

9. Terms of References for Individual Consultants

9.1 Survey Expert– 1 Person (1x9 = 9 mm.)

Qualification: B.Sc Engineering in Surveying/Civil.

Experience: Minimum 10 years practical experience in Digital Geo-referenced physical feature and topographic survey.

Responsibility: (i) To design different surveys for the project (ii) To conduct, coordinate and monitor physical feature, topographical and land use, transportation and other related surveys and studies;(ii) Ensure quality and accuracy of survey data; (iii) To compile all the survey data into digital form; (iv) To assist the GIS Expert in transferring survey data into GIS, (v) To arrange survey trainings for UDD staff. (iv) *Preparation of working paper, reports and plan of the project as assigned by the PD;* (vii) Any other survey and studies related Jobs

9.2 GIS/RS Expert– 2 Person (2x9= 18 mm.)

Qualification: M.Sc in Geography, Geo-informatics, GIS, Urban/Regional Planning, Information Technology or a relevant combination of education.

Experience: At least 10 years professional experience in relevant field. Advance knowledge in Mapping using GIS, remote sensing, relational database management and Geo-database modelling and experience in planning and implementation of field mapping logistics as well as advance knowledge in the use of, ArcGIS 9, ArcSDE, RTK GPS for gathering field data is essential. Experience in satellite image processing – expert classification/knowledge engineering/object-base image classification is also essential.

Responsibility:

- (i) To prepare topographic, physical feature, land use and other related map of the area, (ii) To prepare, supervise, manage and monitor digital database (Spatial and attribute) of the project. (iii) Installation and troubleshooting of GIS in UDD project office and head office; (iv) Ensure the quality of the map and related work. (v) To work with a multi-disciplinary team environment to synchronize the multi-sectoral data into GIS database. (vi) Coordinate the systematic geo-coding, reproduction and archiving of administration boundaries, land use planning maps within the established geodatabase schema (vii) *Preparation of working paper, reports and plan of the project as assigned by the PD;* (viii) Any other related Jobs.

9.3 Transport Planner – 1 Person (1x6 = 6 mm.)

Qualification: Master's Degree in Traffic Engineering/ Transportation Planning.

Experience: 10 years working experience in Transportation Planning/ Traffic Engineering.

Responsibility: (i) To study existing transportation system with seasonal variation and disaster; (ii) to prepare guidelines for improved transport system, affordable to the people; (viii) To work closely with the GIS and RS expert to find out new transportation network in the area from Satellite Image and also relating the findings into transportation studies and also in the GIS database (iii) *Preparation of working paper, reports and plan of the project as assigned by the PD;* (iv) Any other related Jobs

9.4 Urban Economist – 1 Person (1x4 = 4 mm.)

Qualification: Master's degree in Economics, Development Studies or related discipline.

Experience: Extensive experience in economic analysis including particularly in urban sector. The candidate must have at least 10 (ten) years working experience in urban economic analysis.

Responsibility: (i) To review and analyse economic growth variables of the towns of Bangladesh in the last two decades and forecast future trends in relation identify economic potential of the area. (ii) To prepare multi-sectoral investment program. (iii) To conduct feasibility studies of urban development project/action area plans. (iv) To work with members of the consulting team to relate the results of such analyses with other parameters of urban and regional planning to form an inter-active multi-sectoral development criteria matrix. (iv) To assist other consulting team members to the translate the trends and patterns of urban economic activities in space. (v) To conduct various economic analysis including economic viability analysis and calculation of opportunity cost for the bankable projects in the area to prepare Financial Management Plan. (vi) Any other assignment pertaining to urban economic activities and analysis.

9.5 Junior GIS/RS Expert– 1 Person (1x9 = 9 mm.)

Qualification: M.Sc in Geography, Geo-informatics, GIS, Urban/Regional Planning, Information Technology or a relevant combination of education

Experience: At least 05 years professional experience in relevant field. Advance knowledge in Mapping using GIS, remote sensing, relational database management and Geo-database modelling and experience in planning and implementation of field mapping logistics as well as use of, ArcGIS 9, ArcSDE, RTK GPS for gathering field data is essential.

Responsibility:

Assist the GIS Expert: (i) To prepare topographic, physical feature, land use and other related map of the area, (ii) To prepare, supervise, manage and monitor digital database (Spatial and attribute) of the project. (iii) Installation and troubleshooting of GIS in UDD project office and head office; (iv) Ensure the quality of the map and related work. (v) To work with a multi-disciplinary team environment to synchronize the multi-sectoral data into GIS database. (vi) Coordinate the systematic geo-coding, reproduction and archiving of administration boundaries, land use planning maps within the established geo-database schema (vii) *Preparation of working paper, reports and plan of the project as assigned by the PD;* (viii) Any other related Jobs.

9.6 CAD Operator– 3 Persons (3x9=27 mm.)

Qualification: Science Graduate

Experience: At least 3 years experience in preparation of digital map using AutoCAD Map.

Responsibility: (i) Scanning, digitization and reproduction of Mouza maps for Base Map Preparation at different scale prescribed by the PD; (ii) To prepare topo-map of the area with existing published maps (iii) To prepare Map of the region from satellite image (iv) To manage and monitor digital database of the project. (v) Other map preparation works assigned by the PD, and (vi) Any other related Jobs

9.7 Geologist – 1 Person (1x4 = 4 mm.)

Qualification: M. Sc. in Geology.

Experience: Extensive national experience in geological analysis and land use planning. The candidate must have 10 (ten) years working experience in geological land classification, hydro-geology, land use planning and administration of multidisciplinary team and training.

Responsibility: (i) To review hydro-geological characteristics of the study area to recommend policy guidelines and formulation of strategies for land use planning. (ii) To review Bangladesh National Building Code (BNBC) and synchronize the provisions made against seismic risk with the land use planning in Bangladesh and to make recommendation on seismic risk at the study area. (iii) To work in a team environment to synchronize the geological land classification and hydro-geological data with other criteria of urban and regional planning to prepare plan for the region , (iv) Any other related jobs assigned by PD.

9.8 Statistician – 1 Person (1x4 = 4 mm.)

Qualification: Master's Degree in Statistics / Population Science/Demography

Experience: At least 5 years experience in development/ land/ urban and rural planning

Responsibility: (i) To review and analyze demographic variables. (ii) To undertake works of assessment and forecasting of future demographic trends. (iii) To carryout all other statistical assignments pertaining to planning. (iv) To be responsible for Knowledge transfer to Project Personnel (v) Preparation of working paper, study and survey reports and (vi) Any other related Jobs (vi) Help PD and PMs in preparing plans and reports

9.9 Environmental and Sustainability Specialist – 1 Person (1x3 = 3 mm.)

Qualification: Masters degree in Environmental science/Engineering.

Experience: 5 years experience in the fields

Responsibility: (i) To work directly under the project Director in through understanding the related issues associated with environmental development; (ii) To assist the PD in preparation of work programme of the project manager (iii) To facilitate discussions meetings of the project personnel with involved agencies. (iv) To conduct EIA of the project area (iv) To identify the various environmentally critical areas in the region and provide with required control and regulatory mechanisms for the sustainability of the project (vi) To work closely with the GIS/RS analyst to integrate the environmental considerations into spatial form (vii) To be responsible for Knowledge transfer to Project Personnel (vi) Preparation of working paper, study and survey reports and (viii) Any other related Jobs (ix) Help PD and PMs in preparing plans and reports

9.10 Participatory Expert – 1 Person (1x4 = 4 mm.)

Qualification: Masters degree in social science and related subject

Experience: 10 years progressive experience in PRA/RRA and other participatory fields.

Responsibility: (i) To conduct participatory workshops in the study area on behalf of PD for problem analysis, objective analysis, potential analysis and other issues on need basis; (ii) Analysis of participatory data (iii) Preparation of report. (iv) To facilitate other trainings organized by the project. (v) To be responsible for Knowledge transfer to Project Personnel (vi) Preparation of working paper, study and survey reports and (vii) Any other tasks assigned by PD (viii) Help PD and PMs in preparing plans and reports.