

CHAPTER- 4

LAND USE DEVELOPMENT STRATEGIES

Following are the strategies that have been considered for future development of Narail.

4.1 Strategies for Optimum use of Urban Land Resources

In view of fast depleting agricultural sacrificed to urbanization, there is a need to adopt policies and strategies to safeguard them. The Structure Plan, therefore, aims to optimize utilization of the available urban land resources. The following strategies are suggested to optimize the use of existing land resources.

a. Densification of Existing Urban Area

Adoption of densification strategy in low density areas within established urban areas will be an important step in optimizing use of scarce land resources. The strategy can be materialized by means of promoting/upgrading of infrastructure and services in existing low density areas.

b. Expedite Development in Fringe Areas

It is observed that extensive land area in the fringe have already been purchased for urban based development, but lying vacant due to livable environment which mostly dictated by infrastructure. So there is a slow process of growth in the urban periphery. However, though this process is adding to the urban space it does not make substantial contribution to urban population due to slow rate of population growth. This is due to low level of access to capital and due to low affordability of the people, lack of infrastructure and services, increasing land value lengthy land development cycle, carried out mainly by the under-capitalized informal sector operating under infrastructure scarce investment. Such a deadlock can substantially broken by providing infrastructure particularly road and electricity.

c. Controlling Scattered Settlement in the peripheral area

Spontaneous settlement in the peripheral area of Narail has been observed. The settlements are growing scattered manner without any control. This spontaneous development also changes the use of valuable agricultural land. To overcome the situation mouza plot wise broad land use category has been developed for next 20 years. After finalization of the Master plan with the help of Act 2009 the authority should maintain the broad land use category.

4.2 Development of New Areas in Planned Manner

In order to create a disciplined and better environment habitation future area development should be in a planned manner. However, it does not mean that all land will have to be acquired for this purpose, it also means that development will be in a systematic and organized manner and not sporadic. Successful and effective planned development can be achieved through public-private partnership apart from sole government initiative. This calls for appropriate planning standards and rules and adoption of new land development techniques and mechanisms. It is needed that planned development initiatives must ensure:

- recovery of costs of land and infrastructure development,
- participation and partnership with the private sector and /or with local community,
- guarantee of access to land with secure tenure ship of land for all income groups;
- creation of productive employment.

All local government and development agencies should play their roles as facilitators for land development rather than provider of serviced land as lands in such projects usually go to the privileged classes of the society depriving the underprivileged. With the increase in demand for land new land conversion will continue to take place in the fringe. Apart from filling of the core areas, development is taking place in all urban areas without any planning and development control. The private sector hardly considers the environmental, ecological and geological realities and the problems of drainage. These matters should be addressed in plans and guided by appropriate planning principles and standards. It is observed that in formal initiatives, including the private sector land development programmes, take a long time to complete land acquisition process for development. To expedite planned development private sector intervention is needed

in priority areas. This would aim to formalize the informal land development process through adoption of the approach of community participation at local level where the public sector will be responsible for implementation of basic infrastructure and promotion of community facilities. The techniques for planned new area developments are summarized as follows:

a. Infrastructure Led Development Initiatives (ILDI)

The ILDI land development technique is about basic infrastructure development, like, road, water, power, drainage facilities. They will be provided by the public sector to promote private development. However, a version of ILDI can be developed which would facilitate land development process through partnership with private land owners. This will ensure recovery of costs of infrastructure development from the beneficiary land owners. This will also ensure secure tenure of land, as there will be no mass land acquisition for development except infrastructure. The concerned development authorities can develop mechanism to recover cost of development from the beneficiaries.

b. Continuation of Public Sector as Land Developer

Still there will be need for public sector's role as land developer. However, its role will be needed for planned development of civic centres, commercial and industrial estates, recreation areas and resettlement of the poor and providing housing to general public where private investment is usually shy.

4.3 Areas for Conservation and Protection

The following places of interest need to be conserved and protected.

a. Control of the urban expansion

As like other city of Bangladesh, Narail has expanded along the major transportation routes and continuing without following the boundary. So the urban growth need to control. In the structure plan 500m inside of the boundary has been declared as green belt or urban expansion controlling zone.

b. Chitra River

The river Chitra is a great asset of Narail that plays multifaceted role for the. It is a source of livelihood to some extent, a source of water and also a source of recreation. The river should be preserved for future sustainable source of surface water supply for the proposed surface water treatment plan (S.W.T.P) and continuing the ecological resource of the area. Its banks can serve as breathing space and recreation for the city dwellers. The river should be kept pollution free applying regulatory measures based on environmental regulations, banks should be preserved. The 75m on either side away from the centre of the river must be kept development free. The existing development of the 150m buffer area of Chitra River must be stopped and to evacuate the mouza plots defined in RS mouza as river.

c. Raghunathpur Khal, Paital Beel khal, Garu Chira Khal and other khals

Raghunathpur Khal, Paital Beel khal, *Garu Chira Khal* are the major water channel in the project area. These khals are used as irrigation channel for the agricultural land. These Khals need dredging at the level of the present river level. The drainage channel shown in the structure plan map need immediate excavation and free from future development. The 25m of both sides from the center of the channel must be kept reserve. The plots in RS mouza plot as khal need be strictly preserved.

b. Major Ponds and Lakes

Town level water bodies are fast disappearing in the wake of rapid rise in land price. But the water bodies in high density urban centres have particular value. Amid jumble of bricks and concretes they are soothing breaks. Large ponds and water bodies have to be preserved. They will serve not only as breathing places for urban dwellers, but will also be sources of water supply during emergency.

4.4 Structure Plan Policy Recommendations

4.4.1 Area of Narail Structure Plan

The total area of Narail Structure Plan is 7047.29 acres (28.52 sq. km) that include total area of Narail Paurashava and extension area. All the 9 Wards and extension of Ward 1, 6 and 7 of the Paurashava are covered by Structure Plan area.

4.4.2 Policy Zones of Structure Plan Area

To guide long term growth within the Structure Plan Area by means of demarcation of the future growth areas and indication of potential locations of major development zones are broadly classified into eight categories. Table 4.1 shows the Structure Plan Policy Zones, its area and percentage coverage. Details of the description of structure plan policy zones are given in the following paragraphs. Map 4.1 shows the proposed zones in Narail.

Table 4.1: Policy Zone for Narail Paurashava

Sl. No.	Structure Plan Policy Zone	Acre	Sq.km.	%
1	Established Urban Area	943.379	3.82	13.39
2	New Urban Area	1092.497	4.43	15.50
3	Peripheral Urban Area	1687.796	6.83	23.95
4	Defense & Security	13.144	0.05	0.19
5	Transportation & Communication	19.394	0.08	0.28
6	Agricultural Area	2411.694	9.76	34.22
7	Urban Deferred Area	474.252	1.92	6.73
8	Water Bodies	405.136	1.64	5.75
Total		7047.292	28.52	100.00

a. Established Urban Area

This area is also known as built-up area or core area. This is defined as the area which has the highest concentration of services; it also has the highest population concentration and density at the present day. Height restriction or density zoning can be the tool to control the present growth trend and establish the targeted density. Mixed use can be encouraged in this area for penetrating the present trend of development. A total of 943.37 acres of land, which covers 13.39% of Structure Plan area, is declared as Established Urban Area/Urban Core Area.

b. Peripheral Urban Area

This is the zone where at present low density with dispersed settlement took place. The area identified in the Structure Plan as the likely choice for planned development beyond the core area. Ideally, it might be reasonable to provide primary infrastructure networks in this area to foster development and thus help encourage accommodating rapid growth in a planned way. A total of 1687.7960 acres of area, which covers 23.95% of Structure Plan area, is declared as Urban Peripheral Area.

c. New Urban Area

This zone will cover required additional area for future planned urban development as per population projection. Existing physical trend of growth and potential areas shall have to be consider for new urban land development. New facilities and services like road, drains, footpath, waste transfer station and other civic services will be provided. This area is proposed to grow within the plan period (2030). This zone also accommodates the required area for proposed public facility like administrative services, utilities, recreational area, major religious educational area, etc. A total of 1092.497 acres of land covering 15.50% of Structure Plan area is declared as New Urban Area.

d. Agricultural Area

Urban Conservation Area denotes the land suitable for agriculture crops and livestock, char area, forest land area and sea beach if available. A total of 2411.694 acres of land covering 34.22% of Structure Plan area is declared as Agriculture Area.

e. Transportation & Communication Area

Transportation & Communication contains right of way of major road network with regional and national settings. It also includes transportation terminal, Rail station, Ferry ghat, Launch Terminal, Airport, Helipad, etc. A total of 19.394 acres of land covering 0.28% of Structure Plan area is declared as Transportation & Communication.

f. Defense & Security Area

Defense & Security Area is an area, where no one but certain people can enter. Here the areas which are not accessible for the general public except some high ranked personnel are considered as restricted area. BGB area is declared as Restricted Area of the Paurashava.

g. Water bodies

Water bodies containing areas equals to or more than 0.25 acre including khal, irrigation canal and river. In no way, permission for filling up of these ponds/water bodies should be given. Rather, the Paurashava should acquire these ponds at suitable time to use them for retention and emergency use. A total of 405.136 acres covers 5.75% of Structure Plan area.

Following are the strategies that have been considered for future development of Narail

4.4.3 Policy Recommendation of Structure Plan

The policies, drawn in this section, are to remain valid for a period of next 20 years, up to the year 2030. The policies have been drawn on major urban issues that would have implications on the overall future development of the Narail. The issues covered in these policies include, transport and communication, drainage, water supply, waste management, industrial and business development, housing, recreational open space, education and health, urban poor.

4.4.3.1 Policies for Urban Area Development

Any future growth policy should aim at intervening the existing problems and put forward measures for potential problems. Unforeseen use of low cost but valuable land, lack of public sector resources for infrastructure development, lack of development initiatives at the right place and to the right direction are all the major problems of urban development. The following urban area policies have been drawn up in order to encounter all the above and other problems of urbanization and urban space use.

Policy ST/1: Organized use of Urban Land

Present use of urban land is chaotic and unorganized. This trend is not conducive to create a healthy and livable urban area fulfilling all environmental conditions. For the sake of promoting sustainable urban development, functions in urban areas must be organised through systematic and balanced use of land using the tool of land use zoning.

Policy ST/2: Infrastructure Development in Existing Spontaneous Areas

Necessary infrastructure is needed to be provided in spontaneously grown existing urban areas.

Justification

Development and promotion of infrastructure would help accelerate urban growth and maximize use of land in existing urban areas.

Policy ST/3: Promotion of Participatory Urban Development

The policy of involving local community in urban development should be practiced by urban development agencies through a process of participatory mechanism. NGOs and CBOs can be involved to share many of the responsibilities of the public sector agencies. Concerned agencies can undertake pilot projects followed by full scale partnership projects after successful achievement.

Justification

Community involvement would ensure better and quicker implementation of urban development projects. This approach will also save public money hitherto allocated for urban development that can be diverted to other priority areas of development.

Implementing Agencies: PDB, DPHE, NGO, CBOs.

Policy ST/4: Practice of Enabling Strategy in Urban Development

The urban development agencies should adopt enabling strategy in urban development through development of basic urban infrastructure and promotion of settlements on private initiatives.

Justification

Enabling strategy will allow the private individual and real estate developers to take advantage of the infrastructure facilities and develop their structures. The land owners intending to build houses will be encouraged to build their dwellings taking advantage of the infrastructure leading to faster urbanization. Investment in commerce and industry as well as employment will be faster.

Implementing Agencies: LGED, PDB, PWD

4.4.3.2 Plans for New Area Development

Policy ST/5: Initiatives for Urban Peripheral Area Development

As *new* areas of urban development initiative should be taken to expedite development in the fringe by means of infrastructure development.

Justification

Fringe areas under slow development offer excellent opportunity for planned development either by means of infrastructure development or through total acquisition of land. There will be less cost involvement due to low density involving less eviction. There will be fewer hindrances in motivation of the local residents in favour of planned development.

Implementing Agencies: PDB, DPHE, NGOs.

Policy ST/6: Utilization of Khas Land for Urban Development

For development of infrastructure the development agencies should make use of the khas land available.

Justification

Khas lands are public land that should be made best use for community purpose. Instead of evicting people from their own land for implementing development proposals as much as possible khas land should be used.

Implementing Agency: Ministry of Land and Deputy Commissioner Narail

4.4.3.3 Areas for Conservation and Protection

Policy ST/7: Preserve the Agricultural Land

The Master plan project has a vast area of agricultural land in the northern side of this project. After implementation of Master plan project, agricultural environment will be converted into un-productive urban and semi-urban area.

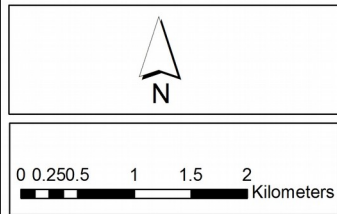
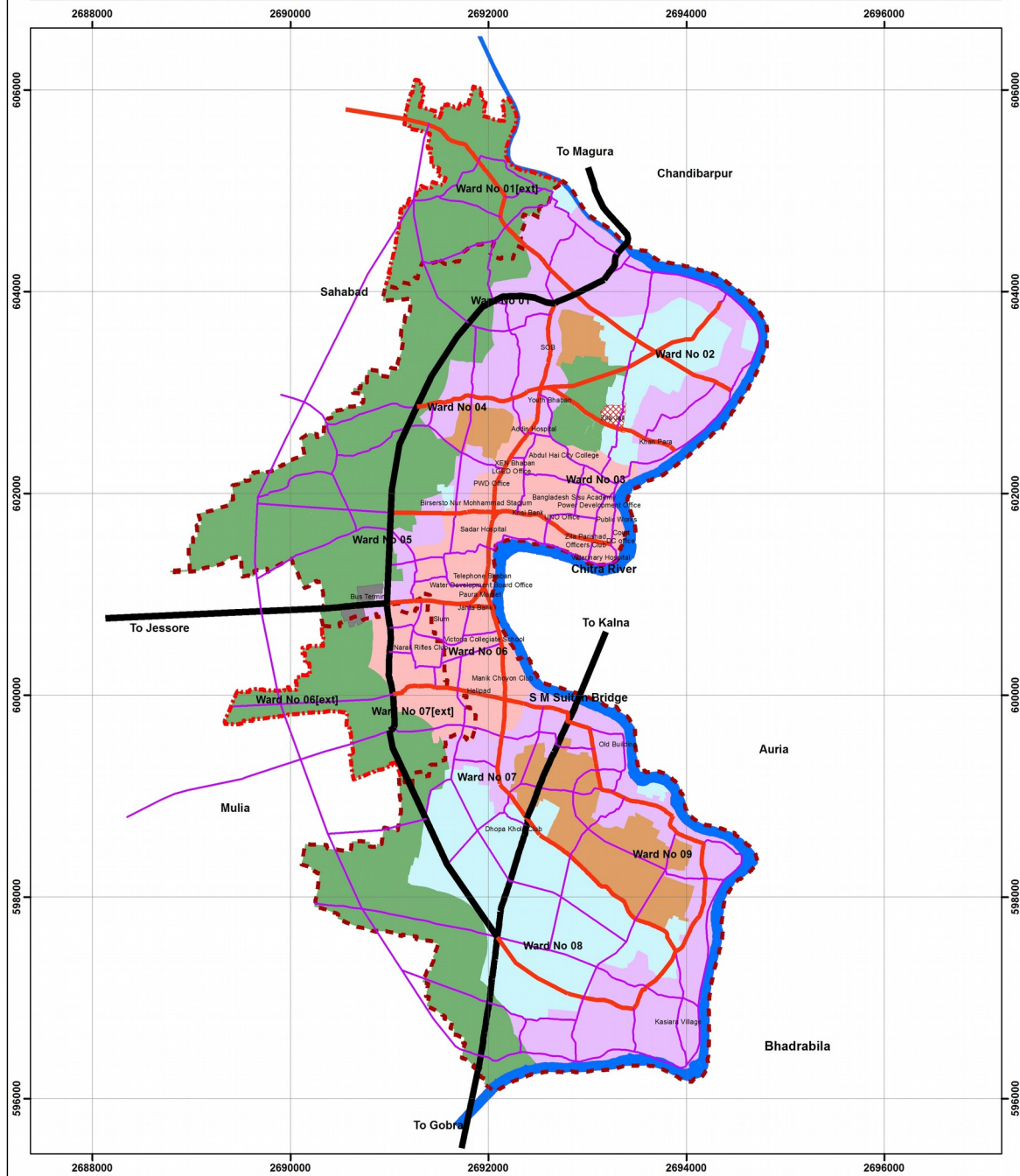
Mitigation:

The DOE EIA Guidelines emphasized on the avoidance of productive agricultural land during any development project. Therefore, it will be wise to consider more economical use of land to avoid some fertile lands. The town expansion and land acquisition should be based on the growth rate of population. According to population projection for the year 2030 the present residential land use area can be more densified upto this year. So a large share of agricultural land can be spared.

Policy ST/8: Preserve the water body (Low Land, Pond and Drainage Path)

The ponds with area more than 0.25 Acres must be conserved as water body. In no way permission for filling up of these ponds should be given. should acquire these ponds at suitable time to use them for retention and emergency use.

Map 4.1: Structure Plan Map of Narail Paurashava



Legend	
Proposed Road Type	Structure Plan Policy Zoning
Primary (Thick black line)	Established Urban Area (Light pink)
Secondary (Orange line)	New Urban Area (Light blue)
Tertiary (Purple line)	Peripheral Urban Area (Light purple)
Paurashava Boundary (Dashed red line)	Defense & Security (Cross-hatched)
Project Boundary (Dotted red line)	Transportation & Communication (Grey)
	Agricultural Area (Green)
	Urban Deferred Area (Brown)
	Water Bodies (Blue)

CHAPTER- 5

STRATEGIES AND POLICIES FOR SECTORAL DEVELOPMENT OF THE PAURASHAVA

5.1 Socio-economic Sectors

5.1.1 Population

a. Population

The population of the study area is more than 42299 in 2011. After implementation of this project, the population will be increased to 78590 in 2030 for natural growth of existing population. Therefore, this project will enhance the new settlement in the project area.

Enhancement Activities:

1. Develop planned housing area with adequate facilities.
2. Arrangement for low cost comfortable transportation facilities.
3. Establish standard educational institutions with appropriate facilities.
4. Take proper steps to increase employment opportunities.
5. Establish hospitals and clinics to ensure appropriate treatment of people.

Responsible Organizations: NHA, Ministry of Education and Directorate of Health.

b. Status of Women

Enlightened women in the urban area are aware about their rights and roles in the society. They are mainly housewives although some women are working in educational institutions, govt. and non-government offices.

However, the women in extended part of the Structure Plan area are mainly housewives and engaged in household work. With implementation of this project, the women status of the area will improve due to their participation in education, employment, small business, handicrafts and social awareness.

Enhancement Activities:

1. Ensure education of all women.
2. Provide training on handicrafts, sewing and garments.
3. Provide priority on women employment.
4. Increase social awareness about women role in the society.

Responsible Organizations: Ministry of Woman & Children Affairs, District Administration and Jubo Unnayan Audhidaptar, NGO.

5.1.2 Economic Development and Employment Generation

Economy and employment is the most vital sector for urban growth and development. Flourish of local economy will generate more employment leading to urbanization through creation of new demand and investment. Appropriate policies can help boost local economy.

a. Agriculture

Agricultural land is alarmingly being converted into non-agricultural uses. Protection is needed for agricultural land for the sake of local as well national food security. Crisis of land in urban core often compels land demand to spread toWards farm lands in the fringe. But large tracts of urban land are found to lying unused in the urban core areas.

Policy Agri-1: Restriction on conversion of agricultural land shown in Structure plan map

Two approaches may be taken to protect farm land, impose legal restrictions on use of farm land for non-farm use and impose taxes on unused urban land.

Policy Agri-2: Restriction on boundary

Extension of boundary into agricultural land should be more restrictive. Unnecessary extension of Puarashava boundary should be stopped. More attention should be paid on urban densification.

b. Commerce

Commerce is the key to economic development. All conditions congenial commercial growth, like, infrastructure, services and amenities should be developed to support grow commercial activities. Care should be taken about maintaining law and order to ensure security to the entrepreneurs.

Policy Com-1: Top priority to economic activities - business and commerce.

To promote economic prosperity of Narail town top priority should be given to smooth and uninterrupted going of trade and commerce.

Justification

Economic activities are the life blood of any urban centre, also they generate employment for urban dwellers, so all measures must be directed for their smooth running.

Implementing Agency: Chamber of Commerce, Ministry of Commerce.

Means of Implementation

To execute the policy concrete efforts would be needed from various government agencies.

Policy Com-2: Ward wise neighborhood base bazaar and market area

To promote decentralized economic prosperity of Narail, priority should given to establish neighborhood centre complex and use the ground floor as kutcha bazar and necessary commercial shops.

Justification

Decentralized economic activities are needed for proper economic development of the inhabitants. So, Ward wise neighborhood centre complex as a hub of economic development and employment has been proposed.

Policy Com-3: Rupganj, proposed city centre will act as commerce and economic centre of the district

To promote economic prosperity of Narail town top priority should given to establish the city centre as a unique to accelerate the economic growth.

Justification

Economic activities are the life blood of any urban centre, they generate employment for urban dwellers, and also city centre development will accelerate the development.

Implementing Agency: LGED, Chamber of Commerce and industries.

c. Industry

Policy Ind-1: Creation of Industrial incentive zones

Suitable locations should be identified and be designed for various kinds manufacturing and processing industries. These areas should be physically accessible by all urban facilities.

However, it is necessary to come out of traditional loosing industries and introduce new labour intensive industries with prospects of international market. Small scale industries centering information technology are important areas where investment can be made profitably. Particularly in Narail, there is a great prospect for developing and information technology village, a labour intensive new industry with prospect for international market.

Justification

The carefully selected sides with all physical, economic and infrastructure facilities will attract entrepreneur who will develop industries. Under the present plan several sites were suggested (shown in Master Plan) on the basis of existing spatial growth trends.

Implementation

Ministry of Finance and Industries will finalize the nature and extent of such zones. Local Chambers of Commerce and Industries should also be involved in the process to make the industrial estate a success.

Control

Strict control the land use within such Industrial Zone.

Policy Ind-2: Gradual relocation of environmentally harmful industries

There are a number of industries marked as harmful from environmental considerations. These will be gradually relocated to a safer place.

Justification

For up gradation of the environmental condition relocation of polluting industries is necessary. Relocation of such industries should be made in a cost effective manner.

Implementation Agencies: DOE

Policy Ind-3: Organizing foot loose/ informal industries

Foot loose industries are those industries that require to import raw materials including necessary resources and to export the finished goods (products) while provide employment opportunities for the local labor force. Garments industry may be listed as an example.

Justification

If these industries are recognized and reorganized their locations, the city environment will improve, a sizeable number of labor forces will get employment and the authority can generate revenue from this sector.

Implementation

BGMEA with the help of respective foot loose industry owners/ workers association and NGOs can reorganize these industries.

Policy Ind-4: Small Scale Industries

Small scale and Cottage industries should be encouraged as these industries need comparatively small capital. The small – scale industries can contribute to the production of large scale industries through a flexible process of accumulation.

Justification

Considering the size of capital, small – scale industries may be appropriate for our situation. Through these industries backward linkages can be established easily.

Implementing Agency

- Ministry of Industries
- BISCIC
- Chamber of Commerce

Policy Ind-5: Control of industrial location and standard

The location of industries should follow the locational guidelines strictly. Industrial zoning should also be strictly maintained. Particularly, all new industries should have its own treatment system for its industrial wastes.

Justification

Only through the strict adhering of this policy and environmentally served industrial activity can be promoted.

Implementing Agency: DOE

Policy Ind-6: Creation of Investment Climate**Justification**

Adoption of this policy will create opportunities for developing agro industries in Narail. This would create more employment through new demand in the town economy.

Implementing Agency: Ministry of Finance, Ministry of Commerce and Industry, All Schedule Banks.

Means of Implementation

Provision of adequate financial and physical facilities like, soft credit for local investors, industrial estate with all services and facilities free from encumbrances, establishment of industrial zone with maximum possible services and facilities to attract investors, promotion of smooth transportation facilities.

Policy Ind-7: Promotion of Public-Private Joint Industrial Venture**Justification**

The programme of joint public-private industrial venture and transfer to the private partner later on would reduce the burden of initial capital investment and investment risk on the part of the private party.

Implementing Agency: Ministry of Industry, Ministry of Finance, Public Sector Banks and all Private Sector Banks.

Means of Implementation

The programme can be pursued by setting up of industrial investment company in the public sector and allocation of fund for its operation. Easy credit facilities can be introduced for private investors.

Policy Ind-8: Provision of Easy credit to promote small and medium entrepreneurs.

Justification

Capital is the most important component of any business activity. Due to low income and consequent low savings capital is scarce among the potential entrepreneurs. So arrangement should be made to supply capital to small entrepreneurs free of collateral.

Implementing Agency: BSRS, Department of Social Welfare and NGOs

Means of Implementation

Provide micro credit without collateral. New financial institution with adequate fund will create opportunities to finance small and medium scale investors.

Policy Ind-9: Promotion of Informal Sector Economic Activities

Justification

Informal sector economic activities are essential parts of a developing country's urban life. Amid huge unemployment and poverty the urban poor people tried to find out their own ways of survival adopting informal economic activities. Besides, these activities provide important services to the urban dwellers and add to keep the urban economic wheel moving. It is, therefore, needed that urban informal sector activities should be promoted.

Implementing Agency: Department of Social Welfare, Bangladesh Bank, NGOs

Means of Implementation

Provide micro credit without collateral. Create areas for habitation of low income people, provided with physical and social services. Create ways and means so that informal activities can be carried out every where without disturbing the normal life.

Policy Ind-10: Buffer zone to control the environmental impact of the Noxious industrial area

Justification

The location of industries should follow the locational guidelines strictly. The Proposed industrial area need to buffer with tree plantation to control the adverse environmental impact. Extensive care need for the noxious industrial area for its green buffer.

Implementing Agency: DOE

Means of Implementation

The proposed buffer area need to conserve as tree plantation or any such use which make barrier to the industrial zone.

5.1.3 Housing and Slum Improvement

Due to low density of population housing is yet to become a problem in the town. But precaution should be taken so that housing sector develops in an appropriate way to meet future needs. Participatory housing land development should be encouraged. Intensive use of land should be made for housing. Enabling conditions should be created for real estate development. Public sector housing effort should aim only the lower middle and low income, leaving well off housing with the private sector.

Policy Housing-01: Participatory Housing Area

Participatory housing area development should be encouraged, instead of housing area development based on compulsory acquisition of private land.

Policy Housing-02: Public Sector housing

In the public sector instead of allotment of land, authority should go for apartment clusters where there will be ample open space for common use.

Policy Housing-03: Public sector housing for the low income group

Public sector housing promotion should target the lower income group who constitute a share of the urban housing domain.

Policy Housing-04: Infrastructure development for private real state development

To promote private real estate development adequate infrastructure may be provided, if possible with realization of costs from the beneficiaries.

Implementing Agency: National Housing Authority, Private Developers,

Policy Housing-05: Making provision of affordable housing for the low – income people

As public development authorities and NHA have to think about the housing facilities for the poor of the city. Low cost housing should be provided to the low income people.

Justification

Since the private sector housing development will be operated for profit, the low – income poor households will hardly get access to these schemes. Thus, to reduce unplanned slum type development, usually done by the poor households, the development authority may undertake projects for low income groups.

Implementation

Low – income housing can be promoted on the basis of no loss no profit basis, or at best on the basis of marginal profits. Low – income housing schemes should be designed in such a way that no one other than the targeted people can get it.

Implementing Agency

- National Housing Authority
- NGO's
- CBO's

Policy Housing –06: Continuous monitoring of land and housing market

The development authority should monitor the principal aspects of housing market in Narail. For this, it can maintain a database and can undertake studies from time to time.

Justification

The justification of this policy lies in the fact that housing will constitute a major fact in the future. Secondly, can undertake housing project when it feels necessary and can change its policy direction when required. Finally, it is most important, that people in the city get appropriate policy and planning direction from

Implementation

Land Registry Office need to maintain database and can undertake studies from time to time using GIS.

Implementing Agency

- Settlement Office
- Sub-register's office

Policy Housing – 07: Appropriate technology should be innovated to develop and promote housing particularly for the low income people

Matching with existing situation (pattern and requirements, etc.) new type of low income housing type should be innovated.

Justification

The type of housing unit will best suit the poor people. Many low incomes housing delivery in the past in Bangladesh failed to reach the target group due to higher standard.

Implementing Agency

- Housing and Building Research Institute (HBRI)
- Private sector
- NGO's
- CBO's

5.1.4 Social amenities and Community Facilities

The quality of life in any urban centre depends upon the availability of and accessibility to quality social infrastructure. Community Facilities, which are indicated in various lands, use zones. Together, these include social infrastructure facilities pertaining to health, education, sports facilities, socio-cultural activities, communications, security and safety, and other Community Facilities pertaining to recreation, religious activities, social congregations and community events, cremation/ burial grounds etc.

There exist significant numbers of religious facilities in the Urban Area Plan area. Social facilities like school, college, madrasa, hospital/clinic, community center, kitchen market, fire service station, post office, police station, playground, graveyard etc are also available, but it is inadequate for the planning area. The population of 2030 in Structure Plan area will be more and at the same time additional social facilities would be provided to develop in planned manner and thus the quality of life of the people would be increased subsequently.

a. Education

Education is the backbone of a nation. Without proper education and awareness no area can develop in any sector. So there need important consideration of educational facility in the project area.

Enhancement Activities:

1. Set up new schools and colleges in the fringe area
2. Start Night School for poor children, hawkers & street child labour and illiterate persons.
3. Initiate the people to take the opportunity of government fellowship programs at primary, high school and college levels.
4. Set up vocational and technical training center.
5. Initiate NGOs to operate non-formal education for poor people.

Responsible Organizations: , Thana & District Education Offices, NGOs

Policy Education– 01: Sufficient number of quality nursery and primary schools should be available at neighborhood level

In urban areas the problem of education is more of quality than of number and location. The concerned departments should emphasize on quality of education through appropriate curricula and staff and good management. Appropriate planning criteria should be followed to locate elementary schools within the neighborhood.

Justification

Quality education is very important for producing quality human resources. Location of primary education facilities are enables risk free journey to school. Easy accessibility often increases enrollment and reduces drop out.

Implementing Agency

- Directorate of Primary Education

Policy Education – 02: Sufficient space should be ensured as play field in every school during planning and according official recognition to schools.

Every educational institution should have playing field when its premises to enable children enjoy their schooling.

Justification

Recreation is an essential part of life, particularly, for children. This is very important for producing quality human resources through appropriate physical and mental growth.

Implementation

Provision of play field should be ensured field should be ensured through various categories of city plans. Besides, the concerned department should ensure availability minimum amount of open space as play field during according official recognition to the schools.

Implementing Agency

- Directorate of Education

Policy – 03: Education infrastructure for primary, secondary and vocational training should be emphasized in the master plan

Sufficient number of educational institutions at various levels and types should be ensured in the Master Plan based on projected population and appropriate standards.

Justification

Master Plan proposals should be made for various categories of educational institutions after assessing the future requirement on the basis of projected population and existing facilities available.

Implementing Agency

- Directorate of Education
- Facilities Department, LGED

b. Health

Policy Health – 01: General health infrastructure improvement

Basic health infrastructure facilities are needed to be provided both in the form of preventive and curative health services. This would necessitate improvement of existing health facilities and promotion of new facilities.

Justification

In the face of growing urban population it would not be possible to achieve the target of health for all without promotion of basic health infrastructure.

Implementation

Since health sector is service giving sector it is unlikely to generate sufficient revenue to make the services in the long run. Ward wise health center should establish to mitigate the demand. Promotional measures should be adopted to encourage NGOs and CBOs to come forward and participate in the health sector, particularly, to serve the lower income groups. Side by side encouragement should also be given to the private sector.

Implementing Agency

- Directorate of health
- International Development Partners
- NGOs
- CBOs

Policy Health – 02: Increasing the access of the poor to health services

As poor form majority of the urban population more opportunities are needed to be created to increase access of the poor to health services.

Justification

If health services are to be really mean for the people, then more facilities are needed to be created for bringing the greater number of the urban poor within the coverage of health facilities. From the economic point of view poor's access to health services is needed to create a healthy and productive generation to raise Gross Domestic Product (GDP).

Implementation

For implementation of a pro – poor health policy not only that greater share of budget allocation is needed but also that NGOs and CBOs should be more intensively involved.

Implementing Agency

- Directorate of Health
- International Development partners
- NGOs
- CBOs

Policy Health – 03: Strengthening preventive health care measures through the improvement of environment and building awareness

Health awareness should be developed at community and primary education level side by side with improvement of environment

Justification

By development of awareness and improvement of physical environment the intensity of diseases can be averted which in turn reduce social cost on health.

Implementation

Implementation of the policy can be achieved by creating awareness through publicity, lectures to community gatherings, health education at primary education level, improvement of physical environment through improvement of sanitation, waste management and drainage system.

Implementing Agency

- Directorate of health
- Directorate of Education
- NGOs
- CBOs

Policy Health– 04: Awareness about health among the common people

To create a healthy community it is necessary to create awareness about health among the common people who constitute larger segment of urban community.

Justification

To create a livable environment it is necessary to ensure community health. It is not always possible to ensure public health by facilitating curative and preventive health measures. The people in general must be made health and hygiene conscious through awareness building.

Implementation

Implementation of the policy will largely depend on the Ministry of Health and Ministry of Education. Appropriate community level programs may be drawn up for building awareness at family level. Health education may form a part of primary level curricula and non – formal education program. NGOs/CBOs may provide effective services in awareness building.

Implementing Agency

- Directorate of Health
- Primary Education Directorate
- Non – Formal Education Programme
- NGOs
- CBOs

Policy Health – 05: Public sector health facilities should be located as per need

For locating health facilities appropriate location should be chosen based on need instead of political and other influences.

Justification

As the health services are for the people they should be located in such a way so that the beneficiaries can make best use of the services.

Implementation

It is best to follow Master Plan recommendations in setting up health facilities. In case Master Plan recommendations are available the location is chosen on the criteria of “level of service.” Also preference is to be given for unserved or low served areas.

Implementing Agency

- Directorate of Health

Policy Health– 06: Private sector should be allowed freedom to locate their health facilities. However, should also be encouraged to choose master plan designated locations

For private sector commercial health facilities the location decision should be left with the market forces. But encouragement should be given if the facilities are placed in Master Plan designated areas for health facilities.

Justification

The health services should be well distributed over the city so that the beneficiaries can get the basic services at their doorsteps.

Implementation

Private sector health facilities should be allowed in mixed as well as commercial areas. Besides, EBBC Act 1952 allows small scale clinics even in residential areas. Master Plan can earmark and designate areas for health facilities.

Implementing Agency

- Directorate of Health

c. Community Centers

Policy Community-01: Ward base- Community center in the Neighborhood Centre complex

Justification

Local level community centre is needed to exhaust the need of community gathering and fulfill different ceremony of the local inhabitants.

Implementation Agency: LGED, Department of Culture and Religious Affairs, NGOs.

Means of Implementation

The second floor of the proposed neighborhood centre complex can be used for such purpose.

5.1.5 Tourism and Recreational Facilities

A. Tourism:

Tourism will bring outsiders, into the town; make them spend money which in turn will generate new employments. Improved infrastructure services and facilities can help promote tourism in and around the town.

Policy Tourism -1: Promotion of Tourism

Justification

Better urban services and facilities will not only promote tourism but will also results economic upliftment of the Narail and its hinterlands.

Implementing Agencies: LGED, Parjatan Corporation

Means of Implementation

Budget allocation for undertaking additional development projects in the field of road and transport, accommodation, etc. and development of tourist attraction recreational spots, as the Chitra river bank.

Policy Tourism -2: Promotion of Ward Level Recreation Facilities

Justification

Recreation facilities, like, park, playground, fun fair can attract tourists and visitors. Ward wise existing and proposed recreational facilities must conserve.

Implementing Agencies: Parjatan Corporation, Ministry of Sports & Culture, private developers.

Means of Implementation

Budget allocation for undertaking recreational development projects. Selection of appropriate locations and evolving innovative ideas.

B. Recreational Facilities:

Policy Recommendations

Based on review of existing situation of open space, availability of land and future requirement the study team makes following policy proposals on open space.

Policy Recreation-1: Creation of water front green

To protect river/ water fronts from possible encroachment and to maintain ecological balance and also to provide water front recreation, areas on selected river/ water fronts will be delineated for preservation as green space, where no development except vegetation will be allowed during the initial period. Programmes may be worked out later on to use of them as open space for recreation.

Justifications

- Protection of rivers/ water bodies from possible encroachment,
- Promotion of river front recreation facilities,
- Promotion of Urban ecological balance,
- Providing all people and access to natural endowment.

Implementation:

Chitra river front developed should encourage saving the river and its ecology. These areas will be conserved as non – built up areas where green spaces can be developed in different forms provided with attractive tourist facilities for visitors and site seers. Concerned agencies and local bodies are to cooperate and support attainment of the policy objectives.

Implementing Agency

- District Administration
- Department of Forest
- Bangladesh Tourism Corporation
- Water Development Board
- NGOs
- Local People/ Civil Society
- Private Entrepreneur

Controls

Strict controls should be exercised not to allow any development on the designated sites of river/ water bodies till the lands are taken over for the interim period. can control and monitor such developments using such instrument as Master Plan, EBBC Act, 1952 and Ordinance and other legal powers and executive orders.

Policy Recreation-2: Creation of urban forest

Substantial areas will be reserved at suitable locations for development as urban forest. These areas will serve as breathing places for busy city dwellers when the city will become crowded with people and jumble of concretes and bricks. The urban forest areas will also help maintain ecological balance and protection of environment of the city. Development restriction areas; where only agriculture and forest development may be allowed till any other development programme is taken up the concerned authority. Such areas can be used for recreation in future.

Justification

- Preservation of green space for breathing
- Promotion of urban environment and ecological balance
- Promotion of recreational facilities for urban dwellers.
- Promotion of forestry/ agriculture

Implementing Agency

- Department of Forest
- NGOs
- Community Based Organizations – CBOs
- Local People

Control

Strict development controls should be exercised not to allow any development on the designated sites of urban forest development projects by the executing agency. Only agriculture/horticulture or forest related activities may be allowed.

Policy Recreation -3: Creation of highway forest

The highways are often subjected to frequent interruptions of traffic movement due to the traffic coming on the road generated by roadside land uses. Forest can be developed on the major highways not only to maintain efficiency of the road but also to serve environmental and recreational purpose. Particularly, to protect highways from ribbon development, such greeneries only be useful.

Justification

- Prevention of unwanted traffic on free ways
- Promotion of ecological balance
- Creation of recreational opportunities
- Promotion of forestry/ agriculture
- Prevention of urban ribbon development on highways.

Implementing Agency

- Traffic Police
- Department of Forest and Environment
- Roads and Highways Department
- NGOs
- Community Based Organizations – CBOs
- Local People

Control

Development controls and restrictions will be imposed on roadside land not to allow any development on the designated sites of highway green belt based on the EBBC Act, Master Plan and other legal documents till the lands are taken over for execution of green belt development projects by the executing agency. Only agriculture/horticulture or forest related activities may be allowed.

Policy Recreation-4: Development of public park

Public parks are one of the basis urban amenities for any modern city. Sufficient area will be reserved for Public Park at suitable locations of the city to enable passive recreation of the city dwellers. Parks should be created at central and at neighborhood levels through Master Plan and Detailed Area Plans.

Justification

- Creation of recreation facilities and breathing place.
- Promotion of healthy living environment
- Preservation of ecological balance
- Promotion of physical and mental health of the citizens

Implementing Agency

- NGOs
- CBOs
- Local people

Control

Powers will be exercised to restrict any development on the proposed park sites till the lands are taken over for development as park by the concerned authority. The concerned authority shall use the instruments of Master Plan land use provisions and the EBBC Act, 1952 to control unwanted development.

Policy Recreation-5: Development of playground/ stadium

Stadium and playgrounds are essential elements of active recreation for the adolescent and youths for their physical and mental development. There will be playgrounds, well distributed over the future city, to provide access to games and sports by local people. In addition, play fields areas should also be design in Detailed Area Plans at neighborhood level for the children. Besides, provision of stadium should be kept for unserved areas of future city.

Justification

- Creation of active recreational open space facilities
- Promotion of physical and mental health of the citizens

- Promotion of sports and cultural activities

Control

Power will be exercised to restrict any development on the proposed park; stadium and play ground sites till the lands are taken over for development as playground by the concerned authority. The concerned authority shall use the instruments of Master Plan land use provisions and EBBC Act, 1952 to control unwanted development.

Policy Recreation-6: Provision of open space for public and privately organized housing estates

For long organized housing estates being developed at public sector NHA and other public agencies. But most of these estates lack adequate open space. Adequate open space standards should be developed by these agencies and adopt the same during preparation of their respective housing estate layout plans.

Currently a trend being observed to develop organized housing areas on private initiatives for profit motive. Provision of open space in the form of neighborhood level park and play field should be kept during preparation of the layout design. For private organized housing open space are provided should be followed as conditions for approval. Similar conditions should also be followed by organized housing developed through cooperative effort.

Justification

- Promotion of healthy development of residential neighborhoods at private sector.
- Promotion of physical and mental health of the dwellers.

Control

Conditions should be imposed by on housing estates for providing appropriate amount of open space before giving approved to housing estate layout plans and submitted by private commercial companies or cooperative societies. Planning permission should also be based on fulfilling conditions of open space provisions. This world, however, necessitate drawing up appropriate legal provisions.

Implementing Agency

- NHA
- Private commercial and Cooperative Housing Companies and Societies

Policy Recreation-7: Other recreations

For promoting other recreation activities the local cultural activities should be promoted by offering financial support for organizing cultural shown on occasion of national days and staging amateur theatre. Strict measures are needed to stop unlawful indecent movie shows in local cinemas.

Justification

- Promotion of healthy indigenous culture
- Creation of recreation facilities for busy urban dwellers.
- Saving people, particularly, young ones from moral degradation.

Control

Law must play its role. District authority has to be more vigilant. To stop indecent public movie shows citizens committee may be set up comprising professionals and eminent citizens for regular monitoring.

Implementing Agency

- Ministry of Religious Affairs
- Deputy Commissioner, District Administrative

5.1.6 Urban Heritage and Conservation

Policy HC-1: Conservation of old prestigious areas

Old prestigious areas of historical importance should be identified and demarcated for conservation. The development within this area should be restricted and should follow the original characteristics and architectural style of the old heritage buildings.

Justification

- Conservation of heritage and old prestigious areas for future generation
- To uphold the tradition and history.

Implementing Agencies: Department of Archeology, Bangladesh Parjatan Corporation

Policy HC-2: Promotion of Local Heritage Based Tourism.

Justification

Upholding local heritage and culture in and around the town that can help promote tourism. This may include handicraft, culture, archaeological/historical site, places of religious importance, betel leaf garden.

Implementation Agency: , Department of Archaeology, Department of Cultural Affairs, NGOs.

Means of Implementation

Conservation of heritage, promotion of traditional culture, development of infrastructure.

Policy HC -3: All sites of Liberation War depicting the glorious history of our independence should be preserved and developed properly

Justification

In Narail there are some important places which depict the history of our independence. These sites should be properly developed and maintained as historical places.

Implementation Agency: Ministry of Freedom Fighters._

5.2 Physical Infrastructure Sectors

5.2.1 Transport

Policy Transport - 1: Existing narrow local roads need to be widened

Wherever possible, to create accessibility for growing number of traffic, the narrow roads should be opened up by widening.

Justification

It is very likely that the number of personal transport ownership will increase in future. Without wider roads this will simply add to traffic congestion. To get rid of ensuing problems steps should be taken immediately to widen existing narrow roads.

Implementing Agency: and LGED

Means of Implementation

Make an inventory of narrow city roads, negotiate with the land owners and motivate them in favour of widening. Provide compensation wherever needed based on appropriate policy.

Policy Transport - 2: New local road development should follow standard width not below 20 ft. or 6.10 m. should not take up any road for development below 20 ft.

Justification

Narrow roads invite traffic congestion. There is scope for developing wider roads in new areas.

Implementing Agency: and LGED

Means of Implementation

may form body to explore the idea by exchange of views with land owners and LGED should follow in road proposal while constructing new road in the outskirts.

Policy Transport - 3: Improvement of Road Intersections – Roundabout

Justification

Narail is growing very fast. By the year 2030 it will become a city of nearly a 3 lacs people. Improvement of major intersections will make traffic movement smooth and safe, apart from reducing congestion.

Implementing Agencies: LGED, RHD

Means of Implementation

Detailed designs of major intersections will form a part of the detailed area plan. With the help of LGED or RHD should implement these designs in phases, depending on availability of resources.

Policy Transport - 4: Development of pedestrian facilities within the urban area

Justification

Since major percentage of all daily trips are made on foot in the city, it is necessary to complete the missing footpath on all major roads within the city. Priority should be accorded to footpaths around all major intersections.

This would greatly contribute in enhancing safety of passengers moving on foot. This would also release part of the road space presently being used by the pedestrian to walk. There are number of drains along side major roads in Narail. One of the strategies should be to cover these drains, by building footpaths on them.

Implementation Agencies: LGED, RHD

Means of Implementation

Paurashava should take the initiative to build at least 2-3 meter wide footpath. Wider space around the intersection would be an advantage.

Policy Transport - 5 : Major roads passing through existing or potential commercial areas should have service lanes.

Justification

The provision of service lane will enable movement of local traffic in a separate lane and free the fast moving main road thorough traffic. This will give efficiency of movement for both the categories of traffic.

Implementing Agency: RHD, LEGD,

Means of Implementation

Adopt a policy in this regard and start drawing up projects.

Policy Transport - 6: New road links should be established in unplanned areas where they are missing.

Justification

Under conventional development practice road network is unplanned and unorganized. The rational links are missing in most cases spontaneously grown areas making traffic movement cumbersome and time consuming apart from creating congestion.

Implementing Agency: LGED,

Means of Implementation

Make survey of spontaneous areas and take note of missing links. Draw up projects for link roads.

Policy Transport - 7: Care should be taken to enforce traffic rules strictly.

Justification

Unruly traffic is a major cause for accident and traffic congestion.

Implementing Agency: Narail Police (traffic),

Means of Implementation

More vigilance by traffic police, must work above pressure and favour.

Policy Transport - 8: Incremental Road Network Development toWards achieving the Final Network- 3 tier Road Network

Justification

To encourage a coordinated development of various road links with a view to achieving a network of primary roads where there will be several alternatives to move in the East-West or North - South directions. The three tier road network system need strictly followed by any transport related development work. It will ensure utilization of limited resources in the most cost-effective manner over a sustained period of time.

Implemented Agency: RHD, LGED

Means of Implementation

in coordination with the main executing agencies will be required to agree to a phased programme of developing the various links of the network, and to this end arrange for acquisition of land if pre-feasibility study already done. For certain links, construction work could be taken in hand, if all other preparations are completed. For certain other links, the existing zig-zag alignments may have to be straightened and widened to take the shape of important corridors.

Policy Transport - 9: Introduction of More Public Transport System (Share vehicle) within the City.

Justification

Promotion of more public transport services with vehicles having 4 stroke engines (CNG run vehicle), will enhance safety of passengers and improve air quality of the city. More share vehicle like auto rickshaw, van can be encouraged to operate in the area. This would also be a cost-effective means of upgrading city's public transport services.

Implementing Agencies: to encourage private transport operators.

Means of Implementation

Paurashava should liaise with the prospective transport operators to appraise them to operate new routes for easy movement of passenger to and from various points in the city.

Policy Transport - 10: Bus bay, bus stop and passenger shed in the bus stops as the important tool of passenger facility

Justification

Passenger sheds should also be built in all major bus stops in the city with proper “bus bays” so that buses do not block a lane to create congestion.

Implementing Agencies: RHD, LGED, Private entrepreneur

Means of Implementation

Pourashava should take initiative to construct bus bays in the proposed site and enforce the bus operate to stop the bus only in bus bays. The Paurashava can encourage the private entrepreneur to build the passenger shed as a means of advertisement.

Policy Transport - 11: Zebra crossing, Road signing and Proper Street lighting all over the **Justification**

Zebra crossing and road signing need to incorporate where necessary. Critical intersection and Roundabout need zebra crossing for the safety crossing of the pedestrian traffic. Only a few areas have been covered by street lighting in the area.

Implementing Agencies: RHD, LGED

Means of Implementation

Paurashava should take initiative for proper signing in the appropriate place. With the help of LGED and RHD the zebra crossing should incorporate in the major intersection. Primary and secondary roads are the priority for street lighting by any means.

5.2.2 Utility Services

a. Water Supply

Policy WS-1: Development of sustainable water supply system based on surface water. SWTP may be season wise

Justification

Increasing urbanization of the city would soon cause increasing demand for water over time. Uncontrolled withdrawal of ground water will cause depletion of ground water table. Easy and sustainable water supply system may be explored by extracting surface water from the Chitra River. The water flow of Chitra River is not always same so extraction of water from the river may be seasonal.

Implementing Agency: DPHE

Means of Implementation

Surface water treatment plant should be introduced near Chitra River. These will ease the pressure on ground water which will eventually prevent depletion of ground water.

Policy WS-2: Household rain water harvesting

Household based rain water harvesting tools may be applied to maximize rain water use to meet increasing demand for water.

Implementing Agency: NGOs

Policy WS-3: Controlling shallow and deep tubewell installation

Too much extraction of the ground water will lower down the aquifer level and will also scarce the ground water for the dry season. So installation of shallow or deep tubewell should be a policy of approval by the Government.

Implementing Agency: NGOs

Policy WS-4: Motivation of using pond and river water for household work

Household based rain water harvesting, using of river or pond water for household use should encourage the local inhabitants of the Paurashava.

Implementing Agency: NGOs

b. Solid Waste Management

Policy WM-1: Introduction of contributory community based solid waste collection system

Justification

Creation of community initiative to collect solid waste from door to door disposes them to transfer stations.

Means of Implementation

The total collection system from households can be done by means of contributory community based solid waste collection system through NGOs.

Implementing Agency: CBOs, NGOs

Policy WM-2: Create dumping site to dispose solid waste in a hygienic manner.

Justification

NGO/commercial initiatives to be needed to generate innovative ideas to convert solid waste into resources.

Means of Implementation

For the hygienically disposal of solid waste the following methods can be used: (i) Controlled dumping system (ii) Sanitary landfill system (iii) Incinerator (iv) Composting (v) Resource recovery from the wastes.

Policy WM-3: Generate innovative ideas to convert waste into resource.

Justification

Proper management of disposal of solid waste will generate source of income for poor rag-pickers/scavengers, reusable/recyclable materials recovered will reduce the volume of wastes and extend the life of disposal site, vegetable waste composted in the composting plant to produce manure for agriculture farms and gardens and bio gases produced from the wastes can be used for local cooking and heating purpose in the small scale.

Means of Implementation

A Controlled Dumping or Sanitary Landfill System should be introduced for handling large volume of solid waste to be generated in future. After filling and closing up of disposal site, it can be reused as play ground, market, shopping centre, park or recreational area, car parking area, bus/truck terminal or any other public facilities.

c. Electricity

Most of the urban area of the Structure Plan area has electricity facility. With implementation of the power projects taken up the government the people will get more electricity facility in natural course. Electricity is utmost essential for any urban development project.

Policy ES- 1: Construct adequate transmission lines to facilitate distribution of electricity

Policy ES-2: Promotional activities related to economic stimulus must include adequate supply of power as the top most requirements

Justification

Power is the number one handicap to economic upliftment of an area in particular. Adequate power guarantee is needed to speed up business activities.

Implementing Agency: PDB and REB.

Means of Implementation

Increasing power production and supply, improve transmission and distribution system.

Policy ES-3: Electricity Production from alternative source Bio-gas plant, solar energy

Justification

The proposed renewable energy centre needs to implement in an urgent base. The electricity from these centres will support the existing capacity.

Implementing Agency: LGED

5.2.3 Flood Control and Drainage

Policy FD-1: Development of underground sewerage network with treatment plant

Justification

Human excreta are often disposed off into the storm water drainage system causing health hazards. Present septic tank based sanitation system is not a sustainable solution to urban sanitation.

Implementing Agency: Public Health Department

Means of Implementation

Paurashava may develop sewerage network through formulation of project funded by GoB or Donor Agencies.

Policy FD-2: Development of hierarchical drainage network for the entire area

Justification

Save the future city from possible drainage congestion through preservation of natural drainage and creation of new drainage network. Drainage hierarchy is required for smooth drainage of waste and storm water into the final outfall.

Implementing Agency: LGED

Means of Implementation

Develop drainage system following the natural slope of the ground as much as possible. Further new drains should develop as network proposed.

Policy FD-3: Protection of the natural drainage system of the city based on existing khals and river.

Justification

Khals serve as the arteries of drainage in the city, so they must be protected from encroachment and filling up.

Implementing Agency: DC, DOE

Policy FD-4: Regular cleaning of drainage system and excavation of khals

Justification

Regular cleaning of secondary and tertiary drains should be ensured so that they can collect sufficient volume of water and feed the primary drainage network otherwise they may create water logging during heavy rainfall. A huge amount of silt is carried by the storm water during the flush flood which makes it a necessity for periodic excavation of natural khals.

Implementing Agency: CBOs and NGOs

Means of Implementation

Local community can play vital role in cleaning up the drains next to their door and can initially periodical excavation of khals.

Policy FD-5: Motivational drive among citizens against indiscriminate waste dumping

Justification

Awareness generation is very effective for motivating people not to dispose waste in the nearby drains.

Implementing Agency: CBOs and NGOs

Means of Implementation

Monthly campaign to motivate local community may be an effective way of ensuring this policy.

5.3 Environmental Issues

5.3.1 Natural Resources

Policy NR-1: Strict enforcement of environmental regulations about surface and ground water pollution.

Justification

Narail is going to face serious scarcity of water in the upcoming days. The source of ground water and surface water has to be kept free from all sort of pollution so that they can be used in the future.

Implementing Agency: DPHE, CBOs, DOE

Means of Implementation

Proper implementation of policy related to sanitation and drainage will eventually resist the scope for polluting water from domestic waste and sewerage. The policy related to industrialization will resist the scope of pollution through industrial waste. More over local community can play vital role acting as watch dog on polluted water.

Policy NR-2: Conserve the water bodies having more than 0.25 acre area

Existing ponds more than the size of 0.25 acres should be preserved and maintained to hold rainwater during monsoon to ensure sustainable supply of drinking water. Some of the water bodies at appropriate location should reserved for washing clothes (laundry facilities) by the washer man to serve the town population.

Policy NR-3: Conserve major sources of surface water in the town to serve emergency water needs.

Justification

In the built up areas sometimes fire hazard become so dangerous that the fire service requires quick and huge supply of water. So in the built up areas the large and medium scale water bodies should be conserved for these sorts of emergencies using water hydrants and water reservoirs for fire services.

Implementing Agency: Fire Service, DOE

Means of Implementation

Large and medium scale water bodies should be kept reserve as urban open space where people may find some breathing place. Moreover these will reduce the temperature of the surrounding areas as well as serve the emergency need of the locality during fire hazard.

Policy NR -4: Identification of Aquifer Recharge area

Technical study is needed to find out the Aquifer Recharge area of the region to control any type of paved surfacing or damage of the natural system

Implementing Agency: NGOs, DPHE

5.3.2 Sanitation

Policy SA-01: Sufficient Production and supply of components of single and twin pit latrines

Justification

Construction and installation of adequate number of low cost pit latrines will provide access of lower income people to hygienic sanitation resulting in overall improvement of the environment and general health of the people living in the lower strata of the society who constitute the larger segment of the society. Particularly:

- The lower income people are the most vulnerable to disease caused by unhygienic sanitation
- The poor areas are the most deprived in respect of healthy sanitation
- There is urgent need to improve environmental conditions in congested and crowded areas

Implementing Agency

- Local Government Engineering Department
- NGOs

Policy SA-02: Promotion of public toilet facilities throughout the city

Justification

Absence of well distributed and adequate number of public latrines is a major reason for public nuisance created by people in public places. The following measures are particularly important to look at:

- Promotion of the habit of the hygienic sanitation practice among people at large.
- Stop public nuisance and prevent health hazard.
- Improvement of environmental conditions.

Implementing Agency

- Local Government Engineering Department
- NGOs

Policy SA-03: Building awareness for hygienic sanitation at school level

Justification

Lack of awareness is one of the primary reasons for failure to wide scale adoption of hygienic sanitation. Children at primary level are perhaps the best choice for imparting health education. Infusion of health care awareness from the very childhood will help them adoption of healthy practices in the family as they grow into adult. The source of finance for implementation of hygienic sanitation programmes may be explored in donor agencies, like ADB, World Bank.

Implementing Agency

- Directorate of Primary Education
- Public Health Engineering Department
- Non – Government Organization

Policy SA-04: Development of an integrated sanitary sewerage network with treatment plants

Justification

Urban centers are high density areas with higher growth of population. These should be long term arrangement for sewage treatment and disposal. Sewerage network will treatment facilities in a modern scientific and environmental approach to sewage management.

Implementing Agency

- Public Health Engineering Department

5.3.3 Hazards

Enhancement Activities:

a) Capacity Buildings:

- Reactivated Municipality Disaster Management Committee.
- Organized training on "Roles of Municipality Disaster Management Committees" as per government standing order.
- Assisting to continue routine meeting of MDMC.
- Selection of volunteers from their own community by themselves.
- Project Implementation (in planning, supervising, monitoring, evaluation etc.) e.g. involving Ward level Scheme Implementation Committee and perform good jobs

b) Community Based Disaster Preparedness:

- Preparation of Municipality Disaster Contingency Planning
- Participation of community based gathering like courtyard meeting
- Mobilize household preparedness
- Linkage with representatives of civil societies.
- Linkage with different community-based organizations like welfare club at Ward-level etc.
- Mobilizing volunteers through performing different activities. (e.g.- School program)

c) Awareness Campaign:

- Celebration of National Disaster Preparedness Day (NDPD)
- Participation of different awareness campaign like debate competition, art competition, discussion meeting, rally etc.
- Poster on project goal, awareness calendar etc.
- Flood Simulation

d) Advocacy:

- Clear concept about government standing order, role-responsibilities of each member.
- Existing capacity analysis and expectation setting
- Make aware about policy formulation or change (if needed)

e) Networking:

- Experience sharing with other and Disaster Management Committee of Bangladesh.
- Idea generation/suggestions
- Demonstration of mitigation activities
- Linkage with NGOs, CBOs within the municipality.
- Linkage with civil society representative within the municipality

Policy Hazard-01: Preparation of Disaster Management Committee (PDMC) headed by Mayor of to co-ordinate, review and implement the disaster management activities within its area of jurisdiction.

Policy Hazard-02: Preparation of Disaster Management Plan (DMP)

Policy Hazard-03: Capacity Building and Awareness Campaign

5.3.4 Environmental Aspects (Air, Water, soil, etc. Quality)

Policy ENV-1: Ensuring the strict implementation and enforcement of environmental laws

Justification

The legal and regulatory framework for environmental management in Bangladesh has been reviewed. There are three important places of environmental legislation, which set the framework for environmental management in Bangladesh.

- a) The Conservation Environmental Law of 1995
- b) The Conservation Environmental Rules of 1997
- c) The EIA Guidelines for Industries of 1997

The 1995 law is an enabling act, which gives the Ministry of Environment and Forest the power to draw up rules and guidelines for managing the environment. The law also designates the department of Environment as the responsible body for enforcing the Environmental Impact Assessment Procedure outlined in the 1997 rules, along with the legal procedures to be followed for implementing the EIA process. The EIA process designates four classes of possible

interventions by the degree of expected environmental impact. For the industries under the green category, criteria for obtaining environmental clearance are few rigorous criteria have been placed for setting up industries under the red category, because, most polluting industries such as tanneries, paper and pulp industries, fertilizer industries, cement factories, oil refineries, rubber industries and should be set up after thorough analysis of the environmental damage they might cause so that the measures are taken right from the time of setting up of such units to prevent pollution. The procedures are less rigorous for industries under **Amber- A** and **Amber- B** categories.

Implementing Agency: DPHE, CBOs, DOE

Means of Implementation

Proper implementation of policy related to environment will eventually resist the scope for pollution. The policy related to industrialization will resist the scope of pollution through industrial waste. More over local community can play vital role acting as watch dog on pollution.

Policy ENV-2: Promotion and development of a functional and harmonic nature of land use in the city

Justification

This is important issue for creating a better living environment in the city. Incompatible land usage, such as Bus stand near educational institute, strictly prohibited. A coordination is necessary among various actors of on land.

5.4 Policy Implementation

Policies recommended for structure plan have been presented in above sections preceding elaborately. Each of the policy area as has been explained highlighting policy area, objective, strategies, purpose and intent with justifications. It further highlights justification and implementation procedure, means of implementation including agencies responsible for implementation.

Every plan proposals, irrespective of own resources must be implemented in the form of project included in the annual development plan of the planning commission. The planning commission forms up Five Year Plan based on sectoral demand from various sectoral ministers through its Sectoral Divisions according to availability of resources from own resources, and from donors etc.

Structure Plan being the top tier of the master plan organizes and distributes plan proposals in the form of programme and major projects throughout the entire space economy to support the lower order components such as UAP and Ward action plan proposals through spill over effects. The UAP because of its statutory nature and integrates and co-ordinates and also guides and directs and controls the growth development for spatial distribution of development activities through out the Paurashava.

The Master Plan therefore, supports sequential development of priority projects and phases in four five year plans to match economic plan i.e. Five Year Plan and ADP. The master Plan proposals from gross route level are proposed through respective ministry and finally placed to the planning commission to be included in the Five Year Plan and Annual Development Plan for implementation in time.

CHAPTER- 6

IMPLEMENTATION ISSUES

6.1 Institutional Capacity Building of the

a. Legal Issues

General

Legal measures are important tools in the process of execution of planning proposals. The existing legal provisions in respect of planning and planning administration are not only inadequate but also outdated. The subsequent sections of this chapter highlight the major legal issues concerning organized development with particular reference to the current planning provisions. The chapter also attempts to make specific recommendations in respect of lacking, contradiction and constraint.

Policy Recommendations

In the light of the above issues and problems the study team suggests following policy measures.

Policy legal - 01: Amendment to the Act 2009

Necessary amendment to the Act 2009 shall be made to provide provision for approval, power to make rules, repeal and savings.

Justification

Will help make the Master Plan approval process simple and to strengthen the Master plan with legal support.

Implementing Agency

- Ministry of LGRD&C

Policy legal - 02: Strengthening inter agency coordination

The existing system of coordination between and among agencies needs to be substantially strengthened.

Justification

Coordination of development activities is essential to allow smooth going of development activities. However, without adequate legal backing it would be difficult to execute any policy.

Implementation

The committee must be equipped with necessary legal powers to execute its decisions. The proposals for legal provisions will have to be executed through the approval of the national assembly.

Implementing Agency

- Ministry of LGRD&C
- Related Sectoral agencies: private/ public/ NGO's/CBO's

Policy legal - 03 : Betterment fee on properties adjacent to schemes executed on public money

Betterment fees should be charged on the properties that are directly or indirectly benefited from development projects.

Justification

should try to realize as much as possible its costs of development and save fund for non-revenue earning projects. Successful implementation of betterment fee regulations will be an important source of domestic resources mobilization.

Implementation

Necessary amendments to the Act, 2009 can be made to charge betterment fees also on the landowners adjacent to any development scheme the executed on public money.

Implementing Agency

- Ministry of LGRD&C

Policy legal - 04: Enhancement of the rate of fine for violation of ordinance

Drastic enhancement in the rate of fine is necessary to enforce the rules and regulations of Act.

Justification

There is need for strengthening the punitive measures to ensure enforcement of the regulations of the Act.

Implementation

This can be achieved by amendment of Section 108 of the Act, 2009.

Implementing Agency

- Ministry of LGRD&C
- Ministry of Law

Policy legal - 05: Formulation of new rules

New rules are needed to be formulated such technical aspects of planning and plan administration and implementation as, provisions for planning standards, category and type of urban development plans, procedures / steps in formulating plans, etc. Rules are also needed for formulation for approval of private housing estates, particularly, the ones that are engaged in land sub-division.

Justification

In absence of appropriate legal provisions it often becomes difficult to prepare, administer and implement urban development plans. As a result the process of organized development in urban areas is seriously affected that results in chaotic and sprawl development causing degradation of urban livable environment.

The growing private real estate companies with their big land projects play major role in shaping up the future city including road infrastructure. If basic amenities including adequate circulation system can be ensured through housing estates than the future problem of providing the same could be avoided.

Implementation

This can be achieved by amendment of the Act, 2009.

- Ministry of LGRD&C

b. Financial Issues

Policy Financial- 01: Greater financial autonomy for

need greater financial autonomy to fund its development projects with least interference of the government agencies.

Justification

This will make to allocate fund for its priority projects and execute them fast.

Implementation

To ensure greater financial autonomy the relevant sections of the Act will need to be amended and new sections will have to be inserted.

Implementing Agency

- Ministry of LGRD&C

Policy Financial- 07: People's participation in planning and implementation to be increased

People should be allowed to play greater role in the plan making and implementation process.

Justification

With the participation of the people it will be easier to implement plans. People's participation will uphold the democratic values of the society.

Implementation

New sections are needed to be incorporated in Act, 2009.

Implementing Agency

- Ministry of LGRD&C

b. Stakeholders Participation in Plan Implementation

As indicated earlier that the implementation of Master Plan is not the sole responsibility of . Other stakeholders, nearly 35 in number in the Paurashava, have the responsibility to abide by the proposals made in Master Plan. Apart from these institutions, the individual citizens or households must follow the master plan, while making intervention within the Master Plan Area. The responsibility is to supervise the intervention and monitor developments in terms of conformity of intervention with the proposals of Master Plan. The plan is a statutory document which must be recognized and followed by all stakeholders.

Following table shows the major activities outlined in the Master Plan and the responsible stakeholders to carry out the tasks. The table has been generated from sector development proposals made in the Structure Plan Policies.

Table-6.1: Major Activities under Master Plan proposals by Broad Sector and the Implementing Agencies:

Development Sector	Major Activities	Implementing Agency
HOUSING	Providing Housing Facilities and re-settlement.	Authority, National Housing Authority (NHA), Private Real Estate Developer
	Providing Assistance to the government to develop housing scheme	Authority, National Housing Authority (NHA),
	Providing Assistance to the private sector to develop housing scheme	Authority
	Providing affordable housing for low income people	Private Real Estate Developer, NGO/ CBO
	Providing Infrastructure Facilities	Authority, Public Agencies
	Planning Intervention for spontaneous development	Authority, LGED
	Upgrading slums and squatter settlements	Authority, LGED, Donor Agencies
	Monitoring land and housing market	Authority, NHA, AC, (Land)
	Facilitation Investment for Housing Sector	HBFC Private Sector Housing Financing Agencies
	Peoples Participation in Housing Sector	Authority, NITA Private Real Estate Developer
	Providing appropriate Technology for low income people	HBRI Private Sector NGOs Authority,
TRAFFIC AND TRANSPORTATION	Incremental road network development	Authority, RHD, LGED
	Introducing efficient town bus service	BRTC District Authority Bus Owners Association Authority
	Establishing bus terminal/ station for local bus	Authority , Bus Owners Association
	Establishing Truck Terminal	Authority
	Standard Road Network	Authority RHD LGED
	Development of Neighborhood Level Road Hierarchy	Authority RHD
	Widening of existing roads	Authority, RHD, LGED
	Developing Transport Stands	Authority
	Promoting Public Transport	Authority Bus Owner Association
	Properly regulated slow moving traffic	Authority Traffic Police
Coordination within different organization and agencies	Authority LGED NGO's	
DRAINAGE	Developing Storm Water Drainage Improvement Plan	LGED Authority
	Developing Phase Wise Drainage Improvement Plan	Authority LGED
	Improving environmental condition through improved drainage system	Authority LGED DoE
	Maintaining Proper Drainage System	LGED Authority RHD
	Improving O&M of drainage system	Authority, LGED, DPHE, NGO's, CBO'S, MOL, Zila Parishad
	Participation of different agencies	Authority LGED

Development Sector	Major Activities	Implementing Agency
		NGO's , CBO' s, Zila Parishad
WATER SUPPLY	Improving existing piped water system	Authority, DPHE
	Exploring new sources of ground water and Exploration of new sources of surface water to reduce dependency on ground water	Authority, DPHE
	Proper investigation on Arsenic, Iron, salinity contents of the ground water	DPHE
SANITATION	Providing sufficient production and supply of components of single and twin pit latrines	Authority, LGED, NGOs
	Promotion of public toilet facilities throughout the town	Authority, LGED, NGOs
	Building awareness for hygienic sanitation at school level	Authority, Directorate of Primary Education, Bangladesh Text Book Board, NGOs
	Development of an integrated sanitary sewerage network with treatment plants	Authority, LGED
SOLID WASTE MANAGEMENT	Improvement of waste collection efficiency	Authority NGOs
	Management of toxic waste from hospital, clinic, industry	Authority DoE Directorate of Health
	Recycling of solid waste	Authority NGOs
	Increasing the role of NGO in household waste collection	Authority NGOs
	Treatment of industrial liquid waste before disposal into river	DoE Directorate of Industries National Board of Investment Concerned Industries
	Introduction of controlled dumping/ sanitary landfill	Authority
	Monitoring of Solid Waste management	Authority NGOs Local People's Committee
SOCIAL SERVICES Health	Improving general health infrastructure	Directorate of Health, International Development Partners, NGO's, CBO's, Authority
	Increasing the access of the poor to health service	Directorate of Health International Development Partners, NGO's, CBO's, Authority
	Providing primary health care facilities at the neighborhood level	Directorate of Health International Development Partners, NGO's, CBO's, Authority
	Strengthening preventive health care measures through improvement of environment and building awareness	Directorate of Health International Development Partners, NGO's, CBO's, Authority
	Creating health awareness among the common people	Directorate of Health International Development Partners, NGO's, CBO's, Authority
	Providing Public Sector Health Facilities	Directorate of Health Authority
	Private sector health facilities should be established in the master plan designated locations	Directorate of Health Authority
SOCIAL SERVICES Education	Providing sufficient number of quality nursery and primary school	Directorate of Education Authority

Development Sector	Major Activities	Implementing Agency
	Providing sufficient space in every school	Directorate of Education
	Providing education infrastructure for primary, secondary, tertiary levels and vocational institute	Directorate of Education
SOCIAL SERVICES Law and Order Situation	Improving law and order services for all citizens	Home Ministry Police Local Community
OPEN SPACE AND RECREATION	Creating water front green	DoE, RHD, NGOs, CBOs, Local People, WDB
	Creating urban forest	DoE, NGOs, CBOs, Local People, Forest Department
	Creating highway forest	RHD, NGOs, CBOs
	Creating botanical garden	Department of Forest and Environment
	Developing city park	NGOs, CBOs, Local People
	Developing play ground/ stadium/ Golf course	Department of Sports & Culture
	Providing open space for public sector housing estate	National Housing Authority, Private Commercial and Cooperative Housing Companies and Societies
	Providing other recreation facilities	Ministry of Cultural Affairs
INDUSTRY	Creating industrial incentive zones	Ministry of Finance and Industry Investment Board Chambers of Commerce and Industry
	Gradual relocation of environmentally harmful industry	DoE
	Organizing foot loose industry	NGOs Chambers of Commerce and Industry
	Encouraging small scale industry	Investment Board BISCIC Chambers of Commerce and Industries
	Reorganizing and restructuring of large scale industries	Ministry of Industries
	Control industrial location and standard	DoE
CONSERVATION OF URBAN HERITAGE	Conservation of old prestigious area	Department of Archeology, Bangladesh Parjatan Corporation
	Listing and conservation of all heritage sites and old historical buildings	Department of Archeology
	Restriction on incompatible and alteration of old historical buildings	Authority
	Evacuation of unauthorized and incompatible use of affecting historical/ heritage buildings	Department of Archeology District Administration
	Conservation of old historic building and sites for tourism development	Department of Archeology Bangladesh Parjatan Corporation
	Developing all sites of Liberation War	Ministry of Freedom Fighters
ENVIRONMENTAL MANAGEMENT	Proper treatment of water logged area	Authority
	Enforce of law for regulating the treatment of waste water before dispose off into the surface	DoE DPHE
	Protection and maintenance of surface water bodies	DoE
	Making legal provisions for gradual relocation of polluting and red industries	DoE
	Promotion and development of a functional and harmonic nature of	Authority

Development Sector	Major Activities	Implementing Agency
	land use in the town	
	Ensuring the strict implementation and enforcement of environmental law	DoE Cooperation with other agencies
Development Sector	Construction of Government offices	PWD

d. Policy Recommendation for Plan Implementation or Governance

Policy Governance- 01 Mobilization of resources

Greater effort should be made by the other local government institutions with the power to tax or impose fee toWards optimum resource mobilization to facilitate rapid development.

Justification

For implementation of Master Plan effectively, and other relevant organizations need to mobilize their resources. Fund for investment should come from within rather than from outside. Various essential steps have been suggested in this respect, which are not difficult to adopt.

The steps are as follows:

- a. Paurashava should put its developed land on market for sale either through open, bid or through tender. This should strictly be enforced in case of lands for high-income group
- b. Should charge betterment fee for the owners of land and other property benefited out of the development activities of
- c. and other developer must compensate and, if be needed relocate the effected person because of such development
- d. Should continuously prepare list of its assets and liabilities to ascertain resource capacity
- e. Should adopt modern system of accounting
- f. Other agencies will exercise their own capacity to generate fund.

Policy Governance - 02 Capacity building

Paurashava should make all out effort for capacity building, which should include proper manpower planning and training.

Justification

Capacity building is essential for sustaining the development efforts for implementation of the Master Plan project in its various stages of development in sequences and also in phases where applicable for proper implementation, during the process it also requires to review plan, implementation process, control mechanism and to monitor development process. .

For manpower planning the steps are:

- a. Recruitment of proper person in the vacant posts.
- b. Prepare proper job description for each person.
- c. There should be incentives for positive performance

In case of training

- a. all persons working within should be given the perception of management of a modern growing town like Narail and
- b. Provision for proper and continuous training for all persons.

Policy Governance – 03 Building a management information system including a GIS for planning section

should build proper Management Information System (MIS), with provision for free flow of information to all.

Justification

Without MIS, it is hard to implement a Master Plan and control planning and development these days. Information flow will create confidence among the stakeholders and increase space for participation in Plan governance.

The Planning Section will need facilities for using GIS for Planning and monitoring plan activities.

For this steps to be followed are:

- a. Installation of computer system with Management Information System (MIS) in transactional activities, operational and management control, and
- b. Public in general and stakeholders in particular should be kept continuously informed with all necessary information and actions taken about the Plan implementation activities.

Policy Governance - 04 developing various partnerships for implementation of plan

Paurashava is the lead institution for the Master Plan implementation and monitoring. The team likes to mention that Master Plan being one component of Urban management, the institution or authority, in this case that is holding the responsibility for urban management, needs 'to negotiate continuously and strike consensus and fruitful partnerships' between, and among other authorities, agencies, stakeholders and civil society. On behalf of Mayor the coordinator will be responsible for any development works.

Justification

Without partnership it will be difficult to implement the plan.

Policy Governance - 05 People's participation

People of all income groups should be involved in planning and development activities.

Justification

For building a democratic and civilized society it is necessary to involve beneficiaries in nation building. UN system and donors emphasize on participatory development approach as a condition for assistance.

Implementation

- LGED
- NGOs
- Civil Societies

6.2 Resource Mobilization

Resource mobilization will be one of the most challenging tasks in implementing the current plan package. Though the development proposals are said to be executed by a large number of development agencies, but it is beyond doubt that the heaviest burdens will have to be shouldered by Paurashava. However, as a local government agency, it suffers from resource constraint. Due to low level of urbanization and investment, both, by public and private sectors, the land value maintains perpetually low growth rate in the town. Therefore, prospect of mobilization of substantial resource from sale of serviced land is extremely meager. For the same reason revenue earning from betterment fee, planning permission and other sources is also very low. Paurashava is heavily dependent on government for executing its development projects as it is unable to collect sufficient revenue from its tax and non-tax sources. Therefore, it is clear that execution of development project under the current plan will depend heavily on the government response to supply adequate fund. This situation calls for increasing revenue earning by generating new revenue sources.

The consultant thinks that possible options for resources mobilization are:

Option 1: Instead going for extra sources of revenue it is convenient to improve present revenue management of urban local governments. This alone can enhance revenue to the tune of 25 to 30%.

Option 2: Improve service delivery so that people feel encouraged to pay taxes regularly.

Option 3: Apply stringent legal measures against defaulters.

Option 4: Private sector participation in the management revenue of local governments may yield revenue.

Option 5: More freedom should be given to for undertaking revenue-earning projects based on its own resources.

Option 6: should take more projects on housing and commercial development through cross subsidy and also may create better market for real estates and generate more revenue.

Option 7: Attempts should be made to evolve a participatory approach involving public motivation and increasing people's role in local development activities initiated by local governments. Greater participation will ease for resource mobilization attempts.

Choice of any or all of the above options largely depends on the attitude of the central government. For effective functioning of the development agencies there is no way but to improve the resource mobilization capacity of the development agencies. Failure to do so will increase pressure on limited government fund, leaving the ability of the development agencies to mobilize revenue untapped. Details of policy options for resource mobilization are discussed below.

Policy Recommendation

Further details of policy options are stated below.

Policy Resource - 01: Raise tax collection efficiency

The most important of all the reforms necessary is an immediate effective effort to raise tax collection efficiency. Defaulters should be identified according to the age of default in payment and efforts be made to collect in two or three goes the entire amount of arrears. After this exercise, tax defaulters should be penalized.

Justification

Review shows that optimum potential for revenue is not used for inefficiency, default recording, and lack of ensuring penalty for defaulters in tax payment. Policy options will remove these problems and help collect higher amount of revenue.

Policy Resource- 02: Regular assessment of property

Legal requirement of reassessment of municipal properties after every five years should be enforced strictly. Failing to do so, government should take away a portion of grant due to property value.

Justification

Firstly it is legally required and regular assessment of tax liability of taxpayers will keep the tax liability and tax record up to date. This will decrease number of tax defaulters. All these will help in realizing greater tax revenue. Moreover, penalty for defaulters will create tax payment culture resulting in smooth tax management.

Policy Resource- 03: Training for tax assessors

Rigorous and regular arrangement should be made for the training of the assessors and officials who are involved in the administration of property tax.

Justification

It is observed that formal training and continuous updating of assessment procedures are absent and that results in improper assessment causing large number of appeals and delay in revenue collection.

Policy Resource - 04: Conversion of rental value to market value

In the long run, Paurashava should take assessment of property from rental value to capital value. Attempts should be made to prepare tax-map with the help of GIS.

Justification

Unless the assessment of the property is based on capital/market value, would continue to lose revenue. So sooner the better, it will enhance greater revenue yield. Introducing tax-map will make this conversion easy.

Policy Resource - 05: Revision of tax rates and brings it at par with market rate/rent

Immediate steps should be taken to revise the rates of other taxes and fees and tag with the inflation rate. Taxes on profession, trades and callings should be designed in such a fashion so that it corresponds to the level of income from these activities of the citizens.

Justification

Unless the rates are revised regularly of any service, rents and taxes, keeps on losing revenue but on the other hand, delivers services at a current market price causing higher cost than actual cost recovery.

Policy Resource- 06: More income from property: bring it at par with market price

The rents of shops and markets along with other properties should be in conformity with market price and needs immediate revisions. Defaulters should be charged penalty one percent more than the market price.

Justification

Unless defaulters in this case are punished, non-payment of rents becomes a habit and poses a big threat for smooth administration of estates.

Policy Resource – 07: Government grants and control: grants should be based on equitable basis

Since the dependence upon government grants is substantial, there is a need to work out an economically equitable basis for provision of such grants with legal backing. The grant formula should ensure better raising effort.

The control of the government over the affairs also needs to be greatly reduced.

Justification

Without a legal basis and its strict implementation of that economic distribution formula, government grant remains uncertain in revenue expectation. Without being sure about revenue expectation, authorities fail to make a future plan.

Reduction of government control over the local authorities will ensure a greater degree of flexibility to the local authorities in taking their own decisions regarding income generation and expenditure.

Policy Resource - 08: should introduce development fee

As suggested earlier, Paurashava should with other development authorities introduce Betterment Fees. Amendment of the Act 2009 is required.

Justification

This will help them not only use a potential source of revenue but enhance capacity to take more important development projects, especially for the low-income group.

Policy Resource -09: Alternative mechanism for resource mobilization finds fresh sources of revenue

Paurashava should attempt to adopt innovative devices. These are commonly, raising fund from capital market through various instruments, sharing responsibilities with NGOs and communities and even with voluntary groups.

Justification

This will help them to tap alternative sources of revenue, allow private sector and NGOs to participate in municipal services and urban development with reduced cost through cost sharing.

6.3 Concluding Remarks

From Past experience it has been observed that plans prepared for organized development and development control have been subject to negligence. In most cases execution has been piecemeal. It is unfortunate that town planning is yet become a part of our urban development culture. Individuals love to go at will without respect to planning norms and the concerned authorities' areas unable to exercise full control on development. Some strict measures are necessary to make stakeholders to follow plans and development rules. Awareness is to be built among the people to follow the plan. Government agencies must be compelled to follow plans. Existing laws in this regard must be updated incorporating provisions of plan execution.

CHAPTER- 7

LAND USE PLAN

General

Urban Area Plan or Multi-sector Investment Plan is prepared for managing and promoting development over medium term on the basis of the strategies set by the longer-term structure plan. Basically the Urban Area Plan is an interpretation of the structure plan over the medium term (20 years). The coverage of the Urban Area Plan is the existing urban areas and their immediate surroundings with the purpose of providing development guidance in these areas where most of the urban development activities are expected to take place over the next 20 years. Delineation of the Urban Area Plan has been based on the basis of urban growth area as identified in the Structure Plan. It contains more details about specific programs and policies that require to be implemented over the medium term. The Urban Area Plan consists of the following plans:

- Land Use Plan
- Transportation and Traffic Management Plan
- Drainage and Environmental Management Plan
- Plan for Urban Services

7.1 Introduction

Land use zoning of Master Plan is an important element under the present system of planning and development control. Land use zoning practices are prevalent in local planning system since the beginning of the post World War II physical planning approach.

Purpose

There are two main purposes of land use zoning,

First, organization and management of land use development with a view to ensure compatible and environmentally sound urban growth.

Second, with a view to achieve the above objectives enable issuance of land use clearance certificate for construction and development.

7.1.1 Define Planning Area

The Urban Area Plan area covers an area of 28.47 sq km. This is the Area where urban development is going to take place in future. Paurashava operates this area that provides the basic urban services and facilities as preconditions for urban proliferation.

Table- 7.1: Urban Area Plan Coverage:

Narail Urban Area Plan	Area		
	Sq. km	Acre	Hectare
Urban Area Plan Coverage	28.52	7047.91	2852
Percent of Structure Plan Area	100%		

The Urban Area Plan constitutes about 100% of the Structure Plan area.

7.1.2 Goals and Objectives

a. Goal

Create an urban space for habitation with comfort, for economic flourishing and social cohesion.

b. Objectives

- i. To provide infrastructure for easy movement and comfortable living.
- ii. To create spatial land use zoning for environmental sanctity and enhance property value.
- iii. Development of mechanism for improving and guiding urban development

7.1.3 Relation with the Structure Plan

The Urban Area Plan is the first phase illustration of the Structure Plan intended to be implemented over a time span of 20 years. The Urban Area Plan has been prepared within the policy framework of the Structure Plan and aims to attain the overall project objectives. So there is a hierarchical relationship between the two. In fact, Urban Area Plan is the first phase detailed

illustration of the policies and strategies of the structure plan. Structure Plan Policy Zoning relates the land use plan as under:

Table-7.: Relation with Structure Plan and Land Use Plan

Structure Plan	Land Use Plan
Policy Zone	Category
Agriculture Area	Agricultural
Transportation & Communication	Transportation
Urban Deferred Area	Urban Reserve Area
Water Bodies	Water Bodies
Defense & Security Area	Restricted Area
	Residential Commercial Mixed Use Transportation General Industrial Area Noxious Industrial Area
Established Urban Area	
New Urban Area	Educational Health
Peripheral Urban Area	Administrative Open Spaces and Recreational Community Facility Water Bodies Utility Services

The Urban Area Plan is presented in both, map and textual format. The plan map is presented in 1:1980 scale, super imposed on latest cadastral/revenue map having plot boundaries within mouzas. The plan is accompanied by an explanatory report supported by necessary figures, maps and data. The report explains the various plan proposals and other components of the plan.

Urban area plan is broadly divided into two parts, plan map and explanatory report. The plan map depicts the future land use zoning, infrastructure development and other development proposals. Report elaborates all the proposals made in the plan, including, rules, regulations and recommendations for implementation of the plan.

7.1.4 Approach Methodology and to Planning

7.1.4.1 Approaches to Preparation of the Urban Area Plan

Urban Area Plan is aimed to guide the physical development of Narail including its all the economic and social activities. This plan adheres to the policy directives spelled out in the Structure Plan. The current Urban Area Plan is akin to the traditional Master Plan approach prevalent in the country that designates plot-to-plot use of land apart from infrastructure development proposals. Thus it will also serve as a development control mechanism/ instrument. Thus it is more rigid than Structure Plan. Making a land use plan on a cadastral map makes the Urban Area Plan more rigid. Once the plan on a cadastral map is drawn and accepted by the government and formalized it gains a formal status and thus becomes a binding for all concerned.

7.1.4.2 Urban Area Plan Coverage and its Sub Classification

The Urban Area Plan covers an area of 28.52 sq km. The reason behind choosing such area lies in fact that this is the most urbanized part of the structure plan area, where there is still scope and possibility of urban development in the near future. Paurashava will operate all parts where it provides the basic urban services and facilities. Considering the future urbanization trend and potential development the targeted population in the projected area is assumed as 150,000 for 2030.

The Urban Area Plan covers 9 Ward Action Plans (WAPs). The details have been presented in Table-7.3

Table- 7.3: Detailed Planning Zones within Urban Area Plan Area

Urban Area Plan Area	Local Area Coverage	Area in Acres	BBS Population in 2011	Projected Population	
				2020	2030
WAP 01	Ward 01 & Extension Area	1052.55	2969	5275	6838
WAP 02	Ward 02	629.63	3261	6133	7950
WAP 03	Ward 03	251.45	6142	14035	18195
WAP 04	Ward 04	985.25	6384	11190	14507
WAP 05	Ward 05	662.65	7053	12871	16686
WAP 06	Ward 06 & Extension Area	501.54	5901	9912	12850
WAP 07	Ward 07 & Extension Area	654.48	5053	9116	11818
WAP 08	Ward 08	1507.44	2423	4814	6241
WAP 09	Ward 09	803.80	3113	6327	8203
Total		7048.79	42299	79673	103289

7.1.4.3 Population Growth and Density

The current (2011) gross density of population of the Urban Area Plan stands at 6 persons per acre that will be 21 persons per acre by the end of Urban Area Plan period.

Table- 7.4: Population and Gross Density of the Urban Area Plan

Area in Acres	2011		2030	
	Population	PPA	Population	PPA
7047.91	42299	6	150000	21

Source: Census 2011 and Estimated.

Note: Population and population density estimated by the Planning Team.

7.1.4.4 Recommended Standard

With a limited land mass Bangladesh is the most densely populated country in the world. The land area of the country remains static amid continuously increasing population. Such a situation calls for strict regulation to utilize its scarce land resources for non-agricultural purposes. Increase in urban population means more demand for houses, roads, schools, hospitals, factories, bazars, shops, business centers, offices etc. Providing all these facilities require land and that is at the cost of valuable agricultural land, as the country has hardly any fallow land to accommodate all these land uses. Narail is surrounded by valuable fertile agricultural land. Any urban expansion will cost net deduction of agricultural land that will consequently affect local food and cash crop production despite adoption of seed-fertilizer-irrigation based technology. Practice of thriftiness on land utilization is, therefore, essentially needed in plans and development proposals. Such practice should start through adoption of conservative and rational standards of space use and their proper application in planning, designing and development.

The consultant has based its suggested planning standards on anticipated rate of future urbanization, availability and value of land, future size of population, environmental quality and above all future need of the targeted population considering the guiding policy of optimizing use of land.

The Consultants concentrate on the planning standard on the following selected areas:

- a. Administrative
- b. Agricultural
- c. Commercial
- d. Community Facility
- e. Educational
- f. Health
- g. General Industrial Area
- h. Noxious Industrial Area
- i. Mixed Use
- j. Open Spaces & Recreational
- k. Residential

- l. Restricted Area
- m. Transportation
- n. Urban Reserve Area
- o. Utility Services
- p. Water Bodies

7.2: Existing and Projected Land Use

7.2.1 Existing Land Use Types and Patterns

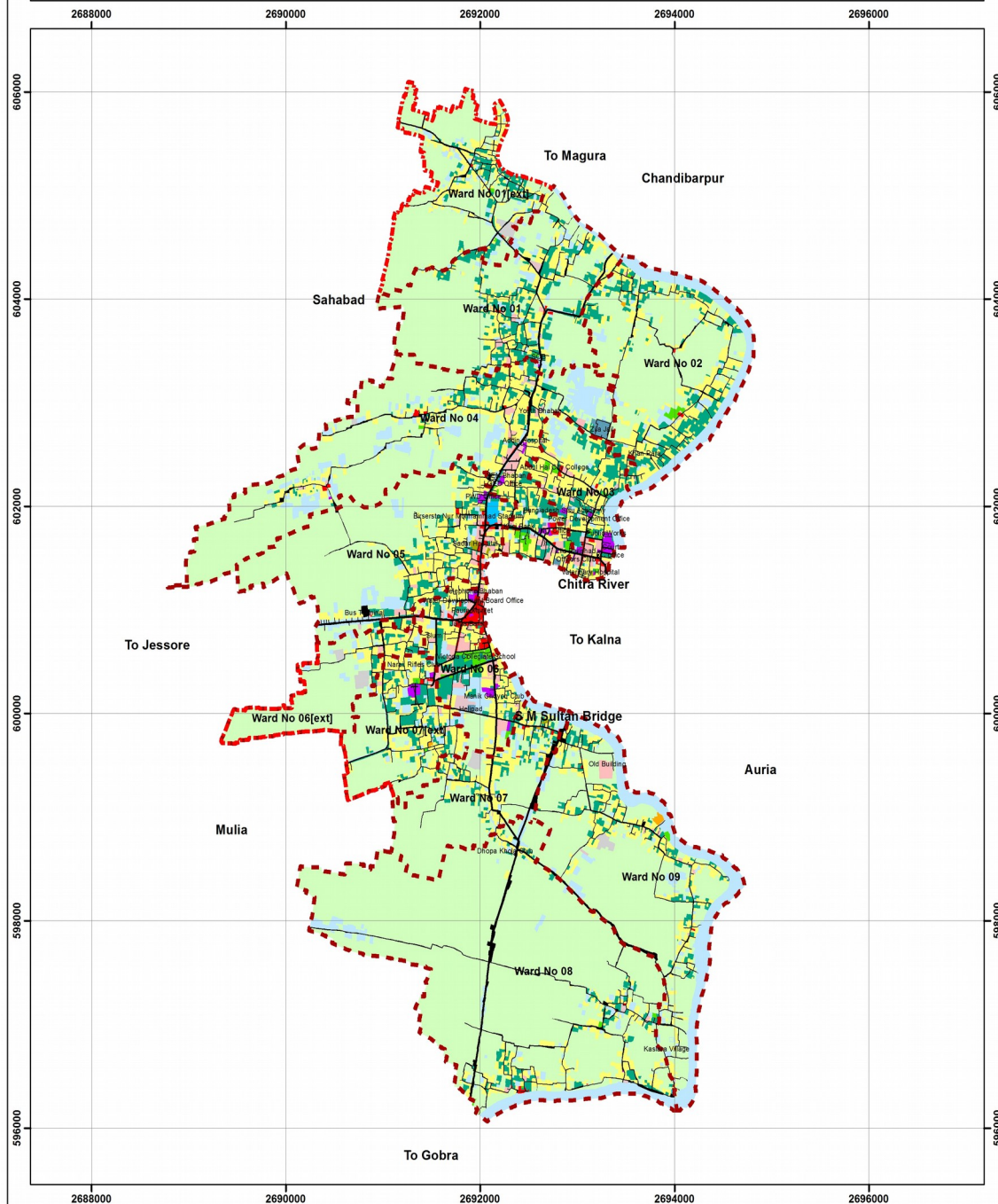
The land existing uses of the urban area that is, area land has been grouped into 16 categories. It has been ascertained that major land use goes to agricultural land and it is about 59.59% of the total land. The second major land use is residential and homestead and occupying about 16.05% of the project 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 is used under Industrial and Manufacturing purposes.

Table 7.5: Existing Land use of Narail

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	17.00
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	2.14
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
	Total	7047.91	100	28.52

Source: Land use Survey, 2009.

Map 7.1: Generalized Existing Land Use of Narail Paurashava



Legend

- - - Project Boundary
- - - Ward Boundary
- Access/ Local
- Primary
- Secondary

Existing Landuse

■ Administrative	■ Residential	■ Educational	■ Industrial	■ Places of Worship	■ Restricted
■ Agriculture	■ Commercial	■ Water bodies	■ Mixed Use	■ Graveyard	■ Miscellaneous
■ Health	■ Open spaces	■ Transportation			

0 0.2 0.4 0.8 1.2 1.6 Kilometers