Government of the People's Republic of Bangladesh
Ministry of Housing and Public Works
Urban Development Directorate (UDD)

"Preparation of Development Plan for Fourteen Upazilas"
Package 01-(Nawabganj, Dohar & Shibchar Upazila)

CONSULTANT:

Desh Upodesh Ltd. In Association (Sub-contract)
with AAIMA International BD Ltd.
& Technical Support Services Ltd.

AIM OF THE PROJECT

This project is aimed to prepare a comprehensive development plan for the entire upazila with special attention on earthquake vulnerablity and risk assessment

Background and Objectives of the Project

Scope of Work

- Preparation of five tiers Development Plan: Sub Regional Plan, Structure Plan, Urban Area Plan, Rural Area Plan and Action Area Plan

The major areas under these components will mainly cover

- Guidance and policy formation for land utilization and development for future
- Urban management approaches for development control
- Proposal for infrastructure development
- Spatial strategies conducive to economic choice and opportunities
- Environmental balance and social inclusion
- Risk sensitive landuse plan and
- Disaster management plan, policy and guidance

Key Project Activities

- Preparation of detailed GIS database with RS mouza map and 3D satellite image
- Review of previous relevant plans and policies
- Consultation with relevant stakeholders and collection of policies and programs and knowledge using PRA tools
- Preparation of development plan to minimize environmental impacts
- Preparation of risk sensitive land use plan to consider various disaster effects
- Preparation of socio-economic development strategy
- Preparation of working paper on different key issues

Project Area Profile

NAWABGANJ UPAZILA Dhaka District		
Area	**Population**	**Density Per sq.km**
244.80 sq.km	**2,96,605**	**1,302**

Project Area Profile

DOHAR UPAZILA Dhaka District		
Area	**Population**	**Density Per sq.km**
121.41 Sq.km	**2,26,439**	**1,402**

Project Area Profile

SHIBCHAR UPAZILA
Madaripur District

Area	Population	Density Per sq.km
321.88 Sq.km	3,18,000	956

Inception Report Content

- Objectives of the Inception Report
- Project Area Profile
- Output of FGD/Tea Stall Meeting/Court Yard Meetings
- Methodology of Surveys & Studies
- Five Tier Development Plan Preparation

Major Surveys and Studies

- Physical Feature Survey
- Topographic Survey
- Land Use Survey
- Socio-economic Survey
- Housing, Slums and Squatter Settlements Studies
- Investment and Employment Studies
- Urban and Rural Economy Studies
- Transport Sector Studies
- Geological Survey
- Environmental Studies & Pollution Study
- Hydrological Studies
- Drainage Studies
- Agricultural Studies
- Studies on Disaster Management

Methodologies of Survey & Studies
and
Deliverables

Physical Feature Survey

Methodology:

- Physical feature survey will be conducted for the whole project area including rural or rural-urban fringe areas.
- Survey teams will collected attribute data of the features digitized from stereo images
- Missing feature will be surveyed by Total Station or GPS or by plot survey.

Output:

- Physical Feature Survey Map and Database.
- Scale RF 1: 3960

Physical Features data will be collected for:

- ✓ Building
- ✓ Road Network
- ✓ Railway Network
- ✓ Water bodies
- ✓ Drainage Network
- ✓ Water Supply Network
- ✓ Gas Supply Network
- ✓ Sewerage Network
- ✓ Electricity Distribution Network
- ✓ Solid Waste Disposal etc.

Existing Land Use Survey

Methodology:

- The land use survey (both attribute and spatial) will indicate the use of each plot of land covering the whole area.
- Physical feature data along with the RS/CS mouza map will be used to extract the land use information.
- Different kinds land use classification will be properly evaluated.

Output:

- Land Use Survey Map and Database.

Topographic Survey

Methodology:

- Topographic base map will be created using the stereo analyst extension of ERDAS Imagine software to be used with ArcGIS.
- Secondary Control Point (SCP) will be established using RTK fast static survey technique. These SCPs will be used by the total station groups as reference points (Station and Back Points) for physical feature, topographic and land use survey.

Output:

- Topographic Survey Maps and Database.

Survey Item	Illustrated
Topographical Survey	• Land levels/ spot levels for contours at 10 meter intervals with denser intervals for undulations. Initially it can be extracted from the stereo image. Later on, using RTK-GPS assisted Total station survey will ground truth the same. • Alignment and crest levels (not exceeding 50 meter) of road, embankment, dykes and other drainage divides • Alignment and topography of rivers, lakes, khals /canals etc., including water bodies demarcated in CS/RS mouza maps • Natural drainage courses and catchments areas or watersheds of water bodies • Outline of bazaars, homestead, water body, swamps etc.

Socio-Economic Survey

Methodology:

- Socio-economic sample survey will be conducted by taking 5% sample households of the upazila.
- Data will be collected through Questionnaire Survey.

Output:

- Report with graphs, figures and tables.

Urban & Rural Economy: Study of Investment & Employment

Methodology:

- Standard questionnaire will be prepared for survey of economic enterprises.
- Relevant project documents, Pourashava Master plans, relevant reports, documents, previous studies will be collected from available sources for review.
- The consultant would conduct discussions with the government and non-government officials, elected upazila and union Parishad and local elite on relevant issues which will facilitate conceptual clarity as well as overcoming different constraints in carrying out the task.

- The primary objective of the economic study is to assess current status of the local economy and help address the problems and issues.

Output

The economic study will produce a report containing text, data tables and maps giving a clear picture about the status of upazila economy by its various sub-sectors-its problems, issues and opportunities.

Housing, Slums & Squatter Study

Methodology

- A wide variety of data will be collected, both, from primary and secondary sources. Like: housing type, area of housing units, land coverage of houses, availability of utility services; house rent, number of slums and squatters in the town; income and occupation of the family, family size, age group, education, origin of the families and reason for leaving the place of origin and reason for settling in the town etc.

Output

A report on housing, slum and squatters supported by necessary, tables and maps.

Agriculture Sector Study

Methodology

- Both Quantitative and Qualitative data will be collected for Agriculture Sector Study.
- For Quantitative data collection reconnaissance survey and semi-structured questionnaire survey will be conducted.
- The primary data will be processed by statistical package for social science (SPSS) and Microsoft Excel.
- An integrated technique of analytical hierarchical process (AHP) and geographic information system (GIS) will be used to evaluate the suitability of the study area for urban, peri-urban and rural agriculture.

Output

Agriculture sector study will produce a report containing an overall picture of the agriculture in the upazila .

Transport Sector Studies

Method:

- Transportation Infrastructure and Facilities Survey
- Traffic Volume and Movement Patterns
- Origin Destination Survey
- Traffic movement in waterway Ghats;

Output:

- A study report with necessary maps, charts and data tables

Hydrological and Bathymetric Study

Method

- The physical feature and topographic survey will provide the primary data collected from the field.
- Land level data to determine flow direction will be collected through land level survey developed into contour maps.
- Collection of water level, rainfall, discharge and sediment data from authorized secondary source.
- A good amount of data will be gathered from secondary sources, like, project reports of BWDB and other hydrological studies.

Output

A report with necessary maps, diagrams and data tables.

Geological Survey

Methodology

- Preparation of Geomorphologic Map
- Preparation of Regional Tectonic Map
- Sub-surface Litho logical 3D Model of Different Layers
- Engineering Geological Mapping Based on AVS30
- Seismic Hazard Assessment

Output

- The ultimate target is to develop the risk-informed and environment friendly physical plan.

Formal & Informal Industry Survey

Methodology

- All the industries available in the upazila will be recorded.
- For collection of industrial data structured questionnaire will be used

Output

- The formal and informal sector industry will produce a study report comprising analysis of available industries with respect to their, number, category, value of annual return, value of assets, persons employed, sources of raw materials, marketing; problems faced by the industries towards further growth. The report will be enriched with necessary maps, diagrams, charts and photographs

Archaeological Study

Methodology

- Primary information about heritage will be collected from UNO Office and consultation with the local people, local leaders.
- A direct visit to the sites will be undertaken to assess the condition of the relic, present use etc.

Output

- A detailed report with supporting photograph and data which will describe the present condition of the heritage, possible reason of decline; importance of the establishment/site from heritage and tourist point of view; cost and management issues about their preservation.

Environment and Pollution Study

Methodology

- The polluting industries will be identified during industrial survey to be conducted over the entire upazila.
- Data about Air, water, soil, arsenic contaminated tube well will be identified and analyzed.
- Environment related laws and regulations will also be reviewed.

Output

- A report containing all related analytical information.

Public Space and Open Space Recreation

Methodology

- Data will be collected from direct field visit.
- Large open space will be initially identified from satellite imagery r and confirm by ground truthing.

Output

- A report with necessary data and maps showing location of public and recreational open space in the upazila.

Thank You