

Terms of Reference (TOR)

For

Consulting Service for infrastructure feasibility study of Itahari sub metropolitan city and Mechinagar and Dhankuta municipalities of Eastern Nepal cluster/corridor and preparation of DPR of prioritized three basic urban infrastructure projects in each of those Cluster/Corridor

Contract No. UGIIPII/DUDBC/S/QCBS-26

Government of Nepal
Ministry of Urban Development
Department of Urban Development and Building Construction
Urban Governance and Infrastructure Improvement Project (UGIIP-II)
Project Coordination Office
Babar Mahal, Kathmandu

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1. Background

Government of Nepal (GoN) executed the Urban Governance and Development Program: Emerging Towns Project (UGDP: ETP) in Mechinagar, Itahari, and Dhankuta (Eastern Cluster) and Lekhnath, Baglung and Tansen (Western Cluster) municipalities with the assistance from the World Bank and GIZ (limited until June 2014) to support the municipality through appropriate technical and financial investment support which was completed on 31st January, 2017.

Government of Nepal has now received grant from the International Development Association ("World Bank") for the project preparation facility for the proposed Nepal Urban Governance and Infrastructure Program and the agreement between GoN and World Bank was signed on 19th May, 2017. The objective of the activities is to facilitate for supporting the service delivery in 16 municipalities and improve their capacity to plan, implement and fund urban development ("Project").

The project includes preparatory studies for carrying out analysis and assessment of the infrastructure and institutional development in the selected municipalities, including technical, institutional, financial and economic aspects. Other studies and assessments for project preparation activities required for specific lending instruments such as IPF or P for R, institutional, fiduciary and safeguards assessments will be covered under this project.

During Identification Mission on August 2017, Government of Nepal and World Bank have also committed to continue support in the five out of six program Municipalities of UGDP:ETP ;Baglung, Tansen, (Lekhnath is merged in Pokhara-Lekhnath Metropolitan-city) in Western Nepal and Mechinagar, Itahari and Dhankuta in Eastern Nepal. Thus there is a need of feasibility Study of urban infrastructures & prepare the DPR of the prioritized infrastructures in these municipalities.

A Project Coordination Office (PCO) have been established under the Ministry of Urban Development, Department of Urban Development and Building Construction(DUDBC) for carrying out activities related to the project, including procurement of consulting services for DPR preparation work, Procurement of small IT equipment, maintaining office setup for PCO at DUDBC premises, maintaining basic logistics and equipment, hiring of support staff, hiring of experts/ consultants and providing basic logistics and IT equipment to the selected municipalities. Project Coordination Office (PCO) is responsible for coordinating implementation on

day to day. The PCO comprises of a Project Director (PD), Deputy Project Director (DPD), Project Engineers (PE), Finance Officer and other supporting staffs.

The primary objective of Feasibility study and preparation of DPR of basic urban infrastructure is to continue the support and make additional investment for the construction of integrated urban infrastructures projects in respective five municipalities of UGDP: ETP.

This study of these municipalities involves three stages: i) Indicative Plan and program with Indicative investment plan based on need-gap assessment (IP) ii) Pre-Feasibility Study (FS) and iii) Feasibility and Detail Project Report (DPRs). During the study, the consultant shall review, inter alia, respective municipality's plans and programs, Business Plan of DUDBC, National Urban Policy, 2007 and National Urban Development Strategy (NUDS), 2015 in addition to other materials as a part of literature review. The preparation of Indicative Plan shall be within the general principle as visualized by National Urban Development Strategy (NUDS), 2015 prepared by Ministry of Urban Development. In addition to this, the consultant shall also review the Land Use Policy 2012 published by Ministry of Land Reform and Management which seems quite relevant and worth reviewing while preparing the plan.

In order to carry out these crucial works effectively and successfully, there shall be a provision of Expert Review Committee (ERC) at PCO comprising of experts from Professional organizations and related government agencies. In addition to this, there shall also be a provision of Project Appraisal Team (PAT) which shall consists of International and National expert besides representative from PCO to supervise the field works and to provide expert advice to ensure the quality of the outputs. An inclusive 10-15 member Municipal Coordination Committee (MCC) shall be formed under the chairmanship of the Mayor of municipality with representatives from ward chairmen, local chapter of FNCCI, social workers, teachers, women, professionals and other related stakeholders before the start of field visit of the consultant in each municipality to make local level decisions and support consultant activities. As per the approved TOR, UGIP-II PCO wish to hire the services of reputed and established consulting firms.

2. The Objective

The main objective of this assignment is to prepare Detail Project Report (DPR) of prioritized basic urban infrastructure projects in each municipality through following three stages:

- Stage I: To carry out Study and prepare Indicative Plan and program with Indicative investment plan based on need-gap assessment
- Stage II: To carry out Pre-Feasibility Study
- Stage III: To prepare Feasibility Study and Detail Project Report (DPR) of prioritized 3 basic urban infrastructure projects for each municipalities

3. The scope of works for each stage is given below:

The consultants are required to work in close and continuous consultation with the municipality and PCO in delivering their duties. To facilitate the consultants work, a 'Guidance note for investment identification and prioritization' (hereby referred to as "Guidance Note") is attached in the Annex of this TOR and the consultants, among others are required to follow this guideline.

Stage I: Study and prepare Indicative Plan and program with Indicative investment plan based on need-gap assessment

Part 1 – Inception Report Part

The consultant shall review the existing plans (Periodic /Physical Development /Long Term Development Plans, MTMP, DTMP etc) and prepare indicative plan if they are not available or obsolete. The outcome of this study is the preparation of Indicative Plan with program and projects.

- a. to collect and review of relevant documents, reports, maps from different sources (desk study)
- b. Review the completed UGDP:ETP project, analyze the outcome for finding lessons learnt and use these for selection of projects and preparation of DPR.
- c. to establish and maintain a field liaison office in the municipalities.
- d. to conduct field observation/walk over survey, etc. for collecting specific data and information, measurement, location of key infrastructure data on maps and for supplementing and verification of collected data and information.
- e. to conduct an Introductory Workshop to brief about the objectives, processes and outcome of the study, formation of Municipal Coordination Committee (MCC), and formation of Contact Group (CG) for each ward.
- f. Submission of Inception Report with program schedule for action.

Part 2 - Preparation of Indicative Plan and identification of sub-projects for Investment

The main objective of this stage is to identify long list of municipal level sub-projects falling under the jurisdiction of Ministry of Urban Development.

- g. to conduct field verification survey and to analyze the socio-economic status that present the profile of a particular municipality in terms of health and educational status, issue of gender and social inclusion, ethnic groups, sources of livelihood, households size, migration pattern, inflow and out flow of goods and services, existing different types of industries, development potentials and needs, financial institutions, housing condition, squatters, renters etc., demographic and urbanization trends.
- h. To analyze financial capacities of municipality, plans and programs etc. of each municipality in the cluster.
- i. To perform institutional capacity analysis that shall state the capability of a particular municipality to implement the projects in terms of human resources and financial. This also includes the process adopted by the municipalities for project implementation.
- j. To project population for each municipality for next 20years with different scenarios (high, medium and low variant) based on the growth rate of 2011 census or prevailing growth rate.
- k. To conduct situational analysis of different types of existing infrastructures including their present condition, coverage and the needs for the future based on the projected population. The consultant shall also assess the O&M plans for existing infrastructures.
- l. To analyze opportunities and constraints for development for identification of areas for future expansion based on present physical growth trend and to collect land transaction data from Land Revenue Department for the last five years etc.
- m. To review existing zoning map and prepare Indicative Plan for 20 years' time horizon. Further, this plan shall be accompanied by existing land use plan, proposed land use plan future expansion area along with thematic maps of different infrastructures including roads, drainage/sewerage, electricity, communication etc. in appropriate and agreed scale with PCO using up to date available technology.
- n. To conduct comprehensive needs assessment for core municipal services, identify the key infrastructure gaps and strategize potential projects to fill the gap.
- o. To conduct preliminary cost benefit analysis for each of the proposed project.
- p. To organize Stakeholder Consultative Workshop (SCW)-1 where overall vision, key challenges, opportunities along with the possible comprehensive and visible and integrated programs and projects of the municipality will be discussed. CG shall assist the consultant during field works in the collection of data and information etc. The consultant shall present conceptual Indicative Plan in SCW-1.
- q. to identify preliminary long list of programs and projects in SCW-1 and shall categorise them in each of the three sub-categories - A. Core Municipal Services Delivery Improvement Projects, B. Local Economic Development/Revenue Generating Projects, C. Community Needs Driven Projects.
- r. To develop criteria for the screening of long list of identified program and projects in consultation with PCO and MCC.
- s. To submit Draft Indicative Plan and screened long list of identified program and projects to municipalities and PCO as per the formats given in the attached Guidance Note. This report will include SCW-1 report and proposed table of contents for the Feasibility study reports to be approved by PCO.

- t. To organize SCW-2 and finalize the Indicative Plan and the long-list of screened program and projects for which pre-feasibility study shall be conducted.
- u. To submit finalized Indicative Plan and long list of program and projects for which pre-feasibility study shall be conducted to municipality and PCO as output of SCW-2
- v. To present the report to PCO and the Municipalities.

3.2 Stage II: Pre-Feasibility Study

The main objective of this stage is prepare a short list of sub-projects across all three categories - A. Core Municipal Services Delivery Improvement Projects, B. Local Economic Development/Revenue Generating Projects, C. Community Needs Driven Projects, which not only reflect the local needs and priorities but are also technically & financially feasible and ready for implementation. The outcome of this stage will help in determining prioritized projects for which DPR shall be developed. The key tasks to be performed by Consultants include, but not limited to -

- a) to conduct detailed scoping, readiness assessment, technical and financial pre-feasibility, social benefit and environmental analysis, as detailed in the attached Guidance Note, for each of the proposed project. Based on the field data and information, the consultants shall also consider various operational and technical alternatives and provide the comparative cost-benefit assessment for the proposed operational/technical plan.
- b) to conduct reconnaissance survey by team of multi-disciplinary experts and support staff for further data and information collection.
- c) to prepare location maps, Conceptual plans, measurement drawings, thematic maps etc.
- d) to submit and present Draft Pre-Feasibility Study (FS) Report to municipalities and PCO.
- e) to identify the list of feasible projects and prepare table of contents for DPR.
 - f) to organize Stakeholder Consultative Workshop-3(SCW-3) for finalizing short listing of feasible projects with priority.
 - g) Submit finalized short list of feasible projects with priority to municipality and PCO.
- h) to submit of Final Pre-Feasibility Study Report incorporating comments, feedback etc. to PCO and Municipalities.

3.3 Stage III: Feasibility Study and Detail Project Report (DPR)

The following works shall be carried out during this stage and the final outcome of this study is the DPRs which comprises of engineering design and working drawing, estimate, Bill of Quantities, Tender Documents all complete including the detail feasibility assessments.

- a) to conduct detail field study for data and information collection.
- b) to conduct detail engineering survey and data collection.
- c) to analyze data, design, work out alternate program and projects
- d) to prepare detail drawings and cost estimate.

- e) to carry out analysis including economic, social, environmental, financial analysis and other aspects.
- f) to organize presentation and consultation meeting at Municipalities.
- g) to conduct field verification and additional data and information collection if required.
- h) to prepare and submit Interim DPRs to municipalities.
- i) to organize Public Hearing.
- j) to discuss Interim DPRs with MCC and PCO.
- k) to submit Draft Detail Project Reports to PCO and municipalities.
- l) to present Draft Detail Project Reports at municipalities and PCO.
- m) to incorporate suggestions / comments with verification of site, data, design alternatives etc.
- n) to submit Final Detail Project Reports to PCO and municipalities with incorporation of all the comments and feedback.

4. Methodology

There shall be three stages of study as follows:

4.1 Stage I: Study and prepare Indicative Plan and program with Indicative investment plan based on need-gap assessment

Part 1 – Inception Report Part

The total time allocated for this stage is 3 weeks. The allocated time for each activity is given in the work schedule below. This stage of study includes collection of secondary data and information and its review, field visits, workshops and discussions in each Municipality, other relevant agencies and organizations and PCO. The suggested methodology to carry out this stage of study is as follows:

The consultant shall establish the field office in the cluster municipalities for the field work to liaison with MCC. After two weeks in the field to collect field level data and information, the consultant shall organize half day/one day Introductory Workshop open to all interested local people in consultation with Municipality. During this Introductory Workshop, a Municipality Coordination Committee (MCC) under the chairmanship of the Mayor with 10 to 15 inclusive members and a Contact Group (CG) shall be formed with representatives from Ward chairman, local clubs, NGOs, users committee, community development organizations, targeted groups etc. The objective of forming CG is to assist the consultant in the field during data and information collection and field verification and it shall work through MCC to keep consultation process manageable. This CG shall be spatially representative also and if not additional CG needs to be formed.

Part 2 - Preparation of Indicative Plan and identification of projects

This shall be followed by field verification with necessary questionnaire and check list for interactions with local people, key informants, organizations and agencies etc. After this field verification, the consultant shall organize Stakeholder Consultative Workshop-1 (SCW-1) that shall be attended by representatives of local political parties, local chapter of FNCCI, professionals, social workers/community leaders, women, teachers etc. During SCW-1, the consultant shall present existing plans and programs including vision of the

municipality where there is a plan already prepared and request the participants how they would like to see their city grow in future. The consultant prepares the base map, develops the vision and explains how the city shall be developed in future. After this presentation the discussion will be held to identify possible comprehensive and integrated programs and projects in a participatory approach in line with the vision and conceptual Indicative Plans presented. The selected long list of sub-projects shall be prioritised in three categories, e.g. A. Core Municipal Services Delivery Improvement Projects, B. Local Economic Development/Revenue Generating Projects, C. Community Needs Driven Projects. For identification of sub-projects, the consultant shall conduct a) need gap assessment, b) investment identification and c) preliminary cost benefit analysis as detailed in the Guidance Note.

The consultant shall submit the Draft Preliminary Indicative Plan with long list of identified programs and projects categorizing them according to the sector defining the possible implementing agencies for each of these categories. The consultant shall concentrate in the preparation of Indicative Plan and develops the criteria for screening the preliminary long list of identified programs and projects to be approved by PCO and MCC. The consultant shall then submit the Final Indicative Plan Report with screened long list of identified programs and projects. The consultant shall make presentation of this report at PCO and municipality. The entire team of experts of the consultant is also expected to be present in this meeting at PCO.

While developing the screening criteria, the consultant shall also consider the opportunity to incorporate strategic project which shall benefit to more than one particular municipality and spatially also locate beyond one municipality border such as link roads, road networks, solid waste management (Landfill site), drinking water, drainage etc.. Furthermore, the consultant shall keep in mind the possibility of identifying more visible, comprehensive and integrated nature of project rather than a number of fragmented projects. Such projects could be land development, redevelopment of the areas, urban road improvement, water supply, sewerage and drainage systems, land fill site, transport network, regional/city bus parks etc. During the preparation of the above programs and projects, the consultant shall strictly adhere to Planning Norms and Standard 2015 published by DUDBC.

The consultant shall conduct SCW-2 to finalize Indicative Plan and screened long list of program and sub projects based on the approved criteria. A separate report of SCW-2 with the final Indicative Plan with prioritized long list of projects as finalized in SCW-2 shall be submitted to municipality and PCO. .

4.2 Stage: Pre-Feasibility Study

After the approval of the Final Indicative Plan Report with screened long list of sub projects, the consultant with team of multi-disciplinary experts including the support staffs of the field office shall visit the field and carryout necessary reconnaissance survey and collect required data and information for pre-feasibility study of projects (costing approximately 50-60 ml US \$). During this period the CG shall assist the team in all field level works.

This stage includes carrying out a detailed project specific assessment for each of the identified potential sub-projects in four key steps which are: i. Scoping, ii. Location due diligence and readiness assessment iii. Financial pre-feasibility assessment iv. Social benefit analysis.

The pre-feasibility study helps to eliminate low prioritized alternatives in a situation where there are several possible methods to achieve the desired objectives, eliminate non-viable projects, eliminate unsuitable locations, decide whether modifications are required for a particular project to make it a viable one etc.. The outcome of this study is the submission of Feasibility Study Reports (FRs). The total allocated time for pre-feasibility study is 2.75 months.

The consultant shall devote another two weeks in the field for rapid assessment focusing on land and soil suitability, social, commercial, institutional, financial and environmental aspects of project following the guidelines of GoN and potential future funding agencies. Based on the field data and information the consultant shall prepare the alternatives, tentative cost estimate and investment plan of each project under the feasibility study. The consultant shall coordinate with MCC and PAT shall accompany the team during this period.

The consultant shall prepare location maps, conceptual plans, measurement drawings, thematic maps etc. and prepare draft feasibility Report and submit to municipality and PCO. The feasibility report shall include the short list of programs and projects (with cost of approx US\$ 30-40 millions) which is found feasible from feasibility study. The municipality and PCO shall provide necessary comments/feedbacks and suggestions and the consultant shall submit the Final Feasibility Study Report after incorporating those comments/feedbacks and suggestions to municipality and PCO. In this stage, all short-listed program and projects shall be assessed to examine whether or not these projects are worthwhile to conduct DPR.

The consultant shall organize Stakeholder Consultative Workshop -3 for finalizing the feasible short listed and prioritized program & projects in feasibility report. The SCW-3 report with finalized short list of feasible prioritized program and projects shall be submitted to municipality and PCO.

4.3 Stage III: Detail Project Report (DPR)

After the approval of the Final Feasibility Report, detail field study of prioritized projects (with approximately cost of 15-20 mill US\$) shall be done for data and information collection. During this field work, the consultant shall collect all necessary technical, social, economic etc data and information required for the Detail Project Report. Based on such data and information, the following study of the finalized short listed prioritized program and projects as per (a) to (f) below shall be carried out.

The consultant shall conduct detail engineering survey, data collection, data analysis, design, drawing, cost estimate and work out for all alternate projects. After this the consultant shall organize presentation/consultation meeting at municipality. As there may be possibility of further field verification and need for more data and information after presentation in municipality, thus field verification and additional data/information shall be collected. The DPR shall be prepared for all finalized short listed prioritized projects (approx. cost 15-20 mill US\$). The Interim DPR shall be submitted and presented to municipalities and to

PCO for comments and feedbacks. Once this is done, a Public Hearing meeting shall be organized to disseminate the outcome of the study to the local people and all stakeholders. After public hearing, the discussion meeting at municipality and PCO will be held on Interim DPR. The Draft DPR shall be prepared after incorporation of comments and suggestions received from the municipality PCO and submitted and presented to municipality and PCO. The Final DPR shall be submitted with incorporation of all the comments and feedback from municipality and PCO.

- a) **Economic study:** The consultant shall analyze in detail the benefits that shall accrue from a particular project over a period of time and the cost/investment that needs to be made to implement such project through the indicators such as EIRR, Benefit-Cost ratio and others.
- b) **Social study:** The proposed project shall benefit the community lagging behind in the society especially children, single women, physically unable people. It shall also look into the displacement and resettlement issues and recommend the socially acceptable measures.
- c) **Environmental study:** The proposed project shall address environmental and disaster risk issues to analyze for likely negative impacts to assess the viable mitigating measures.
- d) **Financial study:** It involves the analysis and calculations like Financial Internal Rate of Return (IRR) and Net Present Value (NPV). Further, the consultant shall carry out relevant financial analysis deemed necessary for major infrastructures project in consultation with PCO. Financial analysis shall also cover institutional borrowing capacity, possible contribution by municipality and community etc. as an integral part of the study.
- e) **Institutional study:** The proposed projects shall be analyzed for role and responsibility of municipality, stakeholders and agencies directly or indirectly involved in the municipal development process and activities. It shall recommend the implementable institutional framework such as PPP and other viable modalities within the cluster municipalities. This shall include an assessment of the municipality's human resources and their capacity building needs.
- f) **Technical study:** The proposed projects must be assessed for geo-seismological and hydrological soundness. Further, it needs to consider the availability of lands and its accessibility, availability of local skilled/unskilled labors, raw materials, appropriate technology etc. Conduct detail engineering survey, design and cost estimate of alternative projects.

The total allocated time for this stage of work is 2.5 months. The total time period for the completion of entire study for this cluster of municipalities is 8 months.

5. Expected Output

The key outputs for each municipality in each stage, inter alia, are as follows:

Stage I; Part 1: Inception Report

- Location Map of the cluster municipalities and its interconnection network in 1:2,50,000 or appropriate scale to be finalized in consultation with PCO.

- Base map of the each municipality in 1:50,000 or in appropriate scale to be finalized in consultation with PCO
- Thematic maps of each municipality with existing basic infrastructure and services in 1:50,000 or in appropriate scale to be finalized in consultation with PCO.
- Review the completed UGDP: ETP and the lessons learnt in the project. .
- Consultant's work plan, program and methodology.
- Inception Report including Introductory Workshop report.

Stage1; Part 2: Preparation of for Indicative Plan and identification of sub-projects for Investment which shall include:

- Comprehensive needs assessment with gap analysis for all core municipal urban services and cost benefit analysis for identified sub projects..
- Expert's team analysis of the Indicative plan with the location and description of all the major long list of projects including ongoing and prospective projects of other urban sectors' agencies.
- Draft Indicative Plan Report and preliminary long list of identified sub-projects including SCW-1 Report.
- Final Indicative Plan Report with screened long listed sub projects as approved in SCW-2, for further study in each municipality.SCW-2 Report with Final Indicative plan and final long list of projects as approved in SCW-2.

Stage II:

Pre Feasibility Study, which shall include:

- Analysis of land suitability, social, environmental, commercial, economic, financial and technical etc. aspect of program and projects along with their alternatives.
- Measurement survey, site plan with location, conceptual design, drawing / sketches, tentative cost estimation and investment plan of the program and projects.
- Draft pre feasibility study Report with the short list of feasible programs and projects (cost of approx US\$ 50-60 millions) which is found feasible from feasibility study.
- Final pre feasibility Report with the short list of feasible program and projects those are worthwhile to conduct DPR.
- SCW-3 report with finalized short list of feasible program and projects with total cost of approx US\$ 30-40 millions with priority.

Stage III: Detail Project Report (DPR), which shall include:

- Existing site plans/network plans with proposed design and drawing of the final feasible short listed projects (with cost approx.US\$ 30-40 millions) with priority for DPR in 1: 500 to 1:1,000 scales (to be finalized in consultation with PCO).

- Proposed site plans/ network plans in 1:100 to 1:500 or in better scale (to be finalized in consultation with PCO) of the final prioritized short listed projects (with cost approx. US\$ 30-40 millions).
- Detail engineering design, cost estimate and investment plan of the same.
- Detail working drawing (1:100) of the final feasible prioritized short listed projects and details in 1:50 or in better scale (to be finalized in consultation with PCO)..
- Procurement plan, Bid Documents and other Procurement Documents for procurement of works/ goods and supervision consultants.
- Operation and Maintenance Plan for each project.
- Project Implementation, Supervision, Monitoring and Evaluation Plan for each project.
- Social and Cultural Safeguard Measures
- Environmental and Disaster Management Plan
- Interim DPR
- Draft Detail Project Report (DPR)
- Report on outcome of Public Hearing
- Final Detail Project Report (DPR)

6. Reporting Requirements:

The consultant will submit the following reports for each municipality:

Stage I. Part 1

- Inception Report **2 weeks** after signing the agreement (Introductory workshop report included).

Stage I. Part 2

- Draft Indicative Plan Report with preliminary long list of identified program and projects and proposed approved screening criteria including SCW-1 report **1.25 months** after signing the agreement and presentation in municipality and PCO.
- Final Indicative Plan and screened long list of identified program and projects after **1.5 months** after signing the agreement, and presentation in municipality and PCO.
- SCW-2 report with pre final Indicative Plan and screening criteria with final screened long list of sub projects as approved in SCW-2 after **2.0 months** of signing the agreement.

Stage II

- Pre Feasibility Report after **3.0 months** of signing the agreement and presentation in municipality and PCO
- SCW-3 report and short listed projects (approx. 30-40 mill US\$) after **3.25 months** of signing of agreement.

Stage III

- Interim DPR Report for feedback from municipality and PCO **3.5 months** after the signing of agreement.

- Draft DPR incorporating suggestions and comments from municipality, PCO and public hearing, **5.0 months** after signing the agreement and presentation in municipality and PCO.
- Report on outcome of Public Hearing.
- Final DPR after **6 months** after signing the agreement and presentation in municipality and PCO.

7. Qualifications of the Consulting Firm and Key Personnel

The Consulting firm must be legally registered/recognized/competent institution. It must have registered in PAN/VAT in their respective country and timely cleared the taxes.

The consulting firm shall have prior experience in preparing Detail Project Report (DPR) of urban infrastructure Projects including Prefeasibility/Feasibility Study. Consulting firms, which have prepared DPR of municipalities, shall be preferable.

The team shall consist of experts with relevant knowledge and experience in the similar fields and assignment. Key personnel proposed for one Cluster/corridor or package of consulting service must not be repeated in other Clusters/corridors or package and such repeated Key personnel shall not be included for evaluation.

Personnel Requirements:

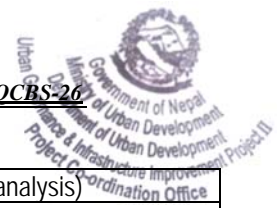
The personnel allocated shall be for Itahari, Mechinagar and Dhankuta Municipality of Eastern Nepal. There shall be one Principal Team Leader (PTL) and three Deputy Team Leaders (DTL). In each municipality 1DTL, 1Civil Engineer and 1Office Administrator / Computer Operator shall be working from the beginning to end while other experts shall work as per their inputs.



KEY PERSONNEL REQUIRED

The staffing requirements of key personnel and non-key for this assignment shall include a minimum of the following positions:

| S N o. | Personnel | Indicative | | Educational Qualification | Experience | Indicative responsibilities |
|--------------|--|------------|---|---|--|--|
| | | N o. | Total Inputs in man month s | | | |
| 1 | Team Leader | 1 | 6 | Minimum Master degree in civil engineering/ architecture/urban planning and management related degree | Minimum 10 years of relevant experience after degree and more than 10 years preferable. Experience in similar assignment in different countries. | Responsible for leading the teams in all 3 stages of studies, overall management, coordination, Monitoring and Oversight and Preparation of Progress Reports, responsible for managing workshop and Meetings. |
| 2 | Deputy Team Leader | 3 | 18 | Minimum Master degree in urban planning | Minimum 7 years of relevant experience after degree and more than 7 years preferable. Experience in similar assignment in different countries | Responsible for leading the team in all 3 stages of studies, overall management, coordination and provision of technical inputs and carrying out quality control of key deliverables. |
| 3 | Economist | 1 | 3 | Minimum Master degree in Economics | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in all 3 stages of studies, analyzing the economy of municipalities, potentials, development needs linkages between municipalities within the cluster and beyond. Also carry out economic feasibility study. |
| 4 | Sociologist | 1 | 3 | Minimum Master degree in Sociology/Social Development Studies/anthropologist and related degree | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in all 3 stages of the studies, in particular for studying social safeguard issues and social impact assessments of Municipalities and selected projects. |
| 5 | Environmentalist/ Environment t Engineer | 1 | 3 | Minimum Master degree in Environmental Eng./ Environmental Science and related degree | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in all 3 stages of the studies, in particular for studying environmental issues of the municipalities and suggesting mitigation measures (EIA/IEE/EMP etc) for the selected projects. |
| 6 | Municipal Financial Expert | 1 | 3 | Minimum MBA/MBS/M. Com and related degree | Minimum 5 years of relevant experience in financial management after degree and 5 years preferable. | Responsible in all 3 stages of the studies, in particular analysis of urban /municipal finance stakeholders' analysis and mapping, (borrowing capacity, capital investment budgeting including financial |



| | | | | | | |
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| | | | | | | feasibility analysis) |
| 7 | Hydrologist | 1 | 3 | Minimum Master degree in Hydrology and related degree | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in all 3 stages of the studies, in particular for walkover survey, rainfall data collection and analysis, flood prediction, ground/surface water use potential/protection and, study of watershed areas etc. |
| 8 | Geologist/Eng. Geologist | 1 | 2 | Minimum Master degree in Geology/ Eng. Geology and related degree | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in all 3 stages of the studies, in particular for walkover survey, Geological study, risk assessment for suitability for infrastructure development etc. |
| 9 | Transportation Engineer | 1 | 2 | Minimum Master Degree in Transportation Engineering | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in 2 stage of the studies, in particular for the transportation area |
| 10 | Structural Engineer | 1 | 3 | Minimum Master Degree in Structural Engineering | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in 2 stage of the studies, in particular for structural analysis |
| 11 | Sewerage/ Drainage Engineer | 1 | 3 | Minimum Master Degree in Water Resource Engineering/ Hydraulics Engineering/ Integrated Water Resource Management | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in 2 stage of the studies, in particular for the collection of information, surveying and preparation of sewerage and drainage plans and thematic maps. |
| 12 | Geomatic Engineer/GIS Expert | 1 | 2 | Minimum Bachelor degree in Geometric Engineering and GIS related degree | Minimum 3 years of relevant experience after degree and more than 3 years preferable. | Responsible in all 3 stages of the studies, in particular for the collection of information, surveying and preparation of GIS based base maps, thematic maps and plans. |
| 13 | Water Supply/ Sanitation Engineer | 1 | 3 | Minimum Master Degree in Water Resource Engineering/ Environmental Engineering or related subject | Minimum 5 years of relevant experience after degree and more than 5 years preferable. | Responsible in all 3 stages of the studies |
| 14 | Solid waste Management Expert | 1 | 3 | Minimum Master degree in Environmental Eng./ Environmental Science specialised in Solid waste management. | Minimum 3 years of relevant experience after degree and more than 3 years preferable. | Responsible in all 3 stages of the studies, in particular for the collection of information, surveying and preparation of solid waste management plans and program. |

Detail job description of personnel

1) Principal Team Leader (PTL)

Responsible for leading the teams in all 3 stages of studies, overall management, coordination, monitoring and oversight and conducting regular meetings and progress reporting to the client. Furthermore, the Principal Team Leader shall develop guidelines for DTL to manage and run effectively each team for successful completion of their responsibilities. He shall also develop reporting system, format and ensure timely preparation of project progress Reports.

2) Deputy Team Leader (DTL)

Responsible for leading the team under the Principal Team Leader's guidance, overall management, coordination and provision of technical inputs and carrying out quality control of key deliverables and delivery of outputs in time. The deputy team leader shall arrange workshops and presentation meetings, collect individual analysis report of each stage from each expert and shall consolidate and synthesize them and provide as inputs to technical engineering team/planning for their consideration.

3) Economist

Economist is expected to be involved in all three stages of study shall be responsible for studying economic and demographic aspect including projection of population, analysis of development needs and potentialities, inflow and out flow of goods and services, market study, linkages between municipalities within the cluster and beyond, migration pattern etc. In addition to this, Economist shall also assist the team in economic analysis to ensure the viability of identified top six/seven projects from economic point of view and also assist in analyzing the economic aspect for implementation of projects.

4) Sociologist

Sociologist is expected to be involved during all the three stages of the study and shall be responsible for studying social safeguard issues of the identified and prioritized projects thoroughly foreseeing in advance the likely impact and protest/dissatisfaction from the local people by raising the issues like resettlements, displacements, compensation often seriously affecting and hindering the implementation of the particular project. In addition to this, Sociologist shall also study the local culture, social values and norms including local festival celebrations.

5) Environmentalist/Environment Engineer

Responsible in all 3 stages of the studies, in particular for studying environment issues of pollution like industrial, air, water, and solid waste management of Municipality. Furthermore, the expert shall also study and analyze state of natural resources and propose strategies to conserve them to make the livable city. The expert shall analyze the environmental viability and develop criteria for selection of projects for feasibility study and DPR preparation. The expert shall see the likely negative impacts from the proposed projects for DPR and propose mitigating measure like IEE/EIA/EMP to address such negative impacts.

6) Municipal Financial Expert

The Expert is expected to be involved during all the 3 stages of the studies. During the appraisal stage, the expert shall appraise the financial management system, check whether present system is adequate to carry out future plans/projects, analyze the gap and recommend reform measures in the present system. The expert shall develop criteria for selection of projects. During the second stage of study, the expert shall carry out financial feasibility analysis of the selected project. Similarly, during the third stage of study, the expert shall carry out complete package for the proper implementation of the reforms/new system in the municipality of the particular municipality and assess closely the trends of revenue and expenditure pattern of municipality for the last five years and make projection of the future.

7) Hydrologist

Responsible in all 3 stages of the studies, in particular for data and information collection from the related agencies, walkover survey with measurement of water discharge, ground water level and quantification, identification of the need of hydrological station, quantification and calculation of rainfall, study of watershed areas, analysis of hydrological data for determination of flood hydrographs for different years of return period and identification of water sources and preparation of hydrological suitability map for all selected project and alternatives projects.

8) Geologist/Engineering Geologist (EG)

Responsible in all 3 stages of the studies, in particular for the preparation of inventory of geological condition through walkover survey and support planning team by suggesting areas for urban growth and expansion as well areas for controlling urban growth during appraisal study. During feasibility study, Geologist/EG shall assist in the study for infrastructure development in particular area and carry out geological risk assessment to ensure feasibility of projects. Similarly, during DPR, he/she shall assist in locating strategic projects from the point of view of geological suitability analysis and suggest team the appropriate measures for the protection of important selected project against natural calamities.

9) Transportation Engineer

Responsible in Feasibility and DPR stage of the studies, in particular for the analysis of the existing transportation system of municipalities, planning functional design, operation and management of urban transportation system, planning of different mode of transportation system.

10) Structural Engineer

Responsible in Feasibility and DPR stage of the studies, in particular for the design and analysis of building, bridges etc. including economic and social infrastructure projects.

11) Sewerage/Drainage Engineer

Responsible in Feasibility and DPR stage of the studies, in particular for the design and analysis of sewerage system, sewerage treatment plant, storm water drainage systems and other related works.



12) Water Supply/Sanitation Engineer

Responsible in Feasibility and DPR stage of the studies, in particular for the design and analysis of water supply/sanitation system and other related works.

13) Geomatic Engineer /GIS Expert

Responsible in all 3 stages of the studies, in particular for the collection of information and preparation of GIS base maps, thematic maps and plans during the appraisal study and assist in the preparation of land suitability analysis for selected and alternative projects including preparation of different maps like land use, thematic maps, etc. towards the preparation of Indicative Plan.

14) Solid Waste Management Expert

Responsible in all 3 stages of the studies, in particular for studying environment issues of solid waste management of Municipality. The expert shall analyze the solid waste management aspect from its origin to its dumping and treatment to avoid its negative environmental consequences. Develop criteria for selection of projects for feasibility study and DPR preparation. The expert shall see the likely negative impacts from the proposed projects for DPR and propose mitigating measure like IEE/EIA/EMP to address such negative impacts.

15) Support Staff

Secretarial support staff is expected to be involved throughout the study period and assist teams relating to secretarial works like computer typing, report compilation and reproduction, photo copying, registry works etc. including any other works as directed by the teams during the study period.

8. Deliverables for Each Municipality

| S No. | Reports: for each municipality | Contents | Timeline (after signing the contract) |
|------------------------|--|--|---------------------------------------|
| Stage I, Part 1 | | | |
| 1 | Submission of Inception Report (3 sets hard copy and 1 soft copy) | Preparation works to start the job, methodology, list of literature reviewed, list of collection of maps, data sources, staffing, finding of reconnaissance survey in the municipalities, activities undertaken during this period, report on introductory workshop, schedule of works to complete DPR, key outputs. Table of contents for Indicative Plan report. | 2 weeks |
| Stage I, Part 2 | | | |
| 2 | Submission of Draft Indicative plan and long list of projects (3 sets hard copy and 1 soft copy) | Preliminary Indicative Plan with sufficient supportive maps and documents, preliminary long list of program and project etc., approved screening criteria and SCW-1 Report | 1.25 months |
| 3 | Submission of Final Indicative | Revised Indicative Plan with sufficient supportive maps and documents, screened | 1.5 months |



| | | | |
|------------------|--|--|-------------|
| | plan and screened long list of projects (3 sets hard copy and 1 soft copy) | long list of program and project etc. and approved screening criteria. Table of contents for Feasibility Report. | |
| 6 | SCW-2 Report (3 sets hard copy and 1 soft copy) | Final Indicative Plan and final screened long list of projects. Workshop detail, list of participants list of attendance, minute, and letter from municipality. | 2.0 months |
| Stage II | | | |
| 7 | Submission of Pre feasibility Report (3 sets hard copy and 1 soft copy) | Pre-feasibility Report with short list of feasible projects, analysis of Land suitability, social, technical, economic, environmental etc. and tentative cost estimate, investment plan etc | 3.0 months |
| 8 | SCW-3 Report (3sets hard copy and 1 soft copy) | Finalised and prioritised feasible short listed projects, comments and suggestions in the workshop. Workshop detail, list of participants, list of attendance, minute, and letter from municipality. | 3.25 months |
| Stage III | | | |
| 9 | Interim Report (3 sets hard copy and 1 soft copy) | Total outcome to date and possible frame of the projects for public hearing | 3.5 months |
| 10 | Submission of Draft DPR(3 sets hard copy and 1 soft copy) | Draft DPR including Engineering Survey, data analysis, design, and work out alternate projects, drawing and cost estimate, tender documents, specification and BOQ, Economic, social , financial analysis etc. | 5.0 months |
| 11 | Report on the outcome of Public Hearing | Basic outcome of the public hearing and list of participants. | 5.5 months |
| 12 | Submission of Final DPR (6 sets hard copy and 1 soft copy) | Final DPR report incorporating comments, suggestions and feedback received on the draft report. | 6 months |

The consulting firm shall report to the Project Director DUDBC, PCO and work in full coordination with the PCO as well as concerned municipality. The draft reports shall be submitted to the PCO for review and feedback and recommendations. The final report shall have the revision and recommendations incorporated. All reports and other written outputs shall be submitted to UGIIP-II PCO in electronic and hard copies. These electronic copies shall include relevant reports as well as underlying data related to the reports. These shall become property of UGIIP-II PCO. In addition, 1 copy each of all relevant reports shall be provided to each of the study municipality.

9. Payment schedule for Each Municipality's Report

An advance payment to start the assignment will be provided and the other payment shall be made in five installments in the following manner:

| S No. | Deliverables | Payment of contracted amount (in % of contract sum) | Payment Condition |
|-------|---|---|---|
| 1. | Advance Payment | 10 | Against the Bank Guarantee from Class "A" Commercial Bank. This amount will be deducted proportionately from each subsequent invoice. |
| 2. | Inception Report | 10 | Upon acceptance of Inception Report by PCO |
| 3. | Final Indicative Plan Report and screened long list of projects | 15 | Upon acceptance of the final Indicative Plan Report and screened long list of projects by PCO. |
| 4. | Final Feasibility Study Report | 20 | Upon acceptance of Final FS by the Client |
| 5. | Draft Detail Project Report | 35 | Upon acceptance of Draft DPR by the Client |
| 6. | Final Detail Project Report | 20 | Upon acceptance of Final DPR by the Client |

Note: Taxes shall be levied on all payments as per prevailing financial rules and regulations of the government of Nepal

10. Contract Duration of Service

The consulting firm shall complete the assignment within 8months from the date of signing the contract.

11. Facilities to be Provided by the Client

The client and municipalities shall provide all available related project documents (study reports, PDP, Periodic plans, GIS maps, Base Maps, business plans, manuals, guidelines, norms and standards etc.) to the consulting firm for quality and timely output of the assignment.

12. Selection Criteria:

The consulting Firm shall be selected following Quality and Cost Based Selection Method (QCBS) set out in the Consultant Guidelines: Selection and Employment of Consultants [under IBRD Loans and IDA Credits & Grants] by World Bank Borrower, January 2011 ("Consultant Guidelines"). Only short listed firms with the most appropriate qualifications and references shall be invited to submit technical and financial proposals.