Invitation for Expression of Interest (EOI)
for Annual Adoption Survey
Feed the Future Bangladesh Climate Smart Agriculture Activity

The Feed the Future Bangladesh Climate Smart Agriculture Activity (CSA) of the International Fertilizer Development Center (IFDC), Asia Division is inviting an EOI for "Annual Adoption Survey of Feed the Future Bangladesh Climate Smart Agriculture Activity" from the intending Bangladeshi companies/firms engaged in this type of work. The Scope of Work is detailed below.

The interested companies/firms are requested to submit their technical and financial proposals, in PDF format within August 17, 2024 CoB **to the IFDC e-mail: ifdcbangladesh@ifdc.org** , address to **The Chief of Party, Feed the Future Bangladesh Climate Smart Agriculture Activity, IFDC Asia Division, Bangladesh**. Along with the proposal the intending company/farm shall also submit the information/documents mentioned at annexure 1 and 2. If you need any further query / information submitting the proposal, please contact the under mentioned:

Senior Administration and Operations Officer
Feed the Future Bangladesh Climate Smart Agriculture (CSA) Activity
IFDC Asia Division, Bangladesh
House # 27 Suhrawardy Avenue
Baridhara, Dhaka 1212, Bangladesh
kahmed@ifdc.org and Cell / WhatsApp: +8801886881969

Scope of Work:

Annual Adoption Survey of Feed the Future Bangladesh Climate Smart Agriculture Activity

1. Background

Bangladesh, as the 7th-most climate-vulnerable country in the world, faces severe climate-related challenges including increased flooding, drought, soil and groundwater salinization, extreme temperatures, cyclones, and sea-level rise, leading to loss of arable land and climate migration. These impacts are felt the most by smallholder farmer families as marginal lands become unsuitable for traditional crops and water sources become salinized or dry up entirely. They face increasing risks of losing their crops and livestock to catastrophic floods, drought, and other extreme weather events.

At the same time, the vast majority of Bangladesh's 16.6 million farm households continue to use traditional farming methods, which are not only inefficient but also release significant amounts of greenhouse gases1, which means smallholders are simultaneously both contributing to climate change and bearing the brunt of its impacts. Lack of access to actionable and timely information on soil, weather, and climate-smart farming techniques is a core problem.

Many farmers in Bangladesh are simply not aware of climate-smart practices or their benefits. Limited access to information and extension/advisory services hampers their ability to adopt climate-resilient techniques. Compounding the problem, smallholders often lack access to critical resources, such as capital, improved seeds, climate-resilient crop varieties, and modern farming machinery.

Farmers in Bangladesh routinely overapply fertilizers and pesticides under the belief that "more is better". This over-application imposes a "triple whammy" of economic, environmental, and climate change impacts leading to sub-optimal yields and money wasted on excessive inputs, both of which reduce farmers' incomes. Meanwhile, excessive use of synthetic fertilizers causes deterioration of soil health, and nitrogen-based fertilizers generate methane emissions, a major contributor to global warming. Similarly, excessive use of pesticides can contaminate soil, water, and the food chain, and can lead to acute and chronic health issues for users.

2. Activity Objective

The Feed the Future Bangladesh Climate Smart Agriculture Activity (CSA) is designed to sustainably transform Bangladesh's agriculture system to address the threats of climate change, and thereby improve the resilience and food and nutrition security of small holder farmers and rural communities. The **goal** is to improve agricultural productivity and enhance resilience to climate change among the Activity's participating smallholder farmers. The Activity is funded by the United States Agency for International Development (USAID) and implemented by International Fertilizer Development Center (IFDC).

The Activity's objective is two-fold: i) conduct actionable research on climate-smart technologies and practices that, if applied at scale, will result in a reduction in greenhouse gas emissions from smallholder agricultural production; and ii) through knowledge transfer and demonstrations on climate-smart agriculture, facilitate an increase in productivity among smallholder farmers while at the same time improving their climate resilience and reducing their climate impacts.

IR 1: Improved understanding of the potential for selected climate smart technologies and practices to reduce GHG emissions.

- Sub IR 1.1: Improved capacity of research institutions to measure and analyse GHG emissions generated in production of selected field crops.
- Sub IR 1.2: Increased awareness among farmers of GHG emissions and climate impacts from farming

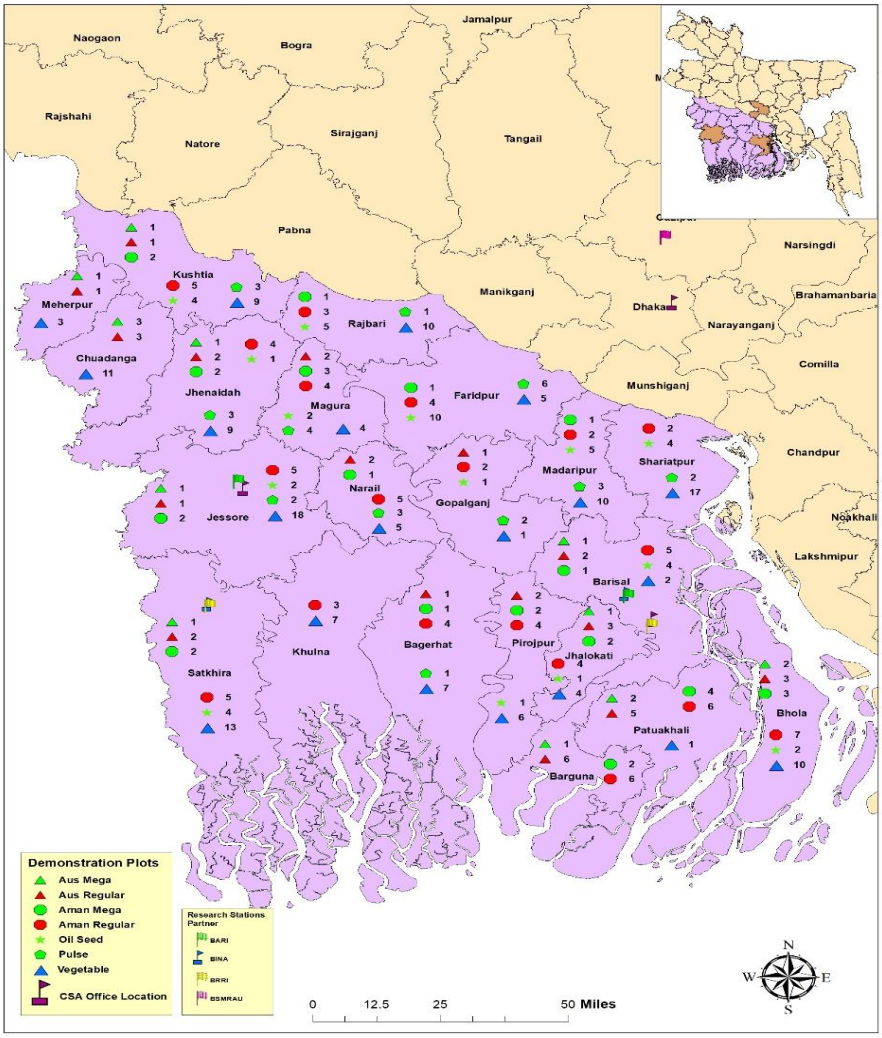
IR 2: Increased smallholder farmer application of climate smart technologies and practices

- Sub IR 2.1: Increased smallholder farmer access to information and training on CSA
- Sub IR 2.2: Improved understanding of CSA practices and technologies by smallholder farmers

2.1 Activity Location and Targeted Population

The CSA Activity will be implemented in the 21 districts in Feed the Future Zone of Influence (ZOI) in Bangladesh. Activity sites are comprised of research stations, on-farm research trial sites and demo plot locations. These are shown in Figure 1 below. To serve the geographic area, IFDC will operate from its primary office in Dhaka and two regional offices in Barisal and Jessore, allowing efficient use of project management and technical resources.

Geographical Distribution of CSA Interventions

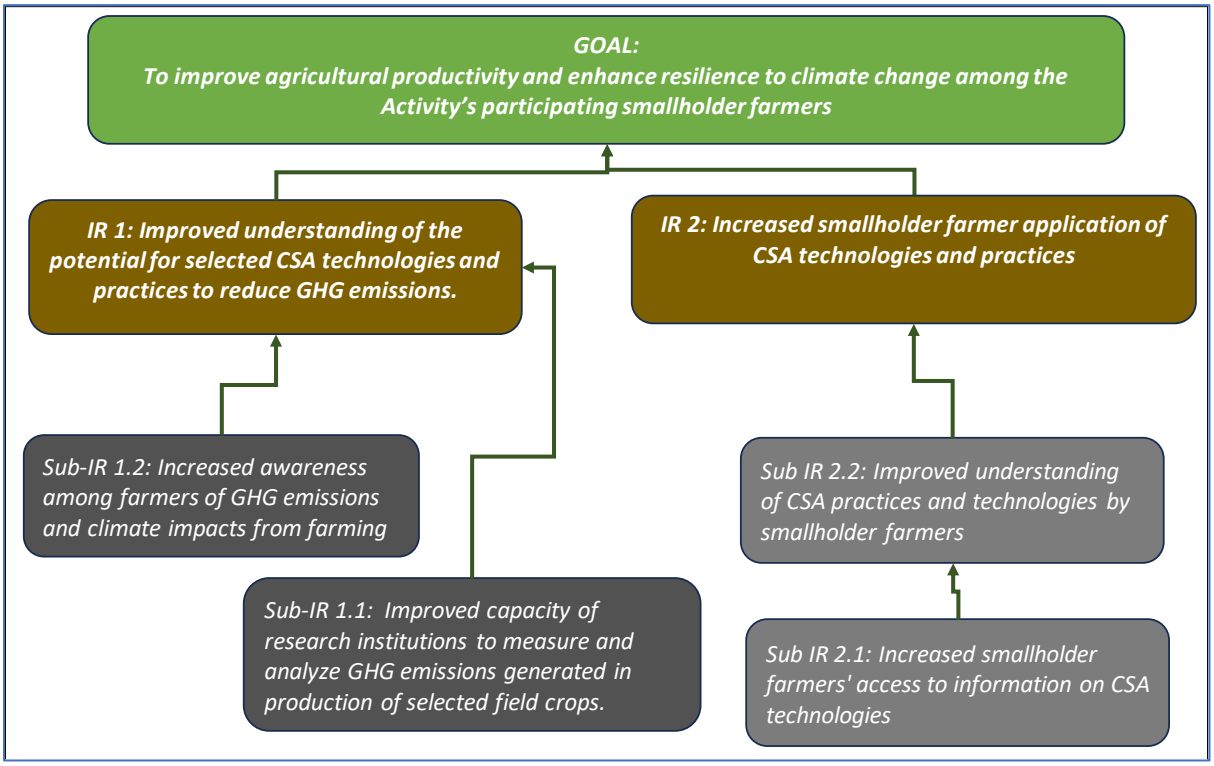


2.2 Activity Duration

The Feed the Future Bangladesh Climate-Smart Agriculture Activity will be implemented over a period of approximately 23 months beginning April 26, 2023, and ending on March 31, 2025.

2.3 Activity Theory of Change (ToC) and RF

The goal of the CSA Activity is "To improve agricultural productivity and enhance resilience to climate change among the Activity's participating smallholder farmers". To contribute to the CDCS results framework under DO4, the CSA activity has designed its own results framework to achieve its goals and intermediate results (IRs) over the Activity life cycle. The CSA Activity results framework consists of two intermediate results – IR 1: Improved understanding of the potential for selected climate smart technologies and practices to reduce GHG emissions; IR 2: Increased smallholder farmer application of climate smart technologies and practices, which entails four associated Sub-IRs. The CSA Activity results framework is shown in Figure below.



The Feed the Future Bangladesh Climate-Smart Agriculture Activity TOC states that **if** the economic and climate benefits of CSA practices, products and technologies can be effectively demonstrated to farmers, then their application will increase. **If** the application of CSA practices, products, and technologies increases, **then** yields, and subsequently income, will increase, production related GHG emissions will decrease, and smallholder climate resilience will be enhanced.

3. Purpose of Adoption Survey

The broad objective of this study is to undertake a comparative analysis to assess rate of climate smart variety and technology adoption and Activity's contribution in bringing about a change in the economic outcomes of climate smart technology adoption of targeted crops (rice, vegetable, pulses, oil seeds) in the FtF zone. The specific objectives of this assessment are:

- To assess the Factors, Performance and Impact of CSA implemented intervention of varieties, technologies and practices of different crops, which includes the assessment of adoption, yield, gross margin, income, etc.
- To assess the spillover effect (copying/copycat) and unintended results of intervention at producer level.
- To assess the inclusion of and uptake by female and youth in FTF zone.

4. Scope of Work

The selected consulting firm will collaborate with the CSA Activity to co-develop and implement the field survey, including the development of the methodology, questionnaire, and sampling approach. The firm will also conduct statistical analysis of the survey data and produce an analytical report with findings disaggregated by crop, technology, gender, and age, as required for USAID DIS reporting. The implementation of this survey will be planned across two broad phases:

- Inception Phase: Finalization of methodology, questionnaires, and sampling frame, followed by field testing.
- Implementation and Reporting Phase: Enumerator training, sample survey execution, analysis, sharing of findings, and reporting.

Inception Phase

To finalize the methodology, tools, and sampling frame, including field tests, the consulting firm will undertake the following steps:

- **Methodology Development:** For developing methodology, the consulting firm needs to consider.
    - Activity Result Framework and Theory of Change (ToC)
    - Promoted climate smart technologies.
    - Implementation Approach
    - Learning Questions
    - Measuring Indicators

  The Feed the Future Bangladesh Climate-Smart Agriculture Activity (CSA) will demonstrate climate smart technologies in six key areas, with maximum benefits to accrue to farmers from interaction with the technologies and methods in the farming system. The six key areas are: climate smart Seed Variety (Stress tolerant, Nutrient and High Yielding Variety), Soil Management, Fertilizer Management, Water Management, Crop Protection Product and Mechanization.

  To increase the adoption of climate smart technologies, the Activity has initiated several interventions, including farmer and LSP training, climate smart technology demonstrations, Farmer Field Days, and motivational meetings. These efforts have resulted in over 11,700 direct outreaches as of July 2024 (expected to increase by September 2024) within the reporting

period (Oct 2023 - Sep 2024), covering rice, vegetables, oilseeds, and pulses production farmers across various cropping seasons: Aman 2023, Rabi 2023-24, Boro 2024, Aus 2024, and Kharif 1 2024. Below given Crop and Season wise Outreach Number:

Outreach-Farmer	Rice	Vegetable	Pulse	Oil Seed	Rice	Vegetable	Pulse	Oil Seed	Rice	Vegetable	Pulse	Oil Seed
Season	Barishal				Jashore				Total			
Rabi 2023-24		120	540	420		330	210	270		**450**	**750**	**690**
Boro 2024	2520				3000				**5520**			
Aus 2024	960				660				**1620**			
Kharif1 2024		900				1350		420		**2250**		**420**
Total	**3480**	**1020**	**540**	**420**	**3660**	**1680**	**210**	**690**	**7140**	**2700**	**750**	**1110**
Female	**1096**	**314**	**152**	**110**	**890**	**443**	**36**	**179**	**1986**	**757**	**188**	**289**
Youth	**648**	**258**	**81**	**82**	**671**	**392**	**35**	**122**	**1319**	**650**	**116**	**204**
LSP	**20**								**20**			

CSA considered below learning questions to gather data and evidence.

- Learning Question: What factors influence farmers' willingness to adopt climate smart technologies?
- Learning Question: How do perceived benefits and risks affect the adoption rates of these CSA practices and technologies?
- Learning Question: Which climate smart crop varieties and technologies provide the most economic and climate benefits?

The stated intermediate result 2 (IR 2) will be measured through below indicators, such as.

- EG.3-2: Number of individuals participating in USG food security programs [IM-level]
- EG.3.2-24: Number of individuals in the agriculture system who have applied improved management practices or technologies with USG assistance.
- EG.3.2-25: Number of hectares under improved management practices or technologies with USG assistance
- EG.3-10, 11, 12: Yield of targeted agricultural commodities among program participants with USG assistance [IM-level]

Considering above stated details, the selected consulting firm will finalize the methodology, collaborate way with CSA MEL team.

- Sampling Framework: Develop a sampling framework using the USAID participants-based sampling guideline (2018). Finalize the list of samples for the survey, Key Informant Interviews (KII), Focus Group Discussion (FGD) and case studies accordingly.
- Survey Questionnaire: The selected consulting farm will finalize the survey questionnaire, taking into account performance indicators aligned with the result framework, Theory of Change (ToC), and learning questions. A draft of the questionnaire will be shared with the CSA Monitoring, Evaluation, and Learning (MEL) Team for collaborative finalization. Once finalized, the consulting firm will translate the questionnaire into Bangla. Additionally, the firm will develop outlines for key informant interviews and case studies.
- Training and Survey Plan: Upon finalizing the questionnaire through field test and sampling list, prepare a draft training and survey plan.

- Enumerator Selection: Concurrently, to facilitate the implementation phase, the selected consulting firm will identify and recruit qualified enumerators to complete the task within the designated timeframe (completion date: September 5, 2024).
- Inception Report: At this stage, the consulting firm will submit the inception report, including all the documents prepared above.

Implementation and Reporting Phase:

- Survey Instruments: After finalizing the questionnaire in both Bangla and English, the selected consulting farm will convert it into the ODK platform for data collection, with guidance from the CSA data management expert. All tool development activities must be completed before the enumerators' training.
- Enumerator Training: The consulting firm will organize 5 days training for the selected enumerators. The schedule will include:
    - Day 1: One day for questionnaire orientation.
    - Day 2: Half day for an in-house mock test.
    - Day 2-3: One and a half days for ODK orientation.
    - Day 4: Field exercise using the ODK tool, followed by a feedback session and an in-house ODK mock test.
    - Day 5: First half of the day will be dedicated to team formation for conducting the field survey and sharing the field plan for smooth operations. The second half of the day will be used for traveling to the respective locations.
- Field Survey: The field survey will be conducted using ODK software starting the next day (Day 7). Please note that if an in-person survey is not possible due to political unrest, it is essential to have an alternate plan in place to ensure the survey is completed on time.
- Analysis Plan: The consulting firm will finalize the analysis plan, which will include cross-tabulation, descriptive and inferential analysis, and statistical tests for validating the learning hypotheses in the Theory of Change (ToC). All data management and analytical work will be completed under the guidance of the CSA MEL team.
- Findings Sharing: Draft analytical results will be shared with CSA Management before proceeding to narrative report preparation.
- Report: Develop a narrative reporting template, including infographics, to be finalized through outline sharing with the CSA MEL Team.
- The Draft Adoption Survey Report will be shared with CSA Management for peer review and will be finalized after incorporating feedback from the review.

4.1 Sampling Strategy

It is recommended to apply a sampling strategy in accordance with the USAID participant-based sampling guidelines. The proposed approach involves determining a representative sample size by considering the total number of participants in the CSA, as well as factors such as crop, season, geographic location, gender, and age for the quantitative survey.

For the qualitative component of the study, relevant stakeholders will be identified, and an appropriate number of tools will be suggested, including Key Informant Interviews (KIIs), Focus Group Discussion (FGD) and case studies. The samples for KIIs and case studies will be selected using purposive sampling techniques to ensure adequate coverage of the Activity area. While the specific numbers for these samples may be arbitrary, the goal is to ensure comprehensive representation across different areas.

4.2 Data Analysis

The survey data will be analyzed using appropriate statistical software, while the qualitative data will be examined through thematic analysis. The quantitative data will also be analyzed using descriptive statistics, inferential statistics, and econometric modeling as appropriate. The survey team will triangulate the quantitative and qualitative data to provide a comprehensive understanding of the current situation of the beneficiaries in relation to the Activity components and results framework indicators. Additionally, the survey team will provide a summary of the survey findings and recommendations for the design of the Activity's interventions.

4.3 Quality Control

The study team will ensure data quality by employing rigorous sampling techniques, pretesting the survey tools, and training data collectors on ethical principles and data collection techniques. Regular quality control checks will be conducted to ensure that the data collected is accurate and reliable. Additionally, the survey team will document any challenges encountered during the survey process and provide solutions to address them.

4.4 Ethical Issues

It is essential to adhere to ethical standards in conducting this study. The study must be performed with appropriate clearance and consent at both the institutional and individual levels. Data collection without informed consent is strictly prohibited.

Individuals who agree to participate in the study must be fully informed about the purpose, procedures, potential risks, benefits, and their rights as research subjects. Consent should be obtained voluntarily, without coercion or manipulation, and participants should have the freedom to withdraw from the study at any point without facing repercussions.

Confidentiality measures must be implemented to protect the privacy of the collected data, ensuring that sensitive information remains strictly confidential and is only accessible to authorized personnel involved in the study.

Furthermore, the study team must uphold transparency and accountability throughout the research process. They should maintain accurate records of the consent obtained and have mechanisms in place to address any concerns or questions raised by participants during the study.

4.5 Deliverables/ Reporting

The adoption survey will be the key performance report to determine the outcome and impact of facilitated interventions with Activity's indicators, it is expected that the selected firm will be giving a detailed report on how the progression for reporting year of the indicators will be determined. However, at the end of the consultancy, CSA will be looking forward to receiving the following:

- An Inception Report with survey methodology, sampling procedure, draft survey questionnaires and revised work plan shall be submitted.
- Al the survey Instruments with analysis plan including reference questions (indicator specific calculation process, disaggregation and link up with survey question number)
- Presentation of draft findings and validate through the CSA management and USAID representative.
- Two copies of the final report (hard copy) and a soft copy of the final report including Indicator wise progress with base status

- One copy of the final PowerPoint presentation (in soft copy) in English.
- Cleaned Data sets of quantitative and qualitative analysis and other relevant documents should be submitted.
- Images captured during the study should be incorporated into the draft report and submitted.

5. Team Composition

The proposed consultant team will possess a robust academic background, extensive knowledge and significant experience, enabling them to effectively manage the survey. The team composition will emphasize individuals with a proven track record in conducting such surveys and research. Furthermore, key team members will demonstrate expertise in Climate Change Mitigation and Adaptation approach within Agriculture. This includes specialization in climate smart seed varieties (both public and private), FDP, UDP, soil health, water management, plant protection products, agricultural mechanization, as well as gender and youth inclusion strategies. Moreover, the team will exhibit proficiency in administering participatory methods and tools at the grassroots level. To ensure comprehensive coverage and quality execution, key team members will be responsible for recruiting additional personnel for data collection, data management, and data analysis as require

6. Time Frame

The consultant will submit a proposed work plan with key milestones within a week of signing the contract along with inception report. This work plan will be reviewed and approved by CSA Management. The questionnaires both qualitative and quantitative anticipated to be shared with CSA and CSA will review and provide input which will be incorporated in consultation with the CSA team. Below provided anticipated timeframe

Major Activities	End Date
Technical and Financial proposal submission though email	August 17, 2024
Proposal Review, Evaluation and Signing of Contract	August 24, 2024
Initiation meeting after signing contact	August 25, 2024
Finalization of Questionnaires and survey tools with field testing	September 01, 2024
Inception Report	September 01, 2024
Enumerators Training and share field survey plan	September 01-05, 2024
Survey conduction	September 07-15, 2024
Data processing and analysis	September 16-20, 2024
Key Findings Sharing with CSA management and USAID for validation	September 25, 2024
First draft of Study Report with raw datasets, tools and analysis syntax, table (soft copy)	September 30, 2024
Feedback from CSA and USAID	October 05, 2024
Final report submission (soft and hard copy)	October 10, 2024

7. Checklist for Proposal Submission

The agency/consultant will submit a detailed proposal for the assignment. The proposal must reflect the methodology, tools, analysis plan and reporting formats in detail. The proposal should be divided into two parts i.e. technical and financial.

The technical part will contain the following sections.

- Background
- Literature review
- Understanding and conceptualizing the assignment
- Detailed methodology including a proposed sampling framework, measuring area with source and methods.
- Detailed timeframe (including dates for submission of the first draft and final report).
- Detailed CV of the team members containing experience on relevant issues and/or profile of the organization (in case of an organization).
- Sample of previous works of a similar nature undertaken.
- A consulting firm profile (if applicable) and TIN certificate.

The financial part will describe the estimated cost in detail. It should be given in a separate worksheet.

8. Payment Modality

As per IFDC standard policy and guidelines.

Interested candidates are requested to submit technical and financial proposal to below email with relevant supporting documents ifdcbangladesh@ifdc.org

Annex -1
Vendor Information Form

Please provide the following information and enclose documentary evidence.

Information Required	Information provided by the vendor	Remarks
Name of the Company/Firm		
Registration authority of the company/firm in Bangladesh		
RJSC Reg. No. (if any)		
IDRA Reg. No.		
City Corporation/Municipal body issued Trade license number. And up-do-date renewal		
Registration with other related bodies, like chambers of commerce or other professional body (if any)		
Taxpayers Identification Number (TIN)		
Latest tax return acknowledgment slip		
BIN/VAT Registration Number		
Name of the banker		
Bank Account number		
Bank Account name and title		
Bank Branch Name		
Routing number		
Swift number		
Name of the Managing Director/Chief Executive Officer/Proprietor of the company/firm		
NID/Passport number and Cellphone number and e-mail of MD/CEO/Proprietor		
Name and Designation of the Company representative/contract person with whom IFDC will contact time-to-time		
Provide the NID, telephone, and e-mail of the representative/contact person		
Any Agency you assigned for this purpose, please provide their details		

Signature : _____
Name : _____
Title : _____
Date : _____

[Seal of the Company/Firm]

Annex -2
Previous Relevant Experience Form

Description of Work	Contract Identification and Title and Contact details of Client (Name, Address, telephone, email, fax)	Period of services provided

Certified that the information provided in this section is true and we are ready to provide the evidence on demand.

Signature : _____
Name : _____
Title : _____
Date : _____

[Seal of the Company/Firm]