

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
 গৃহায়ন ও গণপূর্ত মন্ত্রণালয়
 সিলেট আঞ্চলিক অফিস, নগর উন্নয়ন অধিদপ্তর, সিলেট
 সিনিয়র প্ল্যানার এর কার্যালয়
 সিলেট আঞ্চলিক অফিস, নগর উন্নয়ন অধিদপ্তর, সিলেট



স্মারক নম্বর: ২৫.৪৫.৯১৬২.১০৩.১৪.০০১.২১.৮

তারিখ: ১৩ মাঘ ১৪২৭

২৭ জানুয়ারি ২০২১

বিষয়: গেজেটভুক্ত সিলেট বিভাগীয় শহরের মাষ্টার প্ল্যান (২০১০-২০৩০) এর প্রস্তাবনাসমূহ বাস্তবায়নের অগ্রগতি প্রতিবেদন প্রেরণ প্রসঙ্গে।

জনাব,

যথাবিহীত সম্মান প্রদর্শনপূর্বক উপর্যুক্ত বিষয়ের প্রেক্ষিতে জানানো যাচ্ছে যে, গেজেটভুক্ত সিলেট বিভাগীয় শহরের মাষ্টার প্ল্যান (২০১০-২০৩০) এ বিভিন্ন উন্নয়ন কর্মকান্ড বাস্তবায়নে সেবা প্রদানকারী সংস্থাদের দায়িত্ব নির্দিষ্ট করা আছে (মাষ্টার প্ল্যানের সংশ্লিষ্ট পৃষ্ঠা সদয় দৃষ্টব্য)। বর্তমানে মাষ্টার প্ল্যান বাস্তবায়নের বিষয়ে বাৎসরিক মনিটরিং রিপোর্ট প্রস্তুতকল্পে গেজেটভুক্ত মাষ্টার প্ল্যানের প্রস্তাবনাসমূহ সেবা প্রদানকারী/বাস্তবায়নকারী সংস্থাসমূহ (গেজেটে উল্লেখিত) কর্তৃক কতটুকু বা কতটি বাস্তবায়িত হয়েছে তার তথ্য জানা একান্ত প্রয়োজন। ফলশ্রুতিতে, আপনার প্রতিষ্ঠান কর্তৃক মাষ্টার প্ল্যান বাস্তবায়নের অগ্রগতি প্রতিবেদন নিম্ন-স্বাক্ষরকারীর নিকট প্রেরণের জন্য বিনীত অনুরোধ করা হলো।

সংযুক্তিঃ বর্ণনামতে।

২৭-১-২০২১

জনাব শাহীন আহম্মেদ
 সিনিয়র প্ল্যানার

মেয়র

সিলেট সিটি কর্পোরেশন

স্মারক নম্বর: ২৫.৪৫.৯১৬২.১০৩.১৪.০০১.২১.৮/১(৭)

তারিখ: ১৩ মাঘ ১৪২৭

২৭ জানুয়ারি ২০২১

সদয় অবগতি ও কার্যার্থে প্রেরণ করা হল:

- ১) উপ-পরিচালক, উপ-পরিচালক এর দপ্তর(ভৌত পরিকল্পনা), নগর উন্নয়ন অধিদপ্তর
- ২) উপ-পরিচালক (অতিরিক্ত দায়িত্ব), উপ-পরিচালক এর দপ্তর(গবেষণা ও সমন্বয়), নগর উন্নয়ন অধিদপ্তর
- ৩) সিনিয়র প্ল্যানার, সিলেট আঞ্চলিক অফিস, নগর উন্নয়ন অধিদপ্তর, সিলেট
- ৪) সিনিয়র প্ল্যানার, থানা সেন্টার প্ল্যানিং-২, নগর উন্নয়ন অধিদপ্তর
- ৫) সহকারী প্রকৌশলী, সহকারী প্রকৌশলী(সার্ভে), নগর উন্নয়ন অধিদপ্তর
- ৬) সাঁট লিপিকার(পিএ), পরিচালক এর দপ্তর, নগর উন্নয়ন অধিদপ্তর (পরিচালক মহোদয়ের সদয় অবগতির জন্য)
- ৭) অফিস কপি

২৭-১-২০২১

জনাব শাহীন আহম্মেদ
 সিনিয়র প্ল্যানার

MASTER PLAN
for
SYLHET DIVISIONAL TOWN
(2010-2030)

STRUCTURE PLAN, URBAN AREA PLAN
and
DETAILED AREA PLAN

JUNE 2010



URBAN DEVELOPMENT DIRECTORATE (UDD)
Ministry of Housing and Public Works
The Government of the People's Republic of Bangladesh

Master Plan for Sylhet Divisional Town

Part-I : Structure Plan and Urban Area Plan
Part-II : Detailed Area Plan

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রেজিস্টার্ড নং ডি এ-১

বাংলাদেশ



গেজেট

অতিরিক্ত সংখ্যা
কর্তৃপক্ষ কর্তৃক প্রকাশিত

বৃহস্পতিবার, নভেম্বর ১৭, ২০১১

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
গৃহায়ন ও গণপূর্ত মন্ত্রণালয়
পরিকল্পনা শাখা-৩

প্রজ্ঞাপন

তারিখ, ৮ কার্তিক ১৪১৮/২৩ অক্টোবর ২০১১

নং গৃগম/পরি-২/০৮/২০০৪(অংশ-২)/২২০—গণপ্রজাতন্ত্রী বাংলাদেশ সরকারের Organizational Set up, Phase-II, (Departments/Directorates and Other Organizations under them), Volume XV (Ministry of Works), Chapter VI (Urban Development Directorate, June, 1983 এর Allocation of Functions এর ক্ষমতাবলে সরকার সিলেট এবং বরিশাল বিভাগীয় শহরের জন্য নতুন Master Plan এলাকা নির্ধারণ এবং অত্র এলাকাধীন প্রণীত Master Plan (Structure Plan, Urban Area Plan ও Detailed Area Plan) যথাযথ প্রক্রিয়া অনুসরণ করিয়া অনুমোদন করিয়াছে।

অতএব, সরকার অত্র প্রজ্ঞাপনের দ্বারা নতুন Master Plan (Structure Plan, Urban Area Plan ও Detailed Area Plan) এর অনুমোদনের বিষয়টি, অনুমোদিত Master Plan সহ সংশ্লিষ্ট সকলের অবগতির জন্য প্রকাশ করিল।

বিশেষ দ্রষ্টব্য : অনুমোদিত মাস্টার প্র্যান ও প্রতিবেদন এর কপি নগর উন্নয়ন অধিদপ্তর, ৮২ সেগুন বাগিচা, ঢাকা-১০০০ এবং জেলা প্রশাসক, সিলেট ও জেলা প্রশাসক, বরিশাল এবং সিলেট সিটি কর্পোরেশন ও বরিশাল সিটি কর্পোরেশন এর কার্যালয়ে জনসাধারণের পরিদর্শনের সুবিধার্থে সংরক্ষিত থাকিবে।

রাষ্ট্রপতির আদেশক্রমে

মোঃ গোলাম মোছাদ্দেক
সিনিয়র সহকারী প্রধান।

মোহাম্মদ জাকীর হোসেন (উপ-সচিব), উপ-পরিচালক, বাংলাদেশ সরকারি মুদ্রণালয়, ঢাকা কর্তৃক মুদ্রিত।
আবদুর রশিদ (উপ-সচিব), উপ-পরিচালক, বাংলাদেশ ফরম ও প্রকাশনা অফিস,
তেজগাঁও, ঢাকা কর্তৃক প্রকাশিত। web site: www.bgpress.gov.bd

(১৪৭৯৭)

মূল্য : টাকা ২.০০

d. Surma River

The river Surma is a great asset of Sylhet City that plays multifaceted role for the city. It is a navigation route to 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 city when the city's ground water would be depleted. 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. No industry should be allowed within 100 m of the river bank.

5.6 Structure Plan Policy Recommendations

The policies, drawn in this section, are to remain valid for a period of next 20 years, upto the year 2030. The policies have been drawn on major urban issues that would have implications on the overall future development of Sylhet Divisional Town. 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.

5.6.1 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 UA/1: Organised 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.

Implementing Agency: SSC.

Means of Implementation

Preparation of land use zoning plan and implementation through the relevant provisions of EBBC Act 1952.

Policy UA/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.

Implementing Agencies: SCC, PDB, LGED, DPHE, JGTL.

Means of Implementation

Infrastructure development programmes and projects can be undertaken in priority or problem areas with appropriate budget allocation. Mechanisms may be evolved to involve local community as partners of development by sharing either land or cost of development of infrastructure.

Policy UA/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: SCC, PDB, LGED, DPHE, NGO, CBOs.

Means of Implementation

Necessary legal and administrative measures will have to be undertaken to support and safeguard partnership programmes before taking up actual participatory and or partnership projects.

Policy UA/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: SCC, LGED, PDB, JGTL.

Means of Implementation

This policy can be implemented by adopting appropriate promotional working policies by the concerned development agencies. Appropriate laws can be enacted in favour of enabling strategy and or existing laws can be reformed to attain the objectives of enabling strategy.

Policy UA/5: Initiatives for Urban Fringe 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: SCC, PDB, DPHE, NGOs.

Means of Implementation

Undertake site and services projects in the fringe to avoid major eviction. Adoption of participatory approach to new urban area development supported by innovative ideas of spatial development. Long motivational activities will have to be carried out for this purpose. Public sector with NGO's technical and initial financial support and cooperation by service giving agencies will make the task easier.

Policy UA/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: SCC, Ministry of Land and DC office.

Means of Implementation

SCC should collect a complete list of khas land within its jurisdiction takeover them to build infrastructure proposed in the plan. Ministry of Land must provide necessary cooperation in this regard.

5.6.2 Transport and Communication Policies

Policy TC/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: SCC 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 TC/2: New Local Road Development should follow Standard Width not below 20 ft. or 6.10 m. City Corporation 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: SCC and LGED

Means of Implementation

SSC 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 TC/3: Improvement of Road Intersections

Justification

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

Implementing Agencies: SCC.

Means of Implementation

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

Policy TC/4: Development of Pedestrian Facilities within the Urban Area

Justification

Since 32% 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 people moving on foot. This would also release part of the road space presently being used by the pedestrian to walk. There are a number of drains along side major roads in Sylhet. One of the strategies should be to cover these drains, by building footpaths on them.

Implementation Agencies: SCC.

Means of Implementation

SCC should take the initiative to build at least six feet wide footpath on major roads. Wider space around the intersection would be an advantage.

Policy TC/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, SCC

Means of Implementation

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

Policy TC/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: SCC

Means of Implementation

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

Policy TC/7: Care should be taken to enforce Traffic Rules strictly

Justification

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

Implementing Agency: SMP (traffic), SCC

Means of Implementation

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

Policy TC/8: Incremental Road Network Development towards achieving the Final 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. It will ensure utilization of limited resources in the most cost-effective manner over a sustained period of time.

Implemented Agency: SCC, RHD, LGED and BMDA.

Means of Implementation

SCC 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 TC/9: Introduction of More Public Transport (bus) System within the City

Justification

Promotion of more bus services with vehicles having 4 stroke engines (CNG run vehicle), will enhance safety of passengers and improve air quality of the city. This would also be a cost-effective means of upgrading city's public transport services. 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: SCC to encourage private transport operators.

Means of Implementation

SCC 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.

5.6.3 Sanitation and Drainage

Policy SD/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: SCC.

Means of Implementation

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

Policy SD/2: Development of Hierarchical Drainage Network for the Entire Area

Justification

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

Implementing Agency: SCC, LGED.

Means of Implementation

Develop drainage system following the natural slope of the ground as much as possible. Further new drains may be developed as required.

Policy SD/3: Protection of the Natural Drainage System of the City based on existing Chhoras

Justification

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

Implementing Agency: SCC, DC, DOE

Policy SD/4: Regular cleaning of Drainage System and Excavation of Chhoras

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 Chhoras.

Implementing Agency: SCC, CBOs and NGOs

Means of Implementation

Local community can play vital role in cleaning up the drains next to their door and SCC can initial periodical exaction of Chhoras.

Policy SD/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: SCC, CBOs and NGOs

Means of Implementation

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

5.6.4 Water Supply

Policy WS/1: Development of Sustainable Water Supply System based on Surface Water

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 Surma River.

Implementing Agency: SCC, DPHE

Means of Implementation

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

Policy WS/2: Strict Enforcement of Environmental Regulations about Surface and Ground Water Pollution

Justification

Sylhet City 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: SCC, 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. Moreover local community can play vital role acting as watch dog on pollution water.

Policy WS/3: Conserve major sources of Surface Water in the City 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.

Implementing Agency: SCC, Fire Service, DPHE, DOE

Means of Implementation

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

5.6.5 Solid Waste Management

Policy WM/1: Introduction of Community based Solid Waste Collection System

Justification

Creation of community initiative to collect solid waste from door to door dispose 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 approach through NGOs.

Implementing Agency: SCC, 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.

Implementing Agency: SCC

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 can 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.

Implementing Agency: SCC

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.

5.6.6 Industrial and Commercial Development

Policy ICD/1: Top Priority to Economic Activities - Business and Industry

To promote economic prosperity of Sylhet city top priority should given to smooth and uninterrupted going of trade and commerce.

Justification

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

Implementing Agency: SCC, Ministry of Industries, Bangladesh Bank, DoE.

Means of Implementation

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

Policy ICD/2: Promotional Activities related to Economic Stimulus must include adequate supply of Power as the top most requirement

Justification

Power is the number one handicap to industrial promotion in particular. Adequate power guarantee is needed to speed up business activities.

Implementing Agency: SCC, PDB and REB.

Means of Implementation

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

Policy ICD/3: Care should be taken to ensure smooth movement of Goods and prevent Toll Extortion

Justification

Toll extortion has been found as a major problem in keeping the price level of consumer goods in particular. These unlawful and criminal activities must be brought to an end to allow smooth going of economic activities.

Implementing Agency: SCC, SMP, RHD, LGED and DOC.

Policy ICD/4: To avoid Indiscriminate growth of Industries leading to Environmental Pollution

Justification

Indiscriminate growth of industries lead to infrastructure problems as well pollution problem. Agglomeration of industries can help provide infrastructure and services at a lower cost.

Implementing Agency: SCC, Ministry of Industries, BSCIC, Bangladesh Bank, DOE.

Policy ICD/5: Promotion of Private Sector Investment in SEZ Development

Justification

Special Economic Zone (SEZ) can help develop industries in healthier way with all the services and infrastructure within hand.

Implementing Agency: Ministry of Industries, Bangladesh Bank, BEPZA.

Means of Implementation

Policy decision by the government.

Policy ICD/6: 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 and Bangladesh Bank.

Means of Implementation

Policy decision by the government.

5.6.7 Housing

As the most dominant function of any urban center housing needs special care in the policy recommendations. Adoption and implementation of appropriate policy can promote urban housing which in turn will result positive changes in urban living standard and its productive activities of its people.

Policy HA/1: Promotion of Housing Area Development in New Urban Area

Justification

The pace of housing development is slow due to lack of infrastructure. There is a need to create standard infrastructure facilities to create livable environment that will promote housing.

Implementing Agencies: SCC, NHA, PDB, DPHE, LGED and BTCL.

Means of Implementation

Urban development agencies should promote private housing development through development of basic physical and social infrastructure based on enabling strategy. Creation of access and collector roads and other line services including neighborhood complexes at suitable locations in rapidly growing areas.

Policy HA/2: Promotion of Housing for the Low Income Group and the Poor by the Public Sector Housing Agencies

Justification

In a market economy there is a need to protect the vulnerable groups from utter collapse. Housing is one of the most vital issues in an urban environment which helps maintain good health that increases skill leading to higher productivity. It is also a source of social security. Due to high cost of land and housing the vulnerable urban poor are often deprived of affordable housing. This calls for government intervention in providing housing to the urban poor.

Implementing Agency: SCC, NHA, Bangladesh Bank, NGOs, PDB.

Means of Implementation

Undertaking low cost housing programmes for the low income and the urban poor community based on innovative cost recoverable ideas with secured tenure.

Policy HA/3: Promote the upgrading of Slum and Squatter Settlements

Justification

The slum and squatter dwellers are the most deprived section of the urban community. Their needs should be addressed on priority basis.

Implementing Agency: SCC, Department of Social Welfare, NGOs.

Means of Implementation

To ensure housing with safe water, sanitation and electricity through GO and NGO collaboration, implement programmes for upgradation of environment of slum-dwellers, the disadvantaged, the destitute and the shelter less poor.

Policy HA/4: Encourage Private Sector Real Estate Developers for increasing Housing Supply

Justification

Private housing companies can serve well the upper income groups of the society to meet their housing demand with the public sector playing the role of facilitator.

Implementing Agency: SCC, Bangladesh Bank, NGOs and PDB.

Means of Implementation

Public sector as facilitator can provide, physical and social infrastructure and credit facilities to the private real estate developers.

5.6.8 Economy and Employment

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

Policy ECON/1: Creation of Investment Climate

Justification

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

Implementing Agency: Ministry of Finance, Ministry of Industry, BEPZA, BOI Authority, All Schedule Banks, Bangladesh Bank, SCC.

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 EZ with maximum possible services and facilities to attract foreign investors, promotion of smooth transportation facilities.

Policy ECON/2: 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, Bangladesh Bank, All Public Sector Banks, All Private Sector Banks, BOI.

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 ECON/3: Improve conditions in existing Industrial Areas and ensure their Full Utilization

Justification

Already existed under utilized BSCIC Industrial Estate should be utilized in full capacity.

Implementing Agency: Ministry of Finance, Ministry of Industry

Means of Implementation

Provision of adequate financial and physical facilities free from encumbrances to attract investors.

Policy ECON/4: Promotion of SME Sector

Justification

Small and medium enterprises can play important role in manufacturing sector in Sylhet. The advantageous factors of SME sector of labour intensity with relatively low capital suggests that the development in this sector will promote manufacturing sector more easily and also create congenial environment for employment. Already existing indigenous enterprises should also be encouraged.

Implementing Agency: SCC, Department of Social Welfare. Bangladesh Bank, 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 ECON/5: 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: SCC, Department of Social Welfare, Bangladesh Bank and 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.

5.6.9 Tourism and Recreation

To attract tourists and visitors a city needs its own attractions. Promotion of tourism and recreation facilities can serve as pull factors for tourists.

Policy TR/1: Promotion of Tourism

Justification

Tourism will bring more outsiders, both national and international into the city; make them spend money, which in turn will generate new employments. Improved infrastructure and accommodation services and facilities can help promote tourism in the city and surroundings. Better urban services and facilities will not only promote tourism but will also results economic upliftment of the city and its hinterlands.

Implementing Agencies: RHD, LGED, SCC, 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 like, tea garden, dorgah, other recreational spots.

Policy TR/2: Promotion of City Level Recreation Facilities

Justification

Recreation facilities, like central park, playground, fun fair can attract tourists and visitors. There is good market for such services.

Implementing Agencies: SCC, 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.

Policy TR/3: Promotion of Local Heritage Based Tourism

Justification

Upholding local heritage and culture can help promote tourism. They may include handicraft, culture, archaeological/historical site, places of religious importance, tea garden.

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

Means of Implementation

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

5.6.10 Environment

Uncontrolled urbanization is a major cause for urban environmental degradation. Adoption of appropriate policies and their implementation would help reduce the threat of urban environmental degradation.

Policy ENV/1: Prevention of Hill Cutting

Justification

Cutting of hills in the city must be brought to stoppage in order to maintain ecological balance and biodiversity as well on aesthetic grounds.

Implementing Agency: SCC, DOE, DC office.

Policy ENV/2: Prevention of Encroachment of Chhora and River

Justification

Chhoras are the natural drainage system of the city. They must be protected to allow smooth flow of storm water. River is also source of recreation and aesthetics of the city. Strict measures are needed against the encroachers.

Implementing Agency: SCC, LGED, DOE.

Policy ENV/3: River Erosion Protection

Justification

Erosion of the Surma River at some points might endanger widening of erosion areas threatening loss to land and properties.

Means of Implementation

Construction of new groyenes in threatened areas based on proper feasibility study. Activities related to bank mattress may also be tried.

Implementing Agency: BWDB, SCC.

Policy ENV/4: Promotion of Recreational Open/Green Space

Justification

Urban areas are turn overcrowded where open space disappears fast with increase of population. Open space for recreational purpose should be kept reserved before they are lost amid physical growth.

Means of Implementation

Recreational open space to be earmarked in city plans, allocation of budget for land acquisition and development of open space.

Implementing Agency: SCC, DOE.

Policy ENV/5: Promotion of Social Forestry

Justification

Enhance afforestation to create livable environment.

Implementing Agency: BWDB, RDA, SCC, DOE, DOF, LGED, BMDA.

Means of Implementation

Undertaking participatory and benefit sharing social forestry project, encourage setting up nursery and strict law enforcement against tree cutting.

5.7 Policy Implementation

Implementation of policy recommendations are largely a political will. It will involve a number of public and private sector organizations as stakeholders. This calls for strong political commitment and motivation. There must be consensus among local politicians about the need for boosting the local economy that is a pre-requisite to the prosperity of Sylhet.

Chapter- 7

ENVIRONMENTAL IMPROVEMENT

7.1 Introduction

In response to the environmental problems described in Chapter 4 and the environmental policies described in Chapter 6 of the report, the consultant proposes the following mitigation measures to minimize the impacts of possible environmental degradation.

7.2 Impacts and Enhancement Measures

7.2.1 Physical Environment

a. Flood Protection

The Surma River is subject to bank erosion, but it is not continuous. The western part of the Surma river area (western fringe of the city) is still unprotected. The road along the river has eroded to some extent at Ward no. 10. With implementation of Sylhet Master Plan (SMP) Project, the whole project area will be protected from flooding.

Enhancement Activities

1. Construction of new retention wall in western side.
2. Arrangement of pump drainage to the Surma during high flood when gravitational drainage fails. Pumping of excess water will save Mendibagh area from internal flooding.

Responsible Organizations: BWDB and SCC

b. Earthquake

Earthquake is among the most destructive and terrifying disaster that nature can unleash. Bangladesh sits on several seismically active faults that are the focal points of tremor. Sylhet city is located in the seismic zone 3, which is highly vulnerable to earthquake. Unplanned and unregulated urbanization and disregard to BNBC rules in building construction aggravate the situation more. With the implementation of SMP the planned urbanization will strictly follow the actual zoning plan and following of BNBC rule will minimize the earthquake damage. In DMDP Urban Area Plan Volume- II, (Part-3, Interim Planning Rules) development restriction considering the geological fault line areas states "**Structures above 2 storeys situated within 500 meters of a geological fault is not allowed unless built to the BNBC standards for Seismic Zone 3 (BNBC Section 6 Chapter 2.25)**". Similar measures are also suggested for Sylhet town.

Enhancement Activities

- Ensure that all new buildings are designed and constructed following the guideline of BNBC.
- Development of a comprehensive plan for managing post earthquake situation.
- Train community workers who would carry out the initial search and rescue efforts.
- Launch a massive public awareness campaign.

Responsible Organizations: SCC, MOFDM, Civil Defence, Fire Service and DOE.

c. Change in Topography

Topographically Sylhet is different from most of the other part of Bangladesh. The natural topography of SCC area has already been changed for urbanization. Implementation of SMP activities like roads, drainage, bridge/culvert, housing and industrial estates and bazars will radically change the natural topography and land use pattern of the area. The agricultural area will be converted into urban and semi-urban area. The present green scenic beauty will disappear, water bodies will be lost and general slope will be diminished for earth cutting due to rapid urbanization.

Mitigation

1. Careful planning to minimize the change of topography. .
2. Avoid water bodies during construction of roads, housing and industrial estates.
3. Practice good architectural/engineering design during planning of housing estates, buildings and the intersections of main roads.
4. Enhancement of plantation and gardening to increase the scenic beauty of the city.
5. Preserve the tillas, ponds, chhoras and large water bodies.

Responsible Organizations: SCC, DOE and Forest Department

d. Land Use Change

The major land use goes to residential land and it is about 36% of the total land. The second major land use is agriculture and occupying about 21.50 % of the project area. Beside these, tea garden and hilly area occupy about 17.77% of the total land. However, urban and semi-urban land uses are observed in SCC and its surrounding areas. With project implementation, the semi-urban and agricultural land use pattern will be changed radically into urban land use type.

Mitigation

1. Careful planning to reduce change of agricultural land use and rural set up.
2. Keep water bodies and productive agricultural land from urban development.
3. Economical use of land.

Responsible Organizations: SCC and Ministry of Agriculture & Livestock, DOE

e. Drainage Congestion

Drainage congestion may increase further with expansion of city boundary. Faulty design, solid-waste and rubbish dumping, encroachment and un-authorized structures, siltation, lack of renovation and re-excavation are the main causes of drainage congestion. Discharge of seven major chhoras, which serve as drainage channel, has been passing through the SMP area. However, the main outlet of these chhoras is the Surma river. As a result discharge of new drainage network of expanded urban area will create severe drainage problem in Sylhet City, particularly in monsoon period.

Mitigation

1. Construct a new pump drainage network for the eastern side of SCC area towards Surma River.
2. Re-excavate the chhoras and renovate the secondary and tertiary drains.
3. Remove all un-authorized structures, which developed on drainage structures.
4. Make proper drainage network in new area considering the slope and local topographical condition.
5. Strictly prohibit the people in dumping of rubbish and solid waste in drain.
6. Regular cleaning and maintenance by the concerned authorities.

Responsible Organizations: SCC

f. Surface Water Pollution

The surface water quality of the Surma River, Kuigang Khal, ponds and haors are polluted in respect of pH, turbidity and coliform bacteria of national standard. The present pollution level of these water bodies are found to be low except coliform bacteria. The main causes of surface water pollution are city wastewater, sanitary sewage and solid waste dumping. With implementation of this project, the surface water pollution level may further increase for high volume of discharge of wastewater, sanitary sewerage, over spilling of pit and septic tank, industrial effluent, surface run-off of katcha bazars, indiscriminate solid and medical waste dumping.

Mitigation

1. Stop katcha, hanging and pit latrines.
2. Create underground sewerage system for SCC area.
3. Use pucca latrine with septic tank and soak well.
4. Prohibit indiscriminate dumping of medical and solid waste in drainage, chhoras and river.
5. Improve sanitation condition of slaughter house, fish market and katcha bazars.
6. Prohibit the direct discharge of city waste water to any chhoras, low lying areas and river.
7. Establish waste water and sewerage treatment plant.

Responsible Organizations: SCC, LGED and DOE

g. Groundwater Depletion

Groundwater level of Sylhet city is facing constant lowering over the last few decades. It has been calculated that in 2030 the lowering of ground water level might be 20m (DPHE Report). Eventually fall of groundwater table is a common phenomenon in project area during dry period (Feb.-May). Some deep-set pumps of SCC remain out of function during dry season for fall of groundwater table. With expansion of urbanization and industrialization through this project, the groundwater table may further fall if present trend of using groundwater is continued.

Mitigation

1. Use the Surma river water for pipeline supply to households and industries.
2. Introduce rainwater harvesting system.
3. Stop filling of ponds and water bodies to maintain the groundwater level through recharge and leaching process.

Responsible Organizations: SCC, DPHE and NGOs

h. Groundwater Pollution

Groundwater pollution due to manganese, iron and hardness is a major problem in the project area. With expansion of urban area, more dependency on groundwater sources may increase the pollution level of sub-surface water.

Mitigation

1. Use surface water of the Surma river.
2. Introduce rain water harvesting.
3. Reduce dependency on groundwater.
4. Preserve surface water source like ponds, chhoras, ditches and rivers for irrigation.

Responsible Organization: SCC, LGED, BWDB, DOE and NGOs

i. Loss of Wetlands

Wetlands are mainly affected first by the urbanization process. Earth filling fills up the ponds, haors and chhoras. Waste water affects the aquatic ecosystem and makes the ponds, chhoras and haors unproductive and as a result the aquatic plants, fishes and animals have to die or migrate to other places. For high price of highlands, the developers enlarge their hands to the low cost wetlands. There is no strict regulation on earth filling of ponds. The SCC can fine only Tk.500 if some one fills the ponds. However, Wetlands Conversation Act exists in Bangladesh, which is applicable only to natural beels and khals. Number of ponds in Sylhet city is reduced every year to accommodate housing and commercial structures. Wetlands play an important role as a reservoir of rain and flood water. They are also important to maintain the balance of ecosystems and for replenishing the ground water level through seepage.

Mitigation

1. Cutting of drainage outlets to the beels and ponds.
2. Avoiding wetlands during road alignment fixation.
3. Stop housing estate, industries and other development works in wetlands through earth filling.
4. Stop filling of ponds in SCC area through creation of public awareness.
5. Strict implementation of Wetland Conversation Act, 2000.

Responsible Organizations: SCC, DOE and NGO's

j. Noise Pollution

Noise is unacceptable level of sound that creates annoyance, hampers mental and physical peace and may induce severe damage to the health. Along with the increasing degree of air and water pollution, noise pollution is also emerging as a new threat to the inhabitants of Sylhet City. Motorized traffic is one of the major sources of noise pollution in urban areas. Although there are many sources of noise, which include industries, construction works and indiscriminate use of loud speakers, motorized traffic is the principal source of creating noise in urban areas. With the increase in the number of motorized vehicles in the city, the hazard of noise pollution has increased and exceeded the level of tolerance. The more noisy area are Sylhet Bus Terminals, Bondar bazar, Amberkhana, Zindabazar, Chowhatta.

Exposure to high level of noise may cause severe stress on the auditory and nervous system of the city dwellers, particularly the children. Regular exposure to loud noise damages the hearing capability and has adverse effects on health, like increasing mental stress and blood pressure and sleeplessness, resulting in poor work performance. It has been reported that the hearing ability of the inhabitants of the City has reduced during the last ten years. About five to seven percent of the patients admitted to the Sylhet Osmani Medical College are suffering from permanent deafness. With expansion of urban area, the noise pollution will be increased for increasing motor vehicles, market places, industries etc.

Mitigation

1. Stop using hydraulic horn in buses, trucks and other motor vehicles.
2. Declare some areas like hospitals, schools, parks, etc. as silent zone.
3. Strict implementation of law.
4. To control abnormally high noise from saw mill the old machines should be repaired or replaced.
5. Foundation of machines should be specially prepared to reduce noise.
6. Special type of silencer may be attached with the machines to reduce noise.
7. Welding and blacksmith workshops can be fenced with classes to protect the passersby from possible pollution effects.
8. People constantly working in welding and blacksmith workshops should wear earplugs and glasses. Regular medical check ups can be carried out to identify possible health problems.

Responsible Organizations: SCC, BRTA, SMP, Medical Colleges, Motor Owners Association and Labor Unions, etc.

k. Air Pollution

As Sylhet city is not an industrial area traffic movement contribute maximum to air pollution. Most vehicles have neither fitness certificate nor necessary legal papers.

The level of carbon dioxide, sulphur dioxide and floating dust in the air has exceeded acceptable limits at many places of the city. Concentration of dust as well as SO₂, NO₂ exceeded the allowable limit at the selected points. The concentration of carbon dioxide was measured-the highest being 550ppm at Zindabazar and the lowest 420ppm at Upashahar. The average concentration of carbon dioxide in the air is 350 ppm.

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The level of sulphur dioxide at different places was measured as 840 micrograms per cubic metre, while the standard level is 100 micrograms per cubic metre, according to the Department of Environment (DOE).

Besides, the level of floating dust in the city's air was found excessively high. The highest level of dust was 3333 microgram per cubic meter while the accepted level of dust in the air is 400 to 500 micrograms per cubic meter. The worst affected places are Amberkhana, Zindabazar, Shibganj, Upashahar, Rikabibazar and Tantipara areas.

Mitigation

1. Use catalytic converter in buses, trucks, taxis and tempos.
2. Use CNG instead of petrol.
3. Set up 120 ft. high stack in brickfields and use filter to reduce the CO, SO₂ and NO₂ gases in atmosphere.
4. Stop the operation of brick-fields which have grown near the homesteads, bazars and growth centres.
5. Impose ban on movement of stone carrying trucks on the inner roads.

Responsible Organizations: SCC, DOE, BRTA, DC office, Motor Owner and Labour Unions, etc.

I. Unlawful Hill Cutting

Sylhet, has a number of topographical features like hills and hillocks (tilas), haors (wetland) and high flood plain which made it quiet different from the rest of Bangladesh. It is obvious that any sort of mishandling of the hills will make the ecosystem of this region complicated. In recent years destruction of hills is occurring in different scales for different purposes especially in Sylhet city due to the rapid growth of urbanization. The direct and probable impacts due to destroying hills are on the topography, land use and hydro-climatic features of the Sylhet region. Major effects of cutting hills can be grouped as deforestation, desertification and biodiversity, ecological imbalance and climatic change, Impact on morphology and water resources and causes land sliding.

Mitigation

- Requirement of a detailed Environmental Impact Assessment (EIA) study.
- Strict implementation of Environment Conservation Act(ECA), 1885
- Propaganda for public awareness

Responsible Organizations: SCC and DoE

7.2.2 Biological Environment

a. Loss of Habitat

The habitat for fauna and wildlife has already been lost in the urban area (26.5 sq. km). However, with urban expansion in rural area, the natural habitat will be lost in this area. For urbanization and industrialization, agriculture will be gone, water bodies will be filled up, rivers and chhoras will be polluted and trees will be cut down for new settlement. Birds, mammals, fishes and other animals will permanently loose their habitat and food in the new urban area.

Mitigation

1. Careful planning to avoid disturbing the sensitive ecosystem.
2. Minimum use of land for urbanization.
3. Preservation of water bodies and chhoras.
4. Make people aware to avoid tree cutting and vegetation clearing.

Responsible Organizations: SCC, DoE and NGOs.

b. Loss of Biodiversity

Expansion of the project boundary to the new rural area will enhance the urbanization in this area. Urbanization like roads, infrastructure development, housing, commercial places, industrialization etc. will replace the existing green natural environment to man made environment. Trees will be cut down, water bodies will be filled up and polluted, garden and bush will disappear for urban expansion in new area. Wild animals, birds and fishes will lose their habitats and as a result a big loss of biodiversity will happen for urban expansion in new SMP area.

Mitigation

1. Avoid critical ecological area and refugee sites from development works.
2. Aware people for keeping some trees and bushes around the homesteads.
3. Increase tree plantation in roadside along the river and chhoras and homesteads.
4. Preserve the lakes for aquatic birds and fishes and some bush areas as wildlife refugee sites.
5. Ban on hunting of birds and wildlife.

Responsible Organizations: SCC, Forest Department, Fisheries Department, Institute of Environmental Science, Shah Jalal University and NGO's.

c. Loss of Capture Fisheries

The project area is mainly high and medium high land. Beels and low lands are very limited. Therefore, open water fisheries resources are low. Only 15-20% fish demand is met by the capture fisheries. The Surma river, ponds, haors and some chhoras support the capture fisheries in the project area.

With implementation of this project, the capture fisheries will be remarkably reduced for loss of habitat due to water pollution of sewerage and drainage discharge, industrial effluent, solid waste dumping, earth filling and less flushing. New flood control embankment in east and west sides, sluices and structures will further restrict the in and out fish migration. Area of khals, beels and other water bodies will be reduced for land development and urbanization.

Mitigation

1. Stop direct drainage outfall to river, chhoras and beels.
2. Set up sewerage and wastewater treatment plant.
3. At the early monsoon, keep open the gates of sluices and regulators during spawning period of fish.
4. Strict regulation on land filling of water body.

Responsible Organizations: SCC and DOE

d. Loss of Ponds and Culture Fisheries

Sylhet City is also famous for ponds. There are about 1774 ponds (678.37acre) in Structure Plan area. With urbanization and industrialization through this project, many ponds will be lost for land filling by the owners for increasing land value due to human pressure, settlement and development accordingly loss of fishes. There is no strict regulation on earth filling of ponds in the area. The SCC can fine only Tk.500 if some one fills the ponds.

Mitigation

1. Designate all ponds in Master Plan Map and protect the large ones according to the ecological importance and public interest.
2. Protect the ponds as per regulatory framework of Master Plan.
3. Create new laws if existing one fails to stop land filling of ponds.
4. Create public awareness about the importance of ponds and its role in culture fisheries, bathing and water reservoir for surface run-off during monsoon.

Responsible Organizations: SCC, DOF and DC (Land)

e. Loss of Productive Agricultural Land

The project has included a vast area of agricultural land in the eastern and southern sides of this project. Both highlands and lowlands fall into this area. After implementation of the project, agricultural environment will be converted into un-productive urban and semi-urban areas.

Mitigation

The DOE EIA Guidelines emphasized on the avoidance of productive agricultural land during any development. Therefore, it will be wise to consider more economical use of land to avoid some fertile lands. The city expansion and land acquisition should be based on the growth rate of city population. SCC should demarcate the expanded city boundary for next 20 years considering the growth rate of population and urban utilities. The rest of the project area should be kept outside from SCC legislation.

Responsible Organizations: SCC and DOE

7.2.3 Social Environment

a. Population

The population of the study area is about 3.35 lakh in 2001. After implementation of this project, the population will be increased to 28.74 lakh in 2030 for natural growth of existing population and migration of people to the expanded urban area from different places. 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: SCC, NHA, Bangladesh Parjatan Corporation, BRTA, Ministry of Education and Directorate of Health.

b. Literacy

At present the overall literacy rate in the city area (population aged 7 years and above) ranges between 68.73%, whereas the national average is 45.3% as per 2001 census. In the city area male literacy rate is 72.85%, while for female; the corresponding figure is 65.76% where as in Extended Area these figures are 66.00%, 71.85% and 58.33% respectively. With implementation of this project, the literacy rate in the extended area is expected to increase further for establishment of new educational institutions. Female education rate will also increase in this area for promotion of female education and modernization of society. However, the literacy rate in urban area may increase slightly.

Enhancement Activities

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

Responsible Organizations: SCC, Thana & District Education Offices, NGOs

c. 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. Give priority to women employment.
4. Increase social awareness about women role in the society.

Responsible Organizations: SCC, MOWA, District Administration and Jubo Unnayan Audhidaptar, NGO.

d. Electricity

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

Enhancement Activities

1. Establish new electric power stations to produce more electricity to meet the increasing demand of people.
2. Construct adequate transmission lines to facilitate distribution of electricity to the entire Master Plan area.
3. Connect Sylhet City electric transmission line with the national grid for supplying electricity.

Responsible Organizations: SCC, PDB, PGCB.

e. Telephone

There are 26178 BTCL connection in the planning area against capacity of 35272 lines. Other than BTCL many private telephone companies are serving in Sylhet now. With expansion of urbanization in extended areas through this plan the people in new area will also get telephone facility like city people.

Enhancement Activities

1. Telephone exchange with more lines should be installed to facilitate easier land phone connections to people.
2. More mobile phone companies should be encouraged to extend their services to the newly developed metropolitan area.
3. Initial cost and operational cost including airtime charges for the mobile phones should be reduced.

Responsible Organizations: SCC, BTTB, Mobile Phone Companies.

f. Health Services

Health services in the urban area are good in Osmani Medical College, private hospitals, clinics and diagnostic centers. Due to availability of modern health facilities in Medical Hospital and its neighboring private hospitals and clinics many patients of extended area come to the city to take health services. Some times people in the rural part of the project people rely on govt. UP clinic and quack doctors for less complicated diseases. People of some UPs demanded modern health facilities in their areas. It is expected that after implementation of this project, the health facility in the rural UP

areas will improve for setting up new clinics, hospitals, diagnostic centers in government and private sectors. For improvement of transportation, the government doctors of rural clinic will visit the clinics more regularly, who are visiting now 2-3 times per week.

Enhancement Activities

1. Set up new clinics, hospitals, diagnostic centres with adequate facilities in government and private sectors in the newly developed urban areas.
2. Ensure posting of well trained doctors, nurses and other technicians to these newly established clinics and hospitals.
3. Ensure good communication in the metropolitan area for easy movement of doctors and patients and transportation of medical facilities.

Responsible Organizations: SCC, Ministry of Health and Ministry of Communication.

g. Human Diseases

Diseases like diarrhea, worm infection, peptic ulcer, acute respiratory infection, skin diseases and anemia incidences are very common in the project area. With plan scenario, diarrhea, worm infection, skin diseases and anemia condition will be improved with pure drinking water supply, good sanitation, hygienic housing condition and improved dietary food intake for increasing income level. On the other hand, respiratory diseases, cardiac arrest and blood pressure may increase for smoke emitted by more motorized vehicles, industries and brickfields.

Enhancement Activities

1. Ensure supply of pure drinking water, good sanitation and hygienic housing condition.
2. Ensure improved dietary intake by providing facilities for increased income level through better employment.
3. Reduce air pollution by controlling smoke from motorized vehicles and other potential sources like industries etc.
4. Brickfields should be off limited from the city.

Responsible Organizations: SCC, DPHE, Ministry of Labor and DOE.

h. Sanitation

Sanitation system is not good in the project area. Sanitation coverage is to some extent better in SCC area than extended area. According to DPHE, Sylhet, most of the septic tank of houses have illegal connection to the nearby ditches/ponds. With implementation of this project, the sanitation system will be improved through creation of underground sewerage and strict regulation on katcha latrine.

Enhancement Activities

1. Creation of underground sewerage system in SCC area is favorable in the context of environment. With increasing city population and infrastructure construction, over spilling of septic tank and pit will be increased and city environment and health risk will be increased further. However, underground sewerage system maintained centrally by pumping and treatment has little scope for environmental pollution.
2. If underground sewerage system is not feasible economically, SCC should impose that all households should have a sanitary toilet with septic tank and soak-well. No household should be allowed to make connection of septic tanks to the nearby ponds/ditches in urban area.
3. Arrangement of pucca toilet with septic tank and soak-well for well-off people and low-cost semi-pucca water-sealed latrines for poor peoples. Arrangement for sufficient number of public toilets in Sylhet City.
4. Strictly prohibited for construction of katcha and hanging toilet on the sides of ponds, chhoras, haors and river in project area.
5. Ensure NGOs participation in sanitation sector.

6. Initiate health education program to aware people on the effect of open defecations, using katcha, hanging, bucket latrines, etc. and about the usefulness of hygienic sanitation system.
7. Establish central sewerage treatment plant to treat the discharged sewerage.

Responsible Organizations: SCC, DPHE, LGED and NGOs.

i. Parks and Recreational Places

Osmani Shishu Park within city area and Adventure World at extended area and the Surma riverside walkway near Keane Bridge are the main recreational sites in the city. The tea garden and Parjatan Motel area are also beautiful sites to visit. However, with implementation of this plan, new open space, playground, parks, lake, etc. will be created and give more leisure places for the people.

Enhancement Activities

1. Ensure new open space, playground, parks, increasing facilities to visit the tea gardens etc. to increase recreational facilities in the newly developed area.
2. Develop the Surma river side as tourists spot with properly designed modern facilities to attract outside visitors also.

Responsible Organizations: SCC, Bangladesh Parjatan Corporation.

j. Solid Waste

Sylhet City is now producing about 180 mt of solid waste everyday. Expansion of city boundary as well as human settlement will enhance solid waste generation. The solid waste management will be a big environmental management problem for Sylhet city in future. The present management system of solid waste is unhygienic. The SCC is now collecting and dumping openly both biodegradable and non-biodegradable waste together in Lalmatia landfill outside the project area and roadside of by-pass road. The leaching from this landfill can pollute both the ground and surface water and ultimately may create health risk among the local inhabitants. Many people collect compost from this landfill. The use of this mixed compost in agricultural field is very dangerous for human health and environment. Because this type of compost contains a high amount of toxic metal like lead, cadmium, mercury, nickel, chromium, etc., which are harmful to human health. These metals may enter into the food chain through vegetables and food grain.

With expansions of SMP and city boundary, the environmental problems from solid waste will increase further for increased generation of waste in new urban and semi-urban area.

Mitigation

1. Point separation of solid waste is required for good quality of compost production. This separation should be done at household level, market and bazar places. The SCC through NGO's involvement can motivate the city dwellers, shopkeepers and vegetable traders to dump the biodegradable (e.g. rice, remains of fish and meat, curry, vegetables, fruits, leaves, cow-dung, etc.) and non-biodegradable (e.g. plastic, poly-ethylene, iron, steel, glass, ceramics, rubbish, etc.) wastes separately in bins. Then SCC will collect and dump these two types of waste separately in sanitary landfill. The biodegradable waste will be converted into good quality compost within 54-60 days and SCC can sell this compost to the farmers. For non-biodegradable waste, SCC can lease the landfill to local people for collection of plastic, steel, iron etc., which have good recycle market in Bangladesh.
2. Old open dumping space will be covered immediately by soil and sand.
3. Selling of compost of old dumping space must be stopped for the sake of public health and environment.
4. Dumping of solid waste on both sides of by-pass road should be immediately stopped.
5. A new landfill is required for SMP area, the suggested site may be somewhere along the Sylhet- Jaflong Bypass Road.

Responsible Organizations: SCC, Dept. of Environmental Science, SUST, and NGO's.

k. Water Supply

The Sylhet City Corporation is capable of supplying a maximum of 21,000 cubic metres of water every day against the demand for 48,000 cubic metres. But the corporation has now actually been supplying between 16,000 to 18,000 cubic meters every day. The supply water situation has also worsened because of frequent power outages that happen for about 10 to 8 times a day, mostly during peak hours.

The city corporation has more than 10,000 water subscribers. At present city corporation can meet up 40% demand of the city dwellers rest 60% use water from hand tube wells, pond and river water.

With expansion of urban area, the demands of supply water will increase further. Therefore, more wells and pipelines will be needed to meet the existing gap as well as future demand. Severe drinking water crisis may occur for increasing the city population. About 62% people of SCC still rely on tube-well. There are about 3,750 numbers of tube-wells in SCC area. More tube-wells are out of SCC list, which have been set up in private initiatives.

The rural and sub-urban areas of Structure Plan area experience severe water crisis during dry period (February-May) due to water level falling. Most of the tube-wells remain ineffective during this period. The supply of pure drinking water will be a major confront for SCC in near future.

Mitigation

The Surma river water is very suitable for public water supply through full-phased treatment like Saidabad Water Treatment Plant, Dhaka. PH, DO and coliform bacteria are within the "Bangladesh Standard for Surface Water for Water Supply through Treatment". The range of coliform bacteria are between 70-250 (or slightly above), which is lower than the standard limit of 5,000. DO vary from 7.0-8.0 mg/l, which is at satisfactory level. Therefore, BOD should be very low and expected within the standard, if tested. For water supply, a treatment plant should be set up in the upstream of Sylhet city. Because the downstream water is getting polluted with drainage discharge of Mongli chhora, and Voni Chhora drain; sewage and human excreta of katcha, hanging and open defecation of slums near the Surma river and indiscriminate dumping of solid waste. The treatment plant should be located in a place where river erosion and bank shifting is very low. In this respect, bank shifting and river morphology should be considered.

1. If the Surma river water is not economically feasible for water supply, set up more deep tube-wells for free ground water to meet the demand.
2. Perform the repair and maintenance work of existing water supply line in SCC area periodically.
3. Expand the water supply pipelines in all SCC and extended areas.
4. Set up more water treatment plants to treat the hardness, manganese, iron and arsenic of groundwater.
5. Expedite the work of DPHE project of Water Supply.

Responsible Organizations: SCC, DPHE, UPs and NGO's.

l. Social Forestry

Sylhet is a vast region of natural forestry that are ever green to deciduous types. The total forest area within the project area is about 117 acres which comprises only 0.56% of the total area. Social forestry is common in the side of embankment, road, railway, homestead and highland. The main social forest plants are Rain Tree, Arjun, Acassia, Minjium, Oricoliformis, Kadam, Jarul etc. With implementation of this project the plantation of social forest plant will increase by the rural roads, pucca roads, embankment, and open spaces in the premises of government, autonomous and educational organizations.

Enhancement Activities

1. Ensure local people's participation and their sharing in social afforestation.
2. Plant trees in rainy season to reduce the loss of sprout.

3. Initiate local people and NGOs for nursery set up.
4. Scrutinize National Tree Plantation Day with local communities, schools, clubs and NGOs.
5. Firm implementation of law on unauthorized cutting of road and embankment side trees.

Responsible Organizations: SCC, BWDB, DOF, CBOs and NGOs

7.2.4 Economic Environment

a. Traffic Congestion

Sylhet city become a place of traffic congestion due to rapid growth of economic activities. Traffic congestion is space-based problem. It occurs at particular junction and or at a particular land use area. Extension of city boundary and growth of population will increase movement of vehicles in and around Sylhet city. Number of rickshaws will also increase to meet the people's demand. Rickshaws will be the main cause of traffic congestion in Sylhet city in future. The areas of likely congestion spots are the following:

- i) Humayun Rashid Chattar Intersection
- ii) Rikabi Bazar Intersection
- iii) Zinda Bazar Intersection
- iv) Court Point Intersection at Bondor Bazar
- v) Nayorpul Intersection
- vi) Taltola Intersection
- vii) Amborkhana Intersection
- viii) Chowhatta Intersection
- ix) Subanighat Intersection

Mitigation

1. Introduction of bus service in certain parts of Sylhet city.
2. Restrict licensing of new rickshaws.
3. Make one way road from Bondar Bazar to Amberkhana
4. Strict implementation of traffic rules to improve traffic management.

Responsible Organisation: SCC, LGED, RHD.

b. Fire Hazard

With expansion of city boundary and population the probability of fire may increase for more offices, institutions, markets, growth centers and industries. Electric short-circuit is mainly responsible for fire hazards in urban area. However, human error may also cause for fire sometimes. Slums and some industries like garments and plastic products are more susceptible to fire hazards. The present two fire stations at Taltala and Gotatkar are not enough to cope with future fire hazards.

Mitigation

1. Set up one new fire station at Bahar.
2. Collect modern fire prevention devices.
3. Refrain people from using low quality electrical wire in buildings and industries.
4. Ensure periodical checking of electric lines.
5. Create awareness of people about fire hazards.
6. Ensure fire-fighting devices in new industries, high-rise buildings and markets.
7. Strict implementation of BC rule.
8. Large and medium scale water bodies should be conserved for quick and huge supply of water at the time of emergency.

Responsible Organizations: SCC, PDB, DOE and Fire Service and Civil Defense

7.3 Resettlement and Compensation Plan

7.3.1 Resettlement

Resettlement is a burning question for any urban development project. For Sylhet Master Plan Project land will be required for roads, markets & bazars, educational organizations, housing & industrial estates, open spaces, play grounds, parks, lakes, etc. Therefore, land acquisition is required from people in the project area. People have been living in their homesteads for many years in ancestral way and reluctant to leave their croplands and homesteads. The project authority should take proper care during land acquisition. Requisition of sensitive and conflict land area should be done in consultation with the landowners, local ward councilors/ members/ mayor and political persons. Without appropriate rehabilitation and compensation, no one should be evacuated from his homesteads. Slum people do not have the land right, they should be rehabilitated in new places with full compensation of housing and occupation.

7.3.2 Compensation

Land acquisition should be discussed with individuals affected and through participation of local people. The compensation of each affected landowner should be paid in the shortest possible time. If any one loses his/her occupation/business/income source for land acquisition, it should be incorporated in compensation package. This would necessitate amendment of compensation rules. Persons losing their homesteads for housing project may be rehabilitated with due compensation and sanction of one plot in housing estate.

7.4 Environmental Impact Assessment during Implementation of Structure Plan

Section 12 of the Environment Conservation Act (ECA) 1995 stipulates that "no industrial unit or project shall be established or undertaken without obtaining environmental clearance from the Director General, Department of Environment, in the manner prescribed by the rules."

The Environment Conservation Rules (ECR) 1997 was prepared under the clause (2) (f) of the section 20 of Environment Conservation Act (ECA) 1995. The requirements of EIA for new development projects came into enforcement under the ECR 1997. These are the first set of rules promulgated under the Environment Conservation Act 1995. Among other things, these rules set out the requirements for and procedures to obtain environmental clearance. This also explains the requirements for IEE/EIA according to different categories (green, orange/amber or red) of industrial and development interventions.

During the implementation of SMP, environmental clearance procedure will be guided by the Environment Conservation Rules 1997 of the Department of Environment. SCC will have the authority to approve the plan as per agreed principles in the SMP but the owner of the plot will be obliged to get clearance from the DOE before actual implementation of the project.

a. Urbanization

With the implementation of SMP, more than 85 sq. km. of area will come under urbanization. This urbanization will improve the socio-economic and living conditions of the people with respect to communication, sanitation, electricity, health, education, industrialization, business and social services.

Enhancement Activities

1. Ensure improved socio-economic and living condition of people by providing better communication facilities, sanitation, electricity, health, education, industrialization, business and social services.
2. Ensure pollution free environment by controlling air pollution and arranging for proper solid waste management and wastewater treatment.

Responsible Organizations: SCC, Ministry of Communication, Ministry of Health, Ministry of Education, DPHE, BPDB and DOE.

b. Industrialization

Industrialization is not prominent economic sector in Sylhet. With implementation of this project and establishment of Special Economic Zone nearby having good road, drainage, water, gas, electricity and telephone facilities will attract the promoters and NRBs to invest here and help in industrialization.

Enhancement Activities

1. Arrangement for gas pipe line in the industrial zone.
2. Arrangement for water, electricity, telephone, fire-service and drainage facility in industrial zone.
3. Arrangement for soft-loan for agro-industry, garments, electronics, IT etc.
4. Strengthening the activities of Sylhet Shilpa and Banik Samity (SSBS).
5. Invite the national and foreign investors to visit and invest in industrial zone.
6. Initiate the local entrepreneurs through incentives for industrialization.

Responsible Organizations: Board of Investment, Banks, Sylhet Shilpa and Banik Samity

c. Employment

Employment opportunity is very limited in the project area for less number of industries. Only 0.8 % is engage in industrial sector. Average 20.35% people have employment in govt. & autonomous organizations (27.8% in urban area and 12.8% in rural area) and 0.8% in industrial sector. Business constitutes 41.88% of total working population because it is one of the dominant sub-sector. More than 21% households are employed by private organizations. As Sylhet is a divisional headquarters as well as promoted to City Corporation with a number of regional functions, government employment is of major importance in terms of real occupation service in govt /autonomous organizations.

With implementation of this project, the employment in industrial sector will increase. However, the employment in government sector may remain same or slightly increase. Non-government employment in health, education and utility services will expand further for setting up new clinics, hospitals, schools, colleges, etc. With the enhancement of tourism industry more employment will be generate in this sector.

Enhancement Activities

1. Set up new industrial zone with all facilities like water, electricity, gas, telephone, drainage and good road communication.
2. Encourage setting up new industries in the industrial zone to increase employment opportunity.
3. Establish new clinics, hospitals, schools, colleges, etc. in the newly developed metropolitan area to facilitate new employment.
4. Enhancement of tourism industry to facilitate new employment.

Responsible Organizations: SCC, BWDB, BTTB, DPHE, JTCL, Ministry of Health, Ministry of Education and BPC.

d. Business

Business is the main employment sector in the project area. Business constitutes 32.27% of all household incomes which is the highest among all other sources of income within the study area. Also as supportive income more than 50% is engaged in business. With expansion of urbanization, the business sector will be developed with the development of new business centres, markets, bazars and expansion of existing growth centers and the people will be engaged as traders, shop-keepers and whole-sellers. Improved road communication by this project will attract more outside traders also to come to the project area to import and export vegetables, fruits, handicrafts and agricultural products to and from the other districts of the country.

Business in the urban area will also get more momentum for setting up new markets, shopping malls, restaurants, etc.

Enhancement Activities

1. Develop new business centres, markets and bazars in the proposed project area to facilitate business and trading.
2. Encourage production of more handicrafts and agricultural products in the suburbs of the area.
3. Establish good communication system to facilitate movement of traders from Dhaka and other important places of Bangladesh.

Responsible Organizations: SCC, Ministry of Agriculture & Livestock, Ministry of Commerce and Industries and Ministry of Communication.

e. Women Empowerment

Women empowerment is a hot issue now a days and discussed everywhere. The importance of women empowerment in the overall development of the society can hardly be over emphasized. After the implementation of the SMP with rapid urbanization, more and more women will be engaged in formal employment in different sectors like education, garments and other industries, transport, sales, handicrafts, etc. Women will be able to earn money themselves and this will be a positive step towards women empowerment.

Enhancement Activities

1. Facilitate and ensure women education at all levels.
2. Arrange for vocational training for women on different handicrafts, sewing and garments.
3. Provide loan to women at a lower rate of interest to encourage them to start business.
4. Provide priority on employment of women.
5. Ensure equal wage rate for male and female laborers.
6. Enhance social awareness campaign about importance of role of women in the society.

Responsible Organizations: SCC, Educational Institutions, District Administration, Jubo Unnayan Audhidaptar and NGOs.

f. Housing Estate

Shah Jalal Uposhahar Housing Estates Phase-I and Phase-II and Zila Porishad Housing Estate have grown up in planned way in the project area. Work of Uposhahar Housing Estates Phase- III has been going on. These estates ensured the livable condition of housing with drainage, electricity, gas, telephone, play ground, open space and recreational facilities. With implementation of this project, planned new housing estates and residential areas will be developed through land use zoning system and the private housing development and construction will also be under the jurisdiction of SCC. This will regulate the unauthorized housing construction to improve the scenic beauty and environmental condition of the city. Overall, the project will improve the housing condition and safety in the project area.

Enhancement Activities

1. Develop more planned housing areas with water supply, drainage, electricity, telephone, playground, open space and recreational facilities.
2. Stop unauthorized housing construction by strict implementation of land use plan prepared by SMP.

Responsible Organizations: SCC, NHA, Real Estate Developers, DPHE, BPDB and BTTB.

g. Markets and Bazars

Bondor Bazar, Zinda Bazar and Amberkhana are the main commercial and marketing hubs in the project area. However, the main katcha bazaars are Bondor Bazar, Amberkhana, Rikavi-Bazar, Kazir Bazar, Mira Bazar, Kajol Sha, Modina Market, Shivgonj and Kadamtali in SCC area. Among these katcha bazars, Amberkhana Boro Bazar and Shibgonj Bazar are made in planned way, however, rest of the bazars have grown in unplanned way sitting near the roads/highways everyday, which are creating unhygienic condition and traffic congestion.

With implementation of this project, more Katcha Bazar, Markets, Shopping Centres, Shopping malls will grow up for shopping with modern facility for more people. The katcha bazars will be set up in new locations or be developed in the existing sites in hygienic way.

Enhancement Activities

1. Develop more markets and shopping malls in planned way with necessary hygienic waste management facilities.
2. Relocate the existing unauthorized katcha bazars in new locations or rearrange in hygienic conditions in the existing katcha bazaars with implementation of appropriate plans for them.

Responsible Organizations: SCC

h. Transportation

The area has a good communication network with other parts of Bangladesh by rail, air and road. The local road communication inside the SCC area is also good. However, with all the facilities in road communication the intolerable traffic congestion in some areas of Sylhet city has become a regular event for the city dwellers.

The transport mode in the project area is still outdated. Both in urban and extended areas, rickshaws are the main local transport. The town service is not sufficient. After implementation of this project, transport facility will be improved by improvement of roads and increasing motorized vehicles. Town service bus and tempos will start in different routes to meet the more people's demand with time.

Enhancement Activities

1. Widening of existing roads and construction of new roads in the old and newly proposed metropolitan areas to facilitate easy transportation.
2. Introduce more bus and tempo services in different routes as per demand of the people.

Responsible Organizations: SCC, Ministry of Communications and BRTC.

i. Tourism

Sylhet has a good prospect of tourism. Many historical and archaeological sites are located inside and outside the project area. There is a good road communication from Sylhet City to the outside tourist spots. Outsider tourists use Sylhet city as a junction point to visit the places in and around the city and also within the region, because it has a good rail, road and air communication with important places of Bangladesh. With implementation of this project, the tourism sector may further expand through improvement of communication, accommodation and safety.

Enhancement Activities

1. Develop good road network between highway and the tourist sites.
2. Increase accommodation facility and ensure tourist safety.
3. Publish information booklets and supply them to the hotels, motels and guesthouses to reach the tourists.
4. Initiate private tourism organizations for tourist guide, tour package, day trip program, car arrangement, foreign exchange, etc.

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5. Improve local tourism near the bank of Surma river construction of shed and sitting place, arrangement of lighting, gardening, speed boat and improvement of security and maintenance.

Responsible Organizations: SCC, BWDB and BPC

c. Recreational Park Development Project in Vacated Central Jail Area

1. Name of Project: "Recreational Park Development Project."

2. Description of the Project

The Consultants has suggested for the relocation of Central Jail and recommended for development of recreational open space in the area. The project site is located at Dhopadighir par of Sylhet Municipality mouza with an area of 25.50 acres of land, which is basically park based recreational project. Proposed recreational park areas comprise of Central Jail Area (14.54 acres), existing Osmani Shishu Park (1.76 acres), and Dhopa digirpar and adjoining areas (9.28 acres). As the area of central jail and Oshmani Shishu Park are the acquired property of Government Authority, only 9.28 acres of land would be acquired for the implementation of this proposed project. The existing hospital, mosque and the pump house of the present jail area will be remaining as they are.

Detailed Landscape

An extensive landscape is proposed considering the visitors convenience. It is given due aesthetic considerations too. Different scales of trees and plants as well as materials have been considered for creating a nice boulevard. **Please see Figure-2.1.**

Internal trails

A trail has been proposed along the bank of the pond. This trail will increase the mobility of the visitors within the park and also work as a continuous loop for the walkers. This would be linked with nearer roads at a few points.

Landscaped Garden

A module of a landscaped garden has been proposed at particular intervals. This is an area with raised seats with granite top as well as designed wrought iron concrete seats. The idea is to provide the visitors places for having the scenic view in the midst of designed garden areas.

Illumination

The whole project area has been proposed to be tastefully and creatively illuminated so that after sun set the spot will become another dreamland attracting visitors.

Zoo

A small scale zoo has been proposed as there is no zoo in the planning area.

3. Objective of the Project

- To develop urban breathing space in the form of park development keeping aesthetics and values of the area.
- To provide parks, walking routes, gardens etc along the lake front.
- To create beautifully lay out promenade, suitable for recreation.
- The development will contain something for everyone- the young and the old, the health-conscious and the food connoisseur, the nature lover and the cultural activities.
- Preserve and strengthen the sustainability of this kind of sites through proper planning and beautification.

4. Implementing Authority: SCC/UDD

d. Water Based Recreational Area Development Project behind the Head Office of Jalalab Gas Transmission Company

Development of water based recreational area in **Mendibag of Sadipur 2nd part mouza** on a government khas land has been proposed by the Consultants. Details have been given below:

Detailed Landscape

An extensive landscape is proposed considering the visitors convenience. It is given due aesthetic considerations too. Different scales of trees and plants as well as materials have been considered for creating a nice boulevard. **Please see Figure-2.2.**

Landscaped Garden

A module of a landscaped garden has been proposed at particular intervals. The area will have raised seats with granite top as well as designed wrought iron concrete seats. The idea is to provide the visitors places for having the scenic view in the midst of designed garden areas.

Project Title : "Water Based Recreational Area Development Scheme"
Location : Mendibag of Sadipur 2nd Part mouza,
Area of Land : 29.23 acres or 11.83 hectares
Implementation Period : 2010 - 2015

Project Objectives

- ◆ To develop Lake Front, keeping aesthetics and cultural values of the area
- ◆ To provide parks, walkways, gardens, etc., along the lake front.
- ◆ To create beautifully lay out promenade, suitable for recreation.

Expected Benefits

- ◆ Open Space development into planned prime recreational zone
- ◆ Better opportunity for people to relax and recreation
- ◆ Planned landuse development

Implementing agency : Sylhet City Corporation

Source of Fund : GOB /Donor Agency

Detailed Cost Breakup

Sl. No.	Description of Item	Unit	Quantity	Rate (Taka)	Total Cost (Taka)
1.	Land acquisition	katha	Nil	Nil	Nil
2.	Land Development	sft.	1262736	60.00	75,764,160.00
3.	Plantation in the park	katha	1753.80	1500.00	2,630,700.00
Total					78,394,860.00

e. Surma River Front Development Project

1. Name of Project: "Surma River Front Development Project"

2. Description of the Project

A river front development project along Surma River has been suggested. The project site is located in Mojumdarpara of Baghbari mouza of Sylhet City Corporation with an area of 25.23 acres of land, which is basically a recreational project.

Detailed Landscape

An extensive landscape is proposed to attract the tourists. It is given due aesthetic considerations too. Different scales of trees and plants as well as materials have been provided for creating a nice recreation site. **Please see Figure-2.3.**

Landscaped Garden

A module of a landscaped garden has been proposed at the site. There will be raised seats with granite top as well as there will be designed wrought iron concrete seats. The visitors get places for having the scenic view in the midst of well landscape garden.

Illumination

The whole project areas have been proposed to be tastefully and creatively illuminated. After sun set the spot will become another dream for the visitors.

3. Objective of the Project

Develop recreation resources along the River front to provide opportunities to experience and enjoy the River front in many different ways.

- Provide a set of amenities and shopping facilities for the sustainability of the project and its different recreational activities. The greater the amenities provided by the project and the heavier the potential use, the greater the potential economic benefits are likely to be derived.
- The development will contain something for everyone- the young and the old, the health-conscious and the food connoisseur, the nature lover and the cultural activities.
- Preserve and strengthen the sustainability of this kind of sites through proper planning and beautification.
- To develop urban breathing space in the form of park development keeping aesthetics and values of the area.
- To prevent illegal encroachment of Surma River Bank would be restricted.
- To create beautifully laid out promenade, suitable for recreation.

4. Implementing Authority: SCC/UDD

5. Feasibility Report

The feasibility study of the project will indicate whether or not to proceed with the proposed venture. If the results of the feasibility study are positive, then the authority can proceed to develop a business plan. It has been ascertained that the proposed park development project is economically viable as it is a low cost project, but the indirect economic benefit of this project will be enormous. At the same time, technical and organizational requirements for the development of the project are easily accessible.

f. Lake Development Project near Surma Residential Area

A lake development project along Dhopa Khal has been suggested at Baghbari mouza of Sylhet City Corporation with an area of 20.27 acres of land (**Figure-2.4**). This is basically park based recreational project.

Detailed Landscape

An extensive landscape is designed to attract visitors, imbued with aesthetics. Different scales and varieties of trees and plants as well as materials have been provided for creating a place of enjoyment.

Landscaped Garden

Landscaped garden have been proposed at particular intervals. This will be an area provided with raised seats with on top granite. There will be designed wrought iron concrete seats. The area will provide the visitors a place with scenic view in the midst of designed garden areas.

Project Title : "Lake Development Scheme"
Location : Baghbari Mouza,
Area of Land : 20.27 acres or 9.47 hectares
Implementation Period : 2010 - 2015

Project Objectives

- ◆ To develop Lake Front, keeping aesthetics and cultural values of the area
- ◆ To provide parks, playground, walking routes, gardens etc along the lake front
- ◆ To create beautifully laid out promenade suitable for recreation

Expected Benefits

- ◆ Open Space development into planned prime recreational zone
- ◆ Better opportunity for people to relax and recreation
- ◆ Planned landuse development

Implementing agency : Sylhet City Corporation

Source of Fund : GOB/ Donor Agency

Detailed Cost Breakup

Sl. No.	Description of Item	Unit	Quantity	Rate (Taka)	Total Cost (Taka)
1.	Land acquisition	katha	1216.2	200000.00	243,240,000.00
2.	Land Development	sft.	875664	60.00	52,539,840.00
3.	Plantation in the park	katha	1216.2	1500.00	1,824,300.00
Total					297,604,140.00

g. Land Procurement and Development for Major Civic Centre

There is a proposal in the Detailed Area Plan for development of a major civic centre in Debpur Mouza of Tultikar Union. Under the present project only the land will be acquired and developed, the rest of the development work will be done at a later stage when the density in the area will increase and the establishment becomes usable.