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G H A N A

ANNEX I

TERMS OF REFERENCE (ToR)

GENERAL INFORMATION

Services/Work Description: National Consulting Firm to Develop Climate Finance Dashboard for the Government of Ghana

Project/Program Title: Inclusive Budgeting and Financing for Climate Change in Africa (IBFCCA) Programme- CPEIR

Duty Station: Ministry of Finance / Firm's Office

Type of the Contract: Consultancy Firm

Duration: 55 Working Days distributed over three months.

Expected Start Date: 30th September 2021

I. BACKGROUND / RATIONALE

Over the past years Ghana's economic progress has been on a positive trajectory, underscoring its huge potential to achieve the level of development required to not only lift millions of its citizens out of poverty but also improve their general welfare. The attainment of lower middle-income status by Ghana was because of conscious economic and political transformation initiatives aimed at devising and implementing strategies and programmes to promote economic growth, poverty reduction and overall improvement of citizens' welfare. However, these positive developments are met by challenges such as climate change, which not only threaten the achievement of sustainable development and poverty reduction but could also potentially reverse the gains made so far towards attaining the Sustainable Development Goals (SDGs).

To address the climate change threats, the Government of Ghana has over the years consistently worked on providing an enabling environment with policy formulation, mobilization of resources, facilitation of engagement and above all, coordination of multiple efforts by different actors with the aim to achieve climate resilient, low carbon and sustainable development. In the 10-year period of its post-2020 enhanced climate action plan Ghana has estimated that up to US\$22.6 billion in investment from domestic and international public and private sources are needed to finance its climate adaptation and mitigation ambition. The current COVID-19 pandemic is additionally highlighting the required financial investment needed to build back better, ensure green growth, inclusive and equitable sustainable development is critical.

The mobilization of these resources is fundamental to the Implementation of Ghana's commitments under the Paris Agreement. Prior to the ratification of the Paris Agreement by Ghana, the Ministry of Finance commissioned the first ever CPEIR study in Ghana in 2015. The study revealed that the budget allocation for

climate change relevant actions of GH¢ 637 million in 2014 (approximately US\$ 210 million) represents a very low base upon which the National Climate Change Policy (NCCP) has to build over the next five years to accomplish its objectives.

Since 2015, Government has adopted and implemented a number of mechanisms and approaches such as the climate change budget tracking tools, the Integrated National Financing Framework, the National Voluntary Review report on the implementation of the 2030 Agenda, all aimed at providing a more proactive and collaborative SDGs, and in particular climate change integrated, budgeting process within and among Ministries, Department and Agencies (MDAs). While there are ongoing studies by the Government of Ghana to assess the impact of COVID-19 on achieving its climate targets, there is a need for Government to identify and prioritize funding gaps and to be innovative in sourcing additional resources to address the gaps in public and private climate finance inflows. To achieve that, a comprehensive system is needed to be put in place by government as part of its Public Financial Management, to provide comprehensive information management with a system that monitors and reports public and private inflows and expenditures in Ghana.

In February 2021, UNDP in collaboration with the Ministry of Finance, initiated the second comprehensive CPEIR. As Ghana already has a functioning Climate Budget Tagging (CBT) system integrated in the national financial management system, the second CPEIR is expected to help bridge the gap between the first CPEIR and the implementation of the CBT reporting. In furtherance to this, Ministry of Finance with the support of UNDP under the Inclusive Budgeting and Financing for Climate Change in Africa (IBFCCA) Programme is seeking to recruit eligible firm operating in Ghana to develop Climate Finance Reporting Dashboard to be hosted on MoF's server for information sharing and reporting.

The IBFCCA's objective is to promote climate resilience in Africa and to support governments to benefit from the opportunities of a just transition to a net zero carbon future. The IBFCCA further aims to support reforms to integrate Climate Change into the budget process.

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II. OBJECTIVES OF THE SERVICE / WORK

The main objective of this assignment is to support the Ministry of Finance to develop web-based climate finance dashboard for climate finance reporting.

III. SCOPE OF THE SERVICE / WORK

The main assignment will cover the development of the dashboard for climate financing reporting and information sharing in Ghana, specifically:

- a. The service provider shall:
 - I. Conduct a needs assessment of the existing IT infrastructure at MoF to prepare the precise System dashboard requirement Including SSL certificate for 1 year
 - II. Provide concrete development plan in the SRS, which should include all necessary diagrams
 - III. Design the solution architecture of the web-based dashboard in a manner for better performance, flexibility, scalability, extensibility, and multitenancy of the system for future expansion
 - IV. Ensure the system's compatibility with other web-based solutions in terms of data exchange

- V. Ensure Role Based Access Control (RBAC), application-level security and on-demand support to Helpdesk for uninterrupted live service.
- VI. Ensure the system's ability to encrypt user IDs and passwords and impose minimum password lengths along with ability to reset passwords following a standard password strategy. User log management shall be recorded.
- VII. Develop a dashboard presenting dynamic data in tabular and graphical forms.
- VIII. The proposed application should have a robust multimedia content management system with support for video, audio, pdf, word, ppt etc. It should have an on-demand video streaming capability.
- IX. It should have a dynamic content management system (CMS) with support for content upload, tagging, searching and download. Content hit/view/download count will be recorded and presented in dashboard and printable reports. A user level permission will be set to control who can upload, publish, and download contents.
- X. Include migrated contents (video, audio, images, texts, pdf etc.) from the previous version in the application
- XI. Ensure that the dashboard platform is cross browser compatible, responsive, and graphically attractive.
- XII. Ensure that the contents of the proposed application, is in English Language.
- XIII. Ensure that the system is well tested. All necessary security and performance (load testing and stress testing) tests need to be followed and conducted by the consultant.
- XIV. Supervise User Acceptance Testing (UAT) and address all feedback issues.
- XV. Work with the CPEIR Functional Technical Committee, BTAS and the MoF IT Unit mandated to review and assist in the enactment process of the operations manual and guidelines
- XVI. Develop simple template for data collection

The service provider shall indicate cost of any development tool for the dashboard as part of his financial proposal.

IV. EXPECTED OUTPUTS / DELIVERABLES

- a. Inception Report
- b. Software Requirement Specification SRS
- c. Development of dashboard for MoF
- d. Data Migration Document
- e. User Manual
- f. Knowledge transfer through workshop/Training.
- g. Source code & database
- h. Project Completion report including upcoming challenges if any.
- i. Provide 6 months Support & Maintenance Service.
- j. All the materials developed by the consultant shall remain the Ministry's intellectual property.

V. METHODOLOGY / APPROACH OF THE SERVICE (WORK)

The methodology the service provider is expected are stated below, however, the service provider may consider alternatives or improvements that would achieve the results.

- a. comprehensively review and map-out existing or similar dashboard related to climate finance reporting in Ghana and analysis gaps and opportunity. It is expected that the service provider collect primary data using structured ethnography or assessments as well as secondary data sources such as existing policies and processes regarding the assignment;
- b. be comprehensive as possible and provide step by step elaboration (how-to) of accessing, processes and procedures; and methods and tools to be used to display information clearly and efficiently generate climate finance reports and analysis to ensure effective delivery of climate reporting information sharing;
- c. make presentation at stakeholder workshops for validation of the tool (dashboard) and guidelines;
- d. provide training for Functional Technical Committee on the use of the dashboard and guideline, developed; and
- e. documentation of the design process and the lessons learnt.

In all cases, the reports must be communicative, easy on the eye, and designed to the standards and specifications of the United Nations Development Programme. UNDP as well as MoF, will provide guidance on the design standards and specifications.

VI. LOCATION, DURATION AND TIME FRAME OF THE WORK /DELIVERABLES/OUTPUT

- a. Provide 6-month support & maintenance service of the dashboard from the date of contract signing. Support & Maintenance will cover fixing all bugs and system errors as and when identified by the system users.
- b. Service provider shall advice server maintenance engineer on backups and sytem restoration procedures to meet up the challenge of system recovery
- c. The Service provider will work at their office premises, but in case of special requirement, they may work at the client's premises.
- d. A MoF Officer will be assigned to work closely with the IT Unit to ensure proper delivery of any assignment during the support and maintenance phase
- e. The assigned IT personnel for support & maintenance must be regular employees of the Client.

The assignment should be delivered within 55 working days (within 55 Days) distributed over three months

Stages	Deliverables	Timelines
Initiation	Inception Report	Within 1 week of Project initiation
	<ul style="list-style-type: none"> Project Team established. Detailed Project Plan approved by the Steering Committee. 	

Analysis	<ul style="list-style-type: none"> • Software Requirements Document approved by the MoF; • Preliminary Training Plan; • Project Quality Plan; 	Two weeks of project Initiation
Design	<ul style="list-style-type: none"> • Technical Design Specifications (Architectural design document validated and approved) • Roadmap for expected application changes 	Two weeks after analysis Phase
Development & Test	<ul style="list-style-type: none"> • Built Solution; • Up-to-date Training Plan; • Test documentation • Installation Manual • Source code, build procedures and supporting documentation • System Acceptance Tests Plan • Complete system documentation • User Manual 	4 weeks of Design Phase
Deployment and Data Migration	<ul style="list-style-type: none"> • Compliance with the Training Plan; • Training Support Material • Environmental Quality (acceptance tests) prepared and available; • Production Plan; 	One week after Development & Testing
Training	<ul style="list-style-type: none"> • Key users of the solution trained; • Training Evaluation Surveys done 	One week after Deployment
After Production		
Go-Live	<ul style="list-style-type: none"> • System deployed; • Updates of the system documentation, user documentation and training materials if needed; • Report on the tasks results; 	1 day
Maintenance & Closure	<ul style="list-style-type: none"> • Project Completion Report 	3 months after Go-live

VII. INSTITUTIONAL ARRANGEMENT / REPORTING RELATIONSHIPS

- a. The Service Provider will be under the overall supervision of the UNDP Deputy Resident Representative and will work directly with the Head of Environment and Climate Cluster. The Service Provider will seek approval from, and obtain certificate of acceptance of output from the Head of

Environment and Climate Cluster b. The Service Provider will have a 30-minute weekly check-in calls with the Head of the Inclusive Development Cluster.

c. The Service Provider is expected to liaise with the Ministry of Finance, Ministry of Environment, Science, Technology and Innovation(MESTI), Environmental Protection Agency and other partners in the course of performing the work.

VIII. PAYMENT MILESTONES AND AUTHORITY

A winning Proposer shall then be paid the lump sum contract amount upon certification of the completed tasks satisfactorily, as per the following payment schedule:

Payment	Deliverables / Stages	Percentage of payment
1 st Installment	A report detailing the completion of the initiation stage	10 %
2 nd Installment	A report detailing the completion of the Analysis & Design stage	30 %
3 rd Installment	A report detailing the completion of the Development & Test stage	30 %
4 th Installment	A report detailing the completion of the Deployment and Data Migration and training stage	20 %
5 th Installment	Project Completion Report	10%

IX. MINIMUM REQUIREMENTS

9.1. MINIMUM ORGANIZATION REQUIREMENTS

The prospective Service Provider is expected to meet the following minimum requirements:

- It must have at least 10 years of practical experience in dashboard development or similar type of work;
- demonstrate an understanding of the Government of Ghana public finance management system (especially the GIFMIS/Hyperion);
- Have experience of managing at least Two (2) web-based applications with GoG or with large scale corporate sector/institutions.
- Proven track record of a single project aging at least 2 years in the field of Web-based IT Solution/Dashboard Development;
- Demonstrate its management capacity (website link/brochures and other documents describing similar assignments, experience, availability of appropriate professional staff and experience among applicant's staff, resources to carry out the assignment);
- Demonstrate its logistical capability (well-equipped office space at Accra with necessary facilities);

The multi-disciplinary team should comprise members with the following educational qualifications; experience and competencies:

9.2. TASK MANAGER / TEAM LEADER

Academic Qualification:

- At a minimum a Master's degree in Computer Science and Engineering/ICT from a reputable university
- Relevant qualification in software development

Experience:

- Minimum 10 years' experience in Software development and managing IT projects.
- Knowledge of cloud technologies
- Experience in the use of Database Management solution
- Experience in leading such an assignment, preferably in Government of Ghana's IT projects

Competencies:

- Have experience in dashboard development or similar type of work;
- Ability to work under pressure, with a group of UN agencies, and to deliver in a timely manner without compromising quality standards;
- Good communication skills; and
- Good presentation and facilitation skills;

9.3. TECHNICAL CONSULTANT / SENIOR EXPERT

Academic Qualification

- Minimum BSc. in Computer Science, Data Science, IT, or relevant field.
- Certification in data analytics or standard reporting such as OBIEE is required.
- Oracle Certified Professional is an added advantage.
- Relevant qualifications/certifications and/or industry-experience in the software development space.

Experience

- Experience as a BI Consultant, Data Scientist, Design Strategist, or similar role. Project management experience in medium-to-large scale projects is a plus.
- 5+ years development experience with some 2 years coding experience in the .NET Core ecosystem preferably in C#, MVC, and building Restful APIs.
- Experience in data analytics or standard reporting.
- Good experience in UI frameworks such as React, Angular, Bootstrap with JS, or ECMAScript6 standards.
- Familiar with standard version control systems such as Git.
- Good oral communication skills.

Competencies

- In-depth understanding of object-oriented development, design pattern, and Agile modeling.
- Strong understanding in DW/big-data concepts or architecture.
- Hands-on data-integration experience using business intelligence tools (such as OBIEE or Microsoft Power BI) and data processing frameworks (preferably IBM Cognos Analytics or Informatica PowerCenter).

- Proficiency in SQL and Query optimization: Oracle or MSSQL, PL/SQL or T-SQL, building complex queries.
- Visualizer, analytically focused, and operational systems minded.
- Good understanding of web/cloud applications and related services.

9.4. PROJECT STAFF / ASSOCIATE CONSULTANT / TEAM MEMBER

A First degree in Computer Science and Engineering/ICT or related from a reputable Institution.

Experience:

- Minimum 5 years' experience in software development industry in Ghana
- Excellent communication skills with ability to express ideas clearly, concisely, and effectively, in English speaking and writing.

Competencies:

- Have experience in dashboard development or similar type of work;
- Strong communication skills; and
- Strong presentation and facilitation skills;

X. CRITERIA FOR SELECTING THE BEST OFFER

Upon the advertisement of the Procurement Notice, qualified Consultancy Firms are expected to submit both the Technical and Financial Proposals. Accordingly, the firms will be evaluated based on a Cumulative Analysis as per the following conditions:

- Responsive/compliant/acceptable as per the Instruction to Bidders (ITB) of the Standard Bid Document (SBD), and
- Scoring against a pre-determined set of weighted technical and financial criteria specific to the solicitation. In this regard, the respective weight of the proposals are:

- a. Technical Criteria:70%
- b. Financial Criteria:30%

XI. LOGISTICAL SUPPORT

UNDP will ensure that the Consultancy Firm receives access to the UNDP Ghana Compound in Accra, Ghana. When required, the Firm will be provided with workspace and internet access within UNDP.

XII. RECOMMENDED PRESENTATION OF TECHNICAL PROPOSAL

For purposes of generating proposals whose contents are uniformly presented and to facilitate their comparative review, the bidders are advised to use a proposed Table of Contents. Hence, the Technical Proposal document must have at least the preferred content as outlined in the respective RFP Proposal Submission Form.

XIII. CONFIDENTIALITY AND PROPRIETARY INTERESTS

The Service Provider and Team Members shall not either during the term or after termination of the assignment, disclose any proprietary or confidential information related to the consultancy or the Government without prior written consent. Proprietary interests on all materials and documents prepared by the consultants under the assignment shall become and remain properties of UNDP. This assignment will be administrated by the United Nations Development Programme (UNDP), and all relevant UNDP rules, policies and procedures will apply.

PROPOSED STANDARD TECHNICAL PROPOSAL EVALUATION CRITERIA

Herewith please find the Standard Technical Proposal Evaluation Criteria along with respective allocated weight template for Requester's subsequent review.

ITEM NO.	EVALUATION CRITERIA FOR TECHNICAL SERVICES	Points
1	Relevant Experience <ul style="list-style-type: none"> General experience Specific experience in similar project and environment. 	<i>10</i> 5 5
2	Methodology and Work plan for Performance of Services including Quality Control (Methods Statement) <ul style="list-style-type: none"> Methodology Work Plan 	<i>30</i> 20 10
3	Qualification & Experience of Key Staff <ul style="list-style-type: none"> Professional qualification Leader should have at least 5 years' experience 	<i>30</i>
4	Facilities, Equipment, Materials & Consumables	<i>20</i>
5	Compliance with Safety, Health & Environment Standards	<i>10</i>
	Total points for the five criteria (Item no. 1-5)	100

This TOR is prepared by:

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Designation: ICT Associate

Signature: 

Date Signed: 07-Sep-2021

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This TOR is approved by:

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Designation: Deputy Resident Representative a.i

Signature: Jelena Raketic

Date Signed: 07-Sep-2021