



**MASTER PLAN JOWAI
1991—2001**

**DIRECTORATE OF URBAN AFFAIRS
MEGHALAYA, SHILLONG**

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CHAPTER - I

1. INTRODUCTION :

Jowai was declared a town by the Census of India only in 1961, and the town attained its status as the District Head Quarter since the complete separation of Jaintia Hills District in February 1972. The Town covers an area of 7.77 sq. kms. with a population of 12,908 as per 1981 Census.

The Town is inhabited by adventurous and hard working people mainly of Pnar (Jaintia) Community. There are 14 Clubs (or locality) in the Town which are responsible for the management and developments of their localities under their jurisdiction. The Clubs are namely; Chutwakhu, Nynthong, Iawmusiang, Ladthalaboh, Mosalyngkat, Tpeppale, Lulong, Panaliar, Lumiongkjam, Iongpiah, Mission Compound, Lumkyrwiang, Chilliangraj and Khimmusiang.

The Town remained as agglomeration of a few Government offices and cluster of few houses till the formation of the State of Meghalaya. Consequently with the establishment of the Head Quarter of Jaintia Hills District the town gained its momentum for development. Since no town planning efforts were made in the past the town has developed in a haphazard way, and in the absence of any control on the development, buildings and other developments have come up in a haphazard way without giving due thought to future consequence. The roads are very narrow and is inadequate for present quantum of traffic. Buildings have been constructed just on the road and without any proper planning.

Immediate action is therefore necessary to arrest further deterioration and to develop new areas of the town in a proper and planned manner as Jowai is one of the important towns of Meghalaya.

1.1 Location:—Jowai town, the Head Quarter of the District is located in the West Central part of the Jaintia Hills District covering an area of 7.77 sq. km and lies on latitude 25°26' (N) and longitude 92°12' (E). The Town is 67 km away from Shillong and is situated on a beautiful hilly setting surrounded by Myntdu River except the Northern portion from where the river Myntdu originates. The National Highway 41 passes through the Town which connect Shillong with Cachar District of Assam.

PHYSICAL FEATURES

1.2 Topography:—The Town comprises of relatively flat hills with cluster of settlement in with forest of pine trees all around. The hinterland of the Town is also dotted with hills.

The drainage pattern is influenced by presence of the hills around and the surface water gravitates down to river Myntdu. Inside the town the domestic waste water is carried through numerous drains of all size and description. At places the drains are very narrow and not maintained properly as a result there is obstruction in the flow of water.

1.3 Climate:—There is not much variations in climatic conditions in Jaintia Hills. The temperature in winter is low and summer is moderately hot. Due to the absence of metropoligical data there is no reliable record available to indicate the range of temperature during the year. Rainfall occurs during the monsoon period which extends from May to October and the quantum of rain varies from year to year. The average minimum temperature is 15°C in Summer and 2.90 c in Winter and maximum temperature is 23.30 c in summer and 13.60 c in winter. Similarly the average minimum rainfall is 2512 mm and maximum rainfall is 3665 mm.

1.4 Study of Population:—The town appeared as Class V Town as per Census of India only in 1961 and same status continued in 1971 also. In 1981 census Jowai was classified as a Class IV Town. The growth rate of population in Jowai Town is very slow. However, it is expected that improvement of communication, trades, commerce, development of industry will lead to faster growth of the town.

TABLE—I

Growth of Population

Years	Population	Decade variation	P.C. decade variation
1961	6197	...	...
1971	8929	2732	44.09
1981	12923	3979	44.56

Source — Census of India 1981.

The Master Plan area of Jowai also covers the Village Mihmyntdu thus the total population of Jowai Master Plan area will be 14842 in 1981 as per Census of India

Town Planning organisation conducted a survey in the Town to determine various demographic characteristics and to collect other informations needed for planning purpose, during March–April 1976. As per the survey population of Jowai Town in 1976 was 11,440.

1.5 Sex Ratio : Sex ratio of Jowai Town is 979 against 1000 males according to 1981 Census. As per random survey conducted by the Town and Country Planning Department 1976 the figure indicate a sex ratio of 975 female against 1000 males. The sex ratio shows that this Urban area is not industrially developed and depicts a more or less rural character.

1.6 Migration to the Town : From the survey reports of the Town Planning Organisation Jowai conducted in 1976 it is revealed that only 8.44 p.c. of the town population is constituted by immigrants. Out of the total 965 immigrants only 325 are migrated from different parts of the State and 640 are from outside the State comprising mainly skilled labours and technical personal.

1.7 Occupational and Employment Pattern : The economy of this region is based primarily on agriculture and trade except a few small development on industrial activities. Because of terrain, agricultural activity is not much only some plots of land are used for terrace cultivation. Other agricultural activities like horticulture is also not much in the area. Poultry, Cattle breeding, piggery are also of traditional type.

There is no major industrial activity in the Town. Though small scale industries are gradually coming up but over all picture is not encouraging. A distillery unit for the production of alcoholic liquor is being set up as a subsidiary industry. Beside this there are small industries like rice mill, saw mill, tyre rethreading, bakery, etc.

TABLE—2
OCCUPATIONAL PATTERN

Sector	Total worker	Percentage
Primary	285	9.5
Secondary	826	27.7
Tertiary	1863	62.8
Total :	2974	100.00

There is no organised distributing and marketing Organisation. In absence of which the primary functions to help in the product collection from weaver, artisan and craftsman could not be carried out thus there is not much incentives and encouragement for the artisans to produce more.

Tertiary activities which also includes transport and communication, trade and commerce are not well developed in this District.

1.8 Literacy: As per the 1981 Census, the total literary rate in Jowai Town was 66.01 per cent. According to the Socio-Economic survey, 67.97 per cent of the population in the town are literates.

CHAPTER 2

PHYSICAL GROWTH AND EXISTING LAND USE PATTERN

2. Deleniation of Master Plan Boundary—A master plan boundary is identified taking into account the existing built up area the physical trends of growth, the future space requirements, terrain conditions and other related factors. For Jowai, the Master Plan Boundary has been deliniated taking into account the above factors, and an area of 18.5 sq. km. has been earmarked. This area also includes the village Mihmyntdu. The population of the total plan area is 14842 as per the 1981 census.

The Schedule of boundary of the identified Master Plan area is as follows—

West—Myntdu River.

South—Myntdu River upto the confluence of Um-Tishi.

East—Um-Tishi upto N.H. 44 at fourth mile. Follows N.H. 44 upto track joining Kutcha road to Mihmyntdu village. Follows Kutcha road upto metalled road at Mihmyntdu village.

North—Liar Lum Pariat, track and metalled road at Mihmyntdu village.

2.1. Physical Growth Trends—Jowai is a very small Town and the development is also at slow pace. Road pattern followed the topography of the Town. The present town centre developed in the confluence of the number of roads coming from the different parts of the Town.

The land use of the Town is of mixed nature however the town centre and various residential areas could easily be identified because of the predominant use.

The Master Plan area of Jowai has 18.55 sq. km. of land out of which 7.77 sq. km. is within the town limits. Built up area of the town is 101.10 hectares and an area of 742.00 hectares is unusable. of the remaining area of 1011.90 hectares which can be brought under development, 262.50 hectares is under agricultural use and around 90 hectares under forest. Therefore, effectively, only an area of 659 hectares can be brought under future development or conserved as the requirement may be.

Residential areas are spread all over the town according to the suitability of the area. The commercial area concentrated in the town centre. However, few shops have come up and are coming up here and there to meet the need of the different localities.

As regards industrial development, there is neither a defined industrial area nor any big industry in the town. However, numerous small scale industries and garages have sprung up along the N.H. 44.

The Physical growth trend of the town exhibits an expansion towards north east and primarily along N.H. 44.

2.2. **Jowai Town Area**—As per the informations available, the town of Jowai covers an area of 7.77 sq.km and in the absence of detailed maps it is found from the schedule of town boundary that it extends in the west and south upto the river Myntdu in the east from Myntdu stream upto Myntdu playground and in the North beyond the Government land earmarked for District Police Reserve, etc. The civic needs of the town area of Jowai is presently being met by the Jowai Town Committee through elected ward Commissioners from the wards within the jurisdiction of the Town Committee. The Town Committee has been set up under the provisions of Jaintia Hills Autonomous District Council Act. For the purpose of Census enumeration the town has been divided into 32 enumeration blocks.

2.3. **Land Resources**—The total land included in the Jowai Master Plan is 1855 hectares. The quantum of unusable land is about 1011.90 hectares or 54.55 per cent of the total masters plan area. The unusable land which is around 742 hectares or 40 per cent of the total area is mainly due to steep gradients, gorges and water bodies. The following table shows the land resources of Jowai Master Plan area.

TABLE 3
LAND RESOURCES

Sl. No.	Land use	Area in Hectares	Percentage
1	2	3	4
1	Developed land	101.10	5.45
2	Unusable land	742.00	40.00
	(a) Water bodies	(32.00)	(1.73)
	(b) Land liable to flooding	(116.20)	(6.26)
	(c) Steep land	(593.80)	(32.01)
3	Useable land	1011.90	54.55
Total Planning Area		1855.00	100.00

2.4 Land Use Classification—Various function in the urban areas that are carried out are reflected in the used of land, for the purpose *viz.* Industrial Commercial, residential, infrastructure, etc., A systematic analysis of land use of the town is very essential. The Land use has been classified into following 8 categories.

TABLE 4
EXISTING LAND USE : (JOWAI MASTER PLAN AREA 1982)

Sl. No.	Category	Area in Hectares	Percentage to Develop Area	Percentage to total Area
1	2	3	4	5
1	Residential	63.70	63.00	3.43
2	Commercial	1.25	1.24	0.07
3	Industrial	0.88	0.87	0.05
4	Public semi public	1.40	1.38	0.08
	(i) Church Festival Ground	1.12	1.11	0.08
	(ii) Burial & Creamation ground	11.75	11.62	0.63
5	Circulation (Roads)	19.75	19.54	1.36
6	Open space (parks, playground)	1.25	1.24	0.07
7	Agricultural land	262.50	...	14.15
8	Forest & other barren land	1491.40	...	30.40
	Grand Total	1855.00	100.00	100.00

Among all the categories of land use residential is the Largest use forming 63.00 p.c of total developed area.

2.5 Inter Relationship of Different Land Use.—The present town developed in a haphazard manner with mixed Land use but as the Town is very small magnitude of the problem is not much at present.

There is no defined work-place except in the town centre. The work places are scattered all over the town along with the residential areas.

2.5 Housing—Previously there were only traditional houses but with the passage of time, quality of housing has gradually improved. The Consequence of the establishment of administrative Head Quarter at Jowai, has increased the housing demand in the town. Therefore, a systematic and scientific approach to meet the increasing demand of housing is necessary.

Inspite of the fact that plenty of vacant land is available in the surrounding areas, the town has developed in a highly congested and over crowded manner within a very compact area.

In Jowai Town housing area can be broadly divided into Government and Private housing areas. Government housing are also scattered all the our Town and are very limited. Government Departments are separately acquiring land and constructing their office, and accomodation is in the same land. This has resulted in a sepraate colonies in the town such as P.H.E., P.W.D., Veterinary, Soil Conservation Colonies etc.

As per the survey carried out in 1976 there are 2020 private housing units in the whole of Jowai Town as against 1145 in 1971 and out of 2020 units 745(37 p.c.) houses have good structural condition and about 265(13 p.c.) are dilapidated houses.

2.7 **Housing Demand**—The Demand for housing is over increasing. In 1971 there was a short fall of 265 units. However, it is found that about 265 number of units are in a dilapidated condition which need immediate reconstruction.

With the establishment of various new offices after the declaration of Jowai as a District Head Quarter heavy demand for accomodation is perceived. Recently a survey of Government offices and the employees was done to assess the need. The finding of the survey shown that only 31 per cent of Government offices have their own building and 35.5 per cent of employees stays either in their own house or in Government quarter.

2.8. HOUSING FOR GOVERNMENT EMPLOYEES:

During March to June 1982 survey was conducted by office of the Associate Town Planner Jowai, regarding the accomodation problem of Government and Semi-Government employees of the town. The Survey reveals that there are 1664 employees in Government and quasi Government offices and out of which 1312 are State Government employees. It is found that only 22.5 per cent employees are staying at their own houses and 13 per cent stay in Government quarter and 64.5 per cent are staying in rented houses. Out of the total employees staying in rented houses fourth grade constitute about 50 per cent. Therefore, housing for lower income employees should immediately be taken up.

TABLE—5

Grade	No. of employees staying in rented houses				Total
	State Govt.	Semi-Govt.	Central Govt.	Semi-Govt.	
I	10	1	...	6	17
II	45	2	1	6	54
III	291	86	18	22	417
IV	295	149	4	16	464

Source:—Associate Town Planner, Jowai 1982.

2.9. EDUCATION:

Jowai has 13 Lower Primary, one Senior Basic and 4 Middle English Schools. There are 4 High Schools in Jowai out of which 3 are Government and one is Government Aided School. For a population of about 12,000 four numbers of High

Schools are quite sufficient. In regards to higher education, there is only one Government College in the Town providing facilities to the Arts Students and Science students upto Pre-University level. It is expected that Degree level classes in Arts and Science will start soon.

There are three other institutions giving vocational training like weaving, tailoring and industrial training, sponsored by the State Government. A nursing training centre was also established under the supervision of the Presbyterian Mission Hospital Jowai.

2.10. HEALTH:

There are only two Hospitals in Jowai Town, one is Presbyterian Mission Hospital and the other is the Government Civil Hospital which cater the need of the entire region.

2.11. RECREATION:

Out of the 14 localities (Clubs) there are about nine playgrounds available within the plan area. There is also a stadium proposed to be constructed by the Government. There are only three children parks in the Town. There is one Government District Library and Two Cinema Halls of which one is under construction.

2.12. BURIAL/CREMATION GROUND:

Jowai has a number of burial and cremation ground which is sufficient till the end of the plan period.

CHAPTER—3

TRAFFIC AND TRANSPORTATION

The transportation net work of a town play an important role and effects intimately the towns economic and socio-cultural life. A well laid road net work can solve many problems of urban life. Hill towns generally have a complex road pattern dictated primarily by the topographic features. Jowai, besides having all the complexities imposed by the undulating topography has the added advantage of narrow and unplanned road net work.

The efficiency of road net work needs to be examined both in terms of inter town and intra town movements. The growing demand of movement space calls for scientific assessment of the problem of movement such as circulation pattern, road geometrics, road capacities, etc., so that remedies could be evolved both in terms of short and as well as long term measures. This requires traffic and transportation survey and engineering surveys which have to be related to the existing land use pattern. These studies bring out problems as well as possibilities of improvement with minimal disturbance in the existing pattern.

Jowai enjoys a strategic location as far as regional road linkage is concerned. The National Highway 44 passes through Jowai connecting Shillong and Guwahati on one side and Cachar, Tripura, Mizoram, etc., on other side. The other state highway connects sub-Division Amlarem, Dawki, Muktapur, etc.

The present highway has no by pass, therefore all the traffic has to use the heavily congested high way passing through the commercial area of the Town. Moreover, opening up now colliary around Bapung area since 1976-77 has generated heavy goods traffic carrying coal which passes through Jowai to other parts of the state and outside the state.

Further, Jowai also generates heavy commercial traffic during the Bazar day. Buses from different parts of the region comes to Jowai for the whole day and park the vehicle around the Bazar area creating parking problem for the day.

Regarding the road net work of the Town, the present net work cannot cater to the needs of the town traffic. Though the Town is very small but because of the narrow roads and yearly growth of vehicles, the sign of traffic conjestion has already appeared in many of the town's roads. Moreover, various type of encroachment on the roads, inadequate enforcement of traffic control, further reduce the road space and obstruct smooth flow of traffic.

TABLE—6

ROAD LENGTH WITHIN JOWAI MASTER PLAN AREA

Category of Road	Total length (KM)
National Highway 44	7.95
Other Pucca Roads	18.50
Kutchra Road (Gravel)	11.00
Total	37.45

Due to the terrain there are sharp turning and steep gradients, however this could have been improved if due thought was given while construction.

3.1. Parking/Loading and unloading yard:

There is a dearth of parking spaces throughout the town. There are only two parking spaces in Iawmusiang i.e., in the Central business areas. There two spaces are also used sometimes as loading and unloading yards.

Since the National highway passes through this town, one truck terminus with garage and refreshment facility, etc. is necessary for the truck moving along the N.H. 44.

However to cater to the local parking problems regulation should be made that each office or Cinema Hall, Big Hotel, Restuarant, Theatre hall, Club house, etc. make provision for parking within their own premises.

3.2. Bus Terminus :

At present both the private and state corporation intra region and inter town buses are plying from the Central business area. The space for both the Government and private bus terminus is not sufficient. Lot of difficulties are faced in monouvering, turning, etc. Ttherefore as the town is dveloping day by day the terminus will have to be shifted to a suitable location.

3.3. UTILITIES AND SERVICES :

(a) **Water Supply :** The present supply of water is mostly by gravity system after pumping it from the river Myntdu. At present there are two reservoirs with a capacity of 3,41,000 litres each and daily supply to the town is about 6,00,000 litres per day. Though the quantity is adequate but wastage by cracking and bursting of pipe, erratic supply of electricity causes frequent disruption in supply. Regarding the source of supply P.H.E. is investigating an alternative source for future requirement.

(b) **Drainage and Sewerage :** There is no sewerage system in the town. There is no scientifically laid out drainage system too. However, the terrain makes it possible to drain out the water quickly. Sewerage at present is not a necessity but septic tank can serve the purpose. However, there is a need for further improvement of the drainage system converting dry latrine to sanitary latrine should also be taken up.

(c) **Power Supply :** The source of power supply in Jowai Town is from Barapani (Sumer) and power is supplied by Meghalaya State Electricity Board. The power is obtained from the source to the Mawlai Sub-Station, from there to Khlichriat Sub-Station and then to Jowai.

CHAPTER—4

PROPOSED DEVELOPMENT PLAN

4. Aims and Objectives For preparation of Development Plan of a city, it is essential to conceive an over all picture of the city in relation to its environs and regions, for its efficient functioning even beyond the Plan period. The plan has to be based on both long term as well as short term measures. The basic aims and objectives kept in view are:—

1. Compact development as land is scarce.
2. Decentralisation of Central functions.
3. Efficient and judicious utilisation of land.
4. Harmonious relationship of various activities.
5. Efficient circulation system.

4.1. Planning Strategy and Concept : The form of a city is often dictated by physical constrains both natural and man made, the most dominant constrains for physical growth of Jowai is the hilly terrain. The possibility of Town growth is only toward North and East and along the National Highway 44.

The present Town has poor accessibility as because of narrow roads and there is no scope for expansion of the Town centre. In view of the present limitations and the necessity to achieve the desired physical growth, rising standard of living, the plan attempts to provide another nucleus for development, through decentralisation and redevelopment.

4.2. Selection of Site for Proposed Expansion : Since the present Town is growing more congested it is proposed that a new site for expansion is felt necessary. After thorough verifications, the North Eastern side of the present town and along the National Highway 44 is found suitable for development.

4.3 Population Projection:—Population estimates are necessary to access various needs of the town including requirement of land for various uses such as housing, commerce, recreational, health, education, administrative, industries, transportation, etc. :—It is difficult to work out the exact estimate if future population of a town because the factors on which the growth of population are dependent cannot be foreseen or forecast with accuracy.

The estimate of population are based on the past trends. Various methods were used to determine the population projection. The estimated population of Jowai is as shown below:—

TABLE—7
JOWAI MASTER PLAN
POPULATION PROJECTION

Year	Census Figures	Projected Population	% Decade Variation
JOWAI TOWN AREA			
1961	6197	...	...
1971	8929	...	44.09%
JOWAI MASTER PLAN AREA			
1981	14842	...	...
1991	...	23124	65.80%
2001	...	34963	51.20%

4.4 Economic Development:—One of the basic objectives of the Planning is to provide better standard of living. Therefore the economic aspect is an integral part of the Planning process. However, it is not easy to forecast future economic activities. It is also difficult to forecast future employment pattern, however the participation rates are likely to increase as the economy grows. The investment required to generate the full employment is not easy to assess. Therefore planning for economic growth for the town is one of the most difficult task of the whole planning process.

The basic purposes is to create an environment for the development of industrial growth, in both private and public economic sector. The Government has already taken up many incentive measures for industrial growth, such as (1) Industrial loan (2) Grant-in-aid (3) Facilities for bank finance (4) Seed money, etc. Another important requirement is skilled labour. Government should take up necessary schemes to produce more skilled labour and technician. However some guidelines are recommended for the development of the economy:

1. Development of public sector industry.
2. Provision of technical know how.
3. Installation of infrastructure to create a climate for investment.
4. Proper market study, etc.

CHAPTER—5

PROPOSED LAND USE PLAN AND LAND ALLOCATION:

5.1. The proposed land use plan has been worked out on the basis of aims and objectives set-forth for the Town. The main features of the proposed land are—integrated structure of the Town, compact development, assimilation of present development with the future growth, decentralisation of places of employment to achieve desired work place relationship. During the process of formulation of the plan physical constraints mainly the terrain has been taken in account.

Almost all the Urban areas have mixed uses and Jowai also is no exception to it. The concept of mixed land use zoning is therefore accepted to suit the requirement.

The table below shows the proposed land use of Jowai Master Plan Area.

TABLE—3.

PROPOSED LAND USE: JOWAI MASTER PLAN AREA. (2001).

Sl. No.	Category	Area in hectares	P.C. to develop areas	P.C. total area
1.	Residential	102.15	57.94	5.51
2.	Commercial	6.00	3.40	0.32
3.	Industrial	6.38	3.62	0.20
4.	Public-Semi Public	18.00	10.21	0.97
5.	(i) Church, Festival ground	1.12	0.64	0.06
	(ii) Burial and cremation ground	11.75	6.66	0.63
5.	Circulation/transport	29.41	16.68	1.59
6.	Open space (Parks, playground)	1.50	0.85	0.08
	Total:—	176.31	100	9.36
7.	Agricultural land	262.50	—	14.15
8.	Conservation	1416.19	—	76.49
	Grand total:—	1855.00		100.00

5.2. Residential Areas:

The plan proposes that the residential areas be grouped near the major work centres such as Industrial, Commercial and Administration areas. Such a system has advantage of curtailing unnecessary long trips, which ultimately reduces the burden on transportation. Class work place relationship will not only increase the efficiency on circulation system but will enhance the Functional efficiency of the Town to the satisfaction of its citizens.

According to the study conducted it appears that some of the present residential areas are overcrowded. Therefore, in order to meet this problem, further densification of the present areas is discouraged and to accommodate the additional

population, an additional area of 38.45 hectares has been earmarked for this purpose. The total area devoted be 102.15 hectares which will form 58 of the total developed land. The grass residential density for the area to be developed will be about 98 person per acre.

5.3. Commercial Areas:

The present central business area will not be able to function as Town Centre owing to over crowding, congestion, limited space and traffic problem. Therefore a new centre is proposed which should be properly designed to suit the modern needs. This centre will initially develop as a commercial centre. Apart from the the above another centre has been identified and the same is proposed to be developed as a weekly market with parking facilities which is expected to considerably relieve the pressure on the existing bazar.

5.4. Industrial Areas :

Although at present, there is no organised area for industrial activity two areas has been earmarked for industrial use. Covering about 6.38 hectares, this area is proposed to be developed through incentive to the enterpruners.

In the area earmarked south of the National Highway, Small scale handloom handicrafts and cottage industries are proposed to be established whereas the area north of the National Highway, industries related to the transportation sector are proposed to be established in a centralised manner near the transportation centre.

5.5. Public And Semi Public Use:

This category consists of multiple use like Government and Semi Government Offices of various levels, educations and health, social and cultural use, etc. These institutions are proposed to be located in such a way so as to function in an integrated manner binding the various areas with a total Urban entity.

5.6. Proposed Work Centres:

With a view to decentralisation of work centres, an area of 45 hectares near the college has been identified for the setting up of a new work centre away from the congested area of the town. In this area, apart from Government offices and and residence, a commercial area, a recreational area and a transportation nucleus has been proposed. This area in fact is proposed to form the nucleus of development will all amenities and facilities.

5.7. COMMUNITY FACILITIES

5.7.1. **Education.**—Though the Educational facility is almost adequate but by 2001 two more High School will be necessary. Both are proposed in the new area. Out of these two one is proposed within the proposed office cum residential complex. It is also proposed that an Industrial Training Institution be set up in a suitable location to serve the local population as well as the population from its neighbouring villages.

Further there is an ample scope to develop cottage Industry if proper training centre is there to impart the knowledge of developed technique to the people. Therefore an Artisan Training School is also proposed at Jowai.

5.7.2. **Health**—As regard Hospital is concerned Jowai is self sufficient, but improvement of the Hospital and more qualified doctors are necessary in this field. However, two Dispensaries are necessary one can be located near these present park (infront of D. C. residence) and another at the new area near the college.

5.7.3. **Recreation.**—The existing playground should immediately be improved. The stadium should be constructed in phases giving first priority to an outdoor stadium. However, a playground or a park or a botanical garden is proposed in the new complex.

In addition to the present 2 (two) cinema Halls (one is under construction) another cinema Hall-cum-Auditorium is proposed in the new complex to cater the need of the people of that area.

5.8. **Proposed Circulation Plan.**—Proper growth and functioning of the city is very much dependent on the circulation pattern. Transportation needs are interrelated intimately with land uses. Road pattern once developed will remain for centuries even if the other uses under goes change. Efficient functioning of the city can be achieved by revolving functionally interrelated land use pattern, inter connected by convenient circulation pattern. The proposed circulation plan for Jowai envisages to minimise the existing deficiencies to a greater extend.

With the growth of the population there will be corresponding increase in the number of Vehicles in the Town. As the new development are to be on the out lying areas, the dependency on vehicle will be naturally increased. Therefore it is expected that with the increase of special distance, economic development and increase of population dependency on vehicular traffic movement of people and goods will increase.

Circulation plan of Jowai Master Plan area has been evolved as an integrated part of the land use plan as to provide for an efficient system for movements. The existing roads where ever possible should be widened. The Circulation plan has been drawn up keeping in view that the National Highway bye pass will be constructed and the entire stretch will remain outside the Master Plan Boundary.

To achieve higher efficiency in circulation system a hierarchy is being established with three categories of road.

Type of roads	Minimum right of way
1. Primary	36' to 40 ft
2. Secondary	36' to 30 ft
3. Tertiary	20' to 30 ft

5.9. Improvement of Existing Roads:

Among the existing roads many need improvement in terms of widening and surfacing and provision of missing links. As there is no naming of the roads, they could not be mentioned here. However, the National High Way, the road leading to Dawki, road going to jail, etc., needs widening up to primary standard. The Map show all the existing roads which needs widening. The Lulong College road needs widening and Improvement.

5.9.1. New Roads :

Beside remodelling and Improving some of the major existing roads, new roads will have to be laid to cater the growing traffic and to open up new arear various new roads are proposed in the proposed new areas to cater the need.

5.9.2. Road Intersection "A" :

Most of the existing road intersection, particularly in the existing areas, instead of facilitating the movements of traffic serve as obstacles. The most important road intersection at present is the intersection near Mazzerallo School. All the important intersections need proper design and construction to facilitate the movement.

5.9.3. Bus and Truck Terminus:

The existing state transport corporation bus terminus is proposed to be shifted to the new site identified near the new complex and the existing site will be used only as an M.T.C. bus stand for embarkment and disembarkment of passengers to and from Jowai.

The public buses should also operate from the proposed site near the new complex.

There is no truck terminals at present though heavy trucks movements are going on. An area is earmarked for truck terminus where facilities like minor repairing, parking and resting rooms should be available.

5.9.4. Parking Facilities:

Important must be given for providing adequate parking facilities which will otherwise create traffic hazards in a Town. At present there is no organised parking space except in front of the market and that also not properly maintained. With the shifting of the Public bus stand and M.T.C. bus stand the area vacated should be developed for an organised parking lot.

5.9.5. Mass Transportation:

The present population and the special distance of work place from home and other places would not be able to sustain city bus system. However, after the development of the new areas a bus service at regular interval (say half an hour) from old area to the new proposed area (and *vice versa*) can be provided as the movement by taxi is quite costly for the general public.

CHAPTER—6

Plan Implementation.

Preparation of a Master Plan is the beginning of an effort to make a town a better place to live and work. The preparation of Master Plan and the Zoning regulation will not improve the town life unless sustained efforts are made to enforce as well as implement these plans. In building a city or a town a major role is often played by the citizens individually or collectively. The successful implementation of a plan depends on the attempt to translate various plan proposals into practice by way of efficient administration, organisation, technical guidance and financial resources backed by the active participation and support of the citizens of the town.

The Jowai Master Plan basically attempts to give a policy guideline within which the development should take place through the active participation and contribution of the citizens of the town and the concerned departments of the Government. The proposals are to be implemented through regulatory measures and through developmental activities in a phased manner. The regulatory measures proposed are the Zoning regulations prescribed in the subsequent chapter.

As regards the short term developmental needs of the town, the existing procedure of identification of schemes through the co-operation of the secretaries of the clubs of the different localities will continue and will be executed by the concerned departments. However, a short term priority wise scheme will have to be identified and executed.

As regards the medium and long term schemes, a few of the important schemes has been identified and mentioned below.

TABLE 9
SCHEME RECOMMENDED FOR THE DEVELOPMENT OF JOWAI MASTER PLAN AREA

A. PHASE I. (1990-95)

Sl. No.	Name of the scheme	Brief description of the scheme	Approximate Cost (in lakhs)	Agency	Nature of financing	Remarks
1	Construction of New Work Centre.	(i) Acquisition of land of about 15 hectares near college area.	80.00	State Government Revenue.	(i) State Plan	The area will be utilised for office complex, housing for employees all necessary amenities
		(ii) Detailed Plan for road layout.		Public Works Department	(ii) Do.	An area has also been earmarked for transportation centre.
		(iii) Construction of road as per plan in the whole area.	50.00	Public Works Department.	(iii) Do.	
		(iv) Extension of water connection.		Public Works Department.		
		(v) Construction of sewerage system.		Public Health Engineering.		
		(vi) Extension of electricity lines.	200.00	Meghalaya State Electricity Board.	Do.	Shows only construction. Construction can be covered in term of rent.
		(vii) Government staff housing.		Meghalaya Government Construction Corporation.		
2	Construction of New Bus Station with Yard.	(a) Grade I — 10				
		(b) Grade II — 15				
		(c) Grade III — 40				
		(d) Grade IV — 60				
		Construction of bus station and Yard with facilities of bus stand and parking of private vehicle.	18.00	Meghalaya State Transport Corporation.	Loan	Since the agency is revenue generating agency therefore they can pay back the loan.

4	6	5	3	2	7
<p>3 Improvement of existing bus stand.</p> <p>The existing bus stand near the bazar needs improvement which will serve as an embarkation and disembarkation stand for passengers and will also have provision of parking of private vehicle.</p>	<p>12-00</p> <p>Urban Affairs</p> <p>Loan</p>	<p>50-00</p> <p>Do.</p> <p>Loan</p>	<p>15-00</p> <p>Do.</p> <p>Loan</p>	<p>10-00</p> <p>Meghalaya Sports Council.</p> <p>Grant from State and Central Government.</p>	<p>Since parking lots and markets is revenue generating the loan can be repaid.</p> <p>Government should take keen initiative to develop sports activities in this town.</p>
<p>4 Construction of weekly market.</p> <p>Since the present weekly market is overcrowded and congested a new weekly market has been proposed away from the city centre.</p>	<p>50-00</p> <p>Do.</p> <p>Loan</p>	<p>Do.</p> <p>Do.</p> <p>Do.</p>	<p>Do.</p> <p>Do.</p> <p>Do.</p>	<p>Do.</p> <p>Do.</p> <p>Do.</p>	<p>Do.</p> <p>Do.</p> <p>Do.</p>
<p>5 Improvement of existing market.</p> <p>Construction of football ground with provision of athletics tracks.</p>	<p>10-00</p> <p>Meghalaya Sports Council.</p> <p>Grant from State and Central Government.</p>	<p>Do.</p> <p>Do.</p> <p>Do.</p>	<p>Do.</p> <p>Do.</p> <p>Do.</p>	<p>Do.</p> <p>Do.</p> <p>Do.</p>	<p>Do.</p> <p>Do.</p> <p>Do.</p>

Sl No.	Name of the Scheme	Brief description of the scheme	Approximate cost (laks.)	Agency	Nature of financing	Remarks
1	Construction of New Work Centre.	(i) Construction of office buildings. (ii) Construction of staff housing. (iii) Construction of Public bus and truck terminus. (iv) Construction of civic centre.	150-00 200-00 15-00 25 00	Public Works Department. Meghalaya Government Construction Corporation. Urban Affairs Department.	State Plan. Loan.	
2	Construction of road lay out.	(i) Improvement of major roads in the newly developed area. (ii) Development of other roads.	30-00	Public Works Department.	State Plan.	
3	Water Supply	(i) Construction of distribution system in the newly developed area. (ii) Augmentation of supply.	50-00	Public Health Engineering.	State Plan.	
4	Construction of stadium (indoor).	Construction of indoor stadium.	15-00	Meghalaya Sports Council.	Grant from State and Central Government.	
5	Recreational and cultural development.	(i) Construction of a Botanical Garden. (ii) Construction of an art gallery.	15 00	(i) Forest Department (ii) Meghalaya Sports Council.	—do—	
6	Education.	Establishment of a technical institution.	20-00	Department of Education.	State Plan.	
7	Health.	Construction of 2 (two) numbers of dispensary.	5-00	Department of Health.	—do—	
TOTAL :			525-00			

ZONING REGULATION FOR JOWAI MASTER PLAN AREA

Scope—The schedule lays down regulations for the use of land and buildings built thereon consistent with maintaining minimum standards of density of building, protection of open spaces, sanitation and environmental hygiene.

The Zoning Regulations should be read in conjunction with the zones proposed in the Master Plan.

1.1. Definition—For the purposes of these regulations, the following definitions shall apply.

1.1.1. Words used in the present tense shall include the future the singular number also includes the plural and the plural also the singular.

1.1.2. **“Agriculture/Urban Agriculture”**—includes horticulture, farming, growing of crops, fruits, vegetables, flowers, grass, fodder, trees of any kind of cultivation of soil, breeding and keeping of livestock including cattle, horses, donkeys, mules, pigs, fish, poultry and bees; the use of land which is ancillary to the farming of land or any other agricultural purposes but shall not include the use of any land attached to the building for the purposes of a garden to be used along with such buildings and **“Agriculture”** shall be construed accordingly;

1.1.3. **“Authority”** shall mean the local, regional or any other Authority appointed by the State Government for the purpose of administering the Act. Unless otherwise appointed by the State Government, the Authority in the case of Municipal Areas shall be taken to mean the Municipal Board for the areas constituted under the Assam Municipal Act, 1956 (Assam Act 1957) as adopted in Meghalaya.

1.1.4. **“Basement”** means the lower storey of a building below or partly below ground level. The ground level in case of sloping plots shall be taken as the middle point between the highest and lowest level of the land ;

1.1.5. **“Boarding House”** means a building or part of a building in which is carried on wholly or partly the business of the supply of meals to the public or a class of the public for consumption on the premises.

1.1.6. **“Building,”** means any construction for whatsoever purposes and of whatsoever materials constructed and every part thereof whether used as human habitation or hut and includes foundation plinth wall, chimneys, drainage works, fixed platforms, verandah, balcony or projection, part of a building or anything affixed thereto or any wall enclosing or intended to enclose any land or space.

1.1.7. **“Building of accessory use”** means subordinate buildings, use of which is incidental to that of a principal building on the same plot such as garage or woodshed quarters, etc.

1.1.8. **“Building-height of”** means the vertical distance measured in the case of flat roofs from the average level of the centre line of the adjoining street to the highest point of the building adjacent to the street wall, and in the case of pitched roofs, upto the point where the external surface of the outer wall intersect the finished surface of the sloping roof and in the case of gables facing the road the mid-point between the eaves level and the ridge. Architectural features serving no other function except that of decoration shall be excluded for the purpose of taking height. If the building does not abut on a street, the height shall be measured above the average level of the ground and continuous to the building.

1.1.9. "Building set-back" means the distance by which any building or structure shall be separated from the boundary line of the plot.

1.1.10. "Commerce" means carrying of any trade, business or profession, sale or exchange of goods of any type whatsoever and includes of, with a view to make profit, hospital nursing homes, infirmaries, educational institutions and also includes, hotels, restaurant, boardinghouse not attached to any educational institution, sarais and "Commerce" shall be construed accordingly.

1.1.11. "Commercial Use" includes the use of any land or building or part thereof, for purpose of commerce as defined or for storage of goods, or as an office whether attached to industry or otherwise.

1.1.12. "Average" is the percentage ratio of the plinth area of the main and accessory building to the total area of the plot.

1.1.13. "Customary home occupation" means occupation other than that of operation an eating or drinking place offering services to the general public carried on by a member of the family residing on the premises and in accordance with which there is no display that will indicate from the exterior that the building is being utilised in whole or in part for any purpose other than that as a dwelling and in connection with which nor articles or services is sold or held up for sale except that produced by a member of the family residing on the premises and no mechanical equipment is uses except as in customary for purely domestic or household purposes.

1.1.14. "Development" means the carrying out of building engineering mining or other operating in, on or over the land or making of any material change in the use of any building or on land:

Provided that the following operations or use of land shall not be deemed for the purposes of this Regulation to mean development of the land, that is to say—

- (a) the carrying out of works for the maintenance, improvement or other alteration of any building which effect only the interior of the building or which do not materially effect the use and the external apperance of the building.
- (b) the carrying out by a local authority of any work required for maintenance or improvement of roads, being works carried out on land within the boundaries of the roads.
- (c) the carrying out by a local authority any works for the purposes of inspecting repairing or renewing any sewers, main pipes, cables or other apparatus including the breaking open of any street or other land for that purposes.
- (d) the use of any building or other land within the curtilage of a dwelling house for any purposes incidental to the enjoyment of the dwelling house such.

1.1.15. "Development Scheme" means a development scheme and include a plan together with the descriptive matter, if any, relating to such scheme.

1.1.16. "Dwelling House" means a building or portion thereof which is designed or used wholly or principally for residential purposes. This shall not include boarding or rooming houses, tents, tourists camps, hotels or other structures designed of used primarily for transient resident.

1.1.17. "Floor Area Ratio" (F.A.R.) means quotient obtained by dividing the total covered area (plinth area) all floors by the area of the plot.

$$\text{FAR} = \frac{\text{Totals covered area of all floors}}{\text{plot area}}$$

1.1.18. "Industry" Industry includes the carrying of any manufacturing process as defined in the Factories Act 1948 and "Industrial" shall be construed accordingly.

(i) "Industrial, use" includes the use of any land or building or part thereof for industry as defined.

(ii) "Industry Clean" means industries which do not throw out any smoke, noise, offensive odour or harmful industrial waste and employing not more than 10 workers with or without power.

(iii) "Industry Light" means industries which do not throw out excessive smoke, noise, offensive odour or harmful wastes, employing not more than 100 workers and using power of not more than 100 HP. Such industry except in the case of foundry and Smithies do not consume any Solid fuel.

(iv) "Industry Medium" medium industries are those which employ more than 100 workers and may use any kind of motive power or fuel, subject of course to noxious features.

Factories which are classified as heavy industries under the factories Act, do not come under this category.

(v) "Industry Service" industries which are not engaged in the manufacture of goods or articles, but are mainly concerned repairs maintenance, servicing and of other jobbing work.

(vi) "Industry Obnoxious" Obnoxious industries are those which are associated with such features as excessive smoke, noise, vibration, stench, unpleasant or injurious fumes, of fluent explosive inflammable industries, etc., and such other which are hazardous to health and safety of the community.

1.1.19 "Non Conforming building or use" means a building, structure or use of land existing at the time of commencement of these regulations pertaining to the zone in which it is situated.

1.1.20 "Occupier" includes—

- (a) a tenants ;
- (b) an owner in occupation of or otherwise using his land ;
- (c) a licence in occupation of any land, and
- (d) a rent free tenant of any land
- (e) any person who is liable to pay to the owner damage for the use and occupation of any land.

1.1.21 "Open Space" means any land whether enclosed or not on which not more than one twentieth part, is covered with building and whole of the remainder has been laid out as a public garden or used for the purpose of recreation or lies waste and unoccupied.

1.1.22 "Owner" includes a mortgagee in possession, a person who for the time being is receiving or is entitled to receive or has received, the rent or premium for any land whether on his own account or on account of or on behalf or for the benefit of any other person or as an agent, trustee, guardian or for any other or for any religious or charitable institution or who would so receive the rent or premium or be entitled to receive the rent or premium in the land were let to a tenant, and includes the Head of a Government Department, the Secretary or other principal officer of a Local Authority Statutory or Company in respect of properties under their respective control.

1.1.23 "Parking Space" means an area enclosed or unenclosed sufficiently in size to store an automobile or any other conveyance together with a drive way connecting the parking space with a street or alley and permitting ingress or egress or all such conveyances.

1.1.24 "Plinth" means the portion of a structure between the surface of the surrounding ground and a surface of the floor, immediately above the ground.

1.1.25 "Plot" a place of land occupied or intended for occupancy by a main building or use together with its accessory building and uses customary and incidental to it, including the open space required by these regulation and having frontage upon a private way that has officially being approved by the competent authority.

1.1.26 "Plot Width" means the shorter distance from one side of the plot line or the other measured through that part of the plot to be occupied by the building.

1.1.27 "Prescribed" means prescribed by rules and regulations under the Assam Town and Country Planning Act, 1956 (as amended) and as adopted in Meghalaya.

1.1.28 "Prescribed Street Line" means the line on one or both sides of any road or street prescribed in the Master Plan or by the Authority showing the proposed site limits of the road or street.

1.1.29 "Public and Semi-Public Place" means any place or building which is open to the use and enjoyment of the public whether it is actually used or enjoyed by the public or not and whether the entry is regulated by any change or not.

1.1.30 "Repairs" means any renovation applied to any structure which does not in any way change the specification of the structure but saves the structure from further deterioration.

1.1.31 "Residence" includes the use for human habitation of any land or building or part thereof including garden grounds, garages, stables, and out houses, if any appertaining to such building and residential shall be construed accordingly.

1.1.32 "Road or Street" means any highway, street, land, path, a way, a alley, stairway, passageway, carriageway footway, square place or bridge, whether a throughfare or not over which the public have a right of passage or access or have passed and had access uninterruptedly for a specified period, whether existing or proposed in any scheme and includes are bunds, channels, ditches, storm water drains, culvert, sidewalk, traffic island, roadside trees and hedge, retaining walls, fences, barriers and railways, within the road lines.

1.1.33 "Shop Line" means shop when allowed irrespectively of any zone in between the space of the prescribed street line and a line drawn parallel to the street which is demarcated as shop line. The maximum depth of the shop line should not more than 6 metres.

1-1-34 "Storeys" means the portion of a building included between the surface or any floor and the surface of the floor next above it or if there is no floor above it, then the space between any floor and the ceiling next above it when measured the height of a habitable basement extending atleast five (5) feet above ground level or a habitable attic shall be counted as storey.

1-1-35 "Structure" any combination of materials including building construction or erected, the use of which requires location on the ground including among other things signboard, fences and walls that are more than three feet high.

1-1-36 "To abut" means to abut on the road such that any portion of the building in on the road boundary.

1-1-37 "To Construct" means to erect, re-erect make materials alterations.

1-1-38 "To Erect" to construct a building for the first time or to re-construct existing building after demolishing it according to some fresh or revised plan.

1-1-39 "Total Floor Area" the area of all floors of a building including habitable attics and basement.

1-1-40 "To make material alterations" means to make any modification in any existing building by way of an addition or alteration or any other change in the roof, window, door, compound, sanitary and drainage system in any respect whatsoever. Opening of a window and providing inter-communication doors shall not be considered as material alteration. Similarly modification in respect of gardening white washing, painting, re-tilling and other decorative works shall not be deemed to be material alteration. It further includes—

- (a) Conversion of a building or any part thereof for human habitation as one dwelling house into more than one dwelling house and *vice-versa* ; and
- (b) Conversion of a building or a part thereof suitable for human habitation into a dwelling house of *vice-versa* ; and
- (c) Conversion of a dwelling house or a part thereof into a shop, warehouse or factory or *vice-versa* ; and
- (d) Conversion of building used or intended to be used for one purpose such as shop, warehouse or factory, etc., into one of another purposes.

1-1-41 "To re-erect" means to construct for a second time or subsequent times a building or a part of building after demolishing it on the same plan as has been previously sanctioned.

1-1-42 "Water Course" means a natural channel or an artificial one formed by draining or diversion of a natural channel meant for carrying storm water either from a single property or several properties draining thereto in combination.

1-1-43 "Ware House" means a building, the whole or substantial part of which is used or intended to be used for the storage of goods whether for keeping or for sale or for any similar purpose but does not include a store room attached to and used for the proper functioning of a shop.

1-1-44 "Yard" means an open space at ground level between a building and the adjoining boundary line of the plot unoccupied and unobstructed except by encroachment or structure specifically permitted by these by laws on the same plot with a building. All yard measurement shall be the minimum distance between the front, rear and side yard-plot boundaries as the case

may be, and the nearest point of the building including enclosed or covered porches. Every part of the every yard shall be accessible from every other part of the same yard.

1.1.45 "Yard Front" means a yard extending across the front of a plot between the side yard lines and being the minimum horizontal distance between the street line and the main building or any projection thereof other than step unclosed balconies and unclosed porches.

1.1.46 "Yard Rear" means a yard extending across the rear of a plot measured between a plot and boundaries and being the minimum horizontal distance between the rear plot boundaries and the rear of the building or any projection other than a steps, unclosed balconies or unenclosed porches. In a corner plot the rear yard shall be considered as parallel to the street upon which the plot has its least dimension, in both the corner and interior plot the rear yard shall be at the opposite end of the plot from the front yard.

1.1.47 "Yard Side" means a yard between the building and the side line of the plot and extending from the line to the rear line of the plot and being the minimum horizontal distance between the said boundary line and the sides of a building or any other projection other than steps, unenclosed balconies or unenclosed porches.

1.2 The definition of the terms which are not covered by these regulations shall be covered by the definition prescribed by the Assam Town and Country Planning Act, 1959 and the rules frame there under and adopted in Meghalaya.

1.3 General Regulations.

1.3.1 The requirement of these Regulations within each zone shall be the minimum requirement and shall apply uniformly to each class or kind of structure or land except as here in after provided.

1.3.2 No building, structure or land shall herein after used or occupied, and no building or structure of part of the building shall herein after be erected, re-erected or materially altered unless is conformity with all of the regulations herein specified for the zone in which it is located.

1.3.3 No building or other structure shall hereafter be erected; re-erected or materially altered—

- (a) to exceed the height
- (b) to accomodate or house a greater number of families
- (c) to occupy a greater percentage of plot area
- (d) to have narrower or smaller rear yards, front yards side yards other of open space, than herein required, or in any other manner contrary to provision of these regulations.

1.3.4 Non-conforming plots, non-conforming uses of land, non-conforming structure and non-conforming uses of structure and premises.

1.3.5 Within the zones established by these regulations or amendment that may later be adopted therein, existing plots, structure and uses of land and structures, which were lawful before these regulations came into force or were amended, but which would be prohibited, regulated or restricted under the terms of these regulations

or future amendments, shall be permitted to continue until they are removed. Such uses are declared by these regulations to be incompatible with permitted uses in the zone involved. Such non-conformities shall not be enlarged upon, expanded or extended nor be used as grounds for adding other structure or used prohibited elsewhere in the same zone.

1.3.6 A non-conforming uses of structure, a non-conforming use of land, or a non-conforming use of a structure and land shall not be extended or enlarged after coming into forces of these regulations by attachment on a building premises of additional signs intended to be seen from off the premises or by the addition of other uses of a nature which would be prohibited generally in the zone involved.

1.3.7 Nothing in these regulations shall be deemed to require a change in the plans construction or disignated use of any building on which actual construction was lawfully begun prior to the coming into forces of these regulation and upon which actual building construction has been diligently carried on. Actual construction is hereby defined to include the placing of construction materials in permanent position and fastened in a permanent manner, except that were demolition or removal of an existing building has been substantially begun preparatory to rebuilding as demolition or removal shall be deemed to be actual construction provided that work shall be a diligently carried on until completion of the building involved.

1.3.8. Non-conforming use of land where on the date of coming into force of these regulations or amendment thereto lawful use of land exists that is made no longer permissible under the terms of these regulations as enacted or amended. Such use may be continued, so long as it is remain otherwise lawful subject to the following provisions.

- (a) No such non-conforming use shall be enlarged on increased non-extended to occupy a greater area of land than was occupied on the date of coming into force of these regulations or amendments thereto.
- (b) No such non-conforming use shall be moved in whole or in part to any other portion of the lot or parcel occupied by such use on the date of coming into force of these regulations or amendments thereto.
- (c) If any such non-conforming use of land ceases for any reason for a period of more than 30 days, any subsequent use of such land shall conforms to the requirement specified by these regulations for the zones in which such land is located.

1.3.9 Non-conforming structure where a lawful structure exist on the date of coming into force of these regulations or amendments thereto, that could not be build under the terms of these regulations by reason of restriction of area, plot coverage, height yards, or other characteristic of the structure of its location on the plot, such structure may be continued as long as it remain otherwise lawful subject to the following provisions.

- (a) No such structure may be enlarged or altered in a way which increase its non-conformity.
- (b) Should such structure be destroyed by any mean to an extent of more than 50 per cent of its replacement cost at the time of destruction it shall not be reconstructed except in conformity with the provision of these regulations.

- (c) Should such structure be moved for any reason any distance whatsoever it shall thereafter conform to the requirements for the zones in which it is located after it is moved.

1.1.10 Non-conformity use of structure. If a lawful use of a structure or of structure and premises in combination, exists on the date thereto, of coming into force of these regulations or amendment that could not be allowed into the zone under the terms of these regulations, the lawful use may be continued so long as it remain other wise lawful, subject to the following provisions.

- (a) No existing structure devoted to a use not permitted by these regulation in the zones in which it is located shall be enlarged, extended, constructed reconstructed, moved or structurally altered except in changing the use of the structure to a use permitted in the zone in which it is located.
- (b) No such non-conforming use shall be enlarged or increased or extended to occupy a greater area of the building than occupied by such use was at the time of coming into force of these regulations or amendment thereto ;
- (c) Any structure or structure and land in combination in which a non-conforming use is suspended by a permitted use shall there after conform to the requirment of these regulation for the zone in which such structure is located and the non-conforming use of structure, or structure and premises in combination or abandoned for six consecutive months or for 18 months during any three years period, the structure and premises in combination shall not there after be used except in conformity with the regulations of the zone in which it is located.
- (d) Where non-conforming use status applies to a structure and premises in combination, removal or destruction of the structure shall eliminate the non-conforming status of the land.

1.1.11 Repairs one maintenance on any building devoted in whole or in part to any non-conforming use, work may be done in any period of 12 consecutive months for ordinary repairs, or on repair of replacement of non-load bearing walls, fixtures-wiring or plumbing to an extent for exceeding 10 per cent of the current replacement value of the building ; provided that that the cubic contents of the building as it existed at the time of coming into force of these regulations or amendments thereto shall not be increased.

Nothing in these regulations shall be deemed to prevent the strengthening or resecur-ing to a safe condition, of any building or part thereof declared to be unsafe by any official charged with protecting the public safety upon order such official.

1.3.12 Uses under Exception—provision for non-conforming use. Any use for which a special exception is permitted as provided in these regulations shall not be deemed a non-conforming use, but shall without further action be deemed a conforming use in the zones in which it is permitted.

1.3.13 "Accessory Use" The term Accessory use shall not include—

- (a) Any use not on the same plot with the use to which it is accessory unless authorised by the authority.
- (b) Any use not customarily incident to a permitted use.
- (c) Any use detrimental to the neighbourhood by reason or ommission of smoke, noise, odour, vibration, dust of fumes ;

- (d) Storage of more than two commercial automobiles except on an agriculture piece of land.
- (e) A secondary dwelling on the same plot with a main dwelling unless each building shall have atleast the open space and equivalent plot size as required under these regulations.
- (f) Advertising signs excepting not more than 13 sq. ft. or 0.9 square meter in total area pertaining to the lease sale or use of a plot of building on which they are placed on a plot occupied by a dwelling there shall not be more than two signs with a total area of 2 square feet or 0.18 square metre per sign for each family house.

1.3.14. Yards and Open Space :

- (a) Each structure here after erected, re-erected or materially altered shall be provided with the front side and rear yard as specified with zoning regulations.
- (b) No open space or plot required for building or structure shall during its life be occupied or counted as open space for another building or structures.
- (c) On plot occupied by building only, not exceeding 30 per cent of the rear yard may be occupied by one storeyed building of accessory use.
- (d) Special type of building. Subject to the requirement of set back from prescribed street line and side and rear yard under the respective rules no building used for Theatres, Cinema Halls, Concert or Assembly Halls, Stadium, building intended for religious worship, Hospital or Dispensary building, Markets, Exhibition Halls or Museum and other such building shall have an open space of not less than 25 feet or 7.5 metres from the front boundary and 15 feet or 4.5 metres from the side and from the front boundary of the plot on which such building are constructed.

1.3.15. Visibility are inter-section in Residential Zones. On a corner plot in any residential zone, nothing shall be erected, placed planted or allowed to grow in such a manner as materially to impede vision between a height of two and a half and ten feet (0.7m and 3m) above the centre line level of the intersecting street in the area bounded by the street line of such corner plot and the joining point along said lines 5.0 feet or 15.0 metres from the point of the inter-section.

1.3.16. **Building abutting two or more street**—When a building abuts two or more streets the set back from the street shall be such as if the building was fronting each such street.

1.3.17. Means of access.—

- (a) No building shall be constructed on any plot for any use where there is no means of access to such plot.
- (b) Notwithstanding anything prescribed in the Master Plan the width of such access or lanes, roads, etc., to one individual plot or plots whether private or public shall be prescribed by the authority.

1.3.18. The authority may prescribe a line on one or both side of any public or private road or street and no person shall constructed reconstruct or materially alter any portion of any building or land within such prescribed new street line.

1.3.19. If any building or structure or part of a building or structure abutting on a public or private road or street is within such line of the street, the authority may require such building or structure to be set back beyond such prescribed line to a distance as prescribed in the regulation whenever it is proposed:—

- (a) To re-build such building or structure or to take down such building or structure.
- (b) To remove, re-construct or make any addition to or structural alteration in any portion of such building or structure which is within such regular prescribed line of street.

1.3.20. When any building or structure or any part thereof within the prescribed line of street fall down or is burnt down or is taken down, the Authority may at once take possession of portion of land within the prescribed line of street previously occupied by the said building or structure and if necessary clear the same under the provision of the Assam Town and Country Planning Act, 1959 (as ammended) and as adopted in Meghalaya.

1.3.21.1. **Land Sub-Division and lay out.**—Except as otherwise provided, no land will be developed or sub-divided and no lay out on land shall be prepared altered, done or executed unless on conformity with these regulation herein specified for the zone in which the land is locate.

1.3.21.2. **Fences, walls and hedges.**—Notwithstanding any other provision in these regulations, fences, walls and hedges may be permitted in any required yard or along the hedge of any yard provided that no fences, wall, or hedge along the side of front edge of any front yard shall be over 3 feet or 0.9 metres in height.

1.3.22. **Off-street parking space for motor space for motor vehicles, scooter, cycle.**—

- (a) Off-street parking space shall be provided on any plot on which the use specified in the Table—I are here after establish. Such parking space shall be provided with adequate vehicular access to a street.
- (b) Each off-street parking space provided shall not be less than of 2.7m × 3.4m and 2.5 × 1m for car and scooter respectively. The area of driver, aisels and such other provisiors required for adequate access shall not be counted as part of the parking space.
- (c) Off-street parking space provided shall be not less than the minimum requirement specified in the Table I for each type of use.
- (d) If a vehicle parking space required by these regulation is provided in parking areas by groups of property owners for their mutual benefit, the Board of Zoning, Appeals may construe such use of this space as meeting the off-street parking requirement of these regulations.
- (e) If off-street vehicle parking space cannot be reasonably provided on the same plot on which the principal use is conducted the Authority may permit such space to be provided on their off-street property ; provided such space line within 400 feet or 120 metres of the main entrance to be

use such vehicle parking space shall be deemed to be required open space associated with the permitted use and shall not therefore be reduced or encroached upon in any manner.

TABLE—I

Minimum number of Off-Street Parking Space

Type of use	One Parking Space shall be provided for every	
	CAR	SCOOTER
1. Residential Building (in case of group housing only).	For every dwelling unit exceeding.	...
2. Theatres, Cinema, and Auditorium.	40 seats of accomodation ...	25 seats of accomodation.
3. Retail Business	93 sq. mts. (1000 sq.ft.) of sales area.	46.5 sq.mts. (500 sq.ft. of sale area.
4. Office Building	93 sq.m's. (1000 sq.ft.) of office floor space.	46.5 sq.mts. (500 sq.ft.) of offices floor space.
5. Hospital	30 beds of accomodation ...	20 beds of accomodation.
6. Hotel	10 beds of accomodation Class I Hotel (as classify by Authority)	...
7. Restaurant	30 seats of accomodation ...	10 seats of accomodation.
8. Industrial	20 employees in the industry ...	15 employees in the industry.
9. Wholesale Warehouse ...	116 sq.mts. (1000 sq ft) floor area or fraction thereof.	...

1.4.1 **Permission.**—Written permission for development works and sub-division of land. No person shall use any land, sub-divide any land, develop any land or set up any new structure or any land, or erect, re-erect materially alter or change the existing structure of any building of land within the limit of the Master Plan Area without the written permission of the authority, as defined in 513 of the Assam Town and Country Planning Act, 1959 (as amended) and as adopted in Meghalaya.

1.4.2.1 **Manner of obtaining permission.**—For the purpose of obtaining permission for the erection, re-erection, renovation and materially alteration of any building or structure the applicant shall submit the following plans, in triplicate together with an application as prescribed by the authority.

- (a) A block plan of such building or structure and site which shall be drawn to the scale of the largest revenue survey maps at the time in existence for the locality and shall show the position and appurtenances of the properties, if any immediate adjoining streets and the means of access to the building. Dag No., Pata No., Name of Village.
- (b) A site plan of 16 ft. or 2 metres scale indicating the plot boundaries, position of the existing structure, if any, line plan of the proposed structure with its location, set back, side and rear yard projection, if any, distance from any structure if any, etc., on the plot in figured dimension.
- (c) The detailed floor plans for each floor on 8 ft. or 1 metres scale with projection, if any, showing the use of every room or portion of the building or structure and full and detail dimension of the structure.

- (d) One or two sections, as the case may be, through the building showing the height of the plinth above and below the ground level and each floor and of the roof over the staircase.
- (e) Any other items or information which may be required by the Authority from time to time.
- (f) All the plans and sanctions shall be signed by the applicant.

1.4.2.2. In case of plans pertaining to erection, re-erection, renovation or material alteration of any building or structure the Authority may either grant or refuse the approval to the plans if it is not in conformity with the Master Plan or Zoning Regulation and shall communicate its decision to the applicant giving the notice within a period of one month from the receipt of the application or such information as may be called for by the Authority.

1.4.2.3. For the purpose of obtaining permission for such sub-division of any plot of land the applicant shall submit the following plans in triplicate together with necessary statements to the Authority.

- (a) A block plan of such land which shall be drawn to the scale of largest revenue survey map at the time in existence for the locality showing location of the land boundaries of the proposed land shown on the map and sufficient description to define the same location, name and present with of the adjacent roads and lanes and major physical characteristic of the land proposed to be sub-divided, including topography, the location and width of any water course and location of any areas subject to inundation or flood and north line.
- (b) A plan of such land which shall be drawn to suitable scale showing the complete layout of the proposed sub-division including location and widths of all the proposed streets dimensions and uses of all plots, location of all drains sewers and other utilities building lines permissible and north line.
- (c) Any other items or information which may be required by the Authority from time to time.
- (d) All the plans shall be signed by the applicant.

1.4.2.A. In case of plan pertaining to sub-division of land, the Authority may either grant or refuse the approval of the plans or may approve them with such modification as it may deem fit and there upon shall communicate its decision to the applicant giving the notice within two months from the date of submission of the plan to the Authority.

1.5. Classification and Establishment of Zones.

1.5.1. The following land use zones have been prescribed for the Master Plan Area.

I. Residential Zone

- (a) Low density
- (b) Medium density
- (c) High density

II. Commercial Zone

- (a) Retail Commercial
- (b) Wholesale Commercial

- III. Industrial Zone
 - (a) Night Industry
 - (b) Medium Industry
 - (c) Obnoxious Industry
- IV. Public and Semi Public Zone.
 - (a) Administrative
 - (b) Institutional
 - (c) Security.
- V. Recreational and Open Space Zone.
- VI. Urban Agricultural Zone and Conservation '8' Zone.
- VII. Conservation 'A' Zone.

1.5.2. The zones designated above may be further divided into sub-ones by the Authority where it deems it expedient the designation of sub-zones being dependent upon the special use to which each sub-zone is being utilised.

1.5.3. Boundaries of Zones the boundaries of each zone shall be as established in the Master Plan for Tura of the area under the Authority and a copy of the Plan shall be kept on record at the official premises of the Authority unless otherwise shown on the Master Plan of the boundary line of zone shall be plot lines, the centres lines, of street, or such lines extended the corporate limit as it exist at the time of enactment of regulations

1.5.4 All dispute and difference with respect to the exact location of boundries of the zone shall be referred to the Director of Urban Affairs whose decision shall be final and binding.

1.6.1. Regulation for different Zones.

1.6.2. Regulation for different Zones regarding uses permitted uses permissible on appeal to the Authority and use prohibited shall be as follows.

1.6.2.1. Regulation for Residential Zones.

1.6.2.1.A. Uses permitted.

- (a) Dwellings.
- (b) Customary home occupation.
- (c) Place of worship like temples, namghar, mosque, church, etc. The Church, Temples or Mosques, etc., shall not be within 20 ft. (6 mts.) from three side the boundary including roadside. Set back for the fourth side should be as per normal set back as in the case of residential zone.
- (d) School offering general educational courses community halls, welfare centre, public libraries, art, galleries, museum, hostels for educational institution offering general courses gymnasium.
- (e) Medical, eyes and dental practitioners' clinic.

- (f) Professional Office and studies of a resident of the premises and incidental to such residential use not occupying a floor area exceeding 200 sq. ft. or 18.00 sq. metres.
- (g) Club house not conducted primarily as business public parks and private parks which are not utilised for business purposes.
- (h) Nurseries and general agricultures horticulture.
- (i) Accessories uses customarily incidental to any principle use.
- (j) Post Office, Police Station and Out Post and Telephone Exchange and Five Station.
- (k) Taxi Stand and Bus Stand.
- (l) Research, experimental and testing laboratories not involving any danger of fire explosion not of any obnoxious nature provided the laboratory is kept atleast 50 feet (15 metres) away from any of the boundaries of the site and the accessory residential building.

1.6.2.1.B. Use permission on appeal to the Authority.

- (a) Municipal State and Central Government uses but not offices.
- (b) Public utilities.
- (c) Philanthropic uses, residential hostels, restaurant, cafeteria, milkbars, boarding or lodging houses in independent buildings.
- (d) Air condition cinema theatre with separate entrance exist to car park and subject all other regulation applicable to cinema theatres. The cinema theatre itself shall not be within 40 feet from any boundary of the plot. Normally no permission for a Cinema theatre shall be granted within a distance one furlong or 200 metres from the existing cinema hall.
- (e) Clean industry considering (performance characteriotic has the following factors :—
 - (i) NOISE (ii) VIBRATION (iii) SMOKE (iv) DUST (v) ODOUR
 - (vi) NATURE OF EFFLUENTS (vii) POWER (viii) EMPLOYMENT
 - (ix) GENERATION OF VEHICULAR TRAFFIC (x) GENERAL NUISANCE (An indicative list of industries which can be permitted in residential areas as given in Annexure-A).
- (f) Trade or other similar schools not involving any danger or fire, Explosion Noise, Vibration, Smoke Dust, Heat or other objectional effluents.
- (g) Branch Office or Banks and local Offices of any public authority and Telegraph Office.
- (h) Golf Club and Green Houses.
- (i) Market Place with only vegetable, fruits, flowers, fish and meat and other connected day to day requirements.
- (j) Theatre, Assembly or Concert Halls, Dance and Music Halls and such other places of entertainment.

(k) Electric Sub-stations.

(l) Neighbourhood shopping centre with goods offered for sale for day to day requirement and the use permissible under Cls. 1.6.2.1.C.

(m) Monuments; Libraries.

(n) Social and Cultural Institutions with adequate parking facilities.

(o) Hospital and Sanitoria not treating contagious disease or mental patients, provided that no nuisance created and no part of the buildings except residential purpose is located less than 50ft. from any plot line.

(p) Petrol filling stations.

1.6.2.1.C. A building or premises with a shop line on a street in residential Zone may be allowed only for the following purposes subject to the conditions that:—

(a) The additional uses permissible here under shall be restricted to a depth of 20ft. or 6.0 metres and only the ground floor of the building in the front position abutting the street on which the shop line is marked.

(b) Where the building or premises abutted on two or more street, no direct opening of such shops may be permissible on the street on which no shopping line is marked.

(c) When the ground floor of such building or premises is allowed for shop under this clause the following use may be permitted:—

(i) Any use permitted in residential Zone.

(ii) Stores of shops for the conduct of retail business.

(iii) Branch Office of Banks, professional Offices, Local Offices of any public authority created by law.

(iv) Hair dressing Saloon and Beauty Parlours.

(v) Shoe repairing and Shinning Shops.

(vi) Laundry and tailoring shops not employing more than five persons.

(vii) Shop for Goldsmith, Watch and Clock repairs and picture framing.

(viii) Radio and household appliances repair and Umbrella repairs (not employing more than five persons).

(ix) Tea stalls, Restaurants and eating houses.

(x) Uses permissible under (a), (b), (c), (d), (f), (g) and (h) of c/1.6.2.1.B.

1.6.2.1.D Uses prohibited—All other uses not specifically permitted herein.

1.6.2.2. Regulation for Retail Commercial Line.

1.6.2.2.A Uses permitted.

- (a) Any use permitted in residential Zones with shop line.
- (b) Auto Supply stores and show room for motor vehicles and machineries.
- (c) Storage of Furniture and household goods.
- (d) Club houses or other recreational activities conducted as business.
- (e) Places of amusement or assembly.
- (f) Places of worship like Temple, Church, Mosque and Art galleries.
- (g) Dispensaries, Clinic and Veterinary Dispensaries and Hospitals.
- (h) Police Station and Out Post.
- (i) Post and Telegraph Offices and Fire Stations.
- (j) Local Offices of any public authority created by law and professional offices.
- (k) Bank and Safe Deposit Vaults.
 - (l) Municipal, State or Central Government uses but not Offices.
- (m) Hotels, Boarding and lodging Houses, eating houses.
- (n) Printing press, book binding and block making with aggregate not more than five persons.
- (o) Cleaning and dying establishments.
- (p) Shops of all kinds, business Office and exchanges.
- (q) All other uses permitted under 1.6.2.1.A. and under (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), 1.6.2.1. B and all under 1.6.2.1. C.
- (r) Photograph Studios, and laboratories and radio broadcasting studios.
- (s) Pasteuring and milk processing plant not employing more than 10 persons and 25 horse power motive power.
- (t) Accessory building or uses customarily incidental to any permitted principal use including stores upto 50 per cent of the total floor area used for the principle use.
- (u) Public utilities and Municipal facilities.

1.6.2.2.B Uses permissible on appeal to the Authority:—

- (a) All type of industries that is permitted in residential area.
- (b) Petrol filling station and kerosine stores.
- (c) Electric Sub-Stations.
- (d) Coal, Wood and Timber yards.
- (e) Motor repairing garages.
- (f) Repair, Cleaning, Printing or light manufacturing using not more than 20 K. W. Motive Power in total and employing not more than 10 persons.
- (g) Whole sale Godown and Warehouse.

(h) Taxi, Bus and Truck parking areas.

(j) Service industries using motive power not more than 25 H.P. and not employing more than 15 persons.

1.6.2.2.C Uses prohibited—All other uses not specially permitted herein.

1.6.2.3. Regulation for Wholesale Commercial Zone.

1.1.7.3.A Uses permitted:—

(a) Wholesale and Retail Shops.

(b) Warehousing and godown which do not cause nuisance.

(c) Residential dwelling and professional establishment.

(d) All other uses permitted and permissible in the retail commercial Zone except Petrol filling station, Coal, Wood and Timber yards.

1.6.2.3.B Uses permissible on appeal to the Authority:—

(a) Truck terminals and parkings.

(b) Service Industries which do not cause nuisance.

(c) Petrol filling station, Coal, Wood or Timber yards.

1.6.2.3.C Uses prohibited:—

(a) Storage of petroleum and other inflammable materials causing smoke, odour and other nuisances.

(b) Storage of any material causing dust and hazardous to public health.

(c) Junk yards.

(d) All other uses not specifically permitted herein.

1.6.2.4 Regulations for light industry zone.

1.6.2.4.A Uses permitted—All type of Industries that are permitted in residential Zone.

(a) Warehouse and godown.

(b) Coal, Wood and Timber Yard.

(c) Contractors plant and Storage for building materials.

(d) Bakeries, Confectioneries Ice Cream factories.

(e) Automobile Service and repairing stations which motive power not exceeding 20 HP. provided the necessary parking spaces are available.

(f) Power Laundries.

(g) Pasteurisation of milk, cream and butter.

(h) Mechanical Workshop with lather drills, grinders, spot, welding data with motive power not exceeding 20 H. P.

(i) Printing, Book Binding, Engraving and Block making.

- (j) Photo process, embroidery and lace manufacturing and cotton and silk printing, arts and crafts, toy making, glass cutting, etching and polishing, custom, jewellery and novelties.
- (k) Supari and masala grinding, cold storage, metal polishing, travel goods of canvas and water proof materials, steel slate, sewing machine (assembly), writing ink employing not more than 10 persons.
- (l) Handloom weaving, wooden packing cases and boxes wax products, wooden industrial goods basket and metal container, animal feed.
- (m) Iron rolling and wire netting with motive power not exceeding 75 HP.
- (n) Atta Chakki, Oil Mill and Flour Mill with a motive power not exceeding 75 HP.
- (o) Bus and Truck terminals and parking lots.
- (p) Service Industry.
- (q) Any other use in commercial zone except those specifically prohibited here under.
- (r) Accessory building or use customarily incidental to any permitted principal use.

1.6.2.4.B Use permissible on appeal to the Authority.

- (a) Leather Products
- (b) Fruits and Vegetables cannings and preservations
- (c) Saw milling
- (d) Light manufacturing, railing and grills manufacturing
- (e) Petrol filling station
- (f) Watchman or Caretaker's lodger
- (g) Canteen and eating houses serving the industries
- (h) All other light industry as defined by the Authority not involving any danger or fire explosion, noise, vibration, smoke, dust, heat, or other objectionable effluents.

1.6.2.4.C Uses prohibited :—

- (a) All uses not specifically permitted herein
- (b) The industries Associated with undesirable feature such as excessive smoke stench, infurious, fumes, effluents and other hazards to health and safety of the people.

1.6.2.5 Regulation for Medium industry zone :—

1.6.2.5.A **Uses permitted**—All use permitted or permissible on appeal to the Authority in light industry zone.

1.6.2.5.B All other medium industry except those specifically prohibited here under:—

1.6.2.5.C **Uses prohibited**—The industries with undesirable features such as excessive, smoke, stench, infurious fumes, effluents and other hazards to the health or safety of the people.

1.6.2.6. Regulation for obnoxious industry zone

1.6.2.6.A Uses permitted—All use permitted as per the list in annexure II and those which are prohibited in other industrial use zone due to hazards to the health or safety of the people.

1.6.2.6.B Uses permissible on appeal to the Authority

- (a) Public utilities and Municipal facilities
- (b) Uses incidental to the main use

1.6.2.6.C Uses prohibited—All other uses not specifically permitted herein

1.6.2.7. Regulation for public and semi public zone

1.6.2.7.A Uses permitted

- (a) State and Central Government Offices and other public and semi public building.
- (b) Educational and Research Institutions
- (c) Social, Cultural and Religious Institutions
- (d) Local and Municipal Offices
- (e) Public utilities and Municipal facilities
- (f) Museums, Monuments, Arts galleries, Community Halls Libraries
- (g) Building and uses incidental to the above permitted use.
- (h) Taxi stand and Bus stand.

1.6.2.7.B Uses permissible on appeal to the Authority.

- (a) Residence.
- (b) Restaurants, Milk Bars.
- (c) Any other uses incidental to main use and in no way causing any nuisance or hazards.
- (d) Radio and Wireless Station

1.6.2.7.C Uses prohibited All other uses not specifically permitted herein.

1.6.2.8 Regulation for recreational and open space zone.

1.6.2.8.A Uses permitted.

- (a) All public and semi public recreational uses including parks, play grounds, park ways and other special recreational areas.
- (b) Stadium.
- (c) Swimming pools, clubs and gymnasium halls.
- (d) Botanical and Zoological parks and gardens.

1.6.2.8.B Uses permissible on appeal to the Authority.

- (a) Restaurant and selling of eatables.
- (b) Public utilities and Municipal facilities.
- (c) Uses clearly incidental to recreational use which will not create nuisance or hazards.
- (d) Residence in the new proposed areas.

1.6.2.8.C Uses prohibited All uses not specially permitted herein, conversion of use in prohibited in cases of existing area.

1.6.2.9 Regulations for Urban Agriculture and Conservation 'B'

1.6.2.9.A Uses permitted.

- (a) All agricultural uses and horticulture.
- (b) Gardens and forestry.
- (c) Golf-links and Club houses.
- (d) Public and private parks, play fields.
- (e) Dairy and Poultry farming.
- (f) Farms houses and their accessory building and their uses.
- (g) Churches, Mosque, Temples and other place of worship.
- (h) Processing and sale of farm products on the property where produced the servicing and repair of farm machineries and the sale of agriculture products.
- (i) Film studios of temporary nature.
- (j) Fish curing.
- (k) Stone, crusher of quarrying.
- (l) Sand, Clay or gravel quarrying.
- (m) Storage and drying of fertilizers.
- (n) In general, those uses which do not require the erection of building except temporary building for accessory use and when they are obnoxious or offensive by reason of emission of odour, dust, smoke, gas noise or vibration they shall be located atleast 100 ft. from boundary of plot.
- (o) Tourist facility including lodging and boarding with only 25 p.c. coverage.

1.6.2.9.B Uses permissible on appeal to the Authority.

- (a) Milk Chilling stations and pasturing plants.
- (b) Rural cottages, boarding houses and hostels, scientific and industrial research laboratories not to be operated for production of goods or other materials for sale, except as may be produced by pilot plants, provided there is not nuisance or hazards.
- (c) Cottage industries brick making, excavation of clay, gravel, topsoil and other earthen materials sewerage treatment plants, trenching ground.
- (d) Landing field for planes and helicopters and its necessary appurtances.
- (e) Utilities and their buildings.
- (f) Area needed for defence purposes.
- (g) Wireless transmitting and weather stations.
- (h) Any irrigation or Flood control works.

(i) Cometics Creamatorium and burial grounds.

(j) In case of existing village in this zone the normal expansion of the village including rural housing community facilities and other service facilities would be allow or upto a physical boundary to be fixed by the Authority.

1.6.2.9.C Uses prohibited.

(a) All use not specially permitted herein.

(b) The parcelling out of land in this zone for the purpose of Urban housing shall be absolutely prohibited.

1.6.2.0.D Customarily home occupation shall be conducted only by a person resident in the dwelling, the area for such uses shall not exceed 25 per cent of the total floor area of the dwelling, there shall be not public display of goods.

1.6.2.9.E. Transient visitors camp shall face on a drive way of at least 30 ft. or 90 mts. wide and shall have unobstructed, well drained plainly marked and adequately lighted access to a public street. Adequate sanitary and water supply facilities shall be provided for males and females.

1.6.3.10. **Regulation for Conservation 'A' Zone** : No activation other than forestry shall be permitted.

1.7 Exception and modification.

1.7.1 Exception of height, yards and set back limit.

1.7.2.1 The height limitation of these regulation shall not apply to churches, schools, hospitals and other public and semi public building, provided that the minimum depth of front and rear yards and the minimum widths of the side yards required in the zone are increased by 1 ft. or 304.8 mm per foot or metre by which the height of such public or semi public structure exceeds the height limits in feet or metre prescribed for other structure in the zone.

1.7.1.2 Chimneys, elevators, poles, spires, overhead water tanks and other such projections not used for human occupation, or appeal to the authority.

1.7.1.3 Steps, gallery or balcony, whether frame, sum breaker, cornice caves, window sills, or other ornamental projection may project into any yards provided this will not reduce the required open space in the front, sides and rear as prescribed in these regulations, on appeal to the authority.

1.7.1.4 In any zone, on plots less than 60ft. or 18 mts. deep, the rear yard may be reduced by one per cent for each feet or 304.8 mm if the plot depth is less than 60 ft. or 18 mts.

1.7.1.5 Not withstanding any thing contained in these regulations from the set back in any zone can be prescribed by the authority in pursuance of any structure.

1.7.1.6. Height of compound walls in all zones specified in these regulations shall not exceed 5.6 ft. or 1.65 mts. from the ground level.

1.7.2. Group project.

1.7.2.1. In case of Group Housing Project containing a group of twenty or more building notwithstanding any thing contained in the regulations, the authority may prescribe special requirement in harmony with the character of zone.

1.8. Sub-Committee on Zoning Appeals.

1.8.1- Sub-Committee shall be constituted from out of the Members of Authority by the Chairman and if not authority unconstituted in such cases by the Director of Town and Country Planning/Urban Development, which shall be called the "Sub-Committee on Zoning Appeals".

1.8.2. The Sub-Committee shall consist of atleast five members. The Chairman of the Authority and the Director of Urban Affairs or his nominee, the Town Planning Officer of the Authority and two other members of whom one representing the District head shall be the members subject to the approval of the Authority. When the authority is superseded the Administrator or when no authority is constituted the D.C./S.D.O. or his nominee the Director, Urban Affairs or his nominee, the Town Planning Officer of the authority and two other members are of whom representing the local authority and the other District convert to be nominated by the State Government shall be the members.

1.8.3. The Chairman, Administrator, D.C./S.D.O. or his nominee or in his absence Director, Urban Affairs or his nominees shall prescribed over such meeting and the quorum shall consist of atleast 3 members.

1.8.4. The Chairman, or the Administrator or when no authority is constituted the Director, Urban Affairs or his nominee shall convene such meeting of the Sub-Committee of Zoning, which will meet once in a month to consider any case of zoning appeals.

1.8.5. The Sub-Committee shall have the power to grant variance with respect to front, rear and side yard of building height and area requirement. If at the time of adoption of these regulations a plot of land is smaller than the minimum size specified for the land in which it is located and compliance with front, rear side yard and height and area regulation is not feasible because of topography or other special consideration the case may be brought before the Sub-Committee or Zoning appeals. This Sub-Committee can grant variance and permission given with such modification as are necessary but should conform as clearly as possible to the requirement specified for the zone in which the plot is located. In all cases, the particulars reason for the variance should be recovered by the Sub-Committee.

1.8.6. The Sub-Committee on Zoning Appeals shall not have the power however to grant use variance where a change of use other than that specified in the zone in which the plot is located is permitted.

1.8.7. **Penalties:**—Every person, firm Body or Corporation who commits or knowingly permits a break of any specified provision of the Master Plan and Schemes prepared there under and foregoing zoning regulations or who neglects or fails to comply with any such provisions, shall be punishable as provided in the Assam Town and Country Planning Act, 1959 (as amended) and as adopted by Meghalaya.

ANNEXURE-I

An indicative list of industries which could be permitted in residential zone.
(As stated in Article 1.6.2.1.8)

1. Cosmetic produces.
2. Agarbatti.
3. Writing ink.
4. Sealing wax.
5. Watch repairing, pen and spectacles repairing.
6. Acrylic sheet button.
7. Plastic covers (Diary, files, etc).
8. Knitted plastic bags.
9. Shoe repairing and manufacture.
10. Rubber stamps.
11. Rubber moulded good.
12. Food products-bakeries, etc.
13. Creamary and diary products.
14. Atta chakki and Musala grinding.
15. Repacking of medicines, etc.
16. Paper products.
17. Card board boxes, paper bag making, etc.
18. Book binding.
19. Printing press with aggregate motive power not exceeding 10 KW. and not employing more than 10 persons.
20. Readymade garments.
21. Batic painting.
22. Embroidery.
23. Watch straps (Nylon).
24. Canvas bags or products.
25. Hosiery items.
26. Surgical bandages.
27. Shoe laces etc.
28. Thread reels.
29. Tailors labels.
30. Mirror & frame making.
31. Decorative glass articles.

32. Chalk sticks.
33. Tailors shop.
34. Cycle repairing shop
35. Basket making.
36. Wire brushed.
37. Umbrella assembly.
38. Wooden toys.
39. Paper pins, gum, Clips.
40. Hairpins.
41. Wire staples.
42. Wire stand for kitchen.
43. Wire for curtains.
44. Wire loops.
45. Decorative key rings.
46. Link clips.
47. File clips.
48. Shoe and tents eyelets.
49. Brass jewellery.
50. File cover accessories.
51. Garments hooks and eyes.
52. Link chains.
53. Heating elements (for domestic electric appliances).
54. Decoration lighting series.
55. Transistor radio covers.
56. Decorative leather goods.
57. Industrial leather handgloves.
58. Manufacture of Bidi.
59. Processing of suparis.
60. Laundry, dry cleaning and dying.
61. Cotton cloth weaving and handlooms.
62. Ivory caryings.
63. Metal polishing.
64. Gold and Silver, thread, Zari work, Jeweliery gold on mints.
65. Manufacture, repairing and tuning of musical instrument.
66. Making of lac bangles.
67. Repairing of electronics instruments.
68. Assembly of furniture units.

Use of Map

1. Administration Boundaries.
2. Proposed Land Use.
3. Proposed circulation pattern.
4. Propose Zoning Plan.

APPENDIX

Employees Accommodation (State Government)

Grade	No. of employees occupying diff. accommodation			
	Own	Government quarter	Hired house	Any other
I	3	9	10	...
II	9	16	45	...
III	203	73	291	4
IV	105	112	295	3
Total	320	200	641	7
(Semi Government State)				
I	...	1	1	...
II	...	3	2	...
III	15	...	86	...
IV	11	3	149	...
Total	26	7	238	...
(Central Government)				
I	...	...	...	...
II	...	...	1	...
III	1	1	8	...
IV	1	...	4	...
Total	2	1	13	...

APPENDIX

TABLE

Details of Occupational Structure

Workers in Primary Sector

Cultivation		Agriculture Labour		Livestock Forestry etc.		Mining & Quarrying		Total		Grand Total
M	F	M	F	M	F	M	F	M	F	
80	28	53	58	51	14	1	...	185	100	285

Workers in Secondary Sectors

Manufacturing processing servicing & repairs										Grand Total
Household Industry		Other than household		Construction		Total				
M	F	M	F	M	F	M	F	M	F	
151	107	201	102	252	13	604	222			826

Workers in Tertiary Sector

Trade and Commerce		Transport storage		Other service		Total		Grand Total
M	F	M	F	M	F	M	F	
234	166	163	41	891	368	1288	575	1863

SOURCE :- Director of Census Operation, Meghalaya 1971.

APPENDIX

List of Industries Registered at Jowai.**Nature of Industries :**

Saw Mill.	2
Furniture.	3
Hollow Block.	4
Bakery.	4
Tailoring.	3
Shoe Making	1
Candle.	1
Rice Mill.	1
Tyre Retrading.	1
Automobile Repairing.	2

Source : Asst. Director of Industry

APPENDIX

List of Community Facilities : Education:

1. Nursery, Primary etc.

1. St. Marry's Mazzerollo, Nursery School.
2. Presbyterian Nursery School.

2. Primary School :—

1. Ladthalaboh D.C.L.P. School.
2. St. Marry's Mazzerollo L.P. School.
3. Iaw Mausiang vallabhai Patel D.C.L.P. School.
4. Tpeppale D.C L.P. School.
5. Lulong D.C.L.P. School.
6. Panaliar D.C.L.P. School.
7. Lumiongkjam (Ponmusiang) D.C.L.P. School.
8. Presbyterian D.C.L.P. School.
9. Chilliangraj D.C.L.P. School.
10. Khimusniang D.C.L.P. School.
11. Chutwakhu D.C.L.P. School.
12. H. K. Singh D.C.L.P. School.
13. Gandhi Memorial Primary School.

3. Middle English School :—

1. St. Marry's Mazzerollo M.E. School.
2. Central M.E. School.
3. Seinraj M.E. School.
4. Senior Basic School.

4. High and Higher Secondary :—

1. Jowai Govt. Boys High School.
2. Jowai Govt. Girls High School.
3. St. Marry's Mazzerollo High School.
4. Marian Hills High School.

5. College :—

1. Kiang Nongbah College.

6. Vocational Institutes :—

1. Weaving and Handloom Training Institutes.
2. Training Our Production Centre for Women.
3. Technical School (Roman Catholic) under construction.

APPENDIX RECREATION

1. Parks:

1. Children's Park near D.C. Office.
2. Panaliar Children's Parks.

2. Play Ground:

1. Governmet Boys High School (Jrisalein) play ground
2. Mynthong Play Ground.
3. Ladthalaboh Play Ground.
4. Tpeppale Play Ground.
5. Mission Play Ground.
6. Lulong Play Ground.
7. Panaliar Play Ground.
8. Chilliangraj Play Ground.

3. Club Hall:

1. Ladthalaboh Club Hall.
2. Iawmusiang Club Hall.
3. Tpeppale Club Hall.
4. Lulong Club Hall.
5. Iongpiah Club Hall.
6. Lumiongkjam Club Hall.
7. Lion Club Hall
8. Lumkyrwiang Club Hall.
9. Panaliar Club Hall.
10. Chilliangraj Club Hall.
11. Chutwakhu Club Hall.

4. Cinema Hall

1. Marynhian Cinema Hall.
2. (Under Construction) Cinema Hall.

5. Health:

1. Civil Hospital.
2. Presbyterian Hospital.

6. Holy Place:

1. Moolikso Groove.
2. Pohlangdoh Groove.

APPENDIX
(SEMI GOVERNMENT (CENTRAL))

Grade	No. of employees occupying different accommodation			
	Own	Government quarter	Hired house	Any other
1	2	3	4	5
I	...	...	6	...
II	...	...	6	...
III	8	1	21	...
IV	5	2	16	...
Total	13	3	49	..

Source: Associate Town Planner's Office, Jowai, 1982

- (1) District Homeguard Commandant Office have not furnished regarding the accommodation.
- (2) Asisstant Inspector of Schools.

TOTAL EMPLOYEES

Nature of Office	1st Grade		2nd Grade		3rd Grade		4th Grade		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
State Government	24	...	65	4	413	242	555	9	1057	255	1312
Semi Government (State)	2	...	5	...	96	5	152	11	255	16	271
Central Government	...	...	1	...	18	2	11	...	30	2	32
Semi Government (Central)	6	...	6	...	20	...	17	...	49	...	49

Source: Associate Town Planner's Office, Jowai 1989.