

TERMS OF REFERENCE

CONSULTANCY SERVICE TO DEVELOP OPERATION, MANAGEMENT AND FINANCING MODEL FOR BUY BACK CENTERS

Ref No: GH-MSWR-288956-CS-INDV

a. BACKGROUND

The Greater Accra Resilient and Integrated Development (GARID) Project is a World Bank sponsored project being implemented by the Ministry of Works and Housing (MWH), Ministry of Sanitation and Water Resources (MSWR) and Ministry of Local Government and Rural Development (MLGRD), across 17 Metropolitan and Municipal Assemblies (MMAs) in the Greater Accra Metropolitan Area (GAMA) that fall within the Odaw River Catchment. The Project is expected to be implemented within a six-year duration (2019–2025).

The GARID Project has four (4) components as shown below:

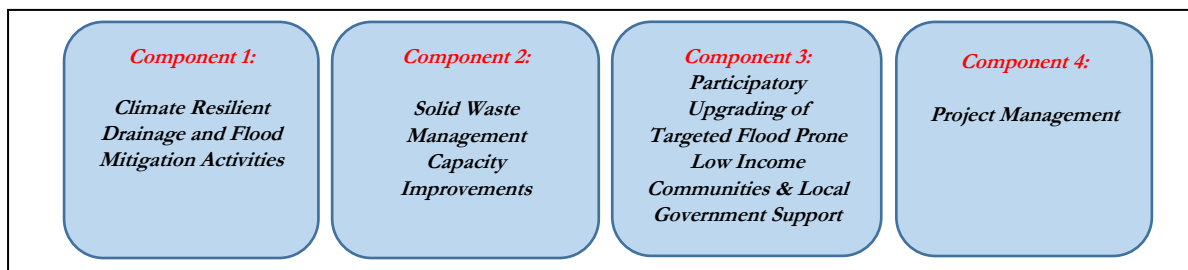


Figure 1: Components of GARID Project

The development objective of the Project is to improve flood risk management and solid waste management (SWM) in the Odaw River Basin of the Greater Accra Region and to improve access to basic infrastructure and services in the targeted communities within the Odaw River Basin.

This Assignment falls under Component 2, which focuses on SWM capacity improvements. Specifically, Component 2 has been designed to reduce the amount of solid waste flowing into the primary Odaw channel. Emphasis is on the reduction of solid waste that ends up in the ocean, thus, reducing the level of marine litter. The scope of interventions under Component 2 include:

- Community-based SWM interventions in targeted low-income communities,
- Implementation of a major outreach program to sensitize and improve public behaviour on SWM and, in particular, litter management,
- Provision of SWM infrastructure including construction of waste transfer stations, capping of old dumpsites, and improvements at final waste disposal sites.

To effectively achieve the project objective, the Project intends to set up buyback centers in low-income communities to support at-source waste segregation and recycling. The centre aims to offer incentives to local communities to collect plastic bottles, aluminium cans and other forms of plastics such as flexible plastics, in return for a nominal yet effective fee.



Currently, some buy back centers have been established by various private entities as depicted on the right. But a full lifecycle cost analysis is unknown to the government and needs to be determined to ensure financial sustainability of these proposed centers.

The long-term ownership, management and financing of these centers has not been determined and needs to be clarified before commencement of work.

b. OBJECTIVE OF ASSIGNMENT

The purpose of this assignment is to develop an operation and maintenance framework and financing model for community buy-back centers to provide guidance, strengthen and streamline recycling in order to ensure long-term sustainability and to ultimately guarantee services to the community.

The **Specific Objectives** are:

- (i) To provide guidance for planning, financing, implementation, monitoring, O&M activities;
- (ii) To harmonize operation and maintenance of buy back centers outside the jurisdiction of current public agencies;
- (iii) To improve mechanisms for resource mobilization & attainment of sustainable financing for operation and maintenance of buy back centers;
- (iv) To form the basis for capacity building & coordination of stakeholders implementing buyback activities.

The results of the Consultancy are expected to provide government and entrepreneurs seeking to establish a recycling buy-back centre with an indication whether it is economically viable (business producing a net-profit with growth potential), including an assessment of various policy tools and/or programmes that could be implemented to make the business model viable. The results of the Consultancy are furthermore expected to provide the management of the MSWR and interested metropolitan, municipal, district assemblies (MMDA) (i.e., local governments) with general guidance on what policy interventions to enact/adopt in order to support the establishment and growth of the recycling buy-back centre and recycling industry.

c. SCOPE OF WORK

Task 1: Literature Review/Desk Study

The literature study should include the following, at the least:

- Ghanaian legislation and development plans on solid waste recycling
- Trends in solid waste recycling in developed economies and Ghana
- Operational and infrastructure configurations for successful buy-back center operations required
- Solid waste recycling programmes and buy back centres in Ghana

The review should also discuss general perspectives on solid waste recycling with a focus on synthesizing key issues driving optimal recycling of solid waste in Ghana.

The Consultant should review literature aimed at defining an ideal Buy back center, its features, and components. The review should present designs of existing buy back centres in the country.

Task 2: Situational Analysis and Identification of Challenges

The assignment should assess the state of existing buyback centres in Accra, ownership of the centres, benefits of the centres, amount of waste received by the center and proportion recycled.

Entrepreneurs operating buy-back centres should be interviewed in order to gain more insight on the profile of entrepreneurs, and the successes and challenges in operating a solid waste buy-back centres.

Interviews should focus on the following themes; the profile of entrepreneurs, geographic profile on the location of buy-back centres, life-cycle cost of the facility, required labour/human resource needs, institutional support mechanisms, infrastructure analysis, market and profitability analysis, social dynamics and other general aspects.

Financial considerations for a solid waste buy-back centre, market efficiency for improving solid waste recycling, necessary economies of scale, and the economic instruments needed to enhance solid waste recycling should be discussed.

Task 3: Management Approaches and Key Features/Principles

The assignment should assess existing management approaches (including O&M models), weaknesses and strengths of those approaches, features and their key principles. Models operating in Ghana and internationally should be assessed. Such models may include publicly owned and managed facilities, cooperatives, privately owned businesses, public-private partnerships, NGOs and other existing configurations.

Based on the above, make a recommendation on best management approach to achieve sustainable O&M of a buyback centre in Ghana considering the existing policy framework and other relevant socio-cultural and economic factors.

Task 4: Stakeholder Responsibilities & Coordination

Consultant should spell out roles and responsibilities of various stakeholders in O & M of a buyback facility. Proposed stakeholders should encompass MSWR, regional coordinating councils (RCC), MMDAs, solid waste management service providers/waste collectors, NGOs, buy-back center operators and users, among others.

Task 5: Cross Cutting Issues and Key Considerations

The framework should touch on cross-cutting issues such as i) Gender, ii) Environment iii) Health (COVID 19 and other infectious diseases) and iv) Good Governance.

Key considerations related to appropriate designs should also be made. The framework should highlight pro-poor issues for the vulnerable and awareness creation.

Task 6: Financing Model

Lifecycle cost of a typical buy back centre should be analysed and developed. This will inform the total cost of owning and operating the facility over a stated period of time (design life).

Consultant should determine capital and investment cost to include an optimal scenario and a minimally viable product for the following criteria:

- Structure: land, storage and office space
- Machinery: scale, bailing machine, pelletiser, crusher and others applicable
- Other equipment: computer, vehicle, skips, drums and bags
- Personnel
- Seed money to begin purchase of recyclables from community

Operational costs should be modelled, taking into account all foreseeable expenditures including but not limited to:

- Taxes
- Utilities: electricity, water, sewerage, stormwater, internet, telephone, solid wastes
- Management of residuals
- Personnel: direct and indirect employment (e.g. drivers, material suppliers, etc.)
- Consumables: office and industrial supplies

A cash-flow balance should be modelled for material flows:

- Forecasting incoming materials: types, quantities, and quality
- Daily, weekly, and monthly cash needs for purchasing materials

- Sale projections in quantities and time horizons (based on end market demand)
- Indirect costs: overhead, residuals, expendables, etc.

Catalogue of available end markets and five-year summary of price fluctuations per material and quality stream.

The model should inform the need to review or regulate existing prices and pricing mechanism, accountability and transparency.

Task 7: Road Map for Implementation

The roadmap should cover the next steps in operationalizing the framework. It should provide for flexibility within the framework to respond to lessons learned in the roll-out and adapt accordingly to ensure that a strategic and sustainable framework is implemented for long-term success.

d. OUTPUTS

No.	Deliverable	Description	Due
1	Inception Briefing Note	(3 page) The briefing note is to sensitize the key stakeholders on the importance of sustainable operation and maintenance and introduce the ongoing process of developing a framework. The note will also provide information on how stakeholders can participate in the assignment.	2 weeks after commencement of assignment
2	Inception Workshop	The Inception Workshop will be organized for broader stakeholders involved in segregation and recycling to learn about the scope of the assignment and opportunities to participate. This deliverable includes the development of all needed workshop materials including but not limited to: power point presentation, participant list, agenda, invitation letter.	4 weeks after commencement of assignment
3	Inception Report	Report should summarize key insights gleaned from Inception Workshop.	2 weeks after Inception Workshop
4	<i>(First draft)</i> Operation and maintenance framework and financing model in Ghana	(45-page maximum). Proposed outline of report is detailed below.	3 months after commencement of assignment

5	Validation Workshop	The Validation Workshop will engage the same stakeholders as the Inception Workshop and will seek to validate assumptions and proposals for viable O&M and financing models for buy-back centers in Ghana. This deliverable includes the development of all needed workshop materials including but not limited to: power point presentation, participant list, agenda, invitation letter.	5 months after commencement of assignment
6	Validation Report	Report should summarize key insights gleaned from Validation Workshop.	2 weeks after Validation Workshop
7	<i>(Final report)</i> Operation and maintenance framework and financing model in Ghana	(45-page maximum). Proposed outline of report is detailed below.	6 months after commencement of assignment
8	Framework Briefing Note	(4-page maximum) The Framework Briefing Note will summarise the final output and will highlight the key issues and considerations.	6 months after commencement of assignment

Proposed Table of Contents

The framework should contain all elements in the proposed table of contents. The consultant may provide other headings and subheadings which are deemed to be relevant but not covered by the table of contents provided below.

Acronyms

Executive Summary

1.0 Introduction

1.1 Background

1.2 Purpose and Objectives of the Framework

1.3 The Intended Users

1.4 Structure of the National O&M Framework

2.0 Legal Framework

2.1 Policy Framework

2.2 Institutional Set-up	
3.0 Situation Analysis	
3.1 Definition of Buy-back Center, its Anchorage, Success and Lessons Learnt	
3.2 Designs of Existing Buy-back Centers	
3.3 Standardisation of Designs	
3.3 Current Financial Models	
3.4 O&M Challenges	
4.0 Management Approach	
4.1 Existing Management Approaches	
4.2 Recommended Management Model	
5.0 Key Stakeholders, Roles and Responsibilities	
5.1 Coordination, Collaboration and Networking for O&M	
6.0 Financing Model	
6.1 Sources of Funding for O&M	
6.1.1 Revenue from Sale of Recyclables	
6.1.2 Government Mainstreaming of Funds	
6.1.3 NGOs/CBOs	
6.1.4 Seed Funding	
6.2 Capital Costs	
6.3 Equipment, Tools and Haulage Vehicle (if necessary)	
6.4 Life Cycle Cost Analysis	
6.5 Pricing Mechanism	
6.4 Accountability, Transparency and Consequences	
7.0 Cross-cutting Issues	

8.0 Key Considerations	
8.1 Technical Quality	
8.1.1 Existing Centers	
8.1.2 Design, Installation of New Centers	
8.1.5 Pro-poor Issues for the Vulnerable	
8.2 Awareness Creation, Community Mobilisation and Behaviour Change	
9.0 Monitoring and Evaluation Mechanisms	
10.0 Roadmap	
References	

In addition to hardcopies submitted, the Consultant will provide an electronic version of all the required deliverables.

e. **CONSULTANT STAFFING**

The assignment shall be carried out by an Individual Consultant. The Consultant shall be suitably qualified in delivering the relevant outputs, manage the whole assignment process and onboard other key experts, if necessary. The Consultant will be responsible for:

- (i) Coordinating and managing the tasks listed above;
- (ii) Ensuring that the overall study results inform the MSWR and its directorates and units, and other MDAs, timely on the progress of work;
- (iii) Quality assurance of assignment processes and outputs;
- (iv) Arranging for reviews/presentations of all outputs such as the inception, draft financial model and final reports, especially to MSWR;
- (v) Arranging for technical and other inputs as required from MSWR including documents, contact persons, other relevant agencies and service providers.

a. The **Consultant** shall have

- Not less than 15 years of general working experience
- At least 10 years' experience in planning, design, implementation and operations of small infrastructure or enterprise.
- Adequate knowledge and familiarity with developing financial models for life cycle costing of infrastructure or services.
- Knowledge of waste management systems
- A first degree in civil/environmental/engineering or development planning
- Postgraduate qualification in business management, finance or related field

- Should have adequate demonstrated capability for engaging widely with other entrepreneurs and private sector, including members of informal service providers in solid waste.

f. TIMING AND BUDGET

The assignment is expected to be carried out within a duration of 6 months for the delivery of all the key outputs indicated under the scope of services. Funding will be provided by the Ministry of Sanitation and Water resources (MSWR) as part of funding support from the IDA- (World Bank) sponsored Greater Accra Resilient Integrated Development Project (GARID).

g. STUDY MANAGEMENT

The MSWR is the primary Client for this assignment and will issue and manage the Consultant's Contract. The Chief Director of the MSWR will be responsible for approval of payments. The GARID PIU Lead shall be responsible for the day-to-day supervision of the consultants work and provide direction so that the consultants' delivery of the assignment meets the objective.

h. SERVICES TO BE PROVIDED BY THE CLIENT

The MSWR will provide all relevant background documentation/information and furnish introductions to relevant project entities. MSWR will co-opt other specialist agencies (if necessary) and professionals to provide technical assistance in reviews and participate in consultations.