



**Government of the People's Republic of Bangladesh**

**Ministry of Education**

**Request for Expression of Interest (EOI)  
for Selection of Consulting Firms (National)**

Project Title: **“Feasibility study and preparation of Master Plan for Further  
Development of Noakhali Science & Technology University”**



**Implementing Authority**

**Noakhali Science and Technology University,**

**Noakhali-3814, Bangladesh**

# Terms of Reference (ToR)

## 1.1 Background of the Project

1. Name of the Project : Feasibility Study and Preparation of Master Plan for Further Development of Noakhali Science & Technology University
2. Location of Site : Noakhali Science and Technology University, Sonapur, Noakhali-3814
3. Project Period : April 2025 to June 2026
4. Funding Source : GOB

## 1.2 Objectives & Outline of the Project

### 1.2.1 Objectives

- a) The main objective of this feasibility study is to prepare a detailed master plan containing an academic and infrastructural plan (with drainage system, plumbing, sanitary & electrical components) for the future development of Noakhali Science & Technology University.
- b) As an output of the feasibility study and report thereof, a DPP will be prepared for Further Development of Noakhali Science & Technology University.
- c) Preparation of Conceptual Architectural Plans & Cost Estimation (with drainage system, plumbing, sanitary & electrical components etc.) of the proposed structures using Plinth Area Rate (PLAR) method as per PWD latest rate schedule.
- d) Determination of required new Departments, Faculties, Institutes & strengthening of existing Departments, Faculties, Institutes, and their optimum capacity along with the national and expatriate market.
- e) Identification of the need for infrastructure (academic, research, residential etc.) to implement the academic master plan.

### 1.2.2 General Outline of the Project

The consulting firm shall prepare a detailed Master Plan and DPP for the further development of Noakhali Science & Technology University. They will also conduct all necessary surveys and studies for the master plan and DPP preparation in consultation with all relevant stakeholders. The consulting firm will also be responsible for preparing all the relevant study reports & architectural plans, conceptual designs and drawings etc. The Department of Planning Development & Works (DPDW) of Noakhali Science & Technology University will assist the firm with necessary document support.

## 1.3 Output of the Project

- A detailed master plan with an Academic plan and an Infrastructural plan.
- A Feasibility study report in the government-specified form.
- A Project Proposal (DPP) for the further development of Noakhali Science & Technology University.

## **1.4 Methodology of Conducting the Study**

### **Task A: Background Study and Assessment of Need**

- Studying historical background, previous studies, development plan and policies (8th Five-Year Plan, National Education Plan (NEP) 2010, Bangladesh Perspective Plan (2021-2041), Higher Education Strategic Plan 2018-2030, Vision 2041, Bangladesh Delta plan 2100, etc.) of the government of Bangladesh.
- Considering the scope of job opportunities for the graduates of the existing 30 departments, we are planning to open 12 distinguished departments within 2031-32. However, 19 more departments will also be opened within 2050 after achieving the goal by 2031-32. Therefore, a total of 61 departments (30+12+19) will be operating by 2050.
- Conducting detailed assessment (i.e., need analysis, option analysis, economic and financial analysis).
- Carrying out a market survey to ascertain the demand for graduates in the national and expatriate markets.
- Conducting an assessment of research capacity is needed for the quality of higher education, industry-university collaboration, joint research with national & international universities/research organizations, and collection of endowment funds.
- Reporting on projected demand of higher education along with research capacity for various departments to meet the challenges of the 4<sup>th</sup> Industrial Revolution (4IR) and new technological development.

### **Task B: Preparation of an Academic Master Plan**

- Evaluation of existing academic facilities, research facilities, experiment field, lab equipment of the Noakhali Science & Technology University, and forecasting future needs as per the academic plan.
- Strengthening of the existing departments, faculties, and institutes to meet the challenge of 4IR.
- Determination of the required new departments, faculties, institutes, and their optimum capacity along with national and expatriate market demand.
- Identification of the optimum and manageable number of students for Noakhali Science & Technology University based on international best practices and experiences.
- Analysis of the supply of students for higher studies at the national level and their scope for higher studies in the national public and private universities, as well as international universities.
- Fixation of requirements for faculty members for extended capacity and their supply to the national education system.
- Proposing the necessary institutional setup and manpower (both teaching & non-teaching staff) for the university.
- Projecting the demand for the next 50 years (at least) for the base case, optimistic case, and pessimistic case.

### **Task C: Preparation of an Infrastructural Master Plan**

- Assessment of space requirement for academic use, laboratory, experiment field, and residential purposes as per the academic master plan prepared based on collected data.
- Identification of the need for Infrastructure to implement the academic master plan, and preparation of alternate options (type and height of buildings) for development as well.

- Determination of required land areas for the proposed infrastructures and site selection for the proposed development.
- Preparation of land use policy for optimum use of land.
- Preparation of a Phasing Plan and providing a work plan for different phases.

#### **Task D: Conducting Surveys**

- Conducting topographical survey, land use survey, physical feature survey, hydrological survey, archaeological study, survey of development activities, accommodation survey, geological survey, sub-soil investigation, traffic and transportation survey, drainage survey, survey of existing flora and fauna, and other relevant surveys for the preparation of the master plan.
- Conducting site suitability analysis considering the physical aspects, geography, environment, and social context.
- Setting up baseline characteristics of site weather, hydrology, demography, flora, and fauna.
- Conducting an Environmental Impact Assessment (EIA), Social Impact Assessment (SIA), Transportation Impact Assessment (TIA), and vehicle movement analysis.
- The EIA and SIA should consider all possible impacts on the proposed alternatives and provide an Environmental and Social Management Framework (ESMF) for them.
- Preparation of an outline resettlement plan (if necessary).

#### **Task E: Architectural & Engineering Design and Planning**

- Providing drawings & conceptual designs of the proposed infrastructures, a list of furniture/classroom facilities, office equipment/lab equipment plan, package/procurement plan, cost calculation etc.
- Preparation of the 3D view of the proposed infrastructures
- Preparation of the transport plan, layout plan for electricity, gas, water, and sewerage systems, waste (Solid & Chemical) management plan for Noakhali Science & Technology University.

#### **Task F: Economic and Financial Viability Assessment**

- Preparation of a suitable alternative financial and economic model for the project.
- Each alternative of the proposal shall be supported by all the relevant vital details like the cost of the project, the time period, the cash flow, the cost of funding, etc.
- Conducting financial and economic viability analysis for the proposed alternatives, and ranking the alternative proposals according to their suitability for development.

#### **Task G: Detailed Final Master Plan**

- Finalization of the Infrastructural & Academic Master Plan in consultation with relevant stakeholders such as the Academic Council, the Regent Board, Academicians, Educationists, UGC Members, BUET Professionals, Members of DPDW, and the Ministry of Education & Planning Commission Officials, etc.

#### **Task H: Assessment of Project Cost and Preparation of DPP**

- Preparation of a DPP based on the master plan.
- Project cost has to be estimated based on the latest PWD Schedule of Rates (SoR).
- A list of equipment and furniture, and the cost thereof, shall be finalized based on the present market price with specifications.
- Preparation of the package and procurement plan of the project.

## 1.5 Reporting Timeframe and Deliverable List

| Sl.No. | Reports and Deliverables  | No. of Copies | Time Frame      |
|--------|---|---------------|-----------------|
| 1      | Inception Report  | 5             | End of 2 Weeks  |
| 2      | Conceptual Master Plan (2D)   | 5             | End of 4 Weeks  |
| 3      | Feasibility Study with Conceptual Architectural 3D View (four images for each building) of the proposed 56 buildings/structures, sewerage drainage systems, solid waste management plant, etc, for further development of Noakhali Science and Technology University. | 5             | End of 4 Weeks  |
| 4      | Topographic, Land Use and Physical Feature Survey Report with Maps (Both hard and soft format in AutoCAD and GIS Format)  | 5             | End of 12 Weeks |
| 5      | TIA and EIA Study Report  | 5             | End of 14 Weeks |
| 6      | Sub-Soil Investigation and Geological Report  | 5             | End of 14 Weeks |
| 7      | Draft Master Plan and Report (with Academic Master Plan)  | 10            | End of 18 Weeks |
| 8      | Final Master Plan and Report (with Academic Master Plan) (Both hard and soft copies)  | 5             | End of 20 Weeks |
| 9      | 3D View of Master Plan (Both hard and soft copy)  | 5             | End of 26Weeks  |
| 10     | 3-Dimensional Master Plan Model of Noakhali Science and Technology University (proposed)  | 5             | End of 26 Weeks |
| 11     | Preliminary architectural plan, digital survey & digital security, system of campus & every structure of NSTU.  | 5             | End of 28 Weeks |
| 12     | Preliminary architectural drawing of electrical, sanitary, plumbing line, & Gas line of NSTU  | 5             | End of 30 Weeks |
| 13     | PLAR estimate for the proposed infrastructure of DPP(both soft & hard copy)   | 5             | End of 34 Weeks |

## 1.6 Team Composition and Qualifications of Key Experts

The Master Plan shall be undertaken by the Consultant, composed of the following key experts, whose minimum qualifications are stated alongside their respective positions.

| Sl.No. | Position    | Person-Month | Minimum Qualification / Experience   | Tasks  |
|--------|-------------|--------------|--|--|
| 1      | Team Leader | 9            | Master's or higherdegree in Civil Engineering / Urban& Regional Planning / | <ul style="list-style-type: none"> <li>- Lead and supervise the team members and the work</li> <li>- Maintain communication with the authority of Noakhali Science and TechnologyUniversity.</li> <li>- Develop a multifaceted rewards system thatmakes team members motivatedto show up to work every day and do their best</li> <li>- Teach and train team members on various customer service strategies</li> </ul> |

| Sl.No. | Position            | Person-Month | Minimum Qualification / Experience   | Tasks   |
|--------|---------------------|--------------|--|---|
|        |                     |              | Architecture.<br>Min. exp.20 yrs   | <ul style="list-style-type: none"> <li>- Communicate expectations, assignments and responsibilities clearly and professionally.</li> </ul>  |
| 2      | Planner             | 9            | Master's or higher degree in Urban & Regional Planning.<br>Min. exp. 15yrs | <ul style="list-style-type: none"> <li>- Design, promote and assess the feasibility of proposals and identify necessary changes</li> <li>- Create or prepare requisition graphic and narrative reports on land use data, including land area maps as well as the Master plan overlaid with geographic variables such as population density.</li> <li>- Conduct field investigations, surveys, impact studies or other research in order to compile and analyze data on economic, social, regulatory and physical factors affecting land use.</li> <li>- Keep informed about economic and legal issues involved in zoning codes, building codes, and environmental.</li> <li>- Mediate community disputes and assist in developing alternative plans and recommendations for programs or projects.</li> <li>- Coordinate work with economic consultants and architects during the formulation of plans and the design of large pieces of infrastructure.</li> </ul>                            |
| 3      | Architect           | 9            | Master's or higher degree in Architecture.<br>Min. exp. 15 yrs             | <ul style="list-style-type: none"> <li>- Create architectural designs i.e. Land use plan, Master plan, Landscape, etc. based on the demand of Noakhali Science and Technology University.</li> <li>- Adjust contracts and designs to meet the changing needs of Noakhali Science and Technology University.</li> <li>- Prepare draft designs that reflect green building values and cater to the university's desires for smaller carbon footprints</li> <li>- Communicate with contractors and construction workers to implement designs</li> <li>- Oversee and manage architectural production</li> </ul>   |
| 4      | Structural Engineer | 9            | Master's or higher degree in Structural Engineering.<br>Min. Exp.15 yrs    | <ul style="list-style-type: none"> <li>- Design the structures with proper calculation of the load stresses that the construction can best withstand. Structural engineers should be able to factor in the different qualities and strengths delivered by a range of building materials and understand how to incorporate support beams, columns, and foundations.</li> <li>- Involve in the investigation and survey of build sites.</li> <li>- Determine the suitability of the earth for the requirements of the upcoming project.</li> <li>- Co-ordinate and consult with other members of the project, including engineers, environmental scientists, Architects, and landscape architects. They may also be required to assist government bodies in their own inspections relating to the project.</li> <li>- Ensure the delivery of materials and equipment for the needs of the construction project. The supervision and management of on-site labour may also be needed.</li> </ul> |
| 5      | Landscape Architect | 6            | Complete a bachelor's or master's degree in landscape                      | <ul style="list-style-type: none"> <li>- Learn about design principles, landscape history, and theory</li> <li>- Learn about ecology, conservation, and digital</li> </ul>  |

| Sl.No. | Position            | Person-Month     | Minimum Qualification / Experience   | Tasks   |
|--------|---------------------|------------------|--|---|
|        |                     |                  | architecture   | <p>communication</p> <ul style="list-style-type: none"> <li>- Learn about different construction methods and materials</li> <li>- Learn about how people interact with their surroundings</li> <li>- Learn about plants, water processes, soils, and climate.</li> <li>- Gain experience as a landscape designer</li> <li>- Work on projects that showcase your ability to design and implement landscapes effectively.</li> <li>- Have excellent design and planning skills.</li> <li>- Be able to use computer-aided design (CAD) and desktop publishing software.</li> <li>- Be able to integrate hand and digital tools.</li> </ul>   |
| 6      | Academician         | Person-2 Month-4 | Ph.D. Degree in a relevant field. Min. exp. 15 years with 4 (Four) years as Professor in any public university at home/abroad. | <ul style="list-style-type: none"> <li>- The Academic Master Plan (AMP) of the NSTU will be prepared for the next fifty years, considering the data.</li> <li>- Collect data on the science and technological graduate demand in the local, national, and international job market.</li> <li>- Depending on the collected data, different faculty and departments will be selected.</li> </ul>  |
| 7      | Electrical Engineer | 6                | Bachelor's degree in EEE / ECE / ETE/ any closely related field.   | <ul style="list-style-type: none"> <li>- <b>Technical knowledge:</b> Understanding of electrical systems, circuit theory, electronics, electromagnetics, and signal processing.</li> <li>- <b>Mathematics:</b> Strong mathematical skills to analyze data and solve complex problems.</li> <li>- <b>Problem-solving skills:</b> Ability to identify issues, evaluate options, and develop practical solutions to technical challenges.</li> <li>- <b>Critical thinking:</b> Analyzing situations to design effective solutions and identify potential issues.</li> <li>- <b>Communication skills:</b> Effectively conveying ideas and designs to team members and stakeholders.</li> <li>- <b>Attention to detail:</b> Ensuring accuracy and precision in all aspects of a project.</li> <li>- <b>Design skills:</b> Creating and implementing electrical systems according to engineering codes and requirements.</li> <li>- <b>Teamwork:</b> Collaborating with other engineers and professionals on projects.</li> </ul> |
| 8      | Plumbing Engineer   |                  | Bachelor's degree in Mechanical Engineering/ Civil Engineering /   | <ul style="list-style-type: none"> <li>- A deep understanding of plumbing codes and standards</li> <li>- At least five years of experience in plumbing engineering</li> </ul>   |

| Sl.No. | Position              | Person-Month | Minimum Qualification / Experience                                    | Tasks   |
|--------|-----------------------|--------------|---|---|
|        |                       |              | any related field   | <ul style="list-style-type: none"> <li>- Proven experience in the construction industry</li> <li>- A strong portfolio of completed projects</li> <li>- Certifications: Professional Engineer (PE) licensure, Certified Plumbing Design (CPD), and Leadership in Energy and Environmental Design (LEED) accreditation.</li> <li>- Strong analytical and problem-solving skills</li> <li>- Ability to work independently and as part of a team</li> <li>- Proficiency in AutoCAD and other plumbing design software</li> <li>- Familiarity with CAD software (e.g., AutoCAD) and other engineering design tools</li> <li>- Attention to detail responsibilities</li> <li>- Design, install, and maintain plumbing systems</li> <li>- Prepare cost estimates for plumbing materials and labor</li> <li>- Manage plumbing projects from conception to completion</li> <li>- Collaborate with mechanical and civil engineers</li> <li>- Prepare drawings for plumbing and water systems</li> </ul> |
| 9      | Botanist              | 4            | Bachelor's degree in Botany / Biology / Forestry / any related field  | <ul style="list-style-type: none"> <li>- Consider getting a master's degree or a PhD to specialize in a specific area of interest</li> <li>- Have excellent written and verbal communication skills</li> <li>- Be able to work with others</li> <li>- Have strong research, problem-solving, and negotiation skills</li> <li>- Be willing to travel</li> <li>- Have strong public speaking skills</li> <li>- Knowledge</li> <li>- Understand plant life, processes, and traits</li> <li>- Understand scientific principles</li> <li>- Understand environmental concerns</li> <li>- Have extensive knowledge of various plant species</li> <li>- Understand how plants interact, reproduce, and function within the natural environment</li> </ul>   |
| 10     | Geotechnical Engineer | 6            | Master's or higher degree in Geotechnical Engineering. Min.exp.15 yrs | <ul style="list-style-type: none"> <li>- Collection of soil samples from the intended site, using bores and test pits. Amongst other factors, the analysis will determine the ground's stress bearing capability and stability.</li> <li>- Determine whether issues like erosion, settlement land slope will pose a safety risk to the proposed project.</li> <li>- Analyze the results of subsurface investigations and</li> </ul>   |



| Sl.No. | Position                                 | Person-Month | Minimum Qualification / Experience  | Tasks  |
|--------|--|--------------|---|--|
|        |  |              |   | <p>field tests with dedicated software to assist in the development of earthworks and foundations suitable to the conditions of the site.</p> <ul style="list-style-type: none"> <li>- Meet the authority for evaluations of project progress</li> <li>- Spend most of the time in the field and in analysis laboratories</li> </ul>   |
| 11     | Environment Specialist                   | 5            | Master's or higher degree in Environmental Engineering / Civil Engineering / ESRM / ESDM. Min. exp. 15 yrs.                       | <ul style="list-style-type: none"> <li>- Conduct and prepare EIA &amp; EMP.</li> <li>- Design a smart drainage system, Rainwater Harvesting process.</li> <li>- Stay updated with local, state and federal environmental regulations.</li> <li>- Develop and enforce environmental guidelines and practices.</li> <li>- Review and recommend improvements to existing environmental programs for compliance assurance.</li> <li>- Generate environmental reports as requested by regulatory agencies.</li> <li>- Provide guidance and direction to management for ensuring environmental compliance.</li> <li>- Prepare permit applications and agreements as needed by regulatory agencies.</li> <li>- Obtain, maintain, modify and renew environmental permits and licenses.</li> <li>- Work with the emergency response team to address environmental incidents such as chemical leaks and spills.</li> <li>- Identify and solve environmental violations.</li> <li>- Conduct regular environmental inspections to determine pollution levels.</li> <li>- Investigate environmental accidents and propose corrective actions.</li> <li>- Write environment-related articles, newsletters, and press releases.</li> <li>- Assist in developing project proposals and statements of work and determine overall budget and schedules.</li> <li>- Maintain inventory control and oversee shipping and transportation arrangements.</li> <li>- Oversee waste disposal and pollution control programs.</li> <li>- Educate workers on environmental health and safety procedures.</li> </ul> |
| 12     | Solid waste management and design expert | 5            | Master's of Science in Environmental Engineering / Energy Engineering / Chemical Engineering / Mechanical Engineering / any other | <ul style="list-style-type: none"> <li>- To prepare micro-planning, decentralized management (especially of wet waste) and stakeholder engagement.</li> <li>- Hazardous waste management</li> <li>- Non-hazardous waste management</li> <li>- Waste treatment &amp; disposal</li> <li>- Waste recovery, reuse and recycling</li> <li>- Long-term sustainable solutions utilizing the best available technologies</li> </ul>  |

| Sl.No. | Position             | Person-Month | Minimum Qualification / Experience  | Tasks   |
|--------|----------------------|--------------|---|---|
|        |                      |              | relevant field.<br>Min. exp. 15 yrs.  |   |
| 13     | Transport Planner    | 5            | Master's or higher degree in Transportation Engineering / Civil Engineering / Urban & Regional Planning / any related departments.<br>Min. exp. 15 yrs. | <ul style="list-style-type: none"> <li>- Design, evaluate and plan for Noakhali Science &amp; Technology University transportation mediums, such as highways, roads, subways and streetcars</li> <li>- Evaluate the various socioeconomic, environmental, fiscal and land-use factors that go into an area's transportation</li> <li>- Creates Suitable Transportation routes through the interpretation of travel surveys and accident reports, forming solutions to any problems and producing suggestions in clear reports for the authority</li> </ul>  |
| 14     | Geologist            | 4            | Master's degree in Geology / Urban & Regional Planning.<br>Min. exp 15 yrs  | <ul style="list-style-type: none"> <li>- Work in all project phases from planning through location, design, construction, and maintenance</li> <li>- Evaluate geologic site characteristics to determine the responses to geologic processes and materials to development activities, such as removal of vegetation, site grading, buildings, and civil works.</li> <li>- Construct activities such as earthwork</li> <li>- Apply loads in foundations and embankments</li> <li>- Use of earth materials in construction</li> </ul>   |
| 15     | Financial Specialist | 3            | Master's or higher degree in Finance / Accounting.<br>Min. exp.15 yrs   | <ul style="list-style-type: none"> <li>- Evaluate all financial and transaction data for accuracy and implement corrective action</li> <li>- Prepare financial reports for program officials for planning and informational purposes</li> <li>- Perform all finance-related studies to determine updated financial requirements and anticipate required changes in administration</li> <li>- Analyze appropriations and financial management legislations to assess effects, advise officials on financial issues and interpret all reports and data</li> <li>- Ensure adherence to relevant regulations and laws in case of incurred obligations and resulting expenditure</li> <li>- Prepare analysis reports, make necessary recommendations and coordinate with various departments to prepare presentation materials</li> <li>- Analyze systems operations and resolve all financial issues for different financial management problems.</li> <li>- Monitor all processes and report anomalies in the system</li> <li>- Develop long-term financial objectives, instructions, and procedures to ensure Proper coordination.</li> </ul> |
| 16     | Utility Engineer     | 3            | Master's in any engineering subject or a relevant subject.  | <ul style="list-style-type: none"> <li>- Focus on equipment used for producing and maintaining electricity, hydraulic power, nuclear power and natural resources. Most choose to specialize in a particular utility field, although</li> </ul>  |

| Sl.No. | Position                               | Person-Month | Minimum Qualification / Experience   | Tasks  |
|--------|--|--------------|--|--|
|        |  |              | Min. exp. 10 yrs.  | <p>many have a general knowledge of how energy-producing equipment functions for all utility types</p> <ul style="list-style-type: none"> <li>- Act as consultants concerning the power needs of a growing area</li> <li>- Maintain power in all buildings and install backup generators for emergencies</li> <li>- Supervise the construction of turbines and other power-producing equipment</li> </ul>  |
| 17     | Quantity/Cost Engineer (BoQ Estimator) | 9            | Master's in any engineering subject or a relevant subject. Min.exp.10yrs                                 | <ul style="list-style-type: none"> <li>- Review and estimate quantities, materials, equipment, and labor cost as per FCD and prepare the Budget on Site and compare it to the approved Bill of Quantities.</li> <li>- Coordinate with the Engineering team and recommend ways to make the project more cost-effective and profitable.</li> <li>- Identify the material for approval, and remind the operation to submit as per schedule to avoid delays.</li> <li>- Estimate, check and process subcontractor requests as per FCD and as per schedule.</li> <li>- Perform and manage project activity scheduling and monitoring diligently.</li> <li>- Check the actual site condition and ensure that the schedule and specifications are followed accordingly.</li> <li>- Identify, track and estimate all changes to the project scope, process all the necessary documents for the client and ensure management for further claims.</li> <li>- Reporting, monitoring and processing milestone progress for the preparation of contractor billing, subcontractor billing, weekly and monthly accomplishments.</li> <li>- Periodically perform actual cost gathering and reconciliation of accounts with the construction management and the owner's quantity surveyor.</li> <li>- Attend meetings and discuss project details with clients, contractors, asset owners and stakeholders.</li> <li>- Monitor and control materials issuance and order, equipment usage, rental, and maintenance costs per month, man-hour costs, and subcontractor billings.</li> <li>- Integrate cost and schedule data reporting with the company's accounting and management information system</li> </ul> |
| 18     | GIS Specialist                         | 6            | Master's Degree in Geography/ Geology/ Urban & Regional Planning/any relevant subject. Min exp. 10 years | <ul style="list-style-type: none"> <li>- Support and manage GIS applications based on growing demands</li> <li>- Plan and coordinate GIS activities to meet outlined goals</li> <li>- Develop quality control standards for the system application</li> <li>- Analyze and resolve system issues in a timely manner</li> <li>- Perform data capture and analysis for the GIS product</li> <li>- Oversee data flow, management and distribution</li> </ul>   |

| Sl.No. | Position           | Person-Month | Minimum Qualification / Experience  | Tasks  |
|--------|--------------------|--------------|---|--|
|        |                    |              |   | <ul style="list-style-type: none"> <li>activities to support GIS</li> <li>- Support in designing and creating a geospatial database</li> <li>- Manage geospatial database and develop maps and aerial photography</li> <li>- Maintain geospatial documentation for reference purposes</li> <li>- Provide technical guidance to GIS users when needed</li> <li>- Assist the technical team in system design and development</li> <li>- Stay abreast with the latest developments in the GIS field</li> <li>- Support in developing a work plan for complex projects</li> </ul>  |
| 19     | Drone Pilot        | 1            | Complete a drone operator and pilot course at a professional training center.             | <ul style="list-style-type: none"> <li>- The course includes theoretical learning, practical training, and an exam</li> <li>- Training can include flight skills and can last between 2 and 4 days</li> <li>- Drone registration</li> <li>- Register your drone with the relevant authorities</li> <li>- Drone pilot certificate</li> <li>- Obtain a drone pilot certificate to fly your drone for leisure or commercial activities</li> <li>- Skills and experience</li> <li>- Have good communication skills</li> <li>- Be able to solve problems</li> </ul>   |
| 20     | AutoCAD Specialist | 9            | A Diploma in AutoCAD/ Civil Engineering/ BECM /any relevant subject.<br>Min. exp 10 years | <ul style="list-style-type: none"> <li>- Handle complex designing and drafting assignments under minimal supervision.</li> <li>- Create drawings and models from written and verbal specifications obtained from the Project Engineer.</li> <li>- Work with Engineers regarding model accuracy, design, drafting standards and design documentation.</li> <li>- Work closely with Designers, Drafters and Engineers to ensure coordinated design effort.</li> <li>- Review drawings for completeness and accuracy.</li> <li>- Maintain all revisions of project drawings.</li> <li>- Update and maintain drafting log.</li> <li>- Develop 3D models by analyzing prototypes and 2D drawings.</li> <li>- Examine and check engineering drawings for Compliance with cited specification.</li> <li>- Provide timely technical assistance and solutions to the team.</li> </ul> |
| 21     | Surveyor           | 9            | A Diploma in Surveying/ Civil Engineering/any relevant subject.<br>Min.exp.10 yrs         | <ul style="list-style-type: none"> <li>- Prepare and maintain sketches, maps, reports, and legal descriptions of surveys in order to describe, certify, and assume liability for work performed.</li> <li>- Verify the accuracy of survey data, including measurements and calculations conducted at survey sites.</li> <li>- Direct or conduct surveys in order to establish legal boundaries for properties, based on legal deeds and titles.</li> <li>- Record the results of surveys, including the shape, contour, location, elevation, and</li> </ul>  |

| Sl.No. | Position             | Person-Month | Minimum Qualification / Experience              | Tasks  |
|--------|----------------------|--------------|---|--|
|        |                      |              |   | <p>dimensions of land or land features.</p> <ul style="list-style-type: none"> <li>- Calculate heights, depths, relative positions, property lines, and other characteristics of terrain.</li> <li>- Prepare or supervise the preparation of all data charts, plots, maps, records, and documents related to surveys.</li> <li>- Plan and conduct ground surveys designed to establish baselines, elevations, and other geodetic measurements.</li> <li>- Search legal records, survey records, and land titles in order to obtain information about property boundaries in areas to be surveyed.</li> <li>- Adjust surveying instruments in order to maintain their accuracy.</li> <li>- Establish fixed points for use in making maps, using geodetic and engineering instruments.</li> <li>- Determine longitudes and latitudes of important features and boundaries in survey areas, using global positioning systems (GPS).</li> <li>- Train assistants and helpers, and direct their work in such activities as performing surveys or drafting maps.</li> <li>- Analyze survey objectives and specifications in order to prepare survey proposals or to direct others in survey proposal preparation.</li> <li>- Compute geodetic measurements and interpret survey data in order to determine positions, shapes, and elevations of geomorphic and topographic features.</li> <li>- Develop criteria for survey methods and procedures.</li> <li>- Develop criteria for the design and modification of survey instruments.</li> <li>- Conduct research in surveying, mapping, photogrammetric map compilation and electronic data processing.</li> <li>- Survey bodies of water in order to determine navigable channels and to secure data for the construction of breakwater piers and other marine structures.</li> </ul> |
| 22     | Work Assistant       | 9            | Diploma in a relevant subject.<br>Min.exp.5 yrs | <ul style="list-style-type: none"> <li>- Handling incoming calls and other communications.</li> <li>- Managing the filing system.</li> <li>- Recording information as needed.</li> <li>- Updating paperwork, maintaining documents and word processing.</li> <li>- Performing general office clerk duties and errands.</li> <li>- Organizing travel by booking accommodations and reservations as required.</li> <li>- Coordinating events as necessary.</li> <li>- Maintaining supply inventory.</li> <li>- Maintaining office equipment as needed.</li> <li>- Experience as a virtual assistant.</li> <li>- Creating, maintaining, and converting information into databases.</li> </ul>   |
| 23     | Office Support staff | 9            | SSC passed.<br>Min.exp. 5 yrs                   | <ul style="list-style-type: none"> <li>- Ensure an organized, clean, and tidy workspace</li> <li>- Maintain and re-stock office supplies as needed</li> <li>- Monitor and use office equipment and materials (computers, printers, fax machines, copiers,</li> </ul>   |

| Sl.No. | Position | Person-Month | Minimum Qualification / Experience | Tasks  |
|--------|----------|--------------|------------------------------------|--|
|        |          |              |                                    | physical files, etc.)<br>- Report any problems with office equipment; help to resolve the issues if possible<br>- Answer phones, direct calls, take and deliver messages as needed; prepare outgoing mail (including prepping larger packages for sending); sort and deliver incoming mails to the appropriate persons<br>- Keep meeting notes and transcribe document or spreadsheet form |

### 1.7 Tentative Components Under the project

| Title of the Works |   |
|--------------------|---|
| 01                 | Land Development  |
| 02                 | 10-storey dormitory for male students on a 10-storey foundation (2000 seats)  |
| 03                 | 10-storey dormitory for female students on a 10-storey foundation (2000 seats)  |
| 04                 | 10-storey dormitory for international & post-graduate students on a 10-storey foundation (300 seats)                                  |
| 05                 | 10-storey Laboratory School & College on a 10-storey foundation   |
| 06                 | Day Care Center   |
| 07                 | 8-storey Teachers-Students Center (TSC) on an 8-storey foundation   |
| 08                 | 10-storey Deans Complex on a 10-storey foundation   |
| 09                 | Construction of the residence of the Pro-Vice-Chancellor  |
| 10                 | Construction of the residence of the Treasurer  |
| 11                 | Construction of 2 <sup>nd</sup> Administrative Building (Office of the Vice-Chancellor, Pro-Vice-Chancellor, Treasurer and Registrar) |
| 12                 | Vertical Extension of the Central Mosque (2 <sup>nd</sup> -3 <sup>rd</sup> floor)   |
| 13                 | Vertical Extension of the BNCC Building on a 5-storey foundation (2 <sup>nd</sup> – 5 <sup>th</sup> floor)                            |
| 14                 | 10-storey 4 <sup>th</sup> Academic Building on 10-storey foundation (Faculty of Engineering & Technology)                             |
| 15                 | 10-storey residence for teachers & officers on a 10-storey foundation   |
| 16                 | 10-storey staff quarters on a 10-storey foundation  |
| 17                 | Sports Complex with Gallery (provision for gymnasium, volleyball and indoor games)  |
| 18                 | Renovation of the central playground and procurement of sports equipment  |
| 19                 | Internal Roads  |
| 20                 | Central Garage  |
| 21                 | Extension of the Boundary Wall  |
| 22                 | Museum  |
| 23                 | Construction of the Teachers and Officers Club Building   |
| 24                 | Construction of Ansar Barrack   |
| 25                 | Training Center (IQC)   |
| 26                 | Construction of Animal House  |
| 27                 | Construction of a restroom for drivers and cleaners   |
| 28                 | Construction of the main entrance of the university   |
| 29                 | Construction of Open Stage / Podium   |
| 30                 | Internal Drainage System and the master drain   |
| 31                 | Beautification of the lake  |
| 32                 | Swimming Pool   |
| 33                 | Shop (laundry, grocery, stationery, salon, beauty parlor)   |

|    |   |
|----|---|
| 34 | Construction of the central cafeteria   |
| 35 | Construction of the electrical substation   |
| 36 | Procurement of a generator  |
| 37 | Fire safety system  |
| 38 | Extension of the external electric line   |
| 39 | Extension of the external gas line  |
| 40 | Installation of the external water supply line and other associated works                     |
| 41 | Installation of the data center and other associated works, including digitization/automation |
| 42 | Modernization & expansion of the existing telephone system                                    |
| 43 | Modernization of existing laboratories  |
| 44 | Establishment of waste management   |
| 45 | Tree Plantation   |
| 46 | 5-storey center of excellence building on a 5-storey foundation                               |
| 47 | Construction of the wall of the temple (north-west side)                                      |
| 48 | Community Services  |
| 49 | Academic Master Plan  |
| 50 | Open water body   |
| 51 | Garden  |
| 52 | Central Store Building (for engineering, ICT and other store materials)                       |
| 53 | 10-storey institute building on a 10-storey foundation  |
| 54 | Staff Club Building   |

## 1.8 Procurement Method for Selecting a Consulting Firm

The Consulting Firm should be procured by the QCBS Method. For the procurement of a consultant, Expression Of Interest (EOI), Request For Proposal (RFP), and other necessary steps should be followed as per PPA-2006 and PPR 2008.

### 1.8.1 Methods and Procedures

Quality & Cost Based Selection (QCBS) will be followed during the procurement of the service. It is the preferred method that is used in most cases and shall take into account-

- The quality of the Proposal; and
- The cost of the Services.

### 1.8.2 Procedures for Selection under the Quality and Cost-Based Selection (QCBS) method

- A Request for Expressions of Interest (EOI) as laid down in Rule 113 is advertised to invite interested Applicants in order to prepare a shortlist of Applicants;
- A Request for Proposals (RFP) shall be prepared and sent to short-listed Consultants selected following the provisions of Rule 117 of PPA 2006 and PPR 2008;
- After receiving the Proposals, the PEC shall meet to evaluate the Proposals;
- The evaluation of Proposals shall be carried out in two (2) stages in the following manner-
  - The Technical Proposals shall be evaluated;
  - The financial Proposals of technically responsive Proposals shall be opened in the presence of the Applicants or their representatives who wish to attend;
  - A combined evaluation of Technical and Financial Proposals shall be followed, and the Applicant with the winning Proposal will be invited to negotiations.

## 1.9 Staff Allocation Plan for Supervision (if required)

The consulting firm shall take care to ensure continuity of personnel's familiarity with services.

If any of the personnel cease to be assigned to carry out the services, the consulting firm shall propose their replacement with personnel of comparable competence, seniority, and qualification to the client for approval.

#### **1.10 Facilities and Support Provided by the Client**

Accommodation of staff of the consulting firm, including other utilities, will not be provided by the client during the project period

A handwritten signature in dark ink, appearing to read "H. Sain", with a stylized flourish above the name.