



THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্বৰ দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

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No. 354 Dispur, Thursday, 19th May, 2022, 29th Vaisakha, 1944 (S. E.)

GOVERNMENT OF ASSAM

ORDERS BY THE GOVERNOR

DEPARTMENT OF HOUSING AND URBAN AFFAIRS

NOTIFICATION

The 2nd May, 2022

No. UDD(T)186/2022/6.- In exercise of the powers conferred by the section 9 (nine) of the Assam Town & Country Planning Act.1959 (Assam Act II of 1960) read with Sub-section I of section 10 (Ten) of Assam Town & Country Planning Act (As amended), the Governor of Assam is pleased to published the following notice regarding the publication of Draft Master plan for Amguri.

Notice for the Publication of Draft Master Plan for Amguri:

1. It is notified that the Draft Master plan for Amguri prepared by the Directorate of Town & Country Planning, Government of Assam, Town & Country Planning Act.1959 read with Sub-section I of section 10(Ten) of Assam Town & Country Planning Act (As amended), for the area described in the schedule below is hereby published.
2. Any person or persons affected by the Draft Master plan may submit their objection or opinion in writing to the Director, Town & Country Planning, Government of Assam, Dispur, Guwahati-6 within two months from the date of publication.
3. The Draft Master plan for Amguri with all relevant papers and maps may be inspected free of Cost during office hours at the Office of the Director, Town & Country Planning, Government of Assam, Dispur, Guwahati-6, the Deputy Director, Town & Country Planning, District Office, Sivasagar, the Circle office, Amguri Revenue Circle, Amguri, Office of the Chairman, Amguri Municipal Board, Amguri. Copies of the draft master plan for Amguri are available the Office of the Deputy Director, Town & Country Planning, Sivasagar on payment.

SCHEDULE**A. Situation and Areas :**

District	:	Sivasagar
State	:	Assam
Revenue Circle	:	Amguri
Total master plan area	:	41.35 Sq. km.
Municipal Area	:	2.54 Sq. km.

Circle, Mouza and Villages included in the Draft Master Plan Area of Amguri.

1.Sivasagar District:

<u>Circle</u>	<u>Mouza</u>	<u>Villages</u>
Amguri	Moura bazar	Ratanpuria
		Lephera Chaudang
		Dhekialchaudang
		Deodhai
	Gadhuli bazar	Khanikargaon
		Abhoipuria
		Sumuwal
		Gadhuli bazaar chaudang
		Bhuyanhat Nowboisa
		Bhuyangaon
		Changmaikonwar
		Dulia charal
		Baghjan Grant
		Barbam Grant
		Miri Chutia
		Raidongia
		Amguri town

B. Description of boundaries:**1.1 REGIONAL SETTINGS-**

NORTH	:	GAURISAGAR TEHSIL
SOUTH	:	LONGCHEM TEHSIL
EAST	:	SIVASAGAR TEHSIL
WEST	:	KALIAPANI TEHSIL

KAVITHA PADMANABHAN,
Commissioner & Secretary to the Government of Assam,
Department of Housing and Urban Affairs,
Dispur, Guwahati-6.

INTRODUCTION TO AMGURI MASTER PLAN AREA

GENERAL:-Amguri is a small town located in Sivasagar District of upper Assam, near the border of Nagaland, in North-East India. It has an average elevation of 74 metres (242 feet). It is situated on the bank of the river Jhanji and famous for its tea gardens and oil fields.

The Amguri town is known for tea gardens and oil fields. There are some big tea gardens in the area. The Amguri oil field was one of the fields in the state offered by the govt. Of India for production of oil and gas under International Competitive bidding. Canoro Resources of Canada, Assam Company India Ltd. And Oil and Natural Gas Corporation (ONGC) worked on production and development of Amguri oil field.

Amguri is located 25 km. towards south from District head quarter Sivasagar. It is a Tehsil head quarter.

CHAPTER – 1:

1.1. LOCATION:-

The Geographical location of Amguri is between $26^{\circ} 81'$ latitude and $94^{\circ} 52'$ E longitude. Elevation is 74 metres (242 ft). Amguri town is situated at a distance of 343 kilometres away from Guwahati, the state capital.

Figure 1.1: Map of India

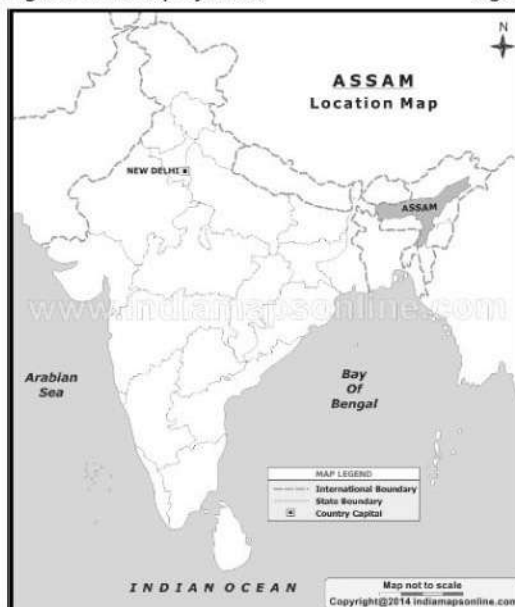


Figure 1.2: Map of Assam showing location of Amguri Town

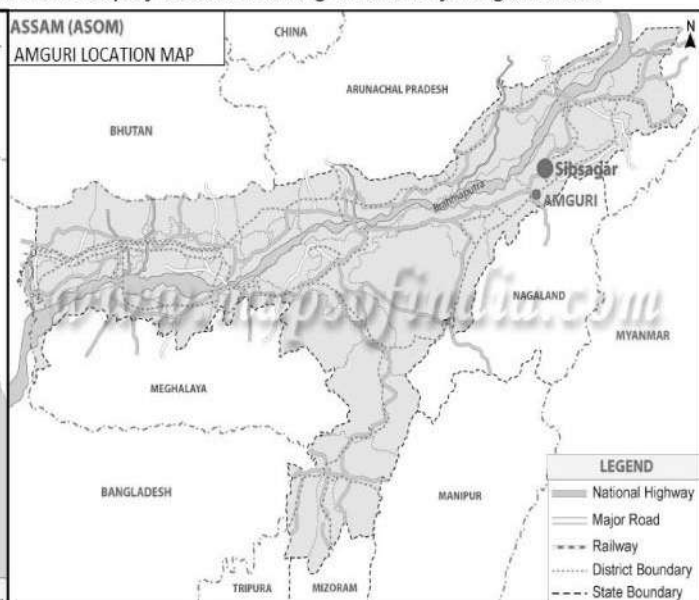


Figure1.3: Satellite Image of Amguri Town Figure1.4: Amguri Town on Google Map



1.2. REGIONAL SETTINGS:-

NORTH	GAURISAGAR TEHSIL
SOUTH	LONGCHEM TEHSIL
EAST	SIVASAGAR TEHSIL
WEST	KALIAPANI TEHSIL

Sivasagar, Mariani, Jorhat, North Lakhimpur are the nearby cities of Amguri. Amguri is located near the border of Nagaland. The town is growing urban centre of the state especially in terms of the increasing trade with Nagaland. The existing town has their organic growth.

1.3. BRIEF HISTORY OF THE TOWN AND SURROUNDINGS:-

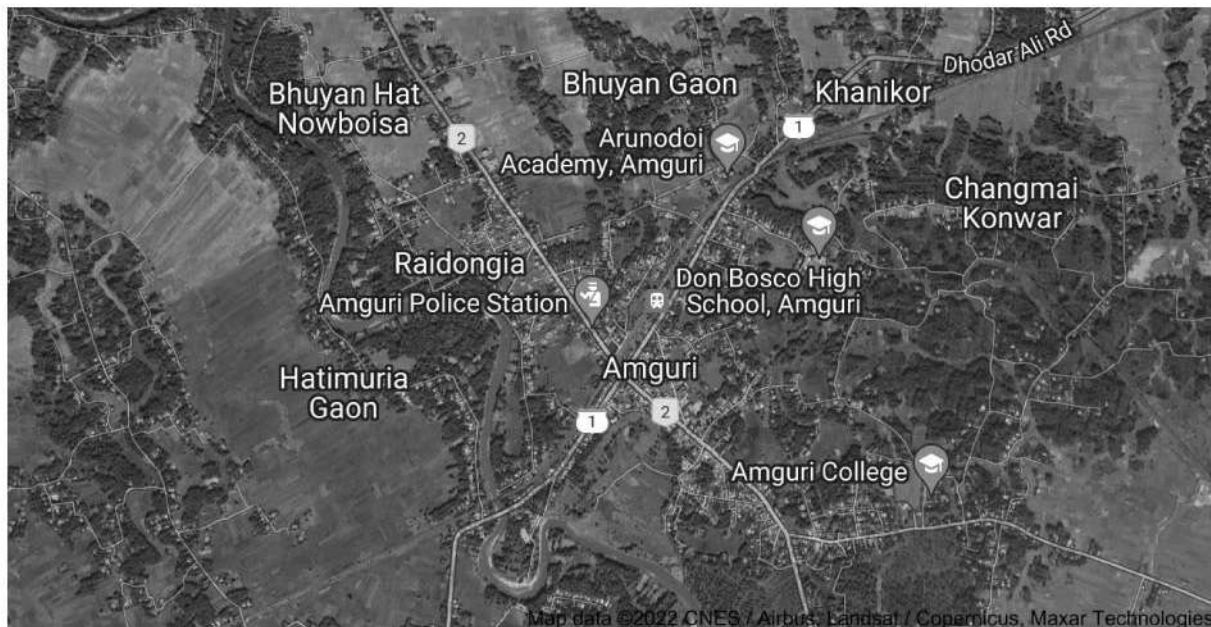
Historians are of the opinion that the name "AMGURI" came into existence during the British rule. The British tea company for the presence of mango trees near their tea gardens coined the name AMGURI. Some other historians believe that the name "AMGURI" was originated during the reign of Ahom king Chuhungmung. According to historians 'AM' stands for established, 'GU' for totally and 'RI' for protected. During king Chuhungmung, s time the Naga revolution in the area was controlled under the leadership of pangram. The place which was protected from Naga rebels came to be known as Amguri.

1.4. CLIMATE:-

Amguri belongs to Sub-Tropical Monsoon type of climate. It is characterized by hot humid-rainy summer and dry and cold winter. The weather in Amguri is pleasant throughout the year. The monsoon season starts from the month of May and it continues up to October. Generally May, June and July are the hottest months. Cold winter starts from the month of November and continues up to the month of March. December and January are the coldest months. The highest maximum temperature in Amguri during summer is 37.0°C and minimum temperature during winter is 6°C. Average annual rainfall is 2150.3 mm (81.6 inches).

1.5. TOPOGRAPHY:-

The Geographical location of Amguri is between 26° 81' latitude and 94° 52' E longitude. It has an average elevation of 74 metres (242 ft). Amguri town is situated at a distance of 343 kilometres away from Guwahati, the state capital. The river Jhanji is flowing through its zigzag path on the west of the town.



1.6. SOIL CONDITION:-

Surrounded by the tea gardens, forest and paddy fields Amguri is situated mostly on an alluvial flat land at a distance of 45 km from Sivasagar town and 1 km from river Jhanji. The river Jhanji is flowing his zigzag path on the south and north of the town respectively. Terraces of high-level alluvium of Pleistocene age occur along the southeastern boundary of the Master plan area along the foothills to south eastern boundary of the district.

The altitudinally Amguri is 110.2m above the mean sea level, its latitude and longitude area $26^{\circ} 81'$ latitude and $94^{\circ} 52'E$ longitude. The general slope of the land is towards North and Northwest.

The region bears texturally three types of soil - sandy loam, loam and clayey loam. These favour the cultivation of rice, mustard, pea, vegetables, etc. Thus, geographically the soil of Amguri Town is considered as favourable for cultivation and plantation.

1.7. CITY IN FLUENCE AND ITS CHARACTERISTICS INCLUDING SETTLEMENT PATTERN:-

The settlement pattern of Amguri is a mixed one. Due to the presence of teagardens, workers from Nagaland migrated in to the region. Officials from Tea and Oil industry settled in Amguri. The indigenous people of the state live both in urban and rural areas. A good number of Assamese, Marowari, Bengali, Bihari, Sikh and Muslim people reside in Amguri.

The city is home to 8002 people (53% are male and 3733 (47%) are female. Child population (age 0-6 years) is 822 out of which 410 are boys and 412 girls. Total Schedule Cast population is 1027 out of which 511 are males and 516 are females. Total Schedule Tribe population is 48 out of which 27 are males and 21 are females. There are 1852 households in the town and an average 4 persons live in every family.

1.8. RURAL-URBAN SCENARIO:-

Both rural as well as urban characteristics can be seen in Amguri town and its surroundings. Though people use modern techniques to build their houses but there still exist houses which have been built with old methods. In Amguri based on structural conditions of houses, three types of houses can be seen which are pucca, semi-pucca and kutcha. Kutcha houses are those which are made of locally available materials like bamboo, wood, grass, leaves, mud, thatch etc. Semi pucca houses are made of brick wall, brick flooring, asbestos/tin shed etc. Pucca houses are made of brick or concrete wall and brick or concrete or metal sheet roofing etc. The Economically weaker section households are easily identified by their poor housing condition. Due to low incomes, their houses are mostly kutcha or semi pucca type and lack basic infrastructure.

1.9. HISTORY OF THE PHYSICAL GROWTH AND EXPANSION OF THE TOWN:-

The Urban Local Body was established in 1964 as Amguri Town Committee and later upgraded to Municipal Board in the year 2002. With the up gradation to Municipal Board, Amguri

has become one important town in the district. Govt. offices including Amguri Cicle Office, Amguri PHE Office, Amguri IB etc have been established at Amguri resulting in to rapid physical growth of the town. The physical growth and expansion of the town has mainly taken place for the rice products and tea industry. Economically Amguri occupies a fairly good position being rich in agriculture, especially cash crops and various forest products and it is also a business transit centre point of Nagaland. There are many tea gardens around Amguri town. Agriculture is the economic base for Amguri town.

1.10. NEED FOR THE MASTER PLAN:-

A master plan or a development plan or a town plan may be defined as a general plan for the future layout of a city showing both the existing and proposed streets and roads, open spaces, public buildings etc. A master plan is a blueprint for the future development of the town.

A Master Plan, also called a comprehensive plan, provides a long-range vision for the built environment of a community. It guides the appropriate use of lands within a municipality in order to protect the public health and safety and to promote general welfare. Among other issues, the Master Plan can identify

- suitable locations for commercial, housing and mixed-use development;
- locations where the city should increase density, use redevelopment, or intervene in other ways;
- opportunities to extend and/or improve open space, recreational areas, and civic facilities;
- strategies from increasing economic development;
- environmental, historic and cultural resources that need conservation; and
- strategies for solving congestion and improving transit services.

As a result, the Master Plan has a direct relationship to its citizens, where we live, work, or own a business in that particular region.

The master plan area of Amguri covers an area of 41.35 sqkm having population of 29518 as per 2011 census and field survey conducted by Town and Country Planning, Sivasagar.

CHAPTER – 2:**DEMOGRAPHY****2.1. TOTAL POPULATION:-**

Amguri Master Plan Area (AMPA) is Located in Sivasagar district. According to census of India 2011, the total population of Amguri Master Plan area is 29518 persons out of whom 14867 are male and 14651 are female.

Table 2.1: Urban & Rural Area Population Figure

Name of Master Plan Area	Category of Area	Area in Sq. km.	Population in 2011
Amguri Master Plan Area	Urban	2.54	8002
	Rural	38.81	21516
Total		41.35	29518

2.2. MALE/FEMALE POPULATION:-

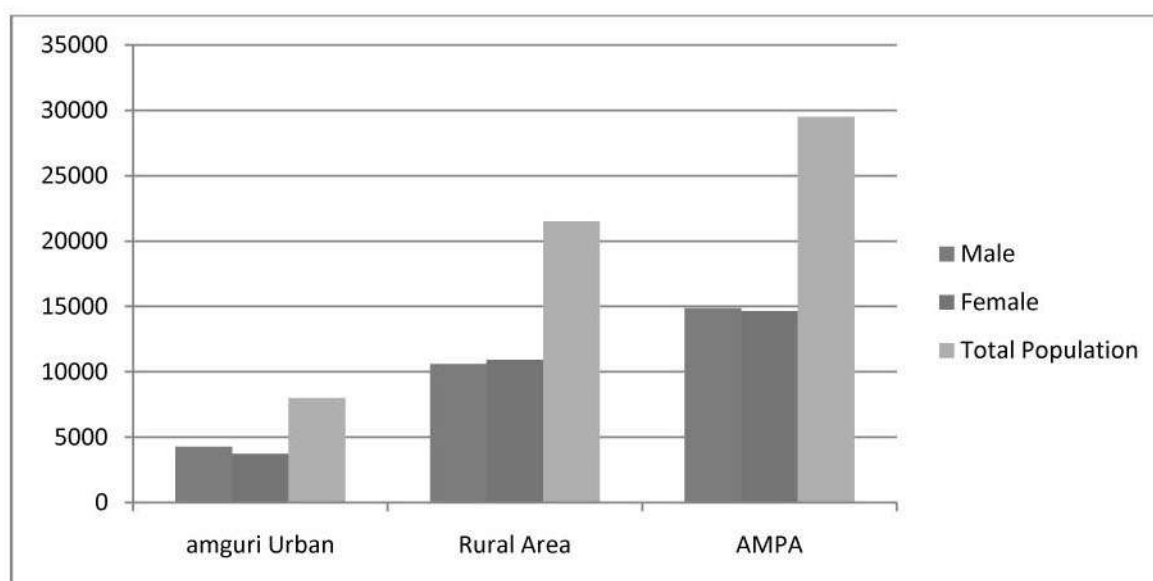
The details of Male and female population for the Amguri Master Plan Area (AMPA) is shown in the following table.

Table 2.2 : MALE AND FEMALE POPULATION OF AMPA IN 2011

Sl. no.	Name	HH	Male	Female	Total Population
1	Ratanpuria	346	748	778	1526
2	Lephera Chaudang	172	391	412	803
3	Dhekial Chaudang	179	393	394	787
4	Abhoipuria	150	309	342	651

5	Deodhai	149	854	879	1733
6	Khanikar	372	516	493	1009
7	Sunuwal	349	775	767	1542
8	Gadhuli Bazar Chaudang	209	449	444	893
9	Bhuyanhut Nowboisa	201	463	447	910
10	Bhuyangaon	193	460	467	927
11	Raidongia	123	241	274	515
12	Changmai Konwar	185	414	466	880
13	Dulia Saral	454	960	979	1939
14	Barbam Grant	787	1769	1879	3648
15	Baghjan Grant	529	1235	1299	2534
16	Miri Chutia	276	621	598	1219
17	Amguri Town	1852	4269	3733	8002
	Total	6526	14867	14651	29518

Figure 2.2: Male/Female Population of AMPA



The areas of Amguri Master Plan (AMPA) is shown in the following table.

Table: Areas of Town and Villages of Amguri Town

Sl. no.	Name	Areas(Sq.km)
1	Ratanpuria	3.59
2	Lephera Chaudang	1.63
3	Dhekial Chaudang	2.42
4	Abhoipuria	0.641
5	Deodhai	2.92
6	Khanikar	1.65
7	Sunuwal	3.39
8	Gadhuli Bazar Chaudang	2.12
9	Bhuyanhut Nowboisa	1.25
10	Bhuyangaon	1.97
11	Raidongia	0.508
12	Changmai Konwar	2.36
13	Dulia Saral	3.14
14	Barbam Grant	6.45
15	Baghjan Grant	4.49
16	Miri Chutia	1.39
17	Amguri Town	1.43
	Total	41.35

2.3:POPULATION GROWTH RATE:-

The total number of wards in Amguri Municipal Board is 10 and having population of 8002(approx.) as per 2011 census report.

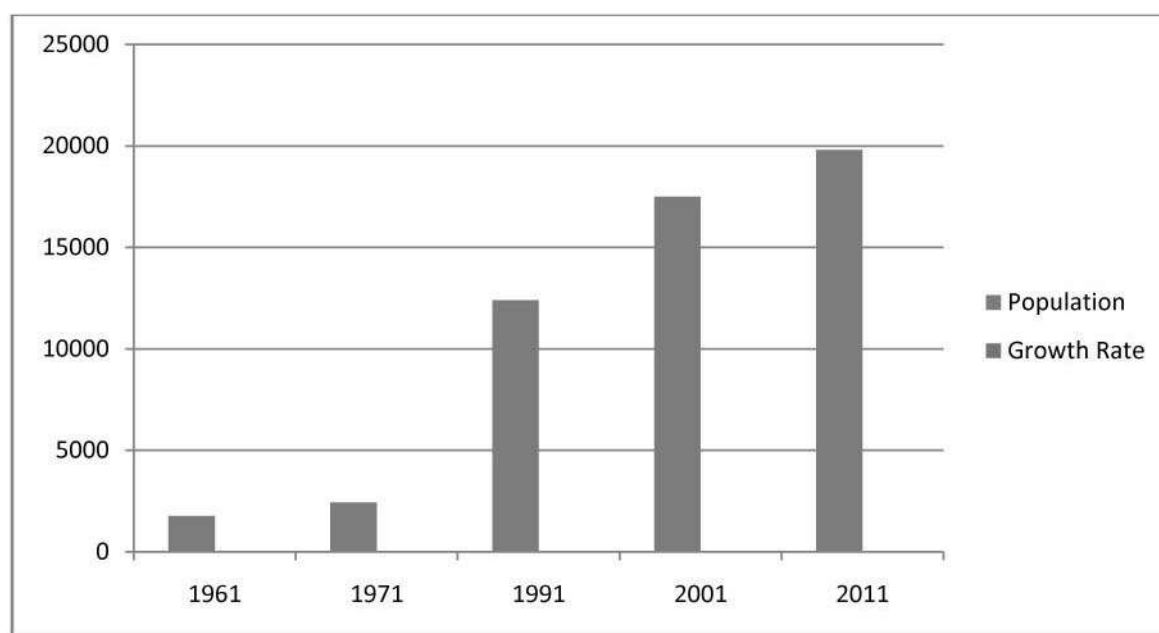
Table 2.3: Population Growth Rate in Amguri Municipal Board

YEAR	POPULATION	(%) INCREASE

1991	3583	-
2001	6997	95.28
2011	8002	14.36

Source: Census of India

Figure 2.3: Population Growth Rate in Amguri Municipal Board.

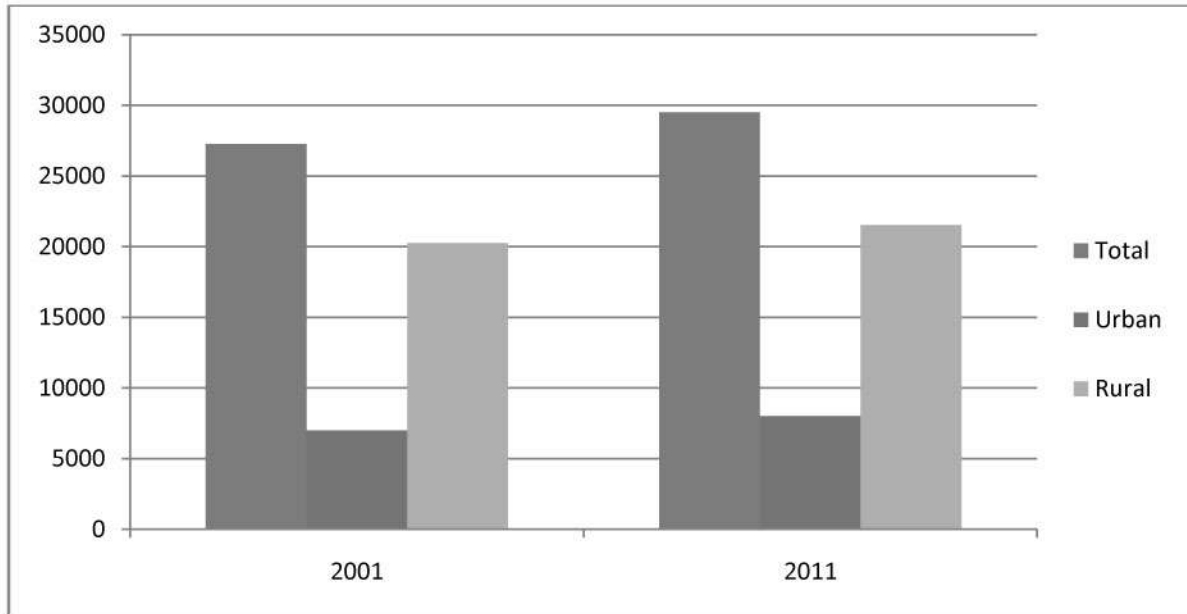


Source: Census of India

The decadal growth of population in the urban and rural areas of Amguri Master Plan area from 2001 to 2011 is shown in the following table:-

Table 2.4: Population Growth of Amguri Master Plan Area

Zone	Year	Population	Increase in Population	% Increase
Total	2001	27262	-	-
	2011	29518	2256	8.27
Urban	2001	6997	-	-
	2011	8002	1005	14.36
Rural	2001	20265	-	-
	2011	21516	1251	6.17

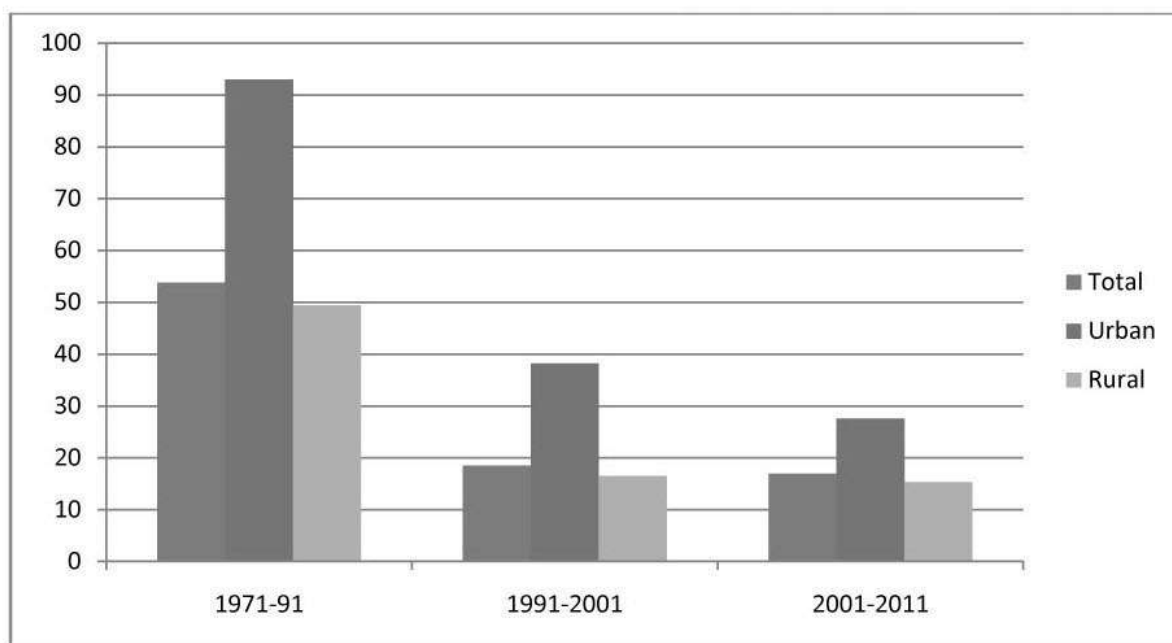
Figure 2.4 : Population Growth of Amguri Master Plan Area

Source: Census of India

Table 2.5: Population Growth and Growth Rate of Assam

	POPULATION				GROWTH RATE (%)		
	1971	1991	2001	2011	1971-91	1991-2001	2001-11
Assam State*							
Total	14.62	22.49	26.66	31.17	53.83	18.54	16.93
Urban	1.29	2.49	3.44	4.39	92.97	38.24	27.61
Rural	13.33	19.93	23.22	26.78	49.42	16.51	15.35
*Population in thousand							

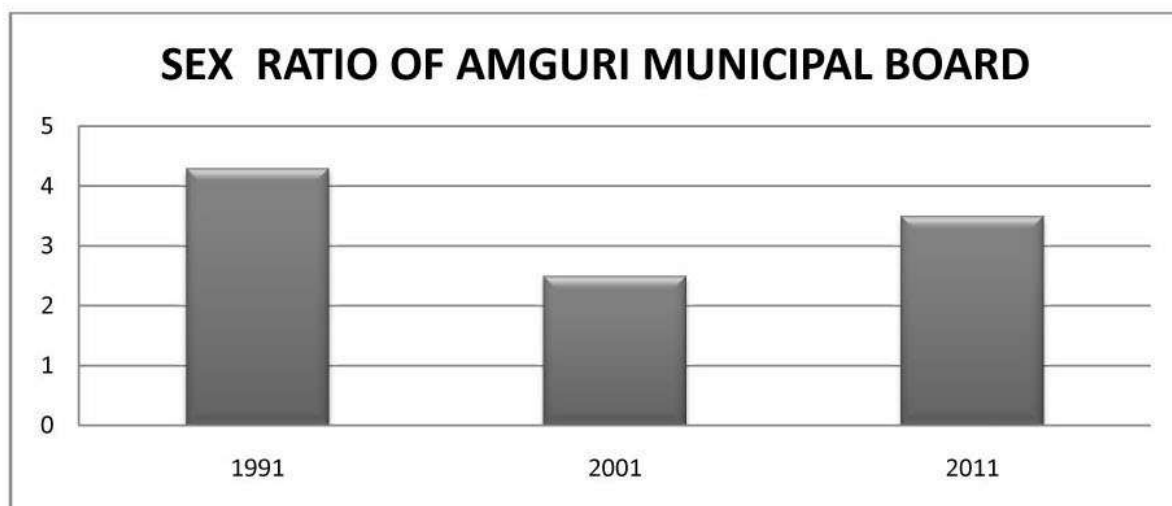
Figure 2.4: Population Growth Rate of Assam: 1971-2011



2.4. POPULATION DENSITY:-

The net density of population for Amguri Municipal Board and master plan area in 2001 was 2754 and 660 persons per Sq.km respectively and the same was increased to 3150 and 713 persons per Sq.Km. in 2011.

Figure 2.5: Sex Ratio of Amguri Municipal Board: 1991-2011



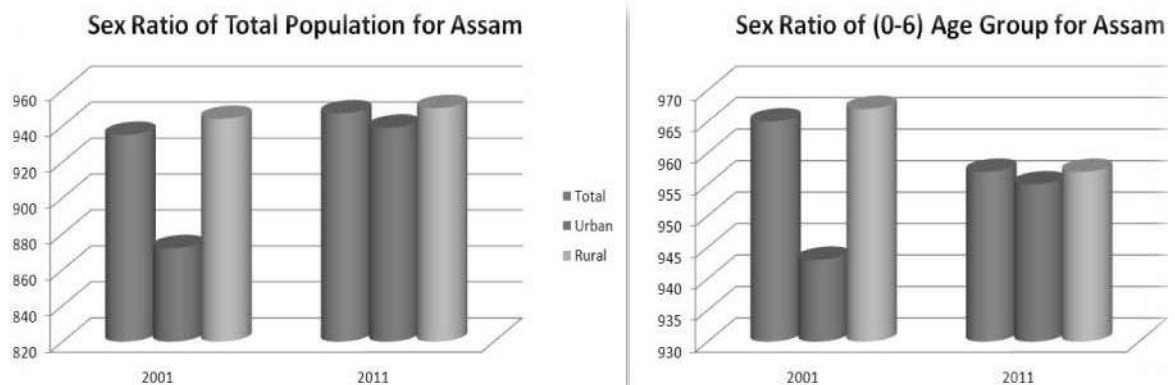
2.5: Sex Ratio:

The sex ratio of Assam and SMPA for the last two decades as per census of India is given below:

Table 2.6: Sex Ratio of Assam and SMPA

Year	Sex Ratio of Total Population		Sex Ratio of 0-6 Age Group	
	2001	2011	2001	2011
Assam State				
Total	935	947	965	957

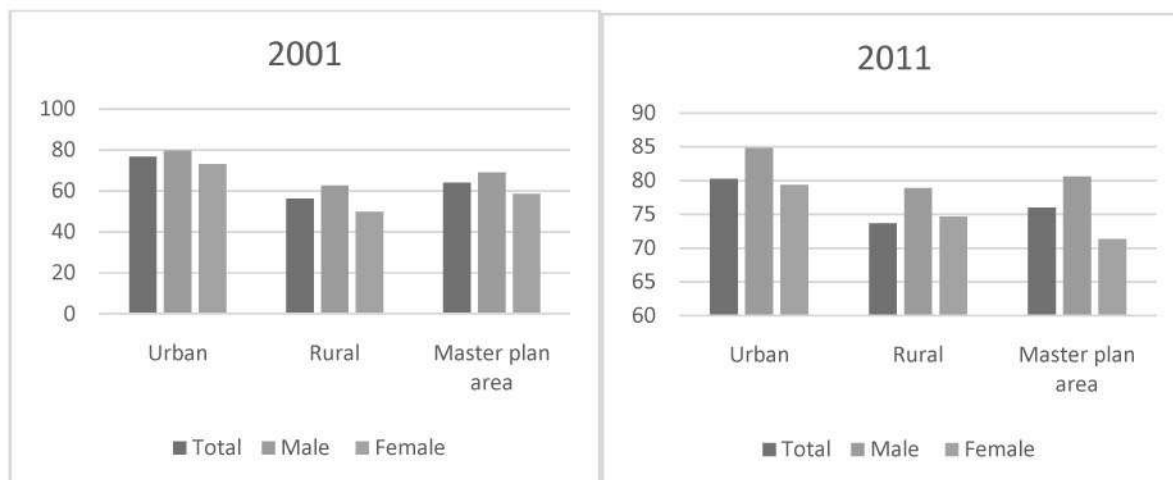
Urban	872	939	943	955
Rural	944	950	967	957
Amguri Master Plan				
Total	917	979	995	952
Urban	773	874	863	995

Figure 2.6: Sex Ratio of Assam**2.6. LITERACY RATE:-**

The literacy rate of Amguri Urban area as per census of India report, 2011 is 82.29% which is lower than state urban literacy rate of 88.47%. Male Literacy is around 84.84% while female literacy rate is 79.37%. The comparison of literacy rate in 2001 and 2011 for Amguri Master Plan area is given below:-

Table 2.7: Literacy Rate of AMPA

	2001						2011					
	Absolute			Literacy Rate			Absolute			Literacy Rate		
	Urban	Rural	Total Master Plan Area	Urban	Rural	Total Master Plan Area	Urban	Rural	Total Master Plan Area	Urban	Rural	Total Master Plan Area
Total	5373	12088	17461	76.79	56.18	64.04	6585	15859	22444	82.29	73.70	76.03
Male	3143	6645	9788	79.65	62.70	69.05	3622	8365	11987	84.84	78.92	80.62
Female	2230	5443	7673	73.09	49.85	58.63	2963	7494	10457	79.37	74.67	71.37

Figure 2.7: Literacy Rate of AMPA**2.7. WORKING AND NON-WORKING POPULATION:-**

The total work force in Amguri master plan area in 2011 26984 persons. The work force is calculated considering the age group between 15 to 60 years. Out of this work force the working population is 11368 persons equivalent to 42.13 % which is higher than the national average of 38%. The balance non working population (57.87%) mainly consists of women group and unemployed section of the population who are seeking employment in white-collar jobs as well as investment opportunities in business. The non working population of master plan area is 15616 persons 52% of the total population which is 29518. The breakup of this non working population comprises of 11% from the age group up to years, 20% from age group of 6-15 years and 3% from the age of above 60 year

2.8. ST-SC POPULATION:-

As per census 2011, the details of SC and ST population for the Amguri Master Plan Area (AMPA) have been shown in the following table.

SC-ST POPULATION**Table 2.9: SC and ST population of AMPA IN 2011**

Sl. no.	Name	SC	ST
1	Ratanpuria	0	0

2	Lephera Chaudang	0	0
3	Dhekial Chaudang	0	0
4	Abhoipuria	0	3
5	Deodhai	0	0
6	Khanikar	0	0
7	Sunuwal	0	0
8	Gadhuli Bazar Chaudang	0	0
9	Bhuyanhut Nowboisa	107	3
10	Bhuyangaon	9	1
11	Raidongia	5	2
12	Changmai Konwar	0	0
13	Dulia Saral	221	3
14	Barbam Grant	5	4
15	Baghjan Grant	0	30
16	Miri Chutia	0	446
17	Amguri Town	1027	48
	Total	1374	510

Figure 2.9: SC Population of AMPA

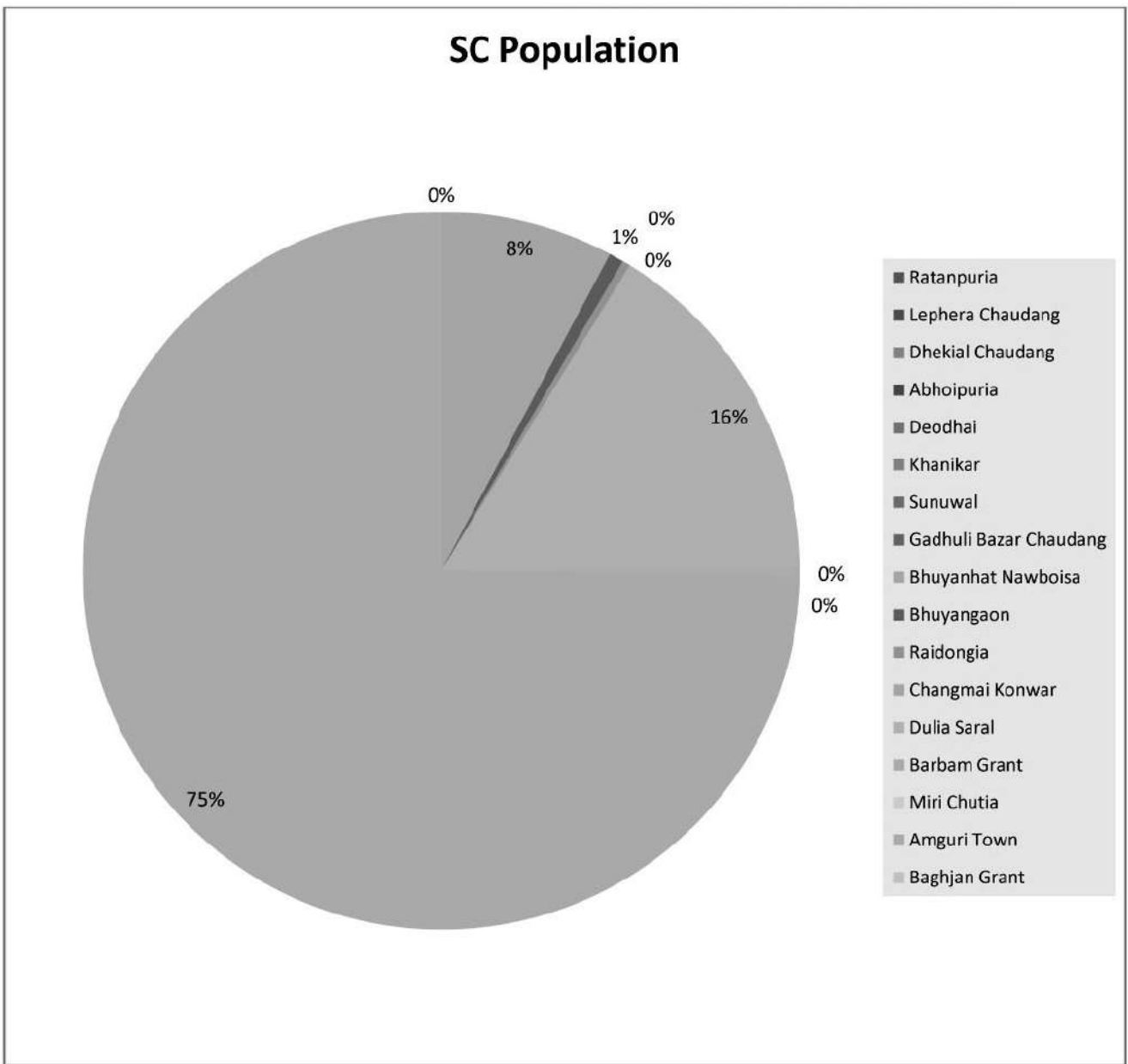
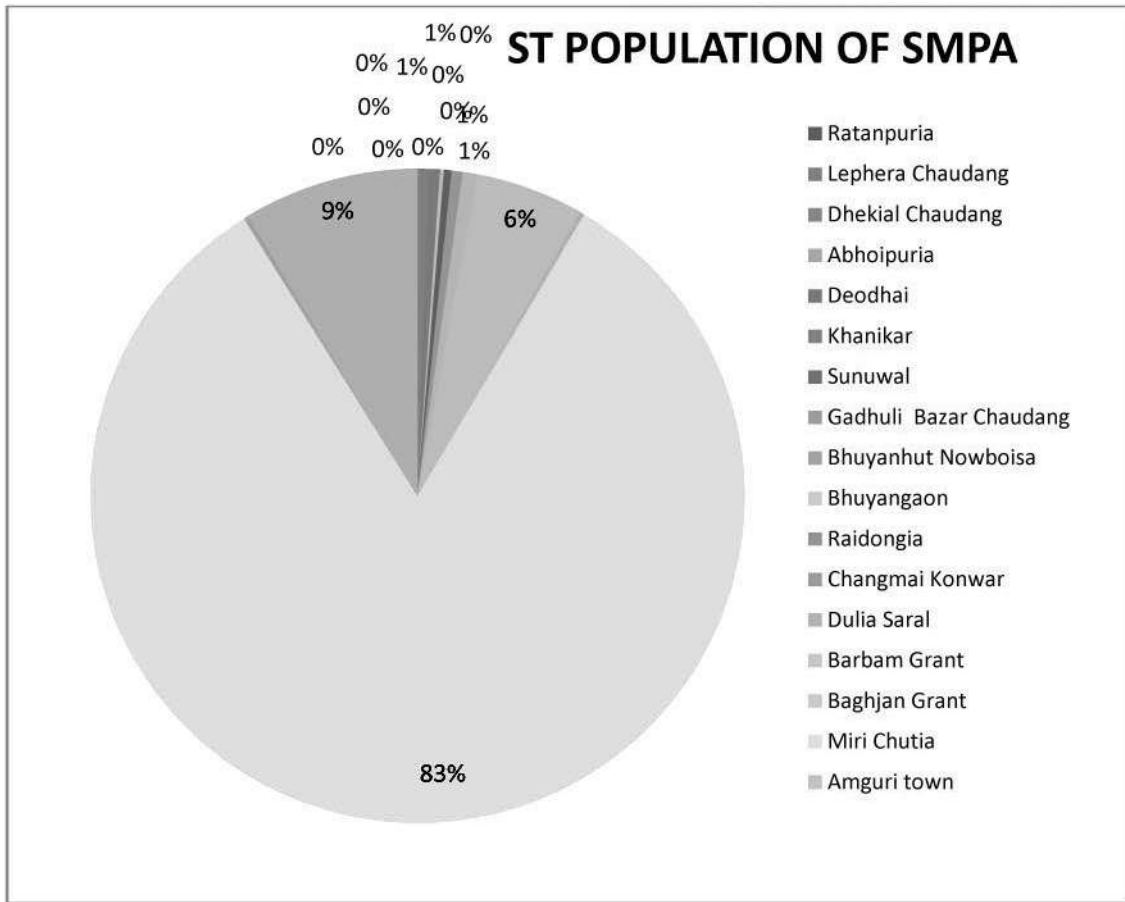


Figure 2.9: ST Population of AMPA



2.9. MIGRATION OF POPULATION:-

The robust local economy once attracted scores of people from other parts of the country to settle here in search of jobs and business opportunities. In addition to Assamese and various indigenous ethnic groups, the town is home to hundreds of people who migrated from Bengal, Bihar, Uttar-Pradesh, Andhra-Pradesh and Nagaland to change their fortunes.

2.10. HOUSEHOLD DENSITY AND SIZE:-

There are about 5997 residential houses in the year 2011 in Amguri Master Plan Area housing a total population of 29518 persons, as such, household size is 4.9 person's per house and the house hold density is 146 houses per sq.km.

2.11. POPULATION PROJECTION:-

In making the future population projection for Amguri Master Plan Area for the period 2011-2041, all the relevant factors such as changes in fertility and mortality rate, age sex composition of the population, existing land use pattern, socio-economic condition and expected emigrational flows have been considered.

For the projection, a general fertility rate of 0.19 for woman in a productive age group has been assumed. Mortality trends is based on recent experience of India and the trends on increase on life expectancy on the United Nations model life table for underdeveloped countries.

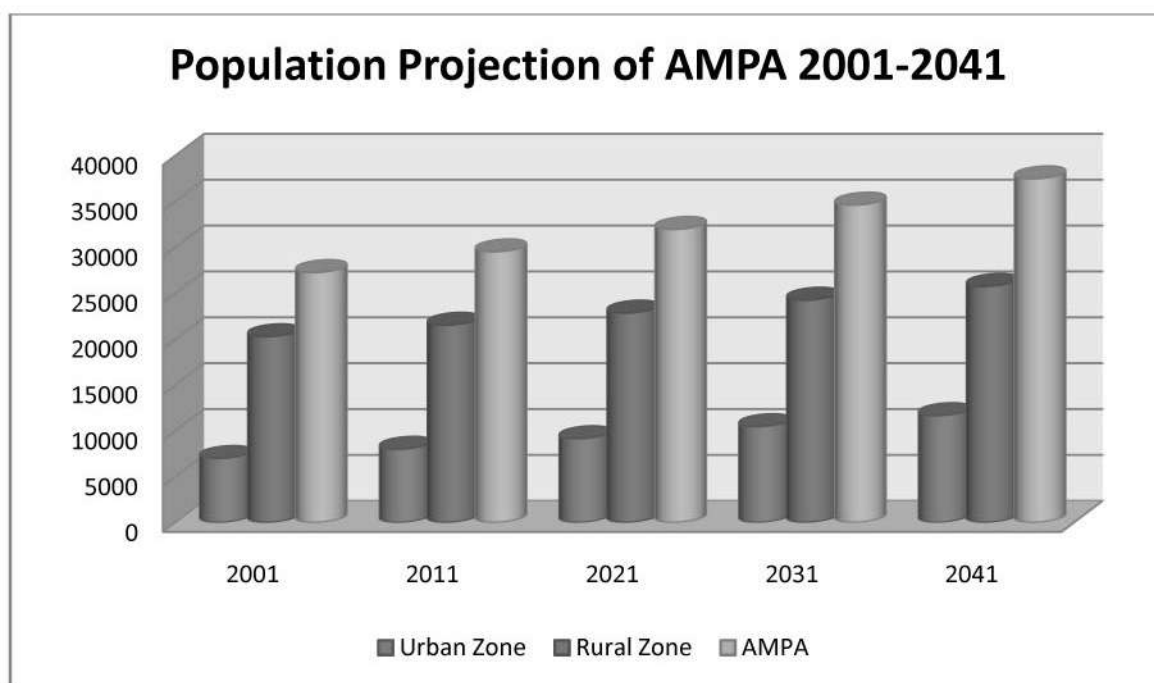
The final population projections have thus been arrived at with the entire base population of 2011 accounted for as the natural population, by adding to the natural population, the increase due to the natural growth plus the increase due to emigrational flow of trade & commerce purpose including the natural increase of migrants. The following table shows the population projections up to 2041 for the urban and rural zones of Amguri Master Plan Area.

Table 2.12: Population Projection of AMPA 2001-2041

Year	Urban Zone	% Increase	Rural Zone	% Increase	Total Population of Amguri Master Plan Area	% Increase
1991	3583	-	18922	-	22505	-
2001	6997	-	20265	7.09	27262	-
2011	8002	14.36	21516	6.17	29518	8.28
2021	9151	14.36	22843	6.17	31962	8.28
2031	10465	14.36	24252	6.17	34608	8.28
2041	11667	14.36	25748	6.17	37473	8.28

Note: 2021, 2031 & 2041 population figures are estimated as per decade average growth rate of 1991, 2001 and 2011.

Figure 2.12: Population Projection of AMPA 2001-2041



CHAPTER -3 **ECONOMIC BASE AND EMPLOYMENT**

3.1. FORMAL SECTOR:-

The Master Plan for Amguri stresses on the urgent need for creation of a conducive environment in which optimum use of natural, local and regional resources can be utilized to build up a sound economic base.

Amguri is a centre for tea gardens and oilfields. There are several Tea gardens and small industries around Amguri Town. Other important industries in Amguri are Timber, Rice, Floor, Cottage and light manufacturing units. In order to provide adequate employment opportunities in the future, the establishment of new industry should be encouraged and the rate of industrial growth needs to be stepped up considerably along with the expansion of service sector, so that it can keep pace with the population growth of this area. The future employment pattern of Amguri town will largely be associated with the growth of economic activities within the area. Amguri is likely to have a considerable growth of activities in the service sector and trade and commerce as well.

Assam is known as the place of one bud with two leaves. Assam's tea is not only famous within the country but it has also goodwill & demand in the international market. There are several tea gardens in Amguri and its suburb area. Moreover, a good number of small tea gardens were also established in the suburb area of Amguri boosting the socio-economic condition of the town.



Amguri region has a scope for establishing industry associated with tea garden implements, equipments of drilling, fabrication etc and other non-ferrous utensil units, casting and general engineering industries.

3.2. INFORMAL SECTOR:-

There is an English proverb that "Necessity is the mother of all inventions". With rapid growth of Amguri town, a number of Brick-kiln and Stone crusher industries have been setup in and around the planning area to construct house, road & bridges etc. The demand for bricks and stone is increasing day by day due to the establishment of new house, office building and institution etc.

The region is rich in forest resources which have not been exploited fully. But there is a good scope of various wood based industries, which can be taken up on a small and medium scale like safety matches, tea chests, furniture and pre-fabricated housing units etc.

The industrial development targets proposed above can be achieved through private sector & Governmental agencies by providing developed industrial land with necessary infrastructure like roads, power, water and drainage and incentive measures like rebate on power expenses, financial assistances in the form of loan at reasonable interest etc. The present concept of public-private partnership (PPP) can also be adapted for faster and smooth development of industries.

Amguri Town is the nerve centre of business & service of that area. Within the radius of 20 km distance, people use to come here to sell their produce and to buy necessary goods for their domestic consumption. There is a market in the middle of the town. Produce from nearby villages are sold near this market. The area is not fully utilized and developed. There are about 670 business establishments out of which 18 nos are wholesaler and 650 nos. are retailers. In Amguri Town there are also some markets namely Amguri Daily market, Super Market, Amguri Sunday weekly market etc. which fulfil the demand for Amguri & its suburbs. These markets have played an important role in the economic expansion of Amguri Town.

Earlier the people of Amguri need to go to Jorhat & Sivasagar for the banking transactions. But now, a number of nationalised banks such as State Bank of India, United Bank of India, Assam Gramin Vikash Bank, Axis Bank etc have established their branches at Amguri. Presently, the banking service at Amguri has improved because of these banks. The financial condition of the people has been improved along with strengthening of economic structure due to money mobilization by these banks. Moreover, insurance companies are also playing an important role for expansion of trade & commerce, social security and socio-economic development.

3.3. OCCUPATIONAL PATTERN:-

Occupational structure depicts the characteristics of employment for livelihood of the people living in a particular planning area. The engagement of people in industry, trade, commerce, white-collar jobs etc. is known as the occupation & employment character. In 2001, the total number of workers in Amguri Master Plan Area was about 9763, which constitute 35.81% of total population. In 2011, the total number of workers in Amguri Master Plan Area is about 11368 out of which urban worker constitutes 7569 and rural is 3799. The percentage of workers engaged in primary, secondary and tertiary sectors of occupations are 1.11%, 0.94% and 97.95% in the Urban Area and 26.85%, 3.05% and 70.10% in the Rural Area respectively. In the Planning area as a whole, the worker

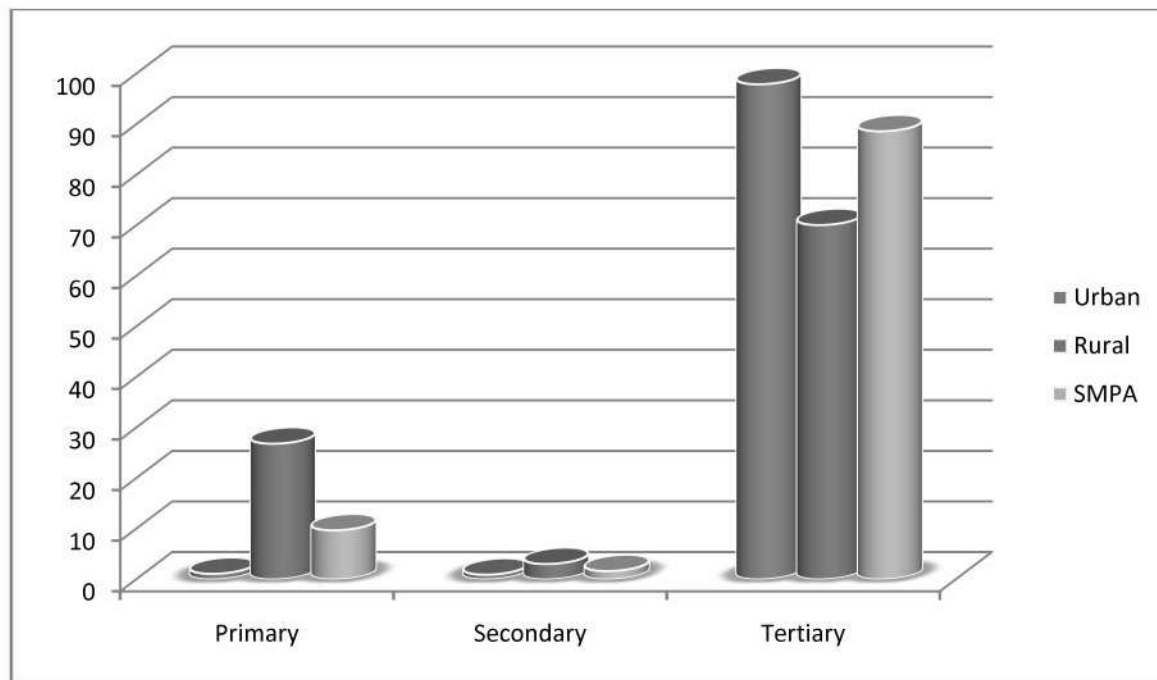
engaged in primary, secondary and tertiary sectors of occupations are 9.71%, 1.64% and 88.65% respectively.

The occupational distribution of population in Amguri Master Plan Area of 2011 has been shown in the following table:-

Table 3.3: Occupational Distribution of Population in Amguri master Plan Area in 2011

Sl. No.	Category	Urban Area		Rural Area		Amguri Master Plan Area	
		No. of Workers	% of total workers	No. of Workers	% of total workers	No. of Workers	% of total workers
1	Primary Sector	84	1.11	1020	26.85	1104	9.71
2	Secondary Sector	71	0.94	116	3.05	187	1.64
3	Tertiary Sector	7414	97.95	2663	70.10	10077	88.65
	Total	7569	100.00	3799	100.00	11368	100.00

Figure 3.3: Percentage of Total Worker



The above table reveals that the number of people engaged in the secondary sector is higher in the Rural Area than in the Urban Area. This is due to the fact that in the suburbs of Amguri Town, there is the existence of tea gardens. The number of people engaged in primary sector in the planning area is low in comparison to the tertiary sector. The highest number of people i.e. 10077 is engaged in the tertiary sectors in the planning area.

The people of nearby villages have been blessed with the alluvium & fertile soil by the river Teok, which begets rich crops and this is the main source of livelihood for them. Secondly, due to expansion of micro, cottage & service industry, Amguri Town has been developing day by day providing source of living to many people. In view of the above, the question of livelihood can be discussed on the following heads mentioned below:-

- Engaged in industry like Tea, Rice, Floor and Cottage etc.
- Engaged in cultivation.
- Engaged in business.
- Serving as a Govt. employee & private employee.

CHAPTER - 4 **HOUSING AND SHELTER**

4.1. HOUSING SCENARIO:-

Housing cover a large portion of an urban settlement at any point of time, It influences the quality of urban life, which in turn, affects the efficiency condition in AmguriTown is mainly characterized by inadequate amenities essential for standard living.

Though the houses in Amguri have been primarily designed for singlefamilyoccupancy, the a figure supports the commonly observed situation of familiesdoubling up in single-family dwelling units. According to 2011 census density of population inAmguri town isAmguri persons per sq.km. In the Master Plan Area as a whole the density of population is1392 persons per sq.km, in 2011. The rate of construction of new houses has not kept pace withthe rate of increase of population mainly in the urban area.

Residential buildings of Amguri are of mixed types. Generally in the old residentialareas of urban zone Assam type houses and in the newly developed areas R.C.C. houseshas been seen. In the rural areas more than 50% houses are Kutcha.

4.2. HOUSING SUPPLY MECHANISM:-

Housing supply is the main role of the state to improve living condition of the inhabitants either by direct provision or by enabling its provision. Different policies have been taken by the government to solve the housing problems especially for poor and low income group. Housing supply must address all social groups in the State including housing in urban areas, semi-urban areas and rural areas. In the recent years private builders and developers have come forward to solve the problems of housing in urban areas of the state by constructing flat. However at the present such practices have not been seen in Amguri Town. In the rural areas of Master plan area a few house has been constructed under centrally sponsored housing scheme. Recently housing in urban areas has been initiated by the central government through “Pradhan Mantri Awas Yojana – Housing for All (Urban)”scheme.“PRADHAN MANTRI AWAS YOJANA- Housing for all (Urban)”.Mission for urban area will be implemented during 2015-2022 and this mission will provide Central assistance to implementing agencies through states and UTs for providing houses for all eligible families/beneficiaries by 2022.Mission will be implemented as Centrally Sponsored Scheme (css) except for the component of credit linked subsidy which will be implemented as a Central Sector Scheme. A beneficiary family will comprise husband, wife, unmarried sons and unmarried daughters. The beneficiary family should not own a pucca house either in his/her name or in the name of any member of his/her family in any part of India to be eligible to receive central assistance under the mission. States/ UTs, at their discretion, may decide a cut-of data on which beneficiaries need to be resident of that urban area for being eligible to take benefits under the scheme. Mission with all its

components has become effective from the date 17.06.2015 and will be implemented up to 31.03.2022.

4.3. HOUSING CONDITION, TYPE OF STRUCTURE ETC.:-

Number and percentage distribution of persons living in permanent, Semi Permanent and Temporary house in 2011 are shown in the table below:

Table 4.3: Housing Condition, Type of Structure

Housing Condition	Urban Area		Rural Area		Master Plan Area	
	No. of Households	Percentage %	No. of Households	Percentage %	No. of Households	Percentage %
Permanent	949	51.44	10000	33.98	10949	35.01
Semi Permanent	882	47.8	18035	61.28	18917	60.48
Temporary	11	0.61	1364	4.63	1375	4.4

Source: Census of India.

Figure 4.3: Housing Condition

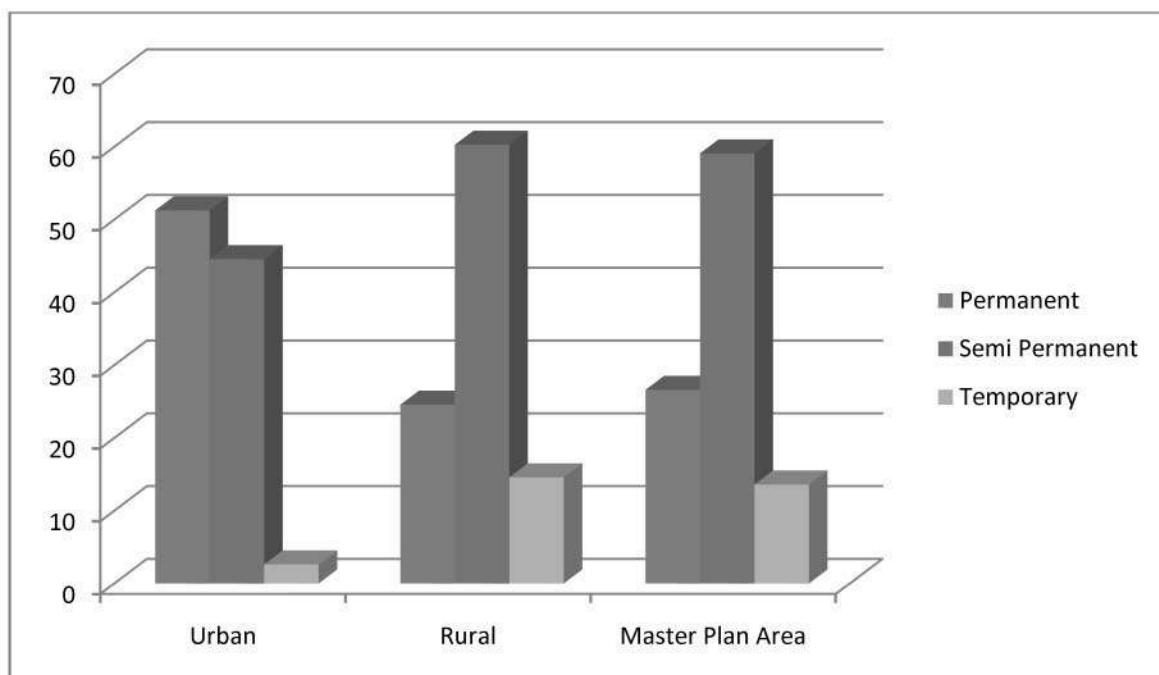
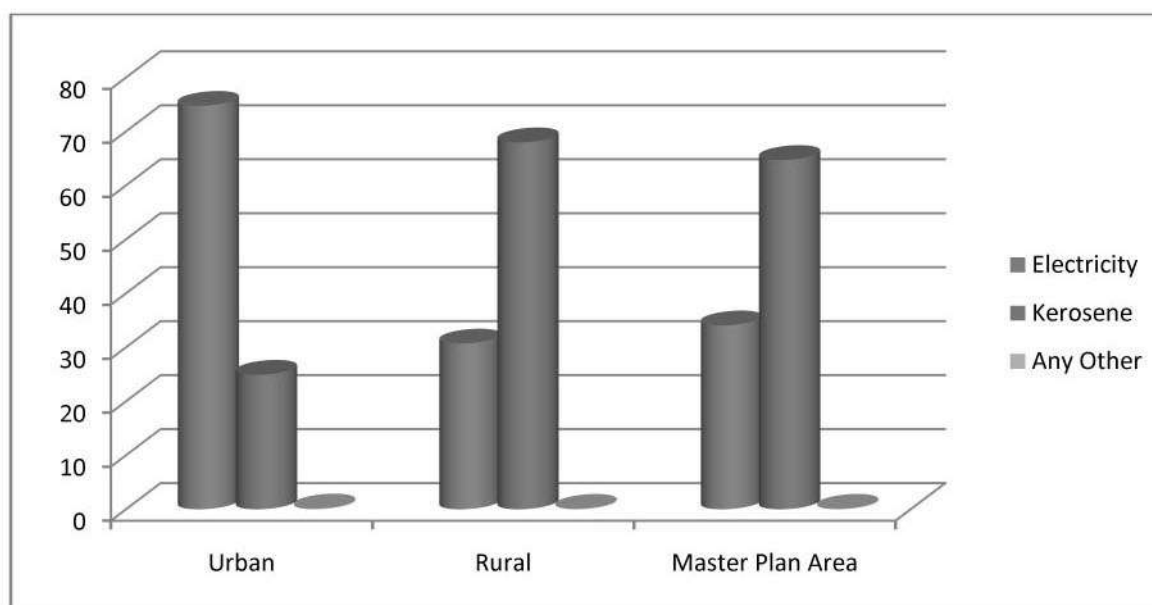


Table 4.4: Number and Percentage of Households by Source of Lighting

Particulars	Urban		Rural		Master Plan Area	
	No. of Households	Percentage %	No. of Households	Percentage %	No. of Households	Percentage %
Electricity	1586	85.96	15569	52.9	17155	54.85
Kerosene	252	13.66	13628	46.3	13880	44.38
Solar	4	0.22	115	0.39	119	0.38
Other Oil	2	0.11	11	0.04	13	0.04
Any Other	0	0	12	0.04	12	0.04
No Lighting	1	0.05	97	0.33	98	0.31
Total	1845	100	29432	100	31272	100

Source: Census of India.

Figure 4.4: Number of Household by Source of Lighting (%)**Table 4.5: Number and Percentage of Households by Main Source of Drinking Water**

Particulars	Urban Area		Rural Area		Amguri Master Plan Area	
	No of Households	Percentage %	No of Households	Percentage %	No of Households	Percentage %
Tap water from treated source	1222	66.23	10784	36.64	12006	38.39
Tap water from	3	0.16	712	2.42	715	2.29

untreated source						
Covered well	13	0.7	178	0.6	191	0.61
Un-covered well	90	4.88	957	3.25	1047	3.35
Hand pump	260	14.09	4365	14.83	4625	14.79
Tube well	115	6.23	4541	15.43	4656	14.89
Spring	2	0.11	15	0.05	17	0.05
River/Canal	33	1.79	400	1.36	433	1.38
Tank/Pond	94	5.09	7368	25.03	7462	23.68
Other source	13	0.7	112	0.38	125	0.4
Total	1845	100	29432	100	31277	100

Source:Census of India.

Figure 4.5:Source of Drinking Water (%)

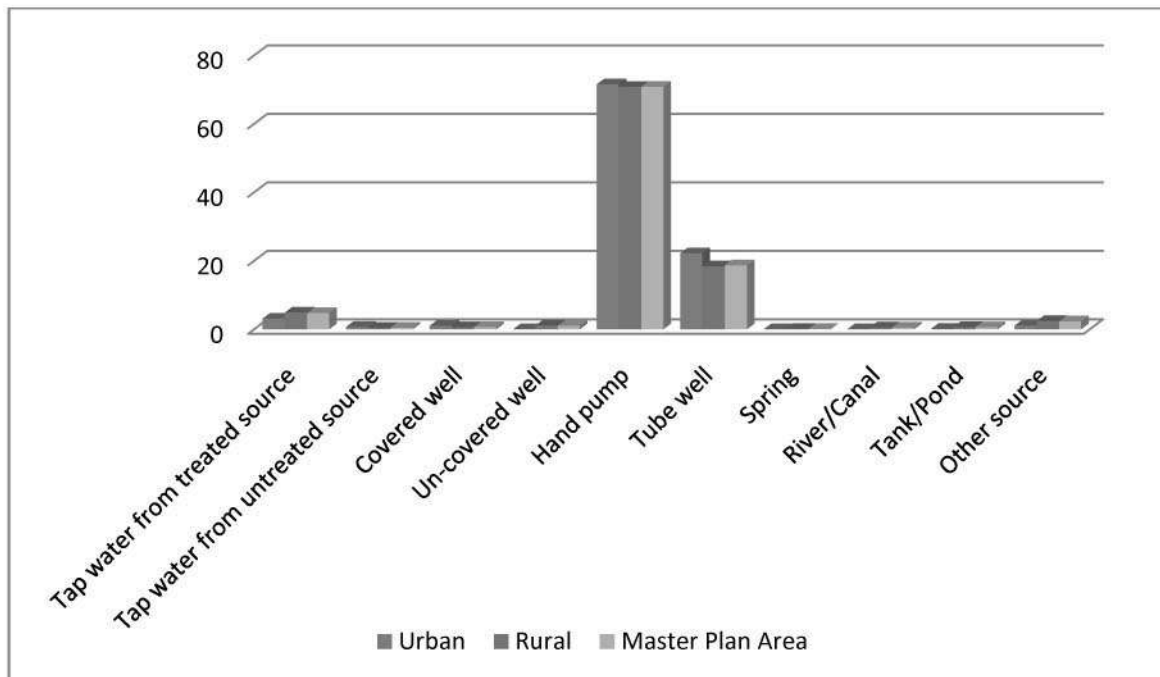


Table 4.6: Number and Percentage of Households by Type of Fuel Used for Cooking

Particulars	Urban Area		Rural Area		Amguri Master Plan Area	
	No of Households	Percentage %	No of Households	Percentage %	No of Households	Percentage %
Firewood	610	33.06	22446	76.26	23056	73.72

Crop residue	9	0.49	417	1.42	426	1.36
Cow dung cake	1	0.05	33	0.11	34	0.11
Coal etc.	0	0.00	6	0.02	6	0.02
Kerosene	32	1.73	36	0.12	68	0.22
LPG/PNG	1174	63.63	6388	21.7	7562	24.18
Electricity	0	0.00	14	0.05	14	0.04
Bio-gas	7	0.38	38	0.13	45	0.14
Any other	0	0.00	7	0.02	7	0.02
No cooking	12	0.23	47	0.16	59	0.19
Total	1845	100.00	29432	100.00	31277	100.00

Source: Census of India.

Figure 4.6: Type of Fuel Used for Cooking (%)

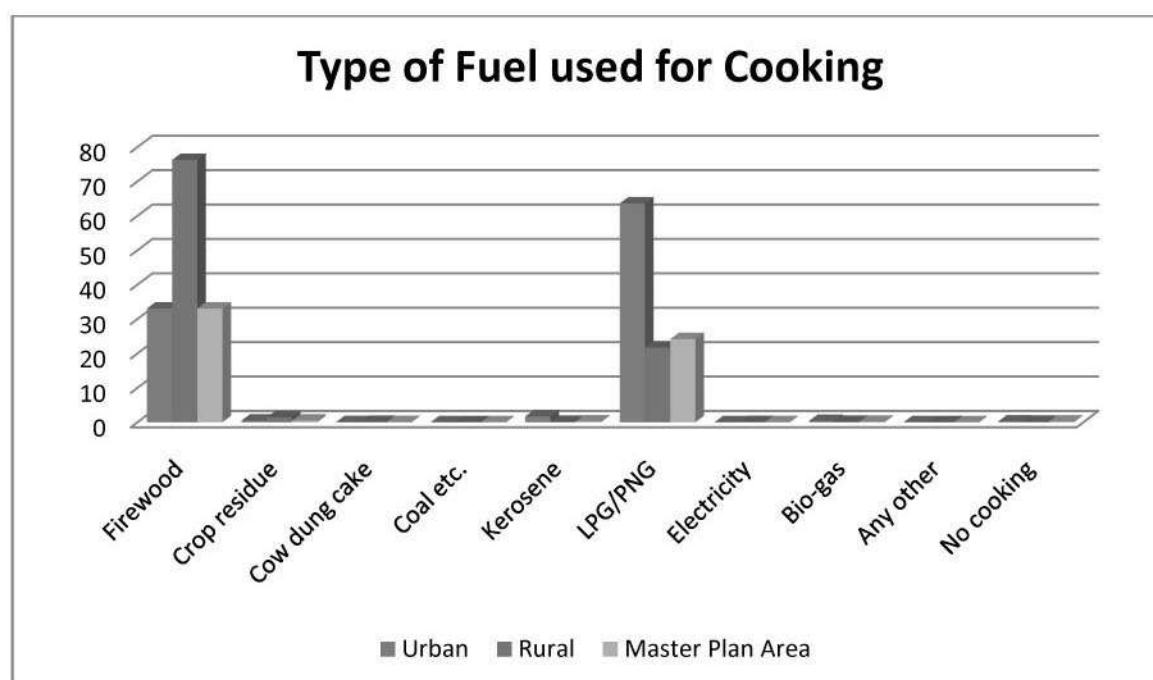


Table 4.7: Number and Percentage of Households Availing Banking Services and Number of Households Having Each of the Specified Assets

Particulars	Urban Area		Rural Area		Amguri Master Plan Area	
	No of Households	Percentage %	No of Households	Percentage %	No of Households	Percentage %

Banking Services	1434	77.72	16201	55.05	17635	56.38
Radio	308	16.69	7851	26.68	8159	26.09
Television	1112	60.27	11511	39.11	12623	40.36
Computer/Laptop with Internet	46	2.49	369	1.25	415	1.33
Computer/Laptop without Internet	168	9.11	1621	5.51	1789	5.72
Landline Telephone	142	7.70	573	1.95	715	2.29
Mobile Telephone	1322	71.65	15733	53.46	17055	54.53
Both Land line and Mobile Telephone	65	3.52	529	1.80	594	1.90
Bicycle	1020	55.28	22695	77.11	23715	75.82
Scooter/ Motor Cycle/ Moped	412	22.33	6086	20.68	6498	20.78
Car/ Jeep/ Van	213	11.54	1957	6.65	2170	6.94
None of the specified asset	162	8.78	3552	12.07	3714	11.87

Figure 4.7:Households Availing Banking Services and Having Each of the Specified Assets

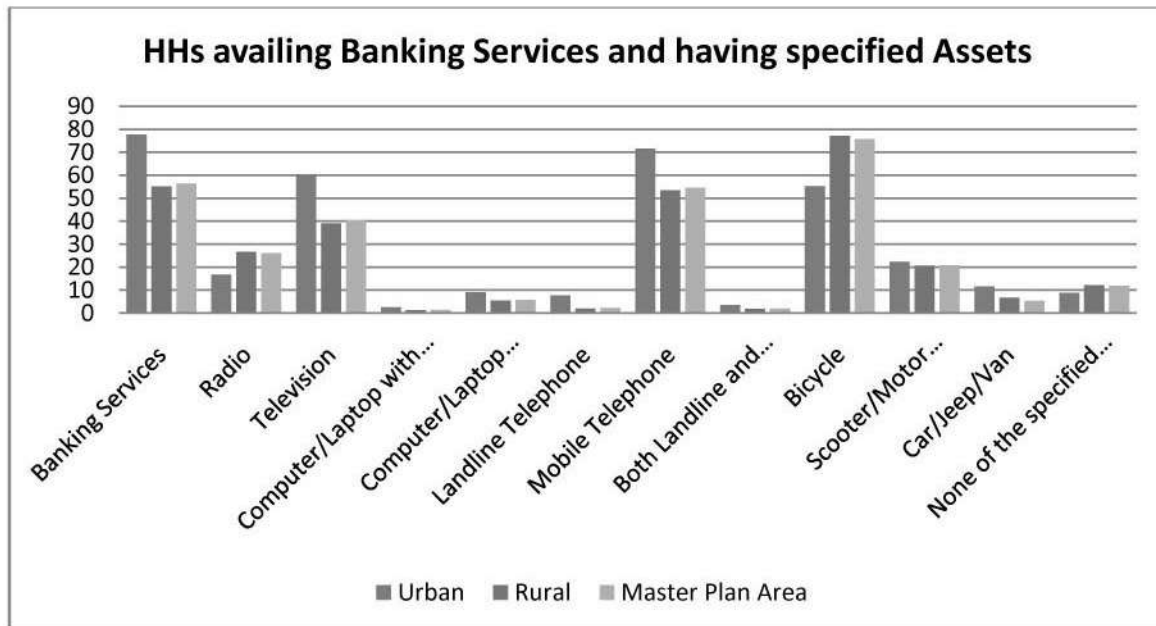
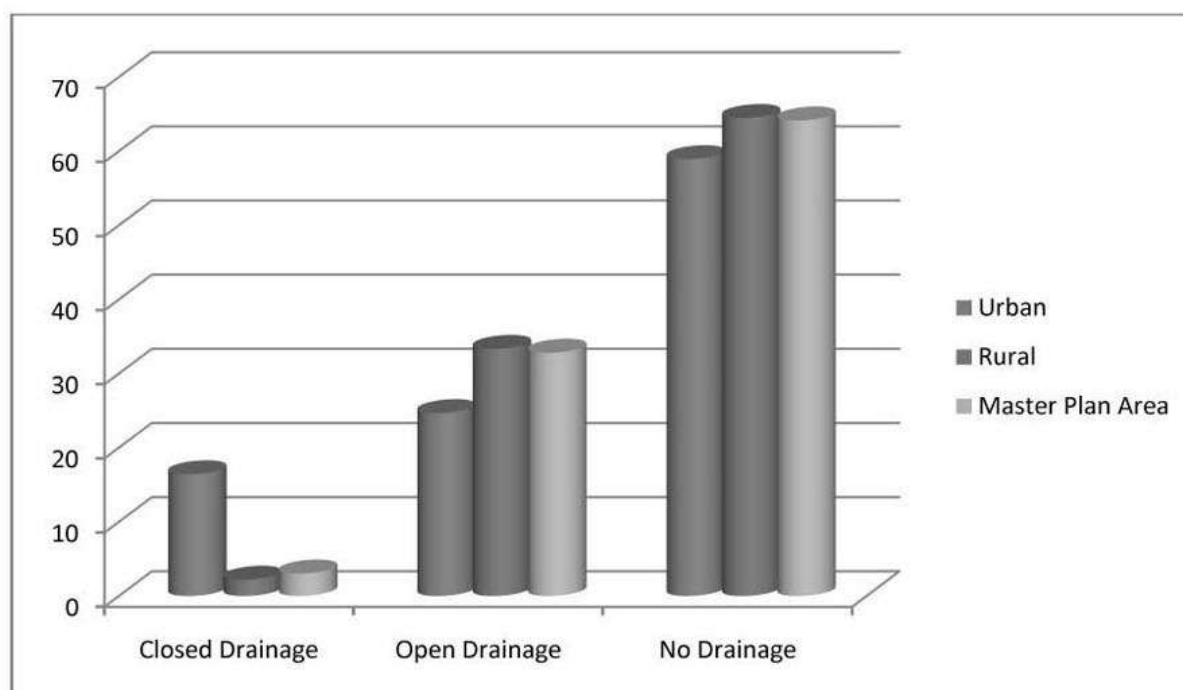


Table 4.8: Number and Percentage of Households by Type of Drainage Connectivity for Waste Water Outlet

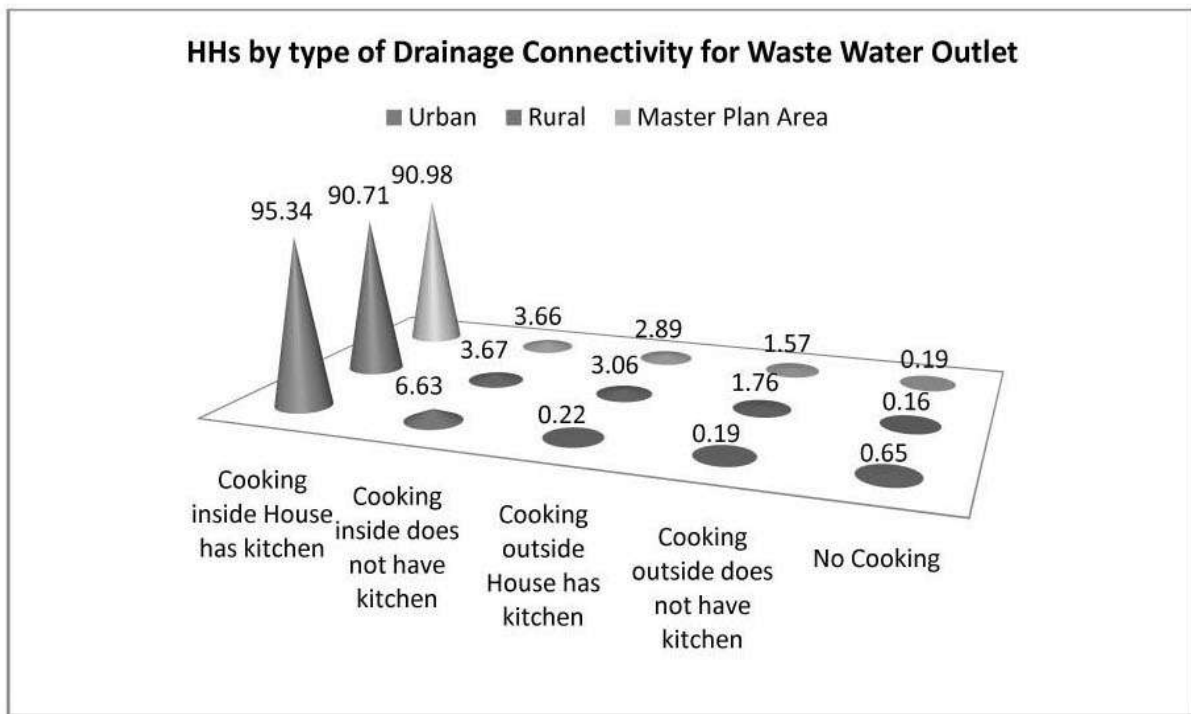
Type of Drainage	Urban Area		Rural Area		Amguri Master Plan Area	
	No of Households	Percentage %	No of Households	Percentage %	No of Households	Percentage %
Closed Drainage	303	16.42	646	2.19	949	3.03
Open Drainage	455	24.66	9811	33.33	10266	32.82
No Drainage	1087	58.92	18975	64.47	20062	64.14
Total	1845	100.00	29432	100.00	31277	100.00

Figure 4.8: Households by Type of Drainage Connectivity for Waste Water Outlet**Table 4.9: Number and Percentage of Households by Availability of Kitchen Facility**

Availability of Kitchen		Urban Area		Rural Area		Amguri Master Plan Area	
		No of Households	Percentage %	No of Households	Percentage %	No of Households	Percentage %
Cooking inside House	Has kitchen	1759	95.34	26698	90.71	28457	90.98
	Does not have kitchen	67	3.63	1079	3.67	1146	3.66

Cooking outside House	Has kitchen	4	0.22	900	3.06	904	2.89
	Does not have kitchen	10	0.19	708	1.76	685	1.57
No Cooking		12	0.65	47	0.16	59	1.19
Total		1845	100.00	29432	100.00	31277	100.00

Figure 4.9: Number and Percentage of Households by Availability of Kitchen Facility



4.4. SLUMS – SQUATTERS AND INFORMAL SECTOR:-

The Slum in urban area is a common phenomenon in India. Every city has varied set of slums defined by location, community, income group and housing typologies. Generally Slums can be identified by their informal settlement patterns. Slums are characterized by irregular clustering of small buildings, a lack of formal road networks, a high ratio of roof coverage to area, an absence of vegetation, and proximity to railways, highways, and other hazards such as steep slopes or low-lying areas which experience flooding.

Slum has not been identified till now in Amguri Master Plan Area.

4.5. HOUSING STOCK, SHORTAGE AND NEED ASSESMENT:-

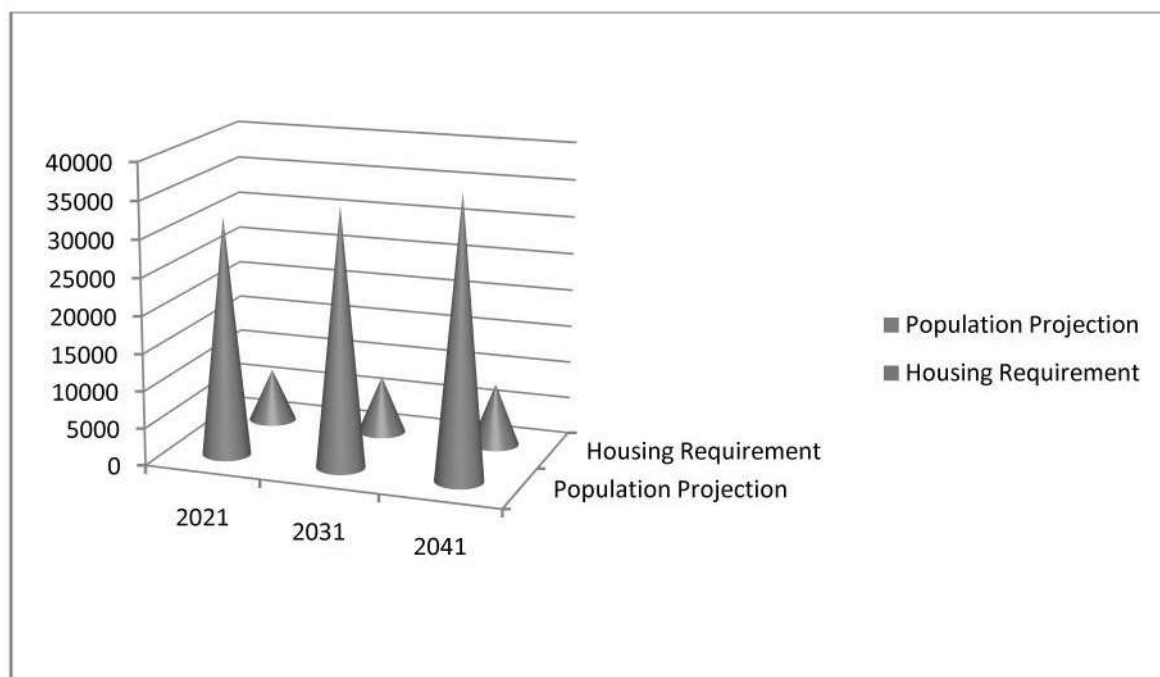
There are 1845 census houses within the Amguri Municipal Board area and 6526 houses within the Amguri Master Plan Area in 2011 Census, used as residence and residence cum other use. Out of 5997 houses approximately 3250 or 54 % of the total houses are used in residential purposes. This shows that an average of 4.5 persons occupy per house in urban area of Amguri master plan.

To find out the housing need for future a detailed study of family size, level of obsolesce, existing shortage etc. are necessary. However, on the basis of projected population and household size of 4.5 persons, the gross housing needs are depicted below:

Table 4.11: Housing Requirement in Amguri Master Plan Area upto 2041

Year	Projected Population	Gross Housing Requirement
2021	31962	7102
2031	34608	7690
2041	37473	8326

Figure: 4.11: Population Projection and Housing Requirement in AMPA upto 2041



The plan has paid attention to the magnitude of housing problem and recommended that necessary housing schemes by various public, semi-public and private agencies with the help of the Govt. and private Organizations should be undertaken with the frameworks of the Master Plan. The private developers may come forward to solve this problem.

CHAPTER - 5 **TRANSPORTATION**

5.1. NETWORK OF ROADS:-

Amguri is well connectrd by roadways,railways and airways to different parts of the state of Assam and other states of the country.Urbanroad network is considered as engines of economic growth. However, the roads of Amguri urban area are verynarrow and shoulder width is insufficient to accommodate the present trafficvolume for easy movementand there is also little scope for the widening. Amguri is well connected to the neighbouring towns by the National Highway 61(Mokokchung-Amguri Road) .

The closest airports to reach Amguri are Jorhat And Dibrugarh,located at 46.5 km and 124.4 km away from the town respectively.Both these airports are well connected with the major cities of the country like Bangalore,Delhi,Calcutta and Mumbai.

The railway station is situated at the heart of the town and it is well connected from upper Assam to lower Assam as well as other parts of the country.The railway station remains always busy and requires immediate improvement. Moreover,road junctions in the town are not technically developed and it requires immediate technical intervention.



The bus services are provided by both assam state transport corporation(ASTC)and private service providers. Hired Taxi services are also available. Amguri is well connected by roadways to different part of the Sivasagar district of assam. Rickshaws, E-rickshaws and auto rickshaws are the modes of transport available in and around the town. Tata magic and tempos are available from Amguri to Sivasagar and other town.



In this plan, emphasis has been given on the following aspects for effective transportation system in Amguri Master Plan Area.

- Optimum use of the existing transportation system through improved traffic operation and controls.
- Improvement of the existing road network through strengthening and widening.

- Provision for adequate parking facilities.
- Development of new roads and other transport facilities.

The plan recommends development of road infrastructure as per table given below:

Table 5.1: Category of Roads

Category of Roads	Name	Existing Width (m)	Recommended Width (m)
Main Roads	Dhudor Ali Road	12	21 to 24
	NH-61	15	12 to 15
	Naga Ali	12	12 to 15
	NH-37	20	12 to 20
Sub Roads	Cheunu Ali		9 to 12
	Cinema Hall Road		9 to 12
	Sewali Road		9 to 12
	Fire Brigade Road		9 to 12
	Dhunia Gaon Road		9 to 12
	Dutta Sub Road		9 to 12
	Khanikar Gaon Road		9 to 12
Others Road			Minimum 6 and 3.65 for single plot

5.2. OVERVIEW OF CRITICAL ROADS AND IMPROVEMENT:-

Amguri is well connected with the rest of the country by roads and railways. The Dhudor ali have connected Amguri with other places as shown below:

- Amguri to Namrup
- Amguri to Sivasagar connected through National Highway 37.
- Amguri to Jorhat.
- Amguri to Mokokchung.

Amguri is also connected with railway network from Tinsukia to Guwahati. The railway station of Amgurifacilitates the passengers to travel to Guwahati and also outside of Assam. Beside train plying of taxis, buses, winger and trucks are playing a major role in transporting passengers and goods to and from Amguri.

Amguri town has gained importance in the field of tea industry and business owing to its industrial base and existence of nearby industrial and business towns like Sivasagar and Jorhat. This has resulted in increase of vehicles on the roads of Amguri town. On the other hand, a good number of ASTC buses, private buses and winger play through the town.

5.3. BUS TRANSPORT TERMINALS:-

At present both ASTC and private bus stations are located along the road side of Dhudor Ali within the main town. These stations serve intra -urban traffic, i.e. regional traffic but create lots of traffic congestion in the area. Taxi and Auto stands are also located by the side of the roads. This stands are also creating congestion and obstruction to the smooth flow of traffic.

5.4. FREIGHT ZONES LOGISTICS:-

Presently, there is no truck terminus at Amguri. The loading and unloading from trucks are carried out by the side of road. The plan proposes a Truck Terminus at ward no. 2.

5.5. FOOTPATHS AND BICYCLE TRACKS:-

Footpaths are normally designed for pedestrian for pleasant and comfortable walking. In Amguri, there is no any footpath in other roads of the town. There is no cycle track in the town. Exclusive lane for slow moving vehicles, pedestrians along with spaces for street vendors are also essential for overall development of a town. The hawkers and street vendors also play an important role in urban economy. The notification of vending and no vending zone by the authority is mandatory as per the provisions of the Street Vendors Act, 2014. This improves the capacity of the lanes designed for motorized vehicles and increases the safety of slow moving vehicles and pedestrians.

The plan suggests construction of footpath in both sides of all the roads in the town by the concerned authority. The plan also earmarks cycle tracks in the town.

The width of footpath as per URDPFI guidelines is as follows:

Table 5.5: Width of Footpath

Sl. No.	Description	Width (Mtr)
1	Minimum free walkway width in residential/mixed use areas	1.8
2	Commercial/Mixed Use Areas	2.5

The URDPFI Guidelines for cycle /NMT track is given in the following table:

Table 5.5.1: Cycle Track

Description	Arterial Road	Sub-arterial Road	Distributary Road	Access Road
Non Motorized Vehicle	Segregated cycle track	Segregated cycle track	Cycle lane	Mixed/traffic
location	Between carriageway or street parking and footpath on either edge of the carriageway	Between carriageway or street parking and footpath on either edge of the carriageway	On the edge of the carriage adjacent to the footpath or parking	Not applicable
Gradient	1:12-1:20	1:12-1:20	1:12-1:20	1:12-1:20
Lane width	2.2 to 5.0m	2.2 to 5.0m	2.2 to 5.0m	Mixed with motorized vehicular traffic

Minimum width	2.5m for a two lane cycle track and 1.9m for a common cycle track and footpath	2.0m for a two lane cycle track and 1.7m for a common cycle track and footpath	1.5m	1m(painted)
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5.6. PARKING:-

At present, there is no organized parking space for the cars, two wheelers in the market area. The cars are generally parked on the main road of the town. The roads are already overcrowded with traffic and further encroachment on road surface by cars and two wheelers has resulted in obstructed traffic flow.

The plan proposes one parking area for two wheelers and four wheelers at Amguri Daily Market and Railway Station.

The recommended equivalent car space (ECS) required for different types of vehicles as per URDPFI guidelines are given in the following table for design of parking areas:

Table 5.6: Parking Space

Sl. No.	Vehicle Type	ECS
1	Car/Taxi	1.00
2	Two Wheeler	0.25
3	Auto Rickshaw	0.50
4	Bicycle	0.10
5	Trucks/Buses	2.50
6	Emergency Vehicle	2.50
7	Rickshaw	0.80

5.7. AREAS WITH MAJOR TRAFFIC CONGESTION AND PARKING ISSUE, ACCIDENT PRONE AREA:-

The maximum inter-town traffic volume is generated at the junction of Naga Ali and at NH-61 and NH-37 connecting Tini Ali.

The heavy vehicles belonging to the tea industry ply daily through the town, which is also a cause of concern for public safety.

A general survey of the movement of traffic and its characteristics was conducted in Amguri town along with the study of the road network. The Amguri town is presently beset with the following traffic problems needing immediate attention.

1. Traffic congestion in the town centre due to non-availability of regulated parking spaces.
2. Problem of congestion, inadequacies of road space and over-utilization created by thorough traffic in the town centre.
3. Problems created due to lack of transport terminal for Trucks and Buses.

4. Traffic bottlenecks created by road intersections and narrow carriageway.

5. Problems of inaccessibility due to missing links.

5.8. IMPROVEMENT OF ROTARY AND JUNCTIONS:-

The town does not have a road rotary and plan does not foresee its requirement. However, improvement of all road junctions as per IRC guidelines is urgent and important for improving the traffic scenario.

5.9. STREET LIGHTING AND PROPOSED IMPROVEMENT PLANT:-

The town is illuminated by Amguri Municipal Board with around 200 numbers of street lights of 40 watts for the convenience of the people. The Municipal Board is planning a project for solar light installation in the streets covering the 10 (ten) wards.

5.10. SIGNAGE – AVAILABILITY AND REQUIREMENT:-

The ULB, traffic & other concerned departments will assess the requirement of Signage and accordingly install the signage as per the rules and regulations for the beautification of the town as well as smooth flow of traffic and public convenience.

5.11. MAJOR PROPOSALS:-

- One Truck terminus is proposed at Govt. land at ward no. 2.
- The authority concern may develop existing bus stand with all facilities required for commuters.
- Considering the scenic beauty of the town, the plan recommends plantation along the major roads and development of traffic points to augment the aesthetic beauty of the town.
- The authority concern may take proposal to develop the right of way of National Highway as Bus stand and as notified parking area. The same is shown in the proposed land use map.

CHAPTER – 6:

INFRASTRUCTURE, PUBLIC UTILITIES & SERVICES

6.1. PHYSICAL INFRASTRUCTURE:-

6.1.1. WATER SUPPLY:-

The source of water in Amguri is mainly Tube Well, shallow tube, Pond water ring water etc. Most of the household use tube well as source of water where the supply water is not available. Water has been supplied by the Municipal Board for one hour in the morning and half an hour in the evening in all the 7 wards out of 10 wards. To this date measures have not been taken for supply of water in the remaining 3 wards by the Board. The only source of water is tube well and the ring well as ground water and surface water is readily available at Amguri town and its adjoining areas. Though the tube well and ring well are efficiently functioning, it will no longer be considered as free from contamination due to presence of a number of pit latrines. A water supply scheme is running in Amguri town. Approximately 60% of the population covered by the present water supply system through the numbers of the public stand post and house connections in wards.

The objective of a public protected water supply system is to supply safe and clean water in adequate quantity, conveniently and as economically as possible. Rising demand of water due to rapid urbanization is putting enormous stress while planning the water supply system for an area; it is evident to consider water conservation aspects, which may be possible through optimal use of available water resources, prevention and control of water and effective demand management.

As per URDPFI guidelines the norms for water requirement for institutional buildings are given below:-

Table 2.15: Requirement for Institutional Buildings

Sl. No.	Institutions	Litres per head per day
1	Hospitals (including Laundry)	-
	a) No. of beds exceeding 100	450 (per bed)
	b) No. of beds not exceeding 100	350 (per bed)
2	Hotels	180 (per bed)
3	Hostels	135
4	Boarding Schools	135
5	Restaurants	70 (per seat)
6	Day School/Colleges	45
7	Offices	45
8	Cinema, Concert Halls and Theatre	45

In addition to the above the fire-fighting water demand is also as a function of population. It is desirable that one-third of fire fighting requirements from part of the service storage. The balance requirement may be distributed to several state tanks of strategic points. These strategic points may be filled from nearby pond streams or canals by water tanker's wherever feasible.

6.1.2. DRAINAGE SYSTEM:

The drainage system at Amguri town is not so good compared to nearby towns. Due to the poor drainage and sewerage system in Amguri, creates the problem of flood in low lying area during rainy season. The existing drains are not capable of draining the surface run off out completely and as a result water logging has become a regular feature during the rainy season. Presently roadside drains carry the rain water to natural outlets towards river Jhanji. Amguri town as well as its

surrounding area is prone to flood and water logging as water level of river Jhanji rises up during monsoon. The beds of the drains have become shallow resulting in the crippling of their capacity to discharge drain waters effectively. Even in the winter too, this disability causes water logging on the drains thereby giving chances for rise of mosquitoes and flies. A contour survey can be carried out to study the existing drainage condition of the town.

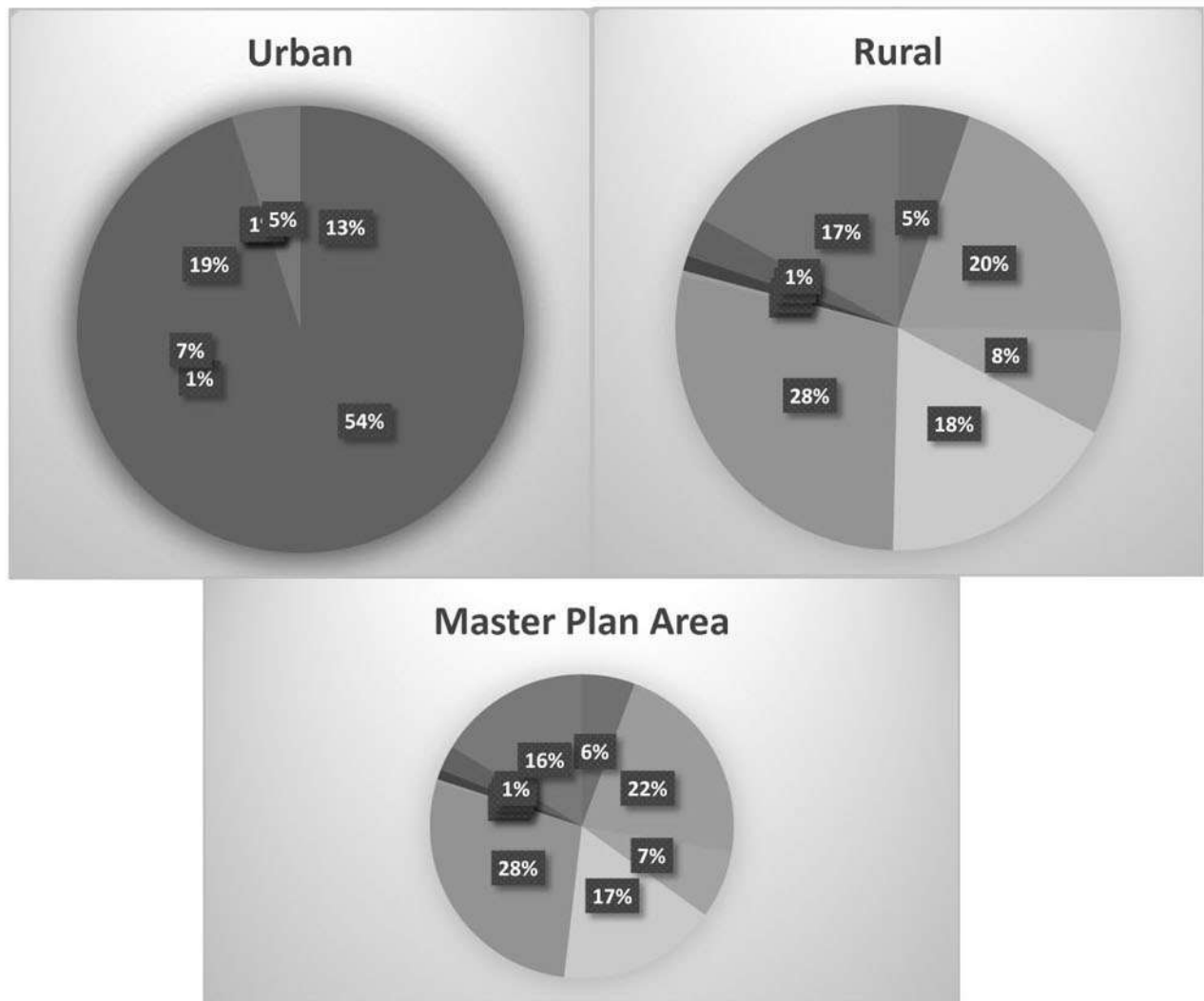
6.1.3. SANITATION:-

In Amguri Master Plan area of present more than 50% household used septic tank. The percentage of household who used septic tank is almost double in urban area than in rural area. In the Master plan area still people use open pit or other means which are not conducive for health and environment atmosphere. So, this plan suggests authority concern to take step for such type of practices and also take measures under some scheme or providing financial assistance to construct septic tank in their household or authority concern to take steps for the construction of public toilet/sewerage system. These measures will help to reduce the hazardous atmosphere in urban areas as well as in rural areas. The number and percentage of households by type of latrine facility in AMPA are shown below:

Table 6.1.3: Number and Percentage of Household by Type of Latrine Facility

Type of Latrine Facility	Urban Area		Rural Area		No. of Households	Percentage (%)
	No. of Households	Percentage (%)	No. of Households	Percentage (%)		
Pipe Sewer System	244	13.22	1522	5.17	1766	5.65
Septic Tank	997	54.04	5898	20.04	6896	22.04
Other System	21	1.14	2237	7.6	2258	7.22
Ventilated pit	133	7.21	5169	17.56	5302	16.95
Open pit	343	18.59	8340	28.34	8683	27.76
Night Soil Disposed into open Drain	0	0	122	0.41	122	0.39
Night Soil removed by human	0	0	323	1.1	323	1.03
Night Soil removed by animal	0	0	560	1.9	560	1.79
Public Latrine	15	0.81	268	0.91	283	0.9
Open	92	4.99	4993	16.96	5085	16.26
Total	1845	100.00	29432	100.00	31277	100.00

Figure 6.1.3: Household by Type of Latrine Facility (%)



The general standard for public toilets in public area and modified norms for public toilets in public places and roads recommended in URDPFI guideline are given below:-

Table 6.3: Norms for Public Toilets in Public Areas

Type	Norms for Toilets
Public Toilet	On road and for open areas every 1 km including parks, open air theatre, car parks and fuel station. Toilets shall be disabled friendly and in 50: 50 ratios (M / F).
Signage	Signboards on main streets shall given directions and mention the distance to reach the nearest public convenience of visitors. Helpline number shall be pasted on all toilets for complaints / queries.
Modes	Pay and Use or free in pay and use toilets entry is allowed on payment to the attendant.

Maintenance / Cleaning	<p>The toilets have both men and women attendants. Alternatively automatic cleaning cycle covering flush, toilet bowl, seat, hand</p> <p>Wash basin, disinfecting of floor and complete drying after each use can be adopted. Public toilets shall be open 24 hrs.</p>
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The urban local body can follow the above norms for construction of public toilet and maintenance thereafter.

6.1.4. SEWERAGE NETWORK:-

Like the rest of the towns of the state, Amguri also does not have sewerage network and treatment plant. Human night soil is generally disposed at conventional septic tanks or low cost sanitary pits. Till the execution of the sewerage scheme, it is recommended to encourage the people to construct sanitary latrines of their own and to cover poor families under Swachh Bharat Mission. The use of service latrine should be banned as per law for the health and hygiene of the community. It is also suggested that, concern development should initiate action to implement sewerage system for Amguri town.

6.1.5. SOLID WASTE MANAGEMENT – CURRENT SITE ASSESSMENT, LAND OWNERSHIP, PROPOSED SITE:-

There is a planned solid waste management system or even a landfill site for scientific disposal of solid waste at Amguri.

6.1.6. ELECTRIC SUB-STATION AND MAJOR TRANSFORMERS:-

Power requirement of Amguri Master Plan Area is met by the ASEB grid. Around 75% of the total population in the Town have electric connection. Amguri is also facing the problem of acute scarcity of electric power like the other towns of the state. In peak hours load shedding for one or two hours is a way of life for its residents. Since the consumption is increasing at a fast rate, the department concerned fails to cater to the needs of the people causing load shedding a bitter experience. The authority concerned provides around 200 numbers Tube lights/CFLs of 40 Watts in the street of Amguri town for the benefit of the people.

6.2. SOCIAL INFRASTRUCTURE:-

6.2.1. SCHOOLS, COLLEGES AND UNIVERSITIES:-

The progress and development of a place is closely related to expansion and development of education. There are many good educational institutions in the town, catering the needs of many nearby villages and tea-gardens. Amguri is known for its eminent scholars. Schools provide education both Assamese and English Medium. Most of the schools follow syllabus of Secondary Education Board of Assam, others follow Central Board of Secondary Education (CBSE). For higher secondary (10+2) both schools follow syllabus of Assam Higher Secondary Education Council (AHSEC). Some of them are: The Auniati Hemchandradev Higher Secondary School (Science and Commerce Stream only at 10+2 level), Amguri Girls High School, Amguri College, National Academy (Junior College), Don Bosco



High School, Pengera Girls High School, Jnan Bikash Vidyapith, Arunadoi Academy etc . The nearest University is the Dibrugarh University.



URDPFI guidelines for educational facilities are given below:

Table 6.4: Norms for Pre-Primary Nursery school to Higher education

Sl. No	Category	Student Strength	Population served per unit	Area Requirement	Other Controls
1	Pre- Primary Nursery School	-	2500	0.08 Ha.	To be located near park
2	Primary School (Class I to V)	500	5000	Area per School = 0.40 Ha. A) School building area = 0.20 Ha. B) Play field area = 0.20 Ha.	Playfield area with a minimum of 18 m X 36 m to be ensured on effective play.
3	Senior Secondary School (VI to XII)	1000	7500	Area per School = 1.80 Ha. A) School building area = 0.60Ha. B) Play field area = 1.00 Ha. C) Parking area = 0.20 Ha.	Playfield area with a minimum of 68 m X 126m to be ensured on effective play.
4	Integrated School without hostel facility (Class I to XII)	1500	90000 To 1 Lakh	Area per School = 3.50 Ha. A) School building area = 0.70 Ha. B) Play field area = 2.50 Ha.	To be located near a sport facility

				C) Parking area = 0.30 Ha.	
5	Integrated School with hostel facility (Class I to XII)	1500	90000 to 1 Lakh	Area per School = 3.90 Ha. A) School building area = 0.70 Ha. B) Play field area = 2.50 Ha. C) Parking area = 0.30 Ha. D) Residential area = 0.40Ha.	To be located near a sport facility
6	School for Physically Challenged	400	45000	Area per School = 0.70 Ha. A) School building area = 0.20Ha. B) Play field area = 0.30 Ha. C) Parking area = 0.20 Ha.	To be located near park or sport facilities
7	College	1000 To 1500	1.25 Lakhs	Area per School = 5.00 Ha. A) School building area = 1.80Ha. B) Playfield area = 2.50 Ha. C) Parking area = 0.30 Ha. D) Residential area = 0.30 Ha.	

From the survey it has been found that the area most of the education institutions are not sufficient as per URDPFI guidelines and there are no adequate playfields and parking facilities.

So, this plan suggests to take measures by the education department as well as private institution to increase the area of primary school upto 0.40 Hectare including playfield area, for High & Higher Secondary School upto 1.80 Hectare including playfield and parking area and for the intermediate school upto 3.50 hectare including playfield, parking facility and hostel facility as per URDPFI guideline.

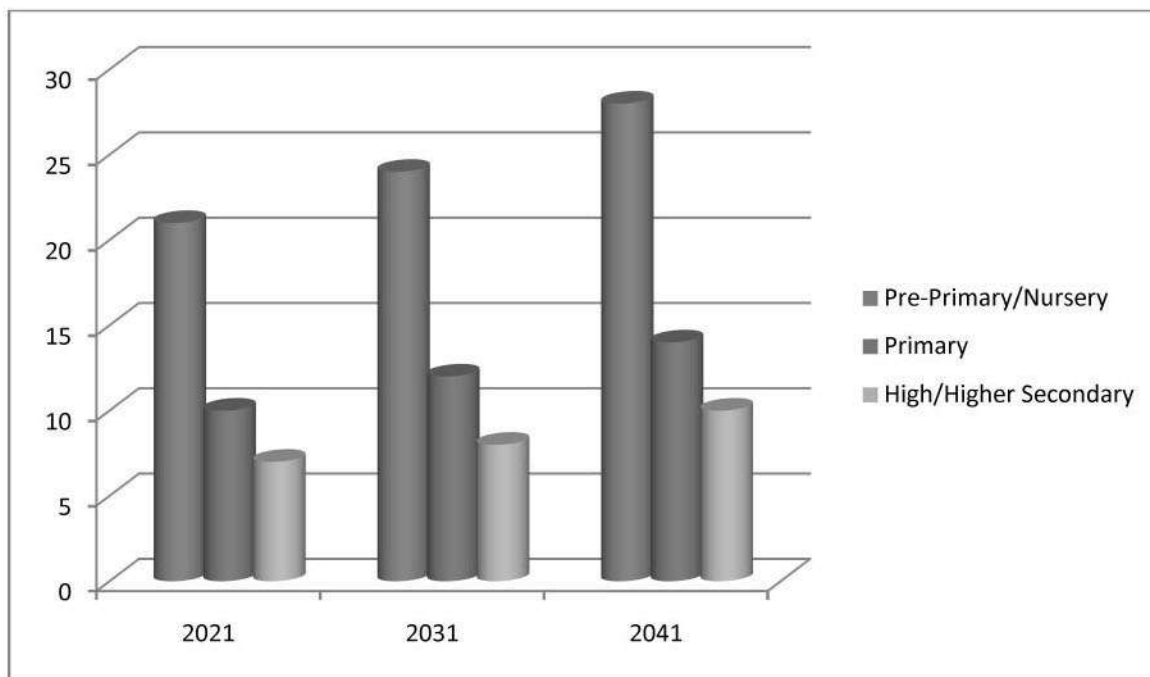
This plan also suggests for the provision of school for physically challenged child /persons in an area of about 0.70 hectare for the enrolment capacity of 400 with adequate playfield and parking facility by the education department or by any NGO associated with social upliftment of the region.

The table below shows the number of students and additional school required in Amguri Master Plan Area during 2021-2041.

Table 6.5: Additional School Requirement in Amguri**Master Plan Area**

Year	Projected Population	Additional School Required		
		<u>Pre-Primary/ Nursery</u>	<u>Primary</u>	<u>High/Higher Secondary School</u>
		Student strength-500 Population served per unit-2500	Student strength-500 Population served per unit-5000	Student strength-1000 Population served per unit-7500
2021	31962	21	10	7
2031	34608	24	12	8
2041	37473	28	14	10

Figure 6.5: Additional School Requirement in Amguri Master Plan Area



Source: Estimated by Town & Country Planning, Sivasagar

The shortage of schools in the plan area, to some extent has been fulfilled by the private institutions at present and it is also hoped that in the future, private institutions will play an important role to mitigate the shortage of primary schools as well as High and Higher Secondary schools.

6.2.2. HIERARCHY OF HOSPITALS AND HEALTH CENTRES: -

In Amguri town there is a CHC in the mid of the Town. Apart from that "Amguri Institute of Medical Speciality" known as AIMS has set a trend in supplying health care services to the public with a vast facilities. It is the one and only MultiSpeciality poly clinic in the Amguri Town which is set with enriched digital technologies. Besides, there are Primary Health Centres, Secondary Health Centres and Sub Centres in specified places of Amguri Master Plan Area. In spite of that, considering the population growth in greater Amguri area, medical facilities at present are not adequate, as a result large no. of patients rush to Dibrugarh for better treatment.

URDPFI guidelines for health care facilities:

In the health care facilities the size of a hospital depends upon the hospital bed requirement, which in turns is a function of the size of the population it serves. As per URDPFI guideline the calculation of number of beds is based on:-

- a) Annual rate of admission as 1 per 50 populations
- b) Average length of stay in a hospital as 5 days

Since the projected population for Amguri Master Plan upto the year 2041 is 37473, as such, the number of beds required for the said population is:-

- i) No. of beds days per year = $(37473 \times 1/50) \times 5 = 3747$
- ii) No. of beds required with 100% Occupancy = $3747/365 = 10$

The classification of healthcare facilities as URDPFI guideline is given in the following table:-

Table 6.6: Health Care Facilities

Sl. No.	Category	No. of Beds	Populationserved per unit	Area Requirement
1	Dispensary	-	15000	0.08 to 0.12 Ha
2	Nursing Home, Child Welfare & Maternity Centre	25 to 30	45000 to 1.00 Lakh	0.20 to 0.30 Ha
3	Polyclinic	Some observation bed	1.00 Lakh	0.20 to 0.30 Ha
4	Intermediate Hospital	200 Initially the provision may be for 100 beds including maternity	1.00 Lakh	Total Area = 3.7 Ha. i) Area for hospital = 2.70 Ha. ii) Area for Residential Accommodation = 1.00 Ha.
5	Family Welfare Centre	As per requirement	50,000	Total Area = 500 Sqm to 800 Sqm
6	Diagnostic Centre	As per requirement	50,000	Total Area = 500 Sqm to 800 Sqm
7	Rehabilitation Centre	-	-	As per requirement

This plan suggests to take appropriate measures by the health department for the provision of 5 nos. of dispensaries at various location within the Master Plan Area covering an area of 0.08 – 0.12 hectare per dispensary serving at least 15,000 persons. This plan also suggests to upgrade the existing civil hospital upto 200 beds with all modern healthcare equipment or serving at least 1(One) Lakh population. This plan also suggests to set-up a family welfare centre to serve at least 50000 persons by the health department and also a Rehabilitation centre by the Govt. or by any NGO for the upliftment of deprived class of community.

6.2.3. PARKS AND RECREATION SPACES:-

Amguri Master Plan Area has only 0.374sqkm of land for recreational facilities. There is also a library in the town. There is a park in Amguri town. There are community Halls/Bhawans within the Amguri Master Plan area. In addition to this, numerous vacant plots of land serve as play grounds. But now these are occupied by newly constructed badges leading to shortage of open spaces in the planned area.

CHAPTER – 7:
ENVIRONMENT AND CITY BEAUTIFICATION PLAN

7.1. DESCRIPTION OF ECO-FRIENDLY AREAS:-

The NH-61 passing through the Amguri Town. There are several tea gardens in and around the Amguri Master Plan Area. The nearest river Jhanji is flowing by the western side of the Town. Besides, there are parks and playgrounds in the Master Plan Area and also many clubs and organizations for co-curricular activities. There is an Amguri Sports Association and a social organization called Maruwari Yuba Manch.

The Town is surrounded by a large number of monuments including historical tanks, temples and places which serve as important tourist destinations in the State.

7.2. PLAN/MEASURES FOR PROTECTION AND CONSERVATION OF ENVIRONMENTALLY –FRIENDLY ZONES:-

Being environmental friendly simply means having a lifestyle that is better for the environment. It's all about taking small steps towards mother earth so as to make this planet a better place for our communities and generations to come. A good way would be to start with conserving water, driving less, walking more, consuming less energy, buying recycled products, eating locally grown vegetables, joining environmental groups to combat air pollution, producing less waste, planting more trees and many more. The more that we do on our part the faster we will create an environment of living that promotes sustainability.

In the environmentally friendly zone, there is more than just a good recycling programmed in place. People of the town who are committed to conservation and preservation of resources should encourage options like community play grounds, public transportation, green construction and work to change the way that fossil fuels and other resources are used to support community services.

This plan suggests following proposals for protection and conservation of environmental friendly zones:-

- People of Amguri Town should join hand with environmental groups to protect the town and make the environment clean and green.
- Reduce, reuse, recycle waste hierarchy is the order of priority of actions to be taken to reduce the amount of waste generated and to improve overall waste management processes and programs.
- Plantation habit should be grown up among the people .For this necessary awareness camp should be organized by competent authority for conservation of natural resources and composting system.
- Steps should be taken by the authority to stop people from littering on roads. Instead, educate them to put trash and garbage in dustbins. The pile of garbage on road hampers the beauty of the city and also pollutes the air

7.3. CITY BEAUTIFICATION PLAN/ PROPOSALS:-

To improve town's appearance and aesthetic view, neighbourhoods often try to update what is known as streetscape, which pertains to the area between the driving lanes and the edge of the private property. Partly this is a popular strategy because it is public space and it's easy for the government to dictate what will happen there. In truth, streetscape can be quite effective in uniting block faces or a series of blocks that are discordant in some way, because streetscape often includes plantings, the effect is to soften the view created by streets and hopefully sidewalks. Care in the choice of materials and in the quality of the installation makes all the difference in this form of beautification.

In addition to streetscape, sometimes we need a focal point. This might be public art and open air theatre, fountains, a clock tower or grouping of tall grasses. If we already have a lonely statue or old historical building with nothing around it, maybe we should add planting beds of considerable size, an inviting bench or two, and maybe an interpretive sign explaining the rest of the story. A tree planting project, either on a vacant plot, in a park, or in the parkway between the sidewalk and the street is great for improving Town's appearance over the course of a few years at a relatively low cost. Voluntary schemes should be taken up by neighbourhood basis for cleaning up the park of the Town. Project should also be taken up for cleaning the river or stream. Litter collects on the banks and then ultimately in the water, especially when no trash cans are provided.

7.4. ROADSIDE PLANTATION:-

The main object of road side plantation is to provide protection to road, traffic, check soil erosion, food, fuel, fodder and timber to the society and mitigate climate change issues. Plantation is durable assets that produce fruits and raw-materials for agro based industry, and also generate livelihood after 7 to 10 years.

This plan suggests the social forestry department to prepare project on road side plantation with details of road to be covered, length of road and species of plants to be planned with numbers of plants for entire Amguri Master Plan area.

Plantation of fruit bearing plants, suitable to local agro-climatic condition should be done in every area of the Master plan. The authority concerned should take steps for organizing camp and awareness program for road side plantation and educate the people about the benefits of road side plantation including its impact on city's landscape.

7.5. URBAN AGRICULTURE AND URBAN FORESTRY:-

Urban Agriculture is the new culture that is catching up in emerging cities. Since the population growth rate is very high, natural resource to feed the increasing population in coming days is going to be a difficult task. So, urban agriculture is seen as a big solution to the problem.

Urban forestry is the careful care and management of trees in urban settings for the purpose of improving the urban environment. Urban forestry advocates the role of trees as a critical part of the urban infrastructure. Urban forest functions are thus often oriented toward human outcomes, such as shade, beauty and privacy. Urban forests bring many environmental and economic benefits to town. Among these are energy benefits in the form of reduced air conditioning, reduced heating

by shading buildings, homes and roads, absorbing sunlight, reducing ultraviolet light, cooling the air and reducing wind speed.

So, urban forestry scheme should be taken by competent authority for afforesting degraded forest land in the Amguri Master plan Area. This type of scheme will act against climate change by creating a carbon sink and against air pollution in the town. This plan also suggests for starting tree surveys in the town which can be conducted by NGO and college or school students. A plan should be framed to create small nurseries in Govt. schools as well as in private institutions where there is extra space.

7.6. PUBLIC RAIN WATER HARVESTING SCHEME:-

Rainwater harvesting is a process involving collection and storage of rain water that runs off natural or man-made catchment areas, e.g. roof top, Compounds, rock surface or hill slopes or artificial repaired impervious/semi-pervious land surface.

Due to deforestation and the consequent ecological imbalance, the ground water levels are going down day by day. The constant rising demand of water supply especially from the urban areas does not match with the surface water sources, as a result of which the water reserves beneath the ground level are over exploited. This consequently results in the water level depletion.

Water harvesting apart from recharging the ground water level, increases the availability of water at a given place at a given point of time. It also reduces the power consumption. It further reduces the run off which chokes the storm water drains, artificial flooding, chances of soil erosion and improves the quality of water. The plan suggests rainwater harvesting scheme to be implemented by a competent authority. Moreover, the urbanization trend reduces the infiltration rate of rain water into the sub-soil thereby reducing ground water recharging.

7.7. DEVELOPMENT OF PARKS AND RECREATION SPACES:-

The Plan recommends 0.374 sqkm of land for recreational purposes. The land earmarked for parks and recreation is not sufficient for the increasing population. This plan is not in a position to increase the land for parks and recreation as required for the proposed population due to non-availability of Government land in the plan area. The plan envisages a Town hall to meet the social and cultural needs of the town and also recommends modernizing the existing play ground with adequate infrastructure.

7.7.1. URDPFI GUIDELINE FOR PARKS AND RECREATION SPACES:-

The provision of socio-cultural facilities shall correspond to the changing urban demography and work life style.

Table 7.1: Norms for Socio-Cultural Facilities

SL. No.	Category	Population Served Per Unit	Land Area Requirement

1	Anganwadi – Housing Area/Cluster	5000	200-300 Sqm
2	Community Room	5000	750 Sqm (NBC)
3	Community Hall/Marriage Hall/Library	15000	2000 Sqm
4	Music, Dance and Drama Centre	100000	1000 Sqm

Table 7.2: Norms for Recreational Facilities

SL. No.	Category	Population Served Per Unit	Land Area Requirement
1	Housing Area Park	5000	0.50 Ha
2	Neighbourhood Park	15000	1.00 Ha
3	Community Park	100000	5.00 Ha

Table 7.3: Norms for Sports Facilities

SL. No.	Category	Population Served Per Unit	Land Area Requirement
1	Residential Unit Play Area	5000	5000 Sqm
2	Neighbourhood Play Area	15000	1.50 Ha
3	District Sports Centre	100000	8.00 Ha

7.8. BEAUTIFICATION OF MAZOR TRANSIT ZONE:-

Amguri has emerged as a major transit zone for Oil and Tea. The Oil and Tea of Amguri region transit to all over India. So, it is very much essential to beautify and upgrade the major traffic points like bus stand, Railway station and market area of this emerging transit zone of upper Assam.

7.9. ROAD SIGNAGE AND STREET FURNITURE:-

Road signs are signs erected at the side of or above roads to give instruction or provide information to road users. The earliest signs were simple wooden or some milestones. But in course of time, many states of India have been adopting pictorial signs or otherwise simplified and standardized their signs to overcome language barriers and enhance traffic safety, such pictorial signs use symbols in place of words.

Street furniture is a collective term for objects and pieces of equipment installed on streets and roads for various purposes. It included Benches, traffic barriers, bollards postboxes phone boxes, street lamps, traffic lights, traffic signs, bus stops, taxi stand, public lavatories fountains, public

sculptures and waste receptacles an important consideration in the design of street furniture is how it affects road safety.

In Amguri Master Plan Area existing road signs and furniture are inadequate for increasing traffic and those are not also scientifically designed. So, the plan suggests to authority concern to take steps for the installation of warning, priority, prohibitory, mandatory, information, facilities, service, direction, position and indication signs in the roads of Amguri town, so that local people as well as outsiders can be benefitted and road safety can be maintained.

In Amguri Master Plan area presently there is no street furniture necessary for the public. The concern authority should take steps for the construction of public lavatories at important public places and installation of benches in the park and public places, post boxes, bus stop, taxi stand, waste collectors etc.

This plan recommends for preparation and execution of a city beautification plan covering street light, traffic signal etc. that will enhance the beauty of this resourceful town.

CHAPTER – 8:

LAND USE PLAN

8.1. DEVELOPABLE AND NON – DEVELOPABLE AREA OF THE MASTER PLAN:-

Urban growth and development is often conditioned by the natural landscape like hills, water bodies, forests and manmade impediments like railway line, major roads, river, canals etc. It is also conditioned by the resources and technology employed in overcoming the growth impediments and constraints.

Existing Amguri Master Plan covers an area of 41.35 sqkm (4135.00 hectare). Except the National Highway 61, passing through the middle of the Town, no other physical features are constrains for development. The soil is very fertile and good vegetation is observed in the region.

The quality of urban life and its functional efficiencies are governed by its land-use pattern. In order to understand and analyze systematically the functional relationship between various uses particularly the place of working, living and recreation, a detailed landuse survey was conducted during 2019 to 2022 and is analyzed up to 2041 to estimate the present and future need of the Town. The present Amguri Municipal Board covers an area of 2.54 sqkm (254 hectare), while the existing Master Plan covers an area of 41.35 sqkm (4135 hectare), out of which total developed area is 895.70 hectare or 8.957 sq.km.

8.2. EXISTING AND PROPOSED LAND–USE:-

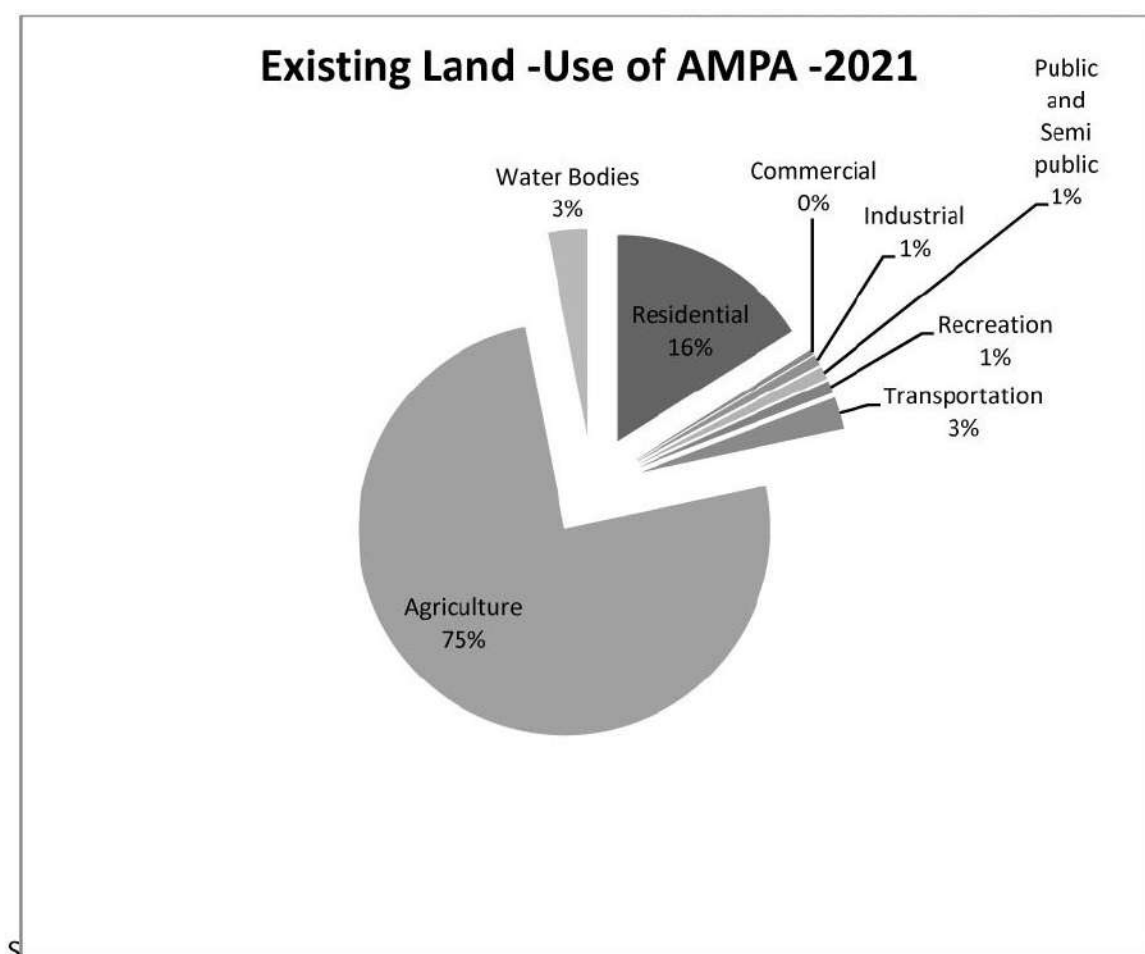
The existing various uses of land and the areas occupied by each use in Amguri Master Plan Area has been shown in the following table:

Table 8.2: Existing Land-Use of AMPA - 2022

Sl. No.	Categories	Amguri Master Plan Area in sqkm	Percentage of Amguri Master Plan Area (%)	Percentage of Developed Area (%)
A.	DEVELOPED AREA			
1	Residential	6.64	16.07	74.20
2	Commercial	0.1574	0.38	1.76
3	Industrial	0.3326	0.80	3.71
4	Public and Semi public	0.406	0.98	4.53
5	Recreation	0.3866	0.93	4.32
6	Transportation and communication	1.0288	2.48	11.48
	Total	8.957	21.64	100.00
B.	UNDEVELOPED AREA			
7	Agriculture	31.1199	75.26	
8	Water Body	1.2824	3.10	
	Total	32.4023	100.00	
	TOTAL MASTER PLAN AREA	41.35		

Source: Town & Country Planning, Sivasagar Land Use Survey 2020.

Figure 8.2: Existing Land-Use of AMPA - 2021



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Land use planning has a bearing on the expansion of the Town and put pressure on rural areas. A change in urban economic function causes changes in population. The decision to locate administrative block, commercial activities and industrial estates in urban areas stimulates general economic development and accounts for population growth resulting in opportunities for employment, increased income and business opportunities.

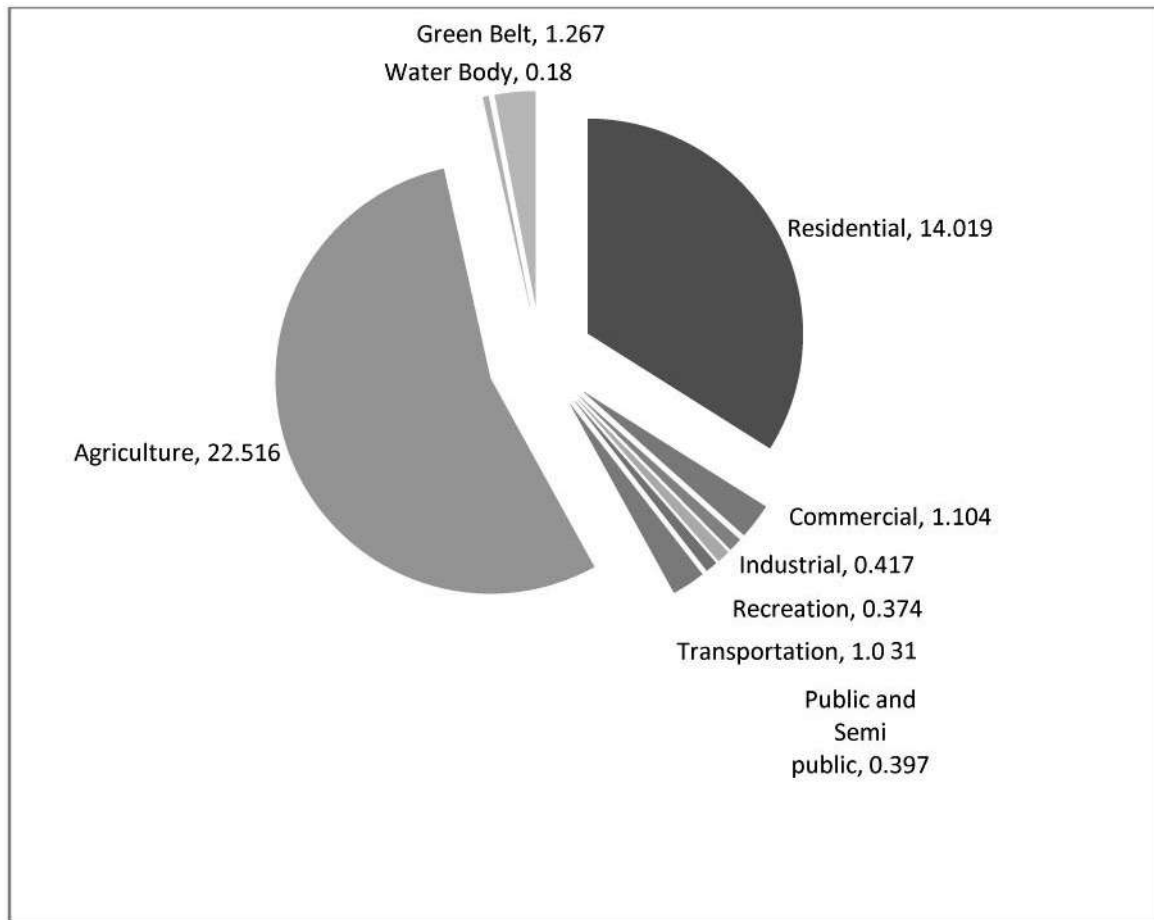
The following table shows the proposed distribution of land uses in Draft Master Plan for Amguri 2021-2041.

Table 8.3: Proposed Land-Use of Amguri Master Plan Area 2041

Sl. No.	Categories	Amguri Master Plan Area in sqkm	Percentage of Amguri Master Plan Area (%)	Percentage of Developed Area (%)
A.	DEVELOPED AREA			
1	Residential	14.019	33.90	80.58
2	Commercial	1.104	2.66	6.35
3	Industrial	0.417	1.13	2.71
4	Public and Semi public	0.397	0.96	2.28

5	Recreation	0.374	0.91	2.15
6	Transportation and communication	1.031	2.49	5.93
	Total	17.396	42.05	100.00
B.	UNDEVELOPED AREA			
7	Agriculture	22.516	54.45	
8	Green Belt	0.180	0.44	
9	Water Body	1.267	3.06	
	Total	23.963	57.95	
	TOTAL MASTER PLAN AREA	41.35	100.00	

Figure 8.3: Proposed Land-Use for Draft AMPA upto 2041



8.3. COMPOSITE ZONES OR MIXED ZONES:-

With rapid urbanization and growth of urban population the demand for housing and market complex has increased manifold. The main item of development in the area will be development of well planned roads, drains, provision of external electrification, water supply and a site for community centre with a parks and a neighbourhood shopping centre.

It is proposed to develop 0.17 hectare of land for local shopping centre, 0.32 hectare for development of a park and for neighbourhood community centre and 1.59 hectare of land for road network and roadside drain.

CHAPTER – 9

PROPOSED PROJECT, BRIEF AND TENTATIVE FUNDING SOURCE

9.1. IDENTIFY PRIORITY SECTORS AND PROJECTS:-

The plan proposals for Amguri Master Plan Area spread up to 2041. It is quite obvious that the natural development will continue and the private developers will play an important role in this respect. As such, the private development is encouraged in conformity with the Master Plan. It is strongly recommended to stop unplanned and sporadic developments but to encourage balance planned and sustainable development where the provision for necessary physical infrastructure and socio-economic amenities are economically made possible. There are some immediate necessities as pointed out by the various stake holders, which are to be taken up as priority schemes for the Master Plan Area which is listed below:

- Widening and improvement of roads, with street lights and demarcation of notified parking area.
- Improvement of existing Amguri Daily Bajar.
- Construction of a Tourist lodge and a Marriage hall.
- Construction of a Town Hall & old age home.
- Construction of Slaughter house.
- Improvement of existing traffic signal points and setting up new ones.
- Setting up of Organic farming industry.
- Setting up of Micro Small and Medium Enterprises.(MSME)
- Improvement of existing A.S.T.C. Bus station.
- Construction of Vendor and Hawker market.
- Construction of public bus stand and truck stand.
- Construction of Auditorium.
- Improvement of existing hospital and dispensaries.
- Construction of cold storage, ware house etc.
- Development and Construction of playground and Indoor stadium.
- System of regular collection and disposal of garbage in the master plan area by the concerned authority.
- Scheme for Solid waste Management system as per waste management Rule,2016.
- Preparation and execution of a comprehensive drainage scheme.
- Execution of independent Residential Land Development.
- Water supply scheme
- Proposal for fuel filling station and LPG go down.

Necessary schemes for development of land and to provide necessary incentive to attract industrial enterprises in the areas earmarked for industries Changmai Knowar Gaon.

In the first phase, the schemes like widening and improvement of roads, construction of new roads, provision for required spaces for parks, playgrounds and parking places and improvement of commercial and market areas including existing market, daily bazaar etc. can be taken up. The Town Committee has to play an important role in liaison with other Govt. agencies in formulation and

execution of such schemes in the Master Plan Area. All the above schemes need to be carried out to make the plan area in to healthy place of living.

In addition to the above, the plan also recommends for the establishment of Health centre, construction of fly-over, construction of Administrative block housing and Govt.offices under one roof.

9.2. FUND REQUIREMENT FOR EACH SECTOR/ PROJECT:-

Fund requirement for each sector project will be finalized by the ULB & concerned line department after preparation of detailed project report as per Govt. instruction.

9.3. IDENTIFY LAND SITE FOR PROPOSAL:-

The plan finds the following sites are suitable for taking up the proposals in accordance with the existing trends of growth as well as for balanced development:

- One Bus Terminus at Dulia Saral Gaon.
- One Truck Terminus near near ward no. 2.
- One parking area for two wheelers and four wheelers in front of Amguri Daily Market and Railway Station.
- Water Supply Scheme :-at Bhuyan Gaon and at Amguri Town.
- Solid Waste Management System :-At ward no, 2.
- Residential Land Development Scheme :- At Lephera Chaudang Gaon.
- Light and Medium industrial unit :-at Changmai Konwar Gaon.
- Walking zone:- From Amguri Charali towards Marioni Road up to the Bridge.
- Vending zone:Near Proposed truck terminus.
- One wholesale market near proposed truck terminus.
- One Railway over bridge is proposed at Amguri Town lebel crossing at Amguri-Mokokchung Road.
- Cycle track:One cycle track is proposed near proposed over bridge towards NH-61 on both sides.

9.4. INDICATIVE SOURCES OF FUND:-

The ULB & concerned line departments will submit the DPR's to their respective departments for sanctioning fund from State & Central Government under various schemes like NLCPR,NEC,10% pool fund etc. The ULB's can also adopt the policy of Private Public Partnership(PPP) mode for raising the fund for a few remunerative projects.

CHAPTER – 10: **DISASTER PLAN**

10.1. HAZARDS SPECIFIC PRONENESS IN MARGHERITA:-

➤ **Earthquake :-**

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

➤ **Flood :-**

Even Amguri Town is also facing urban flooding in many localities due to low laying of NH-37 and lack of proper drainage system.

➤ **Soil Erosion :-**

The soil erosion is major threat to many areas due to the high under current of river Jhanji.

➤ **Fires :-**

The fire takes places in Amguri due to short circuit in commercial areas, thatched house. Mainly fire takes place from March to April when the climate remains very dry.

➤ **Cyclone:-**

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

10.2. NEED FOR DISASTER MANAGEMENT:-

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 the integrated disaster management system. Disaster response alone is not sufficient as it yields only temporary results at a 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.

10.3. 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 natural and man made disasters in the past. 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.

10.4. PLAN OBJECTIVES:-

The objectives of the Disaster Management Plan are:

- ❖ Disaster management in the routine affairs of the office
- ❖ To provide technical and humanitarian assistance during disaster
- ❖ Prompt and effective discharge of office responsibilities during disaster situations
- ❖ Ensuring safety of office 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.

10.5. LIKELY GEOGRAPHICAL EXTENT AND MAGNITUDE / SEVERITY:-

- 1) The Master Plan area is situated on a flat land with slight slopes towards South-North up to the river Jhanji which flows in to mighty Brahmaputra towards North. During Monsoon, river as well as mighty Brahmaputra overflows and excess water enters in to the Master Plan Area and causes flood. Moreover, low lying of National Highway-61 passing through the town and

poor drainage system for unplanned development; enhance every chances of flash flood due to heavy rainfall. Such flash floods have been experienced during last five years.

- 2) Assam as a whole is within the Zone V of earthquake zone. Especially in 1950 Earthquake, Amguri has witnessed a large devastation. So, it can be said that geographically and geologically Amguri is situated in a very hazards prone zone.
- 3) Chances of Landslide are comparatively less in this district but might happen in the bank of Jhanji river. But fire can broke out in the congested residential and commercial areas, bazaars 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-storeyed buildings etc. can occur at any time. Of course riot is not so common in this district.

10.6. 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

During 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.



10.7. FORMATION OF AMGURI DISASTER MANAGEMENT CELL (ADMC):-

The Master Plan recommends for formation of a Amguri Disaster Management Cell (ADMC) in the office of the Chairman, Amguri Municipal Board, as per Section 40 of Disaster Management Act, 2005.

The ADMC has to be constituted with the functionaries like Chairperson (Chairman), Vice Chairman (Co-Chairperson), Chief Executive officer (Executive Officer), Members (SDO-Civil, Health, Roads, Building, Tea & Oil industries and other relevant department), and Nodal Officer (Jr. Engineer).

The ADMC will give emphasis towards the preparation of Amguri Disaster Management Plan. The plan also recommends that the ADMC cell to co-ordinate during emergency with the District Disaster Management Authority (DDMA) located at the Head-Quarter of the District. The ADMC Cell will provide all the available resources and manpower for Disaster Management. This Cell will mobilize the service of technical personnel for the damage survey work to help the District Administration.

The ADMC must meet at least once in six months i.e. in the month of March and September before the Disaster Season (Flood & Cyclone) of Amguri town under the chairmanship of the Chairman/Chairperson, Amguri Municipal Board & to update the plan. For this, one month's prior notice should be given to all concerned departments before convening the meeting. Chairman/Chairperson should review the work of ADMC. An emergency meeting will hold whenever information is received regarding calamity.

10.8. STANDARD OPERATION PROCEDURE (SOP):-

The Master Plan recommends the ADMC for formulation of Standard Operation Procedure (SOP) for automatic response of the members during disaster as follows:

- ❖ 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.
 - Promote coordination and communication amongst personnel.
 - Simplify decision making during potentially stressful conditions.
- ❖ Proper implementation of Assam Notified Urban Area Building Rules – 2014 (ANUABR) & Sensitization among stakeholders engaged for construction work/owners to use disaster resistant technologies.

10.9. RAINWATER HARVESTING:-

Amguri Zone has experienced heavy rainfall during summer season due to the south-western monsoon that leads to artificial floods not only in the plan area. So, the plan recommends adoption of rainwater harvesting system in construction activities that will reduce the volume of artificial floods in the Master Plan Area and also help to maintain the ground water level.

10.10. DOs & DON'Ts DURING

a) EARTHQUAKE:-



b) FIRE:-



