

**Enhancing Digital Government & Economy Project  
Bangladesh Computer Council (BCC)  
Information and Communication Technology Division  
Ministry of Posts, Telecommunications and Information Technology  
ICT Tower, Plot # E-14/X, Agargaon, Dhaka-1207,  
Bangladesh**

**Terms of Reference**

**For**

**Digital Economy Strategy, Masterplan and Surveys**

**(Contract Package No: EDGE-S4)**

**October 2023**



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**1. Background:**

The People's Republic of Bangladesh has received Credit from the International Development Association (IDA) – a member of the World Bank Group – for financing the Enhancing Digital Government and Economy (EDGE) Project, being implemented by the Bangladesh Computer Council (BCC). BCC intends to apply a portion of mentioned credit to hire a competent, qualified, and experienced firm (the Consultant) to provide consulting services for Digital Economy Surveys, Strategy and Masterplan.

The project's overall objective is to improve the efficiency of the cybersecurity of the digital economy and increase digitally enabled employment and to raise revenues of the IT industry. The Project consists of four (4) major components to be implemented by BCC:

**Component 1 – Enabling Environment for Digital Economy:**

The key tasks under this component are:

- ICT Governance and Sustainability
- Change and Stakeholder Management; and
- Digital Leadership Academy (DLA)

**Component 2 - Public Sector Support for Digital Economy:**

The key tasks under this component are:

- Cloud Platform (CP) for Digital Economy
- Public Sector Capacity Building; and
- Mainstreaming Bangladesh National Digital Architecture (BNDA)

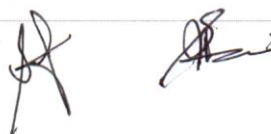
**Component 3 - Private Sector Support for Digital Economy:**

The key tasks under this component are:

- Digital Economy Coordination.
- Hire and Train Program for 20,000 Youth and Women
- Strengthening and Promoting the IT / Digital Economy-Enabling Industry
- Digitalization of Small and Medium-Enterprises (SMEs); and
- Establish Research and Innovation Centers.

**Component 4 - Project Management Support:**

This component will support BCC to manage and implement the EDGE project effectively and efficiently.



The Digital Bangladesh vision created a foundation for a digital government through the digitization of critical public services. The Government of Bangladesh (GoB) has set a target to achieve Smart Bangladesh Vision by the year 2041 consisting of four pillars: (a) Smart Citizens (b) Smart Economy (c) Smart Government, and (d) Smart Society.

The ICT sector in Bangladesh has experienced significant growth in recent years. The industry has been recognized as a key driver of the country's economic growth, with an increasing number of sectors, such as finance, healthcare, manufacturing, agriculture, transportation, and education, looking to leverage technology to improve efficiency and competitiveness. To achieve a Digital Economy in Bangladesh, it is essential to promote digitalization across various sectors to improve efficiency, productivity, and innovation.

## 2. Objectives of the Assignment

Through this assignment, broadly, the client seeks to commission some of the assignments as follows:

- A series of comprehensive Digital Economy Surveys (3 rounds of surveys)
- A Digital/Smart Economy Strategy/Masterplan
- A report on the Gender Gap in ICT Access in alignment with the country's overarching Smart Economy goals

Specifically, It seeks to evaluate the current level of digitalization in Bangladesh, analyze project indicators at the PDO (Project Development Objective) level, identify gender disparities in the ICT sector, pinpoint unexplored local market opportunities, identify industry-specific technology beneficiaries, and create a strategic plan for inclusive and sustainable digitalization for a Smart Economy in Bangladesh.

## 3. Scope of Services

The specific responsibilities of the Consultant include, but not limited to, the following:

### 3.1. Digital Economy Survey: Round One

The round one (baseline) survey will identify all the constitute elements of Digital Economy of Bangladesh (As-Is) which is/was functional or operational in Bangladesh. Which includes but not limited to, the following:

Deliverables for the round one survey include:

- 3.1.1. Data and insights on the impact of digital technologies and innovation on the current economy. Some of the areas to be covered in the survey to include:
  - I. State of digital skills and jobs
  - II. Skill domains in dominance
  - III. ICT export (software, BPO, Hardware etc.)
  - IV. List of prominent global ICT skill countries
  - V. State of e-commerce and f-commerce, its online transactions





- VI. State of frontier technologies such as AI, robotics, biotech, machine learning, etc.
  - VII. Digital innovation, and entrepreneurship
- 3.1.2. Identify the priority sectors for digitalization and their potential benefits in the digital economy, including an assessment of the demand for IT and IT-enabled services within these sectors.
  - 3.1.3. Identify sector wise market demand within the ICT industry
  - 3.1.4. Identify market readiness status of frontier technologies in Bangladesh
  - 3.1.5. Identify emerging technologies leading digital transformation in the world and assess status on the adoption of these technologies on the economy highlighting human resources, business opportunities, industry capacities etc.
  - 3.1.6. Identify current IT-ITeS Industry (IT Industry, ITeS Industry, Digital Hardware Industry) revenue, export size and potentials etc.
  - 3.1.7. Identify the numbers of innovative ideas turning into real case businesses and intellectual property created locally.
  - 3.1.8. Identify, Analyze, Assess and Evaluate the baseline PDO (Project Development Objective)-level result indicators of the project which include the following, but are not limited to:
    - (i) GoB agencies using the BNDA (Bangladesh National Digital Architecture)
      - a. Understanding of BNDA
      - b. Current Digital Infrastructure Assessment
      - c. Current BNDA Assessment
      - d. Interoperability and Integration
      - e. Digital Service Delivery
      - f. Change Management and Capacity Building
      - g. Budget and Resource Allocation
      - h. Implementation Plan and Timeline
    - (ii) Cost-efficiency savings on the use of the integrated digital platform by GoB agencies. For obtaining these data the firm shall work closely with the Ministry of Finance, Bangladesh, and Budget Division. Following are the metrics
      - a. Current Expenditure Assessment
      - b. Current Saving Assessment
      - c. Digital Platform Usage
      - d. Process Efficiency Assessment
      - e. Cost Reduction Opportunities
      - f. Training and Capacity Building
    - (iii) Status of the digital integration across GoB agencies at the platform level. Following are the metrics
      - a. Current Digital Integration Assessment
      - b. Understanding of Digital Integration Goals
      - c. Digital Infrastructure Assessment
      - d. Interoperability Assessment
      - e. Data Governance and Management

- f. Security and Privacy
- g. Digital Service Delivery
- h. Change Management and Capacity Building
- i. Budget and Resource Allocation
- (iv) Number of civil servants' government email accounts protected by encryption. Following are the metrics
  - a. Current Email System Assessment
  - b. Encryption Requirements
  - c. Encryption Implementation
  - d. Stakeholder Engagement
  - e. Cost and Resource Assessment
  - f. Implementation Timeline
- (v) Digitally enabled jobs created by the project
- (vi) Revenues of IT industry firms supported by the project.
- (vii) Revenues earning from the human resource pull who have trained by the project

3.1.9. An overview of digital accessibility in Bangladesh, including inclusion, and participation of women, people with disabilities, and other disadvantaged groups.

3.1.10. An overview on the human capital flight (both brain drain and brain gain) in the ICT (IT, Technology, Engineering) related graduates and finding out the reasons of the human capital flight.

3.1.11. The round one survey should identify any further data and information relevant to the development of the Digital/Smart Economy Strategy and Masterplan and the Report on Gender Gap in ICT Access.

### **3.2. Digital Economy Round Two Survey**

The round two surveys will evaluate the progress of the Digital Economy implementation and the evolution of the digital economy landscape in Bangladesh. Deliverables for the round two survey include:

- Updated primary data sets collected in the round one survey.
- Conducting comprehensive gap analysis between round one and two survey results.
- Recommendations for adjustments to the Smart/Digital Economy Strategy based on findings from the round two survey.

Timeline of the result shall be decided later after mutual agreement.

### **3.3. Digital Economy Round Three Survey**

The round three surveys will provide a final evaluation of the Digital Economy in Bangladesh. Deliverables for the round three surveys include:

- Updated primary data sets collected in the round two survey.
- Conducting comprehensive gap analysis between round one, two and three survey results.



- Recommendations for future initiatives or strategies to continue the growth and development of the Smart economy in Bangladesh in line with vision 2041.

Timeline of the result shall be decided later after mutual agreement.

### **3.4. Digital/Smart Economy Strategy/Masterplan**

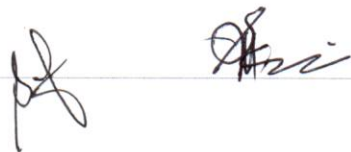
Deliverables for the Digital/Smart Economy Strategy include a projection on the elements for future smart economy (e.g. 2030, 2035, 2040) and a detailed masterplan that How to reach the projected Smart Economy by 2041

#### **3.4.1. Smart Economy**

- 3.4.1.1. A clear definition of “Smart Economy of Bangladesh” in the context of international and local development.
- 3.4.1.2. A clear vision and objectives for the Smart Economy in Bangladesh in alignment of vision 2041 or Smart Bangladesh.
- 3.4.1.3. Strategic plan to create a supportive environment for the growth and development of the Smart economy.
- 3.4.1.4. A clear strategic plan for Smart Bangladesh 2041.
- 3.4.1.5. A clear yet feasible action plan for the Smart Economy Strategy (3.4.1.4) considering existing local challenges.

#### **3.4.2. Strategy/Masterplan for IT-ITeS Industry**

- 3.4.2.1. A comprehensive strategy for the digitization of key industries by the years 2025, 2031, and 2041, focusing on the development, promotion, and adoption of locally made IT and IT-enabled services and export potentials.
- 3.4.2.2. A comprehensive business model/masterplan to make the IT-ITeS industry sustainable (matching to the global standard level) to comply with the vision of 2041.
- 3.4.2.3. Evaluation of the capacity of the local IT-ITeS industry to meet the identified demand for IT and ITeS within the priority sectors. Additionally, it should highlight areas that require further development especially related to the emerging technologies and capacity enhancement of Bangladeshi companies.
- 3.4.2.4. A strategic plan for the IT-ITeS industry to cope with the global rapid changes in technology and related ecosystem. Also, to include the list of soft skills will be required in 2041 which we can suggest to the training platforms/academia to include now.



- 3.4.2.5. A detailed masterplan on turning innovation/innovative ideas into real case business in the context of Bangladesh and how to tackle challenges locally to harness young talents to come to forefront of the IT-ITeS ecosystem.
- 3.4.3. Implementation timeline, resource requirements, and monitoring and evaluation mechanisms.
- 3.4.3.1. Outline key milestones and deliverables, including short-term and long-term goals.
- 3.4.3.2. Identify critical dependencies and potential bottlenecks that could impact the timeline.
- 3.4.3.3. Incorporate flexibility to adapt to changing circumstances or emerging opportunities.
- 3.4.3.4. Conduct a comprehensive assessment of the human, financial, and technological resources needed for the Smart Economy implementation.
- 3.4.3.5. Establish a robust monitoring and evaluation framework to assess the progress and impact of the Smart Economy initiative.
- 3.4.3.6. Define key performance indicators (KPIs) and benchmarks for success.
- 3.4.3.7. Define regular reporting mechanisms to track the utilization of resources and the achievement of milestones.
- 3.4.4. A detailed contingency strategic plan of the entire DE strategy/masterplan (mentioned hereby starting 3.4.1 to 3.4.3) in the wake of any crisis such as COVID-19 and climate change.

### **3.5. Report on Gender Gap in ICT Access**

The purpose of this assignment is to examine and analyze the existing gender gap in access to Information and Communication Technology (ICT) in Bangladesh. As ICT plays a crucial role in socio-economic development, education, and empowerment, understanding the gender disparities in ICT access is essential for promoting inclusivity, equality, and sustainable development.

This report will focus on the gender gap in ICT access across various dimensions, including but not limited to:

- Current State of Gender Gap in ICT Access.
- Internet penetration and usage rates among men and women.
- Digital literacy levels and skill development.
- Ownership and usage of smartphones and other digital devices.
- Access to online educational resources and e-learning platforms.
- Participation of women in the ICT workforce and entrepreneurship.
- Factors Contributing to Gender Disparities
- Recommendations to enable the targeted women's involvement in Digital Economy activities based on the data found from the round one survey.





## 4. Team Composition

### 4.1 Key Experts

The broad qualifications of the Key Experts are given below. The responsibilities shall be assigned by the Consultant to complete all the deliverables in a professional manner.

#### 1. Team Leader

- Education:
  - Bachelor's in relevant disciplines such as Public Administration, Business Administration, Human Resources Management, Public Affairs, Mass Communication, ICT etc.
- Experience:
  - 15 (Fifteen) years of professional work experience, out of which five (5) years of experience in ICT/Digital Economy strategy and implementation planning for large corporations.
  - Experience in large ICT projects will be an added advantage.
  - Working experience for a similar position.
  - Should have good IT-ITeS industry exposure in national level.
- Skill sets
  - Fluency in English and track record of diplomacy and negotiation skills.

#### 2. Senior Researcher/Economist (Co-Leader)

- Education:
  - Masters's in relevant disciplines such as Economics, Mathematics, Statistics, or ICT.
  - PhD degree holder in Economics, Mathematics, Statistics, or ICT will get preference.
- Experience:
  - 15 (Fifteen) years' professional work experience, out of which five (5) years of statistics related experience in ICT/Digital Economy strategy and implementation planning for large corporations will be added advantage.
  - Experience in large ICT projects will be an added advantage.
  - Working experience for similar position.
- Skill sets
  - Fluency in English





### 3. DE Strategy Specialist:

- Education:
  - Bachelor's in relevant disciplines such as ICT, Economics, or Business-related subject.
  
- Experience:
  - 10 (Ten) years' professional work experience, out of which five (5) years of experience in ICT, Digital Economy, strategy, or implementation planning for government agencies and/or large corporations.
  - Must have 12 months or more working experience beyond home country.
  - Working experience for similar position will be an added advantage.
  - Experience in large ICT projects will be an added advantage.

### 4. IT-ITES industry Expert

- Education:
  - At least Bachelor's degree in relevant subjects.
- Experience:
  - 10 (Fifteen) years of experience working in the IT-ITeS, out of which three (3) years of experience working in the executive council of an IT industry association
  - Must have 12 months or more working experience beyond home country.
  - Working experience for a similar position.

### 5. Statistician/Data Analyst

- Education:
  - Bachelor's in relevant disciplines such as Statistics, economics, mathematics.
- Experience:
  - 5 (Five) years of experience in database design and management for statistics/development related projects, especially government projects services
  - Working experience for similar position.

### 6. DE Researcher

- Education:
  - Bachelor's degree in a related disciplines such as math, economics, or statistics.



- Experience:
  - 5 (Five) years of professional work experience, out of which three (3) years of experience in Digital Economy, strategy and implementation planning for government agencies and/or large corporations.
  - Working experience in a similar position.

#### 4.2 Non-Key Experts/Other Experts

In addition to key experts, the following non-key experts/staff may be required to perform the activities in accordance with the Terms of Reference. Indicative non-key staff list is a guideline for the firm. However, the Consultant is free to make its own estimate to propose non-key staff.

##### 1. Gender Parity Expert

- Education:
  - At least Bachelor's in social sciences, human rights, gender/ women's studies, international development, or a related field is required.
- Experience:
  - 7 (Seven) years of experience in development project implementation, coordination, monitoring and evaluation.
  - Working experience for similar position.

##### 2. Govt. Liaison Expert

- Education:
  - At least Bachelor's degree or equivalent in Social Sciences, Political Science, International Relations, Public Administration, Anthropology, Law, Economics or related areas
- Experience:
  - 10 (Ten) years of experience in reporting and/or government liaison in project/programme implementation, at the national level.
  - Working experience for similar position.

##### 3. Associates

- Education:
  - a. Bachelor's degree in relevant subjects such as business, marketing, math, or statistics.
- Experience:
  - b. 3 (three) years of experience in similar field

##### 4. Field Investigators (Data Collection)



- Education:
    - At least Bachelor's degree in relevant subjects such as Economics, Statistics, Sociology or Public Administration.
  - Experience:
    - 3 (three) years of experience in similar field
5. Data Entry Operator
- Education:
    - Bachelor's degree in relevant subjects.
  - Experience:
    - 3 (three) years of experience in similar field

#### 4.3 Time Inputs of Key and Non-Key Experts (Phase 1)

The indicative staff inputs are tabulated below:

S.N.	Key Experts (CVs shall be evaluated)	Inputs in month		
		No	Person-month (pm)	Total (pm)
1	Team Leader	1	12	12
2	Senior Researcher/Economist (Co-Leader)	1	12	12
3	DE Strategy Specialist	1	8	8
4	Statistician/Data Analyst	1	8	8
5	IT-ITES Industry Expert	2	6	12
6	DE Researcher	2	6	12
	<b>Total Key-Staff Inputs</b>			<b>64</b>
	<b>Non-Key Experts/Other Experts</b>			
1	Gender Parity Expert	1	5	5
2	Govt. Liaison Expert	1	8	8
3	Associates	5	10	50
4	Field Investigators (Data Collection)	10	5	50
5	Data Entry Operator	5	8	40
	<b>Total Non-Key-Staff Inputs</b>			<b>153</b>
	<b>Total Staff Inputs (Key Experts + Non-Key Experts)</b>			<b>217</b>

The total estimated key experts' input is **64** person-months for Phase 1.

#### 4.4 Time Inputs of Key and Non-Key Experts (Phase 2)

S.N.	Key Experts (CVs shall be evaluated)	Inputs in month		
		No	Person-month (pm)	Total (pm)
1	Senior Researcher/Economist (Cum Team Leader)	1	14	14
2	Statistician/Data Analyst	1	14	14
3	DE Researcher	1	14	14
	<b>Total Key-Staff Inputs</b>			<b>42</b>
	<b>Non-Key Experts/Other Experts</b>			
1	Gender Parity Expert	1	8	8
2	Associates	1	14	14
3	Field Investigators (Data Collection)	5	14	70
4	Data Entry Operator	1	14	14
	<b>Total Non-Key-Staff Inputs</b>			<b>106</b>

The total estimated key experts' input is **42** person-months for Phase 2.

- Note:
  - a) *The Consultant is responsible to review the required services and may propose its own requirements for the key experts and other support staff required to complete the proposed services in a satisfactory manner.*
  - b) *The financial proposal should include all the direct and indirect costs necessary to execute the services.*
  - c) *The number of experts proposed for different positions shall match the Consultant's Technical Proposal.*

## 5. Duration

The entire consultancy work including submission of reports, documentation, deliverables, etc. shall be completed within 26 (Twenty-Six) months from the contract effective date out of which first 12 months will be denoted as phase one and rest 14 months will be denoted as phase two, where the phase two is subject to the project extension and successful completion of phase one.



## 6. Deliverables (Phase 1)

The following table describes the deliverables of this assignment, which are the outputs of the activities specified under the Scope of Services.

SL	Key Activities	Timing	Report	Delivery Conditions (Will be accepted after necessary corrections based on the comments from PIU)
1	<p>The Consultant shall host a kick-off meeting intended to review the goals, approach, scope of services, and deliverables in the Statement of Work.</p> <p>At this meeting, the awarded Consultant will present an Inception Report that describes the tasks, resources involved, and project timeframes for each of the deliverables.</p>	3 weeks from the effective date of contract	Inception Report	5 hard copies, 1 soft copy
2	The Consultant will conduct Digital Economy Round One (Baseline) Survey which should include the deliverables mentioned under the Scope of Services detailed in 3.1.1 – 3.1.8	5 <sup>th</sup> Month from the effective date of Contract	Report on Digital Economy Round One Survey	5 hard copies, 1 soft copy
3	The Consultant will develop a report on the Gender Gap in ICT Access which should include the deliverables mentioned under the Scope of Services detailed in 3.5.	6 <sup>th</sup> Month from the effective date of Contract	Report on Gender Gap in ICT Access	5 hard copies, 1 soft copy
4	The Consultant will develop a Smart Economy Strategy and Masterplan which should include the deliverables mentioned under the Scope of Services detailed in 3.4.1	9 <sup>th</sup> month from the effective date of contract	Report on Smart Economy Strategy and Masterplan	5 hard copies, 1 soft copy
5	The Consultant will develop a Digital/Smart Economy Strategy and Masterplan for IT-ITeS industry which should include the deliverables	11 <sup>th</sup> month from the effective	Report on Digital/Smart	5 hard copies, 1 soft copy

SL	Key Activities	Timing	Report	Delivery Conditions (Will be accepted after necessary corrections based on the comments from PIU)
	mentioned under the Scope of Services detailed between 3.4.2 to 3.4.4	date of contract	Economy Strategy and Masterplan for IT-IteS Industry and The Implementation, Contingency Plan	
6	The Consultant will conduct Digital Economy Round Two Survey which should include the deliverables mentioned under the Scope of Services detailed in 3.2.	10 <sup>th</sup> month from the effective date of contract	Report on Digital Economy Round Two Survey	5 hard copies, 1 soft copy
7	The Consultant will provide the Client a report on the completion of the assignment and conduct one workshop to discuss and close the activities of Phase 1.	12 <sup>th</sup> month from the effective date of contract	Phase 1 Final Report	5 hard copies, 1 soft copy, PPT presentations.






## 7. Deliverables (Phase 2)

The following table describes the deliverables of phase two of this assignment, which are the outputs of the activities specified under the Scope of Services. This scope is subject to the project extension and satisfactory performance by the consultant in phase one.

SL	Key Activities	Timing	Report	Delivery Conditions (Will be accepted after necessary corrections based on the comments from PIU)
1	The Consultant will conduct Digital Economy Round Three Survey which should include the deliverables mentioned under the Scope of Services detailed in 3.3.	25 <sup>th</sup> month from the effective date of contract	Report on Digital Economy Round Three Survey	5 hard copies, 1 soft copy
2	The Consultant will provide the Client a report on the completion of the assignment and conduct one workshop to discuss and close the activities.	26 <sup>th</sup> month from the effective date of contract	Full Final Report	5 hard copies, 1 soft copy, PPT presentations.

## 8. Management of the Assignment

The Client for the assignment will be the Project Implementation Unit (PIU) of Enhancing Digital Government and Economy (EDGE) of Bangladesh Computer Council (BCC) under the ICT Division, who will also issue the contract. The assignment focal points will be the Project Director, Enhancing Digital Government and Economy (EDGE) Project. The general obligations are as follows:

### 8.1 To be provided by the Consultant

During the assignment, the Consultant shall provide all the facilities for their staff and other logistical requirements like computers, printers, and facilities for the production and binding of reports, etc. on their own to fulfill their obligations. These will also include support staff and office facilities, office equipment and supplies, required equipment and materials for the assignment, and communications as required. The Consultant will be responsible for bearing the logistics, and associated expenses (e.g. venue, food, transportation) related to the events, workshops, FGDs, interviews, etc. The Consulting firm will set out the requirements in the technical proposal and provide the financial cost estimates for these in their financial proposal.

### **8.2 To be provided by the Client**

The client will provide appropriate direction, data, information, etc., and assist in communicating with other Government departments, communities, and stakeholders.

### **8.3 Administrative Arrangements**

The Consultant will work in close consultation with the project director under the general supervision and guidance of the respective team leaders and supervisors. The Consultant will assist in arranging all meetings with other government departments, communities, universities, and stakeholders.

