

**GHANA**  
**GREATER ACCRA RESILIENT AND INTEGRATED DEVELOPMENT PROJECT (GARID)**  
Consulting Services through Framework Agreement for Selection of individual Drainage Engineer  
Consultant to the Project Implementation Units

**REFERENCE No.: GH-MZIC-328378-CS-INDV**

**TERMS OF REFERENCE**

**1.0 INTRODUCTION**

1.1. The Greater Accra Metropolitan Area (GAMA) hosts 20 percent of the country's estimated 28 million people, contributes to about 25 percent of Ghana's GDP and is the home of the capital of Ghana, Accra. Accra is located along the Atlantic coast and lies within 0 to 144 meters above sea level. The area has four major drainage catchment areas, the Odaw River, within the Korle-Chemu catchment area drains most part of the built-up area in central Accra and runs through about six participating Metropolitan, Municipal and District Assemblies (MMDA) in the Region. The area delineated for project intervention is 272km<sup>2</sup> and 30km long.

1.2. The rainfall regime is bimodal with a major season between the months of March and July with a minor season from September to November. Rains are often short, intense and associated with floods.

1.3. The urban poor in Accra are more vulnerable to floods as they are mostly settled in low lying and unapproved areas. Slum dwellers constitute about 38.4 percent of the city's residents and are subject to poor infrastructure, basic services and housing.

1.4. The increase in the built-up area, low elevation, overcrowded spaces, lack of adequate sanitation and drainage infrastructure and weak regulatory enforcement could increase vulnerability to floods. For example, the most severe flood in recent times, the June 3, 2015 flood, was assessed to have been aggravated by the blockage of drains by solid waste materials. The flood and subsequent fire in a petrol station resulted in the loss of an estimated 150 lives and affected about 53,000 people. If the status quo continues, with the impact of climate change flood incidents could increase in Greater Accra Area.

1.5. The Government of Ghana has received World Bank's assistance in financing the Greater Accra Resilient and Integrated Development (GARID) Project over a six -year period. The Project aims at supporting critical investments to cope with increased urbanization pressures, and, disaster and climate change impacts in Greater Accra Region.

**2.0 OBJECTIVES OF THE PROJECT**

2.1 As a contribution to the government's objective of improving urban resilience, the Project Development Objective is to improve flood risk management and solid waste management in the Odaw River Basin of the Greater Accra Region and improve access to basic infrastructure and services in the targeted communities within the Odaw River Basin".

2.2 To meet the overall Objective, the GARID project focuses on five components as follows:

- i. Component 1: Climate Resilient Drainage and Flood Mitigation Measures
- ii. Component 2: Solid Waste Management Capacity Improvements
- iii. Component 3: Participatory Upgrading of Targeted Flood Prone Low-income Communities and Local Government Support
- iv. Component 4: Project Management
- v. Component 5: Contingent Emergency Response Component

2.3 The key implementing entities for these components are Ministry of Works and Housing (MWH); Ministry of Sanitation and Water Resources (MWSR) and Ministry of Local Government and Rural Development (MLGRD). The Ministry of Works and Housing, like the other entities shall be working closely with Project Support Units (PSUs) established in the 2 MMDAs in which the selected communities for upgrading are situated.

2.4 Collectively, progress in these five components will alleviate flooding in Greater Accra and particularly communities within the Odaw River basin. Every opportunity will be taken to ensure that the long-term vision for the nation's capital to be an economic hub is retained and infrastructure deficient communities within the Odaw channel which are affected by the drainage improvements are upgraded. Flood modelling studies have identified the areas and low-income communities that are most affected by flood events.

2.5 The Ministry of Works and Housing (MWH) has overall responsibility for project implementation but for Component 3, the Participatory Upgrading of Targeted Flood Prone Low-income Communities, the GARID Project Coordinating Unit (PCU) of the Ministry of Works and Housing has been given responsibility to guide and manage implementation together with Project Support Units (PSUs) established in each of the 2 relevant MMDAs (see Table 1) in which the communities to be upgraded are situated.

**Table 1: Proposed Phase 1 of Tertiary Infrastructure Upgrading and Primary Links for Three Selected Communities**

Area No	Name	MMDA	Area (ha)	Population <sup>1</sup>
1	Nima	Ayawaso East	33	25,963
2	Akweteyman	Okaikei North	18	15,550
3	Alogboshie	Okaikei North	17	13,200
<b>Total</b>			<b>68</b>	<b>54,713</b>

### 3.0 OBJECTIVES OF THE CONSULTANCY

3.1 This Terms of Reference is for Technical Assistance (TA) from an individual consultant (Drainage Engineer) to support the core Ministry's Project Implementation Unit (PIU), PCU and PSU staff. The individual consultant will work part-time over an initial period of one year as required.

3.2 The overall objective of the assignment is to; i) provide overall support to the Project PIU, PCU, PSU and the project as a whole in technical aspects, procurement and contract management, social and environmental safeguards, health and safety of project related activities and monitoring and to; ii) assist MWH PIU, PSU and PCU in identifying major issues with project implementation, proposing solutions and in reporting on project progress to MWH and World Bank as required.

3.3 The individual consultant will be expected to liaise with other consultants working on different components of the project. Such consultants would be engaged by MWH, MSWR etc. Most importantly a major consulting exercise is being undertaken to prepare the Upgrading scheme for Component 3.1. This is Part 1: Community Facilitation, Planning, Preliminary and Detailed Engineering Design, Contract Packaging, Bid Documents, and; Part 2: Contract Management and Construction Supervision Services. Also, Community Liaison Officers have been appointed in each community for the upgrading component and an Individual Consultant has also been appointed in MWH to provide support. Likewise, there is a consultant looking at Solid Waste Management issues in communities within the Odaw River Basin

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<sup>1</sup> Compiled from the latest census.

(including the 3 communities participating in the Upgrading exercise) in addition to a major consultancy that is preparing detailed designs for the Flood Mitigation Component under the MWH.

#### **4.0 SCOPE OF WORK**

The individual consultant (Drainage Engineer) will work along with other project actors including the Planning and Detailed Engineering Design consultants and /or Construction Supervision consultants to deliver the required outputs and will provide support to MWH's PIU and PCU in accordance with work plans to be agreed between the experts and MWH's PIU and PCU. The consulting services required for the project will include, but will not necessarily be limited to the services described in this Terms of Reference. The tasks are to be carried out in close cooperation with MWH's PIU, PCU, concerned government agencies and the World Bank.

##### **4.1. Scope of the Services**

The individual consultant (Drainage Engineer) will provide coordination, implementation, reporting and capacity development support.

Specifically, the expert will:

- (i) provide technical support to ensure that project implementation fully complies with all World Bank policy and operational requirements in terms of provision of drainage infrastructure and related works as set out in the World Bank's Project Appraisal Document (PAD);
- (ii) coordinate activities between all linked project components to ensure consistency, provide common reporting formats and assist PIU and PCU in preparation of regular reports to MWH, other relevant Ministries and the World Bank;
- (iii) design and conduct capacity strengthening programmes for respective District PSUs staff;
- (iv) carry out overall project monitoring as required by Government of Ghana (GOG) and World Bank;
- (v) advise the PCU on the introduction of innovation and knowledge initiatives, and; vii) develop and deliver training to staff of the PIU, PCU and relevant MMDA staff.

##### **4.2 Tasks for Expert**

The expert will work with, assist and advise PIU, PCU and the PSUs in the respective MMDAs in project coordination, implementation support, capacity development, coordination, and monitoring. Specific tasks are as follows:

1. Lead in the review of engineering design reports and detailed engineering drawings for hydraulic structures in the project beneficiary communities
2. Undertake routine monitoring of construction works for all hydraulic structures to ensure that they meet the required specifications
3. Prepare monthly reports and other documentation as required by the Client
4. Provide technical inputs and support to the Quantity Surveyor in the review of bid documents and cost estimates for the community upgrading works
5. Provide technical inputs and support for community engagement activities as when requested by the Client
6. Provide technical inputs and support to the Environmental and Social Safeguards Specialists in ensuring compliance of water facility construction works with the relevant World Bank policies and guidelines

7. Support in training needs assessment and capacity development activities for PIU and PSU technical staff who perform urban water management functions

The required expertise and qualifications are as follows:

#### **Qualification**

- A Bachelor's Degree in Civil Engineering or other related discipline
- Master's Degree in Civil Engineering, Water Resources Engineering, Hydraulic Engineering or related discipline
- Must be a member of a duly recognized professional body

#### *General professional experience*

- At least 15 (fifteen) years professional working experience
- At least 10 (ten) years' experience in the design and construction supervision of urban stormwater drainage infrastructure projects.

#### *Specific professional experience*

- Participation in at least three (3) projects in urban drainage or flood risk management projects in the past 10 (ten) years.
- Experience in project implementation and supervision for at least three (3) donor funded urban infrastructure projects (preferably the World Bank, EU or AfDB) in the past 10 years
- Proficiency and knowledge of software in the field of geographic information systems (GIS), image editors (CAD); and hydraulic/hydrologic modelling;
- Working experience in the use of Conditions of Contracts for Construction under the International Federation of Consulting Engineers (FIDIC).

#### *Language skills*

- Excellent written and spoken English, as well as excellent communication and presentation skills.

Interested experts shall provide **certified true copies of all certificates** and **contact information (names and phone numbers) for references** (including Client) on all assignments/projects included in their proposal.

#### **5.0 ESTIMATED LEVEL OF EFFORTS**

The individual expert shall be engaged part -time for a period of one (1) year with a total input of 6 man-months.

#### **6.0 OUTPUT DELIVERY SCHEDULE**

6.1 The expert is expected to prepare and present concise, factual reports covering all inputs and deliverables related to task assigned by the client. These reports will be incorporated into PCU's monthly, quarterly and annual progress. Three (3) hard copies and one (1) electronic copy of each deliverable should be submitted in English.

The individual expert is required to carefully review all outputs of the assignment including reports to ensure they are of the required quality before submitting them to the Client. The expert shall describe in the proposal, arrangements for backstopping and quality control and how quality control will be performed to guarantee the quality of all the expected outputs under this assignment.

## **7.0 INPUTS BY CONSULTANTS**

7.1 The individual expert shall be responsible for securing their own means of transport, office rental, equipment and logistics required for successful execution of their assignment. The costs of office rental, equipment and transport shall be included in the consultant's all-inclusive daily professional fees/financial proposal.

## **8.0 INPUTS FROM CLIENT**

8.1 The PIU and/PCU will provide, free of charge, one set of relevant reports, drawings, maps and contract documents in its custody that are related to specific task assigned. A list of the documents are as follows:

- Project Implementation Manual
- Project Appraisal Document
- Environmental and Social Management Framework
- Resettlement Policy Framework