GARID
GREATER ACCRA RESILIENT AND INTEGRATED DEVELOPMENT

GREATER ACCRA RESILIENT AND INTEGRATED DEVELOPMENT PROJECT

ENVIRONMENTAL AND SOCIAL IMPACT STATEMENT (ESIS) FOR DETENTION PONDS, URGENT REPAIRS AND BRIDGES IN THE ODAW CHANNEL

OCTOBER 20, 2023

NON-TECHNICAL EXECUTIVE SUMMARY

INTRODUCTION

The Government of Ghana (GoG), through the Ministry of Works and Housing, has received International Bank for Reconstruction and Development International Development Agency (IBRD/IDA) credit facility from the World Bank for investment in both structural works and non-structural services towards improving flood and solid waste management in the Greater Accra Metropolitan Area. The works and services are being delivered through the Greater Accra Resilience and Integrated Development (GARID) Project.

The proposed interventions will focus on dealing with drainage and solid waste management challenges in the Odaw river basin. The overall goal of the GARID project is to achieve clean, resilient, inclusive, and integrated development in the Greater Accra Region. The project will be implemented in 3 phases spanning 15 years. Phase 1 aims at achieving 1 in 10 years of flood protection (T10) in the primary Odaw channel system.

The GARID Project is classified as Category A, so an Environmental and Social Impact Assessment has been prepared in accordance with relevant World Bank Policies and Environmental, Health and Safety Guidelines and standards.

This Environmental and Social Impact Statement (ESIS) has been prepared in line with the Ghana EPA regulatory requirements and the World Bank's safeguards policies for Environmental and Social Impact Assessment (ESIA) for the GARID Project covering detention ponds, urgent repairs and bridges to inform the engineering design of the GARID subprojects and to provide the basis for decision making and Environmental Permitting by the EPA.

THE GARID PROJECT

The Greater Accra Resilient and Integrated Development Project (GARID) supports Greater Accra in adapting its drainage and flood management system as well as vulnerable low-income communities to the projected impacts of climate change. The GARID Project is being implemented by the Ministry of Works and Housing (MWH), Ministry of Sanitation and Water Resources (MSWR) and the Ministry of Local Government, Decentralisation and Rural Development (MLGRDD).

PURPOSE AND OBJECTIVES OF THE GARID PROJECT

The Project is supporting the Greater Accra in adapting its drainage and flood management system as well as vulnerable low-income communities to the projected impacts of climate change. The project has the Program Development Objectives (PDO) to:

- Reduce flood impacts,
- Improve climate resilience and economic development; and
- Increase access to services, infrastructure and housing in most vulnerable informal settlements within Greater Accra Region.

GARID PROJECT COMPONENTS

The Greater Accra Resilient and Integrated Development Project is built around five components:
(1) Drainage and flood management improvements within the Odaw Drainage Basin

(2) Improvements in solid waste management capacity, including minimizing solid waste in waterways
(3) Support to most vulnerable communities within the Odaw Drainage Basin,
(4) Strengthening capacity for planning, coordination, monitoring and evaluation, and
(5) Contingent Emergency Response Component (CERC)

SUBPROJECT INTERVENTIONS

Under component 1 of the GARID Project, the following are the proposed infrastructural interventions to be implemented:

Flood Infrastructure Interventions

a) Detention ponds at the Ghana Atomic Energy Commission (GAEC) East and West sites;

b) Urgent repairs to prioritized sections of the Odaw drainage network.

- Odaw main channel
- Lower Nima drain – Paloma to Odaw River channel
- Expansion of Kaneshie drains
- Sand trap at Caprice and Kwame Nkrumah Circle in the main Odaw channel,
- Rehabilitation of the Korle Lagoon interceptor weir structure,
- Outfall of the Odaw River to the sea, and
- Upgrading of drains at Alajo.

c) Replacement of these vehicular bridges;

- Abossey Okai Bridge
- Railway Bridge, close to Graphic road
- South Kaneshie Bridge
- Dome Road Bridge
- Demolition of two footbridges obstructing flows at Achimota.

d) Odaw River Works

- River Section Reconstruction at Achimota
- River Section Restoration at Old Fadama
- River Outlet

CONSIDERATION OF ALTERNATIVES

To enable the GARID Project to minimize its impacts on the environment and at the same time achieve its objectives, several alternatives of the various subproject components were assessed through its hydraulic and engineering designs and environmental planning perspectives through this ESIA. The alternatives considerations covered:

- Alternative sites, processes, designs and operating conditions
- Main socio-cultural, economic, institutional and environmental advantages and the reasons for final choice given.
- Alternatives taking into account Climate Change Mitigation and Adaptation issues and environmental sustainability, and
- The "Without Project" situation, in terms of environmental and social impacts.

RELEVANT POLICIES, LEGISLATIVE, REGULATORY AND INSTITUTIONAL FRAMEWORK

The policies, national and international legislations and regulations, standards and guidelines relevant to the ESIA have been identified, including a brief description of the institutional arrangements.

The proposed GARID project is required to comply with the following policies relevant to the ESIA Study:

- The National Environment Policy, 2013;
- The National Environmental Sanitation Policy, 2010;
- National Health Policy, 2007;
- Riparian Buffer Zone Policy, 2011;
- National Urban Policy Framework and Action Plan, 2012;
- National Water Policy, 2007;
- National Land Policy, 1999;
- National Housing Policy, 2015
- National Climate Change Policy, 2013
- Occupational Health and Safety Policy, 2009

The relevant national laws and legislation to guide the preparation of the ESIA for the proposed project include the following:

- The Constitution of Ghana, 1992
- Land Act 2020 (Act 1036)
- The Lands (Statutory Wayleaves) Act, 1963
- Lands Commission Act, 2008 (Act 767)
- Environmental Protection Agency Act, 1994 (Act 490)
- Environmental Assessment Regulations, 1999 (LI 1652)
- Fees and Charges (Miscellaneous Provisions) Act, 2020 (Act 1080)
- Water Resources Commission Act, 1996 (Act 522)
- Land Use and Spatial Planning Act, 2016 (Act 925)
- Land Planning and Soil Conservation Act, 1953 (No 32)

METHODOLOGY FOR THE ESIA

Each of the environmental and social aspects identified have been assessed. The main steps in the impact assessment procedure are as follows:

- Baseline conditions description and surveys to provide a description of the environmental and social character of the Odaw river basin area of influence.
- Relevant natural and manmade processes which may change the character of the site were identified.
- The possible interactions between the proposed development and both existing and future conditions were considered.
- Direct and indirect, adverse, beneficial short- and long-term impacts were identified and their significance evaluated.
- Recommendations to avoid, minimise or mitigate adverse impacts and enhance positive impacts have been made. Alterations to the design can then be reassessed and the effectiveness of mitigation proposals determined.
- Uncertainties inherent in the methods used, impact predictions made and conclusions drawn were identified during the assessment process.

The approach was iterative and involved a partnership between Messrs EEMC (the ESIA Consultants), the Ministry of Works and Housing, the Hydrological Services Department (HSD) and the Engineering Design Consultants, ARS Progetti S.P.A. The approach included consideration of public consultation results and stakeholder comments.

BRIEF ON THE BASELINE INFORMATION

The project focus area is the Odaw Basin. The Odaw River and its tributaries Nima, Onyasia, Dakobi and Ado have a total catchment area of 250km^2 and drain the major urbanized areas of Accra, including

the Accra Metropolis, Ga East, Ga West and La Nkwantanang Adentan Municipalities. The AMA and Ga East Municipalities alone occupy about 65% of the basin area. Other Municipalities under the project within the basin are Korle Klottey, Ayawaso Central, Ayawaso East, Ablekuma Central Adenta and Okai Koi North. Some of the flood hot spots in these municipalities are Odaw North, Dome-Taifa-Alogbloshie, Abofu-Achimota, Alajo, Asylum Down, Nima-Kwame Nkrumah Circle, South Industrial Area, Kaneshie, Old Fadama and Korle Lagoon.

Baseline data or information have been used in the assessment of potential impacts. The baseline studies involved collecting and reviewing available environmental and social information via consultation and the use of existing databases, aerial photographs, satellite imagery, and documents held by relevant authorities, universities, non-governmental organisations, existing reports and the internet. As necessary, data have been collected or analysed using geographic information system (GIS) and advanced mapping software.

STAKEHOLDER CONSULTATIONS

Stakeholder engagement has been used as a tool for two-way communication between MWH (including its project managers/team, consultants and contractors) and various project stakeholder groups. The goal of the stakeholder engagement was to improve decision-making and build understanding by actively involving individuals, groups and organisations with a stake in the Project. This involvement has contributed to the realisation of the Project's objectives, thereby, enhancing its benefits to the affected communities and other stakeholders. As part of the GARID Project's communication strategy, the following has been done:

- The project design included deliberate measures and avenues for ensuring broader stakeholder identification and consultation at institutional and community levels;
- The project recognizes the need for gender-sensitive communication to be employed when creating community awareness about flood disasters;
- The project has identified the need to enhance communication for the project and target communities, and provide advice on challenges arising from misunderstanding or mis-communication on project activities.

A summary of the main environmental and social issues of concern raised during the various stakeholder consultations is presented in Table 6-4.

POTENTIAL IMPACTS ASSOCIATED WITH THE SUB-PROJECT INTERVENTIONS

The proposed flood infrastructure interventions are defined in Section 2.3 under component 1 of the GARID Project. These interventions will in addition to improving flood risk management and solid waste management in the Odaw Drainage Basin, improve access to basic infrastructure and services in the targeted communities within the basin. The interventions will also contribute significantly to community health and safety, and enhance the quality of life. These anticipated positive impacts will be achieved through the proper management of the environmental and social risks associated with surface run-off within the Odaw catchment.

Notwithstanding the above potential positive impacts, a broad range of adverse impacts on the natural and human environments could arise from the construction, repairs, maintenance and operation of the proposed flood infrastructure interventions. The disruption or contamination of water courses and natural drainage systems, soil destabilization, erosion and sedimentation, disturbance and loss of flora and fauna, air pollution, noise disturbance and waste generation may be some of the potential environmental damages. Potential adverse impacts on human environments such as the displacement and resettlement of affected families and businesses, transportation and traffic inconveniences and health and safety issues may also arise from the proposed developments and interventions.

The main aspects of the proposed flood infrastructure investment activities that lead to typical impacts, the receptors and resources that they affect have been defined. It considers impacts on the physical, biological, and socio-economic environment. The potential environmental and social aspects associated with the proposed flood infrastructure interventions sub-projects are presented in Table 7-1. The potential positive and adverse environmental and social impacts covering the pre-construction, construction, operation and decommissioning phases of all the Sub-projects are presented in Tables 7-5 to 7-26.

IMPACTS MITIGATION AND ENHANCEMENT MEASURES

Mitigation and enhancement measures have been developed and clearly linked to significant environmental and social impacts. These have been done in close consultation with the Engineering Design Consultants to ensure that the measures are practical, cost effective, culturally appropriate, and achieve their objectives. A Resettlement Action Plan(RAP) - Resettlement Action Plan on Construction of Sand Traps, Detention Ponds, Reconstruction of Three Bridges, and Repair of the Odaw Drainage Channel – has been developed by a RAP Consultant and will be implemented to deal with issues of compensation and resettlement/relocation, restrictions to access, etc.

The proposed mitigation and management measures for the potential adverse impacts have been presented in Tables 8- 1 to 8-8 to ensure that the project impacts are managed within reasonable and acceptable limits.

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

The Environmental and Social Management Plan (ESMP) has been developed for the GARID Project in compliance with the requirements of the Ghana Environmental Assessment Regulations of 1999, LI 1652, the relevant World Bank Operational Policies including OP 4.01 and OP 4.12 to assist the GARID Project to be implemented in an environmentally sound and sustainable manner. The management commitments and the required training programmes for the sustainable implementation of the sub-projects have been presented in the ESMP. Also included in this ESMP is the estimated budget for the implementation of the ESMP.

Considering that the ESMP will be implemented by different implementing agencies and contractors, separate ESMPs have been developed for:

- Development of detention ponds;
- Repair of drainage network., and
- Replacement of bridges.

The programmes proposed to meet mitigation measures and monitoring programmes will include the following:

- Development and Implementation of a Construction Management Plan;
- Adoption of Environmental Health and Safety Plan;
- Environmental, Health and Safety Management Structuring
- Environmental Health and Safety Committee
- Contractors' ESMP
- Workers' training and awareness creation
- Environmental and Social Monitoring Programmes
- Archaeological and Cultural Heritage Chance Find Procedure
- Community Safety and Traffic Management Plan
- Occupational Health and Safety Plan
- GBV/Sexual Harassment & Abuse
- Management Plan and Training/Capacity Building
- Emergency Response Plan/Dam Safety Plan with respect to the potential issues relating to the Detention Ponds
- Public and community participation;

- Grievance Redress Mechanism
- Audits and Reviews; and
- Environmental and Social Management Budgeting

ENVIRONMENTAL AND SOCIAL MONITORING PLAN

A detailed Environmental and Social Monitoring Plan (ESMP-Monitoring) to guide the monitoring of the environmental and social impacts and the implementation of mitigation and enhancement measures during the construction, operation and decommissioning phases has been provided. The ESMP-Monitoring will enable the MWH to confirm the accuracy of the impact assessment and the effectiveness of the mitigation measures contained in the ESIS or otherwise and help address the effectiveness of the implementation of the mitigation measures.

CONCLUSION

The proposed flood infrastructure interventions will improve flood risk management and solid waste management in the Odaw Drainage Basin of the Greater Accra Region, and improve access to basic infrastructure and services in the targeted communities within the basin.

In spite of the potential positive impacts, some adverse impacts on the natural and human environments could arise from delivery of the proposed flood mitigation infrastructure interventions. The disruption or contamination of water courses and natural drainage systems, soil destabilisation, erosion and sedimentation, dust pollution, noise disturbance and waste generation and disposal are some of the potential environmental damages. Potential adverse impacts on human environments such as the displacement and resettlement of affected families and businesses, and health and safety may also arise from these proposed developments and interventions.

The analysis undertaken to prepare this Environmental and Social Impact Statement reveals that the potential adverse impacts on human environments such as the displacement and resettlement of affected persons and businesses and the health and safety impacts are the main adverse impacts.

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