



The Government of the Peoples Republic of Bangladesh
Ministry of Local Government, Rural Development &
Cooperatives
Local Government Division

KULaura POURASHAVA
MASTER PLAN: 2011-2031

December, 2013

Local Government Engineering Department (LGED)



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Local Government Engineering Department (LGED)
Preparation of Master Plan for 218 Pourashava Towns under Upazila
Towns Infrastructure Development Project (UTIDP)

KULaura POURASHAVA MASTER PLAN: 2011-2031

STRUCTURE PLAN

URBAN AREA PLAN:

- Land Use Plan
- Transportation & Traffic Management Plan
- Drainage & Environmental Management Plan

WARD ACTION PLAN

December, 2013



KULaura POURASHAVA
KULaura, MAULVIBAZAR

KULaura POURASHAVA MASTER PLAN: 2011-2031

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Kulaura Pourashava.

Consultant:

শেলটেক  SHELTECH Since 1988

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PREFACE

It is a great pleasure for all concerned that Upazila Towns Infrastructure Development Project (UTIDP) under Local Government Engineering Department has prepared Master Plan of **Kulaura Pourashava**. This Master plan will serve as a guideline for the future infrastructure development of the Pourashava together with land use control and effective management of the service facilities. This will also ensure planned physical, social and economic development of the pourashava. The Master Plan comprises of three stages and tiers in a hierarchical order. These are:

- i. Structure Plan for 20 years
- ii. Urban Area Plan for 10 years
- iii. Ward Action Plan for 5 years

For preparation of the Master Plan of **Kulaura Pourashava**, LGED engaged consulting firm Sheltech (Pvt) Ltd. For finalization of the Master Plan, the consultant accomplished all the necessary tasks such as, consultation with the Pourashava authority and other stakeholders, collected and digitized mouza maps, demarcated pourashava boundary according to the gazette notification and with the help of the pourashava officials, conducted different types of Engineering Surveys, Socio-economic, Transportation and Traffic and Drainage and Environmental Studies. The Master Plan has been prepared as per Schedule – 2 of the Local Government (Pourashava) Act 2009. For legal coverage, the Master Plan would be placed before the Pourashava for recommendation and approval. Pourashava Authority, after according recommendation, will submit this Plan to the Local Government Division for approval. Upon approval, the Local Government Division will publish the plan through gazette notification.

The Local Government Engineering Department acknowledges the full support and cooperation of Kulaura Pourashava Authority, Public Representatives, Stakeholders and Civil Societies with the deepest gratitude for accomplishment of this remarkable assignment.



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PREPARATION OF MASTER PLAN FOR POURASHAVAS UNDER UPAZILA TOWNS
INFRASTRUCTURE DEVELOPMENT PROJECT (UTIDP), LGED

PACKAGE – 06

KULaura POURASHAVA

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LIST OF ABBREVIATIONS, ACRONYMS AND LOCAL TERMS

1. LIST OF ABBREVIATIONS AND ACRONYMS

BM	: Bench Mark
BTM	: Bangladesh Transverse Mercator
BIWTA	: Bangladesh Inland Water Transport Authority
CBD	: Central Business District
CNG	: Compressed Natural Gas
CS	: Cadastral survey
DGPS	: Differential Global Positioning System
DLRS	: Directorate of Land Records and Survey
DPA	: Demarcation of Planning Area
DPHE	: Department of Public Health and Engineering
ft	: Feet
GCP	: Ground Control Point
GIS	: Geographic Information System
GPS	: Global positioning system
K.P.H	: kilometers Per Hour
Km	: Kilometer
LAD	: Least Available Depth
LGED	: Local Government Engineering Department
LP	: Liquid Paraffin
m	: Meter
MSL	: Mean Sea Level
O-D	: Origin and destination Survey
PCU	: Passenger Car Unit
PWD	: Public Works Department
RHD	: Roads and Highway Department
RoW	: Right of Way
RTK-GPS	: Real Time Kinematics Global Positioning System
SOB	: Survey of Bangladesh
Sq	: Square (ie. Sq. ft.)
TCP	: Temporary Control Points
TIC	: Tentative points)
TS	: Total Station
UTIDP	: Upazila Towns Infrastructure Development Project

1. LIST OF LOCAL TERMS USED

Khal	: Canal
Tempo	: Human Hauler
Bazar	: Trade Center
Hat	: Weekly an occasional Market
Pourashava	: Municipality

CHAPTER - 1
INTRODUCTION

Chapter – 1

INTRODUCTION

1.1 Introduction

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

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

Under the above circumstances, it is high time to think about solving the problems of the Pourashavas that might otherwise be emerged critically in the future. To overcome all likely problems to come in future, the Pourashavas should go for planned development through preparation and implementation of a Master Plan. The Master Plan can be prepared exercising the power conferred to them by the Pourashava Ordinance 2009. The Upazila Towns Infrastructure Development Project (UTIDP) aims to update/prepare Master Plan for 218 Upazila level Pourashavas for a period of next 20 years. The project has provisions for separate plans for land use control, drainage and environment, traffic and transportation management and improvement. The project also aims to prepare a Ward Action Plan (WAP) to ensure systematic execution of future infrastructure development projects. There is also aim to prepare proposals to enhance Pourashava revenue so that it becomes more capable to meet its own capital needs. Of the total 218 Pourashavas Kulaura is one of 13 Pourashavas within Sylhet Region under Package 06 of UTIDP. The location of Kulaura Pourashava within Bangladesh is shown in Map 1.1.

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

1.2 Philosophy of the Preparation of Master Plan

The philosophy behind preparation of Master Plan of the Upazila level Pourashava lies in the very motive of providing community welfare through a process of spatial organization, socio-economic rejuvenation, environmental improvement and provision of amenities to the present and future generations. The Master Plan aims for rational use of scarce land resources for concentrated development at urban scale following the principles of sustainable development.

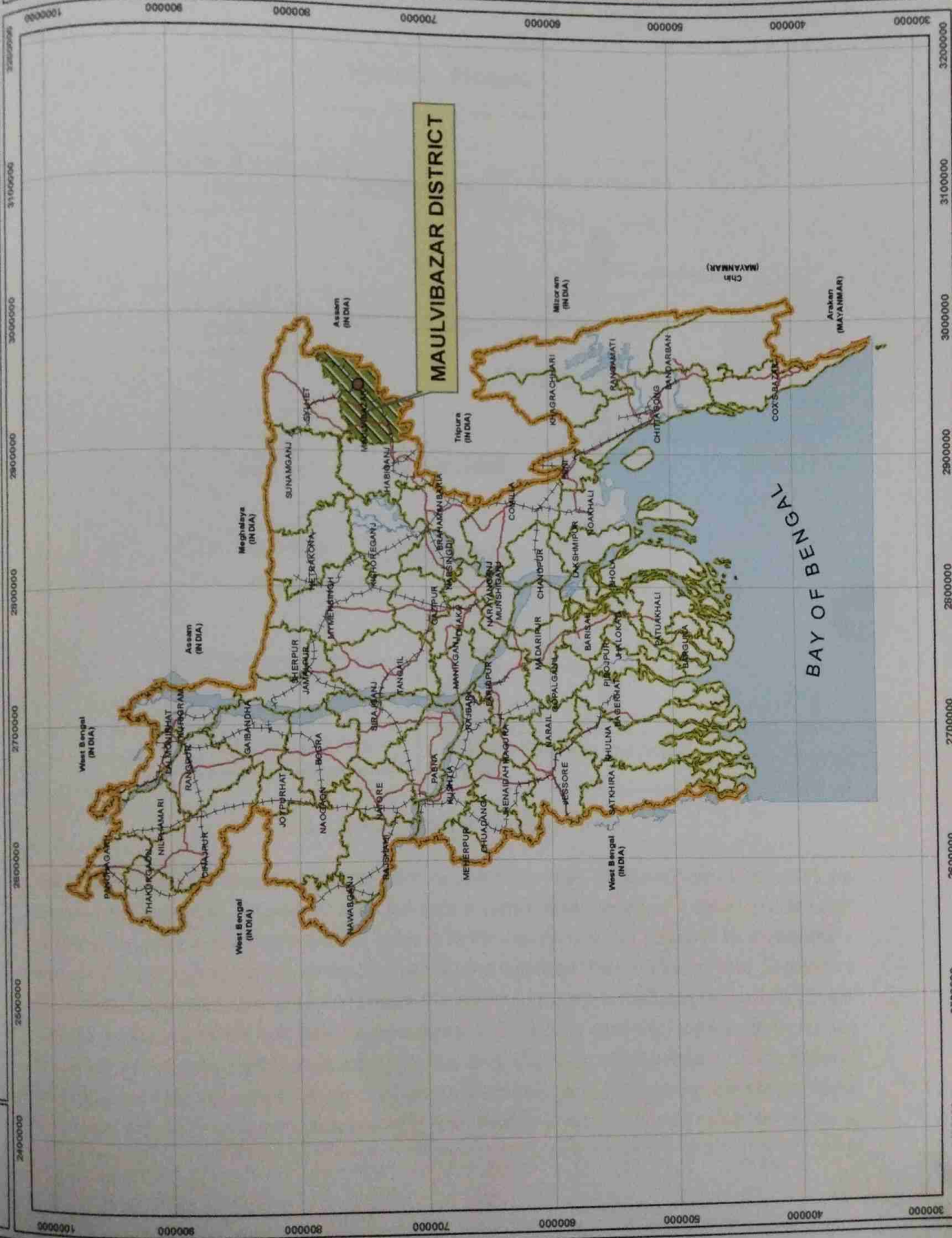
1.3 Objectives of the Master Plan

As per the Terms of Reference (TOR), the objectives of the preparation of Master Plan of Kulaura Pourashava are to:

- a. Find out development issues and potentials of the Kulaura Pourashava and make a 20-year development vision for the Pourashava and prepare a Master Plan in line with the vision for the development;
- b. Plan for the people of Kulaura Pourashava to develop and update provisions for better transport and communication network, housing, roads, markets, bus terminals, sanitation, water supply, drainage, solid waste management, electricity, education, leisure and such other infrastructure facilities for meeting the social and community needs of the poor and the disadvantaged groups for better quality of life;
- c. Prepare a multi-sector short and long term investment plan through participatory process for better living standards by identifying area based priority-drainage master plan, transportation and traffic management plan, other need specific plan as per requirement in accordance with the principle of sustainability;
- d. Provide controls for private sector development, with clarity and security in regard to future development;
- e. Provide guideline for development considering the opportunity and constrains of future development of the Upazila Town; and
- f. Prepare a 20-year Master Plan to be used as a tool to ensure and promote growth of the Kulaura Pourashava in line with the guiding principles of the Master Plan and control any unplanned growth by any private and public organization.







Map 1.1

LOCATION OF KULaura POURASHAVA WITHIN BANGLADESH



SCALE
1:4,199,990

LEGEND

-  International Boundary
-  District Boundary
-  National Highways
-  Railway Network
-  River & Sea
-  Location of Kulaura Pourashava

PREPARATION OF MASTER PLAN FOR KULaura POURASHAVA
Kulaura Upazila, Maulvibazar District

Government of the People's Republic of Bangladesh
Ministry of Local Government, Rural Development and Cooperatives
Local Government Division
Local Government Engineering Department (LGED)
Upazila Towns Infrastructure Development Project (UTIDP)
Package No. 06 (Sylhet Region)



1.4 Approach and Methodology

The UTIDP Project is aimed for substantial development of infrastructure and services for the Pourashava with optimum provision of opportunities for Pourashava dwellers and making scope for extending services to surrounding areas.

The current project is preparing a Master plan of the Pourashava, where the existing condition and different problems are identified, studied and analyzed and the probable solutions are to be sought to ameliorate the same. The study moves through a process of data collection-analysis and fixation of objectives for planning. The approach is based on field survey for data collection and collection of information from secondary sources.

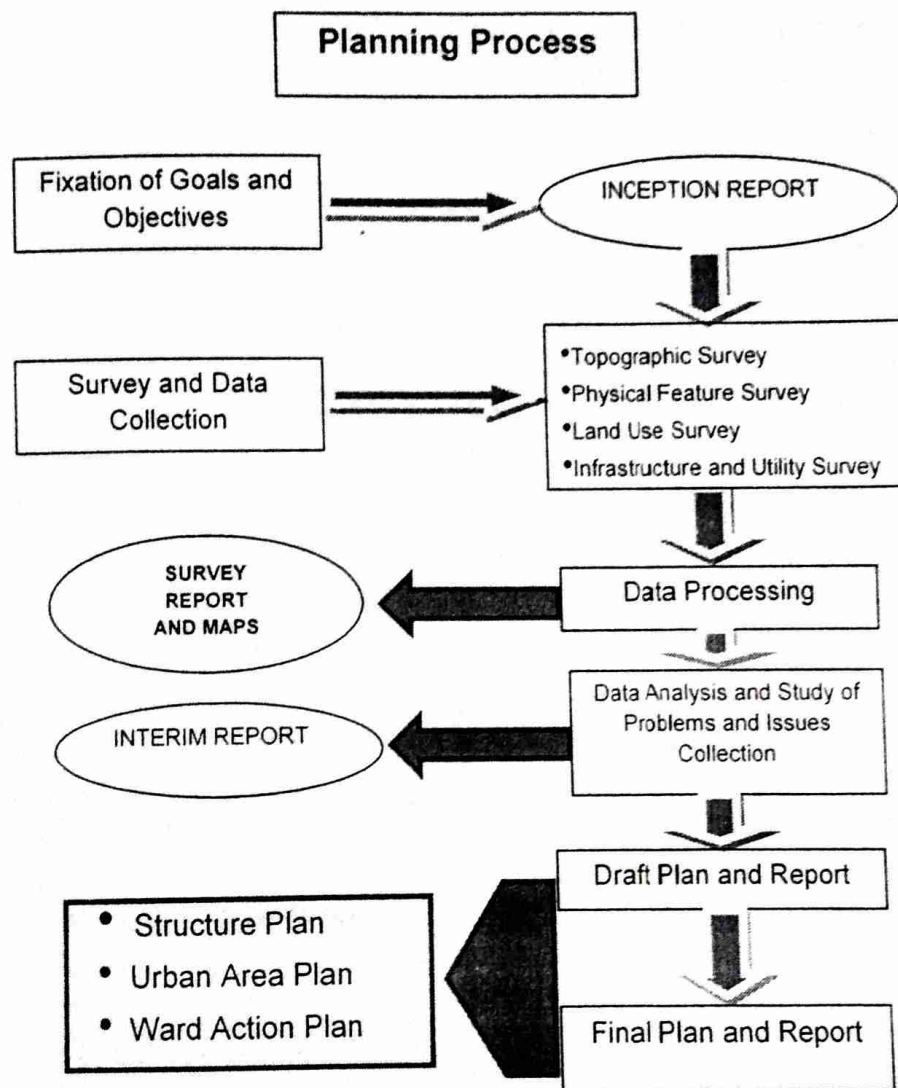


Figure 1.1: Flow Chart of Planning Process

The data is presented through maps, text and tabular form. Then the survey report and maps are prepared and submitted. Analysis of collected data is carried out to identify the nature and extent of problems prevailing in the Pourashava in order to fix the objectives of the actions to be undertaken in the form of planning and the interim report prepared and submitted. Through the process, involvement of the stakeholders has been ensured to make the planning as much sustainable as possible. For this purpose, continuous formal and informal discussions and meetings have been carried out throughout the project period using participatory approach. The discussions serve two purposes, first, a sense of belongingness develops within the minds of the stakeholders, particularly among the citizens, about the master plan to be prepared, and secondly, identification of problems and finding their solutions

become easier with the participation of stakeholders, as the local stakeholders are more knowledgeable about local problems and possible solutions of those problems.

After doing all these jobs thoroughly the Master Plan had been done based on a prepared planning standard for Pourashava level town and formulating future strategies for the corresponding area. Again after final consultation with the stakeholders on the prepared plan the Final Master Plan has to be completed.

1.5 Scope of Work

The scope of work under this consultancy services covers all aspects related to the preparation of Master Plan, which includes Land Use Plan, Transportation and Traffic Management Plan, Drainage and Environmental Management Plan and Ward Action Plan for the proposed Pourashava. In order to prepare these plans, the activities contain but not limited to the following:

1. Visits have been made to the Pourashava at different stages of work of the preparation of Master Plan.
2. Feasibility for preparation of Master Plan has been submitted to the office of the PD, UTIDP.
3. An Inception Seminar has been organized at the Pourashava level to inform the Pourashava about the scope and Terms of Reference for the preparation of Master Plan. A thorough investigation has been made based on potential scope and opportunities available in the Pourashava to develop a 20 year development vision for it linking the ideas and view of the Pourashava people.
4. Determination of the study area and planning area has been done based on existing condition, demand of the Pourashava and potential scope for future development. A detailed survey has been conducted on the existing conditions of socio-economic, demographic, transportation and traffic, physical features, topographic, and land use of the Pourashava area following the approved format and data have been collected from primary and secondary sources. Analysis of such data and information has been carried out to find out the possible area of intervention to forecast future population of the Pourashava (15-20 years), vis-à-vis assess their requirement for different services, such as physical infrastructure facilities, employment generation, housing, right of way and land requirement for the existing and proposed roads, drains, playgrounds, recreation centers and other environmental and social infrastructure. The following major tasks have been accomplished:
5. Identification and investigation of the existing natural and man-made drains, natural river system, the extent and frequency of floods, area of planning intervention have been done. Other works include study of the contour and topographic maps produced by the relevant agencies and review of any previous drainage Master Plan available for the Pourashava.
6. A comprehensive (storm water) Drainage Master Plan for a plan period of 20 years has been prepared considering all relevant issues including discharge calculation, catchments areas, design of main and secondary drains along with their sizes, types and gradients and retention areas with preliminary cost estimates for the proposed drainage system.
7. Recommendations have been made on planning, institutional and legal mechanisms to ensure provision of adequate land for the establishment of proper rights of way for (storm water) drainage system in the Pourashava.

8. Collection and assessment of the essential data relating to existing transport Land Use Plan, relevant regional and national highway development plans, accident statistics, number and type of vehicles registered for each Pourashava have been made.
9. Assessment has been made on the requirements of critical data and data have been collected through reconnaissance and traffic surveys, which should estimate present traffic volume, forecast the future traffic growth, identification of travel patterns, areas of traffic conflicts and their underlying causes.
10. Study has been conducted on the viability of different solutions for traffic management and development of a practical short term traffic management plan has been accomplished, including one way systems, restricted access for large vehicles, improved signal system, traffic islands, roundabouts, pedestrian crossings, deceleration lanes for turning traffic, suitable turning radius, parking policies and separation of pedestrians and rickshaws etc.
11. Assessment has been done on the non-pedestrian traffic movements that are dominated by cycle rickshaw. Special recommendations should be made as to how best to utilize this form of transport without causing unnecessary delays to other vehicles. Proposals should also consider pedestrians and their safety, with special attention for the children.
12. Assessment has been made on the current land use with regard to road transportation, bus & truck stations, railway stations etc, and recommendations to be provided on actions to optimize this land use.
13. Preparation of a Road Network Plan based on topographic and base Map prepared under the Project. Recommendation has been made on the road development standards, which serve as a guide for the long and short term implementation of road. Also Traffic and Transportation Management Plan and traffic enforcement measure have been suggested.
14. Preparation of the Master Plan with all suitable intervention, supported by appropriate strategic policy, outline framework, institutional arrangement and possible source of fund for effective implementation of the plan.
15. Preparation of a plan has been set out proposed Master Plan at 3-levels namely Structural Plan, Urban Area Plan and Ward Action Plan.
16. At the first level, policies and strategies have been worked out for the preparation of a Structure Plan for each Pourashava under the package. The Master Plan has been prepared consisting of Structural Plan, Land Use Plan, Transportation and Traffic Management Plan, Drainage and Environmental Management Plan and Ward Action Plan.
17. A total list of primary and secondary roads, drains and other social infrastructures for each Pourashava for a plan period of next 20 years has been made. Examining and classifying according to the existing condition, long, medium and short term plans have been proposed and estimated cost for improvement of drain and road alignment and other infrastructures have been prepared.
18. In line with the proposed Master Plan, a Ward Action Plan has been proposed with list of priority schemes for the development of roads, drains, traffic management and other social infrastructures for implementation during the first five years of plan period.

19. With the help of concerned Pourashava, at least 2 public consultation meetings or seminars have been organized, one for discussion on Interim Report and the other on draft Final Report on the proposed Master Plan. Beneficiary's point of view has been integrated in the plan with utmost careful consideration.

20. Preparation and submission of Master Plan and Report with required standards as per the TOR.

1.6 Organization of the Master Plan Report

The Master Plan Report is organized in three major parts with an introduction at the beginning. The three major parts contain various components of work under the UTIDP of LGED. The three major parts of the Master Plan of Kulaura Pourashava are as follows:

INTRODUCTION: It describes the ToR of the UTIDP, philosophy and objectives of the Master Plan, methodology and scope of the work and organization of the Master Plan Report.

PART – A: The Structure Plan sets the conceptual framework and strategies for planned development of the Pourashava based on its potentials for next 20 years up to 2031.

PART – B: Urban Area Plan includes i) Land Use Plan; ii) Transportation and Traffic Management Plan; iii) Drainage and Environmental Management Plan; and iv) proposals for Urban Services.

PART – C: Ward Action Plan presents ward wise detailed proposals for implementation within first five years of the Master Plan period of 20 years.

PART – A
STRUCTURE PLAN
