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## REPUBLIC OF GHANA

### Sustainable Faecal Sludge Management in Urban Centres in Ghana

### Appraisal Report

November 2019

|                |   |  |                                      |
|----------------|---|--|--------------------------------------|
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## ABBREVIATIONS

|          |  |
|----------|--|
| AfDB     | African Development Bank   |
| AWF      | Africa Water Facility  |
| ASIP     | Accra Sewerage Improvement Project                                       |
| CONIWAS  | Coalition of NGOs in Water and Sanitation                                |
| DESSAP   | District Environmental Sanitation and Strategic Action Plan              |
| EA       | Executing Agency   |
| EHSD     | Environmental Health and Sanitation Directorate                          |
| ESIA     | Environmental and Social Impact Assessment                               |
| ESMP     | Environmental and Social Management Plan                                 |
| FGD      | Focus Group Discussion   |
| FM       | Financial Management   |
| FMP      | Facilities Management Plan   |
| FS       | Faecal Sludge  |
| FSM      | Faecal Sludge Management   |
| FSTP     | Faecal Sludge and Septage Treatment Plant                                |
| GAMA     | Greater Accra Metropolitan Area  |
| GASSLIP  | Greater Accra Sustainable Sanitation and Livelihoods Improvement Project |
| GDP      | Gross Domestic Product   |
| GSGDA-II | Ghana Shared Growth and Development Agenda II (2014 – 2017)              |
| GSS      | Ghana Statistical Services   |
| GoG      | Government of Ghana  |
| IWRM     | Integrated Water Resources Management                                    |
| JMP      | Joint Monitoring Program   |
| M&E      | Monitoring & Evaluation  |
| MDG      | Millennium Development Goal  |
| MESSAP   | Metropolitan Environmental Sanitation and Strategic Action Plan          |
| MLGRD    | Ministry of Local Governance and Rural Development                       |
| MoF      | Ministry of Finance  |
| MoH      | Ministry of Health   |
| MSWR     | Ministry of Sanitation and Water Resources                               |
| MMDAs    | Metropolitan, Municipal and District Assemblies                          |
| NDPC     | National Development Planning Commission                                 |
| ESP      | Environmental Sanitation Policy  |
| NESSAP   | National Environmental Sanitation Strategy and Action Plan               |
| NWP      | National Water Policy  |
| O&M      | Operation & Maintenance  |
| PCR      | Project Completion Report  |
| PIU      | Project Implementation Unit  |
| PSC      | Project Steering Committee   |
| RBLF     | Result Based Logical Framework   |
| SDG      | Sustainable Development Goals  |
| SESIP    | Strategic Environmental Sanitation Investment Plan                       |
| TCPD     | Town and Country Planning Department                                     |
| USD      | United States Dollars  |

WB World Bank  
WHO World Health Organization  
WSP Water and Sanitation Program

CURRENCY

Local Currency : Ghana Cedi (GHS)  
1 Euro (EUR, €) : 5.86 GHS (ADB Exchange Rate July 2019)  
0.81 UA

## LOGICAL FRAMEWORK ANALYSES

| COUNTRY AND TITLE OF THE PROJECT: GHANA – SUSTAINABLE FAECAL SLUDGE MANAGEMENT IN URBAN CENTRES   |  |  |  |   |  |   |
|---|--|--|--|---|--|---|
| PURPOSE OF THE PROJECT: TO CONTRIBUTE TO INCREASE ACCESS TO SUSTAINABLE AND INCLUSIVE FAECAL SLUDGE MANAGEMENT SERVICES IN URBAN AREAS. |  |  |  |   |  |   |
|   | CHAIN OF RESULTS   | PERFORMANCE INDICATORS   |  |   | MEANS OF VERIFICATION  | RISKS AND MITIGATION MEASURES   |
|   |  | Indicators   | Baseline                                 | Target  |  |   |
| IMPACT  | Contribute to improved health and quality of life of the urban population through increased access to sustainable sanitation services. | Prevalence of diarrhoea among children under 5 years in urban areas.   | 1. 10.5% in 2015.                        | 1. <2% by 2040.                               | 1. MOH/WHO Reports; Local Clinic / Health Centre Data.<br>2. Ghana Statistical Services (GSS).             | <b>Risk:</b><br>Lack of political support and Government continued interest in FSM.<br><b>Mitigation:</b><br>Government and all actors to ensure continuous dialogue and transparency.  |
| OUTCOMES  | 1. Contribute towards increased access to sustainable and inclusive Faecal Sludge Management (FSM) services in urban centres.          | 1.1 Number of urban settlements with feasibility studies, designs and investment plans prepared based on City Wide Inclusive Sanitation (CWIS) approach.<br><br>1.2 Number of people (at least 30% of which is poor) that is likely to benefit from improved access to inclusive and sustainable sanitation, including improved FSM services (storage, collection, conveyance, treatment, and reuse/disposal). | 1.1 Nil in 2019.<br><br>1.2 Nil in 2019. | 1.1 12 by 2023.<br><br>1.2 1 million by 2023. | 1. Project Progress, Monitoring & Evaluation Reports.<br><br>2. GGSS Reports.<br><br>3. MSWR/MMDA Reports. | <b>Risk:</b><br>Community resistance to behaviour change regarding improved FSM and hygienic sanitation practices.<br><b>Mitigation:</b><br>Community sensitization. Increased social marketing and media involvement in hygiene and sanitation related activities. |
|   | 2. Contribute towards increased investments in CWIS/FS management.   | 2.1 Increase in financial commitments/pledges for CWIS/FSM investments in unsewered urban settlements.   | 2.1 Nil in 2019.                         | 2.1 USD 80 million by 2023.                   |  |   |

|                 | CHAIN OF RESULTS   | PERFORMANCE INDICATORS   |   |   | MEANS OF VERIFICATION  | RISKS AND MITIGATION MEASURES  |
|-----------------|--|--|---|---|--|--|
|                 |  | Indicators   | Baseline (2015)   | Target  |  |  |
| OUTPUTS         | <b><u>Component 1: Feasibility Studies and Engineering Design</u></b><br>1. Preparatory and feasibility studies undertaken.<br>2. Preliminary engineering designs and related financial analyses and ESIA Scoping completed.<br>3. Draft final engineering designs, tender documentation, ESIA's and plans completed.<br>4. MSWR Commitment Letter on land availability signed.<br>5. Memoranda of Understanding between MSWR and MMDAs on project implementation arrangements signed.   | 1. No. of preparatory and feasibility study reports prepared and approved.<br>2. No. of approved FSM standard/preliminary designs / scoping reports.<br>3.1 No. of approved FSM draft final designs / tender documents/ESIA's/ management/investment plans.<br>3.2 No. of people living in poor areas gaining access to safe FSM services after realization of downstream investments.<br>4. Commitment Letter signed.<br>5. Memoranda signed. | 1. Nil.<br>2. Nil.<br>3.1 Nil.<br>3.2 Nil.<br>4. Nil.<br>5. Nil.    | 1. 12 by 2023.<br>2. 12 /12 /12 by 2023.<br>3.1 10/10/10/10/10 by 2023.<br>3.2 At least 500,000 people<br>4. Yes by 2020.<br>5. Yes by 2019.  | 1. Project Progress Reports.<br>2. MSWR Reports.   | <b>Risk:</b><br>a) Unavailability of land for selection and design of FSM infrastructure.<br>b) Inadequate assessments and design of FSM Infrastructure and services.<br><br><b>Mitigation:</b><br>a) Government to commit to allocate land for the purpose.<br>b) Field verification through community sampling and surveys, and rigorous selection criteria for consultancy acquisition. |
|                 | <b><u>Component 2: Project Management</u></b><br>1. Project Management Support provided.<br>2. Detailed procurement and implementation plans approved and implemented; and project reports prepared and submitted.<br>3. Launch/Validation workshops & Investment Forum organized.   | 1.1 No. of PIU staff assigned.<br>1.2 No. of Project Steering Committee (PSC) meetings.<br>2.1 Approved procurement and implementation plans.<br>2.2 No. of Project Reports.<br>3. No. of validation workshops / Investment Forum organized /amount pledged/committed.   | 1.1 Nil.<br>1.2 Nil.<br><br>2.1 Draft plans.<br>2.2 Nil.<br>3. Nil. | 1.1 7 staff by 2021.<br>1.2 7 by 2023.<br>2.1 Approved finalized plans.<br>2.2 1 Audit & 4 Progress Reports per year; 1 Completion & 1 Evaluation Reports<br>3.1 4 / 1 / USD 120 million by 2023. | 1. Minutes of PSC meetings.<br>2. Project Progress Reports.<br>3. Approved Plans.<br>4. Submitted Project Related Documents. |  |
| MAIN ACTIVITIES | <b>COMPONENTS DESCRIPTION/KEY ACTIVITIES</b>   |  |   |   |  | <b>CONTRIBUTIONS</b>   |
|                 | <b><u>Component 1 : Feasibility Studies and Engineering Design</u></b><br>Phase 1: Preparatory and feasibility studies (socio economic, technical, financial and institutional assessments); identification and selection of options, preliminary engineering designs and costing, site identification and selection, etc.<br>Phase 2: Field investigations, detailed engineering designs and costing, cost benefit analyses, preparation of facilities management plans.<br>Phase 3: Specifications, tender documentation and manuals.<br><br><b><u>Component 2 : Project Management</u></b><br>Engagement of Project Management (PIU, PSC); planning and procurement, technical and financial management, including project reporting and liaison with AWF; capacity building; organization of stakeholder launch/validation workshops & Investment Forum. |  |   |   |  | <b>Total project cost : EUR 1,526,304</b><br><br><b>Financing Plan:</b> <ul style="list-style-type: none"> <li>▪ AWF Grant: <b>EUR 1,044,264</b> (68%)</li> <li>▪ Government: <b>EUR 336,440</b> (22%)</li> <li>▪ Municipalities: <b>EUR 145,600</b> (10%)</li> </ul>  |

## EXECUTIVE SUMMARY

**Background:** The project rationale emanates from the dire need to increase access to safe, sustainable and inclusive sanitation and hygiene, with improved management of faecal sludge for people living in small and medium size urban centres in Ghana. The project is in line with the Ghana Shared Growth and Development Agenda (GSGDA-II 2014–2017) relevant Policy Objectives that include: (a) ensuring efficient management of water resources through Integrated Water Resources Management (IWRM); (b) adopting a sector-wide approach to water and environmental sanitation delivery; (c) accelerating the provision of adequate, safe and affordable environmental sanitation facilities; (d) ensuring the development and implementation of effective behaviour change communication approaches as components of all water and sanitation programmes; and (e) ensuring secure, adequate and sustainable financing for sector programmes and activities. The Project demonstrates Government commitment to improve the quality of life and living conditions of Ghanaians, and provides opportunity for better sanitation planning, and increased sector investments.

**Objectives:** The overall objective of the project is to contribute to increase access to safe, sustainable and inclusive sanitation services, with improved hygiene and faecal sludge management (FSM) services for people living in small and medium size urban centres in Ghana. The specific objectives are to contribute to: (a) increase access to safe, sustainable and inclusive on site sanitation facilities; (b) increase access to efficient and sustainable faecal sludge management (FSM) infrastructure and services; (c) creation of opportunities for increased investments in the sanitation sub sector.

**Description:** The project will be implemented under two components as follows:

**Component 1: Feasibility studies and engineering design** consisting of activities that contribute to increase sustainable access to faecal sludge management (FSM) infrastructure and services for people living in small and medium size urban centres. It involves studies, including socio economic, technical, institutional and financial assessments, campaigns, baseline studies, site selection and investigations, engineering design for collection and treatment infrastructure and services; and development of innovative strategies to promote and market FS reuse products, and preparation of investment and implementation plans to facilitate future investments, among others.

**Component 2: Project management** involves project and knowledge management activities. This component comprises project execution, implementation, control and supervision activities to be undertaken by the implementing institutions.

The project's *direct beneficiaries* are the Urban Dwellers, Municipalities, Town Councils, and Sector Ministries. With realization of the downstream investments, the *direct beneficiaries* would be the (a) initial 917,650, and subsequently by 2030, the 1,084,259 urban dwellers in small and medium urban centres without adequate access to sustainable and inclusive sanitation services. The study will likely contribute to the creation of about 200 new jobs following realization of the downstream investments. Other indirect beneficiaries are Private Sector Operators, local NGOs and CBOs, etc.

**Cost and financing:** The estimated total project cost is EUR 1,526,304. AWF will contribute € 1,044,264, representing 68% while the Government of the Republic of Ghana will contribute the remainder through the Ministry of Sanitation and Water Resources (MSWR) and Municipal Authorities. It is expected that the Project will be implemented over a total duration of 30 months.

**Recommendation:** It is recommended that a Grant not exceeding € 1,044,264 from the African Water Facility Special Fund be awarded to the Republic of Ghana for the implementation of the project as described in this appraisal report.

# 1 CONTEXT

## 1.1 Project Origin

1.1.1 The Government’s vision for the water and sanitation sector is “sustainable water and basic sanitation for all by 2025.” Ghana’s Medium-Term National Development Policy Framework, the “Ghana Shared Growth and Development Agenda” (GSGDA-II 2014–2017) aims at accelerating Ghana’s economic transformation while leveraging its natural resource endowments, agricultural potential and the human resource base for accelerated economic growth and job creation. The GSGDA-II contains Policy Objectives that are relevant to the sector, and include: (a) ensure efficient management of water resources through Integrated Water Resources Management (IWRM); (b) adopt a sector-wide approach to water and environmental sanitation delivery; (c) accelerate the provision of adequate, safe and affordable environmental sanitation facilities; (d) ensure the development and implementation of effective behaviour change communication approaches as components of all water and sanitation programmes; and (e) ensure secure, adequate and sustainable financing for sector programmes and activities.

1.1.2 Consistent with the Policy Objectives, the goal of the Ministry of Sanitation and Water Resources (MSWR) is “to contribute to improvement in the living standards of Ghanaians through increased access to and use of safe water, sanitation and hygiene practices and sustainable management of water resources.” The MSWR seeks to achieve this goal by: (a) ensuring sustainable management of the country’s water resources for increased access to safe, adequate and affordable water; (b) ensuring sustainable and effective management of liquid and solid waste to reduce pollution of water bodies as well as job and wealth creation; and (c) promoting behavioural change programmes and increase access to safe hygiene practices among the populace.

1.1.3 To improve the living conditions of the densely populated urban poor, thereby contributing to attain the SDGs, Government seeks to implement a sector wide programme comprising a number of complementary environmental sanitation interventions that are city wide and inclusive. Each intervention will focus on improving services along the sanitation value chain in selected cities and towns. The proposed project is one such intervention consistent with the sector goal, and supports Government effort to improve access to sustainable sanitation and hygiene services by (i) increasing access to improved household and public sanitation, (ii) improving collection, treatment and disposal infrastructure, and (c) building capacity for the sustainable management of sanitation facilities in selected cities and towns across eleven (11) regions in Ghana. In particular, the proposed project will contribute to improve FSM services along the value chain through preparation of feasibility studies and engineering designs for future delivery of related infrastructure to improve public and environmental health, and thereby improve productivity in selected urban communities. The proposed project will address climate change and resilience concerns by adopting principles of green economy, and enhance capacity to mitigate and reduce the impact of natural disasters, risks and vulnerability.

1.1.4 The proposed project will provide opportunity to build on the successes of the two (2) previous AWF funded projects, i.e., (i) Development of Business Approach to Sanitation and (ii) Design for Reuse, both of which sought to optimize reuse and maximize related benefits from faecal and septage sludge treatment and disposal; and the Bank-funded Accra Sewerage Improvement Project (ASIP). The proposed project contributes to provide knowledge and deepens the Bank’s contribution through new approaches to improve services along the sanitation value chain, particularly for the urban poor.

## 1.2 Sector Priorities

1.2.1 Consistent with the GSGDA II Policy Objectives and the sector goal “to contribute to improvement in the living standards of Ghanaians through increased access to and use of safe water, sanitation and hygiene practices and sustainable management of water resources,” the Government of Ghana, acting through the sector ministry has prioritized the following as strategic policy actions: (a) sustainable management of water resources to increase access to safe, adequate and affordable water; (b) sustainable and effective management of liquid and solid waste to reduce pollution of water bodies, and provide opportunity job and wealth creation; and (c) promotion of behavioural change programmes and increased access to safe hygiene practices.

1.2.2 The strategic policy actions require concerted effort to develop and implement comprehensive sector wide projects and programmes, in collaboration with Development Partners; and with increased private sector participation and investments consistent with Pillar I of the Bank Group Country Strategy Paper, CSP (2019 – 2023) that emphasizes industrialization and private sector participation. Having missed the MDG targets for improved sanitation access by a very wide margin (Ghana achieved 15% access against a target of 54% access), the Government of Ghana is focused on improving access to sustainable sanitation in its development agenda to redress the massive shortfall. The relevant sector ministry has been charged with facilitating the attainment of the sanitation targets in the GSGDA II and the SDGs – to end open defaecation by 2030.

## 1.3 Policy and Institutional Framework

1.3.1 The ongoing sector reforms have led to the formulation and Government approval of various sector policies that include the (a) 2009 National Water Policy (NWP), (b) 2010 revised Environmental Sanitation Policy (ESP), (c) 2010 National Environmental Sanitation Strategy and Action Plan (NESSAP) that has culminated in the development of related strategies and action plans at the metropolitan, municipal and district levels, and (d) 2011 Strategic Environmental Sanitation Investment Plan (SESIP). The National Energy Policy of the Ministry of Energy supports conversion of municipal, industrial and agricultural waste into energy as a means of managing the growing sanitation problems while contributing to energy security. In addition, effort has focused on strengthening (a) sector regulation and performance monitoring, (b) integrated water resources planning and management, and (c) sector coordination and preparation of comprehensive investment plans.

1.3.2 Key legislative instruments that support policy and enforcement include: (a) Ghana Constitution 1992, Section (41k) 1992, (b) Criminal Code, 1960(Act 29) section 296 and 297, (c) Local Government Act, 1993 (Act 462), (d) Environmental Sanitation Bye-Laws (2003), (e) Environmental Protection Agency Act, 1994 (Act 490), and (f) Ghana Investment Promotion Council Act, 2013 (Act, 865).

1.3.3 The reforms have also led to the establishment (in 2017) of the Ministry of Sanitation and Water Resources (MSWR) that is responsible for (a) sector policies and programmes, planning, implementation monitoring and evaluation; (b) private sector support in services delivery; and (c) creative and innovative research to facilitate adoption of improved technologies and approaches for effective delivery of sector related services. The Ministry comprises two Directorates – **Water Directorate** responsible for water resources management and related services, including water supply; and **Environmental Health and Sanitation Directorate (EHSD)** that oversees environmental health and sanitation. The EHSD has over 5,500 staff operating at the regional and district levels. The EHSD collaborates with the MMDAs to ensure observance of sound environmental sanitation practices across the country.

1.3.4 Other key sector institutions include the Ministry of Local Governance and Rural Development (MLGRD) responsible for coordination of Metropolitan, Municipal and District Assemblies (MMDAs); Ministry of Education responsible for water supply and sanitation in schools; Metropolitan, Municipal and District Assemblies (MMDAs) responsible for provision of basic services, including water supply and sanitation services in close collaboration with local communities; Public Utilities Regulatory Commission for regulation of urban water supply, including approval for tariffs, service quality monitoring and consumer protection; civil society mainly comprising the Coalition of NGOs in Water and Sanitation (CONIWAS) and private sector actors; and the Donor community.

1.3.5 Currently, the major water and environmental sector Development Partners include the African Development Bank Group (AfDB), Agence Francaise de Development (AFD), the European Union (EU), the Netherlands Government (NLG), UNICEF, USAID, and the World Bank (WB). The International NGO/Civil Society Groups include WaterAid, World Vision, and International Water and Sanitation Centre (IRC, [www.ircwash.org](http://www.ircwash.org)).

## **1.4 Problem Definition**

### **1.4.1 Status of Sanitation Access and FS Management**

1.4.1.1 The water and sanitation sector reforms over the past two decades have created an enabling environment (appropriate institutional, legal, and regulatory structures) in a bid to improve sector performance. This has enabled the attainment of an impressive safe drinking-water access of 87% ((JMP 2015), exceeding the country's MDG target of 78%. Unfortunately, with regard to improved sanitation access, the country has performed poorly, given an access figure of 15% (urban 20%) and an open defaecation rate of 19% (JMP 2015). The MDG sanitation target was missed by about 40% (JMP 2015 Update), which makes Ghana one of the lowest covered countries in Sub-Saharan Africa. The 2018 GSS's Multiple Indicator Cluster Survey (MICS) report presents a marginal improvement on access to improved sanitation from the previous 15% to 21%. However, open defaecation rate on the other hand has seen a decline from 22% to 19%.

1.4.1.2 The sanitation situation in most cities and towns is deplorable, and progress to improve sanitation access has been slow. Currently, only about 3.9 percent of the total population (3.6 percent urban, 0.3 percent rural) (NESSAP, 2010) has access to sewerage systems. The implication is that majority of the population (over 96%) rely on various domestic and public onsite sanitation facilities as well as open defecation.

1.4.1.3 Particularly in the urban areas, most residents have access to public (or shared) toilets with a very low level of satisfaction. Many households that rely on private toilet facilities (as distinct from public toilets) still share the facilities. About 50 percent of urban households has access to flush toilets or ventilated improved latrines, and only one in five households has its own exclusive sanitation facility. About 15,000 cubic metres of septage/faecal sludge is generated each day (assuming per capita generation of 1litre/day). In the highly congested medium to large sized urban centres, several onsite facilities are located in low-lying areas, often based on technologies not appropriate for such areas and have operational and environmental consequences.

1.4.1.4 Majority of the facilities are not linked to any proper collection and treatment facilities, and in some cases are manually emptied and the contents disposed of in nearby open spaces either due to poor accesses or high cost of desludging, and therefore pose serious health and environmental risks, particularly to the urban poor, as faecal sludge management services (collection, transportation, treatment and re-use) in such urban communities are either non-existent or woefully inadequate. The high rate of open defaecation in slums and squatter settlements require

targeted interventions to address both technical and social infrastructure needs in an attempt to meet the national goal “to provide basic water and sanitation services to all Ghanaians by 2025”.

1.4.1.5 While in most places, the private sector provides collection services by making investments in partly depreciated vehicles and equipment like cesspit emptiers, treatment and disposal services are provided and managed by the public sector, mainly the MMDAs. Inadequate desludging and transport of septic sludge is partly due to affordability constraints. Consequently, facilities are often emptied manually and sludge dumped indiscriminately nearby. Desludging tanker services are poorly regulated and the licensing and inspection regime is weak or non-existent. Developing and implementing emptying and treatment services that safely manage human excreta remains a major issue in most urban centres.

#### **1.4.2 Implication for Public Health and Environmental Management**

1.4.2.1 The existing infrastructure for septage/sewage treatment in most urban centres is woefully inadequate and results in improper treatment of collected septage before disposal in nearby water bodies. Out of the existing 44 municipal and satellite wastewater treatment plants (including 7 Faecal Sludge and Septage Treatment Plants- FSTPs) across the country, only seven (7) were reportedly functional (NESSAP 2010). Recent private sector investments in major cities like Accra, have made modest contributions towards sustainable delivery of FSM services in urban areas.

1.4.2.2 The impact of inadequate sanitation can be seen in the high incidence of environmental sanitation related diseases like Malaria and Diarrhoeal Diseases which make up the major cases of outpatients. About 10 million cases of malaria were recorded in 2015, representing about 38% of outpatient disease cases (Ministry of Health, 2015). In addition, cholera outbreaks in recent years indicate the urgent need for action to raise awareness for improved sanitation and hygiene. Inadequate sanitation exacts a high cost estimated at US\$ 290 million each year, which is equivalent to 1.6% of GDP (WSP/WB 2011). The costs of poor sanitation are inequitably distributed and regressive, with the highest economic burden falling disproportionately on the poorest. This is because the average cost associated with poor sanitation, constitutes a much greater proportion of a poor person's income than that of a wealthier person.

1.4.2.3 The increasing urban population, compounded with strong economic growth, has led to rising solid waste generation. According to the recent Census, about 50 percent of solid waste produced within the urban areas remains uncollected and the waste collected is often inadequately disposed in dumpsites. Communal solid waste containers, particularly common in low-income areas, are often overflowing due to the poor service provided by the MMAs and become mini dumpsites and the solids end up in drains. Only a fraction of the solid waste collected from public containers and through house-to-house collection is finally deposited in designated solid waste disposal sites. Although disposal sites are intended to be operated as landfills, they usually become dumps due to poor operation and management.

1.4.2.4 Out of the 388 urban settlements in Ghana (TCPD, 2015) with a total population of about 12.5 million (2010 GSS Census), sixty-two (62) are small to medium sized settlements (between 20,000 and 500,000 people) and constitute about 24% of the total urban population. Only 3 settlements are large sized (over 500,000 people) and account for over 53% of the total urban population. The remaining 323 settlements are smaller sized (between 5,000 and 20,000 people). Recent Government effort to improve on access to sustainable sanitation, including FSM has focused mainly on the large sized settlements to the detriment of the several small and medium sized ones, which together account for about 47% of the urban population and also have a major impact in terms of pollution of nearby water resources.

1.4.2.5 The National Development Planning Commission (NDPC) has estimated Ghana's population as 57 million by 2057, at an average per capita annual growth rate of 1.8%, and an urbanisation rate of 73%. This has serious implications for public and environmental health, and requires interventions to improve faecal sludge management by (a) increasing access to appropriate and sustainable toilet facilities, (b) improving the operational efficiency of the collection system, and (c) increasing treatment and disposal capacity, including reuse.

1.4.2.6 The Ministry of Sanitation and Water Resources has prioritized a number of urban settlements for immediate intervention based on selection criteria that include population size, road accessibility, expressed need for improved FSM, consideration as growth pole and influence on nearby settlements, among others. The beneficiary urban settlements have confirmed their interest for Government support based on several requests made to the MSWR in recent past, given previous Government support for sanitation interventions in the large urban centres. The prioritized settlements conform to the spatial planning and infrastructure development strategies and action plans prepared by the NDPC (NDPC, 2017) for socio economic development of Ghana. The settlements also complement those identified for support under the intended scaling up of the World Bank funded GAMA Sanitation and Water Project likely to commence in 2020. Table A1 presents the list of beneficiary urban settlements.

1.4.2.7 Based on the MMDAs' requests for improved and sustainable faecal sludge management, and in line with their development plans and related MESSAPs and DESSAPs, the MSWR requires support to prepare feasibility studies and engineering designs that will result in downstream investments in the near future. The studies and designs will include analysis of the sanitation situation, faecal sludge/septage quantities, stakeholders and market demand assessments, engineering designs and technical specifications, etc., for storage, collection and treatment infrastructure, where necessary. The studies will also include assessments to optimize reuse benefits, and arrangements for sustainable operation and maintenance of infrastructure and services. Where necessary, shared treatment infrastructure may be provided to serve a number of cities/towns in support of Government policy for provision of shared facilities. In this regard, the studies will analyse a number of management options and make the necessary recommendations for adoption.

1.4.2.8 The project therefore addresses the identified problems of limited access to sustainable sanitation, including inadequate provision of faecal sludge management infrastructure and services in urban centres, to contribute towards improved health and socio economic well-being of Ghanaians.

## **1.5 Project Objective**

1.5.1 The overall objective of the project is to increase access to sustainable and inclusive faecal sludge management services and provide opportunity for livelihoods improvement among the poor in small urban centres, thereby improving their health and quality of life. The specific objectives of the project include:

- a) To increase access to safe, sustainable and inclusive onsite household and public sanitation;
- b) To increase access to efficient and sustainable FS management infrastructure and services, including production of affordable FS reuse end products to maximize economic benefits;
- c) To identify business opportunities and increase sub sector investments.

1.5.2 The project adopts the guiding principles of city-wide inclusive sanitation to provide feasibility studies and engineering designs for delivery of sustainable FSM infrastructure and services along the value chain on policy implementation in the WASH sector.

1.5.3 The project provides opportunities for lessons to be learnt regarding:

- a) Public private sector partnership in the delivery, operation and maintenance of sustainable on-site sanitation, and FS collection and treatment infrastructure and services;
- b) Cost recovery through user fees to fully finance operation and maintenance, and part of capital costs; and
- c) Production and sale of FS reuse products.

Lessons learnt from project implementation may be applied to the design of future projects funded by the African Development Bank and other Development Partners.

## 1.6 Beneficiaries and Stakeholders

### 1.6.1 Beneficiaries

1.6.1.1 The project's *direct beneficiaries* include: (i) Relevant Sector Ministries, including MSWR, MLGRD, and MoA, MESTI, who will benefit from participation in project implementation and training; (ii) Members of ESPA and other Private Sector Operators, CONIWAS, Civil Society Organizations; and (iii) Municipal and Local Council Authorities, and Development Partners who will benefit from participation in the validation workshops and investment opportunities. Following the realization of the downstream investments, the *direct beneficiaries* would be the about 0.92 million people living in un-sewered areas in urban centres, and without sustainable access to FSM infrastructure and services along the value chain (containment, collection, treatment and reuse). The urban poor people, who constitute over 60% of the entire urban population will benefit from provision of incentives and strategies to better promote and deliver onsite sanitation infrastructure, and adequate de-sludging services to reduce effluent discharges and pollution of the immediate environment. In the medium to long term, up-scaling of the project is expected to benefit an additional 0.17 million urban dwellers to contribute to increase access to safe and sustainable urban sanitation from 21% currently to over 60% across Ghana by 2030.

### 1.6.2 Stakeholders

1.6.2.1 The following key stakeholder interests have been incorporated in project design through a consultative process:

(i) *MSWR*, as project proponents, spearheading the effort to establish sustainable faecal sludge treatment and disposal infrastructure and services in small urban settlements in line with NDPC spatial planning and infrastructure development strategies and action plans for socio economic development of Ghana (NDPC, 2017);

(ii) *Private Sector* interests to support improved delivery of onsite sanitation and their participation in the construction of facilities, and provision of FS collection and reuse related services to improve access to sustainable FSM;

(iii) *Municipal/Local Council Authorities* requests submitted to Government for support to improve the current situation of poor access to sustainable faecal sludge management services in their respective cities and towns;

(iv) *Development Partners* interested in collaborative partnership arrangements with the MSWR and other sector players to develop and implement various sector related projects and programs, and to consolidate gains made under previous project interventions.

1.6.2.2 The *Project Target Area* covers the un-sewered areas in twelve (12) selected urban settlements located in twelve (12) districts and across eleven (11) regions in the country without sustainable access to faecal sludge service chain management. The twelve urban settlements have been prioritized based on population size and likely increased demand for FSM services, ease of

accessibility and equitable regional distribution. The list of urban settlements and their locations are presented in Annex 1.

## **1.7 Justification for AWF Intervention**

1.7.1 The project fits within the revised AWF Operational Strategy (2017-2025) and mandate, with links to *two of the three AWF strategic pillars* as follows:

***Preparation of Investment Projects and Programs (Pillar I)*** that will attract follow-on investments, and piloting innovative technologies and approaches that may lead to widespread adoption. The proposed project is conceived as a pipeline project with opportunity for downstream investments to improve the environmental quality and social acceptance of improved and inclusive FS management in selected cities and towns in Ghana. Studies to improve on modalities for delivery of FSM related infrastructure and services, including tariff studies, arrangements for sustainable operation and maintenance of facilities, competitive pricing, and market potential of FS reuse contribute to ensure inclusive and sustainable access to FSM and attainment of the SDGs and Government sector targets for 2030.

***Investment Promotion (Pillar III)*** to increase the number of public and private investment opportunities in the water and sanitation sector and to mobilize higher levels of financing for projects, particularly from the private sector. The feasibility studies and design will result in preparation of an investment plan that will serve as basis for resource mobilization for future sector investments. The project is likely to identify business opportunities, and increase private sector investments in FS collection and reuse infrastructure and services.

1.7.2 The project addresses issues relating to inclusive access, cost recovery and sustainability along the value chain. This is ascertained by (a) the preparatory and feasibility studies that include socio economic, technical, financial and stakeholder analyses to identify the bottlenecks and to propose and develop appropriate interventions to overcome them; (b) effort to define interventions for each link along the FSM chain, from containment through collection, treatment and re use, ensuring that each link is inclusive and self-sustaining as much as possible; (c) the likely partnership arrangement between the MSWR, the Municipal Authorities and the private sector for operation and maintenance of FS infrastructure and related services; (d) opportunity to further strengthen the collaboration among sector institutions for delivery of sanitation infrastructure and services; and (e) studies to explore and maximize the economic benefits and market potential of FS re use end products.

1.7.3 The project adds value through (a) support to prepare a project pipeline for investments to improve FSM; (b) integrated planning and design of FSM infrastructure and related services for urban settlements to achieve optimized FS collection, treatment and disposal; (c) institutional strengthening of the Municipal Authorities to play an effective role in better managing delivery of un-sewered sanitation services, in collaboration with relevant institutions like the MLGRD, MOH, MESTI, MoA, etc., and (d) opportunity for increased access to inclusive and sustainable FSM chain management in Ghana.

1.7.4 The project will contribute to create a favourable environment and build donor confidence in Ghana to stimulate increased sector investments. AWF funding will enable the project objectives to be achieved, and will support activities to facilitate capacity building, and future investments in FSM along the value chain.

## **2 THE PROJECT**

### **2.1 Impact**

2.1.1 The long-term goal is to contribute towards the wellbeing and improved living conditions of the urban poor in Ghana.

2.1.2 The expected impact is contribution to improved health and quality of life for the urban dwellers living in un-sewered areas in Ghana, through increased access to, and delivery of sustainable and inclusive faecal sludge management infrastructure and services.

### **2.2 Medium and Short Term Results**

#### **2.2.1 Medium Term Results and Outcomes**

In the medium term, it is expected that the project will **contribute** to the following outcomes:

- a) **Outcome 1.** Increased access to sustainable and inclusive FSM services in un-sewered urban centres.
- b) **Outcome 2.** Increased and prioritized investments in FS management infrastructure and services.

It is the expectation that the Government of Ghana and the Municipalities, in collaborative partnership with Development Partners and the private sector shall mobilize funds for the downstream investments.

#### **2.2.2 Outputs**

In the short term, it is expected that the project will contribute to the following outputs:

- a) Preparatory and Feasibility Studies and Standard Designs/Preliminary Engineering Designs Prepared for four to five typical town size categories, i.e., <50, 50 – 150, 150 - 250, and 250 – 350 people, based on the projected population of the 12 selected cities and secondary towns.
- b) Field Engineering Investigations, Draft Detailed Designs and ESIA's prepared for up to 10 cities and secondary towns.
- c) Draft Tender Documentation, including Technical Specifications, Manuals and Cost Estimates prepared for up to 10 cities and secondary towns.
- d) Project core team constituted and functional.
- e) Detailed procurement and implementation plans approved and implemented, and project reports prepared and submitted.
- f) Investment round table organised to mobilise funds pledged for the required investments.
- g) Knowledge management in the area of faecal and septage sludge management achieved.

### **2.3 Project Components and Activities**

2.3.2 The project will comprise two (2) main components: Component I – Feasibility Studies and Engineering Design; and Component II - Project Management as follows:

#### **Phase 1**

##### ***Component 1: Feasibility Studies and Engineering Design***

2.3.2 The sanitation situation in most cities and towns is deplorable, and progress to improve sanitation access has been slow. Majority of the population (over 96%) rely on various domestic and public onsite sanitation facilities that are not supported by sustainable faecal sludge management services, as well as open defecation. Capacity for collection, treatment and disposal

is woefully limited. The situation poses serious risks to public and environmental health, and results in pollution of nearby water bodies. Consistent with the MSWR strategic objective of: (a) ensuring sustainable management of the country's water resources for increased access to safe, adequate and affordable water; (b) ensuring sustainable and effective management of liquid and solid waste to reduce pollution of water bodies as well as job and wealth creation; and (c) promoting behavioural change programmes and increase access to safe hygiene practices among the populace; this component will finance Engineering Consultancy Services to prepare feasibility studies and engineering designs to meet the FSM requirements in twelve (12) selected cities and towns. In addition, an investment round table will be organised to mobilise funds for investment financing.

2.3.3 The Terms of Reference for the Consultancy Services shall comprise three phases as follows:

- a) **Phase 1 - Preparatory and Feasibility Studies and Preliminary Designs** that include community engagement, socio-economic surveys, and feasibility studies, including situational assessment, market demand and stakeholder analyses, FS quantification and valorisation, and standard/preliminary design and costing for collection, transportation, treatment, reuse/disposal, business opportunities and site identification and selection, and organization of validation workshops.
- b) **Phase 2 - Field Investigations/Surveys, Detailed Design and ESIA** comprising detailed field investigations, design and ESIA's. The following specific activities shall be undertaken: topographic and geotechnical surveys, detailed designs and preparation of operation & maintenance plan, environmental impact study, cost benefit analyses, and validation workshops and reporting.
- c) **Phase 3 - Preparation of Specifications, Tender Documentation, Manuals and Cost Estimates** that will include preparation of the relevant specifications, tender documentation, manuals and cost estimates.

2.3.4 The Consultancy Services will require adoption and adaptation of data collection instruments prepared by WSP of the World Bank to collect data and carry out studies to ensure provision of town wide inclusive sanitation including arrangements for sustainable delivery of FSM in the selected cities and towns.

2.3.5 The related **activities** are:

### **Phase 1**

#### **2.3.5.1 Preparatory and Feasibility Studies**

1. *Community engagements* shall precede all other project activities in the target communities. The Consultant shall collaborate with the relevant MSWR and MMDA staff to undertake this activity, ensuring adequate community entry and sensitization to facilitate subsequent surveys.
2. *Baseline studies (socio economic, Knowledge, Attitude & Practices (KAP), etc.)* will be carried out in all target communities to establish relevant baseline data for planning and design of project interventions along the value chain. Project achievements shall be assessed in relation to the baseline. The baseline studies shall include data capture based on relevant indicators provided in Annex 1 (Table 1B) and from other sources.
3. *Technical Assessments* of existing sanitation facilities will be carried out for the different links of the value chain as follows:
  - (a) **Containment and Collection** to assess the types, percentage share, typical storage capacities, and modalities for construction and financing, related capital, and operation and

maintenance costs, etc., of available onsite sanitation facilities. Description and assessment of the existing arrangements for faecal sludge/septage collection and transport, including characterization and quantification, etc.

- (b) ***Treatment and Disposal*** that include identification and assessment/audit of feasible treatment and disposal technologies available in Ghana and elsewhere, taking into account faecal sludge and septage characteristics, treatment efficiencies, investment and operation and maintenance costs, land space requirements, ease of operation, social acceptance, likely environmental impact, and reuse benefits, etc.
  - (c) ***Reuse*** will consider assessment of the current practices for FS/waste reuse production, marketing and sales in Ghana and elsewhere, including production costs and related revenues, institutional arrangements, regulation and certification procedures, and financial viability/profitability, based on review of available secondary data, and verification through surveys and Focus Group Discussions (FGD); and to establish a data base on producers and users of FS/waste reuse end products. The assessment will also include quantification and valorisation of faecal sludge, with clear definition of the types and quantities of FS end products, identification of potential users of FS reuse products, and assessment of the market/demand potential, including likely revenues to be accrued versus production costs.
  - (d) ***An Integrated Assessment and Ranking*** of identified feasible options for faecal sludge collection, transport, treatment and reuse, taking into account the characteristics of septage, mode and costs (capital and O&M) of collection and transport, likely haulage distances based on identified and pre-selected disposal sites, applicable treatment technologies, market potential of reuse, etc. The assessment will also describe and consider the potential business opportunities for the different actors (private and public sector enterprises, NGOs, individuals, etc.) along the FSM value chain.
  - (e) ***Recommendations*** made to address identified challenges/barriers in order to improve: (a) access to onsite household and public sanitation; clearly articulating private and public sector roles, and defining actions to improve the delivery and financing mechanisms for onsite sanitation, including the types of technologies to be adopted, among others; (b) collection and transport capacity in each town and related cluster, clearly indicating the best options for services delivery; (c) treatment and disposal capacity based on recommended collection and transport systems; and (d) economic benefits of reuse, including strategies for promotion, marketing and sales, clearly establishing profitability or otherwise of reuse.
4. ***Stakeholder Analyses*** to identify all relevant stakeholders, including public & private sector institutions, NGOs, households and individuals at the national, regional and local levels; their expected and actual roles and responsibilities for delivery of onsite sanitation, FS collection and transport, treatment and disposal including reuse. The analyses shall include prognosis for change.
5. ***Site Identification and Selection*** to be carried out in collaboration with local authorities and in accordance with urban physical plans. A number of sites shall be identified, assessed and ranked and the most suitable recommended for prior selection, demarcation and subsequent acquisition for provision of treatment and disposal and/or transfer facilities to optimize haulage distances.

#### ***2.3.5.2 Preliminary Engineering Design***

1. ***Standard and Preliminary Engineering Designs and Costing*** shall be prepared for FS collection, transport, treatment, reuse infrastructure, and services in the selected cities and secondary towns. The standard designs shall form the basis for preparation of the preliminary designs, and shall take into account septage characteristics, projected development trends and

rate of urbanization, and estimated design volumes (up to 25-year lifespan) for the selected cities and secondary towns. The designs shall consider and evaluate combinations of the recommended best options as alternatives for collection through treatment and reuse, clearly establishing the business model in each case.

2. *Financial and Economic Analyses* shall be carried out to assess the financial and economic viability of each alternative, and to determine and recommend the best alternative.
3. *Management Arrangements* to ensure adequate operation and maintenance of all facilities shall be defined. These will cover on site facilities, collection and transport, as well as treatment and reuse facilities.
4. *First Stakeholder Validation* will ensure stakeholder review and acceptance of recommended alternatives for facilities along the value chain. The regional level validation workshop(s) shall be organized to present the outcomes of all studies and the engineering designs.

## **Phase 2**

### **2.3.5.3 Site Investigations and Detailed Engineering Design**

1. *Site Investigations* shall include detailed topographic and geotechnical surveys to obtain technical and environmental data to enable adequate design. Data obtained shall also be used in assessing environmental impacts and related mitigating measures.
2. *Draft Detailed Engineering Design* will involve preparation of process flow diagrams and detailed designs, including hydraulic, geotechnical, and structural computations for all components, as well as design of all electro mechanical units; preparation of detailed drawings to appropriate scales, indicating the facilities for site drainage, offices and vehicle/equipment parking and cleansing, perimeter fencing, etc. The general design layouts shall provide adequate road accesses to facilitate operation and maintenance, and performance monitoring; and shall indicate perimeter fencing and gate control facilities, and locations for temporary storage of solid waste screenings from the primary treatment processes.
3. *Management Arrangements* defined during the preliminary engineering stage shall be refined and finalized. A detailed description of the arrangements for managing the various components of the value chain shall be provided, together with development of specific promotion, marketing and sales strategies, and mechanisms for customer feedback and redress.
4. *Preparation of ESIA/ESMP* shall include an assessment of the potential environmental impacts for the designed faecal sludge service chain management infrastructure and services, together with proposed mitigation measures. The ESIA Report and related Environment and Social Management Plan shall be prepared and submitted for approval by Environmental Protection Authority, in accordance with EPA guidelines. The Scoping Report and Terms of Reference shall be prepared and submitted for approval during the preliminary engineering design stage.
5. *Preparation of Facilities Management Plan (FMP)* shall include detailed operation and maintenance guidelines and cost estimates for facility operation and maintenance (O&M), and the management arrangements defined for the various components of the value chain. The FMP shall highlight the safety requirements for plant operation and staff; and shall specify health and safety measures to protect workers, visitors and surrounding residents during operation and maintenance of the facility. The plan will include specifications for regular medical check-ups for operational personnel; and for environmental monitoring, operation and maintenance, effluent quality, among others.

6. *Financial and Economic Analyses* shall be performed for the finally selected and designed alternative, based on final cost estimates and design life span of the various components.
7. *Second Stakeholder validation* shall ensure further stakeholder review and acceptance of the draft final designs for approved facilities along the value chain. Similarly, regional level validation workshops shall be organized to present the outcomes of the final designs and cost estimates.

### **Phase 3**

#### ***2.3.5.4 Specifications, Tender Documentation and Investment Plans***

1. *Preparation of Specifications and Tender Documentation* will ensure compliance with open tender procedures and unit price contracts, and shall follow the formats prescribed by both the National Public Procurement Authority and the African Development Bank.
2. *Preparation of Investment Plans* is necessary to facilitate mobilization of financial resources among development partners. The plans shall be prepared based on the planned implementation schedules, and shall indicate anticipated investments over a defined period.

#### **Component 2: Project Management**

2.3.4 Project implementation shall be mainstreamed. Staff seconded from the Ministry of Sanitation and Water Resources shall provide project management services. An existing PIU of the MSWR shall undertake all project related activities, supported by a technical team that will play a supervisory role and provide technical guidance and support to review the consultant's outputs.

2.3.5 ***Capacity Enhancement:*** MMDAs need to build capacity for design and management of FS collection and treatment infrastructure. Collaboration with the engineering design consultant's team will ensure transfer of technical know-how and development of skills to improve the design capacity, and to better appreciate the O&M requirements and sustainable arrangement for effective management of treatment and collection infrastructure and services.

2.3.6 The related activities are:

1. *Institution of the Project Implementation Unit (PIU)* involves identifying and assigning key MSWR staff as project staff to strengthen the MSWR's capacity for project management. The PIU will oversee the coordination, implementation, and progress and monitoring of the project. The MSWR shall provide the needed logistics, including transport, office space, communication, etc.
2. *Engagement of Municipal Planning Coordination Units (MPIUs) as Project Supervisory Teams* consisting of representatives from various decentralized technical departments to provide technical support and guidance to the Project Implementation Unit, and to participate in the periodic review of implementation progress during project implementation.
3. *Finalization and approval of plans and project reporting* will ensure that the existing draft implementation and procurement plans are reviewed and finalized by the PIU following AWF's no objection. The plans shall be detailed and shall cover all relevant project activities till completion. The plans shall be revised once every year. In addition, all relevant project reports and documents shall be prepared and submitted in accordance with the AWF reporting requirements.

4. *Knowledge Transfer to MMA Technical Staff* will strengthen and build capacity for design and management of FS collection and treatment infrastructure. MMDA technical staff will work with the engineering design consultant's team to undertake field surveys, and to prepare engineering designs and related tender documents and drawings to improve their engineering design capacity.
5. *Technical Assistance Support in CWIS* may be necessary to facilitate preparation of inclusive FSM designs and tender documentation. That notwithstanding, the Consultant's team will be expected to have expertise in CWIS.
6. *Knowledge Management and MSWR Staff Capacity Enhancement* involves various activities like development and production of IEC materials, and launch and completion workshops to document and disseminate project experiences and outcomes; and development of staff training and design manuals, and knowledge transfer to MSWR staff to strengthen and build capacity for design, operation and maintenance of faecal sludge treatment infrastructure.
7. *Validation Workshops and Investment Forum*: Stakeholder validation workshops shall be organized by the project management team as described in Para 2.3.5.2 and 2.3.5.3 at the end of the preliminary and detailed design stages. Additionally, an Investment Forum to mobilize resources for the downstream investments shall be organized on project completion.

## 2.6 Project Risks

2.6.2 The possible risks that may arise during project implementation and mitigation measures as presented in the log frame and incorporated in project design are analysed along with others in the following table:

*Table 1: Risks and Mitigation Measures*

| <i>Risk</i>   | <i>Impact</i> | <i>Mitigation Measures</i>  |
|---|---------------|---|
| Lack of political support and Government disinterest in FSM leading to unsuccessful implementation and wider uptake.  | Medium        | Lobby, advocacy, dialogue and transparency among actors. Endorsement and active participation of the MSWR and Stakeholders.   |
| Inability to mobilize adequate resources for downstream investments. The Project's Logical Framework assumes the mobilization of resources to implement the downstream investment projects. | High          | Active participation of the Water and Sanitation Sector Working Group, and effective organization of investment fora.   |
| Community resistance to behaviour change regarding improved access to onsite sanitation, faecal sludge chain management and hygiene.  | High          | Community sensitization. Increased social marketing and media involvement in hygiene and sanitation related activities.   |
| Unavailability of land for selection and design of FSM infrastructure, and the required environmental approvals may delay timely completion of the project.                                 | High          | Timely availability of land for selection and design of FSM infrastructure. Sensitization of MMDA Chief Executives on need for land availability and acquisition at project start up. Provision of written commitments by MMDA Chief Executives to make land available. Follow up on written commitments by Project Team. |
| Delay in project effectiveness due to delays in parliamentary and government approvals.   | High          | The EA will commence engagement with the Parliamentary Committee and Ministry of Finance during the appraisal process.  |

## 2.7 Costs and Financing Plan

2.5.1 The estimated total cost of the project (excluding taxes) is € 1 526 304, of which 30 % is in local currency equivalent. Total cost includes provision for 4% price escalation contingencies. A breakdown of the proposed financing plan by Project Component and Source of Financing is summarised in Table 2 with details shown in Annex 2. Table 3 below provides an overview of the estimated costs by category of expenditure.

2.5.2 The AWF will finance 68 % of the total project cost (estimated at € 1 044 264), mainly for the provision of consultancy services for preparatory and feasibility studies, site investigations, preliminary and detailed engineering design and tender documentation, and plans; and for non-consultancy services like stakeholder workshops and investment forum. The MSWR and Municipalities will finance the remainder amounting to € 482 040, mainly as in kind contribution for land acquisition, support for community sensitization, project management and support staff salaries and operational expenses, office space, utilities, etc. All taxes related to the expenditures and activities of this project are the Government of Ghana's responsibility.

Table 2: Project Cost Estimates by Component and Sources of Financing (in '000 Euros)

| Component                                  | Total Cost     | AWF            | MSWR/Municipal Assemblies |
|--|----------------|----------------|---------------------------|
| 1. Feasibility Studies and Detailed Design | 959.1          | 939.1          | 20.0                      |
| 2. Project management                      | 508.5          | 65.0           | 443.5                     |
| <b>Total Base Cost</b>                     | <b>1,467.6</b> | <b>1,004.1</b> | <b>463.5</b>              |
| Price Contingency (4%)                     | 58.7           | 40.2           | 18.5                      |
| <b>Total Project Cost</b>                  | <b>1,526.3</b> | <b>1,044.3</b> | <b>482.0</b>              |
| Percentage                                 | 100%           | 68.0%          | 32.0%                     |

Table 3: Project Cost by Category of Expenditure (in '000 Euros)

| Category of Expenditure                    | Total Cost     | AWF            | MSWR/Municipal Assemblies |
|--|----------------|----------------|---------------------------|
|  |                | FC             | LC                        |
| A. Services                                | 959.1          | 939.1          | 20.0                      |
| B. Operating costs, incl. land acquisition | 508.5          | 65.0           | 443.5                     |
| <b>Total Base Cost</b>                     | <b>1,467.6</b> | <b>1,004.1</b> | <b>463.5</b>              |
| Contingency 4%                             | 58.7           | 40.2           | 18.5                      |
| <b>Total Project Cost</b>                  | <b>1,526.3</b> | <b>1,044.3</b> | <b>482.0</b>              |
| <b>% Contributions</b>                     |                | <b>68.0%</b>   | <b>32.0%</b>              |

### **3 PROJECT IMPLEMENTATION**

#### **3.1 Grant Recipient and Executing Agency**

3.1.1 The Republic of Ghana will be the Grant Recipient, whereas the Ministry of Sanitation and Water Resources (MSWR) will be the Executing Agency. The MSWR is responsible for development of policy on water resources development and environmental sanitation. The MSWR consists of two (2) Directorates, namely:

- (a) Water Resources Directorate (with oversight responsibility for institutions dealing with water comprising: Ghana Water Company for urban water supply, Community Water and Sanitation Agency for rural water supply and sanitation, and Water Resources Commission); and
- (b) Environmental Health and Sanitation Directorate (EHSD) which has oversight responsibility for sanitation services delivery and hygiene and therefore represented in all regions and local government institutions at the metropolitan, municipal and district levels.

3.1.2 The EHSD has over 5,500 staff operating at the regional and district levels. The EHSD collaborates with the MMDAs to ensure observance of sound environmental sanitation practices across the country.

#### **3.2 Implementation Arrangements**

3.2.1 The MSWR will manage the Grant funds. The Environmental Health and Sanitation Directorate (EHSD) of the MSWR will be tasked to implement the project through the MSWR existing Project Implementation Unit (PIU), comprising (a) Project Manager, (b) Project Engineer, (c) Procurement and/or Contracts Management Expert, (d) Environmentalist, (e) Accountant, (f) M&E Specialist, and (h) Gender and/or Social/Community Mobilization Expert shall be responsible for project implementation. The PIU has built internal capacity for project management including expertise for procurement and financial management. That notwithstanding, the EHSD shall be assisted by specialists from the existing Project Coordinating Units of the ongoing Greater Accra Metropolitan Area Sanitation and Water Project (GAMA-SWP) and Greater Accra Sustainable Sanitation and Livelihoods Improvement Project (GASSLIP), where necessary.

3.2.2 The PIU will focus on project management and procurement. Specifically this will include: (a) project coordination among stakeholders, (b) acquisition of consulting services, (c) processing payment requests, and (d) preparation of project reports. The Project Manager (PM) shall coordinate all project related activities, including liaising with the various stakeholders and institutions, and shall be responsible for the day-to-day management of project activities, particularly regarding working with the respective Municipalities and sector related institutions. The PIU's organization and institutional linkages are presented in Annex 6, PIU's structure in Annex 7, and the Terms of Reference in Annex 8.

3.2.3 Existing **Municipal Planning Coordination Units (MPIUs)** comprising senior staff drawn from the various decentralized technical departments under the Municipalities, shall provide technical support and guidance to the Project Implementation Unit, and shall participate in the (a) coordination and management of the Consultant's work at the district and local levels, and (b) periodic review of implementation progress and Consultant's reports.

3.2.4 The existing **Project Steering Committee (PSC)** of the MSWR for the GAMA and GASSLIP projects with representation from various stakeholders and relevant sector ministries shall jointly review project progress and provide general guidance and oversight of project

execution. The joint PSC shall be chaired by the Hon. Minister, and shall meet at least twice a year and whenever need be.

### 3.3 Performance Management Plan

3.3.1 A result based measurement plan will form the basis for tracking the performance of the project and managing results. AWF in collaboration with the PIU shall be responsible for tracking key indicators and targets from the logical framework. Table 4 below indicates the expected deliverables of the project within allocated timeframes.

Table 4: Global Performance Plan of the Project

| Deliverables  | Time    |
|---|---------|
| Grant approval and notification                                       | Mo      |
| Establishment of the PIU and PSC                                      | Mo + 1  |
| Grant signature   | Mo + 3  |
| Satisfaction of conditions for effectiveness                          | Mo + 6  |
| Launching of the Project  | Mo + 7  |
| Recruitment of the consultant(s)                                      | Mo + 8  |
| Preparatory and feasibility studies and preliminary designs           | Mo+19   |
| Detailed site assessments and designs                                 | Mo+25   |
| Detailed specifications, tender documentation and investment planning | Mo + 25 |
| Investment Forum  | Mo + 26 |

3.3.2 The main performance indicators of the studies and designs are specified in terms of reference presented in Annex 11.

### 3.4 Project Implementation Schedule

3.4.1 The project shall be executed over a period of 30 months from the date of Grant approval. The estimated project duration includes periods of submission of reports, observations, conducting workshops and finalization of reports. Signing of the Grant Agreement is planned for February 2020, which allows two and a half months for Grant Effectiveness. It is anticipated that the consultancy services will last over 21 months. The summarized project implementation schedule is presented in Table 5. A detailed schedule is presented in Annex 3.

3.4.2 The Executing Agency will initiate advanced procurement actions in the recruitment of the Consulting Firm to fast track implementation of the project activities. This will allow project launching soon after the Grant is declared effective.

Table 5: Implementation Schedule Summary

| S/N | Description                                      | Year 1 |   |   |   |   |   |   |   |   |    |    |    | Year 2 |    |    |    |    |    |    |    |    |    |    |    | Year 3 |    |    |    |    |    |
|-----|--|--------|---|---|---|---|---|---|---|---|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|--------|----|----|----|----|----|
|     |  | Months |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
|     |  | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13     | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25     | 26 | 27 | 28 | 29 | 30 |
| 1   | Approval   | ●      |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 2   | Signing  |        | ● |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 3   | Launch Workshop                                  |        |   | ● |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 4   | Acquisition of Consultancy Services              |        | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■  | ■  | ■  |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 5   | Initial Planning and Community Engagement        |        |   |   |   |   |   |   |   | ■ | ■  | ■  | ■  | ■      |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 6   | Feasibility Studies                              |        |   |   |   |   |   |   |   |   |    |    |    | ■      | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  |        |    |    |    |    |    |
| 7   | Preliminary Engineering Designs and ESIA Scoping |        |   |   |   |   |   |   |   |   |    |    |    | ■      | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  |        |    |    |    |    |    |
| 8   | Stakeholder Validation Workshop                  |        |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 9   | Detailed Engineering Designs and ESIA (10 Towns) |        |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 10  | Tender Documentation, Costing and FMPs           |        |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 11  | Investment Plan                                  |        |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
|     | Investment Forum                                 |        |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 12  | Progress Reporting                               |        |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 13  | Audit  |        |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |
| 14  | PCR  |        |   |   |   |   |   |   |   |   |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |        |    |    |    |    |    |

### 3.5 Procurement Arrangements

3.5.1 The acquisition of consulting services and non-consultancy services financed by the Bank will be in accordance with the *Procurement Policy and Methodology for Bank Group Funded Operations dated October 2015* as amended from time to time, using the relevant Bank Standard Bidding Documents, and the provisions stipulated in the Financing Agreement. The Procurement arrangements for the project are summarized in Table 6 below.

3.5.2 Executing Agency Procurement Capacity: The MSWR has a fully staffed Procurement Unit (PU) headed by a Principal Procurement Manager. The PU is responsible for procurement of good, works and services for the MSWR with technical support from the directorates within the Ministry. The PU has experience in managing procurement under donor-financed projects; and adopts a system for keeping procurement records with documented filing protocol or archiving policy. Detailed procurement arrangements are presented in Annex 4.

3.5.3 **Consultancy Services:** The acquisition of consultancy services amounting to € 959,100 will be procured through shortlisting of consulting firms under QCBS using available Bank's Standard Request for Proposal document. Consultancy services under this method will include feasibility studies assessment and design of FS treatment facility, SESA/ESIAs/ESMPs and the preparation of tender documentation. Advance contracting may be used for acquisition of consultancy services.

3.5.4 **Non consultancy services:** Non-consulting services including workshop launch and stakeholder workshops/investment fora (at an aggregate cost of € 65,000) will be financed from the grant resources and be procured through shopping.

3.5.5 **Project Management and Operating Costs:** Expenditures during project implementation including office supplies, utilities, consumables, advertising expenses, internet service, communication, fuel, maintenance and insurance of vehicles, costs related to staff travel, etc., will be fully financed and procured by the Government of Ghana (GoG). The acquisition of land, in particular for sites of planned treatment plants, are included here as government contribution to facilitate rapid implementation based on site specific designs.

3.5.6 The procurement arrangements for the various components, elements, and items, under the different expenditure categories financed by the grant are presented in Table 6 below. Large-value contracts, each group of similar transactions/contracts, the different PMPs, estimated costs, oversight requirements, and the timeframe as agreed between the Grantee and the Bank, are presented in the Procurement Plan (ref. Annex 4, Section 5).

Table 6: Procurement Arrangements (expressed in million Euros)

|           |   | BPM                           |                           |  | BPS                           |                                |                            |
|-----------|---|-------------------------------|---------------------------|--|-------------------------------|--------------------------------|----------------------------|
| I/N       | CATEGORIES  | OCB(INT)<br>EURO<br>(Million) | QCBS<br>EURO<br>(Million) | Others 1:<br>(Shopping)<br>EURO<br>(Million) | OCB(NAT)<br>EURO<br>(Million) | Others 2:<br>EURO<br>(Million) | Total<br>EURO<br>(Million) |
| <b>A.</b> | <b>CONSULTANCY SERVICES</b>   |                               |                           |  |                               |                                |                            |
| 1.1       | Consultancy Services for Feasibility Studies and Detailed Design and SESA/ESIAs / ESMPs | -                             | 0.959{0.939}              | -  | -                             | -                              | 0.959{0.939}               |
|           | <b>Sub-total</b>  | -                             | <b>0.959{0.939}</b>       | -  | -                             | -                              | <b>0.959{0.939}</b>        |

| <b>A.</b> | <b>NON-CONSULTANCY SERVICES</b>   |   |                     |                     |   |                 |                     |
|-----------|---|---|---------------------|---------------------|---|-----------------|---------------------|
| 1.2       | Program Management: Logistical activities for workshop launch and stakeholders workshops / investment forum | - | -                   | 0.065{0.065}        | - | -               | 0.065{0.065}        |
| 1.3       | Operating costs, incl. land acquisition   | - | -                   |                     | - | 0.444{0}        | 0.444{0}            |
|           | <b>Sub-total</b>  | - | -                   | <b>0.065{0.065}</b> | - | <b>0.444{0}</b> | <b>0.587{0.065}</b> |
| 2         | Contingencies   | - | -                   | 0.040{0.040}        | - | 0.019{0}        | 0.059{0.04}         |
|           | <b>GRAND TOTAL</b>  | - | <b>0.959{0.939}</b> | <b>0.105{0.105}</b> | - | <b>0.463{0}</b> | <b>1.526{1.044}</b> |

*Note:* Figures in parenthesis { } is the respective amounts financed by AWF, last digit rounded.

**3.5.7 Procurement Plan:** The AWF shall review the procurement arrangements proposed by the Recipient in the Procurement Plan for its conformity with the Procurement Policy. The Plan shall cover an initial period of at least 18 months, and shall be updated on an annual basis or as necessary always covering the next 18 months period of project implementation. AWF shall give prior approval to any proposed revisions to the Plan.

### 3.6 Disbursement Arrangements

3.6.1 The AWF support for consultancy services and the stakeholder workshops, estimated at **Euro 1,044,264** (including 4% contingencies), shall be disbursed through the (i) Direct Payment, and (ii) Special Account methods. Direct payments will be made upon verification and certification of invoices by the PIU, in accordance with the Bank's disbursement rules and procedures. All Grant proceeds shall be disbursed in Euros and all contracts should be denominated in Euros.

*Table 7: Disbursement Schedule (Euro)*

| <i>Item</i> | <i>Disbursement Method</i>  | <i>Procurement Item</i> | <i>Amount</i> | <i>% of Total</i> |
|-------------|-----------------------------|-------------------------|---------------|-------------------|
| 1.          | Direct Payment (Lots 1 & 2) | Consultancy             | 976,664       | 93.5%             |
| 2.          | Special Account             | Workshops               | 67,600        | 6.5%              |
| 3.          | Total                       |                         | 1,044,264     | 100.0%            |

### 3.7 Financial Management Arrangements

3.7.1 MSWR will execute the project using its Project Implementation Unit (PIU), which will be in charge of the day-to-day implementation and monitoring of the proposed project. MSWR has adequate financial management systems. The PIU shall keep and maintain appropriate financial management records and books of account which will reflect the activities financed out of the resources of the Grant and counterpart funding.

3.7.2 The Department of Finance headed by a Finance and Administration Director who is a qualified accountant shall be responsible for all project fiduciary requirements. The Chief Accountant (CA), who is a chartered accountant with hands-on experience on AfDB FM rules and procedures, will be responsible for the day to day financial arrangements and reporting for the project. Two Senior Accountants and an Assistant Accountant with directly assigned responsibilities for the project will assist the CA. The CA has experience overseeing other projects funded by the Bank and other development partners such as the World Bank, i.e. the GASSLIP and GAMA projects. The Internal Audit Department of MSWR will ensure the internal control of project operations and contribute to strengthening the project's control environment. The CA will be answerable to the Project Director who will in turn be answerable to the existing Project

Steering Committee (PSC) of the MSWR for the GAMA and GASSLIP projects with representation from various stakeholders and relevant sector ministries shall review project progress and provide general guidance and oversight of project execution. The PSC shall be chaired by the Hon. Minister, and shall meet at least twice a year.

3.7.3 The project will use the Government Integrated Financial Management Information Systems (GIFMIS) which is currently being used by MSWR to record, process and prepare financial reports. The PIU will prepare and submit quarterly unaudited Interim Financial Reports (IFR's) and annual Financial Statements in accordance with Bank/AWF requirements and International Public Sector Accounting Standards (IPSAS) cash basis of accounting (accounting framework adopted by GoG for financial reporting). The IFRs must be submitted to the Bank within 45 days after the end of the quarter reported on. Monthly bank reconciliations shall be prepared for each bank account relating to the project. There will be appropriate approval and segregation of duties to ensure proper controls and review of transactions. All the accounts will be managed by the PIU. All disbursements will follow the procedures outlined in the Bank's Disbursement Handbook.

3.7.4 In line with Bank's financial reporting mandatory requirements and AWF audit arrangements, two financial audits and post procurement reviews (at mid-term and final audit (within 6 months of project completion)) shall be carried out. AWF shall appoint an independent private audit firm to conduct the audits. The auditors shall be competitively recruited using AWF Rules and Procedures and based on the Bank's Standard Audit Terms of Reference. The costs of the audits will be borne by AWF. Details of the FM, audit and disbursement arrangements are presented in Annex 5.

### **3.8 Monitoring, Evaluation and Reporting**

3.8.1 A monitoring and evaluation plan for the Project will be developed and implemented by the PIU, based on the logical framework of the project. The plan will be prepared and submitted to the AWF after Grant approval. The Logical Framework Analysis shall serve as the basis for a results based assessment of the outputs of the project during implementation and after completion. The plan will align with the existing M&E system implemented by the MSWR.

3.8.2 The Consultants will submit all deliverables to the Project Manager for technical review supported by the PIU.

3.8.3 AWF supervision and monitoring of project activities will be subject to PIU submission of quarterly reports to the AWF. This will help maintain regular contact with the Recipient, and will enable diligent review of implementation progress. AWF may consider at any time the need to undertake field supervision missions. The Recipient shall prepare a project completion report (PCR), which shall include details on project activities and outputs, and a comprehensive expenditure report on the utilization of the Grant. Preparation of the PCR shall commence on achievement of 85% disbursement of Grant Funds. All documents shall be transmitted to the AWF in soft and hard copies. The Recipient shall submit to the AWF the reports/documents noted in Table 8.

*Table 8: AWF Reporting Requirements*

| <i>Documents to be Submitted to the AWF</i>   | <i>Reporting Schedule</i>                        | <i>AWF Action</i>         |
|---|--|---------------------------|
| 1. Implementation and Procurement Plan  | Within one month after Grant approval            | Review and approval       |
| 2. Procurement Documents (various)  | As noted in Procurement Plan                     | Review and “no objection” |
| 3. Quarterly Progress and Financial Reports in AWF format (with report on expenditures) | Within three weeks of end of quarter             | Review and comment        |
| 4. Annual Report including audited accounts   | End of 1 <sup>st</sup> quarter of following year | Review and comment        |
| 5. Project Completion Report in AWF format  | Within 3 months after end of project             | Review and acceptance     |
| 6. Minutes of Project Management Meetings   | Within 10 days of meeting                        | Review and comment        |
| 7. Minutes of other project related meetings / Stakeholder Dialogue, etc.               | Within 10 days of meeting                        | For information           |

## **4 PROJECT BENEFITS**

### **4.1 Environmental Aspects**

4.1.1 The project aims to create the conditions necessary to ensure the efficient, inclusive and sustainable management of faecal sludge along the value chain in urban settlements in Ghana. The activities proposed in the preparatory and feasibility studies require consideration of environmental aspects and impacts of climate change.

### **4.2 Climate Change**

4.2.1 The geographical range of the project is widespread, with sites in different regions of Ghana already affected by climate change impacts, with temperature rises and the frequency of extreme weather events such as heavy rains, drought, flooding and disease being significant.

4.2.2 A key interaction between climate change and sanitation is the risk posed by increased extreme rainfall that lead to damage to sanitation infrastructure. Given the high levels of vulnerability and low adaptive capacity, actions that improve sanitation delivery and contribute to reduce vulnerability are important for building climate resilience. Climate change aspects that should be taken into account across FSM include impacts of extreme weather and potential damage or overflows on containment; impact of flooding on accessibility, including routes, on emptying processes and transport, and site selection and potential for damage in terms of treatment options.

### **4.3 Gender**

4.3.1 The project aims to create the conditions to increase the participation of women, youth and other vulnerable groups in the preparatory studies and consultative processes, and management of faecal sludge infrastructure and services along the value chain in urban settlements in Ghana.

4.3.2 The studies will propose concrete measures in the direction of enhancing the role of women in the sustainable management of infrastructure to be designed. The preliminary category according to the Gender Marker System (GMS) is four (4) during the study phase.

### **4.4 Social Equity**

The project aims to create the conditions necessary to improve living conditions in the urban settlements during the subsequent investment phase(s), including:

- a) Permanent/sustainable access to improved onsite sanitation and sustainable FSM services;
- b) Improvement of living conditions, health and safety and the consequent reduction in the prevalence and spread of waterborne diseases;

- c) Strengthening social cohesion through outreach activities of the structures that will be responsible for managing the FSM infrastructure and services;
- d) The creation of jobs through the organization and better management of FS value chain. Tentatively, over 50% of newly created jobs will go to women and youth. This is to be further clarified during the study phase.

#### **4.5 Effectiveness and Efficiency**

4.5.1 The use of an integrated and participatory planning approach to prepare the feasibility studies and engineering designs for inclusive and sustainable management of faecal sludge in Ghana will ensure efficiency in project implementation and management, and the effectiveness of the FSM investments in maximizing benefits. The likely institutional anchoring of management of FS infrastructure and services in Municipalities, and the opportunity for capacity building, learning, documentation and sharing of project related experiences will enhance the efficient delivery of FSM services.

4.5.2 The opportunity to hold stakeholder workshops to validate findings and project results (outputs and outcomes), particularly with the selection of acceptable options and designs, and endorsement of the investment plan ensures ownership of the downstream investment projects by all stakeholders and donors. The project is fully in line with Ghana Government Vision 2025 and relevant sector policies and strategies. The project activities will apply an effective approach to provide sustainable and inclusive access to FSM services.

#### **4.6 Financial Sustainability**

4.6.1 The financial sustainability of the planned interventions will be ensured by the appropriate financial and economic assessment of the various options for inclusive and sustainable FSM. The project activities relating to awareness raising, clustering of small towns to ensure adequate generation quantities of FS for collection and transport, and charging and payment of affordable cost covering user fees for sustainable operation and maintenance of the facilities will contribute to enhance financial sustainability.

4.6.2 The MSWR will actively engage with donors at the beginning and at all stages of the implementation of the project, and will coordinate the organization of the Investment Forum at the end of the project.

#### **4.7 Overall Sustainability**

4.7.1 The mobilization and participation of partners for the financing of technical and financial issues arising from the implementation of the project is one of the major pillars for the sustainability of project achievements.

4.7.2 The arrangement for on the job training of relevant staff in design, operation and maintenance of infrastructure will ensure long-term availability of skilled labour. MSWR and Municipalities' direct involvement in project implementation, opportunity for improved spatial and investment planning and MSWR's partnership arrangement with private sector entities, development partners and NGOs will contribute to the sustainable delivery of faecal sludge management services in Ghana.

## **5 LEGAL INSTRUMENT AND AUTHORITY**

### **5.1 Legal Instrument**

The financing instrument to be used for this project is a grant, which will be governed by a Protocol of Agreement (the “Agreement”) for an amount not exceeding EUR 1,044,264 between the Republic of Ghana (the “Recipient”) and the African Development Bank (the “Bank”) as Administrator of the African Water Facility Special Fund.

### **5.2 Conditions Associated with Bank’s Intervention**

#### **A. Condition Precedent to Entry into Force of the Grant Agreement:**

The Grant Agreement shall enter into force on the date of signature by the Recipient and the Bank.

#### **B. Conditions Precedent to First Disbursement:**

The obligation of the Bank to make the first disbursement of the grant shall be conditional upon the entry into force of the Grant Agreement and the fulfilment by the recipient, in form and substance satisfactory to the Bank, of the following conditions:

- (i) The submission of evidence of the appointment of the project manager with qualifications and terms of reference acceptable to the Bank; and
- (ii) The submission of evidence of the appointment or secondment of the following staff for the Project Implementation Team within the Executing Agency with qualifications and terms of reference acceptable to the Bank, as follows: (a) finance/accounting and administration officer; (b) monitoring and evaluation officer; (c) project engineer; (d) procurement/contract specialist; (e) environmental and social safeguard specialist; (f) community development and gender specialist.

#### **C. Other Conditions:**

The Recipient shall provide evidence, in form and substance satisfactory to the Bank, of the fulfilment of the following conditions:

- (i) The opening of a special account in the name of the Project at a banking institution acceptable to the Bank.

#### **D. Undertakings:**

The Recipient undertake the following under the Agreement:

- (i) To provide on time all counterpart contributions for Project implementation.
- (ii) To maintain within the Executing Agency the Project Steering Committee (PSC) established to oversee the Greater Accra Metropolitan Area (GAMA) Sanitation and Water and Greater Accra Sustainable Sanitation and Livelihoods Improvement (GASSLIP) projects. The PSC shall review progress and provide general guidance and oversight of Project execution, and shall comprise representatives from various stakeholders and relevant sector Ministries.

- (iii) To submit to the Bank quarterly Project progress reports and any other reports, in form and substance acceptable to the Fund.

## **6 COMPLIANCE WITH POLICIES**

This project complies with all applicable Bank policies as well as the AWF and Operational Procedures.

## **7 CONCLUSION AND RECOMMENDATION**

### **7.1 Conclusion**

7.1.1 The project offers an opportunity for increased access to improved sanitation and faecal sludge management in deprived urban settlements with financial contribution from the African Water Facility. The approach adopted is in line with AWF Operational Strategy and supports preparation of project pipeline for strategic investments in FSM along the value chain, and is replicable in other urban centres in Ghana and other African countries.

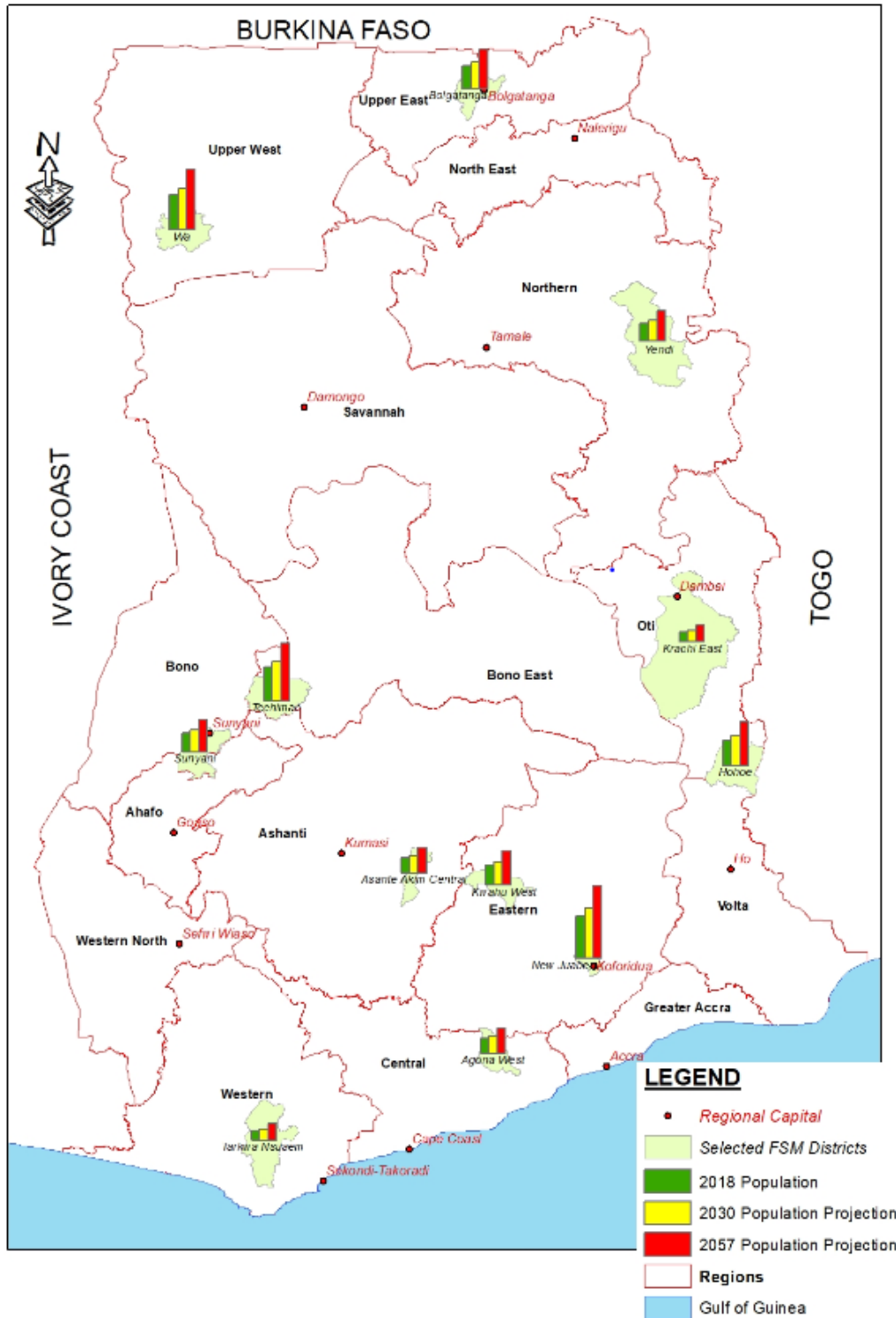
7.1.2 Given the clear logical framework and justifiable objectives, outputs and activities, and with adequate and sustainable implementation arrangements, there appear to be no outstanding issues that may adversely affect successful project implementation.

### **7.1 Recommendation**

It is recommended that a Grant not exceeding € 1,044,264 from the African Water Facility Special Fund be awarded to the Republic of Ghana for the implementation of the project as described in this appraisal report.

# ANNEXES

## ANNEX 1: MAP OF GHANA SHOWING PROJECT COMMUNITIES



**Disclaimer**

*This map was provided by the African Development Bank exclusively for the use of the readers of the report to which it is attached. The names used and the borders shown do not imply on the part of the Bank and its members any judgment concerning the legal status of a territory nor any approval or acceptance of these borders.*

**TABLE A1: LIST OF SELECTED TOWN CLUSTERS**

| Region       | District/Municipal Assembly   | Cities/<br>Towns | <sup>1</sup> Projected Population |                  |                  |
|--------------|-------------------------------|------------------|-----------------------------------|------------------|------------------|
|              |                               |                  | 2018                              | 2030             | 2057             |
| Upper West   | Wa Municipal                  | Wa               | 122,878                           | 145,188          | 211,327          |
| Central      | Agona West Municipal          | Agona Swedru     | 51,527                            | 60,883           | 88,617           |
| Bono East    | Techiman Municipal            | Techiman         | 116,760                           | 137,959          | 200,806          |
| Eastern      | Kwahu West Municipal          | Nkawkaw          | 69,225                            | 81,793           | 119,053          |
| Volta        | Hohoe Municipal               | Hohoe            | 88,333                            | 104,371          | 151,917          |
| Upper East   | Bolgatanga Municipal          | Bolgatanga       | 78,627                            | 92,902           | 135,223          |
| Northern     | Yendi Municipal               | Yendi            | 61,582                            | 72,763           | 105,909          |
| Bono         | Sunyani Municipal             | Sunyani          | 65,274                            | 77,125           | 112,259          |
| Ashanti      | Asante Akim Central Municipal | Konongo          | 50,978                            | 60,234           | 87,673           |
| Eastern      | New Juaben Municipal          | Koforidua        | 146,700                           | 173,335          | 252,297          |
| Western      | Tarkwa-Nsuaem Municipal       | Tarkwa           | 33,531                            | 39,619           | 57,667           |
| Oti          | Krachi-East District          | Dambai           | 32,235                            | 38,087           | 55,437           |
| <b>Total</b> |                               |                  | <b>917,650</b>                    | <b>1,084,259</b> | <b>1,578,185</b> |

**TABLE A2: LIST OF SOME CWIS INDICATORS (PROPOSED)**

| #  | Indicator  | Definition  |
|----|--|---|
| 1  | % of population with access to improved individual toilets   | (Population with access to improved individual toilets) / (Total population in the city)  |
| 2  | % of slum population with access to improved individual toilets  | (Slum population with access to improved individual toilets) / (Total slum population in the city)  |
| 3  | % of population with access to improved shared facilities  | <i>*This excludes the population with access to individual toilets. Access to shared facilities will be defined by distance.</i><br>(Population with access to shared facilities) / (Total Population - Population with access to individual toilets) |
| 4  | % of public and community toilets that adhere to principles of universal design  | <i>*Dependent population = Total population - population w access to improved IHLs</i><br>(Total no. of functional CT seats) / (Total dependent population in the city / 1000)  |
| 5  | % of Public Toilet/ Community Toilet users who are women   | (No. of women users of PT & CT) / (No. of total users of PT & CT)   |
| 6  | % of OSSs that have been desludged   | (No. of OSS that have been desludged) / (No. of total OSS in the city)  |
| 7  | Average desludging frequency   | $\Sigma(\text{Desludging frequency of each sanitation facility}) / (\text{No. of total SF in the city})$<br><i>where Desludging frequency of each SF = (No. of total desludging services completed for the SF) / (Age of the SF)</i>                  |
| 8  | % of desludging services completed mechanically (cesspool trucks)  | (No. of desludging services completed mechanically each year) / (No. of total desludging services completed each year)  |
| 9  | % audit compliance of desludging operators (PPE gear and truck maintenance)  | (No. of desludging operators who are audit compliant with city regulations on PPE gear, and truck maintenance) / (No. of total desludging operators in the city)  |
| 10 | % of collected FS disposed at treatment plant or designated disposal sites   | (Volume of collected FS that is disposed at TP or designated disposal sites) / (Volume of total FS collected)   |
| 11 | % of collected FS (collected from slum locations) disposed at treatment plant or designated disposal sites                               | (Volume of collected FS that is disposed at TP or designated disposal sites for slum population) / (Volume of total FS collected from slum population)  |
| 12 | Effectiveness of FS treatment in meeting prescribed discharge standards for water and biosolids  | (No. of samples meeting effluent and biosolids standard) / (Total no. of samples collected)   |
| 13 | Treatment capacity as a % of total generation (generation excludes FS that is safely disposed onsite - composting toilets, EcoSan, etc.) | (Combined maximum volume of FS that all TPs in the city can treat) / (Total volume of FS generated in the city - volume of FS that is safely disposed onsite)   |
| 14 | % of treated FS that is reused   | (Volume of treated FS that is reused) / (Total volume of treated FS)  |
| 15 | % of treatment cost recovered  | (Amount of total gov. revenue generated across FSM value chain) / (Total cost of current FS treatment)  |
| 16 | % of water contamination compliance (on faecal coliform)   | <i>*Estimated using water samples from across the city, including ground water, surface water, and pipe water*</i><br>(No. of water samples not contaminated with faecal coliform) / (No. of total water samples taken)                               |
| 17 | Incidence (per 1000) of faecal-oral pathway diseases   | (No. of new faecal-oral pathway diseases occurring among the population) / (Total population in the city)   |

## ANNEX 2: DETAILED PROJECT COSTS

(Amounts in Euro)

| Description   | Unit          | Quantity | Unit Cost | Total Cost     | AWF Cost       | MSWR Cost | Other |
|---|---------------|----------|-----------|----------------|----------------|-----------|-------|
| <b>Component 1: Feasibility Studies and Design</b>  |               |          |           |                |                |           |       |
| <i>Key Staff</i>  |               |          |           |                |                |           |       |
| Project Manager/Team Leader   | person- month | 18       | 9,000     | 162,000        | 162,000        |           |       |
| Design Engineer   | person- month | 14       | 13500     | 189,000        | 189,000        |           |       |
| Sociologist/Gender Expert   | person- month | 9        | 6800      | 61,200         | 61,200         |           |       |
| Environmental Specialist  | person- month | 6        | 7200      | 43,200         | 43,200         |           |       |
| Geodetic Engineer/Surveyor  | person- month | 6        | 7200      | 43,200         | 43,200         |           |       |
| Institutional Development Expert  | person- month | 5        | 7200      | 36,000         | 36,000         |           |       |
| Quantity Surveyor   | person- month | 6        | 6800      | 40,800         | 40,800         |           |       |
| <i>Non Key Staff</i>  |               |          |           |                |                |           |       |
| Economist/ Financial Analyst  | person- month | 4        | 7200      | 28,800         | 28,800         |           |       |
| Other Professionals (Process, Structural, Electrical, mechanical Eng., etc.)                      | person- month | 3        | 7000      | 21,000         | 21,000         |           |       |
| Technicians (drafting, field survey supervision - technical/socio economic & environmental, etc.) | person- month | 8        | 2500      | 20,000         | 20,000         |           |       |
| Data Entry Clerks   | person- day   | 120      | 45        | 5,400          | 5,400          |           |       |
| Field Enumerators (field data collection - socio economic, technical assessments, environmental)  | person-day    | 400      | 45        | 18,000         | 18,000         |           |       |
| <b>Sub Total</b>  |               |          |           | <b>668,600</b> | <b>668,600</b> |           |       |
| <i>Reimbursables</i>  |               |          |           |                |                |           |       |
| Per Diem, miscellaneous travel expenses, etc.   | day           | 470      | 110       | 51700          | 51700          |           |       |
| Local Transportation Costs  | month         | 24       | 1500      | 36000          | 36000          |           |       |
| Office rent / Office furnishing / Clerical asst.  | month         | 24       | 1000      | 24000          | 24000          |           |       |
| Communication   | month         | 24       | 200       | 4800           | 4800           |           |       |
| Maps, drawings, reports, tender documents, plans, etc.  | LS            | 1        | 18000     | 18000          | 18000          |           |       |

| Description   | Unit    | Quantity | Unit Cost | Total Cost       | AWF Cost         | MSWR Cost      | Other          |
|---|---------|----------|-----------|------------------|------------------|----------------|----------------|
| Socio-economic surveys (Provisional Sum)                | LS/Town | 12       | 2000      | 24000            | 24000            |                |                |
| Geotechnical surveys (Provisional Sum)                  | LS/Town | 8        | 4000      | 32000            | 32000            |                |                |
| Geodetic Surveys  | LS      | 1        | 20000     | 20000            | 20000            |                |                |
| SESA/ESIAs/ESMPs  | LS      | 10       | 8200      | 82000            | 62000            | 20000          |                |
| <b>Sub Total</b>  |         |          |           | <b>290,500</b>   | <b>270,500</b>   | <b>20,000</b>  |                |
| <b>Component 2: Project Management</b>                  |         |          |           |                  |                  |                |                |
| <i>Project Supervision/Community Engagement Support</i> |         |          |           |                  |                  |                |                |
| Per Diem for PCT Staff                                  | day     | 400      | 50        | 20000            |                  | 20000          |                |
| Fuel & Lubricants                                       | LS      | 1        | 25,000    | 25000            |                  | 25000          |                |
| <i>Office Equipment &amp; IT Support</i>                |         |          |           |                  |                  |                |                |
| Computers/Printers                                      | No.     | 4        | 2000      | 8000             |                  | 8000           |                |
| Internet services/communication                         | month   | 30       | 750       | 22500            |                  | 22500          |                |
| Stationery & office consumables                         | LS      | 1        | 20000     | 20000            |                  | 20000          |                |
| Transport   |         | 1        | 70000     | 70000            |                  | 70000          |                |
| Office Space/Furniture, etc.                            | month   | 30       | 2200      | 66000            |                  | 66000          |                |
| Launch Workshop   | LS      | 1        | 15000     | 15000            |                  |                |                |
| Stakeholder workshops/Investment Forum                  | No.     | 5        | 10000     | 50000            | 50000            |                |                |
| Staff Costs   | month   | 24       | 3000      | 72000            |                  | 72000          |                |
| Land Acquisition  | LS      | 1        | 140000    | 140000           |                  |                | 140000         |
| <b>Sub Total</b>  |         |          |           | <b>508,500</b>   | <b>65,000</b>    | <b>303,500</b> | <b>140,000</b> |
| <b>Total Project Base Cost</b>                          |         |          |           | <b>1,467,600</b> | <b>1,004,100</b> | <b>323,500</b> | <b>140,000</b> |
| <b>Add 4% Price Contingency</b>                         |         |          |           | <b>58,704</b>    | <b>40,164</b>    | <b>12,940</b>  | <b>5,600</b>   |
| <b>Total Project Cost</b>                               |         |          |           | <b>1,526,304</b> | <b>1,044,264</b> | <b>336,440</b> | <b>145,600</b> |



## **ANNEX 4: PROCUREMENT ARRANGEMENTS**

### **1. Procurement Risks and Capacity Assessment (PRCA)**

1.1 The assessment of procurement risks at the Country, Sector, and Project levels, and the procurement capacity of the Executing Agency (EA) was undertaken, and was concluded to be Moderate for the implementation of the project. This output informed the decisions on the procurement regimes (BPS and Banks PMP) being used under the project. The project activities derived from these components have informed the procurement risk and capacity assessment as well as the market analysis based on which the procurement strategy of the project has been developed.

1.2 The MSWR has a fully staffed Procurement Unit (PU) headed by a Principal Procurement Manager. The PU is responsible for procurement of good, works and services for the MSWR with technical support from the directorates within the Ministry. The PU has experience in managing procurement under donor financed projects; and adopts a system for keeping procurement records with documented filing protocol or archiving policy.

### **2. Procurement of Consultancy and Non-Consultancy Services**

2.1 The acquisition of consulting services financed by the Bank will be in accordance with the *Procurement Policy for Bank Group Funded Operations dated October 2015 as* amended from time to time, using the relevant Bank Standard Bidding Documents and the provisions stipulated in the Financing Agreement. The Procurement arrangements for the project are summarized in Table 1 below.

**2.2 Borrower Procurement System (BPS):** Under this project, no activity is planned to be procured under BPS.

**2.3 Bank Procurement Policy and Methodology (BPM):** Bank standard PMPs, using the relevant Bank Standard Solicitation Documents (SDDs) will be used for the Acquisition of Consulting Services.

**2.4 Consultancy Services:** The acquisition of consultancy services amounting to **€ 959,100** will be procured through shortlisting of consulting firms under QCBS using available Bank's Standard Request for Proposal document. Consultancy services under this method will include feasibility studies assessment and design of FS treatment facility, SESA/ESIAs/ESMPs and the preparation of tender documentation. Advance contracting may be used for acquisition of consultancy services.

**2.5 Non consultancy services:** Non-consulting services including workshop launch and stakeholder workshops/investment fora (at an aggregate cost of **€ 65,000**) will be financed from the grant resources and be procured through shopping.

**2.6 Project Management:** Expenditures during project implementation including office supplies, utilities, consumables, advertising expenses, internet service, communication, fuel, maintenance and insurance of vehicles, costs related to staff travel, etc., (at an aggregate cost of **€ 303,500**) will be fully financed and procured by the Government of Ghana (GoG).

### 3. Advertising

#### 3.1 General Procurement Notice

The text of a General Procurement Notice (GPN) will be agreed with the EA and it will be issued for publication in UNDB online and in the Bank's Internet Website, upon approval of the Financing Proposal.

### 4. Procurement Arrangements

4.1.1 The procurement arrangements for the various components, elements, and items, under the different expenditure categories financed by the grant are in Table 5 below. Large-value contracts, each group of similar transactions/contracts, the different PMPs, estimated costs, oversight requirements, and the timeframe as agreed between the Borrower and the Bank, are in the Procurement Plan.

**Table 1: Procurement Arrangements Summary** (expressed in million Euros)

| I/N       | CATEGORIES  | BPM                           |                           |  | BPS                           |                                |                            |
|-----------|---|-------------------------------|---------------------------|--|-------------------------------|--------------------------------|----------------------------|
|           |   | OCB(INT)<br>EURO<br>(Million) | QCBS<br>EURO<br>(Million) | Others 1:<br>(Shopping)<br>EURO<br>(Million) | OCB(NAT)<br>EURO<br>(Million) | Others 2:<br>EURO<br>(Million) | Total<br>EURO<br>(Million) |
| <b>A.</b> | <b>CONSULTANCY SERVICES</b>   |                               |                           |  |                               |                                |                            |
| 1.1       | Consultancy Services for Feasibility Studies and Detailed Design and SESA/ESIAs / ESMPs                     | -                             | 0.959{0.939}              | -  | -                             | -                              | 0.959{0.939}               |
|           | <b>Sub-total</b>  | -                             | <b>0.959{0.939}</b>       | -  | -                             | -                              | <b>0.959{0.939}</b>        |
| <b>A.</b> | <b>NON-CONSULTANCY SERVICES</b>   |                               |                           |  |                               |                                |                            |
| 1.2       | Program Management: Logistical activities for workshop launch and stakeholders workshops / investment forum | -                             | -                         | 0.065{0.065}                                 | -                             | -                              | 0.065{0.065}               |
| 1.3       | Operating costs, incl. land acquisition   | -                             | -                         |  | -                             | 0.444{0}                       | 0.444{0}                   |
|           | <b>Sub-total</b>  | -                             | -                         | <b>0.065{0.065}</b>                          | -                             | <b>0.444{0}</b>                | <b>0.587{0.065}</b>        |
| 2         | Contingencies   | -                             | -                         | 0.040{0.040}                                 | -                             | 0.019{0}                       | 0.059{0.04}                |
|           | <b>GRAND TOTAL</b>  | -                             | <b>0.959{0.939}</b>       | <b>0.105{0.105}</b>                          | -                             | <b>0.463{0}</b>                | <b>1.526{1.044}</b>        |

*Note:* Figures in parenthesis { } is the respective amounts financed by AWF

### 5. Procurement Plan

AWF shall review the procurement arrangements proposed by the Recipient in the Procurement Plan for its conformity with the Grant Agreement and its Rules. The Plan shall cover an initial period of at least 18 months, and shall be updated on an annual basis or as necessary always

covering the next 18 months period of project implementation. AWF shall give prior approval to any proposed revisions to the Plan.

### Simplified Procurement Plan

| Procurement System          | Package No. | Package Description  | Category                 | Lot No. | Lot Description  | Estimated Cost EUROS (Millions) | Procurement Method | Pre-or Post-Qualification | Procurement Oversight | Planned SPN Publication Date |
|-----------------------------|-------------|--|--------------------------|---------|--|---------------------------------|--------------------|---------------------------|-----------------------|------------------------------|
| <b>CONSULTANCY SERVICES</b> |             |  |                          |         |  |                                 |                    |                           |                       |                              |
| BPM                         | AUSIF01     | Consultancy Services for Feasibility Studies and Detailed Design and SESA/ESIAs/ ESMPs                     | Consultancy Services     | N/A     | Consultancy Services for Feasibility Studies and Detailed Design and SESA/ESIAs/ ESMPs                     | 0.96                            | QCBS               | N/A                       | Prior Review          | <i>January, 2020</i>         |
| BPM                         | AUSIF02     | Program Management: Logistical activities for workshop launch and stakeholders workshops/ investment forum | Non-Consultancy Services | N/A     | Program Management: Logistical activities for workshop launch and stakeholders workshops/ investment forum | 0.07                            | Shopping           | N/A                       | Post Review           | <i>January, 2020</i>         |
|                             |             |  |                          |         |  |                                 |                    |                           |                       |                              |
| <b>GRAND TOTAL</b>          |             |  |                          |         |  | <b>1.03</b>                     |                    |                           |                       |                              |

## 6. Bank's Oversight of Borrower's Procurement

**6.1 Oversight under BPS:** Under this project, there is no procurement activity to be undertaken through BPS.

**6.2 Oversight under BPM:** Procurement undertaken non-consultancy services through Bank shopping methods shall be subject to post review.

## **ANNEX 5: FINANCIAL MANAGEMENT AND DISBURSEMENT ARRANGEMENTS**

### **1. Financial Management**

1.1 MSWR will execute the project using its Project Implementation Unit (PIU), which will be in charge of the day-to-day implementation and monitoring of the proposed project. MSWR has adequate financial management systems. The PIU shall keep and maintain appropriate financial management records and books of account which will reflect the activities financed out of the resources of the Grant and counterpart funding.

1.2 The Department of Finance headed by a Finance and Administration Director who is a qualified accountant shall be responsible for all project fiduciary requirements. The Chief Accountant (CA), who is a chartered accountant with hands-on experience on AfDB FM rules and procedures, will be responsible for the day to day financial arrangements and reporting for the project. The CA will be assisted by two Senior Accountants and an Assistant Accountant who will have directly assigned responsibilities for the project. The CA has experience overseeing other projects funded by the Bank and other development partners such as the World Bank, i.e. the GASSLIP and GAMA projects. The Internal Audit Department of MSWR will ensure the internal control of project operations and contribute to strengthening the project's control environment. The CA will be answerable to the Project Director who will in turn be answerable to the existing Project Steering Committee (PSC) of the MSWR for the GAMA and GASSLIP projects with representation from various stakeholders and relevant sector ministries shall review project progress and provide general guidance and oversight of project execution. The PSC shall be chaired by the Hon. Minister, and shall meet at least twice a year.

1.3 The project will use the Government Integrated Financial Management Information Systems (GIFMIS) which is currently being used by MSWR to record, process and prepare financial reports. The PIU will prepare and submit quarterly unaudited Interim Financial Reports (IFR's) and annual Financial Statements in accordance with Bank/AWF requirements and International Public Sector Accounting Standards (IPSAS) cash basis of accounting (accounting framework adopted by GoG for financial reporting). The IFRs must be submitted to the Bank within 45 days after the end of the quarter reported on. Monthly bank reconciliations shall be prepared for each bank account relating to the project. There will be appropriate approval and segregation of duties to ensure proper controls and review of transactions. All the accounts will be managed by the PIU. All disbursements will follow the procedures outlined in the Bank's *Disbursement Handbook*.

### **2. Auditing**

2.2.1 AWF will appoint an external auditor to audit the project in accordance with the Bank's rules. The audit cost will be covered by AWF's administrative budget. An initial "mid-term" audit will be undertaken and a final audit undertaken within 6 months of the end of the project.

### **3. Overall Conclusion**

3.1 The mission concludes that the PIU set up in MSWR has adequate FM arrangements to implement the proposed project. The overall FM risk is assessed as **moderate**.

### **4. Use of Country Systems**

4.1 The latest Country Fiduciary Risk Assessment (December 2018), concluded the overall country fiduciary risk as moderate. The recent PEFA (2017) indicated tremendous improvements in various PFM areas since the 2012 PEFA. The significant positive trajectory were recorded in the PFM regulatory environment, financial reporting and accounting (arising from wider deployment of GIFMIS), treasury management (arising from effectively implementing Treasury Single Account - TSA), planning, reporting and legislative scrutiny of audit reports. Most of the reforms appear to be underpinned by the passages of the PFM act 921, which has given legal ascend to most of these reforms, which are harmonized and delivered through the reforms coordination unit, going forward. There were other complementary laws passed including the Public Procurement (Amendment Act 926), the Special Prosecutor Act 959 and subsequent appointment as well as actions of the Civil Society Organization which collectively worked to tighten the PFM environment. Thus the project will use of the accounting and financial reporting systems, internal controls of government, use of GIFMIS and any related information system assessed as adequate, treasury management (opening the special account at the Bank of Ghana) and also using the Ghana Audit Service to audit the project financial statements.

### **5. Harmonization with Other Donors**

5.1 This project seeks to complement the ongoing major interventions in the sanitation sector by the African Development Bank, the World Bank, UNICEF and the Netherlands Government among others. The proposed project also seeks to complement the earlier projects being funded by the Bank, GASLIP.

### **6. Disbursement Arrangements**

6.1 The direct payment and special account methods will be used for disbursements, the direct payment method will be the most preferred. Payments related to the main consultancy service contracts (preliminary design, feasibility studies and ESIA) and all suppliers where contracts can be issued will be made using the direct payment method. A special account denominated in convertible EUR will be opened in the Bank of Ghana (BoG) to hold payments related to small operating costs such as transport expenses for participants to the validation workshops as well as communication costs financed by AWF. A second separate account denominated in local currency (Ghanaian Cedi) will be opened to make payments in local currency.

## **ANNEX 6: POLICY AND INSTITUTIONAL FRAMEWORK**

### **1. Introduction**

1.1 Sector reforms have led to the formulation and Government approval of various sector policies that include the (a) 2009 National Water Policy (NWP), (b) 2010 revised Environmental Sanitation Policy (ESP), (c) 2010 National Environmental Sanitation Strategy and Action Plan (NESSAP), and (d) 2011 Strategic Environmental Sanitation Investment Plan (SESIP). The NESSAP has culminated in the development of related strategies and action plans at the metropolitan, municipal and district levels. The National Energy Policy of the Ministry of Energy supports conversion of municipal, industrial and agricultural waste into energy as a means of managing the growing sanitation problems while contributing to energy security. In addition, effort has focused on strengthening (a) sector regulation and performance monitoring, (b) integrated water resources planning and management, and (c) sector coordination and preparation of comprehensive investment plans.

1.2 Key legislative instruments that support policy and enforcement include: (a) Ghana Constitution 1992, Section (41k) 1992, (b) Criminal Code, 1960(Act 29) section 296 and 297, (c) Local Government Act, 1993 (Act 462), (d) Environmental Sanitation Bye-Laws (2003), (e) Environmental Protection Agency Act, 1994 (Act 490), and (f) Ghana Investment Promotion Council Act, 2013 (Act, 865).

1.3 As part of the reforms, the Ministry of Sanitation and Water Resources (MSWR) has been established (in 2017) to be responsible for (a) sector policies and programmes, planning, implementation monitoring and evaluation to enhance sector performance; (b) private sector support in services delivery; and (c) creative and innovative research to use improved technologies and approaches for effective delivery of sector related services. The Ministry comprises two Directorates – Water Directorate responsible for water resources management and related services, including water supply, and Environmental Health and Sanitation Directorate (EHSD) that oversees environmental health and sanitation. The EHSD has over 5,500 staff operating at the regional and district levels. The EHSD collaborates with the MMDAs to ensure observance of sound environmental sanitation practices across the country.

1.4 Other key sector institutions include the Ministry of Local Governance and Rural Development (MLGRD), Ministry of Environment, Science and Technology, Ministry of Education, Metropolitan, Municipal and District Assemblies (MMDAs), Public Utilities Regulatory Commission, Civil Society mainly comprising the Coalition of NGOs in Water and Sanitation (CONIWAS) and private sector actors, and the Donor community.

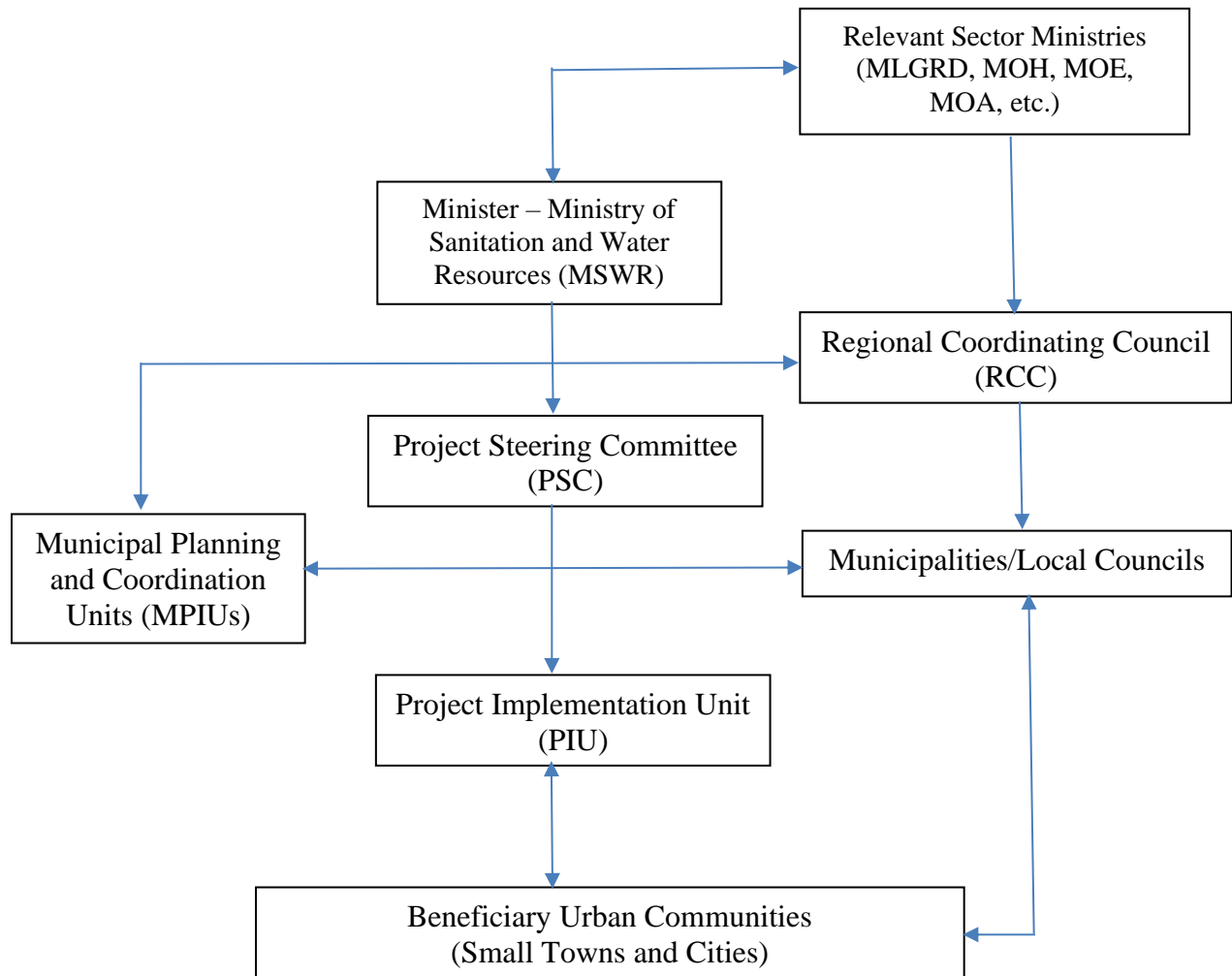
### **2. Roles and Responsibilities of Sanitation and Water Sector Institutions**

The specific roles and responsibilities of some key sector institutions include:

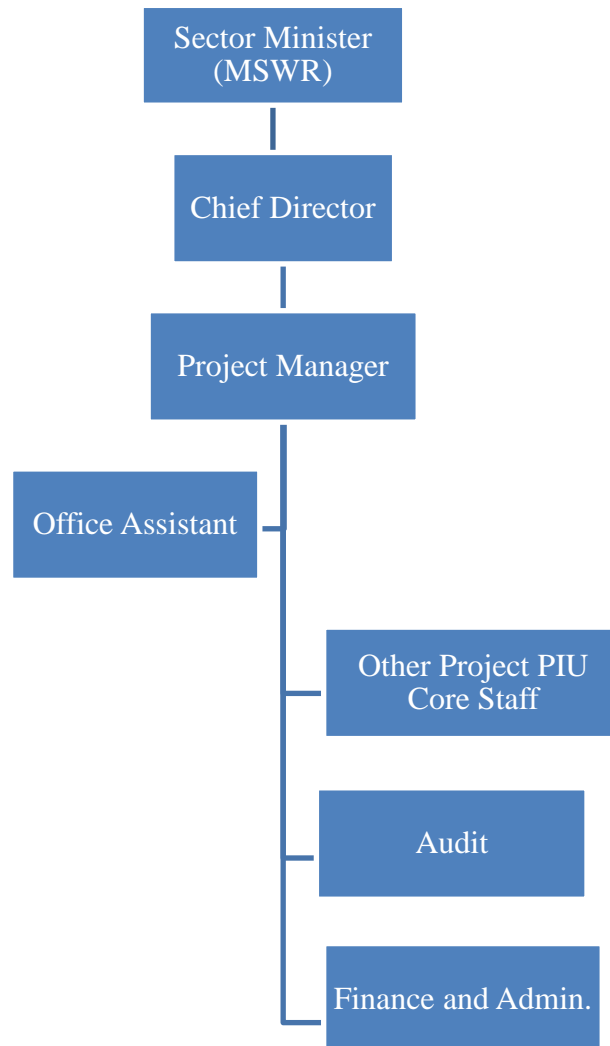
- a) *Ministry of Sanitation and Water Resources*: Responsible for sector policy and standards, managing and regulating sanitation and water resources, and related development and management priorities. The Ministry is also responsible for overall sector monitoring and evaluation to track performance, and effectiveness of development programs;

- b) *Ministry of Health*: Responsible for hygiene and sanitation promotion for households, and acts through the Environmental Health Division of the Ministry. The Ministry coordinates with Ministry of Education for development of sanitation related infrastructure and software activities in schools, Ministry of Sanitation and Water Resources and Municipalities for development of municipal level sanitation infrastructure;
- c) *Ministry of Education*: Responsible for delivery of school sanitation facilities and hygiene education together with promotion of handwashing in schools;
- d) *Ministry of Local Government*: Responsible for responsible for coordination of Metropolitan, Municipal and District Assemblies (MMDAs);
- e) *Ministry of Finance, Planning and Economic Development*: Responsible for resource mobilization and sector allocation, coordination of development partner resources, and financial reporting;
- f) *Public Utilities Regulatory Commission*: responsible for regulation of urban water supply, including approval for tariffs, service quality monitoring and consumer protection;
- g) *Environment Protection Agency*: Responsible for ensuring protection of the environment through enforcement of environmental management laws and regulations at the national and local levels, in collaboration with sector Ministries;
- h) *Metropolitan, Municipal and District Assemblies (MMDAs)*: Responsible for provision of basic services, including water supply, municipal solid waste management and sanitation services in close collaboration with local communities and relevant ministries and agencies;
- i) *Regional Coordinating Council (RCC)*: Responsible for regional level coordination of all developmental activities by MMDAs and development partners within their jurisdiction.
- j) *Environmental Services Providers Association (ESPA)*: Organized as an Association of Cesspit Emptier Operators under ESPA, the private sector operators are mainly responsible for provision of Faecal Sludge (FS) collection and transportation services through contracting and franchising arrangements. Members of the Association own and operate highly depreciated trucks that require major repairs or replacement. They mainly operate in the large urban centres, where demand for FSM services is high. Operators are often reluctant to operate in the small urban centres due to (a) absence of sites for FS treatment and disposal; (b) long haulage distances and related costs; and (c) limited capacity of households to pay for the services. Operators have limited access to credit and affordable spare parts, which impacts adversely on their operations;
- k) *Other Private Sector Entities*: Consultants, Contractors and Suppliers provide various services to develop operate and maintain relevant sanitation infrastructure and services.

## ANNEX 7: PROJECT ORGANISATION AND INSTITUTIONAL LINKAGES



## ANNEX 8: PROJECT IMPLEMENTATION TEAM



## **ANNEX 9: PROJECT CORE TEAM 'S TERMS OF REFERENCE**

- 1. The Project Manager** – Will be based in the MSWR, and He/she will be at least a Principal Engineer with at least a master's degree in a civil engineering or any related field, and a minimum of 10 years' professional experience in municipal engineering, and with demonstrable experience in the planning, design and construction of water and sanitation infrastructure. He/She will be responsible for coordinating the following activities:
  - Perform the day-to-day management of the project implementation activities.
  - Participate in project launching and acquisition process for the Main Consulting Firm(s).
  - Provide an oversight role on the management and implementation of all project-related activities, and prepare work and procurement plans for the project period.
  - Provide all monthly and quarterly progress reports, and other project related documentation to the MSWR and AWF on administrative, financial, accounting, contracting, implementation and monitoring issues, and ensure liaison with the AWF.
  - Ensure close collaboration with the project consultants' team, and coordinate and monitor Consultants' performance, and facilitate capacity-building activities.
  - Liaise with MSWR, Regional Coordinating Council (RCC), Municipalities, NDPC and other local stakeholders on meetings/workshops required by the project consultants.
  - Assist in needs identification and development of options for project intervention.
  - Ensure that senior staff of relevant public institutions are fully involved and informed of project progress.
  - Organize investment fora to present the project results for funding consideration.
  
- 2. Finance/Accounting and Administration Officer** will be seconded staff from the MSWR. He/she will:
  - Keep track of and register all financial transactions related to the implementation of the project in accordance with project financial management requirements.
  - Ensure that an externally appointed and independent auditor audits accounts yearly.
  - Prepare monthly and quarterly financial statements and reports and submit to the Project Manager as inputs for progress reporting; and provide general administration support.
  
- 3. Monitoring and Evaluation Officer** will be seconded staff from the MSWR. He/she will:
  - Develop and maintain an M & E database for the project.
  - Lead development of and oversee the review of project level Monitoring & Evaluation (M&E) plan and associated work plans for each component/activity as reflected in the results framework;
  - Serve as focal point for providing M &E inputs on Implementation Progress Reports (IPRs); and prepare and submit M&E inputs as per the results framework to the Project Coordinator as inputs for progress reporting.
  - Ensure quality control of M&E outputs (e.g., surveys, etc.) by contributing substantively to the design and field testing of field survey data capture and monitoring methodology; and review, supervise the design and implementation of the surveys, participatory data

collection protocols, data verification techniques, and other technical evaluation and analytical tasks under the project.

5. **Project Engineer (s)** shall be seconded from MSWR, and shall work together with other key members of the PIU to perform the following key functions:
  - Provide assistance to review and approve Consultant's designs and related reports regarding septage/faecal sludge and sewerage management infrastructure and services.
  - Assist Project Manager to make technical decisions concerning project management and implementation in compliance with the defined project implementation protocols.
  - Provide backup support and other engineering services as may be assigned by the Project Manager in achieving the project objectives.
  
6. **Procurement/Contract Specialist** shall be seconded from MSWR and shall perform the following key functions:
  - Provide guidance to the Project Manager on all procurement matters and provide support regarding contract management.
  - Work in coordination with the Project Consultants, Vendors and PIU staff and advise and provide guidance on procurement issues.
  - Assist MSWR to procure goods and services in accordance with the provisions of the African Development Bank Guidelines and Public Procurement Authority regulations.
  - Participate in detailed preparation, verification and periodic update of Procurement Plans, and maintain procurement reporting system in accordance with the provisions of the Project Appraisal Report.
  
7. **Environmental and Social Safeguard Specialist** shall have the following responsibilities:
  - Provide overall policy and technical direction for safeguards management under the Project, and assist the Project Manager to manage the Consultancy services for environmental and social assessments.
  - Prepare terms of references to undertake Environmental and Social Assessments following the African Development Bank and national regulatory requirements; and assist with the review and endorsement of safeguards documents, and ensure consistency with national environmental regulations.
  - Closely coordinate with Consultants and other stakeholders for timely preparation of Environmental and Social Impact Assessments and Management Plans and Resettlement Action Plans as necessary.
  - Ensure that applicable measures in the ESMP are included in the design, and conditions on compliance with ESMP are included in the bidding documents, liaising closely with the Procurement Specialist of the PIU.

8. **Community Development & Gender Specialist** shall have the following responsibilities:
- Design a framework for undertaking Knowledge, Attitude and Practices/Perception (KAP) surveys within the participating settlements, and provide support to undertake all relevant feasibility studies.
  - Liaise with local communities, private enterprises and relevant government stakeholders on all matters relating to the socio-economic impacts of community and private sector consultations and engagements.
  - Technically support the Project Implementation Unit (PIU) in managing the social development and gender related issues of the project.
  - Provide technical inputs on community development and social inclusion (including gender) to all project outputs and activities, as necessary.
  - Provide support to develop Knowledge Management products and lesson learning and sharing tools sensitive to women issues for the project.

## **ANNEX 10: GUIDELINES ON AWF COMMUNICATION AND VISIBILITY**

### **1. Background**

1.1 Communication and branding are very important to the AWF. Indeed, the AWF considers communication as a strategic function firmly linked to its business strategies and objectives. Regular communication with stakeholders helps strengthen the credibility of FEF and ensuring their confidence and esteem, which in turn help to strengthen and protect the reputation of the AWF. Communication is also an activity related to access to information. The AWF is a multilateral fund that is accountable to a board of directors who expects FEF complies with the highest standards of accountability and transparency. Thus, the AWF has committed to make every effort to communicate, share and report to its stakeholders and the general public all the information that will be useful and relevant. This commitment requires effective and regular communication on achievements, progress and results of the AWF using all available means, in a timely manner. All these are part of good business conduct AWF, and are essential to attract and retain donors, and maintain its "social license" of operation.

1.2 The branding is to ensure that the public knows the existence of the AWF and can distinguish it from other funds or organizations in the field of water. Branding is the use of a recognizable visual marker, logo, which embodies the AWF and carries his identity. The brand recognition is achieved over time, through activities designed to increase brand visibility, for repeated use and exposure logo at strategic locations and times. The AWF logo is used as a seal or a signature to indicate the financial support of AWF or a special collaboration.

1.3 The AWF has prepared guidelines on communication and visibility to the attention of partners, AfDB Regional Offices and grantees to help FEF more effectively achieve its goals of communication and visibility, as provided in the long-term communication strategy of the AWF in 2006 voted by its Board of Directors in 2006.

### **2. General Conditions**

2.1 Before embarking on any process for the preparation of communication activities on the project funded by AWF, it is strongly recommended to contact the communications officer to the secretariat of the AWF, taking also informed the project manager of the AWF.

2.2 As a minimum, and to the extent possible, the logo of the AWF is to be applied to all communication documents regarding the project funded by the AWF. The proper use of the logo must be discussed with the head of communications of the AWF.

2.3 The AWF should be mentioned orally as a donor of the project it funds at public events in which the project is involved, and should also be mentioned as a donor in all PowerPoint presentations on projects funded by the AWF, using the name and logo of the AWF appropriately.

2.4 The logo should be obtained on request from the head of communications of the AWF.

2.5 The relevant documents and publications of the project must contain the logo of the AWF, and this sentence on the cover page: "This project / program / study is funded (e) by the African Water Facility."

2.6 Implementing agencies and implementation must always have a link to the AWF website on the page of their website on the project / activity funded by the AWF. The website is: [www.africanwaterfacility.org](http://www.africanwaterfacility.org)

### **3 Validation Process**

The management of the AWF is responsible for the final validation of any communication product of the AWF.

### **4 Press Releases Media and Advisory**

A press release of the AWF is broadcast at launch (approval or signature) and completion of the project.

- 4.1 Press releases AWF should always include a quote from the Coordinator of the AWF, which must also be validated.
- 4.2 The AWF appreciates and encourages any initiative to produce joint press releases with its partners (between the start and end of the project).
- 4.3 Where the gift recipient wants to produce a press release, it is necessary to coordinate this activity with the head of communications of the AWF in order to receive a quote from the Coordinator of the AWF, as appropriate, and obtain approval.
- 4.4 The AWF should be included in the title and / or the first paragraph of the press release, if any.
- 4.5 The press release should include the logo of the AWF, in addition to mention that funding was provided by the AWF and the amount of such financing.
- 4.6 If a press conference is planned, the press release should include the name of a high-level representative of the AWF will be present at the press conference, if appropriate.
- 4.7 All press releases must bear the name and contact information for the communications of the AWF and the head of communications / media relations of the gift recipient.
- 4.8 The text description of the AWF ("About AWF") must be added to the text, including the address of the AWF website. Please contact responsible for communications AWF to get the latest version, if needed.
- 4.9 The MEF is responsible for the final validation of all press releases following an editorial process involving publishers.
- 4.10 The above rules also apply to media advisories.

### **5 Press Conferences**

- 5.1 The press conference to launch the projects funded by the AWF to be organized in cooperation with the AWF, as far as possible.
- 5.2 The invitations should bear the logo of the AWF.

- 5.3 The AWF logo must appear conspicuously with any banner or poster used during the conference.
- 5.4 Press kits should include a press release with the logo of the AWF.
- 5.5 If possible, a banner AWF must be available and implemented to serve as a backdrop for meetings television and photography.

## **6 Press Visits**

Journalists are invited to visit the project funded by the AWF, accompanied by representatives of the AWF or focal point FEF housed within the authority / government of the gift recipient.

## **7 Visits by Representatives of Governments, Donors of AWF**

- 7.1 The project visits by government officials and AWF donors are encouraged. These should be prepared in coordination with the AWF and focal points of the AWF host government. This may also include meetings with local beneficiaries.
- 7.2 These visits may also include the participation of government representatives and donors AWF in roundtables and other events.

## **8 Cards, Brochures and Newsletters**

- 8.1 All relevant pamphlets and brochures of the project / program financed by the AWF should incorporate the basic elements of the visual identity of the AWF, i.e. the logo of the AWF with or without its slogan.
- 8.2 Leaflets and brochures produced by the gift recipient must also incorporate a definition of the AWF, or descriptive text, see section "Press releases and media advisories."
- 8.3 The cover page of all documents relating to the project financed by the AWF must clearly identify the activity as part of an activity funded by the AWF.
- 8.4 Copies of publications including electronic copies should be made available to the AWF.

## **9 Electronic Communication**

Any electronic communication disseminating information on projects funded by the AWF, including websites, newsletters and social media must include a link to the website of the AWF.

## **10 Safety**

The executing agency must produce billboards, posters or banners to promote their activities funded by the AWF or related to the AWF at exhibitions and other events, which will be placed at strategic locations visible to all.

## **11 Vehicles, Supplies and Equipment**

- 11.1 The AWF generally requires that vehicles, supplies and equipment financed by the AWF are clearly identified, and visibly carry the logo of the AWF and the phrase "Provided with the support of the

African Water Facility" in English, French or Portuguese, or any official language of the country or institution, if applicable.

11.2 This condition can be the subject of negotiations between AWF and the gift recipient since some supplies and equipment may be exempted.

11.3 The gift recipient must provide proof of compliance with this rule (emailing digital photos is recommended).

## 12 **Photographs and Audio-visual Productions**

12.1 High-resolution professional digital photographs (300 dpi) project funded by AWF must be provided to the AWF throughout the different phases of the project to document the progress of actions and events related to the project, which will be used in print or electronic publications.

12.2 All photos must be submitted with a complete legend, and the information needed to assign ownership.

12.3 The AWF will be permitted to use or reproduce photos submitted to it without payment of royalties.

12.4 Whenever required, audio-visual materials must acknowledge the support of the AWF, highlighting the AWF logo at the beginning and / or end of the movie / documentary.

12.5 Copies of the film (s) / document (s) must be provided to the AWF.

## 13 **Commemorative Plates or Safety**

13.1 If relevant, the gift recipient must place a permanent plaque or other type of commemorative signs in the most visible part of the building, infrastructure or near the project site has been funded by AWF, next to the name the implementing agency and / or the name of the project visible to visitors.

13.2 If necessary, the plate or signalling may contain the following sentence: "This [Infrastructure's name] was funded by the African Water Facility" next to the logo of the AWF.

## 14 **Promotional Items**

14.1 Before taking any decision on the production of these items, it is necessary to consult the Communications Officer of the AWF.

14.2 Promotional items bearing the logo of the AWF can be distributed in support of communication activities for the project financed by the AWF. It may be T-shirts, caps, pens, notebooks, USB sticks, etc.

**ANNEX 11: CONSULTANCY SERVICES TERMS OF REFERENCE**