

# **NARAIL PAURASHAVA**

## **DRAFT MASTER PLAN**

**NARAIL DISTRICT, BANGLADESH**

## CHAPTER- 1

### INTRODUCTION

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#### **General**

Urbanization in Bangladesh is moving at a rapid pace. Between 1961 to 1981, the average urban growth rate was 8%. The present average growth rate is about 4.5%. According to the population census of 2001, the share of urban population was about 23.29% and at present it is approximately 25%. By the year 2015, the share of urban population will be about 37% of the national population. The importance of urban development is emphasized in terms of its role in the national economy. More than 60% of the national GDP is derived from the non-agricultural sectors that are mainly based in urban areas. Again, the most foreign exchange earning sectors, like, garment and knitwear enterprises are agglomerated in urban areas. These sectors earn over 70% of the foreign exchange. Remittance is also a major sector of foreign exchange earning and a large share of the remittance goes into the purchase of urban land. Surplus remittance is invested in business and manufacturing located in urban areas. These phenomena indicate the increasing role of urban areas being played in the national economy. The expansion of urban economy leads to the growth of urban population and concomitant haphazard urban spatial growth without planning. The rapid urbanization is marked by the creation of Paurashavas, whose number at present stands at 312. Paurashavas are created not only to provide urban services to their citizens, but also to create a livable environment through development of planned and environmentally sound living space.

The present infrastructure provisions in the Paurashavas are in a precarious state. Drains are mostly clogged that can not drain out water during heavy rains and natural drainage systems have either been filled up or occupied by land grabbers creating water logging during monsoon. Traffic in Paurashavas is increasing day by day with the increase in population and demand. But the sub-standard road network can not keep pace with the growing demand for movement. As a result, congestion becomes a common problem. Road networks are not developed in planned and systematic way leaving room for traffic congestion that increases economic loss to the people due to travel delay. The land use development in the Paurashavas is unorganized and unplanned, which is a major source of environmental deterioration. Building Construction Rules are not effectively enforced in the Paurashavas mainly for want of a well formulated Master Plan and qualified planning professional.

Under the above circumstances, it is high time to think about solving the problems of the Paurashavas that might otherwise be emerged critically in the future. To overcome all likely problems to come in future, the Paurashavas should go for planned development through preparation and implementation of a Master Plan. The Master Plan can be prepared exercising the power conferred to them by the Paurashava Act 2009. The District Town Infrastructure Development Project (DTIDP) aims to update/prepare Master Plan for 23 District level Paurashavas for a period of next 20 years. The project has provisions for separate plans for land use control, drainage and environment, traffic and transportation management and improvement. The project also aims to prepare a Ward Action Plan (WAP) to ensure systematic execution of future infrastructure development projects. There is also aim to prepare proposals to enhance Paurashava revenue so that it becomes more capable to meet its own capital needs.

Thus the Master Plan of Narail Paurashava suggests for the development of urban infrastructure, such as new roads and bridges/culverts, drainage facilities, street lights, markets, bus stands, solid waste management, sanitation, water supply, community facilities and other such infrastructure in order to equip the Paurashava to face future challenges of urbanization and economic regeneration. The Master Plan will initially focus on growth and development, social integration and environmental improvement following principles of sustainable development.

## **1.1 Historical Background of the**

Narail Paurashava stands on the bank of the Chitra river. Distance from Dhaka is 307 km, Narail Municipality was established in 1972. This is a class "A" Paurashava. The Paurashava consists of 9 Wards and 24 mahallas.

The Paurashava is bounded with Chandibarpur union at the northern side, Auria union at the eastern side, Bhadrabila union at the southern side, Kolaroa and Mulia union at the western side and Sahabad union at the north-western side.

Famous artist S.M Sultun was born at Narail. His house and other using instruments including boat, arts etc. are being conserved as S.M. Sultun Museum. Narail Jaminder Bari was very ancient and famous within this region. There are so many stories about this Jaminders, their activities, their ruling periods and ruling activities etc. This is really a remarkable history. At present only two columns of the entering gate, the structure of the alter and bath place on the river Chitra representing this historical evidence.

During the War of Liberation the Pak army and the Razakars' killed college student Mizanur Rahman of Machhimdia Village on 7 December 1971. After being excited the freedom fighters attacked the Pak army camp on 9 December in which another student Motiar Rahman was killed. The freedom fighters attacked the Pak army from all sides and liberated Narail on 10 December 1971.

Narail Paurashava is the District town of Narail District. Narail town is the core point of the district. The town does not have enough strong road network and communication system with the capital city of Dhaka, industrial city of Khulna and other regional centres of Jessore, Barishal, Magura, kustia and Jhenaidah. As this area was developed on the Chitra river and the river has played an important role for its development and transportation, but due to course of time the river transportation system is almost extinct and road transportation system is developed. However, seasonal river transport is still used to transport specially goods and commodities. Influence of economic flow ultimately focused around this zone.

Narail Sadar Upazila is bounded on the north by Shalikhha Upazila of Magura Zila on the east by Lohagara Upazila, on the south by Kalia and Abhoy Nagar Upazilas of Jessore Zila and on the west by Bagherpara and Jessore Sadar Zila.

The town is found to be a neat and well disciplined Paurashava. As there are hardly any industries in Narail, jobs for the poorer sections of the people are very difficult. However the whole locality has good agricultural production and Narail is the market for all these products. Villagers from far and near come to this town to sell their products much of which are sent to bigger towns in tracks. As this is the district headquarter so all the economic activities of this district are controlled by town leading to establish a very strong and healthy CBD (Central Business District) at Rugganj Bazar. This Rugganj bazar a very big Hat & Bazar within the district, economic flow is also remarkable.

Historical and Archaeological heritage and relics like Narail Jamindar Bari and S, M, Sultan Museum are situated in Narail district which are very well-known to the local people.

The location of Narail in the context of Bangladesh is shown in Map No. 1.1.

## **1.2 Vision & Objectives of the Structure Plan**

The vision of the plan is the creation of an urban livable environment where the people, able and or disable, irrespective of age-sex and income, cast-creed and religion, can live and enjoy today within affordable means without sacrificing interests of tomorrow.

The main objective of Structure Plan is to explain spatially with substantial elaboration of the strategies set for the future development of Narail . The basis for choosing the Structure Plan objectives has been the national goals for its spatial development and requirements of TOR for the present work. The Structure Plan usually has the following objectives:

- a) interpretation and elaboration of national urban strategies and policies for local authority;
- b) establishment of inter-sectoral goals, policies and general proposals for urban spatial

- development;
- c) identifying the development options that offer maximum benefit to the people;
- d) proposing suitable urban standards minimizing the cost of public infrastructure;
- e) providing framework for the next hierarchy of plans, in this case, for the Urban Area Plan and Ward Action plans;
- f) justifying policies and proposals for urban development;
- g) indicating the basis and procedure for implementation of plans and coordination among major stakeholders;
- h) ensure that the main planning issues and decisions are brought before the people.

### 1.3 Structure Plan Area & Planning Period

The proposed Structure Plan area has been estimated to be 28.52 sq. km or 7047.91 acres that includes, apart from the Paurashava, the potential urban areas and the proposed urban control area within its vicinity. The planning period of the structure plan is for 20 years that is 2010 to 2030.

**Table- 1.1: Area of Narail from 2001 to 2011 and the Structure Plan Area**

Area of Narail Paurashava			2030 (Proposed Structure Plan Area) (sq.km.)
2001	2011		
	BBS Area (sq.km.)	GIS Area (sq.km.)	
27.72 sq.km	27.72	28.52	28.52

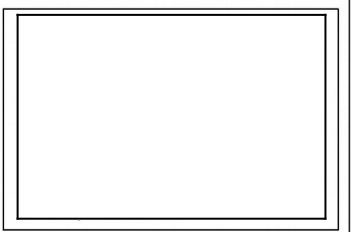
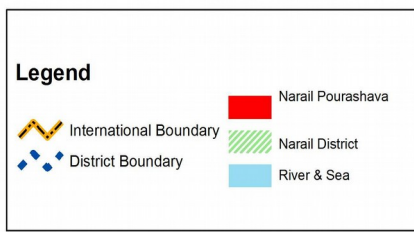
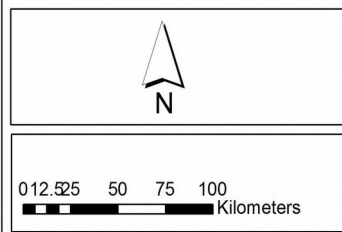
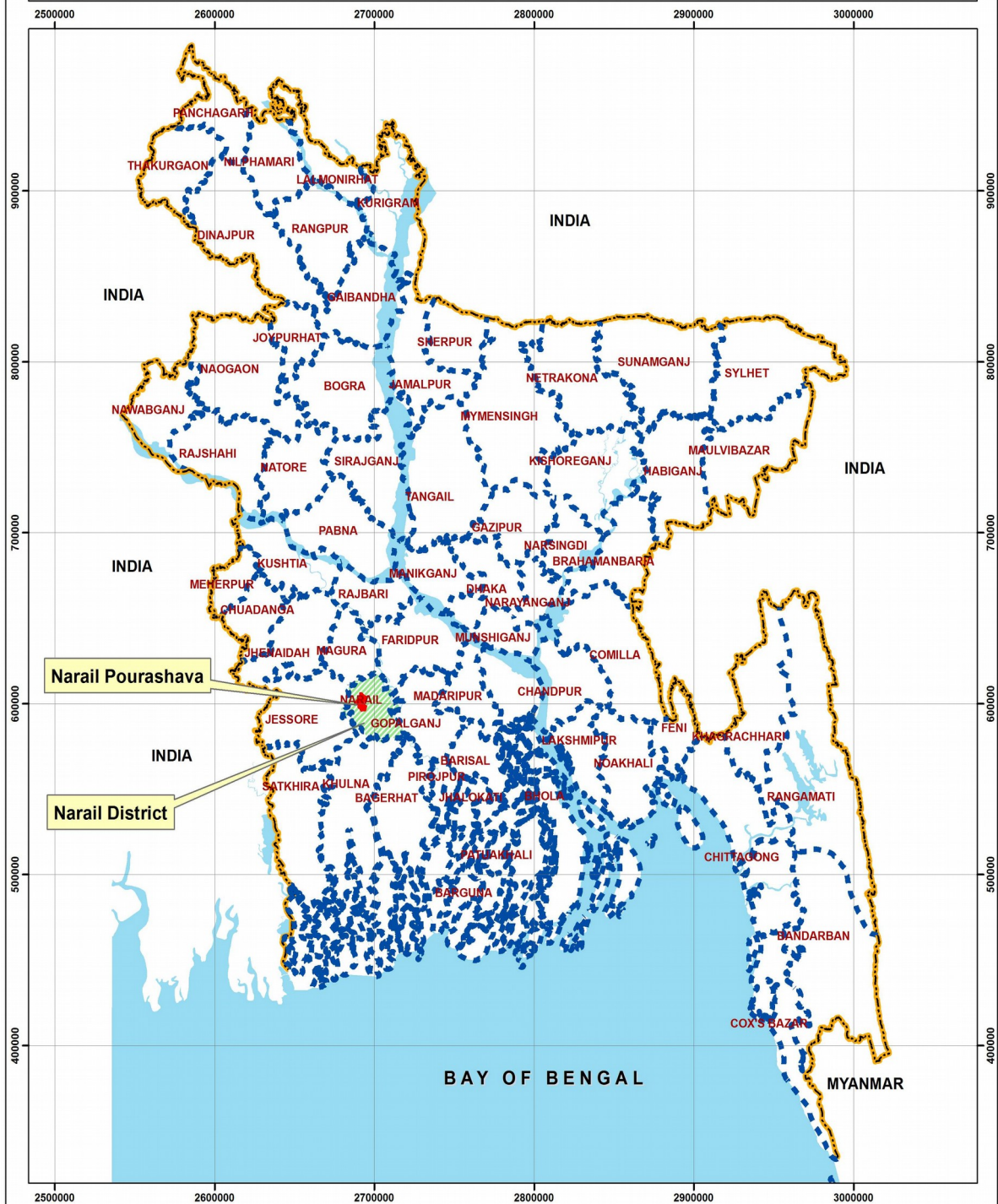
Source: BBS 2001& 2011 estimated by the Planning Team.

Structure Plan covers the existing area is 7047.91 acres (2852 ha.) or 28.52 sq.km.

The proposed Structure Plan along with a set of policy guidelines has been provided for a period of 20 years, 2010 through 2030. However, to suit in time and space, revision and updating of the Structure Plan will be necessary at a regular interval.

Structure Plan should be regularly reviewed and updated during the end of every fifth year of the five-year term. In this way, four revisions will be carried out during its twenty years lifetime.

Map 1.1: Location of Narail Paurashava with Respect of Bangladesh



## CHAPTER- 2 CRITICAL PLANNING ISSUES

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### 2.1 Existing Development Pattern & Growth

#### 2.1.1 Social development Sector

Social Development is a broad term that describes actions taken to build positive outcomes and prevent negative social outcomes that can adversely affect a community. These outcomes include issues ranging from crime, poverty, gang activity, school disengagement, teen pregnancy, addictions and substance abuse, obesity, and poor health.

The aim of social development is to improve the availability of support systems in the community that prevent negative outcomes before they occur or buffer (lessen) their impact. Measurement of social development essentially requires time series data. Consultant collected only recent data of the project area by means of sample survey with no reference to previous situation. Without having previous data on the same parameters of social issues, it is not possible to make a comparison and hence a judgment about social development. The population census reports are the only sources of information for level data, but they cover only a selected number of issues that are not sufficient to make a qualitative judgment of social improvement. As the consultant has no option, it only makes a review of social development based on available population census data of 2001 and 2011 and presents the current situation using the sample socio-economic survey data.

##### 2.1.1.1 Population

**According to 2011 population census Narail establishes with -**

- Area – 27.72 sq km (6849.73 acre)
- Population - 42299, of which 21338 are male and 20961 female
- Annual population growth rate – 2.63
- Density of urban population - 1525 persons/ sq.km (6 people per acre)
- Average household size – 4.22

On the other hand, according to GIS analysis, for the year 2011

- Area – 28.52 sq. km. (7047.42 acre)
- Population - 42299, of which 21338 are male and 20961 female
- Density - 1525 persons per sq. km

From Socio-economic Survey it is found that,

- 30.5% of the sample population falls within the 18-34 age group
- Sex ratio 125:100
- Average 31.30% people are unmarried (18.04% for males and 13.26% for females)
- About 8.82 percent of households migrated from different places.
- Literacy (Signing capability) rate – 61.3% for both sexes
- 72.54 percent people belong to the Muslim community followed by 27.20% percent Hindus.

##### 2.1.1.2 Urban Growth Area

In addition to the present and the existing built up urban area of Narail, the planning area also includes some area out side but adjacent to the area expected to develop as an urban area in the near future. It also includes surrounding area to conserve as green belt. In selecting the urban growth area, the following factors were considered:

- Existing pattern and trend of development.
- Tendency of land use changes from agricultural to non-agricultural activities.
- Existing pattern of transportation network within and around the built up area.
- Availability of flood free and buildable land.
- Green belt to control the growth of urban area.

Considering the limitation of high and flood free land available and other natural constrains, the planning area have not been extended enough in all directions from the existing Narail Shahar.

Total area of Narail thus determined an area of 28.52 sq. km or 7047.91 acres with a targeted population of population 1, 50,000 in 2030.

### 2.1.1.3 Physical Growth Directions

There are four major spatial factors involved in the spatial growth of an area. Those are,

- Land price
- Road accessibility
- Residential housing
- Land elevation

With the help of the GIS spatial distribution method the consultant has predicted the potential physical growth direction of the project area. Supporting maps and the analysis identified high and low growth area. The details of the method of determining the physical growth direction is given in interim report.

Considering land price, the growth of the Paurashava due to land price will be concentrated mainly alongside the Narail-Magura Road. Ward No. 6, 4 and 1 have the higher potential for growth in future.

The surface map of road accessibility shows almost the same output as land price surface. It shows that the growth will follow the primary and secondary roads mainly. This will happen for better accessibility. This map predicts that '*Ribbon Development*' may occur due to road accessibility. This should be controlled in the Master Plan.

Considering land elevation the similar output has been found as the previous two surface maps generated from land price and road accessibility. It shows that almost all the Paurashava is quite suitable for future development. Although there are some areas in Ward no. 1 and 5 with lower development potential, the land elevation is not lower there. These areas can be developed too in the future.

Residential housing is highest in number in Narail. Residential development shapes the growth of a city. It the growth of residential housing that makes sure how the town will grow. The surface map of residential housing shows quite similar output as land elevation. This shows that there is a huge possibility of development of the whole Paurashava due to residential housing development. From the above four analysis of land price, land elevation, road accessibility and residential housing it can be seen that growth will take linear pattern in future alongside the road. Growth will be quite spread all over the Paurashava area. There is a huge potential of Ward no. 4, 5 and 6 to have concentrated growth in future. Ward no. 2 & 4 have potential for extensive future growth in the future too. Ward no. 1 and 7 have a lower potential of growth in future.

### 2.1.1.4 Catchments area

The catchments area (or the sphere of influence) has been considered as the area surrounded from which people normally commute to avail various day to day service situated in the town. This area would usually encompass a radius of 2.5 to 3.0 miles from the center of the town but has been adjusted in respect of the following factors:

- Natural barriers, physical opportunities and constrains
- The availability of good transport facilities
- The sphere of administrative boundaries
- Type, capacity and quality of services available in the town
- The location of town in respect of others towns and other major centers
- Economic attractiveness of the town i.e. employment opportunities, industrial and traing facilities etc.

An attempt is made to identify the Narail socio-economic sphere of influence or catchments area through reconnaissance survey, land use survey and socio-economic survey, information from secondary sources and through personal interviews in the various socio-economic service centers such as markets, shops, educational institutions, health complex, Govt. offices, public representative etc. two spheres of influence such as primary and secondary have been identified for the existing area. The primary influence spreads over approximately 1, 37, 748 acres excluding the area.

People from these places come to perform a wide variety of functions avail various services for their day to day life. The secondary sphere of influence spreads over the larger distances covering the whole district and even outside the district boundary. People from all over the district occasionally come mainly for receiving health, administrative and judiciary services.

The catchments area has been determined according to the primary sphere of influence considering the factors stated above. The catchment area thus have covered an area of 1, 09, 632 acres or 443.674 sq. km or 109.632 sq. miles of 2, 96,759 Population in 2001.

Table-2.1: Union wise area and population under the zone of influence of Narail

Sl. No.	Union Code	Name of Union/	Upazila Name	Area in acre	Population in 2001	Population in 2010
1	31	Chanchari Union	Kalia Upazila	5590	13120	13796
2	94	Purulia Union	Kalia Upazila	6716	18354	19300
3	31	Kashipur Union	Lohagara Upazila	4808	13620	14373
4	55	Lakshmipasha Union	Lohagara Upazila	5322	19260	20325
5	11	Auria Union	Narail Sadar Upazila	8013	22897	24424
6	13	Banshgram Union	Narail Sadar Upazila	9788	17453	18617
7	20	Bhadrabila Union	Narail Sadar Upazila	6011	18145	19355
8	27	Bichhali Union	Narail Sadar Upazila	8142	19994	21328
9	33	Chandibarpur Union	Narail Sadar Upazila	6195	17752	18936
10	40	Habakhali Union	Narail Sadar Upazila	5984	17181	18327
11	47	Kalora Union	Narail Sadar Upazila	6984	20254	21605
12	54	Maj para Union	Narail Sadar Upazila	6865	21517	22952
13	61	Mulia Union	Narail Sadar Upazila	2555	9891	10551
14	74	Shabad Union	Narail Sadar Upazila	4647	12572	13411
15	81	Shaikhati Union	Narail Sadar Upazila	9056	21509	22944
16	88	Singasolpur Union	Narail Sadar Upazila	4698	15676	16722
17	94	Tularampur Union	Narail Sadar Upazila	8258	17564	18735
Total				109632	296759	315701

Source: Population census of 2001.

## 2.1.2 Economic development

### Formal Sector Economic Activities

Major formal sector economy of Narail was derived from the Focus Group Discussion (FGD). Mainly Rugganj bazaar is the centre-point of Formal economic activities. Major formal economic activities have developed and still developing in this area. The types of business center of Narail like Katcha bazaar, Retail market, Wholesale market, Shopping center and other (Hat). Business institutions are not scattered. It spreads within one kilometer circle from Rugganj bazaar.

Regarding commercial centers, the existing Rugganj Bazar requires expansion to accommodate future economic activities. New branches of private banks need to be established. River transports need to be developed by rehabilitating Chitra River, constructing new bridge and river ports. Road linkage also is to be developed. Electricity, water supply is to be improved for sustainable industrial growth. More land for medium and large industries may have to be allocated considering the proposed national highway through Narail. More establishments are proposed for better health and recreational facilities which are also part of economic activities. The FGD concluded with the proposal that all the potentials to be utilized, constraints removed and master plan be prepared encouraging the entrepreneurs, generating more employment and thus improving quality of life of the inhabitants of Narail Paurashava.

The following potentialities and constraints for the future growth of the Paurashava have been identified through the FGD:

#### Potentialities

1. Low land price for industries
2. Low Labour cost
3. Availability of raw materials like jute, paddy, shrimp for process industry.
4. Proposed national highway through Narail may play a vital role in economic development.
5. River Chitra for water way transportation.

#### Constraints:

1. Industrial growth of Narail became limited due to the industrialization of nearby Noapara and Jessore

2. No branch of private bank exists in Narail
3. No separate area (zone) for industries yet in Narail
4. Small industries scattered all over the Paurashava
5. Inadequate overhead clearance below bridge in River Chitra
6. Inadequate electric and water supply

**Outcome of FGD for future development of economic activities of Narail Paurashava:**

General Manager of BSCIC of Narail stated that a proposal for acquisition of 15 acres of land at Rasghunathpur in Ward No. 1 near Magura-Narail road for establishment of BSCIC estate is already lying with the Government. BSCIC is conducting training for small and medium entrepreneurs. Based on local raw materials and labour following industries have the opportunities for establishment in the industrial zone:

**Name of Industries**

**Raw Materials**

- |   |  |
|---|--|
| 1. Shrimp processing industry   | Shrimp (Export oriented)               |
| 2. Cold storage   | Potato, seasonal vegetables and fruits |
| 3. Auto flour mills   | Wheat                                  |
| 4. Rice processing industry   | Paddy (Rice Crisps, etc.)              |
| 5. Oil mills  | Oil seed                               |
| 6. Leather industry   | Raw & wet-blue leather                 |
| 7. Plastic industry   | Recycled plastic materials             |
| 8. Jute spinning  | Jute                                   |
| 9. Other cottage & handicrafts industry   | Various raw materials                  |
| 10. Rice husking mill can be established on open land near Chitra River away from localities. |  |
| 11. Compost fertilizer can be produced from solid waste near the dumping ground.              |  |

**Informal Sector Economic Activities**

In Narail the concentration of informal entrepreneurs is found around the bazar area, transport terminal and stoppage areas and also by the side of major roads. The informal professional groups are triggered by different problems in business.

- a. The first and foremost problem lies with accumulation of capital to run business. Due to their perpetual poverty they usually do not make large scale savings and hence can not generate capital to expand their business.
- b. Another problem they mentioned is the loss of business during monsoon. Since they do not have any stable structure to carry on business, they often have to work on makeshift shelters which throw them into a vulnerable situation during rainy season.
- c. They have to operate their businesses in public places like, footpath, shopping areas, road or unused road shoulders. But law enforcing agencies frequently evict them as they illegally occupy the pathways and interrupt traffic movement.

**2.1.3 Physical infrastructure development Sector**

The Narail is an almost deprived area considering the regional accessibility from the surrounding district and internal area. This area gets access from Barisal, Khulna and Dhaka by zilla roads. However, there are also regional highways which connects Jessore and North-west Bangladesh (through Magura). The regional connection with the other districts is maintained via the route from Narail to Jessore regional highways mainly. In contrast, internal connectivity with the eastern areas of the Narail district (e.g. Lohagora) is suffering from poor accessibility. The presence of Chitra River along the Narail Paurashava hinders the connections between the rests of the area in the districts with Paurashava area. The only bridge (S M Sultan Bridge) in the river makes poor connectivity with other places in the opposite side of the river like Lohagora as the ferry service is now less effective.

The major bus stoppages inside Paurashava area include Gohatkholā, Old bus terminal area, Dhopakholā more and Paurashava. From Paurashava area the buses headed toWards Dhaka usually start (two bus counters for Dhaka are situated in this area). Similarly, buses going to Magura start from the old terminal area usually. In addition, four buses (2 local and two get lock/direct buses) usually going toWards Jessore per hour while two buses moves toWards Khulna per

hour as well. While considering in-bound bus number, three to four buses coming from Jessore and about two buses from Magura per hour in Narail.

Road is an important physical feature for any area without which no area can run. Road provides both accessibility and mobility. There are mainly three types of roads; primary road, secondary road and tertiary or access road. Each of these roads has different purpose. Primary road provides mobility and connection between district to district and town to town whereas access road provides accessibility. The Narail Paurashava, being situated in a district town, should consist of combination of both secondary and tertiary roads. From the field survey it is found that in Narail Paurashava there are some secondary and many access roads. Some primary roads are found outside the Paurashava. The following table shows the construction type of road. In Narail Paurashava there is about 147.974 Km road out of which 58.6373 km is Pucca, 46.1095 km semi-pucca and 43.2272 km Katcha.

Table 2.2: Type of Roads in Narail Paurashava (Based on Surface Type)

Ward No	Pucca Road (Km)	Semi-Pucca Road (Km)	Katcha Road (Km)
Ward 1	3.8599	4.6737	3.2905
Ward 2	1.9725	4.3973	5.2850
Ward 3	7.7982	2.4496	1.3849
Ward 4	9.3382	4.7679	6.5616
Ward 5	6.9247	4.0950	3.4371
Ward 6	7.7564	3.1023	1.4107
Ward 7	2.3818	1.7187	2.8301
Ward 8	5.4653	7.8639	4.9514
Ward 9	5.5092	7.1922	4.8409
Total Gazette Area	51.0062	40.2606	33.9922
Extension area	7.6311	5.8489	9.2350
<b>Total</b>	<b>58.6373</b>	<b>46.1095</b>	<b>43.2272</b>

Source: Physical Features Survey in Narail Paurashava, 2009.

Table 2.3: Major Roads in Narail

Serial No	Road Name	Carriage way Width(m)	Length(Km)
1	City College road	3.1	1.346
2	Durgapur Road	3	1.335
3	Gobra Road	5.3	.870
4	Helipad Road	3.2	.667
5	Jail Khana Road	3	.304
6	Jail Road	5	.829
7	Jessor Road	5.9	2.409
8	Machimdia Road	3.2	.027
9	Victoria College Road	5.7	.641
10	Vitia Road	2.67	1.635
11	Ujirpur Road	3	2.54
12	Siddique Road	2.7	.289
13	Magura Road	5.6	3.413

Source: Physical Features Survey in Narail Paurashava, 2009.

### Water Supply

In Narail Paurashava, there are many ways water supply facilities. According to the Paurashava source there are 734 hand tube wells were permitted ('09) and 5 water pump house have been

identified in the survey. There is no overhead tank. The pump house present in Paurashava is used for piped water supply. In this Paurashava, Piped Water Supply System is the main source of drinking water. In Narail Paurashava, the total length of water supply pipe line is about 33.80 Km. Out of which 15.35 Km is of 50mm diameter pipe, 12.13 Km is of 100mm diameter pipe, 41.27 Km is of 150mm diameter pipe and 21.65Km is of 200mm diameter pipe. From the table 3.16 it is seen that the concentration of tube-wells in Wards 4, 5, 6 and 8 is higher compared to others in Narail Paurashava. In case of piped water supply it is observed from the map 3.9 that mainly in Wards 3, 4, 5 and 6 there exist greater concentration of piped water supply network.

### Sewerage System

There is no sewerage system in the Paurashava. The record of sanitation condition is also not available to the Paurashava authority. However, the socio-economic survey shows that about 64.21% households have Pucca sanitary latrine and 1.78% have pit latrine facilities.

### Solid Waste Disposal

Narail Paurashava generates a massive quantity of solid waste everyday from various sources. There are only 24 dustbins/locations for dustbin, demarked by the Paurashava, whose five of them can be identified as physical feature during the survey; however claimed total number is not sufficient for the city dwellers. Among the five, two in each Ward 3 and Ward 4 (core areas) and one in extension area have been identified. In the absence of any specific rule and criteria for placing the dustbins, most of the household don't use the dustbin properly. As a result, they dispose their waste on roads, drain sides, low-lying areas or individual's backyards. The Paurashava does not have any dump site of its own. All wastes are being dumped in a low-lying suburban area. But the Paurashava does not have any solid waste management facilities.

### Gas Supply

There is no piped gas supply system in Narail Paurashava. But local people demands for household gas supply. Provision of required utility facilities in an area is very important to perform a good civic life. Frequent load-shedding, lack of quality water, interruption in telecommunication can hamper normal civic life. With a view to find the provision and extent of utility facilities, a comprehensive survey has been conducted in Narail Paurashava. Following table shows the status of utility facilities in the study area.

Table 2.4: Status of Utility Facilities and Municipal Services in Narail

Ward No	Electric Pole	Telephone Pole	Water Pump house	Fire Service
1	186	2	0	0
2	189	3	0	0
3	252	6	0	0
4	382	4	3	0
5	324	17	1	1
6	284	16	1	0
7	100	4	0	0
8	242	2	0	0
9	227	6	0	0
Total Gazette Area	2186	60	5	1
Extension Area	301	12	0	0
Total	2487	72	5	1

Source: Physical Features Survey in Narail Paurashava, 2009.

### Electricity

Electricity is available in Narail Paurashava. The survey finding shows that there are 2487 electric poles within the Paurashava area and most of the poles are also used as light posts. In Narail one electric substation has been found. Map 3.7 shows the electricity network in Narail Paurashava. From the above table it is seen that in Ward no 4 there is the highest number of electric pole and in Ward no 7 there is the lowest number of electric pole in Narail Paurashava.

### Telephone

As a District Headquarter, telephone network exists in Narail Paurashava. According to survey, the Paurashava accommodates 72 telephone poles. Besides, in Narail Paurashava there are 8

telephone boxes and one big telephone tower. From the table 3.16 it is seen that in Ward no 5 there is highest number of telephone poles and in Ward no 1 and 2 there is the lowest number of telephone poles in Narail Paurashava. That means that in these Wards the condition of telephone is not so good. According to Paurashava source (2007) there are about 780 nos telephone collections (house and office) in Narail Paurashava. But at present according to telephone and telegraph board there are 1210 connections in Narail Paurashava. Map 3.8 shows the telephone network in Narail Paurashava.

Provision of well planned and well designed drainage facilities is very important for any locality to drain out surface water and wastewater. Absence of proper drainage facilities may lead frequent water logging and clogging of wastewater causing environmental pollutant and deteriorating the living environment. The map 3.6 shows the drainage facilities in Narail Paurashava. From the field survey and consultation with the Paurashava authority and local people it is found that in Narail Paurashava there is no sufficient drainage facility. The following table shows the drainage status in the Narail Paurashava. It represents that there is about 10.4800 km drain in Narail Paurashava out of which 8.1590 km drain is Pucca and 2.321 Km is Katcha. From the table it is found that the Ward No.3 has highest amount of drain.

Table 2.5: Type and length of Drains in Narail Paurashava (Based on construction Material)

Ward No	Drain Length		
	Katcha (Km)	Pucca (Km)	Total (Km)
3	1.1341	1.8895	3.0236
4	0.1988	1.9935	2.1923
5	0.3659	1.4151	1.7810
6	0.0148	2.2828	2.2976
7	0	0.3576	0.3576
8	0.2412	0	0.2412
9	0.3662	0.2013	0.5675
Total Gazette Area	2.321	8.1398	10.4608
Extension area	0	0.0192	0.0192
Total	2.3210	8.1590	10.4800

Source: Physical Features Survey and GIS Database of Narail Paurashava, 2009.

The name, width and length of major drains in Narail Paurashava have been presented in the following table.

Table 2.6: Location and Outfall of Major Drains in Narail Paurashava

Location of Drain	Ward No.	Width(m)	Length(Km)	Outfall
Beside Moheskhola Road	03	0.25	.102	Chitra River
Beside Moheskhola Road	03	1.8	.253	Chitra River
Beside Moheskhola Road	03	0.25	.060	Chitra River
Beside Moheskhola Road	03	0.4	.254	Chitra River
Beside Moheskhola Road	03	0.4	.184	Chitra River
Beside Moheskhola Road	03	0.25	.134	Chitra River
Beside Moheskhola Road	03	0.125	.108	Chitra River
Beside Moheskhola Road	03	0.4	.465	Chitra River
Beside Aladatpur Road	04	0.3	.090	Chitra River
Beside Aladatpur Road	04	1	.287	Chitra River
Beside Aladatpur Road	04	0.3	.090	Chitra River
Beside Aladatpur Road	04	0.3	.256	Pond
Beside Aladatpur Road	04	0.3	.199	Chitra River
Beside Aladatpur Road	04	0.3	.305	Chitra River
Beside Vaukhali Road	05	0.4	.614	Chitra River
Beside Vaukhali Road	05	0.3	.217	Chitra River
Beside Vaukhali Road	05	1.5	.485	Pond

Source: Physical Features Survey in Narail Paurashava, 2009.

#### 2.1.4 Environmental growth

According to the Bangladesh Agricultural Research Council, the soil of the project area is mainly of "Calcareous Gray Flood Plain Soil" and the texture is Clay loam/loamy. So the project area is fertile for different crops specially Betel leaf, sugar cane, all types of paddy, etc.

Bangladesh lies in the southern vicinity of the Shillong plateau, which is the center of a strong seismic activity in the whole region. This seismic center greatly affects almost the whole of Bangladesh and may cause huge damage in north-Bengal districts (Rangpur, Dinajpur) and Mymensingh-Dhaka belt of the country. Bangladesh has some major fault lines, including the Dauki fault, Madhupur fault and the tectonic plate boundaries.. Narail District is located in the seismic zone 3 and so it is less vulnerable to earthquake. Earth quake of 4 to 5 magnitude has the probability of occurrence in the adjoining area. The following maps illustrate the Soil condition of Bangladesh.

The climatic condition of Narail Paurashava is dominated by the monsoon and falls into four seasons: (i) winter (ii) summer season (iii) monsoon season and (iv) post monsoon season. The winter season starts in November and continues.

During winter season the daily maximum and minimum temperature ranges from 29.4°C to 11.00°C. During summer the daily maximum and minimum temperature ranges from 35.7°C to 17.8°C.

There is not any station at Narail; according to meteorological department of Bangladesh nearest Jessore station will be the station of Narail and information of temperature and rainfall will be same. The highest annual rain fall was recorded in 2004 which was 2444 mm with highest monthly rain falls of 917 mm. In this time period the lowest rain fall recorded in 2001 which was 1457 mm.

The general direction of the wind is the same as that in the Gangetic Delta: south-west, changing to east for the greater part of the year, with a north and north-west direction during the months of April and May. Nor-westers are caused by outbreaks of cold air from Central Asia which enter Bangladesh from the northwest. Nor-westers occur at the interface between the advancing cold air and warm air already present in the region. The temperature difference across the interface is large enough to generate the large scale turbulence which, in turn, generates thunderstorms along the interface.

The Chitra River which is the eastern border of Narail Paurashava passes through Ward no. 01, 02, 03, 04, 05, 06, 07, 08 and 09 of the Project area. The Raghunathpur khal passes through Ward No. 01 and connect with Chitra River in the north-eastern side. The Paital Beel khal passes through Ward No.01 and 04 and Garu Chira khal passes through Ward no.1 and both of them are connected with Chitra River. Water flow is not continuous in Chitra River throughout the year. Raghunathpur and Garu Chira are continuous during rainy season and are quite regular. Both the water channel has served the purpose of primary drains of the Paurashava. These two water channels fulfill the irrigation of cultivation.

The drainage network of Narail Paurashava is not good and there are areas which are annually inundated by water logging for significant duration and several times in a year. Absent of natural khals and beels establishment of good drainage system in Narail is quite complicated. The drainage network is contributing to the pollution of the Chitra River. Though the river water is not found heavily polluted in the present context the continual untreated discharge may further aggravate the level of pollution.

Urbanization in Narail is expanding with increased housing, commercial and industrial development causing loss of agricultural land and water bodies and increased cutting of trees. Some of the species of reptiles, fishes and aquatic plants are missing with expansion of urbanization. With increase of health care facility and improper disposal of hospital waste the bacteriological contamination of surface water is increasing. Inadequate sanitation facility and use of chemical fertilizer in agriculture is also deteriorating the surface water quality.

The area of Narail Paurashava is not subject to annual flooding. This Paurashava didn't get affected during the major floods of 1988 and 1998 or 2004. 'High water level' with respect to the mean sea level in latest (as well maximum level in the record, shows that the level ranges from 2.65 meter (in February) to maximum 4.86 meter (in September). However, the survey point (benchmark data) near Narail Paurashava just beside the river - approximate 6 meter (above the

maximum high water level) provides the justification of flood free Narail. On the contrary, tides in the Chitra river ranges from 0.5 meter to 1.0 meter during the dry season and 1 meter to 1.5 meter during the wet season.

Narail Paurashava is located on the bank of the Chitra River and the Paurashava was once vulnerable for river erosion. However, the Paurashava is not major river erosion prone due to new siltation on the river at the moment.

Surface water salinity especially the water quality of Chitra River has been an issue. The Chitra River receives flows from the irrigation waste flows from the Ganges-Kobadak surface irrigation system. Due to the reduced flow of the river during the dry season, salinity intrudes into the river systems, although its levels are generally within the acceptable limits for paddy cultivation.

On the contrary, the groundwater is relatively carbonating rich with low total dissolved solid contents of less than 500 milligrams/liter (mg/l). However, wells in the southern parts show evidence of high salinity levels.

Although Narail Paurashava is free from floods, it is however subject to water logging. Water logging is happening due to drainage congestion of surface water that is during the rainy season specially. Water logging is a common problem within this area. Some places of water logging are mentioned below:

- Back side of Ansar training center, Moriakhana, Ward – 3
- Dumurtala Baganbari, Ward -1
- Durgapur Hindu Para, Ward-4
- Roghunathpur playground, Ward-1, Dumurtala Eidgah field, Ward-1
- Betbari, Dhopakhola, Ward-7
- Durgapur, Eastern portion of registry office, Ward-4
- Beside the house of Mr. Sohrab, Ward-6
- Western portion of new bus stand, Ward-6
- Western side of the house of Mr. Gonesh Ghosh, Ward-6
- Voakhali school field, Ward-5
- Northern side of Fisheries office, Voakhali, Ward-5
- Southern portion of Betbari, Ward-7

The soil of Narail Paurashava comprises the Ganges flood plain deposits mostly homogeneous sand sequence of different texture. These sand sequences are mainly composed of quartz and feldspar with iron. Arseno pirites materials are also present in sedimentary sequence. As arsenic is mostly found in upper layers of the aquifers in Narail Paurashava, the hand tube wells show high concentration of arsenic. The production wells are extracting groundwater from aquifers of depth lies between 80m and 135m and water quality is fairly good with some exceptions that show slightly higher arsenic content than the acceptable limit.

A comprehensive study conducted by JICA emphasis that the concentration of arsenic is high in the shallow part of the aquifer that moves down to the screen areas of the production deep tube wells. The possible way for downWard movement of arsenic contaminated water of upper aquifer to the screen of the production tube wells may the gravel peak in the annular space of the production wells. However the water supply system of the Paurashava is still much safer than the extraction of water by hand tube wells.

There are five brick fields inside the Paurashava boundary are the important causes of air pollution. Although these brick fields are just outside of the core area, the future impact of the brick fields will be dangerous on the expanding core area. Besides, Emissions from vehicle exhausts of old and poorly maintained buses and trucks, loading, unloading, and carrying of sand and soil without any dust preventive measures are also found within the Paurashava.

The town is lacking of sewerage system and people use to dispose household sewer to the surface drains/ surface water bodies. Most of the outlets of the drains are fallen to the river Chitra without any treatment measure. Inadequate maintenance of human, domestic and market wastes, open and poor drainage system, water logging etc. create environmental degradation within the Paurashava area. Besides, Jute rotten process is very common around this area during the season. This jute rotten process is take place almost everywhere of this Paurashava except Mohishkholra and Kurigram. Jute processing take place extremely at Wards no. 7, 8 & 1. During this season from August to September and mid of October the degradation of environment is

considerable. The menaces of mosquito increase, water get rotten and infected with germs, air polluted with bad and rotten smell during this period.

### 2.1.5 Institutional capacity

#### a. Manpower

##### Human resources/ Organogram

Narail is an "A" class Paurashava. According to Paurashava manual there should be 96 official engaged in an "A" class Paurashava to manage the engineering, administrative, health, family planning, conservancy works within the Paurashava area. In this organogram Mayor will be in top position. Chief Executive Officer will coordinate the three major divisions. These divisions are Engineering division (headed by Executive Engineer), Administrative division (headed by Secretary), Conservancy, health and family planning division (headed by Health Officer). In this organogram both full time and contractual officials will be engaged.

##### Existing Manpower

Existing manpower scenario of Narail Paurashava is horrible. There is acute shortage of manpower in each section of the Paurashava. Paurashava has only 47 officials against 130 allocated in Paurashava organogram. In the Administration Division there should be 48 officials but there is only 24 officials working in that division. In Health and Family Planning Division 8 is working against the post of 25 and in Engineering Division 15 is working against the available post of 57. In the Paurashava two important posts of Chief Executive Officer and Health Officer are also blank. 63.85% posts of this Paurashava are vacant. From this it can be easily said that there is a huge lack of staff in this Paurashava and it needs more manpower to run its functions efficiently.

Table-2.7: Existing Manpower of Narail

Manpower Status	Standard Manpower	Existing Manpower	Vacant Post
Mayor	1	1	0
Chief Executive Officer	1	0	1
<b>Administrative Section</b>			0
Secretary	1	0	1
Administrative Officer	1	0	1
Accounts Officer	1	0	1
Education & Cultural Officer	1	0	1
Chief Assistant	1	1	0
Head Clerk	1	0	1
Tax Collector	1	0	1
Bazar Collector	2	0	2
Assistant Tax Collector	6	3	3
Assessor	1	1	0
Assistant Assessor	1	0	1
Accountant	1	1	0
Bazar Inspector	1	0	1
License Inspector	1	1	0
Assistant License Inspector	1	0	1
Librarian	1	0	1
Teacher	5	3	2
Other Officials	3	3	0
Accounts Assistant	1	0	1
Cashier	1	0	1
Steno Typist/PA	1	1	0
Store Keeper	1	0	1
Junior Clerk/Typist	2	0	2
Jeep Driver	1	1	0
MLSS	5	5	0
Photocopy/Dupli Machine	1	0	1
Doorman	1	0	1
Gardener	2	2	0
Night Guard	2	2	0

Manpower Status	Standard Manpower	Existing Manpower	Vacant Post
<b>Sub Total</b>	<b>48</b>	<b>24</b>	<b>24</b>
<b>Engineering Section</b>			
Executive Engineer	1	1	0
Assistant Engineer (Civil)	1	1	0
Town Planner	1	0	1
Slum Development Officer	1	0	1
Water Super (SAE)	1	0	1
Sub-Assistant Engineer	4	1	3
Bill Clark	1	0	1
Senior Clerk	1	0	1
Community Staff	2	0	2
Draftsman	1	0	1
Mechanic Pump/Vulb Operator	4	0	4
Pipe Line Operator	4	0	4
Tube-well Mechanic	2	1	1
Steno Typist	1	0	1
Store Keeper	1	0	1
Surveyor/ Sub Overseer	1	0	1
Junior Clerk/Typist	1	0	1
Work Assistant	3	1	2
Street Light Inspector	1	0	1
Electrician	3	3	0
Lineman	4	2	2
Electric Helper	2	2	0
Jeep Driver	1	1	0
Road Roller Driver	2	1	1
Mixture Machine Operator	1	0	1
Truck/Tractor Driver	2	0	2
Photocopy/Dupli Machine	1	0	1
Truck Helper	4	1	3
Guard	1	0	1
MLSS	4	0	4
<b>Sub Total</b>	<b>57</b>	<b>15</b>	<b>42</b>
<b>Health, Family Planning &amp; Conservancy Division</b>			
Health Officer	1	0	1
Conservancy Inspector	1	1	0
Sanitary Inspector	1	0	1
Slaughtering House Inspector	1	0	1
Moulvi (Contractual)	1	0	1
Junior Clerk/Typist	1	0	1
Conservancy Supervisor	2	0	2
Vaccination Supervisor	1	0	1
Health Assistant	2	1	1
Vaccinator	8	3	5
Health Visitor	4	3	1
MLSS	2	0	2
<b>Sub Total</b>	<b>25</b>	<b>8</b>	<b>17</b>
<b>Grand Total</b>	<b>130</b>	<b>47</b>	<b>83</b>

Source: Narail Paurashava, 2009.

### Town Planning Unit

At present there is no fixed town planning unit for any Paurashava of Bangladesh. Bangladesh Institute of Planners (BIP) has suggested organogram for planning unit for each class of Paurashava. There is no town planner in this Paurashava. Without a proper planning unit the activity of town planning can not be done with much efficiency.

## b. Existing Committees and their Functions

According to the Paurashava ordinance every Paurashava should have few committees. As usual Narail Paurashava has formed the following committees. Each committee has five members and councilors are the president of these committee. The president of a committee can not be a president of other one. Mayor by law is a member of each committee and he can not be a president of any committee. Each committee has specific issues to conduct and have to finalize specific matters.

Followings are the existing committees of Narail and their relevant functions:

1. Establishment and finance committee
2. Tax assessment and collection committee
3. Committee of accounts and audits
4. Town Planning, public services and development committee
5. Law-order and public safety committee
6. Transport & Physical infrastructure committee
7. Woman & child committee
8. Fisheries & livestock committee
9. Committee of Information & culture
10. Market price supervision, monitoring & control committee

## c. Logistic Support/Equipment

According to the Paurashava manual an "A" class Paurashava will get logistic support/equipment to continue the work properly. Following are the comparative table of logistic support/ equipment of the Paurashava.

Table- 2.8: Existing equipments of Narail

Logistics	Standard Amount	Existing Situation	Backlog
Jeep	2	1	1
Road Roller (Big & Small)	2	1	1
Truck/Tractor	4	1	3
Motorcycle	3	1	2
Bicycle	4	2	2
Mixer Machine	1	1	0
Photocopy Machine	2	2	0
Type Writer Machine	5	3	2
Computer	--	8	--

Source: Narail Paurashava, 2009.

The table shows that there is a huge lack of equipments in the Paurashava. It lacks 1 jeep, 1 road roller, 3 trucks which are very necessary for development activities. There are 8 computers which minimized the lack of type writer machine and also increased the efficiency of the officials.

## 2.1.6 Land Use and Urban Services

### a. Land use:

It has been ascertained that major land use goes to agricultural land and it is about 59.59% of the total land. The second major land use is residential and homestead and occupying about 16.05% of the project area. Beside these, water bodies occupy about 9.83% of the total land, about 7.49% vacant land. Transport & Communication is also dominant criterion of the project area which covers about 3.27% of total land uses. Land use under commercial activity and education and research institutions purposes in the entire project area are about 0.54 % and 0.43 % respectively, while about 0.36% or 25.41 acres of land are under Industrial and Manufacturing purposes.

Table- 2.9: Existing Land use of Narail Paurashava

Sl. No.	Land Use	Total (In Acre)	Percent	Total (In Sq. Km.)
1	Administrative	23.9	0.34	0.10
2	Agriculture	4199.98	59.59	16.99
3	Commercial	37.98	0.54	0.15
4	Educational	30.6	0.43	0.12
5	Health	4.02	0.06	0.02
6	Industrial	25.41	0.36	0.10

7	Graveyard	8.13	0.12	0.03
8	Miscellaneous	0.43	0.01	0.00
9	Mixed Use	100.51	1.43	0.41
10	Open spaces	527.57	7.49	2.13
11	Places of Worship	17.42	0.25	0.07
12	Recreational	6.82	0.10	0.03
13	Residential	1131.46	16.05	4.58
14	Restricted	9.83	0.14	0.04
15	Transportation	230.71	3.27	0.93
16	Water bodies	693.08	9.83	2.80
	<b>Total</b>	<b>7047.91</b>	<b>100</b>	<b>28.52</b>

Source: Land use Survey, 2010.

### b. Urban Services

The following table shows the quality of different urban services and facilities of the study area. Maximum 46.85% household's remarks about health facilities moderate, they want better health facilities. Among the total households maximum 65.24% household remarks moderate about the service of police department. 53.65% household remarks about primary education facilities good but they think this is not sufficient. 0.50% household remarks about primary education facilities totally bad.

Table-2.10: Quality of the services available

Service Facilities	Quality of the Services							
	Good		Moderate		Bad		Total	
	No.	%	No.	%	No.	%	No.	%
Hospital/clinic	85	21.41	186	46.85	126	31.74	397	100
Community center	91	22.92	279	70.28	27	6.80	397	100
Market	142	35.77	233	58.69	22	5.54	397	100
Police	86	21.66	259	65.24	52	13.10	397	100
Park/Play field	157	39.55	193	48.61	47	11.84	397	100
Bank	142	35.77	245	61.71	10	2.52	397	100
Post office	111	27.96	239	60.20	47	11.84	397	100
Fire Brigade	161	40.55	212	53.40	24	6.05	397	100
Primary School	213	53.65	182	45.84	2	0.50	397	100
Gymnasium/Club	103	25.94	279	70.28	15	3.78	397	100
Cinema/Auditorium	88	22.17	241	60.71	68	17.13	397	100
Katcha Bazar	108	27.20	257	64.74	32	8.06	397	100
Bus-stand	93	23.43	274	69.02	30	7.56	397	100
Library	180	45.34	180	45.34	37	9.32	397	100
Grave/Crematory	275	69.27	105	26.45	17	4.28	397	100
Mosque/ Temple	339	85.39	50	12.59	8	2.02	397	100

Source: Socio-economic Survey, 2009.

Following table shows that distance of different urban services facilities from the household. Table reveals that maximum 25.94% households are getting health facilities within 0.50-1km distance range. Majority households (21.66%) are getting primary education facilities within rang 0.50-1km.

Table-2.11: Percentage Distribution of Household by Distance of Services

Service Facilities	Walking distance		With in 1/2 km		1/2-1 km		1-2 km		2-3 km		More than 3 km		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Hospital/clinic	11	2.77	40	10.08	103	25.94	132	33.25	111	27.96	0	0	397	100
Community center	40	10.08	30	7.56	123	30.98	71	17.88	117	29.47	16	4.03	397	100
Market	14	3.53	54	13.60	105	26.45	112	28.21	109	27.46	3	0.76	397	100
Police	4	1.01	24	6.05	168	42.32	88	22.17	92	23.17	21	5.29	397	100
Park/Play field	149	37.53	55	13.85	78	19.65	37	9.32	68	17.13	10	2.52	397	100
Bank	76	19.14	52	13.10	82	20.65	72	18.14	96	24.18	19	4.79	397	100
Post office	97	24.43	50	12.59	76	19.14	77	19.40	88	22.17	9	2.27	397	100
Fire Brigade	29	7.30	24	6.05	100	25.19	125	31.49	99	24.94	20	5.04	397	100
Primary School	160	40.30	90	22.67	86	21.66	32	8.06	17	4.28	12	3.02	397	100
Gymnasium/Club	165	41.56	59	14.86	31	7.81	24	6.05	48	12.09	70	17.63	397	100
Cinema/Auditorium	68	17.13	21	5.29	51	12.85	89	22.42	145	36.52	23	5.79	397	100
Katcha Bazar	70	17.63	66	16.62	114	28.72	58	14.61	73	18.39	16	4.03	397	100
Bus-stand	32	8.06	55	13.85	84	21.16	105	26.45	103	25.94	18	4.53	397	100
Library	91	22.92	31	7.81	96	24.18	88	22.17	74	18.64	17	4.28	397	100

Service Facilities	Walking distance		With in 1/2 km		1/2-1 km		1-2 km		2-3 km		More than 3 km		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Grave/Crematory	146	36.78	48	12.09	94	23.68	49	12.34	55	13.85	5	1.26	397	100
Mosque/ Temple	313	78.84	35	8.82	24	6.05	7	1.76	13	3.27	5	1.26	397	100

Source: Socio-economic survey, 2009,

### 2.1.7 Functional Linkage with the Regional, National and International Context

Narail Paurashava is the District town of Narail District. Narail town is the core point of the district. The town does not have enough strong road network and communication system with the capital city of Dhaka, industrial city of Khulna and other regional centres of Jessore, Barishal, Magura, kustia and Jhenaidah. The communication system and road network system need to be developed, re-planned, new layout plans of roads, construction of bypass and new roads so as to create the importance like the other district headquarters. As this area was developed on the Chitra river and the river has played an important role for its development and transportation, but due to course of time the river transportation system is almost extinct and road transportation system is developed. However, seasonal river transport is still used to transport specially goods and commodities. Influence of economic flow ultimately focused around this zone.

Narail District Headquarters town of the Narail district is well connected with road communication. The Upazila is bounded on the north by Lohagara and Shalikhra Upazila of Magura Zila on the east by Lohagara Upazila, on the south by Kalia and Abhoy Nagar Upazilas of Jessore Zila and on the west by Bagherpara and Jessore Sadar Zila. The town is of great antiquity. It is almost centrally situated in the district and served by a network of roads.

National development plans are prepared considering the overall needs and aspirations of the country with respect to different sectors of development. Policies, strategies and objectives are set and budget allocation is made to realize development targets. Sectoral budgets are again broken down into programs and projects under each sector. Any development initiative at the local level must relate to the national level plans in order to achieve cohesion and integrity with overall development of the country to attain the national development objectives. It is, therefore, necessary to study how the Narail Paurashava Master Plan is related to the national development plans of the country.

The present system of national level planning has very limited linkage with the local level plans. The present system of national development budget allocation for urban local government is a top down approach, which is highly influenced by political motivations. Population based allocation is loosely followed in the process of preparing national budget. This process virtually ignores the local needs. Local people's needs and aspirations are not always reflected in the national development plans. Therefore, it is important to establish a linkage between the local plans and the national development plans so that aspirations of the people can be realized. This requires following a bottom up approach of development planning and the budget allocations should be made according to the choice of the urban local governments who are accountable to the municipal people directly. Budget should allocate resources according to the priority list of the projects prepared by the Paurashava. The annual development budget should reflect the needs of the residents of the Paurashava as it is prepared by the counselors and the Mayor who are directly elected by the people. In this context the Paurashava Master Plan can play a very important role.

Internationally Narail Paurashava is not very recognized. It is a small municipality in Bangladesh which has almost negligible influence in the world economy, politics or weather. People from this Paurashava are living in various countries of the world and sending remittance to home. From a recent study of the Center for Policy Dialogue (CPD), the percentage of non-resident Bangladeshi from Narail is very low. It is one of the areas with lowest abroad going persons per family. The database of Narail Sadar Upazilla is available in internet. Administrative, geographical and demographic data is found in wikipedia, the free online encyclopedia. Banglapedia has provided online database of this Paurashava with more detailed data. Photos of Narail and its various locations of historic interests are found in various websites. These websites describe the beauty and importance of Narail which may help in the development of tourism in this area. The 'S, M, Sultan Museum', 'Narail Jamindar Bari', 'Kacha Sondesh' are the major attractions here that may lead to international recognition of this area. Sometimes the foreign delegates come to this place to visit the president of Bangladesh. So Narail is very important in international context too.

### **2.1.8 Role of Govt. Agencies for Different Sectoral Activities**

Almost all national government ministries have their District level offices that are located in the District headquarters town. As a District headquarters town, Narail also have all these offices. These offices include,

- Deputy Commissioner Office,
- SP Office,
- PDB Office,
- REB Office
- District Social Welfare Office,
- District Civil Surgeon Office,
- Water Development Board Office,
- Office,
- Local Government Engineering Department Office,
- District Settlement Office ,
- Public Works Department Office,
- Roads and Highways Department Office,
- Women and Children Affairs Office,
- District Public Health Engineering Office,
- BADC,
- Social Welfare Department,
- Postal Department,
- District Fisheries Department Office,
- District Health and family Planning Office,
- District Education Office.

It is evident from household survey that there is insignificant number of income earners working in the service sector. 4.21 percent males are employed in government/autonomous organizations, where as female is 0.72. A negligible percentage (4.00%) of population is employed in private company It is unlikely that public sector jobs will show any major improvement in future. But with the increase in business and industry there is possibility that private sector jobs will show further increase in future. Remarkable public sector investments in Narail Paurashava are:

#### **1. Improvement of Rugganj Bazar:**

Rugganj Bazar is the biggest one in the Narail Paurashava. The authority in Narail Paurashava has recognized its economic potential and developed the bazar for better economic activity. Paurashava has constructed a two storied market in this bazar. It also constructed separate sheds for selling cattle, fish, vegetables etc.'

#### **2. Road Improvement:**

The internal roads of the Paurashava are constructed and maintained by RHD and LGED. RHD looks after the Narail-Magura Road, Narail-Jessore Road and Narail Gobra Main Road.

#### **3. Dredging of Chitra River:**

Chitra is a dying river flowing through Narail Paurashava. But this river has high potential in transport as well as water supply of this area. BWDB is currently dredging this river for ensuring the future of this river.

#### **4. Renovation of Zaminder Bari:**

Narail Zaminder Bari is a very important tourist attraction of the region. PWD is the authority of taking care of this historic place. Every year renovation work of this historic site is done by this government authority.

## **2.2 Projection of Future Growth by 2030**

### **2.2.1 Introduction**

The future growth projection will be helpful to draw mechanisms for improving and guiding long-term development strategies, to identify existing problems and make possible suggestions, to formulate viable projects for urban development to increase management capabilities of the concerned authority.

### **2.2.2 Projection of Population (Showing past growth trend)**

### 2.2.2.1 Basis of Population Projection Method Used

Perhaps no single factor is more important for planning than the size and composition of a region's population and the way it will change in the future. Estimating future population for a specific period for a particular area is one of the most difficult tasks in the planning process.

On the other hand, the difference of data from different secondary sources also makes the job more problematic. The population figures collected from secondary sources are very much ambiguous. So for the final projection, several discussions were made with experts and BBS officials. Following the annual growth rate for the study area available from the 2011 Population Census, the projection up to the year 2030 with five years interval has been made with the help of **Compound Rate of Growth Method**.

To calculate the future population of the area, the following formula is used.

$$P_n = P_o (1 + r)^n$$

Where,

- P<sub>o</sub> = Population in the base year,
- P<sub>n</sub> = Population in the projected year,
- n = number of intermediate years,
- r = annual rate of growth.

First using the base year population (2011), a projection of the study area population at five yearly intervals up to 2030 is on the basis of some assumptions. In general, the projection is made on the basis of trends in population growth observed in the past, and looking ahead the development prospects in future.

The important issues to be considered are;

- The natural growth;
- Composition of the population, particularly the age breaks;
- Net migration;
- The annexation of new areas with existing

### 2.2.2.2 Assumptions

On the basis of the above formula Ward wise population of Narail Paurashava has been estimated up to the year 2030 with a five year interval. As the data are available from 2011 so it has been taken as base year.

The existing population of Narail Paurashava is 42299 in 2011 within an area of 6854.66 acres. With an annual growth rate of 2.63%, the forecasted population of Narail Paurashava will be 78590 in the year 2030. The gross density of the area will be 11 PPA (person per acre). Due to the maximum concentration of residence in Ward no. 03 the density of population will also be higher (11 PPA) in this zone.

Table 2.12: Population Projection with Density for Narail Paurashava Up to 2030 according to Population Census 2011

Ward No.	Area (In Acres)	Pop <sup>n</sup> in 2011	PPA	Pop <sup>n</sup> in 2015	PPA	Pop <sup>n</sup> in 2020	PPA	Pop <sup>n</sup> in 2025	PPA	Pop <sup>n</sup> in 2030	PPA
WARD-1	1035.37	2969	3	3955	4	4503	4	5128	5	5838	6
WARD-2	427.49	3261	7	4254	10	4844	11	5515	13	6280	15
WARD-3	264.40	6142	24	9060	34	10315	39	11745	44	13373	51
WARD-4	758.61	6384	7	7365	10	8386	11	9549	13	10872	14
WARD-5	691.89	7053	8	7795	11	8876	13	10106	15	11507	17
WARD-6	494.20	5901	10	6976	14	7942	16	9043	18	10297	21
WARD-7	901.93	5053	5	6029	7	6865	8	7816	9	8900	10
WARD-8	1677.84	2423	1	3534	2	4024	2	4581	3	5216	3
WARD-9	602.93	3113	5	4273	7	4865	8	5540	9	6308	10
<b>Total</b>	<b>6854.66</b>	<b>42299</b>		<b>53242</b>		<b>60621</b>		<b>69023</b>		<b>78590</b>	
<b>Average</b>			<b>5</b>		<b>8</b>		<b>9</b>		<b>10</b>		<b>11</b>

Source: Annual growth rate 2.63% -BBS-2011.

According to the population data provided by the Paurashava and the growth rate 2.63 the projection was also done. The following table shows the findings of this projection.

Table 2.13: Population Projection with Density for Narail Paurashava Up to 2030 according to Population data of the Paurashava, 2008

Ward No.	Area (In Acres)	Pop <sup>n</sup> in 2008	PPA	Pop <sup>n</sup> in 2010	PPA	Pop <sup>n</sup> in 2015	PPA	Pop <sup>n</sup> in 2020	PPA	Pop <sup>n</sup> in 2025	PPA	Pop <sup>n</sup> in 2030	PPA
WARD-1	1035.37	3,764	4	4069	4	4633	4	5275	5	6006	6	6838	7
WARD-2	427.49	4,376	10	4730	11	5386	13	6133	14	6983	16	7950	19
WARD-3	264.40	10,015	38	10826	41	12327	47	14035	53	15980	60	18195	69
WARD-4	758.61	7,985	11	8632	11	9828	13	11190	15	12741	17	14507	19
WARD-5	691.89	9,184	13	9928	14	11304	16	12871	19	14654	21	16686	24
WARD-6	494.20	7,073	14	7646	15	8706	18	9912	20	11286	23	12850	26
WARD-7	901.93	6,505	7	7032	8	8006	9	9116	10	10380	12	11818	13
WARD-8	1677.84	3,435	2	3713	2	4228	3	4814	3	5481	3	6241	4
WARD-9	602.93	4,515	7	4881	8	5557	9	6327	10	7204	12	8203	14
<b>Total</b>	<b>6854.66</b>	<b>56852</b>		<b>61457</b>		<b>69975</b>		<b>79673</b>		<b>90716</b>		<b>103289</b>	
<b>Average</b>			<b>8</b>		<b>9</b>		<b>10</b>		<b>12</b>		<b>13</b>		<b>15</b>

Source: Annual growth rate 2.63% -BBS-2011; Population data Narail Paurashava, 2009.

According to this projection the total population of the Paurashava in 2030 will be 103289. Highest PPA will be in Ward no. 3 (69) and lowest will be in Ward no. 8 (4).

### 2.2.3 Identification of future economic opportunities

The following table illustrates the present trend of employment in Narail.

Table-2.14: Employment distribution in the project area in year 2011

SL. No.	Type of Employment	Household No.	Percentage
1	Cultivator /Share Cropper	296	1.23
2	Livestock/ Forest/ Fisher	72	0.30
3	Agriculture Labor	312	1.30
4	Non-Agriculture Labor	900	3.75
5	Handloom	127	0.53
6	Business	6530	27.18
7	Construction	513	2.13
8	Transport	1302	5.42
9	Employee	4728	19.68
10	Other	3448	14.35
11	Industry	330	1.37
12	Hawker	123	0.51
13	Religious	48	0.20
14	Service Activity	5150	21.44
15	Rent	106	0.44
16	Remittance	38	0.16
17	<b>Total</b>	<b>24023</b>	<b>100.00</b>

Source: BBS, 2011 and. Estimated.

The above table illustrates that highest percentage of people involved in business (34.83%) followed by 28.2% of service activity, 12.31% of other jobs, 6.38% in transport related jobs and 4.30% in non-agricultural labor in the year 2011. The trend shows that business sector is diminishing day by day with 34.83% in the year 2011 and lastly 22.98% in the year 2030. Service activity also has a diminishing trend in future. In 2030 the percentage of households involved in cultivating/share cropping will be near zero (0.23%). Business should be flourished in the future as the town has good communication. Service activity should also be given much consideration, because the town has much to earn from tourism activity.

First, training on entrepreneurship may be arranged for prospective young and educated entrepreneurs to encourage them to invest in manufacturing, in particular.

Second, local entrepreneurs may go for consumer's goods production targeting local market.

Third, prospective investors may also explore possibilities of investment in agriculture sector for local as well as export market, particularly, in fisheries, poultry and horticulture.

It is expected that more comprehensive suggestions will be made in the Draft Master Plan of the Paurashava.

#### **2.2.4 Projection of Land use**

Projected land use is a critical component to a comprehensive plan. The forecast determines the amount of land needed to accommodate future growth, and includes the land required for residential, commercial and industrial uses. In some instances, a community may have enough vacant lands within its boundary to accommodate its forecasted population increases and land use demands. In other instances, there may be a need to consider land outside a community's boundaries to accommodate this increase. The projection and demand on land requirements are discussed in the following paragraphs.

##### **2.2.4.1 Basis for projection**

The important basis of estimating the amount of land under each land use type will be the size of population in different periods of the Master Plan. The distribution of existing land uses will be accounted in the total requirement of land in future. Land for different uses will be determined on the basis of forecasts on future growth of each category of land use.

##### **2.2.4.2 Demand analysis**

By conducting a demand and need assessment it is possible to reasonably predict the amount of land required to accommodate future population growth or to determine if the existing land of the community can absorb this growth. It will show whether additional land area is needed through expansion of corporate boundaries. Based on the existing land use distribution pattern, it is reasonable to assume a similar land use distribution pattern for the future.

Salient feature regarding the land use projection is given below:

- Promote the conservation and protection of the limited land resources within the town.
- Encourage a compact urban development pattern that promotes walkable communities.
- Provide an adequate amount of land for future commercial and industrial development to support the economic development of the town.
- Provide an adequate amount of land for a variety of housing choices throughout the project area.
- Encourage a development pattern that is efficient and utilizes public facilities where feasible.
- Promote the infill of vacant properties and the redevelopment of underutilized lands.
- Promote the protection of environmentally sensitive lands from development.

Population projections indicate that the project area population will rise to 78590 in 2030 from 42299 in 2011. The total Labour Force will rise to 18493 (excluding housewife and students) in the same period. The project area should be prepared to provide services for the increased population along with covering up the present shortfall. Job market must provide employment to the new comers. The dwelling need and ancillary services will indicate new land shall have to be brought under urban use.

The present haphazard development has to be brought under development control. But the institution on which this responsibility of development and development control is entrusted has inherent weaknesses. In this backdrop, in the draft planning stage landuse allocation will be made on the following category of uses on adoption of a suitable standard for the projected population.

#### **2.2.5 Projection of active labor force**

Since economics is a behavioral science, it is extremely difficult to make any precise projection about future economy of this small urban centre. Considering the present level of economic activities major change is anticipated in the local economy in the future. Remittance is an important source of income in Narail region. Smooth road network is another important factor of road side development. So the land price along the side of the road is increasing day by day.

Employment can be projected using either mathematical or analytical methods. Mathematical methods require aggregate employment data of at least five to ten years, and only total employment can be projected by employing both the linear and non-linear equation methods. These methods involve an extrapolation of the past into the future and the assumption that the past trend in enrolment would continue into the future. We use here the Mathematical method by employing of linear equation.

Table 2.15 shows the working force for Narail Paurashava. The total working force of Narail in 2011 was 46761 (including the students and housewives). According to this figure and also

information from the socioeconomic survey in the Paurashava, further calculation has been done. On the basis of this estimation the present work force (including the students and housewives) is 68200, where 51.22% is male and the remaining is the female work force. But at present 28.93 % of women folk is housewife (9624 in number). It is expected that the total figure will rise to 15024 in the year 2030. For a balance development of an area it will be necessary to create employment opportunities for the estimated work force. It will also expect that with the economic development of Narail the participation of female work force in economic activities should be increased.

Table 2.15: Projected Working Force for Narail Paurashava up to the Year 2030

Year	Total Pop.	Male Working Force	%	Female Working Force	%	Total Working Force	%	Total Working Force	%
		(Including Student)		(Including Housewife & Student)		(Including Housewife & Student)		(Excluding Housewife & Student)	
2011	46761	17945	51.40	16965	48.60	34910	74.66	13739	29.38
2015	53242	21812	51.02	20940	48.98	42752	80.30	16725	31.41
2020	60621	23129	50.54	22637	49.46	45766	75.50	17770	29.31
2025	69023	24394	49.99	24402	50.01	48796	70.70	18784	27.21
2030	78590	24070	50.53	23569	49.47	47638	60.62	18493	23.53

Source: BBS, 2011 and Estimated

Note: i. Population from the year 15-59 has been considered as working force  
ii. Almost 27% of the working force has been considered as student.

Employment of Narail Paurashava has also been projected with the help of employment statistics of 2001 and 2011. Growth rates of various sectors of employment are calculated using the statistics of these two data. Growth rate of handloom, industry, employee, hawker, religious, rent and remittance is taken as 4.6% which is the growth rate of employed household in 2001 and 2011. It has been seen that the total employment in business sector is more than others. Business is the largest sector of employment. Agricultural sector is diminishing.

Table 2.16: Projected Employment for Narail Paurashava up to the Year 2030

Year	Total Household	Cultivator/ Share Cropper	Fisher/Livestock/ Forestry	Agriculture Labor	Non-Agriculture Labor	Handloom	Business	Construction	Transport	Employee	Other	Industry	Hawker	Religious	Service	Rent	Remittance
2001	7472	1225	24	688	230	5	1814	244	548	0	577	91	29	16	1857	43	81
2011	9945	1356	12	660	250	7	3278	903	1183	2424	753	136	43	24	2784	64	121
2015	14027	1435	9	644	261	9	4554	1869	1815	3035	874	171	54	30	3486	81	152
2020	17565	1519	6	629	273	12	6326	3866	2783	3801	1013	214	68	38	4365	101	190
2025	21996	1607	4	615	286	15	8787	7999	4268	4759	1175	268	85	47	5467	127	238
2030	27544	1701	3	601	299	18	12207	16549	6545	5960	1363	335	107	59	6845	159	299

Source: 1. BBS, 2001 & BBS 2011 and Estimated.

Note: Growth rate of Handloom, Employee, Industry, Hawker, Religious, Rent and Remittance is taken as 2.63%.

Projected deficiency of employment shows that there is a need for new employment in the Paurashava and so there is a need for new investment. From the previous table it can be seen that the employment in agricultural sector is diminishing. So, it should be decided in which sector the future employment of this Paurashava should be increased to support its economy.

Table-2.17: Projected Deficiency of Employment in Narail Paurashava

Year	Household	Employment by household	Deficiency
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2001	7686	7472	214
2011	10930	11201	-271
2015	13292	14027	-735
2020	16164	17565	-1401
2025	19656	21996	-2339
2030	23903	27544	-3640

Source: 1. BBS, 2011 and Estimated.

Note: Household growth rate taken from BBS, 2011 as 3.99%

## CHAPTER- 3

### DEVELOPMENT RELATED POLICY PRESCRIPTION

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#### **3.1 Indicative prescription of policy in the light of different urban policies, laws, regulations and guidelines**

The present section is about national level policies relevant to the current planning effort. The policies include Act 2009, Urban Management Policy, Land Use Policy, Housing Policy, Urban Transport Policy, Environmental Policy, Disaster Management and Climate change Policy, Tourism Policy, Agriculture Policy, National Forest Policy, Population Policy, Coastal zone management Policy, Water reservoir act 2000, Building construction act, Building Code, Policy regarding Autistic Persons and many others. It also is a review highlighting the important legal issues in acts and ordinances relevant to planning and development of planning. The aim of the review is to highlight the special features of the relevant legal documents and to expose the major limitations and point out necessary areas of revisions to make them effective facilitators in future District Town development.

The urban planning and land use regulations are neither good nor bad. They impact on land and housing markets favorably or unfavorably and result in social benefits and costs depending on their nature and the specific contexts in which they are applied. When regulatory costs outweigh benefits, regulations should be amended or repealed. Careful reforms of these regulations can result in a lower cost for urban development and for housing. An additional benefit could be in terms of a more functional spatial organization of the city or town. If the objective of orderly town development is to be achieved, regulations need to be amended from time to time to make them function effectively. Regulations and processes that facilitate land availability and uses for planned development at affordable costs need to be continued; those that lead to contrary results need to be eliminated or modified.

#### **3.2 Laws and Regulations Related to Development Control & Management**

##### **3.2.1 Urban Development Control**

Bangladesh does not have an approved policy for the urban sector as a whole, although efforts have been made from time to time over the last two decades, to formulate policy approaches and frameworks pertaining to specific thematic areas like shelter, housing, planned development, services etc.

##### **3.2.1.1 National Urban Policy**

The ADB-supported draft Urban Management Policy in 1994 intended to ensure sustainable and equitable urban development through decentralized development, developing public awareness and community participation, reducing dependency on public sector and participation of private sector.

A National Urban Sector Policy of 2006 has already been drafted which will provide a framework for social, economic, cultural and political-institutional sustainability. The policy envisions strengthening the beneficial aspects of urbanization and at the same time, effectively dealing with its negative consequences in order to achieve sustainable urbanization. It aims to work towards a decentralized and participatory process of urban development in which the central government, the local government, the private sector and the civil society have their roles to play.

The major objectives of National Urban Sector Policy for Bangladesh will aim to:

- Ensure regionally balanced urbanization through diffused development and hierarchically structured urban system.
- Facilitate economic development, employment generation, reduction of inequality and poverty eradication through appropriate regulatory frameworks and infrastructure provisions.
- Ensure optimum utilization of land resources and meet increased demand for housing and urban services through public-private and other partnerships.
- Protect, preserve and enhance urban environment, especially water bodies

- Devolve authority at the local urban level and strengthen local governments through appropriate powers, resources and capabilities so that these can take effective responsibility for a wide range of planning, infrastructure provision, service delivery and regulatory functions
- Involve all sectors of the community, in participatory decision-making and implementation processes
- Ensure social justice and inclusion by measures designed to increase the security of poor people through their access to varied livelihood opportunities, secure tenure and basic affordable services.
- Take into account particular needs of women, men, children, youth, the elderly and the disabled in developing policy responses and implementation.
- Assure health, safety and security of all citizens through multifaceted initiatives to reduce crime and violence
- Protect, preserve and enhance the historical and cultural heritage of cities and enhance their aesthetic beauty
- Develop and implement urban management strategies and governance arrangements for enhancing complementary roles of urban and rural areas in sustainable development
- Ensure good governance by enhancing transparency and establishing accountability.

#### **Key Issues:**

- In Bangladesh, cities and towns are playing a crucial role in the national development.
- At present, urban dwellers constitute 26% of the total population and their contribution to GDP is more than 45%.
- Sustainable urbanization is crucial for sustainable development in Bangladesh.
- Urbanization in Bangladesh is also characterized by a spatially unbalanced pattern.
- A National Urban Policy aims to strengthen the aspects of urbanization and at the same time effectively deals with its negative consequences in order to achieve sustainable urbanization.
- Each city of Bangladesh should have its own economic planning systems.
- There is a need for decentralization of power from central to local government.
- There is a need for capacity building in the governance areas of the country.
- Accountability and transparency of governance should be ensured.
- Conversion from agriculture land to non-agriculture land should be discouraged.
- Policies need to have clear operational guidelines to be effective.
- Links between urban regions and economic growth need to be made stronger.
- Although considerable efforts are gone into strategy formulation, there is a lack of effective marketing.
- Providing settlement for the poor should be a top priority for policy makers.
- Diffusion of urbanization and rural-urban linkages is an important issue.

#### **3.2.1.2 National Land Use Policy 2001**

To safeguard use of its land resources, particularly, valuable agricultural land of the country, government in 2001 declared the National Land Use Policy. The policy proposed for preparation of national land use plan which is very much relevant to the current plan.

#### **Key Issues of the Proposed National Land Use Plan**

Preparation and implementation of national land use plan in order to ensure best use of land is a major objective of land use policy. The plan is to be based on the criteria of land productivity and land capability and land suitability, use and requirement of land by agriculture, forestry, industrialization, urbanization and housing. Following are the key issues of the national land use plan.

1. Execution of coordinated land conservation projects aimed at prevention of desertification in the northern region.
2. Take up effective programmes aimed at preventing weathering of land, conservation of land fertility, development and conservation of land in coastal areas.
3. Prevention of destroying the hilly landscape by earth cutting, excavation and removal of land. Appropriate measures to be taken against indiscriminate collection of earth and stone from hilly areas and disturbance ecological balance. Emphasis on watershed management.
4. Formulation, categorization and effective execution of land use plan in order to ensure planned occupancy and / or use of land.
5. Payment of compensation to those who will be affected by land weathering and land acquisition by the government.

6. Regular monitoring, survey and research on desertification in the northern region, land reclamation, prevention of weathering of land, multi-use of land, conservation and development of coastal area land and condition of watershed areas.

The policy stressed on most intensive and best use of scarce land resources of the country. In one of its objectives (objective 'Kha') the policy aims to introduce 'land use zoning', based on particular characteristics of land, to make best use of land, prevent unplanned expansion of residential areas and control indiscriminate growth of industrial and commercial activities. The policy calls for planned and best use of land.

#### **Observation**

No effective steps have yet been found to execute any of the policies mentioned in the land use policy. In absence of execution the situation in land use and land management is severely being deteriorated in the country.

#### **3.2.1.3 National Housing Policy, 1993**

The Government of Bangladesh formulated the first ever housing policy of the country in 1993. In describing the housing problems of the country, the policy, in its Article-2.3, expressed concern over concentration of population in some big cities, where housing is becoming a severe crisis without any effective role played by the government to create affordable housing. Concern was also expressed about the unplanned and haphazard housing area development. In objectives of the policy, it stressed (Article-3.3) on useful and effective strategy to tackle growth of unplanned and unhealthy habitations. The policy, in Article-5.1.4, committed to encourage private developers in land development, infrastructure development and house construction. The policy also made commitment to provide government assistance on participatory housing infrastructure development involving the community, NGOs, CBOs, private developers and social welfare organisations (Article-5.2.7). It also committed to assist in introducing new infrastructure development method based on leasing. In Article-5.2.8, the policy declared to provide necessary assistance to local governments in recovering investments in infrastructure and services and provide necessary training to their staff and employees to increase their efficiency. About the roles and responsibilities of the government (Article-5.7), the policy said that in housing activities the government will continue to remain as a facilitator. The government will provide housing only to the poor and the rootless classes of the society (Article-5.7.1). The policy also made commitments to encourage private organisations, NGOs and CBOs in housing infrastructure development, income generation and environmental improvement under its policy and local level planning (Article-5.7.3).

#### **Observation**

But despite formulation of housing policies, so far no effective programmes and projects have been undertaken. National Housing Authority has been formed but it has yet to draw up any workable programme to realise national housing policies. National Housing Authority has not been able to address the housing problem of the country. The private sector housing has flourished in country, particularly, in big cities where land value is sky rocketing, and as a result price of housing is going beyond the reach of majority of the people. But nothing has, so far, been done for participatory housing promotion. The conventional site and services approach to housing is still continuing that does not help solve housing problem of the mass people.

#### **3.2.1.4 Population Policy 2004**

Prepared in 2004, the Population Policy of Bangladesh responds to the critical need to deal with the complex national population problem in a holistic way. It also aims to build national consensus and synergy among institutions: public, private, civil society and NGOs about the problem.

#### **Objectives**

The objectives of the National Population Policy are to improve the status of family planning, maternal and child health including reproductive health services and to improve the living standard of the people of Bangladesh through making a desirable balance between population and development in the context of Millennium Development Goals (MDGs) and Interim Poverty Reduction Strategy Paper (IPRSP).

The Population Policy proposals can broadly be divided into four sectors, human resources development, decentralization of population activities, participation of NGOs and private sector in population planning, building of planned family.

#### **Human Resources Development**

The population policy aims to create a large skilled workforce, emphasizing on education and training strategies. It calls for introduction of population, public health and health science in all levels of education. Undertake initiative to incorporate population, family planning, maternal and child health and reproductive health issues in different curriculums of medical education. Design and implement appropriate training and learning programs for managers and service providers from different disciplines, covering the necessary mix of skills required for family planning, maternal and child health and reproductive health services. To this end, the policy aims to strengthen training activities including existing human resources development (HRD) institutions.

### **Decentralisation of Population Activities**

Decentralization of population activities is another area of recommendation of the population policy. It calls for decentralization of population activities and ensure people's participation in population control, nutrition and health activities; decentralization of services through devolution of power to the Upazila level and further below. The policy aims to prepare action plan through participation of local elites, opinion makers, women's representatives of poorer section of the society along with the local level Government official; empowerment of local level (Upazila and Union level) committees to generate fund for their use in improving quality; access to RH services is another aim of the policy; it also aims to ensure strong local Government presence for transparent administration. Mothers are to be oriented about family planning, maternal and child health and reproductive health through commissioning mother's centers at Union level and below.

### **Participation of NGOs and Private Sector**

With a view to give a holistic approach, the population policy calls for making the NGOs and private sector as important partners. Hence, to ensure their active involvement in population activities at various levels the policy recommends the following strategies:

- a) Provide support to the registered NGOs in Health, Nutrition and Population sectors to work in the underserved areas;
- b) Encourage them to undertake motivational works and services particularly for the poor and other vulnerable groups;
- c) Engage them in awareness creation activities regarding the benefits of delayed marriage and delayed birth, health and nutrition issues as well as of STIs, RTIs, HIV/AIDS;
- d) Utilize NGOs and private sector effectively in community mobilization in population, family planning, maternal and child health and reproductive health activities; and
- e) Ensure coordination and intimate linkages of the NGOs and private sector with the Ministry of Health and Family Welfare and other relevant ministries and institutions and avoid duality.

### **Building of Planned Family**

To keep the size of population contained in view of country's limited resources, the policy stresses, on all out efforts to popularize and ingrain the slogan "not more than two, one child is better". (a) The policy stresses on the effective role of the doctors in implementing the population policy. It calls for ensuring participation of government and non-government doctors in implementation of population program.(b) It also proposes to engage government and non-government doctors in reducing the incidences of RTI/STI and preventing the spread of HIV/AIDS towards ensuring better reproductive health services; (c) Encourage the doctors in providing family planning services along with information, education and motivation activities according to the need of their patients; (d) Provide family planning services regularly along with maternal and child health services in all government and non-government health facilities.

### **Legal and social Measures**

A set of legal and social measures have been proposed by the policy to achieving the goal and objectives of the national population policy as well as for implementing the relevant program strategies.

### **Observation**

1. The population policy has not been able to address the issues adequately. There has not been any effort for 'all out efforts to popularize and ingrain the slogan "not more than two, one child is better"'.
2. The policy aimed at decentralization of population activities and ensure people's participation in population control, nutrition and health activities; decentralization of services through devolution of

power to the Upazila level and further below. But there has not been any effective step in this regard.

As a result the population of the country is increasing steadily giving warning about a grim future ahead.

### **3.2.1.5 Transportation Policy**

Prepared in 2004, following are the policy objectives of Transport Policy.

1. To provide a safe and dependable transport service.
2. Removal of unnecessary control and formulation of laws and regulations conducive to providing service.
3. Fare control.
4. Determining the roles of the Government sector and the private sector.
5. To maintain an economic and environmental balance.
6. To ensure maximum good utilization of Government funds.
7. Expansion of the role of transport in the ever increasing economic activities.
8. Reduction of transport cost of goods for export.
9. Growth of traffic commensurate with economic development.
10. Formulation of transport system for Dhaka city (Greater Dhaka).
11. Introduction of an integrated transport system.
12. Provision of alternate transport systems.
13. Creating of awareness regarding better standard of life and safety.
14. Poverty alleviation.

The policy makes discussion and recommendation such issues as road, road transport and traffic, non-motorized traffic and integrated issues.

Strategic policy issues of the transport policy cover the following:

#### **Greater private sector participation**

Encourage greater private sector participation with national ownership of road and rail infrastructure; lease of infrastructure may be allowed on long term basis; encourage private sector in infrastructure development.

#### **Effective co-ordination in transport**

Better coordination to be established between the Ministries and Departments under its control; policy/rules & regulations will be formulated to achieve the goal of creating better working links between the Government and the public and private sectors. Creation of discussion and consultation forums will be created for policy implementation; Government to promote clearer objectives and responsibilities for each sector in order to create more integrated working relationships.

#### **Promoting the role of the transport users**

The Government will examine how best the interests of users can be represented within the existing national government and local authority system. The Government will establish a user role within its transport planning process.

#### **Transport users should pay for the costs of services**

The Government to introduce arrangements to realise cost of transport operation and road maintenance from road users through new fiscal policies; to protect public interest, the Government will regulate tariffs for passenger and goods both in road and rail transport.

#### **Subsidies for transport services**

The government should allow subsidy to the transport sector only on consideration of public interest.

#### **Create public awareness for the policy**

Make people aware of the national transport policy.

#### **Observation**

1. Fare control policy could not be achieved.

2. Road safety is at stake.
3. Quality of roads has substantially deteriorated due to lack of maintenance.
4. Private is playing effective role in the transport sector.
5. Failure to take timely steps deteriorates transport situation in the capital city.
6. Development in the railway sector has been miserably poor.
7. No steps are visible about public participation in the transport sector.

### **3.2.1.6 National Environment Policy 1992**

Government declared an environmental policy in 1992 with a view to safeguard the national environment. The main objectives of the policy are:

1. To promote natural balance and overall development by means of Conservation and development of environment.
2. To save the country from natural disaster.
3. To identify and control all sources of pollution and degradation.
4. To ensure environment friendly development in all sectors.
5. To ensure sustainable, long term and environment friendly use of all national resources.
6. To get involved with all international initiatives on environmental issues.

The comprehensive environmental policy covers as many as 15 sectors of development namely, agriculture, industry, health and health promotion, energy, water resources, flood control and irrigation, land, forest, wild life and biodiversity, fish and animal resources, food, coastal and maritime environment, transport and communication, housing and urbanisation, population, education and public awareness, science, technology and research, legal framework, institutional structure. The consultant only highlights those sectors that have relevance to urban development and planning.

### **Industrial Sector**

The environmental policy on industrial sector call for taking up following environmental measures:

1. Take up pollution control measures for selected polluting industries
2. Potential polluting industries must incorporate control measures in its set up.
3. All industries must conduct EIA and take pollution control measures.
4. All industries in residential areas to be gradually shifted and new locations to be identified for planned industrial development.
5. The industries harmful for environment and producing non-biodegradable products must be gradually banned.
6. Any industries using harmful and toxic waste as raw materials must be banned.
7. Use heavy metals, like, mercury, chromium, lead should be discouraged in industries.
8. The industries producing pollutants should have their own system of pollution monitoring.
9. Introduce 'waste permit/consent order' to improve waste treatment and disposal system.
10. Recycling of waste in order to reduce the volume of waste.
11. Safeguard health of industrial workers.

The policy document also indicated the concerned agencies to take care of implementing the above issues.

### **Health and Health Sector**

This sector emphasised on the following environmental issues:

1. Supply of safe drinking water in urban and rural areas and introduction of low cost healthy sanitation system.
2. Control of pollution in all kinds of waterbodies by municipal, industrial and industrial waste and toxic materials.
3. Ban on carrying waste during day time and in open garbage trucks.
4. All steps to be taken to protect public health and environment from kinds of radiations including x-ray, nuclear waste, all equipment producing radiation, atomic reactor and research, and all activities harmful for human health.
5. Include environment in the academic syllabi.

### **Energy Sector**

The energy sector recommended the following policies.

1. Take up large scale for introduction of improved cooker and wide dissemination of the technology to conserve energy and save environment.
2. Popularize use of coal, kerosene and petroleum in rural areas in order to save fire wood, agricultural waste and cow dung and use them in agriculture as compost.
3. Promotion of biogas, solar energy, mini hydro electric unit and wind mill in rural areas as sources of energy.
4. Take up measures to reduce the amount of harmful elements in fuel including, sulfur in diesel and lead in petrol.
5. Increase research activities to invent alternative sources of energy.
6. Care has to be taken so that use and transformation of primary and commercial energy does not create any adverse impact on the environmental balance.
7. Appropriate measures have to be taken during extraction and distribution of different natural resources like, oil, gas coal, peat so that they do not create any adverse impact on air, water, land, hydrological balance and the eco-system.
8. Study the possibility of use environment friendly petroleum (free of lead).
9. Care has to be taken during giving fitness certificate to vehicles that emit black smoke. Mobile courts will have to be arranged to enforce the relevant legal provisions.

#### **Transport and Communication Sector**

1. Care to be taken to make the road infrastructure development congenial to environment and the development of roads does not impede drainage of water.
2. Appropriate measure to be taken so that the passengers and the transport do not endanger public health by indiscriminate throwing of solid waste and defecation.
3. The rail, road and water transport must adopt measures to control emission of excessive black smoke.
4. Creation of public awareness and take care about pollution of river water.
5. Control on water pollution to be ensured in inland river ports and dockyards.
6. Airports to be developed avoiding environmental degradation.
7. Care to be taken to reduce air and sound pollution by aircrafts.
8. Encourage railway rolling stocks that generate less pollution.
9. Forestation on both sides of railways and roads.

#### **Population Sector**

1. Conduct study on impact of population growth on environment and take appropriate measures to mitigate the problems of population growth.
2. Prepare manpower utilisation plan to make planned and effective use of human resources congenial to environment.
3. Emphasise participation of women in environment conservation.
4. Mark population as No.1 problem of the country and take appropriate measures to curb population growth.
5. As the poor are mostly affected by environment degradation, appropriate measures are needed to safeguard their health and save them from the adverse effects of environment degradation.

#### **Observation**

1. The pollution control measures against polluting industries has not been effective or inadequate.
2. No measure has been taken to shift industries from residential areas.
3. No measure has been taken to introduce 'waste permit/consent order' method.
4. There have not been effective steps to control of pollution in all kinds of waterbodies by municipal, industrial and industrial waste and toxic materials. The situation is grave in industrialized cities like, Dhaka.
5. Ban on carrying waste during day time and in open garbage trucks has not been effective.
6. No wide spread programme has been worked out for popularising improved cooker and wide dissemination of the technology to conserve energy and save environment.
7. No steps have been taken about control of pollution of river water.
8. Not much programme for forestation on both sides of railways and roads has been taken.

#### **3.2.1.7 Industrial Policy 2005**

The key objective of the Industrial Policy 2005 is to,

- set up planned industries considering the real domestic demand, prospect of exporting goods abroad, and discouraging unplanned industries in the light of past experience,
- accept private initiatives as the main driving force of economic development and uphold the government's facilitating role in creating a favourable atmosphere in order to augment private investments,
- arrange for state-owned industrial enterprises to be sold/transferred/leased or administered in any other way by the Privatization Commission or concerned ministries in order to accelerate the privatization process,
- take necessary initiatives to establish industries on state initiative in those sectors that are considered very important and essential because of national interest, where private entrepreneurs are not forthcoming,
- catering the needs for local and foreign market and also for consumer satisfaction of the local products; measures to be undertaken (a) produce world class quality products, (b) diversification of goods, (c) introduce cost-effective management in the production system, (d) more value addition in the industrial sector, and (e) provide support for enhancing productivity by using continuous, appropriate and advanced technology,
- Provide inspiration for the speedy expansion of cottage industries and SMEs and for further investment in these sectors so that new employment opportunities are generated, unemployment reduced and poverty alleviation program made in the country.
- Prioritize the expansion and development of agro-based and agricultural processing industries, and assist in the expansion of poultry, dairy and goat-sheep industry as agricultural industries.
- Provide women entrepreneurs with all necessary assistance in establishing industries in various sectors. Increase productivity at enterprise level; produce high-value added products step by step through development and application of appropriate technology and increase of export through export diversification.
- Provide all necessary assistance for producing environment-friendly product with the objective for creating a pollution-free environment in the industrial sector.
- Expand the local market and establish more backward linkage industries in order to accelerate the export of high value-added garments produced in the export-oriented garment industries and other relevant industrial subsectors.
- Further enrich the industrial sector with the proper utilization of the country's various natural and mineral resources.

### **Observation**

1. The policy does not say anything about setting up of industrial estate or special economic zones to reduce environment pollution and make service provision easier.
2. Should have given more incentive on local-foreign joint investment. This policy will help technology transfer and help grow local entrepreneurship.
3. Diversified policy needed to encourage export diversification in order to reduce dependency on a few export items.

### **3.2.1.8 National Tourism Policy**

Promotion of tourism in Bangladesh under the aegis of the government started in 1972, following independence of the country. The main attractions of the tourism industry of Bangladesh are varied cultural heritages, ancient archaeological sites, Buddhist heritages and many eco-tourism sites, world's longest natural sea beach, etc. Recognizing the contribution of tourism to the socio-economic development of the country, the government framed the National Tourism Policy in 1992. In the Tourism Policy, status of tourism industry in Bangladesh was described, aims and objectives were defined and implementation strategies were suggested. The National Tourism Policy of Bangladesh was declared in 1992. Its main objectives are:

- To create interest in tourism among the people
- To preserve, protect, develop and maintain tourism resources
- To take steps for poverty-alleviation through creating employment
- To build a positive image of the country abroad
- To open up a recognized sector for private capital investment
- To arrange entertainment and recreation
- To strengthen national solidarity and integrity

The policy identified tourism as a multidimensional industry and spelt out the necessity to have an effective coordination among various government ministries, departments, agencies and civil society bodies.

In line with the policy, the Bangladeshi Government provides incentives to attract private sector partners. The incentives include tax-holiday, loans, concession rates for taxes and duties and in specific cases, allotment of land etc.

### **3.2.1.9 The Tourism Master Plan**

The Tourism Master Plan of Bangladesh prepared in 1988 with the assistance of UNDP/ILO has identified a number of hindrances of the tourism industry and suggested various ways and means for the growth of tourism in Bangladesh. The Master Plan has envisaged a short-term, medium-term and long-term planning strategy for the promotion of tourism in Bangladesh. The short and medium-term strategies are intended to be completed within a 10-year period, the short-term referred broadly to the third and fourth national development plans, and the medium-term extending into the following five year period. Because of the constraints on public sector resources and possible caution on the part of the private sector to commit investment finance on tourism projects, the development programme follows the same broad approach in allocating projects to short and medium-term programmes. Although, in short term, some increase in tourism activity in Bangladesh can be achieved through small-scale product improvements, in the medium and longer term, major product initiatives will be required to achieve the growth targets. The major product development strategies may be 'River Tourism Product', 'Village Tourism Development', 'Cultural Heritage (archeological sites, historic buildings and monuments, museums, fine arts and performing arts etc.)', 'Forest and Wildlife' and other products innovation.

### **Observation**

As per the recommendation of the National Tourism Policy, a 'National Tourism Council' headed by the Prime Minister and an 'Inter-ministerial Coordination Committee' headed by the Minister of Civil Aviation and Tourism were formed. Unfortunately, both the committees virtually remained dysfunctional. Until now, only two meetings of the National Tourism Council were held. The National Tourism Policy undertook some initiatives for a vigorous promotion of tourism within and outside the country. However, most of those remained unimplemented. Against this backdrop and emergence of private sector tourism industry, it is urgently felt that the 1992 policy needs updating.

### **3.2.1.9 Agriculture Policy**

Agriculture Policy of Bangladesh was framed in 1999. A new policy under the present government is under preparation. The following review is on the 1999 Agriculture Policy.

The major issues dealt with in the policy are, seed, fertilizer, irrigation, pest management, agricultural research, extension services, marketing of agro-products, land use, education and training, environment and agriculture, women and agriculture, coordination of various agencies engaged in agricultural development. Most of these issues are not relevant to the current Master Plan. The only relevant issue is the land use. So, review has been carried out on land use only.

### **Land Use**

The Policy stresses on all possible steps to ensure optimum use of land. Although land is a privately owned property in general, its use has to be compatible with the overall social goals and utility. Moreover, it is important to consider that the interests of small arid marginal farmers and the sharecroppers are protected, as they constitute the majority of farmers.

The policy targeted to take the following steps to ensure planned utilization of land for crop production:

- Land zoning programme will be taken up by the Soil Resources Development Institute (SRDI) on a priority basis. Integrated approach of SRDI will be further strengthened for this purpose.
- To ensure maximum utilization of land, bottom up planning through people's participation and its implementation will be started from the mouza or village level.
- In most areas the same land is suitable for more than one crop. Therefore, farmers will be encouraged to grow more profitable crops as an alternative to only rice-rice cropping pattern.
- Fertile agricultural land is going out of cultivation due to its use for non-agricultural purposes such as private construction, house building, brickfield, etc. Appropriate measures will be taken to stop this trend in the light of the Land Policy of the government.
- Maximum utilization of land will be ensured through promotion of inter-cropping with the main crops.
- Acquisition of land in excess of requirement for non-agricultural purposes will be discouraged.

- Programmes will be taken up to motivate the landowners not to keep their land unused without any acceptable reason.
- Appropriate measures will be taken in the light of the Land Policy so that the interests of small and marginal farmers and the sharecroppers are protected and that the agricultural land is not kept fallow for a long period.

### **Observation**

1. About one percent of agricultural lands is being converted into non-agricultural use every year. In a country of constantly growing population withdrawal of land from agriculture will affect food production. So it is necessary to safeguard farm land from conversion. But this vital issue has been partially addressed in the policy. It states only about fertile land and not agricultural in general.
2. Government has not framed any effective mechanism to discourage acquisition of land in excess of requirement for non-agricultural purpose.
3. To protect agricultural land immediate steps are necessary to delineate agricultural lands. This issue has not been covered in the policy. It has been found that large areas of agricultural land unnecessarily being included within Paurashava. Sometimes it is about 70% of the total Paurashava area.

### **3.2.1.10 National Forest Policy 1994**

Representing an amendment of the forest policy of 1979, current national forest policy was enacted in 1994 and officially announced on 31st May 1995 (Bangladesh Gazette, July 6, 1995, pp 241-244). The policy was formulated to initiate a 20-year Forestry Master Plan (FMP). The Government of Bangladesh, assisted by the Asian Development Bank and the United Nations Development Program, prepared the FMP to preserve and develop the nation's forest resources. The plan provides a framework for optimizing the forestry sector's ability to stabilize environmental conditions and assist economic and social development. As such, three imperatives were identified: sustainability, efficiency and people's participation (FMP 1994).

### **Objectives of the 1994 National Forestry Policy:**

- To afforest about 20% of the total area of the country by initiating various afforestation programmes in forest lands, fallow lands, lands not useful for agriculture, hinter lands and other possible areas to meet the basic needs of the present and future generations and to ensure greater contribution of the forestry sector to economic development ;
- To enrich biodiversity in the existing degraded forests by conserving the remaining natural habitats of birds and animals.
- To strengthen agriculture by extending assistance to those sectors related with forest development, especially by conserving land and water resources
- To fulfill national responsibilities and commitments by implementing various efforts and government ratified agreements relating to global warming, desertification and the control of trade and commerce of wild birds and animals ;
- To prevent illegal occupation of forest lands, illegal tree felling and hunting of wild animals through the promotion of participation of local people;
- To encourage effective use and utilization of forest products at various stages of processing;
- To provide for and implement afforestation programmes on both public and private land.

### **Statements of the 1994 National Forestry Policy:**

The policy statements which are most relevant to participatory forestry are as follows:

- Community forestry and socially oriented leasehold forestry will be promoted by giving priority to poorer communities and poorer members of the community in the allocation of leasehold contracts;
- Women and poor people who do not have a land-based source of livelihood will be employed on a priority basis in nurseries, plantations, forest management, harvesting and industrial work;
- tree growing by communities, local groups or individual families on roadsides, windbreaks, canal/river banks and other public or marginal lands will be promoted through NGOs and relevant state agencies;
- Plantations on farms and private lands will be managed according to the priorities set by their owners or duly authorized tree growers;
- Buffer zones attached to protected areas may be allocated for tree farming and agro-forestry on a long term lease basis;

- The State will provide technical assistance and financial support to promote all forms of homestead forestry;
- Industries located in rural areas, particularly those cottage and small scale labor intensive industries which contribute to the local economy and process wood and other forest based raw materials, will be promoted by the State;
- The funds to be made available through international development assistance will be increasingly directed to support involvement of tree farmers and other producers in reforestation and forest and tree-based rural development;
- The FD is responsible for protection and management of the national forests but in areas under high demand the needs of local people will be accommodated through participatory management;
- The traditional rights of people living within and adjacent to designated forest areas will be maintained and their forest-related cultural values and religious beliefs will be respected;
- The State shall modify land-use, agricultural, industrial, trade, fiscal and other policies and related legislation in order to discourage deforestation and promote farm forestry;
- The FD will be re-structured and strengthened to support social forestry.

### **3.2.1.11 National Plan of Action for Person's With Disabilities (PWDs) as well as Autism**

In line with the Government policy the Department of Social Services under the Ministry of Social Welfare has an enthusiastic vision & mission to address the social issues relating to Person's With Disabilities (PWDs) as well as Autism. Bangladesh has formulated a good number of policies especially National policy for the persons with disability, 1995 for social protection and ensured the rights of the vulnerable groups. Accordingly concerned Ministry has formulated National Plan of Action to implement the provisions of the said convention.

In the recent time dynamic and sustainable steps have been taken for the PWDs. The steps are:

- i) To establish separate ticket counters in railway station, bus terminals, river ports, steamer terminal, airport and airways office to facilitate easy availability of tickets for the PWDs.
- ii) To maintain reserve seats in the bus, train and water transports for PWDs.
- iii) To fill up the 10 percent reserved quota for employment in the government jobs by the orphans and PWDs.
- iv) To construct a ramp in all the government offices to facilitate easy movement of the PWDs.
- v) To withdraw the existing restrictions regarding appointment of PWDs in the Govt. class I & class II jobs.
- vi) To arrange micro-credit for PWDs by all the Nationalized Commercial Banks (NCBs).

### **Observation**

Bangladesh, Ministry of Social Welfare is the lead Ministry and acts as the coordinating agency for Government and Non-government interventions towards addressing disability issues. Autism has received serious policy attention in Bangladesh. Over the years the country has made important gains in autism development through different measures. Indeed, Bangladesh has a robust portfolio of social protection programme which addresses various forms of risks and vulnerability of autistic children.

### **3.2.1.12 The Act (36 of 2000) for Conservation of Play field, Open space, Park and Natural Water Reservoir in Mega City, Divisional Town, District Town and Paurashavas of Bangladesh**

Following is a review and observation on the relevant parts of the above mentioned act.

Restriction on Change the Land Use of Play field, Open space, Park and Natural Water Reservoir (*Section 5*)

According to the section 5 of the act, any land having such use as play field, park and natural reservoir can not be changed or can not be used for any other purpose.

*Appeal (Section 6)*

However, any land owner having any land with above mentioned use may apply to the appropriate authority to have permission to change the use. The authority shall convey the results of appeal within 60 days of the appeal.

*Punitive Action (Section 8)*

Any person violating the act may be liable to punishment upto 5 years of imprisonment or Tk. 50,000 fine or both.

### **Observation**

1. Enforcement of the act has not been effective. Despite prevalence of the act, rampant violation goes unabated.
2. Most urban centers do not have land use or master plan, as a result there is no land use zoning. So the act can not be applied.

### **3.2.1.13 Bangladesh National Building Code (BNBC) 1993**

The purpose of Bangladesh National Building Code (BNBC) is to establish minimum standards for design, construction, quality of materials, use and occupancy, location and maintenance of all buildings in order to safeguard within achievable limits, life, limb, health, property and public welfare. It aims to insure public safety, health, and general welfare insofar as they are affected by the construction, alteration, repair, removal, demolish, use or occupancy of buildings, structures or premises, through structural strength, stability, means of egress, safety, from fire and other hazards, sanitation, light and ventilation.

The BNBC deals with such key issues as general building requirements, fire protection, building materials used, structural design of buildings, construction practices and safety and Building services. Besides, the code also deals with historic buildings with respect to their conservation and restoration. The code was formulated in 1993 but given legal status in 2008.

### **3.2.1.14 The Building Construction Act 1952**

This act was prepared in 1952 to prevent haphazard construction of building and excavation of tanks that are likely to interfere with the planning of certain areas in Bangladesh. The act is usually exercised in areas under the urban local governments. The act sets some conditions regarding construction of buildings in urban areas where the act will be in execution.

### **Preparation of Master Plan**

The act calls for preparation of a master plan of the area concerned before approval of building plan. The master plan shall show the future land use of the area through land use zoning. The buildings will be approved according to the land use provisions of the zoning plan.

### **Building Construction Rules**

The act in its Section 18 keeps provision for preparation of Building Construction (BC) rules to ensure healthy and environment friendly building development. The last BC Rules were prepared in 1996. However, due to special characteristics of building development in Dhaka city a separate set of BC Rules was prepared for Dhaka City in 2008 under same act.

### **Power to Removal of Construction (Section 3B)**

The act gives special power to plan approval authority to remove any building that did not follow the specified rules of the act or take action against any building owner who constructs building violating the rules after approval of the building plan.

### **Restriction on Cutting of Hills (Section 3C)**

The act forbids cutting of any hill without prior permission of appropriate authority.

### **Removal of Unauthorized Building (Section 7)**

The act empowers the authority to remove any building that has been built violating the BC rules. On failure to do so, the authority itself shall dismantle it and the entire cost shall be recovered from the owner as public demand.

### **Appeal**

The act, however, keeps provision for appeal, if the owner finds himself aggrieved due to any action by the authority.

### **Observation**

1. Master Plan zoning form the basis of building plan approval. But in most urban centres, there is no master plan. This hampers application and enforcement of the building construction rules.
2. There is serious lack of monitoring of disobedience of rules by the builders.
3. At Paurashava level the approving authorities do not follow the rules properly.

### **3.2.1.15 Private Residential Land development Rule-2004**

All land based private housing estates, commercial and cooperative, seeking approval must fulfill the following conditions in the layout plan of their projects.

1. A housing project submitted for approval must contain at least 3 acres (12140.62sq.m) of consolidated land and not in disintegrated form.
2. The land of the proposed housing project must be within the housing or mixed land use zone of the Master Plan.
3. The entire project land must be owned by the developer/applicant who must be supported by necessary documents.
4. At least 35% of the proposed project area land must be kept aside for infrastructure, services and facilities that will include educational institution, community centre, shopping, park/play ground, mosque and road.
5. The proposed community facilities and services must be shown in the layout plan of the project specifically.
6. There should be hierarchy of roads, where road width must not be below 20 feet (6.096m).
7. No change in the lay out plan will be made after approval by. Any sale of land to the buyers will be based on the approved lay out plan.
8. Any logical change in the layout plan can be made and that can be executed only after formal approval of the. No land of the modified layout plan can be sold until it is approved by.

### **3.2.1.16 Sixth Five Year Plan**

The Sixth Five Year Plan (SFYP) recognizes that a combination of socio-economic, political, demographic factors is responsible for rapid urbanization from 7.6% to nearly 25% between 1970 and 2005. The situation has been gradually deteriorating due to poor urban management, low efficiency massive corruption, nightmare proportion of traffic, water and air pollution and law and order situation.

One significant feature of Bangladesh is that urban population is increasing at different rates in different urban centers. A considerable proportion of urban population lives in district towns and s in Bangladesh. Major cause is that agriculture sector is no longer able to absorb super labor force entering the economy every year. But urban areas account for a disproportionate share of national economic production and are the main sources of economic growth.

#### **Town Planning**

Act 2009 has given wide responsibilities in town planning and development, public health and sanitation, water supply and sewage disposal, maintenance of public infrastructure and amenities. It is now mandatory for to prepare a Master Plan within five years from the date of creation of the Act (for the old and newly created).

One of the main reasons for haphazard growth in Bangladesh is the lack of proper knowledge for planned development. The Act has empowered the Paurashavas to prepare Master Plan for development, expansion and improvement of any area within its jurisdiction and impose restrictions, regulations and prohibitions with reWard to the development of sites and the erection and re-erection of buildings. But due to lack of technical manpower and equipment, no has been able to prepare and implement a Master Plan of its own.

#### **Institutional Framework**

Institutional Framework of Urban Governance and management in Bangladesh consist of Central Government Agencies, Special Purpose Authorities, Urban Local Governments, and Development Authorities, who are responsible for different specialized functions to be performed.

#### **Urbanization Strategy under the SFYP**

SFYP recognizes that urbanization strategy needs to change substantially to meet the challenges of future urbanization in Bangladesh. It suggests the followings:

- (i) Improving City Governance

Urban local bodies must be able to attract private investment and mobilize public resources based on service delivery and the quality of urban environment. The government in this regard, will take up the following steps:

- a) institutional reforms and decentralization of responsibilities and resources to the local authority
  - b) participation of civil society including women in design, implementation and monitoring of local priorities
  - c) building capacity of all actors (institutions, groups and individuals) to contribute fully to decision making and urban development process and
  - d) facilitating networking at all levels.
- (ii) Promoting Balanced Development of Urban Centers
- selection of new centers for economic activities away from the main centers
  - strengthening of economic base and allied infrastructures and services in these centers.
- (iii) Urban Resource Mobilization
- new source of funding are to be formed
  - better implementation of property tax
  - stronger cost recovery of key urban services.
- (iv) Developing a Sound Real Estate Market
- encourage private housing market.
- (v) Facilitating NGO Involvement in Housing
- (vi) Better Urban Land Management
- sustainable landuse planning
  - sound management policy
- (vii) Better Environmental Management
- develop preventive politics
  - participatory planning and management
  - private public partnership
  - capacity building
  - cost recovery
- (viii) Developing Sustainable Urban Transport system
- improve traffic and transport infrastructure
  - support sustainable urban development
  - develop integrated and balanced transport system.
- (ix) Making Provision of Infrastructure and Services
- basic infrastructure and services for the community.
- (x) Reducing Urban Poverty
- 'poverty reducing' measures outside the economic growth
  - equal access to services
  - fair and equitable provision of services.

### **SFYP Objectives and Strategies for the Paurashavas**

Major Objectives and Strategies for SFYP with respect to s are as follows:

- (i) Development of effective road network to set up congestion free, safe and sound communication system.
- (i) Development of pedestrian facilities in the city
- (ii) Reduction of traffic accidents
- (iii) Auto traffic signalization for better traffic management
- (iv) Sustainable parking management
- (v) Improvement of solid waste management
- (vi) Provision of water supply for the citizens
- (vii) Development of recreational facilities
- (viii) Development of modern street lighting
- (ix) Development of primary health facilities
- (x) Improvement of drainage system to address the problem of water logging
- (xi) Development of commercial complexes for expanding economic activities
- (xii) Infrastructure development for low income settlement

Strategies are as follows:

To achieve plan objectives, the following strategies will be perused:

- (ii) Establishing strong elected s
- (iii) Revamping the Property Tax system
- (iv) Strengthening the capacity of Ministry of Local Government and Planning Commission to support development of s
- (v) Planning Road Infrastructure Development and Public Transport system
- (vi) Developing comprehensive layout plan comprising all civic amenities
- (vii) Improving urban environment by regulating disposal of solid waste
- (viii) Co-ordinated infrastructure development and provision of utilities
- (ix) Building comprehensive data base in LGED and for urban planning
- (x) Govt. khas land to be used for solving housing problem, specially for poor housing
- (xi) Abandoned houses will be converted into multistoried building to solve housing problem
- (xii) Strictly enforce the Building Code of 1993
- (xiii) Soft loans for housing for poor
- (xiv) Construction of houses for working women
- (xv) Construction of hospitals, educational institutions
- (xvi) Reduce wage discrimination.

It is therefore explicit the SFYP has greatly emphasized on urban area planning and chalked out detailed objectives and strategies which are valuable guidelines for the preparation of s Master Plans.

### **3.2.2 Development Management**

#### **3.2.2.11 Paurashava Act, 2009**

The Act 2009 has iterated that a as it gets established must prepare its Master Plan for planned development. So far the Ordinances have been made in 1967, 1977 and 2008 all suggesting for planned development.

Functions of Paurashava in the Light of Paurashava Act 2009

The Paurashava Act 2009 is the successor of Ordinance 2008 has made the provision of having the Master plan prepared by a Paurashava within five years of its inception. The function of the Paurashava also include that it ensures planned development following the rules of the ordinance. The Master Plan should include the following:

- Survey of history, detail statistical information, public service activities and other mentioned subjects of the Paurashava;
- Development, extension and upgradation of any area within the Paurashava;
- Control and regulation of development of any land, any building construction and renovation within the Paurashava.

The Act does not provide

- The procedure for approval of the Master Plan prepared