

Danida Sustainable Infrastructure Finance (DSIF) *Project proposal*

Presentation to Danida Programme Committee

Aveyime Water Supply Project *Ghana*

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UDENRIGSMINISTERIET
Danida



IFU

INVESTMENT FUND FOR
DEVELOPING COUNTRIES

Udenrigsministeriet/GDK

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Danida Sustainable Infrastructure Finance

As of 1. September 2017, Danida Sustainable Infrastructure Finance (DSIF, previously known as Danida Business Finance) has been managed by IFU.

The policy responsibility and approval of DSIF projects remains with the Minister for Development Cooperation, and follows standard appropriation processes according to the Aid Management Guidelines (November 2020), whereas specific guidelines apply to DSIF in terms of project preparation and implementation.

In addition to the main grant facility, DSIF has a separate Project Development Facility that finances preparation of projects (feasibility studies, appraisal etc.). Given the size and complexity of DSIF projects, and the corresponding high costs of feasibility studies, the projects are presented to the Programme Committee for advice and guidance, prior to committing funding from the Project Development Facility.

The DSIF concept notes differ from the standard templates presented to the Programme Committee, reflecting the early stage of the project, the DSIF financing model as well as alignment to IFU's documentation and processes.

Project summary

Access to clean water is identified as a key development priority in Denmark's strategy for development cooperation 2021-2025.

The Government of Ghana's vision for the water sector is that “all individuals in Ghana have adequate, safe, affordable and reliable access to a basic level of water service, practice safe sanitation and hygiene and that water resources are sustainably managed”.

The Ghana Water Company Ltd (GWCL)'s Strategic Investment Plan 2007-2025 outlines, among others, three projects in need of financing in order to meet water demand targets in the urban areas of Ghana. GWCL is interested in engaging foreign partners to finance such projects within the plan and has approached Denmark, based on its long history in the water sector in Ghana, at both national and local level.

Danida Sustainable Infrastructure Finance (DSIF) has been engaged in this dialogue with GWCL. DSIF has screened the three proposed projects and, in a joint process with GWCL, concluded to move forward with one of the proposed projects:

- Aveyime – New Water Treatment Plant, Transmission Lines and Distribution System

From May to June 2021, independent consultants assessed the Aveyime project proposal and recommended key elements to be included in a Terms of Reference for a feasibility study (see Enclosure E). The feasibility study is anticipated to take place during the second half of 2021.

With a positive feasibility study, construction of the Aveyime Water Treatment Plant is expected to commence ultimo 2023.

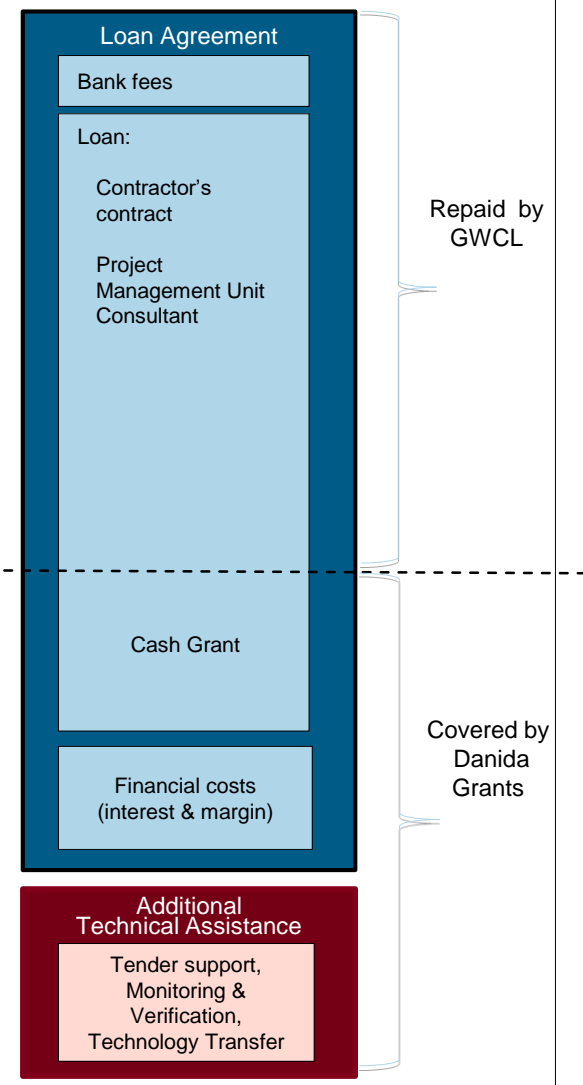
Abbreviations

DSIF	Danida Sustainable Infrastructure Finance
EPC	Engineering, procurement and construction
EUR	European single currency – exchange rate used 1 EUR= 1.22 USD
GAMA	Greater Accra Metropolitan Area
GHS	Ghana Cedi -- exchange rate used 1 GHS = 0.1419 EUR
GWCL	Ghana Water Company Limited
GWSC	Ghana Water and Sewerage Corporation
KfW	German Development Bank
km	kilometer
NDC	National Democratic Congress
NNP	National Patriotic Party
NRW	Non-revenue water
NW	North-West
OECD	Organisation for Economic Co-operation and Development
PURC	Public Utilities Regulatory Commission
SCADA	Supervisory Control And Data Acquisition
SWRO	Sea Water desalination plan
3DWSS	Three District Water Supply System
TOR	Terms of Reference
USD	United States Dollars – exchange rate used 1 USD= 0.818 EUR
WTP	Water treatment plant

1. KEY DATA

Project name
Aveyime Water Supply Project (green-field)
Country
Ghana
Gross National Income per capita: USD 2,220 (World Bank, Atlas Method, 2019)
Product
Water Treatment Plant (WTP) to produce 120,000 m3/day water with transmission main and distribution network
Implementing partner
Ghana Water Company Limited (GWCL)
Implementing period
36 months
Sustainable development goals to be targeted
Primary: SDG 6, 3 and 9. Secondary: SDG 11 and 8
Investment budget
DKK 614 million (cf. detailed budget sheet)
ODA budget
DKK 278.3 million
Type of financing
Concessional loan (35% concessionality)
Financial net IRR
Financially nonviable without subsidy

DSIF project finance:



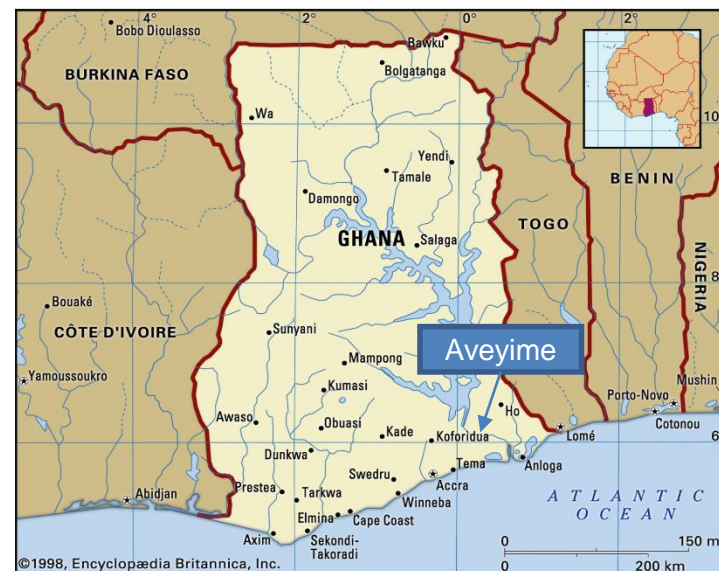
2. PROJECT CONTEXT

Country context

- Ghana is a lower middle-income country in West Africa with an estimated population of approx. 31 million people (2019 figures) and an annual population growth rate of 1.6%. The capital of Ghana, Accra, has a population of approx. 5.5 million.
- Ghana's economy has experienced a tremendous increase since 2003 with an annual growth rate of 6.5% (2019) and a current annual GDP of USD66 billion, equivalent to a GNI/capita of USD2,200 (2019).
- Ghana has effectively managed the COVID-19 outbreak domestically. According to the IMF, the impact of the pandemic on the economy has been severe. Real GDP growth slowed to 0.4% in 2020 from 6.5% in 2019, due to lower activity in the extractive industries and a collapse in hospitality and retail services. Policy interventions in 2020 were critical to safeguard livelihoods and paved the way for a faster rebound of economic activity. Real GDP growth is projected at 4.8% in 2021.
- Since 2012 the poverty rate in Ghana has dropped from about 50% to 11.3% (2021). The rate of poverty reduction has, however, slowed in recent years and is currently at 0.1% per annum.
- Ghana is ranked number 138 out of 189 countries in the UNDP's Human Development Index (2019) and number 75 out of 180 countries in Transparency International's Corruption Perception index.
- General elections were held in Ghana on 7 December 2020. President Nana Akufo-Addo (NNP) was re-elected in a close race. Election to parliament resulted in a hung parliament, with an equal balance between the two major parties NNP and NDC.

Documentation

- Ghana Water Company Ltd (GWCL)'s Strategic Investment Plan 2007-2025
- Update of GWCL Water Supply Master Plan for GAMA Including the Preparation of Hydraulic Model and Integrated Water Distribution Network -- World Bank March 2017
- "Screening of three water projects in Ghana", Perspectivator, June 2021.



2. PROJECT CONTEXT, continued

Sector context

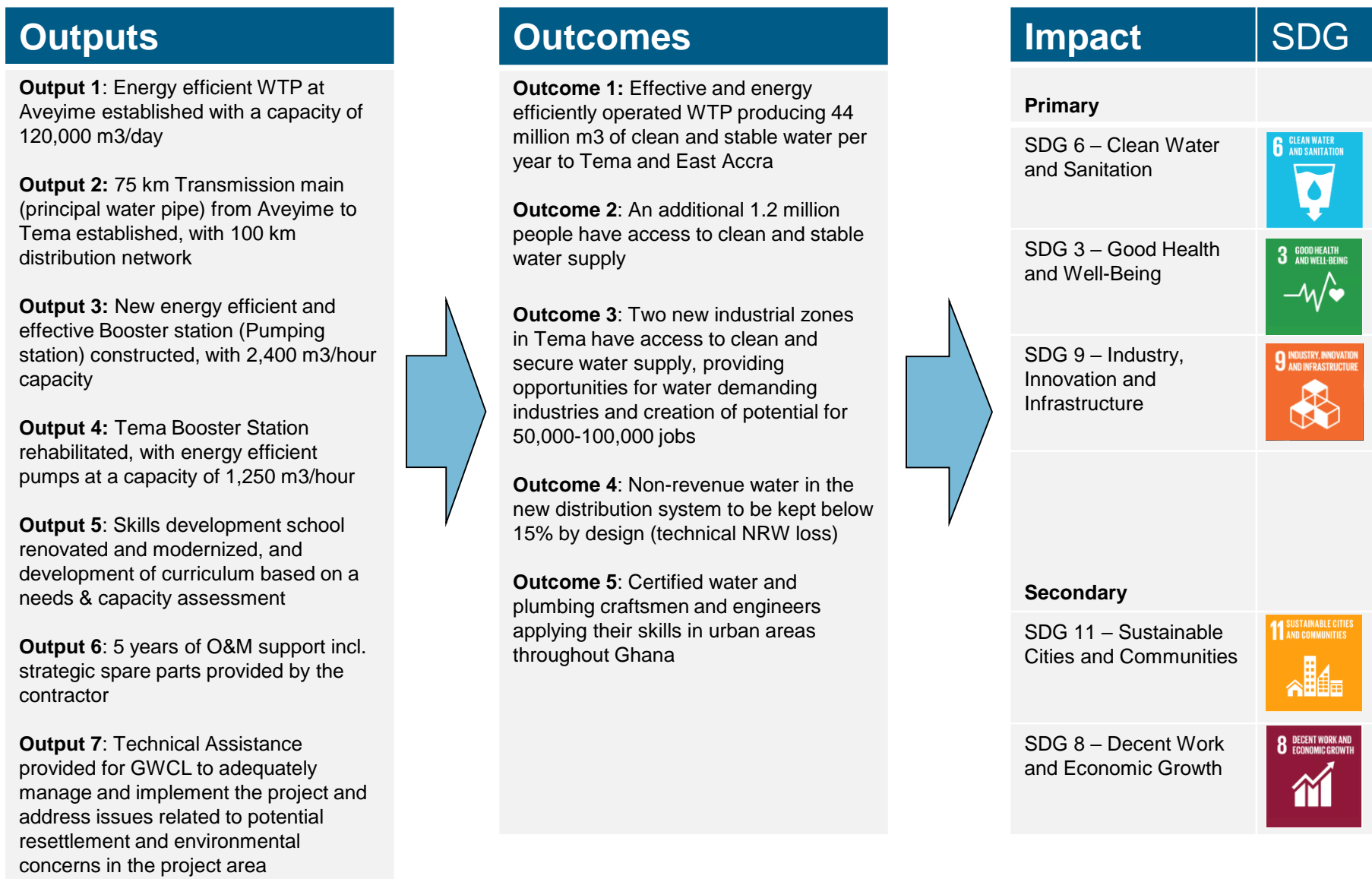
- The Government of Ghana's vision for the water sector is that "all individuals in Ghana have adequate, safe, affordable and reliable access to a basic level of water service, practice safe sanitation and hygiene and that water resources are sustainably managed".
- Ghana Water Company Limited (GWCL), a state-owned utility company established in 1993, supplies all urban water in Ghana. GWCL currently manages 90 water systems that provide potable water to 17 million people, few of whom have access to a direct water connection. Of the 90 systems, 35 are groundwater-based, 54 are surface-based and one has both surface- and groundwater.
- Greater Accra Metropolitan Area (GAMA) has seen a significant increase in its population. The 2020 population of 5.5 million is estimated to reach 7.5 million by 2035. Water demand is rapidly increasing and is projected to be 1,200,000 m³/day by 2030. The present water demand for GAMA is 891,000 m³/day with a current demand-supply gap of 340,000 m³/day.
- GWCL's non-revenue water (NRW*) is high at 50% during the period 2017-2020. Adding poor revenue collection the resulting NRW is 70%. The World Bank is working with GWCL to improve this.
- Continued urbanization, improvements in productivity and inclusion, increase the demand for water and access to piped water, especially in the fringes of GAMA. The urbanizing areas in eastern Accra and the industrial zones in Tema are particularly underserved in terms of water supply. The project area encompasses some of the poorest suburbs along the coast, with high population density and poor infrastructure.
- GWCL is therefore interested in expanding water supply through a green field project in Aveyime together with Denmark, a trusted partner with a long standing history in the water sector in Ghana. Activities include Strategic Sector Cooperation on Urban Water (Aarhus Vand, Aarhus municipality, GWCL and Tema city) and planned funding of a WASH specialist to the UNICEF in Accra. Further there will be a clear link to the current Danida Fellowship Centre training courses and expected research activities in the project area.

Institutional sector context

- The Ministry of Sanitation and Water Resources is responsible for formulating national water policy, and oversees water supply in Ghana, including the activities of GWCL in supplying urban water.
- GWCL's mandate is to provide, distribute and conserve the supply of potable water for public, domestic, and industrial purposes within urban communities in Ghana.
- GWCL's mission is to meet the increasing demand for better service delivery through efficient management of production and distribution of potable water and customer management in urban areas of Ghana.
- GWCL has more than 5,000 staff in total, of which approx. 250 staff are employed at Headquarters. GWCL's core businesses include:
 - Abstraction, treatment and supply of water to urban communities in Ghana
 - Urban water sector planning and development
 - Investment planning
 - Sector financial management
 - Contracting out the design, construction, rehabilitation and expansion of existing as well as new water supply infrastructure
 - Asset Management
- GWCL has increased its annual budgets over the period 2018 – 2021. Total expenses are expected to go from USD 280 million in 2018 to USD 455 million by 2021. Main contributors to the increase in expenses are; operating expenses (increase in production and energy prices) and increases in debt service, as GWCL is expected to service loans and credits used to finance infrastructure projects under their mandate. On the funding sources side, GWCL's revenue has been fairly constant, and as a result, GWCL has seen increasing budget deficits. High levels of non-revenue water is a major reason sales revenue is depressed. Full partner assessment in Enclosure C.

*Non-revenue water (NRW) is water that is produced but is "lost" before it reaches the consumer (i.e. leaks or theft). High levels of NRW are detrimental to the financial viability of water utilities.

2. INVESTMENT CASE: Preliminary Theory of Change and Results



3. INVESTMENT CASE

Justification

- The project supports Ghana's commitment to meet the SDGs, with particular focus on water, health and sustainable industrial development. The project is a priority in Ghana's national plans and strategies.
- The project meets DSIF's eligibility criteria and is aligned with the new DK development strategy "The World We Share" addressing climate change by improving energy efficiency, contributing to climate resilient infrastructure as well as providing new and improved access to clean water in cities.
- Access to clean water is a basic human right that contributes to good health, gender equality and poverty reduction. Women and children especially benefit from water access, as they are vulnerable to poor water quality and most often are responsible for water collection within households.
- Aveyime WTP is a strategic project that can unlock the potential to expand the industry in the Tema area and thereby create new jobs, especially for youth.
- The water quality at the proposed in-take by the Volta River is good and the loss of water in the new distribution network will be designed to be less than 15%, due to improved materials and technology.
- The project is well-aligned to Danish priorities in the water sector, complementing other initiatives (SSC, DFC, Trade Council etc.) as stipulated in the DDD agenda. Danish companies have the technical expertise to design, develop and construct the proposed project, and are internationally competitive in providing energy efficient treatment works with low life cycle costs.

Project Description

- The project will provide Tema and the Eastern part of Accra with improved access to clean and stable water supply, which will significantly improve livelihood and health conditions of people living in the area. Currently the areas have very limited access to water, relying on public stand pipes with unreliable supply only a few hours a week. The WTP will also supply water to two new industrial zones, where lack of water is currently a constraint on growth, sustainable industrialization and job creation.
- The impact will be achieved through the construction of a new WTP at Aveyime (map in Enclosure A), operated with energy efficient Danish technology and applying Danish know how in partnership with a Danish utility company in its operation in order to optimize supply and demand.
- The main driver for this change is GWCLs commitment to establish a WTP at Aveyime to supply water to Tema and East Accra.
- The implementation and operation of the WTP and distribution of water will be managed by GWCL, who has a national mandate to plan and implement water supply systems for urban consumers and industry.
- The project will be implemented with support from DSIF, with a grant to undertake a feasibility study, and a mixed credit to construct the plant. The project will be tendered to a limited short-list of Danish contractors.
- GWCL is assumed to have an interest in decreasing NRW significantly and applying these learnings for the rest of Accra, both in terms of reduced leakages, and in terms of increased collection of tariffs, also from industry.
- The main risk of the investment is that the industrial zones in Tema will take longer than expected to mature. This risk is mitigated by ensuring that the produced water can be integrated into the water supply network in Accra.

Timeline (anticipated, overall Process Action Plan available in Enclosure B)

Feasibility Study

Oct 2021 – Apr 2022

Appropriation

Oct 2022

Tendering

Jan 2023 - Aug 2023

Construction

Nov 2023 - Oct 2025

O&M Support

Aug 2025 - Jun 2030

4. SUSTAINABILITY AND RISKS

Development impact

- With 44 million m³/year of water produced by the WTP, the project contributes significantly to water supply in GAMA and contributes to the broader socio-economic development of the Capital City.
- It is estimated that the project will secure access to clean water for 1.2 million people, and it is anticipated to contribute to the creation of 50-100,000 industrial jobs over 30 years in the Tema area.
- In addition, the project will generate additional jobs during construction of the WTP and up to 30 new jobs when in operation, depending on design.
- Transfer of technology from Denmark will make operation of the WTP and its networks energy efficient with low life cycle costs.
- Reduced NRW will increase supply from production and contribute to increased reduction of energy consumption. This will reduce the climate footprints from the WTP significantly.
- As a green field project, most challenges can be mitigated during project implementation and design. The most significant external challenge is that the industrial zones may mature slower than expected despite getting access to clean and secure water supply.

Corporate Governance

- IFU/DSIF's anti corruption measures will be put in place, e.g. close monitoring of the tender processes, use of an independent Construction Supervision Consultant, buyer/borrower's and exporter's declaration, where DSIF can require support repaid in case of misuse.
- GWCL is a government-owned company under the Ministry of Sanitation and Water.
- GWCL has a strong and independent institutional set up with capacity to supply urban water throughout Ghana and with an organization that is capable of managing implementation of largescale infrastructure projects.

Environmental and social risks

- A preliminary Environmental and Social Impact Assessment (ESIA) will be carried out as part of the feasibility study. The main purpose will be to identify possible environmental and social impacts resulting from the project and to propose measures to avoid, minimize or mitigate risks and negative impacts, as well as enhance the environmental and social outcomes of the project.
- Prior to construction, the ESIA shall be finalized to identify potential environmental and social effects. The ESIA will include public consultations.
- The Feasibility Study will determine the environmental category. WTPs are generally categorized as "B", meaning that no significant impact to environment is envisaged from the implementation of the project activities.
- Assessment of resettlement and livelihood restoration will be determined as part of the Feasibility Study. Resettlement is not envisaged, but compensation for land acquisition is foreseen, especially along the Transmission Main (principal water pipe).
- See also preliminary risk and response matrix in Enclosure D.

Management of environmental and social risks

- The feasibility study will, if needed, suggest measures to mitigate possible negative environmental impacts, this may include impact from dust and noise during construction.
- It is a precondition for the DSIF loan that the compensations and possible resettlements follow IFC Performance Standard 5.
- IFC performance standards and the UN guiding principles for business and human rights (UNGP) will be applied during design and construction of the works to ensure appropriate labor and working conditions, resource efficiency and pollution prevention.

5. BUDGET

Total Project budget	DKK Million		
	Loan and grant*	Own financing	Total
Total Investment			
Output 1: WTP at Aveyime - capacity of 120,000 m3/day	131		131
Output 2: 75 km Transmission main (principal pipe), 100 km distribution network	251		251
Output 3: Booster station, new	60		60
Output 4: Tema Booster Station rehabilitated	3		3
Output 5: Skills Development School	50		50
Output 6: 5 years of O&M support	10		10
Output 7: Technical assistance	5		5
Land acquisition / compensation		5	5
Supervision engineer	18		18
Contingencies (15%)	80	1	81
	608	6	614

Pre-investment budget (DKK million):

Financed by DSIF Project Development Facility

Feasibility study	Cost
Feasibility Study + ESIA	4.5
Appraisal	1.0
Land and geotechnical surveys and lab tests	0.5
Total estimated cost (incl. budget margin)	6.0

Budget for DSIF Grant	
	DKK Million
Cash grant element of loan	114.3
Interest subsidy	65.8
Margin to Danish lending bank	19.6
EKF premium (Export loan guarantee fee)*	54.6
Technical Assistance	12.0
Budget margin (25%)**	66.6
DSIF Total Grant	332.9
<i>DSIF Grant excl. budget margin</i>	<i>254.3</i>
DSIF appropriation (DSIF Total Grant excl. EKF premium)	278.3

* DSIF covers the EKF premium on behalf of borrower on the loan guarantee required by lending bank. DSIF only releases the payment in case of actual default. The fee is therefore not paid out and not included in the appropriation.

** The budget margin only becomes effective if the project during tender turns out to be more expensive

Any VAT necessary will be carried by GWCL This will be confirmed as part of the Feasibility Study.

6. OVERALL ASSESSMENT

Investment attractiveness/concluding remarks

- The project is a priority of GWCL and the Ministry of Sanitation and Water.
- The project at Aveyime is strategic in nature and will provide clean and stable water to an area of Accra with currently limited supply, as well as assist in unlocking potential for new jobs in two industrial zones in Tema.
- The project meets DSIFs eligibility criteria and is in line with Denmark's priorities in addressing water and reducing climate footprints.
- A range of SDGs will be addressed, primarily SDG 6, 3 and 9
- 1.2 million people will get access to clean and secure water. In addition to this, preliminary indicators of success include:
 - Effective and energy efficiently operated WTP producing 44 million m3 of clean water per year
 - Proportion of non-revenue water in the distribution system below 15%
 - Certified water and plumbing craftsmen and engineers, applying their skills in urban areas throughout Ghana
- Opportunities for Danish contractors and suppliers of water treatment and pumping equipment is tremendous and, taking life-cycle costs into consideration, competitive to other international suppliers.

Major risks and development challenges

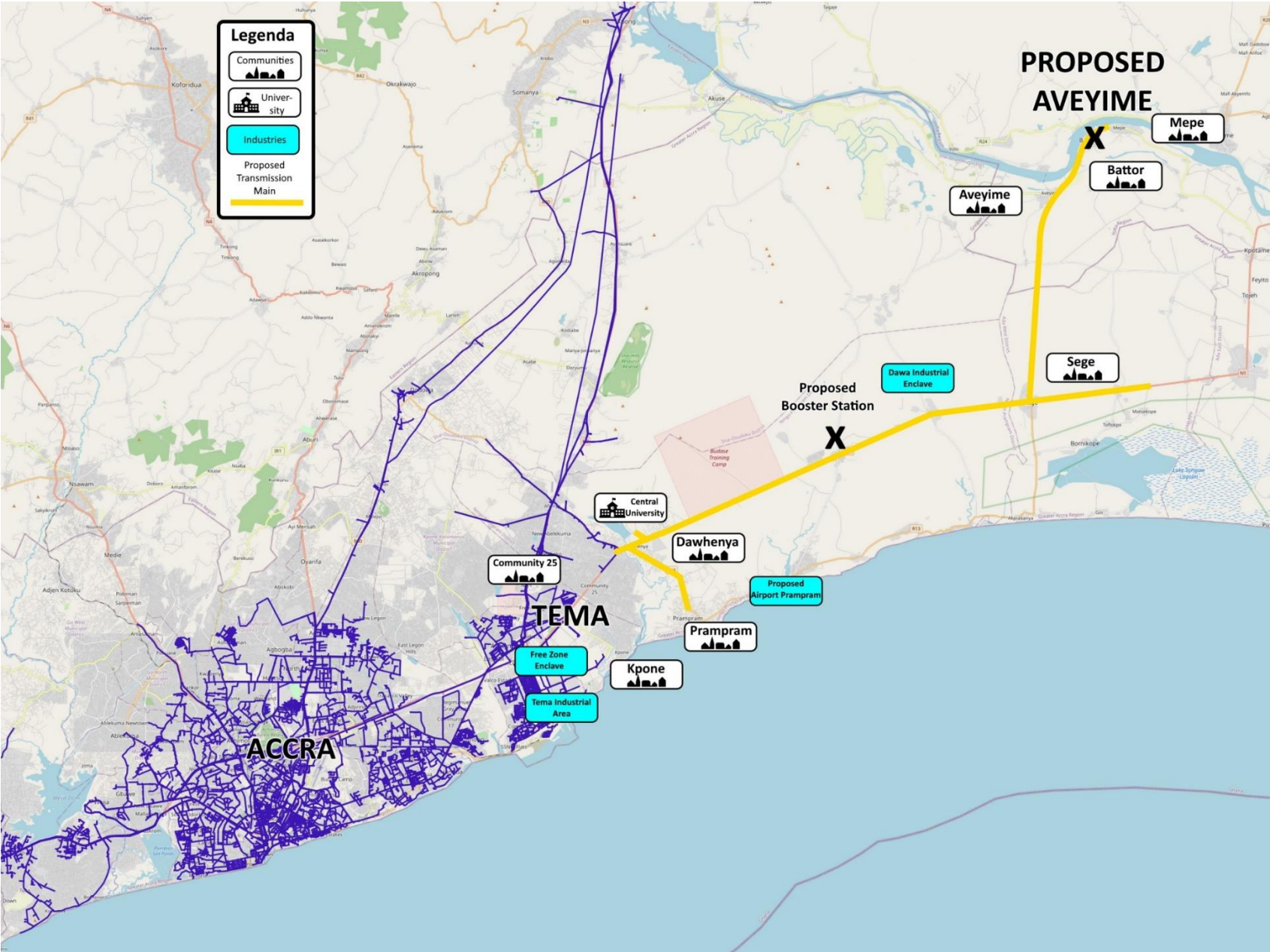
- A major risk is poor political commitment and leadership resulting in limited or no action in final decision making related to the expansion of water supply in Tema and Eastern Accra. This will be mitigated by DSIF and the Embassy of Denmark (EDK) in Ghana continuing support to GWCL in promoting Aveyime as a strategic project.
- Another major risk is changing economic priorities in the aftermath of Covid-19, which is still not fully under control in Ghana and thus putting stress on the economy. The risk is high and mitigation measures rely on access to cheap foreign loans paired with policy dialogue between high ranking Danish officials and the highest levels in the partner Government.
- A risk is that GWCL does not allocate adequately skilled staff to operate the new treatment plant. This is mitigated by supporting the Skills Development School and by including a 5 year O&M contract to the project.
- Land acquisition and the compensation process may be a challenge along the Transmission Main. Careful consultation during the preparation process and close monitoring is expected to reduce this risk. It is a precondition to DSIF's loan that IFC Performance Standard 5 is followed throughout the project.
- A major risk is that the project could fail to deliver on its outcomes, which will reflect negatively on DSIF and the EDK. The results frameworks will be designed jointly with partners and an effective communication strategy will ensure that results, and any difficulties or drawbacks are communicated.
- For more details on the risk assessment, see enclosure C.

Recommendation

- Clearance in Principle for continuation of preparation and appraisal with due respect to guiding comments from IFU IC, the Danida Programme Committee and public hearing.
- Approve release of DKK 6.0 million from the Project Development Facility to continue preparation of the project, including Feasibility Study and Environmental and Social Impact Assessment and subsequent appraisal of the Project Document.

ENCLOSURES

A: Map over project area



B: Overall Process Action Plan

Action	By date	Responsible	Comments
IFU IC	August 2021	DSIF/UM	
Decision by Danida Programme Committee	August 2021	DSIF/UM	
DSIF contracts Feasibility Study	October 2021	DSIF	
Feasibility Study	October 2021 – April 2022	FS consultant	
Development of Program Document	May 2022 - June 2022	DSIF/External consultant	
Independent Danida Appraisal	August 2022	Danida/Appraisal consultant	
Project Approval / Appropriation by Minister	October 2022	Danida (UPR)	
Prequalification Contractors and finalization of tender documents	November 2022 – January 2023	GWCL/DSIF	
Tender for construction and for Construction Supervision Consultant	January 2023 – June 2023	GWCL/DSIF	Support from tender consultant
Contract negotiations and signing of contract	July 2023 – August 2023	GWCL/ EPC Contractor	Support from tender consultant
Loan Agreement and CP's	August 2023 – October 2023	DSIF/Gov of Ghana/DK bank	
Construction	November 2023 – October 2025	EPC Contractor	Construction Supervision Consultant
Handing over of works	November 2025	EPC Contractor	Construction Supervision Consultant
End of O&M Support	October 2030	EPC Contractor	O&M support to be assessed during FS

C. ASSESSMENT OF PARTNER

Partner name	Core business	Importance	Influence	Contribution	Capacity	Exit strategy
What is the name of the partner?	What is the main business, interest and goal of the partner?	How important is the project for the partner's activity-level (Low, medium high)?	How much influence does the partner have over the project (low, medium, high)?	What will be the partner's main contribution?	What are the main issues emerging from the assessment of the partner's capacity?	What is the strategy for exiting the partnership?
Ghana Water Company Limited (GWCL)	<p>GWCL's core businesses include: Abstraction, treatment and supply of water to urban communities in Ghana.</p> <p>Urban water sector planning and development Investment planning.</p> <p>Sector financial management.</p> <p>Contracting out the design, construction, rehabilitation and expansion of existing as well as new water supply infrastructure.</p> <p>Assets Management.</p>	<p>Medium to High</p> <p>The project is relatively small, compared to the water demands in Accra.</p> <p>It is, however uniquely important for the Tema and East Accra area and to reduce NRW.</p>	<p>High</p> <p>The partner has full influence over the project. A Project Management Unit (PMU) will be established by GWCL with support from an International Supervision Consultant.</p> <p>During operation, GWCL will maintain full responsibility.</p>	<p>GWCL will provide in-kind support to all stages of the project and cash compensation to any land acquisition.</p> <p>GWCL will, during the FS, be responsible for facilitating contacts to all relevant authorities and to provide access to all relevant documents necessary to undertake the FS.</p> <p>During construction responsible for all negotiation and communication with the affected persons/parties.</p> <p>O&M of the WTP after taking over from EPC contractor.</p> <p>GWCL will repay the bank loan.</p>	<p>GWCL is a strong and well organized institution and a competent operator of urban water supply operating 90 water systems in Ghana.</p> <p>The FS will determine the need for O&M support during the first 5 years of operation.</p> <p>GWCL's financial capacity is sufficient to service the loan with support from Ministry of Finance.</p>	<p>The project is limited to the period of construction, commissioning and potential O&M support.</p> <p>There are no further commitments.</p>

D. Preliminary PROJECT RISKS & RISK RESPONSE 1

Contextual risks

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
Change in Government power leading to change in GWCL management and change in priorities in the water sector.	Unlikely	Significant	Cannot be influenced by the project.	Remain low	GWCLs management changes after general elections. Election in December 2020 led to a hung parliament and the sitting President won with a small margin. The Presidential election was contested, but settled and the current President sworn in.
External debt distress, as a consequence of Covid-19, makes it difficult for Ghana to pay back the DSIF loan.	Likely	Major	Policy dialogue between high ranking Danish officials and the highest levels in partner Governments.	Low	Covid-19 is still putting pressure on Ghana's economy as Covid-19 is still not fully controlled. This may lead to different economic priorities in the aftermath of Covid-19. The risk is high and mitigation measures rely on access to cheap foreign loans.
Delays in project preparation and implementation as a consequence of Covid-19.	Likely	Minor	Construction is not expected to commence until 2024 where hopefully most restrictions will be lifted.	Low	The construction sector has been active in Ghana during the Covid-19 crisis, and a major DSIF construction project has been finalized in Ghana in 2021.

D. Preliminary PROJECT RISKS & RISK RESPONSE 2

Programmatic/project risks

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
Delay as a consequence of land acquisition and compensation process due to dispute over ownerships and payment of compensations.	Likely	Major	<p>It is a condition for the loan that GWCL complies with IFC guidelines.</p> <p>Careful consultation during the preparation process and close monitoring during construction, with GWCL supported by the Construction Supervision Consultant and DSIF's monitoring consultant.</p>	Medium	The transmission line will cross multiple landowners' areas and compensation needs careful guidance.
Aveyime WTP is poorly maintained and NRW will increase significantly.	Likely	Major	<p>Carefully crafted O&M plan will be developed. Danish technology requires low maintenance, and careful monitoring of NRW will be able to detect leakages for maintenance early on.</p> <p>Training of GWCL staff in early response to leakages.</p>	Medium	GWCLs current WTP systems are well operated, but some are old and demand high maintenance. High leakage in current systems lead to 50% NRW. This will be reduced significantly with the use of Danish technology and monitoring systems.
GWCLs ability to pay back the loan amount	Unlikely	Minor	<p>GWCL will pay back the loan over 15 years with support from Ministry of Finance that will issue a sovereign guarantee.</p> <p>Assist GWCL in making tariff collection schemes for industrial connection.</p>	Low	GWCL is currently servicing their loans. Although tariff collection from consumers is not sufficient to cover O&M in addition to servicing of depth, industrial zones to be included in the service area will increase revenue.

D. Preliminary PROJECT RISKS & RISK RESPONSE 3

Institutional risks

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
Irregularities during tender and construction phase	Likely	Major	<p>Application of normal DSIF procedures where the process is closely monitored and DSIF is required to give no-objection to all main steps in the tender and contract signing process.</p> <p>During construction this risk will be monitored by the Construction Supervision Consultant and DSIF's monitoring consultant.</p>	Medium	Ghana scores 43/100 on the Transparency International Corruption Index (2020) and is ranked 75/180 on the Corruption Perceptions Index (2020) despite that Ghanaian anti-corruption law criminalizes active and passive bribery, extortion, wilful exploitation of public office, use of public office for private gain and bribery of foreign public officials.
The project fails to deliver on outcomes	Unlikely	Major	<p>Development of the results frameworks with SMART indicators together with partners, setting realistic and measurable targets.</p> <p>A stakeholder platform and effective communication strategy will ensure that results, achievements and any difficulties or drawbacks are communicated effectively to key audiences.</p>	Low	The results framework is designed with outputs to be controlled by the project and outcomes to be a consequence of operation of the outputs. The designed outputs will largely determine the results of the outcomes, if the WTP is operated as intended. However, if not operated as intended the DSIF investment may prompt reputational risks.
Non-compliance with the IFC-PS during land acquisition, compensation and resettlement.	Unlikely	Major	<p>Careful consultation during the preparation process and close monitoring during construction.</p> <p>Clear communication strategy developed prior to processes that involve land acquisition and compensation</p>	Low/medium	Land acquisition and compensation is sensitive. Institutional risk will primarily be for GWCL in local newspapers, where opinion makers may contest the transmission line, e.g. through their constituency. The route is mostly along a major highway and in rural areas with limited settlement.

E. Main points for the Feasibility Study

OBJECTIVE:

- A feasibility study of Aveyime WTP with associated features that provides documentation and basis for Ghanaian Authorities and the Danish Council for Development Policy to make the final decision/recommendation on project financing and, in case of approval, forms the necessary basis for the development of a tender to Danish Contractors.

The feasibility study will analyse:

- The water supply sector, including effects of climate change
- The area and beneficiaries to be serviced, including the type of access
- Water shed- and resource management issues, both current and expected, accounting for climate risk and effects of climate change
- Detailed project scope
- Water quality and quality at source
- Planning and siting assessment
- Technology options and design requirements that are energy efficient
- Preliminary Engineering Design
- Capacity needs and job creation for construction and operation of the plant
- Design and syllabus requirements for the skills development school, based on a capacity and training needs assessment
- Environmental and Social Impact Assessment and Management Plan
- Results Framework and monitoring procedures
- Cost estimates
- Economic assessment
- Financial assessment
- Risk management, including identification and mapping of both formal and informal project stakeholders and potential conflict of interest.