Products Chemistry, drug and drug intermediates, VSK cement, Plant Technology, Agro-technologies, Petroleum Microbiology and Petrochemicals, Crude oil transportation, Paper and Paper Products, beneficiation Chemicals, ecology and environmental studies, Geotechnical investigations, foundation design engineering, soil and building materials etc. The annual turn-over of the products produced with RRL technologies within the country is estimated to be Rs. 110 Crores.

Another premier Research Institution within GJRMP area is Tocklai Tea Research Institute, established in 1911, at a site near river Tocklai which is only the tea research institute in India. The formation of Tea Research Association (TRA) in 1964 under Ministry of

commerce, Govt of India with Tocklai as centre for all activities further expended the horizon of tea research to cover the entire Northeast India. Research on all aspects of tea cultivation and processing Tocklai Tea Research Institute is the oldest and largest research institute of its kind in the world.

Other important Research institutions are as follows,

Central Silk Technological Research Institute (Demonstration Centre, under Central Silk Board) Industrial Estate Tinali, Jorhat-785008

Extension Education Institute (EEI) AAU, Jorhat-13, Assam funded by Directorate of Extension Education, Govt. of India, Ministry of Agriculture, New Delhi

Indian Grain Storage Management and Research Institute, Jorhat,

Indian Institute of Plantation Management (IIPM), Jorhat Centre, Under Min. of Commerce & Industry, Govt. of India

Institute of Biotechnology & Geotectonics Studies (INBGS), ONGC Complex, Cinnamara, Jorhat - 785008

National Bureau of Soil Survey & Land Use Planning (NBSSLUP), Regional Centre, Jamuguri Road, Jorhat-785004

Rain Forest Research Institute (RFRI), Jorhat under ICFE, Min. of Environment & Forests, Govt. of India

Regional Sericultural Research Stations (under Central Silk Board), Club Road Tinali, BongalPukhuri, Jorhat-785001

The healthy education and cultural life of Jorhat can be best judged from the fact that the district has as many as five daily newspapers published from two publishing groups. The Janambhumi Group of Newspapers: The SaptahikJanambhumi, the DainikJanambhumi, and the Eastern Clarion. The SptahikJanambhumi celebrated its 50 years of circulation and the DainikJanambhumi crossed its 48 years of existence. The G.L. Publication publishes three newspapers from Guwahati and Jorhat simultaneously. They are the North East Times (English), Amar Asom (Assamese), and the PurbanchalProhori (Hindi). The other newspapers published from Jorhat are: DainikAgradoot, AsomiyaKhorbor and The Telegraph.

**TABLE 6.1.1 : NO. OF EDUCATIONAL INSTITUTIONS UPTO 10+2 LEVEL IN THE REVISED MASTER PLAN AREA FOR JORHAT GREATER**

own Village Code as per 2011 Census	Town / Village Name	Govt. Primary School (Numbers)	Private Primary School (Numbers)	Govt. Middle School (Numbers)	Private Middle School (Numbers)	Govt. Secondary School (Numbers)	Private Secondary School (Numbers)	Govt. Senior Secondary School (Numbers)	Private Senior Secondary School (Numbers)
3	Charingia Gaon CT	5	2	3	0	1	0	0	0
4	Newsolia Gaon CT	1	1	2	2	2	1	1	2
5	Jorhat MB + OG	25	17	18	10	13	10	8	2
6	Kumar Kaibarta CT	7	3	0	1	1	1	0	0
7	Chekonidhara CT	10	4	1	1	1	4	0	0
8	Kamalabaria N.C. CT	9	3	0	0	0	0	0	0
293601	Dulia Gaon	1	2	3	1	1	0	0	0
293602	Rajatia Gaon	2	0	2	0	1	0	0	0
293630	Porbotia Gaon	3	0	3	0	1	0	1	0
293631	Bhatemora Gaon	2	0	3	0	1	0	0	0
293633	Hazari Gaon	3	0	3	0	1	0	0	0
293634	Pakimuri Habi Gaon	2	0	2	0	1	0	0	0
293635	Bam Chuck	1	0	1	0	0	0	0	0
293636	Charingia Gaon	4	3	2	1	1	0	0	0
293638	Goriahabi Grant	1	0	0	0	0	0	0	0
293640	Ajan Bamun Gaon	2	0	2	0	1	0	1	0
293659	Kuhiar Boria (Kuhia Boria Gaon)	2	0	2	0	1	0	0	0
293660	Chaliha Gaon	1	1	2	0	1	0	0	0
293661	Rongai Habi	1	1	1	0	0	0	0	0
293662	Senchoa Gaon	2	1	2	0	1	0	0	0
293663	Choudang Gaon No.2	3	1	2	0	1	0	1	0
293664	Baghmoria	2	0	2	0	1	0	0	0
293665	Chutiakari	2	1	2	1	1	1	0	0
293671	Uttar Hatichungi	1	0	0	0	0	0	0	0
293672	Charingia	1	1	0	1	0	0	0	0
293675	BhakatCheuni	1	2	2	0	1	0	0	0
294123	Raidang Kamar Gaon	3	0	1	0	1	0	0	0
294124	Hazari Gaon	1	0	1	0	0	0	0	0
294125	Kamar Hazarika Gaon	2	0	2	0	1	0	1	0
294126	Katani Gaon	2	1	2	0	0	0	0	0
294127	Na-Pamua (Na Pam Chowdang Gaon)	3	0	2	0	0	0	0	0
294128	Kathkatia Gaon	1	0	1	0	0	0	0	0

294129	Doklongia T.E.	2	0	3	0	0	0	0	0
293875	Meteli Gaon	3	0	0	0	0	0	0	0
293876	Ghorpholia Gaon	3	1	2	1	0	0	0	0
293891	Dulakharia Gaon	2	0	2	0	1	0	0	0
293730	No.2 Ghar Pholia Gaon	4	0	2	0	1	0	0	0
293731	No.1 Gharpholia Gaon	1	0	1	0	1	0	0	0
293744	Kalakhowa Gaon	4	0	4	0	1	0	0	0
293745	No.1 Bamun Gaon	3	0	2	0	2	0	1	0
293746	Kotoha Boria Gaon	1	0	2	0	1	0	0	0
293747	Aliamukhia Gaon	3	0	2	0	1	0	1	0
293748	No.2 Bamun Gaon	3	0	2	0	1	0	0	0
293749	Naosolia Gaon (Nau Salia Gaon)	4	1	2	1	1	0	0	0
293750	Duliapam Gaon	2	1	0	0	0	0	0	0
293751	Hatigarh Grant	1	0	2	0	1	0	0	0

Source: Census of India, 2011.

All the urban and villages within GJRMP area have Govt. Primary schools. Govt. Middle School, Govt. High Schools are located covering almost all the neighboring villages. Govt. Higher Secondary Schools are not found in villages of GJRMP area, the students have to come to Jorhat urban area.





293664	Baghmoria						1	DAKHIN CHARAI BAHU	a	
293665	Chutiakari						1	MALOW	b	
293671	Uttar Hatichungi	1	NAMONI CHARAI BAHU	a	1	NAMONI CHARAI BAHU	a	1	NAMONI CHARAI BAHU	a
293672	Charingia				1	DAKHIN CHARAI BAHU	a	1	DAKHINCHARI BAHU	a
293675	BhakatCheuni						1	MALOW	b	
294123	Raidang Kamar Gaon						1	MARIANI	b	
294124	Hazari Gaon					N.A.	N.A.	1	JORHAT	c
294125	Kamar Hazarika Gaon									
294126	Katani Gaon				1	JORHAT	b	1	JORHAT	b
294127	Na-Pamua (Na Pam Chowdang Gaon)				1	JORHAT	c	1	JORHAT	c
294128	Kathkatia Gaon				1	JAHAL	a	1	MARIANI	b
294129	Doklongia T.E.				1	MARIANI	b	1	MARIANI	b
293875	Meteli Gaon	1	HATI CHUNGI	a	1	JORHAT	b	1	JORHAT	b
293876	Ghorpholia Gaon				1	KHONAMUKH	a	1	KHONAMUKH	a
293891	Dulakharia Gaon							1	TUMULICHIG A	a
293730	No.2 Ghar Pholia Gaon							1	KUMAR GAON	b
293731	No.1 Gharpholia Gaon							1	KUMAR GAON	a
293744	Kalakhowa Gaon							1	BAHONA	b
293745	No.1 Bamun Gaon									
293746	Kotoha Boria Gaon							1	BAHONA	c
293747	Aliamukhia Gaon									
293748	No.2 Bamun Gaon							1	TEOK	c
293749	Naosolia Gaon (Nau Salia Gaon)							1	TEOK	b

Source: Census of India, 2011.

Only 6(six) nos. of villages within GJRMP area have all the educational institutions upto senior secondary level Porbotia Gaon, Ajan Bamun Gaon, Choudang Gaon No.2, Kamar Hazarika Gaon, No.1 Bamun Gaon and Aliamukhia Gaon.

**TABLE 6.1.3: UNIVERSITIES AND COLLEGES IN THE REVISED MASTER PLAN AREA FOR JORHAT GREATER WITH STATUS & YEAR OF ESTABLISHMENT**

Sl. No	Name of the College	Stream	Status	Year of Establishment
1	Assam Agricultural University (AAU)	B. Sc. & M. Sc. (Agriculture), (Home Science), (Horticulture) (Sericulture) MBA in Agri-Business	University	1969
2	Assam Women Univesity	MBA, MCA, MA etc.	University	2013
3	Jorhat Medical College	MBBS PG	affiliated to Srimanta Sankaradeva University of Health Sciences and approved by Medical Council of India	2009
4	Jorhat Engineering College	B.E., MCA, M.E.	affiliated to Assam Science & Technology Univesity approved by AICTE	1960
5	Jorhat Institute of Science & Technology	Electronics and Telecommunication Engineering, Power Electronics and Instrumentation, BSC	affiliated to Assam Science & Technology Univesity approved by AICTE	1971
6	Dr. J K Saikia Homeopathic Medical College	Bachelor of Homeopathic Medicine and Surgery	affiliated to Srimanta Sankaradeva University of Health Sciences	1975
7	Jorhat Law College	LLB, BA LLB(Hons.),LLM, (Permitted)	Permanent Affiliation	1964
8	P.G.T College	B.Ed.	Govt. College	1957
9	Kamala Bezbaruah Memorial College of Teachers Education	B.Ed.	Permanent Affiliation	1990

10	Jagannath Barooah College	B.A., B.Com., B.Sc., BBA, BCA and PG Programme in Geography and Philosophy	Permanent Affiliation	1930
11	D.C.B. Girls' College	B.A., B.Sc.,	Permanent Affiliation	1955
12	Chandra Kamal Bezbaruah Commerce College	B.Com	Permanent Affiliation	1965
13	Jorhat College (Amalgamated)	B.A.	Permanent Affiliation	1984
14	Jorhat Kendriya Mahavidyalaya	B.A., B.Sc.	Permanent Affiliation	1981
15	Cinnamara College	B.A.	Permanent Affiliation	1991
16	BOSCO Institute	MSW	Permitted	2008
17	North East Institute of Management Science	B. Hotel Management	Permitted	2000
18	Global Engineering Academy	PGDCA	Permitted	2006
19	Asom Sattriya Sangit Mahavidyalaya	Sangeet and Dance	Permitted	1998
20	Eastern Theological College	Bachelor of Divinity [B.Div] Bachelor of Christian Studies Master of Theology [M.Th]	Senate of Serampore college University (Private)	1906

Source: Census of India, 2011.

## 2. Medical Facilities :

Jorhat Medical College and Hospital has 500 beds at present against 174 no. doctors. The Mission Hospital has 100 no. beds and 13 no. doctors. The following table (6.2.1) shows the number of Medical facilities (with beds and doctors) available in the Revised Master Plan Area, Jorhat. As per the population in the planning area in 2001, there is one bed for every 92 person. But, Jorhat Medical College Hospital serves the entire population of Jorhat District and some patients of other neighboring districts like Golaghat, Sibsagar, Majuli and 'Nagaland' come to Jorhat for better treatment. However 'beds' in the Nursing Homes may be viewed as special category only. It seems health facility is inadequate in terms of demand and availability of facilities. Jorhat Medical College and Hospital is the main centre for treatment of general public that needs up gradation with all modern facilities.

**TABLE 6.2.1 : HEALTH FACILITIES IN THE REVISED MASTER PLAN AREA FOR JORHAT**

Sl. No.	Type of facilities	Bed	Doctors	Visiting Doctors	
1.	Govt. Hospital				
	Jorhat Medical College and Hospital	500	174		
2.	Mission Hospital	100	13		
3.	Private Nursing Home				
	(i) A G Nursing Home	37	10		
	(ii) Sanjivani Hospital	65	22	6	
	(iii) Regional Diabetic & Research Centre	20	10	6	
	(iv) Baruah Surgical	34	15	3	
	(v) K G Memorial Nursing Home	30	14		
	(vi) Niramoy Hospital	36	14	10	
	(vii) Chandraprava Eye Hospital	10	6		
	(viii) Pain & Fracture	3	4		
	(ix) Medicure (Malpani NH&RC)	29	10	6	
	(x) P B Polyclinic	7	6	3	
	(xi) M C W Centre	5	6	4	
	(xii) Lions Eye Hospital	64	4		
	(xiii) Sanjivani Multispecialty Hospital	30	8		
	(xix) Satyam Hospital & Research Centre	30	18	16	
	(xx) City Orthopedic Hospital	33	10		
	(xxi) Arunodoi Hospital	13	15	13	
	(xxii) Institute of Medical Science & Research	17	9		
	(xxiii) J N IOL and contact lens centre	4	4	2	
	4.	Govt. PHC, MPHC & Dispensary			
		(i) Baghchung Primary Health Centre, 1 No. Chowdang Gaon			
		(ii) Dahotia State Dispensary,			
		(iii) Cenijan Mini PHC			
(iv) Kachogoral Mini Primary Health Centre, Dulia Pam Gaon					

	(v) Jorhat MCW Centre, Jorhat Town
	(vi) BB Dispensary, Jorhat Town
5.	Govt. Sub Centre
	(i) Rawriah SC
	(ii) Garmur SC, Kumar Kaiborta Gaon
	(iii) Karanga SC, Kamar Hazarika Gaon
	(iv) Kolakhowa SC, Kalakhowa Gaon
	(v) Pokimuri SC, Pokimuri Habi Gaon
	(vi) Hatigarh SC, Hatigarh TE
	(vii) Gharpholia SC
	(viii) Desoinagar SC
	(ix) Charingia SC
	(x) Cenijan SC
	(xi) Bamungaon SC
	(xii) Kuhiarbari SC

Source: Joint Director of Health Services, Jorhat; 2018

**TABLE 6.2.2: NEAREST HEALTH FACILITIES IN THE REVISED MASTER PLAN AREA FOR JORHAT GREATER WITH VILLAGE/ TOWN NAME AND DISTANCE RANGE**

Serial Number	Name of Village	Number of Medical Amenities available. (If not available within the village , the distance range code viz; a for < 5 Kms, b for 5-10 Kms and c for 10+ kms of nearest place where facility is available is given).	Number of Non-Government Medical Amenities available
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		Community health centre (CHC)	Primary health centre (PHC)	Primary health sub centre (PHS)	Maternity and child welfare centre (MCW)	T.B. clinic (TBC)	Hospital-allopathic (HA)	Hospital-alternative medicine (HO)	Dispensary (D)	Veterinary hospital (VH)	Mobile health clinic (MHC)	Family welfare centre (FWC)	Charitable non Govt. hospital/Nur.	Medical practitioner with MBBS Degree	Medical practitioner with other degree	Medical practitioner with no degree	Traditional practitioner and faith healer .	Medicine Shop
1	2	3	4	5	6	7	8	9	10	11			14	15	16	17	18	19
3	Charingia Gaon CT				0	1	0	0	1	0	0	0	0					2
4	Nowsolia Gaon CT				0	1	0	0	1	0	0	0	0					2
5	Jorhat MB + OG				1	1	2	3	4	1	3	1	2					103
6	Kumar Kaibarta CT				0	1	0	0	1	0	0	0	0					3
7	Chekonidhara CT				0	1	0	0	1	0	0	0	0					3
8	Kamalabaria N.C. CT				0	1	1	0	1	0	0	1	0					4
293601	Dulia Gaon	a	b	b	b	b	b	b	b	b	b	b	0	0	0	0	0	5
293602	Rajatia Gaon	a	a	a	a	c	c	c	a	a	c	c	0	2	0	0	0	3
293630	Porbotia Gaon	b	a		a	c	c	c	b	a	c	c	1	1	0	0	5	3
293631	Bhatemora Gaon	a	a	a	b	c	c	c	a	b	c	b	0	1	1	0	1	1
293633	Hazari Gaon		a	a	b	c	c	c	b	a	c	c	0	1	0	0	0	5
293634	Pakimuri Habi Gaon	b	a	a	b	c	c	c	b	b	c	b	1	2	1	1	1	3
293635	Bam Chuck	a	a	a	a	c	c	c	a	a	c	c	1	0	0	0	0	0
293636	Charingia Gaon	a		a	a	c	c	c	b	b	c	b	0	1	0	0	0	1
293638	Goriahabi Grant	a	a	a	a	c	c	c	a	b	c	c	0	0	0	0	0	1
293640	Ajan Bamun Gaon	b	b	b	a	c	c	c	b	a	c	c	1	3	0	0	0	2
293659	Kuhlar Boria (Kuhia Boria Gaon)	a	a		a	c	c	c	b	a	c	c	0	0	0	0	0	2
293660	Chaliha Gaon	a	b	a	a	c	c	c	a	b	c	c	0	0	0	0	0	1
293661	Rongai Habi	a	b	a	b	c	c	c	a	b	c	c	0	0	0	0	0	0
293662	Senchoa Gaon	a	b	a	b	c	c	c	a	b	c	c	0	1	0	0	0	5
293663	Choudang Gaon No.2	b		a	a	c	c	c	b	b	c	c	0	2	1	1	0	4
293664	Baghmoia	a	a	a	b	c	c	c	a	b	c	c	0	0	0	0	0	1
293665	Chutiakari	b	a	a	a	c	c	c	a	b	c	a	1	2	1	0	0	2
293671	Uttar Hatichungi	a	a	a	a	c	c	c	a	b	c	c	0	0	0	0	0	2
293672	Charingia	a	b	b	a	c	c	c	a	b	c	c	0	0	0	0	0	0
293675	BhakatCheuni	b	b	b	b	c	c	c	a	a	c	c	1	1	1	2	2	2
294123	Raidang Kamar Gaon	b	b	b	b	b	b	b	b	b	b	b	0	0	0	0	0	1
294124	Hazari Gaon	c	c	a	c	c	c	c	c	c	c	c	0	0	0	0	0	0
294125	Kamar Hazarika Gaon	c	c	a	c	c	c	c	c	c	c	c	0	0	0	0	0	1
294126	Katani Gaon	c	c	a	c	c	c	c	c	c	c	c	0	0	0	0	0	1

294127	Na-Pamua (Na Pam Chowdang Gaon)	c	c	c	c	c	c	c	c	c	c	c	0	0	0	0	0	1
294128	Kathkatia Gaon	a	a	a	c	c	c	c	a	c	c	c	0	0	0	0	0	1
294129	Doklongia T.E.	b	b	b	b	c	c	b	b	b	c	c	1	0	0	0	0	1
293875	Meteli Gaon	b	b		b	b	b	b	b	b	b	b	0	0	0	0	0	1
293876	Ghorpholia Gaon	c	b		c	c	c	c	c	c	c	c	0	0	0	0	0	1
293891	Dulakharia Gaon	b		a	c	c	c	c		c	c	c	0	0	0	0	0	2
293730	No.2 Ghar Pholia Gaon	b	a		b	c	c	c	a	b	c	c	0	0	0	0	0	1
293731	No.1 Gharpholia Gaon	a	a	a	a	c	c	c	a	b	c	c	0	0	0	0	0	0
293744	Kalakhowa Gaon	b	b		b	b	b	b	b	b	b	b	1	1	1	1	1	5
293745	No.1 Bamun Gaon	a		b	b	c	c	c	a	b	c	c	1	4	1	0	0	5
293746	Kotoha Boria Gaon	a	a		b	b	b	b	a	a	b	b	0	2	0	0	0	1
293747	Aliamukhia Gaon	a	a	a	a	c	c	c	a	a	c	c	0	2	0	0	1	3
293748	No.2 Bamun Gaon			a	a	b	c	c	a	a	c	c	0	0	0	0	0	3
293749	Naosolia Gaon (Nau Salia Gaon)	a	a		a	b	b	b	a	a	b	b	0	0	0	0	1	1
293750	Duliapam Gaon	a	a	a	c	c	c	a	c	c	c	c	0	0	0	0	0	1
293751	Hatigarh Grant		a		a	c	c		c	a	c	c	0	0	0	0	0	1

Source: Census of India, 2011.

All the people of villages within GJRMP have to go to less than 5KM or 5 to 10 KM for any medical amenities mainly to Jorhat Town.

## CHAPTER VII

### ENVIRONMENT AND CITY BEAUTIFICATION PLAN

#### 7.1 RECREATION

There are numbers of parks and play grounds in Jorhat Municipal area as well as in the Planning area (outside JMB area). Some of the important parks are Millenium Park, Mahatma Gandhi Park, Nehru Park, Ganesh Gogoi Kabita Kanon Park, Bakul Ban Udyan, Rajmao Pukhuri Park, TinkoniaPukhuri Park, Rajabari Children Theme and Amusement Park, Boating Park, Green Park, JEC Park, AAU Plaza, ONGC Avian Park, ShishuUdhyaan, Fountain Parketc.

The main play ground in Jorhat is Jorhat District Sports Association Stadium, located in the heart of the city.It is a multi-purposed playground, was built in 1915 and has capacity of 10,000 spectators. It is a venue for cricket & football tournaments, fairs & exhibition but in 2008, Jorhat District Sport Association decided to renovate the ground with all the modern facilities like sitting capacity of 25,000 people, construction of a cricket pitch, volleyball court, 400 meters track as well as accommodation building for 100 athletes. The cost of renovation was estimated around 6 crores and was funded by Ministry for Development of North Eastern Region and Jorhat District Administration. There are number of public fields in Jorhat viz. Jorhat Court Field, West Jorhat Sports Assocation Playground at Hazari Gaon, ITI play ground at Toklai Cha Bagicha Gaon etc.

**Jorhat Gymkhana Club**, the oldest golf course in Asia and the third oldest in the World, established by British. The Jorhat Gymkhana Club was built in 1876 by D. Slimmon, then Secretary of the club in Seconidhara village. The club has been a venue for horse races ever since its inauguration. The Governor's Cup is the major trophy awarded here every year.It has a lush green 9-hole golf course circuit vying for a position in the "World Heritage list" as the oldest golf course in Asia and the third oldest in the world The club offers facilities in lawn tennis grass courts, swimming pool, billiards, polo, gentleman's bar and cinema theatre. The cricket ground here is known as 'Jorhat Gymkhana Ground'. It had the grace of hosting the CK Naidu Under-19 Indian Cricket tournament matches. Khelmati sports club uses this ground for practisingcricket.The Club road was the first asphalt road laid by the Britishers to connect the City Centre with the Jorhat Gymkhana Club.Agricultural University Stadium is



located in Borbhetta, Jorhat, Muharam Field is located in ward No. 2, Fancy Ali, Jorhat, Kushal Knowar Indoor Stadium is located in ward no-10, Jorhat, ONGC Colony Stadium is located in Cinnamora. Jorhat Tennis Club is located in ward no-10, Jorhat. Jorhat District Sports Association field is located in JB college Road, Jorhat. Jorhat Engineering College Stadium is located in Garmur, Jorhat. ONGC Indoor Stadium is located in ONGC Colony, Cinnamora. Some other important play grounds within GJRMP area are Kachagoral Field is located in Dulakharia Gaon, Baghchung field is located in Chawdang Gaon-1, and most of the Colleges and schools have own play grounds.

### **RELIGIOUS & ARCHAEOLOGICAL SITES**

**Bongalpukhuri :** The tank called Pukhuri in Assamese vernacular is located on the southern fringe of the main Jorhat town. The tank can be easily traced only by the side of Na-ali which runs to Borholla via Titabor. In 1739, Bodon Borphookan, a compatriot but a rival to the Ahom monarchy, was murdered by Rupsing Bongal, an ally and loyal to the Ahom king. According to one source Bodon Borphukan was taking his bath in the said tank when Rupsing hurled on him and killed him. Yet another source opined that Rupsing had washed his blood stained hands and sword at the tank water dug by him. So the tank came to be known as Bongalpukhuri.

**Borpukhuri:** Bor means big and 'Pukhuri' means tank. A big tank was dug during the Ahom Rule at a place near Tarajan about 3 kms away from Jorhat town. There is a controversy over naming of the tank. Some quarter still hold the view that the name of the tank should be Buragohain Pukhuri because the tank was dug there at his instance. Whatever it should have been passed into oblivion but caters the requirements of people living around it to a great measure.

**BurhiGosani Devalaya:** In a close fight with the Jayantia king, the Ahom king made a colourful victory by defeating the former. The Ahom king brought with him the image of Burhigosani and established at Rongpur in present Sibsagar district. When the then Ahom regime was frequently perturbed with war, they shifted their capital to Jorhat, so they felt it imperative to shift the idol of Burhigosani to Jorhat and established in the heart of the town. The idol is believed to be the stony incarnation of Mother Goddess – Durga. The temple is still a place of devotion to people belonging to Sakti Cult.

**Hatigar Siva Temple:** It is situated at 5 kms away towards east of Jorhat town directly on the Grand Trunk Road. The temple along with a tank was constructed by Swargadeo

Chandrakanta Singha in the year 1817 remain to stand the strain and vagaries of nature. The erection of the temple was also closely associated with the name of late Ruchinath Buragohain.

**RajmaoPukhuri:** The RajmowPukhuri is located at ward no-10 of Jorhat near jorhatstadium.This tank was dug during the Swargadeo Chandrakanta Singha in the year 1816.

**Raja Maidam:** The existing maidam (vault) which lies on the south bank of River Tocklai on the northern side of Jorhat town is of the last Ahom king, PurandarSingha, who expired on 1 October 1848. The presentmaidam was constructed to preserve the ashes of the last Ahom King.

**Garh Ali:** The word 'Garh' signifies the erection of high barricade made by filling up of earth to block the foreign enemies to make easy entry, 'Ali' means road. Here 'Garh Ali' has historical significance. This fort-like embankment was basically erected to prevent the Moamoriahs to make easy inroads to Jorhat. This runs from Seuni Ali to Nagaland hills. Moamoriahs were flabbergasted at having seen such a long barricade and make to retreat. This is, therefore, named as 'Bibudhi' (confounding) garh. Now it has become a main thoroughfare (Garh Ali) connecting Jorhat town with the eastern and southern most part of the district.

**America Baptist Foreign Mission Church:** Rev. S.A.D. Boggs, a Christian Baptist Missionary opened an institution for study of the Bible in 1903. The Church was located in the Rajabari Area adjacent to Jorhat town. Subsequently this institution emerged as a common prayer Hall. Besides being solely a Prayer Hall it caters study of different disciplines such as Primary, M.V. and High Schools of the tribal students. It undertook studies on art and crafts. As soon as the second world war was over it has been transformed into a full-fledged Theological College.

**All Saints Church of Cinnamara:** This was constructed in the year 1895 in a plot of land donated by Jorhat Tea Co. Ltd. Bishop of Calcutta took the lead in this endeavour. As ill luck would have it, the original construction got damaged accidentally on fire in 1911.

**Jorhat Old court Building:** This administrative building was constructed by British government in the year 1914. This building is the main administrative building of Jorhat district till now.

**Chandrakanta Handique Bhavan:** The Chandrakanta Handique Bhavan, built in 1926, was donated by late Radhakanta Handique. It is the headquarters of Asam Sahitya Sabha. Personalities like late K.K. Handique, late Chandradhar Baruah, late Dimbeswar Neog, late

Mitradev Mahanta, late Abdul Malik and other writers from Jorhat have adorned the presidency of Asom Sahitya Sabha.

**Jorhat Science Centre & Planetarium :** It is located near the Rajmao Pukhuri opened to the public from March 2013 onwards. A dominant feature of the digital planetarium is the large dome-shaped projection screen onto which scenes of stars, planets and other celestial objects can be made to appear and move realistically to simulate the complex 'motions of the heavens'. This will have enhanced data mapping, data logging and astronomical planetary motion. The digital planetarium reduces the maintenance costs and increases the reliability for such systems: they employ few moving parts and do not generally require synchronisation of movement across the dome between several separate systems.

Moreover, **Lachit Borphukan's Maidam, Ayur Sanjeeva, Thengal Bhawan, Hollongapar Gibbon Wildlife Sanctuary, Mulai Forest, Baduli Pukhuri, Borbheta** are some of the places of interest near to Jorhat Revised Master Plan Area.

Thus, Jorhat is the central location for reaching out to many interesting places of international importance: Majuli, Kaziranga National Park, Dhekiakhowa Bornamghar, Lachit Borphukan's Maidam, Raja Maidam, Jorhat Science Centre & Planetarium, Jorhat Gymkhana Club, Chandrakanta Handique Bhavan, Ayur Sanjeeva, Jorhat District Museum, Thengal Bhawan, Gibbon Wildlife Sanctuary, Kaziranga Golf Resort, Sukapha Samannay Kshetra, Molai forest, Shanti Ashram, Jagannath Temple, public parks, tea gardens and Siukapha Park, Gabhoru Parbat and many more.

# CHAPTER VIII

## LAND USE PLAN

### DEVELOPABLE AND NON-DEVELOPABLE AREA OF THE MASTER PLAN

#### AVAILABLE LAND RESOURCE

As per 2011 Census of India, the total land area within the Jorhat Draft Revised master Plan was 150.80 Sq. Km which is less than 160.86 Sq. Km. as derived from the map prepared from cadastral maps those were collected from revenue department and the reason for this variations might be the left out of area of road, water bodies etc. in the boundaries of two different villages/ cities.

**TABLE 5.1.1: TOWN/ VILLAGE WISE GEOGRAPHICAL AREA WITHIN REVISED MASTER PLAN FOR GREATER JORHAT AS PER 2011 CENSUS**

Town / Village Code as per Census 2011	Town / Village Name	Total Geographical Area (in Hectares)
293678	Charingia Gaon (CT)	170.00
293679	Nowsolia Gaon (CT)	306.00
801595	Jorhat (MB + OG)	5350.00
293752	Kumar Kaibarta Gaon (CT)	175.00
293753	Chekonidhara (CT)	384.00
293754	Kamalabaria N.C. (CT)	55.00
293601	Dulia Gaon	296.37
293602	Rajatia Gaon	132.16
293630	Porbotia Gaon	311.56
293631	Bhatemora Gaon	213.75
293633	Hazari Gaon	191.59
293634	Pakimuri Habi Gaon	84.32
293635	Bam Chuck	327.09
293636	Charingia Gaon	160.13
293638	Goriahabi Grant	268.88
293640	Ajan Bamun Gaon	164.29
293659	Kuhiar Boria (Kuhia Boria Gaon)	239.59
293660	Chaliha Gaon	198.45
293661	Rongai Habi	111.89
293662	Senchoa Gaon	205.71
293663	Choudang Gaon No.2	448.21
293664	Baghmoira	244.82

293665	Chutiakari	244.82
293671	Uttar Hatichungi	102.07
293672	Charingia	138.14
293675	BhakatCheuni	294.59
293730	No.2 Ghar Pholia Gaon	314.14
293731	No.1 Gharpholia Gaon	92.01
293744	Kalakhowa Gaon	299.00
293745	No.1 Bamun Gaon	329.00
293746	Kotoha Boria Gaon	309.40
293747	Aliamukhia Gaon	256.40
293748	No.2 Bamun Gaon	211.76
293749	Naosolia Gaon (Nau Salia Gaon)	307.03
293750	Duliapam Gaon	258.8
293751	Hatigarh Grant	245.2
294123	Raidang Kamar Gaon	225.48
294124	Hazari Gaon	105.24
294125	Kamar Hazarika Gaon	118.77
294126	Katani Gaon	219.17
294127	Na-Pamua (Na Pam Chowdang	190.84
294128	Kathkatia Gaon	205.8
294129	Doklongia T.E.	192.64
293875	Meteli Gaon	125.09
293876	Ghorpholia Gaon	147.78
293891	Dulakharia Gaon	108.12
Total		15080.10

Source: Census of India

### **EXISTING LAND USE**

Revised Master Plan Area is extended to a land area of 160.86 Sq. Km. out of the total land area, waste land covers 2.54 Sq. Km. or 1.58% , Water bodies cover 3.77 Sq. Km. or 2.34% and rest are used/usable land. Land-use survey was conducted in the Revised Master Plan Area, during 2015-18. The land use area has been classified into 9 broad categories; approximate area covered under each category of activities is shown in the Table 5.1.1 given below. Jorhat Municipal Area has been almost fully developed. Out of the Total planning area, the predominant use is agricultural land, which occupies 89.90 Sq. Km. or 55.89 per cent of total area. Next predominant category is the residential area, which accounts 28.15 percentages, of the total area.

**TABLE 5.2.1: EXISTING LAND USE, 2018: REVISED MASTER PLAN AREA FOR JORHAT**

Sl. No.	Land Use Category	Area (Sq. Km.)	Percentage to Developed land	Percentages to Total Area
1	Residential Use	45.28	<b>70.04</b>	<b>28.15</b>
2	Commercial Use	1.08	<b>1.67</b>	<b>0.67</b>
3	Industrial Use	1.10	<b>1.70</b>	<b>0.68</b>
	Brick Kiln	0.04 Sq. Km		
4	Public & Semi Public Use	9.79	<b>15.14</b>	<b>6.09</b>
5	Recreational Use	0.50	<b>0.78</b>	<b>0.31</b>
6	Transport & Communication	6.90	<b>10.67</b>	<b>4.29</b>
	Bus/ Truck Terminus	0.16 Sq. Km.		
	Airport	2.96 Sq. Km.		
	Railways	0.45 Sq. Km.		
	Roads	3.33 Sq. Km.		
	<b>Total Developed Land</b>	<b>64.65</b>	<b>100.00</b>	<b>40.19</b>
7	Agriculture & Bamboo Plants	89.90		<b>55.89</b>
	Tea Garden	20.27 Sq. Km.		
8	Water Bodies	3.77		<b>2.34</b>
9	Waste Land	2.54		<b>1.58</b>
	<b>TOTAL AREA</b>	<b>160.86</b>		<b>100.00</b>

Source: Field Survey & Compiled by T & C P, Jorhat on the GIS map submitted by ENGECORC

# **CHAPTER-IX**

## **PROPOSED PROJECTS' BRIEF AND TENTATIVE FUNDING SOURCE**

### **EXTENT OF THE LOCAL PLANNING AREA**

Jorhat Municipal area and neighbouring '46' villages are included in the Revised Master Plan Area for Greater Jorhat – 2041. Jorhat, being the knowledge city, attracts students from various corners, both from Assam and other states. The construction of Medical College, the existing Agricultural University, the Engineering College and the newly constructed National Institute of Fashion Design (NIFD) attracts lots of student both from Assam and neighbouring states. The construction of 4 lane from Numaligarh to Jorhat has also opened new development corridor.

### **POPULATION PROJECTION**

Considering the past and present growth and development factors, population upto 2031 are projected for Master Plan area and it is given in the table below:

## POPULATION PROJECTION :

## REVISED MASTER PLAN AREA FOR JORHAT GREATER – 2041

Area	Jorhat MB	Decadal Growth Rate	Old Jorhat Master Plan Area excluding MB	Decadal Growth Rate	Total Populatio n of Old Jorhat Master Plan	Populatio n of Newly added Master Plan Area	Decadal Growth Rate	Total Populatio n of Jorhat Revised Master Plan
	(i)	(ii)	(iii)	(iv)	(v)=(i) + (iii)	(vi)	(vii)	(viii) = (v) + (vi)
1901	2899	~	~	~	~	~	~	~
1911	5231	80.44	~	~	~	~	~	~
1921	6626	26.67	~	~	~	~	~	~
1931	8334	25.78	~	~	~	~	~	~
1941	11664	39.96	~	~	~	~	~	~
1951	16164	38.58	~	~	~	~	~	~
1961	24953	54.37	~	~	~	~	~	~
1971	30247	21.22	61734	~	91981	23082	~	115063
1991*	58358	92.94	79073	28.09	137431	38932	68.67	176363
2001	67588	15.82	102977	30.23	170565	42951	10.32	213516
2011	71782	6.21	117573	14.17	189355	53621	28.24	242976
<b>2021**</b>	<b>100495</b>	<b>40.00</b>	<b>143439</b>	<b>22.00</b>	<b>243934</b>	<b>69707</b>	<b>30.00</b>	<b>313641</b>
<b>2031**</b>	<b>111550</b>	<b>11.00</b>	<b>179299</b>	<b>25.00</b>	<b>290849</b>	<b>94104</b>	<b>35.00</b>	<b>384953</b>
<b>2041**</b>	<b>122705</b>	<b>10.00</b>	<b>233089</b>	<b>30.00</b>	<b>355794</b>	<b>131746</b>	<b>40.00</b>	<b>487540</b>

\* Twenty years Growth Rate as in 1981 Census was not held in Assam  
Projected

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**PROPOSED LAND USE, 2041: REVISED MASTER PLAN AREA FOR JORHAT  
GREATER**

SI No	Landuse Category	Area (Sq. Km.)	Percentage to Developed Land	Percentage to Total Area
1	Residential Use	64.23	62.77	39.93
	High Density	9.02		
	Medium Density	17.5		
	Low Density	36.36		
	Affordable Housing	0.88		
2	Commercial Use	11.55	11.29	7.18
	Retail	6.45		
	CBD	1.02		
	Composite Zone	4.08		
3	Industrial Use	5.27	5.15	3.28
	Other Industries	4.52		
	Obnoxious	0.75		
4	Public & Semi Public	7.46	7.29	4.64
5	Recreational Use	0.60	0.59	0.37
6	Transport & Communication	13.22	12.92	8.22
	Bus / Truck Terminus	1.87		
	Airport	2.96		
	Railways	0.6		
	Roads	7.69		
	<b>Total Developed Land</b>	<b>102.33</b>	<b>100</b>	<b>63.61</b>
7	Agriculture	55.52		34.51
8	Green Belt	3.01		1.87
	<b>TOTAL AREA</b>	<b>160.86</b>		<b>100.00</b>

**PROPOSED LAND USE PLAN :**

The proposed land use plan is prepared based on the following consideration:

- i) Minimum dislocation of the present land use path
- ii) The trend of natural growth pattern of the village
- iii) Inter- relationship of various land use classification
- iv) Possible spill over of the various activities from Jorhat Town
- v) Development potential of Jorhat considering interstate functions and tourist potential.

**RESIDENTIAL USE :** An area of 64.23 sq km of land are proposed for Residential use and divided in to three zones- High, Medium &Low ; However in course of time Residential Land Development are to be taken up for planned development along with basic infrastructure ; main residential areas are proposed in the normal expansion of existing villages along with emerging development corridor.

**COMMERCIAL USE :** An area of 11.55 sq km are proposed under commercial use; it is divided into whole sale and retail activities ;Jorhat central market will dominate the trading activities ; however secondary centers are proposed at all the road crossings along the National Highway Bye Pass and important commercial locations like Kenduguri, Cinnamara, Tarajan, Main commercial area in the town is proposed as **Central Business District (CBD)**.Also an area of 2.16 sq km is suggested along the AT road in the Jorhat Town and all the important commercial locations to be connected through a composite zone, forming a circular pattern of commerce.

**INDUSTRIAL USE :** An area of 5.27sq km are proposed for industrial development under three categories; medium, light and obnoxious category; Industrial areas are proposed along the Cinnamara – Mariani Road. In course of time basic infrastructure services are to be provided in a phase manner.

**PUBLIC & SEMIPUBLIC USE :** An area of 7.46 sq km of land are proposed under public and semipublic use.

**PARKS & PLAY GROUND:** An area of 0.60sq km of land are proposed under this category; Parks and Play ground are proposed by the side of each village/ community Center; Historical sites located in the planning area is proposed for preservation by planting trees in the campus ; No new construction should be allowed near the historical monument at least within 100mts. Water bodies to be preserved as wet land by planting trees on the bank; Bank of the river Brahmaputra to be developed as park under 'River Front Development' program from Nimati Ghat to Kokilamukh; plantation and side road by the side of the Brahmaputra river to be developed by providing necessary river protection measures, street light etc. One Eco-Tourism Complex is proposed at No 2 Gharphalia Gaon on the Jorhat NimatiRoad;; All the open grounds near the schools in the planning to be improved as sports ground for local needs,;

**TRANSPORT & COMMUNICATION:** An area of 13.22 sq km of land are proposed under transport and communication; All major roads especially, road from Ajanta Hall Bye Pass to Kenduguri Bye Pass are to be widened; and improved ; missing link is proposed for development to bring the road network efficiency; Chowk Bazar area to be upgraded immediately; In course a fly over to be constructed at NirmalChariali. Foot bridge are also proposed in the main traffic point in the main marketareas,;

One truck terminus is proposed to be served by efficient City Bus network in phases; City buses to be operated from Meleng; Road within Jorhat Municipal area is proposed for widening and development on priority.

**AGRICULTURAL USE :** An area of 55.52 sq km of land is proposed for agriculture use; These areas may provided vegetables and perishable requirement to the city; economic program may be initiated in phases for urban cultivation in course.

**GREEN BELT:** An area of 3.01 sq km are proposed under Green Belt Zone; The low-lying areas, water bodied and other ecologically sensitive areas are proposed in the Green Belt Zone;

### **PROTECTION OF ECONOMIC BASE AND EMPLOYMENT**

Planners are concerned with the likely demands of land development for various economic activities, the possible location of these activities within a city or city regions; the broad relationship between these activities and the scale and timing of migration into and out of the area; Formal sector trading is to be promoted in the planning areas by providing necessary financial assistance from bank and training; Industrial activities and trading and services will provide income and employment; For weaker section care to be taken to provide employment and basic services under poverty alleviation scheme; Labor localities that have come up in the sub urban villages, in the planning area deserve special attention; Horticulture, Fisheries Dairy and Poultry activities to be promoted in the planning area to provide local needs and export to other urban centers where there are sufficient demand.

### **HOUSING REQUIREMENT**

As per projected population and local supply, housing requirement in the planning area is estimated upto the year 2041; It is about 487540. Housing for weaker section are to be promoted with assistance from the Bank/ HUDCO/ Budgetary assistance and local mobilization of resources in cash or in kind; Upper poverty alleviation scheme, training to be provided to weaker section, they may construct the building, once materials, (locally available) are provided under Govt. sponsored / partly shared scheme; Land Development-Building construction linked scheme is proposed to initiate under HUDCO/FIS for better off section.

### **CIRCULATION**

Proposed growth and functioning of any area and its efficient management is very much dependent on the circulation pattern and it is vital part of the whole physical plan; The proposed circulation pattern envisages effective linkage within the region and direct linkages between different areas and functionally interrelated uses for easy accessibility. Following is the hierarchical classification of roads;

- a) Approach road from Mariani and Titabarto Jorhat town – width 30m
- b) Major roads that will cater major movements between areas- 9m

- c) Minor roads or secondary distributors will distribute traffic within each area-7.5m
- d) Local access road will carry traffic to each locality and lead to individual-6m

#### **7.6 ENFORCEMENT OF MASTER PLAN**

The proposed master plan once approved and adopted by the Govt. of Assam, will be enforced by the Tezpur Development Authority as per provision of Uniform Zoning Regulations already approved by the Govt. of Assam.

# CHAPTER X

## DISASTER PLAN

### **Need for Disaster Management :**

**Jorhat** falls under Seismic Zone V and witnessed two major earthquakes in the region. The Assam-Tibet Earthquake of 1950 measuring 8.5 in the Richter scale was the worst felt earthquake in the district and nearly 4000 people lost their life in the state. With increased density of urban population over the period combined with haphazard growth the risk from earthquake has increased manifold.

Data on disaster occurrence, its effect upon people and its cost to countries, are primary inputs to analyze the temporal and geographical trends in disaster impact. Disaster losses, provide the basis for identifying where, and to what extent, the potentially negative outcomes embedded in the concept of risk is realized. They help to understand where, and to whom, disaster risk becomes impact. They also provide the basis for risk assessment processes, a departing point for the application of disaster reduction measures.

Development cannot be sustainable unless disaster mitigation is built into development process. Investments in mitigation are more cost effective than expenditure on relief and rehabilitation. Prevention and mitigation contribute to lasting improvement in safety and are essential to integrated disaster management. Disaster response alone is not sufficient as it yields only temporary results at very high cost. So emphasis must be on Disaster prevention, mitigation and preparedness, which help in achieving objectivity of vulnerability reduction.

As per Section 40 of Disaster Management Act 2005 that every department of the State Government shall prepare a Disaster Management Plan.

### **10.2 Importance of putting disaster management plans in place:**

Disasters are events that have a huge impact on humans and/or the environment. Disasters require government intervention. They are not always unpredictable. Floods take place in valleys and flood plains, droughts in areas with unstable and low rainfall, and oil spills

happen in shipping lanes. This predictability provides opportunities to plan for, prevent and to lessen the impact of disasters.

Disasters arise from both natural and human causes, and the responses needed could stretch community and government capacity to the limit. Disasters are inevitable although we do not always know when and where they will happen. But their worst effects can be partially or completely prevented by preparation, early warning, and swift, decisive responses.

Disaster management aims to reduce the occurrence of disasters and to reduce the impact of those that cannot be prevented. The government White paper and Act on Disaster Management define the roles of Local Authorities as well as Provincial and National government in disaster management.

North East Region has been vulnerable to many disasters in the past both natural and manmade, we can notice that most of the disasters have occurred within the last two decades, and the frequency, intensity and magnitude of the disasters are ever increasing.

### **10.3 Plan Objectives**

The objectives of the District Disaster Management Plan are:

- Disaster management in the routine affairs of the department.
- To provide technical and humanitarian assistance during disaster.
- Prompt and effective discharge of departmental responsibilities during disaster situations
- Ensuring safety of departmental infrastructure, human resource and other assets
- Ensuring safety of the beneficiaries and others
- Speedy restoration after disaster impact
- To conduct trainings and capacity building for effective prevention, mitigation and response for disasters.
- To undertake information, education and communication activities to create awareness among the communities and the general public.

#### **10.4 Disaster Management Cycle :**

In multi-hazard response plan, the disaster management cycle has a significant role to play. The four stages of disaster cycle have their own importance in terms of their implementation during, after and before the occurrence of any disaster.

##### **Pre disaster activities**

1. Policy development and National, State, district, local level disaster organization formation
2. Vulnerability and capacity assessment.
3. Prevention and mitigation
4. Preparedness, planning and training

##### **Emergency activities**

1. Warning (beginning before the actual event)
2. Evacuation, search and rescue
3. Emergency assistance (relief) – food, water, shelter, medical aid

##### **Post disaster activities**

1. Repair and restoration of life lines (power, telecommunications, water transportation)
2. Reconstruction and rehabilitation.

#### **10.5 Profile of the Department: -**

This is a district office under the Director, Town and Country Planning, Dispur, Guwahati-6 (Urban Development Department). The office is situated at Jorhat town in Unnayan Bhawan, in front of DC, Jorhat Office Complex.

##### **1) Departmental works:**

- Preparation of Master Plan.
- Implementation of schemes related to Central and State Govt. fund for infrastructure development.



- Monitoring of schemes sanctioned by Central and State Govt. being implemented by Urban Local Bodies of the district.

**2) Office Building :-**

It is a G+3 Rented R.C.C. structure.

**3) Status of employees:-**

Sl.No	Staff strength & pattern	Total	Male	Female
1	Deputy Director	1 (1 vacant)		
2	Asstt. Director	1	1	Nil
3	Asstt. Engineer	1	1	Nil
4	UDA	To be retired on 31 <sup>st</sup> March, 2022	1	Nil
5	LDA	3	1	2
6	Junior Engineer	4 (1 vacant)	3	Nil
7	Draftsman	3	2	1
8	Tracer	1 (1 Vacant)	Vacant	Nil
9	Research Assistant	VRS accepted from March 2022	1	Nil
10	Investigator	1 (1 vacant)	NA	Nil
11	Mohurrir	1	Nil	1
12	Driver	1 (1 vacant)	NA	Nil
13	Grade IV	6 (3 vacant)	2	1
<b>TOTAL</b>		<b>18 (8vacant)</b>	<b>12</b>	<b>5</b>

There are 18 employees in this office as of now, out of which 5 are female.

## 10.6 Classification of hazards :

The High Power Committee of the Govt. of India has classified the hazards as follows

1. Water and Climate Related	<ul style="list-style-type: none"> <li>• Floods and Drainage management</li> <li>• Cyclones</li> <li>• Tornadoes &amp; Hurricanes</li> <li>• Hailstorm</li> <li>• Cloud burst</li> <li>• Snow Avalanches</li> <li>• Heat &amp; cold Waves</li> <li>• Thunder &amp; Lightning</li> <li>• Sea Erosion</li> <li>• Droughts</li> </ul>
2. Geological Related	<ul style="list-style-type: none"> <li>• Earthquakes</li> <li>• Landslides &amp; Mudflows</li> <li>• Dam Bursts &amp; Dam Failures</li> <li>• Mine Fires</li> </ul>
3. Chemical Industrial and Nuclear Related	<ul style="list-style-type: none"> <li>• Chemical and Industrial Disasters</li> <li>• Nuclear Disasters</li> </ul>
4. Accident Related	<ul style="list-style-type: none"> <li>• Road, Rail and other Transportation accidents including Waterways</li> <li>• Mine Flooding</li> <li>• Major Building Collapse</li> <li>• Serial Bomb Blasts</li> <li>• Festival Related Disasters</li> <li>• Urban Fires</li> <li>• Oil Spill</li> <li>• Village Fires</li> <li>• Boat Capsizing</li> <li>• Forest Fires</li> <li>• Electrical Disasters &amp; Fires</li> </ul>
5. Biological related	<ul style="list-style-type: none"> <li>• Biological Disaster &amp; Epidemics</li> <li>• Food Poisoning</li> <li>• Cattle Epidemics</li> <li>• Pest Attacks</li> </ul>

**10.7 Hazards specific proneness in Jorhat District:****VULNERABILITY ANALYSIS OF JORHAT DISTRICT****➤ Earthquake :-**

As per the latest seismic zoning map of India, the Jorhat District falls under High Risk Zone- V, where a maximum intensity of IX can be expected.

**➤ Flood :-**

The general reason of occurrence of flood in Jorhat District is due to overflow of Rv. Brahmaputra and its tributaries, namely Bhugdoi, Janjhi, Teok, Kakodonga. Jorhat Town faces urban flooding due to artificial reduction Cross section of Tributaries, namely Torajan, Athubhanga Jan, Rowriahjan and improper execution of drainage System.

**➤ Soil Erosion :-**

The soil erosion at the embankment of Brahmaputra is major threat to many places in Jorhat District.

**➤ Fires :-**

The fire takes places in Jorhat District due to short circuit in commercial areas. Mainly fire takes place from March to April when the climate remains very dry and probability is more instance of fire breakout. The Borhola area under Titabor Sub-division also prone to chemical and industrial disaster due to having oil and natural gas Rigs and production plants in many parts.

**➤ Cyclone:-**

In Jorhat District cases related to low density cyclone occurred in some places.

**10.8 Seasonal calendar for different types of hazards :**

Sl. No.	Type	Hazard												Remarks
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	Flood						←————→							
2	Earthquake	←————→												
3	Fire	←————→												
4	Landslide						←————→							

5	Cyclone				←	→				
6	Erosion				←	→				
7	Epidemic				←	→				
8	Accident	←								→
9	Riot	←								→

### 10.9 Likely Geographical extent and magnitude / severity:

- 1) Jorhat district, specially the world's largest river island Majuli, a subdivision of Jorhat district is severely prone to flood. Erosion of river bank is a common criterion, which is major threat to Majuli too. Moreover, some parts of Jorhat town, there are every chances of flash flood due to heavy rainfall. Such flash floods have been experienced during last few years.
- 2) Assam as a whole is within the Zone V of earthquake zone. Especially Jorhat has witnessed a devastating earthquake in 1950. So, it can be said that geographically and geologically Jorhat is situated in a very hazards prone zone in the context of earthquake.
- 3) Chances of Landslide are comparatively less in this district. But fire can break out in the congested residential and commercial areas, markets of the town anytime during lean season, so is the risk of epidemic in the slum/basti areas. The district has faced cyclones several times in the past. Road accident, rail accident, collapse of multi-storied buildings etc. may occur at any time; of course communal/ other riot is not so common in this district.

### 10.10 Preparedness & Response System

Department	Response System			
	Preparedness	Pre (after Warning)	During Disaster	Post Disaster
	<ul style="list-style-type: none"> <li>Capacity building ( training) and sensitization among departmental official &amp; staff</li> <li>Assessment of existing</li> </ul>	Pre preparedness in case of a disaster like flood. Earthquake etc., collection of some construction materials like bamboo, rope, wire, wood, sand,	During disaster this department will provide technical manpower support to restore essential services and coordinate with DDMA	After the disaster this department will make assessment of destruction and report to District Admin.

Town & Country Planning	departmental building & other hazard's. <ul style="list-style-type: none"> <li>▪ Identification of vulnerable building ( Safety Audit ) in towns and necessary direction to Urban local Body's for necessary action</li> <li>▪ Evacuation Plan in high rise and life line building</li> </ul>	cement bags, First Aid kit etc., will be kept ready.  Coordination with District Disaster Management Authority  Dissemination of information for early warning to general public with the aegis of DDMA .		Identification of rehabilitation site  Modification of Master Plan  Preparation of any new Master Plan for affected areas.
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#### Prevention & Mitigation Plan –

Proper implementation and enforcement of Assam Notified Urban Area Building Rules– 2014 (ANUABR) & Sensitization among stakeholders engaged for construction work / owners to use disaster resistant technologies

#### 10.11 Standard Operating Procedure (SOP) :

- ❖ Written guideline that precisely defines how operations are to be carried out.
- ❖ An organizational directive that establishes a standard course of action.
- ❖ Written guidelines that explain what is expected and required of the personnel.
- ❖ Standardization of activities :-
  - Identify planned and agreed upon roles & actions.
  - Promotes coordination and communication amongst personnel.
  - Simplify decision making during potentially stressful conditions)

**8.12 Emergency Support Function (ESF) :**

1.	<b>NAME OF HEAD</b>	DEPUTY DIRECTOR, T&CP, JORHAT MOBILE No:-	NODEL OFFICER (EXECUTION OF SOP)
2.		ASST. ENGINEER T&CP, JORHAT MOBILE No:-	EXECUTION OF SOP & SUPERVISION OF ESF 1 & 2

**10.13 Damage Assessment:**

The team consist of technical person as mentioned in ESF 1 will do the rapid damage assessment in post disaster as per Annexure – 2.

**10.14 ESF 1 :- Damage Assessment & Monitoring Team (DAMT):**

Sl. No.	Particulars	Contact No.	Villages & Ward Nos.	Remarks
1	AE		Jorhat East & West Circle villages	The officials will assess the ground situation in their respective areas and report to control room
2	JE 1		1,2,3,4,5,6,7, 8,9,10,11	
3	JE 2		12,13,14,15 & Mariani Circle villages	
4	JE 3		16,17,18,19 & Teok Circle villages	

Note :-Damage Assessment of Buildings through Rapid Visual Screening ( RVS ) as per Annexure – 3

**10.15 ESF 2:- Rapid Assessment Team (RAT):**

Sl. No.	Particulars	Contact No.	Area	Remarks
1	Research Asstt.		Technical Supervisor will give necessary direction for field visit	The officials will assess the ground situation and assist / report to concern DAMT officials and report to control room
2	Mohurrir			
3	Investigator			
4	Driver			
5	Peon			

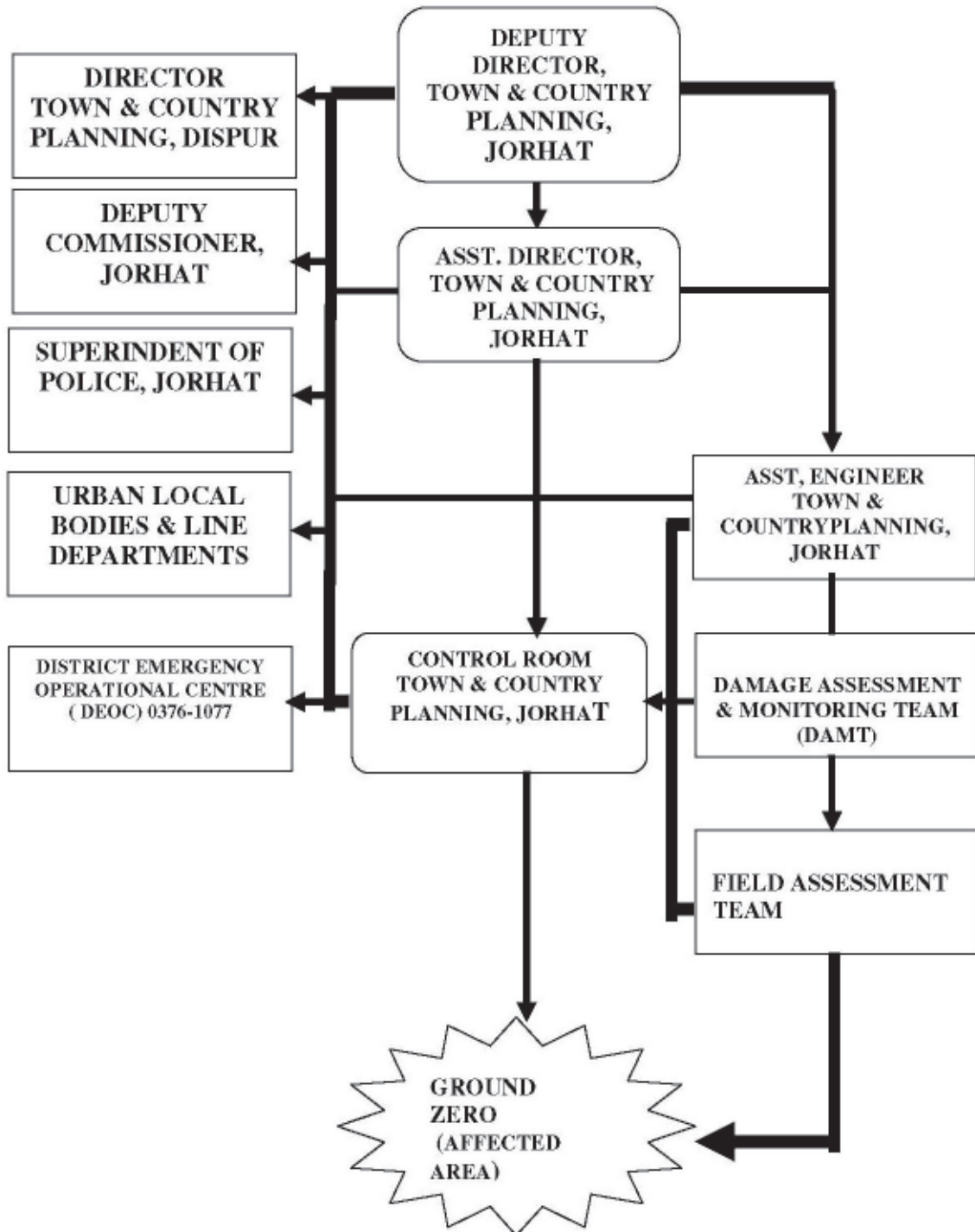
**10.16 ESF 3:- Control Room Setup & Logistics :**

UD Asstt (CONTROL ROOM INCHARGE ) Mobile No:-	1. T&CP 1 2. T&CP 2 3. T&CP 3
Research Asstt.( DATA COMPILATION & DAILY SITREP TO HEAD & CONCERN OFFICES ) Mobile No:-	1 Draftsman Gr-I 2. DM Gr -II. 3. Investigator.
JE 3 ( LOGESTIC& SAFETY / SECURITY OF OFFICIALS) Mobile No:-	1. Investigator,T&CP 2. Gr-IV 3. Gr-IV

**10.17 : EQUIPMENTS**

Sl.No	Particulars	Contact No	Equipments
1.	Asst. Ex. Engineer Jorhat Municipal Board Nabajyoti Borah, Supervisor, Jorhat Municipal Board		Compactor :- 3 Nos. Excavator :- 1 No. Tractor & Trailer :- 5 Nos. Dumper Placer :- 2 Nos. Mini Loader :- 1 No.
2.	Contractor, Charigaon, Jorhat.		JCB :- 3 Nos. Dumper :- 6 Nos
3.	Contractor, Club Road, Jorhat.		JCB :- 1 Nos. Dumper :- 3 Nos.

**Command and Control (SOP)**





**ANNEXURES – 1****1. Functional organization structure:**

- a) Urban Development Department at State Govt.
- b) Director, T&CP, Dispur, Guwahati-6.
- c) Deputy Director, T&CP, Jorhat.

**2. Inventory of departmental resources:**

- a) Resource :- Department provide technical support.
- b) Capacity :- Officials to be trained for Earthquake engineering & Rapid Visual Screening etc .
- c) Location :- Town & Country Planning,  
Unnayan Bhawan,  
PO - Jorhat,  
Pin-785001

**3. Details of officers at State & District level:**

1. Director, T&CP, Dispur, Guwahati.

Phone: 0361- 226154094350-45168

2. Deputy Director, T&CP, Jorhat.

Phone:

**4. Special decision making procedure : As per SOP.****5. Details of budget provision:**

Budget provision is a must for successful implementation of SOP. Necessary direction to be received from Head office regarding such provision related to Disaster.

**6. Details of departmental officials :**

SL. NO.	NAME	DESIGNATION	MOBILE NO.
1.		Deputy Director	
2.		Asstt. Engineer	
3.		U. D. Asstt.	
4.		L. D. Asstt.	
5.		L. D. Asstt	
6.		L. D. Asstt	
7.		Junior Engineer	
8.		Junior Engineer	
9.		Junior Engineer	
10.		Draftsman Gr.-I	
11.		Draftsman Gr.-II	
12.		Draftsman Gr.-II	
13.		Research Asstt.	
14.		Tracer	
15.		Duftry	
16.		Khalashi	
17.		Khalashi	
18.		Khalashi	
19.		Chowkider	

**ANNEXURE - 2****Check list for damage assessment**

- i) Geographical area impacted
- ii) Structural damage to buildings etc.
- iii) Damage to roads and bridges, public buildings shops, workshops, stalls etc.
- iv) Damage to water supply lines, electricity supply lines, public utilities etc.

**Tools for rapid assessment**

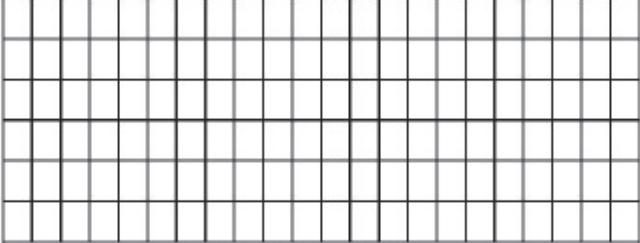
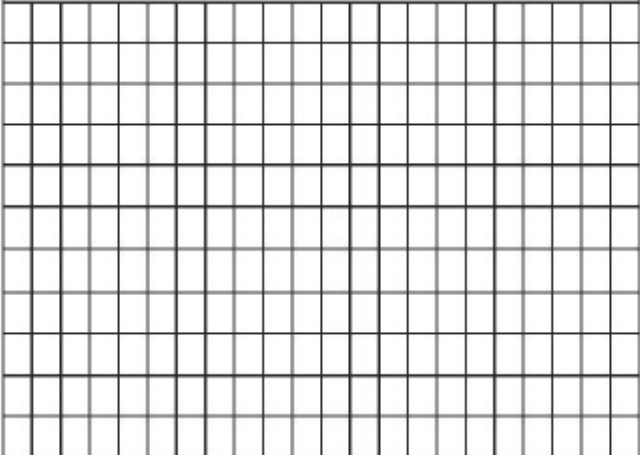
- i) Photographs, video graph/film of the affected area
- ii) Field Report

Sl.No	No. of Buildings / infrastructure affected	Location	Action Taken	Remarks/ Any SOS to Control Room
Name:- Sign :- Date :- Note:- SOS related to Life trap, Emergency Medical support, Rescue etc.				

- iii) Report from Administration/ ULBs/ Media etc.
- iv) Rapid Visual Screening ( RVS) Survey
- v) Mapping of affected area / buildings / infrastructure
- vi) Safety Gear for officials.

**ANNEXURE – 3**

**Rapid Visual Screening of Indian Buildings for Potential Seismic hazards**  
**Seismic Zone V**

 <p style="text-align: center;"><b>Elevation to Scale</b></p> 	Building Name ..... Use ..... Address ..... House No..... Pin ..... Other Identifier ..... No. Stories..... Year Built ..... Total Floor Area ..... (Sq.m.)
<p style="font-size: 24px; font-weight: bold;">PHOTOGRAPH</p>	

Plan to Scale

OCCUPANCY		SITE	FALLING HAZARDS
Resi: Ord/Imp.	Max. Number of Person	High W.T. (within	Chimneys <input type="checkbox"/> Cladding <input type="checkbox"/>
School	0-10 10-50 51-100 > 100	8m) ____	Parapets <input type="checkbox"/> Other <input type="checkbox"/>
Health Assemble	Residents _____	Liquefiable (if sandy	
Office	Floating _____	soil)	
Commercial		Land Slide Prone	
Historic			
Emer. Service			
Industrial			

Probable maximum Grade of Damage

Building Type	Masonry Building				RC or steel Frame Building				URM infill	Wood
	A, A+	B, B+	C, C+	D	C, C+	D	E, E+	F		
Damage Grade in Zone V	G 5	G 5	G 4	G3	G4	G3	G2	G1	G4	G4

Note : + sign indicate higher strength hence somewhat lower damage expected than that stated. Also Average damage in one building type in the area may be lower by one grade point than the probable maximum indicated. Surveyor will identify the Building Type, encircle it, also the corresponding damage grade and tick mark the recommendation.

*Recommended Action :*

- 1) A, A+ or B, B+ : Evaluate in detail for need reconstruction or possible retrofitting to achieve type C or D
- 2) C, C+ : Evaluate in detail for need of retrofitting to achieve type D
- 3) URM infill : evaluate for need of reconstruction or possible retrofitting to level D
- 4) Wood : evaluate in detail for retrofitting

Surveyor's Signature \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_



