



**ASIAN INFRASTRUCTURE
INVESTMENT BANK**

PD000052-EGY
Sep. 9, 2018

**Program Document
of the Asian Infrastructure Investment Bank**

**Arab Republic of Egypt
Sustainable Rural Sanitation Services Program**

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Currency Equivalents

(As at April 30, 2018)

Currency Unit	–	Egyptian Pound (EGP)
EGP1.00	=	USD0.05661
USD1.00	=	EGP17.6633

Fiscal Year

July 1-June 30

Abbreviations

AIIB	Asian Infrastructure Investment Bank
APA	Annual Performance Assessment
DLI	Disbursement Linked Indicator
DLR	Disbursement Linked Result
EGP	Egyptian Pound
EIRR	Economic Internal Rate of Return
ENPV	economic net present value
ESP	Environmental and Social Policy
ESSA	Environmental and Social Systems Assessment
EWRA	Egyptian Water Regulatory Authority
FY	fiscal year
GDP	gross domestic product
HCWW	Holding Company for Water and Wastewater
IMF	International Monetary Fund
IPF	Investment Project Financing
ISC	implementation support consultant
MHUUC	Ministry of Housing, Utilities and Urban Communities
NRSP	National Rural Sanitation Program
O&M	Operation and Maintenance
OP	Operational Policy (WB)
PAP	Program Action Plan
PBCG	Performance Based Capital Grant
PforR	program-for-results
PIAP	Performance Improvement Action Plan
PIU	Program Implementation Unit
PMCF	Program Management Consulting Firm
PMU	Program Management Unit
PP	Procurement Policy
PPM	Procurement Procedures Manual
SOP	standard operating procedure
SRSSP	Sustainable Rural Sanitation Services Program
SBD	Standard Bidding Document
USD	United States Dollar
WB	World Bank
WSC	Water and Sanitation Company
WWTP	Wastewater Treatment Plant

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1. Program Summary Sheet

Arab Republic of Egypt Sustainable Rural Sanitation Services Program

Project No.	000052
Borrower Implementation Agency	Arab Republic of Egypt Ministry of Housing, Utilities and Urban Communities (MHUUC)
Sector Subsector	Water Sanitation
Program Objectives / Brief Program Description	<p>The objective of the Sustainable Rural Sanitation Services Program (SRSSP) is to strengthen institutions and policies to increase access and improve rural sanitation services in selected governorates in the Arab Republic of Egypt. This will be accomplished through implementing key sector and institutional reforms together with rehabilitation and construction of integrated infrastructure for collection, treatment, and disposal of household sewage.</p> <p>Phase 1 of the Program (SRSSP-1) is already under implementation by the World Bank (WB). Phase 2 of the Program (SRSSP-2) is proposed to be jointly cofinanced by AIIB and the WB. The WB has prepared the SRSSP using its Program-for-Results (PforR) financing instrument in accordance with the WB's PforR Policy. Under the PforR, the funds are released on achievement of results using Disbursement Linked Indicators (DLIs) and Disbursement Linked Results (DLRs).</p> <p>Under the SRSSP-2, AIIB will finance the physical infrastructure to provide sanitation services to about 178,000 households in 133 villages of five governorates; namely, Dakahliya, Sharkiya, Damietta, Menoufiya, and Gharbiya, benefitting a population of about 892,000. The works will include: construction of new or expansion/rehabilitation of existing wastewater treatment plants; construction or upgrading of pumping stations; and construction of integrated sewerage networks consisting of collectors and pumping mains. The SRSSP-2 will also ensure services for inhabitants of "satellite" areas located between the villages where the main sewers will pass.</p>

	WB will finance the expenditures associated with engineering designs for household connections and strengthening of the related institutions and policies for the water and sanitation (WSS) sector, including: (a) improving the governorate-level Water and Sanitation Companies' operational systems and practices; (b) strengthening the national WSS sector framework, institutions, policy, and monitoring and evaluation; and (c) introducing an Investment Project Financing component for Technical Assistance on strategic sector issues.
Program Implementation Period	Start Date: January 2019 End Date: September 2023
Expected Loan Closing Date	December 2023
Program cost and Financing Plan	Total Cost: USD694 million Financing Plan: AIIB: USD300 million WB: USD300 million GoE: USD94 million
AIIB Loan (Size and Terms)	USD300 million 34-year term: level repayments, including a grace period of five years, in accordance with AIIB's standard pricing.
Cofinancing (Size and Terms)	WB: USD300 million 34-year term: level repayments, including a grace period of five years.
Environmental and Social Category	B (Equivalent under AIIB's Environmental and Social Policy).
Program Risk (Low/Medium/High)	Medium
Conditions for Effectiveness	Effectiveness of the WB Loan Agreement
Key Covenants	<ul style="list-style-type: none"> • The Borrower through the MHUUC and its Program Management Unit (PMU), shall no later than one (1) month after the Effective Date, update and adopt the Program Operations Manual and carry out its respective activities under the Program in accordance with the provisions of the Program Operations Manual. • The Borrower shall, no later than three (3) months after the Effective Date, through the MHUUC, engage an Independent Verification Agent, to prepare and provide verification reports certifying the achievement of the DLRs, all in accordance with acceptable procedures and arrangements.

	<ul style="list-style-type: none"> • The Borrower through the MHUUC and its PMU, shall ensure that procurement of contracts under the Program is carried out following the Procurement Procedure Manual and Standard Bidding Documents developed for the Program. • The Borrower shall maintain, until the completion of the Program, the complaints and grievance redressal mechanism established under the Program to handle complaints and grievances from Program beneficiaries or third parties relating to any aspects of the Program including adverse social and environmental impacts, and allegations of fraud and corruption or any other Prohibited Practices. Such mechanism shall, inter alia, contain procedures for recording of complaints and grievances, directing the complainants to the appropriate level for action, the review process, and provision of feedback to the complainant on the action taken on the basis of best practice service standards.
Policy Assurance	<p>The Vice President, Policy and Strategy, confirms an overall assurance that the Bank is in compliance with the policies applicable to the Program, except the application of AIIB's Environmental and Social Policy (ESP) and Procurement Policy (PP).</p> <p>The Board of Directors is requested to approve: (a) waiver of the application of AIIB's ESP and PP and (b) the application of the WB's PforR Policy to this cofinancing in lieu thereof, for the reasons set out in paragraphs 72 to 73 of the Program Document.</p>

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2. Strategic Context

A. Country Context

1. The Arab Republic of Egypt is a transcontinental country, spanning the northeast corner of Africa and southwest corner of Asia. The great majority of its population of approximately 97 million (2018)¹ live near the banks of the Nile River, where the country's arable land is concentrated. Egypt is the largest country in the Arab world in terms of population and the fourth largest in term of land mass, covering 1,010,408 square kilometers, although much of this lies in the Sahara desert to the west, which is sparsely inhabited. Given the size and rapid growth of its population, coupled with the limited arable land in the west, the focus of the country's development and growth will continue to be along the Nile River, and especially the Nile Delta. Managing infrastructure for growth in such a situation is both challenging and costly.

2. The country's mixed record of the past two decades of economic growth and increasing disparity between the rich and poor led to the socio-political instability of 2011. Since then, the Government of Egypt (the Government) has worked to meet the need for the country to modernize in order to participate in the global economy. It has made efforts to institute major economic reforms and has invested massively in infrastructure. From 2015 to 2017, the economy grew at around 4.2 percent per year. In 2017, the gross domestic product (GDP) was USD332 billion and GDP per capita was USD3,423. The current account deficit was at about USD20 billion and budget deficit about 10 percent of GDP. Egypt's exports of USD23.5 billion in 2017 were largely comprised of crude oil and petroleum products, fruits and vegetables, cotton, textiles, metal products, chemicals, and processed food. Imports of USD53 billion in the same year mainly included machinery and equipment, foodstuffs, chemicals, wood products and fuels.

3. To address both immediate policy challenges and longstanding structural weaknesses, in 2015 the Government conducted an economic reform program including: (a) liberalization of the exchange rate regime; (b) fiscal consolidation through a combination of expenditure and revenue measures, notably cuts in fuel subsidies, containment of the wage bill and introduction of value-added tax (VAT); and (c) reforms to the business environment and removal of impediments to industrial activity. To support the reform program, in November 2016, the Government requested International Monetary Fund (IMF) support under a three-year USD12 billion Extended Financing Facility. The IMF package followed the decision of the Central Bank of Egypt to float the currency in early November 2016, resulting in a 32.5 percent depreciation against the USD. The exchange rate float aimed at improving external competitiveness, supporting exports and tourism and attracting foreign direct investment. The rest of Egypt's financing needs have been covered through loans and grants from the WB, the African Development Bank, the European Bank for Reconstruction and Development, the United States Agency for International Development, and other bilateral institutions, and through issuance of Eurobonds of USD4 billion in 2017, which were oversubscribed by three times. The Government also enacted an Investment Law in 2017, which

¹ <http://www.capmas.eg>

provides several guarantees and special incentives, such as tax exemptions, to international investors, in order to attract foreign investment and improve the investment climate in Egypt.² The annual inflation rate dropped in March 2018 to 13.3 percent, its lowest since May 2016.

4. The macroeconomic outlook of the country is projected (by the WB)³ to continue improving. Real GDP is expected to grow by five percent in fiscal year (FY) 2018 and to 5.8 percent by FY 2020. This is mainly as a result of resilient private consumption and investment and a gradual increase in exports. The budget deficit is also expected to narrow to 9.8 percent of GDP in FY18, mostly due to higher international oil prices, larger-than-budgeted exchange rates, and larger interest payments. Egypt successfully closed another EUR2 billion Eurobond sale in April 2018. The offering was 3.8 times oversubscribed, attracting purchase orders of EUR7.5 billion from over 350 investors from 35 countries, which reflects the international community's renewed confidence in reform efforts. The IMF acknowledged Egypt's commitment to economic reforms, noting that the Government's economic reform program played a crucial role in stabilizing the situation, although it also warned of possible risks.⁴

5. Key downside risks stem from delayed implementation or derailment of the IMF program as well as potential deterioration in the security situation. According to both IMF and WB projections, Egypt's growth is expected to strengthen further to 5.2 percent in 2017/2018 and to six percent in the medium term, provided prudent macroeconomic policies are maintained and the scope of growth-enhancing reforms is broadened. The current account deficit is expected to narrow to about 4.4 percent of GDP in 2017/2018 and to about 3.5 percent of GDP by 2021/2022 with improved external competitiveness, reforms of the business environment, and a further recovery in tourism. The outlook is broadly positive as the IMF program has had a strong signaling effect and will also help attract foreign direct investment, which is critical for boosting private sector-led growth. Obviously, challenges remain and the reform effort will need to be maintained or even strengthened.

B. Sectoral and Institutional Context

6. During the past two decades, Egypt has made significant progress in providing direct access to safe drinking water at the household level (96 percent) and basic sanitation services (82 percent). However, access to improved sanitation services is still uneven. An estimated 90 percent of households in urban areas are covered by public sewers compared to only 19 percent in rural areas, where 42 million people are underserved and are often faced with overflowing sewage from traditional septic tanks. Currently, in rural areas, although an estimated 77 percent of collected wastewater is treated, most of this treated water does not meet Egyptian effluent quality standards due to inefficiency of the existing wastewater treatment plants (WWTPs). The sanitation situation is of particular concern in the rural areas of the Nile Delta, due to its high

² [http://www.ey.com/Publication/vwLUAssets/Egypt_enacts_new_investment_law_to_promote_foreign_investments/\\$File/2017G_04316171Gbl_Egypt%20enacts%20new%20investment%20law%20to%20promote%20for eign%20investments.pdf](http://www.ey.com/Publication/vwLUAssets/Egypt_enacts_new_investment_law_to_promote_foreign_investments/$File/2017G_04316171Gbl_Egypt%20enacts%20new%20investment%20law%20to%20promote%20for eign%20investments.pdf)

³ <http://www.worldbank.org/en/country/egypt/publication/economic-outlook-april-2018>

⁴ <http://www.imf.org/en/Publications/REO/MECA/Issues/2018/04/24/mreo0518>

population density, shallow groundwater levels, and discharge of untreated sewage directly into nearby canals and drains. With the increase in household water supply connections, the volume of household water usage also increased to the point that it has surpassed the capacity of the traditional *bayaras* (sanitation trenches used as septic tanks) to effectively deal with the outflow of the wastewater. As a result, sewage overflows into streets, and in some areas, it has damaged the foundations of houses, resulting in their collapse. A household survey carried out by the WB in Beheira Governorate revealed that about 25 percent of septic-emptying services dispose of their collected wastewater directly into the nearby canals and agricultural drains. The combination of a high water table and high discharge of untreated wastewater also means that Egypt's scarce freshwater resources are increasingly polluted, putting the health of millions at risk and degrading environmental quality in rural areas.

7. Currently, the National Organization for Potable Water and Sanitary Drainage is responsible for developing water and sanitation infrastructure, while operation and maintenance (O&M) is the responsibility of the Holding Company for Water and Wastewater (HCWW) through its subsidiaries, the Water and Sanitation Companies (WSCs). The separation of institutional responsibilities for construction and O&M has been a major contributor to the sector's poor performance. The absence of WSC participation in infrastructure planning, design, and development has meant that projects are not constructed based on demand or in a coordinated and cost-effective manner. This has resulted in schemes that are expensive to operate and maintain, that the WSCs cannot afford. The lack of coordination and resulting operational inefficiencies in the wastewater sector have caused significant inconvenience and cost to the public, estimated at Egyptian Pound (EGP) 7.1 billion (about USD400 million) per year. Fiscal transfers to cover operating inefficiencies, low revenues, and financing of O&M costs represent about 1.25 percent of GDP. Furthermore, low water and wastewater tariffs jeopardize the financial sustainability of the sector and have an impact on the performance of WSCs.

8. To address this situation, the Government decided to urgently carry out key sector and institutional reforms and implement them step by step, together with development of the necessary infrastructure to increase sanitation coverage and improve related services in rural areas. The USD14 billion National Rural Sanitation Program (NRSP) was launched in 2014 as a key Presidential priority. The NRSP aims to achieve 100 percent sanitation coverage of 4,700 villages and 27,000 satellites,⁵ with an estimated population of 42 million, by 2037, primarily through conventional sewerage systems and WWTPs. The MHUUC, which is responsible for preparation and implementation of building plans for public utilities, such as drinking water and sanitation, has established a PMU in the office of its Minister to ensure timely implementation of the NRSP.

9. Based on the degree of sanitation needs, the initial focus of the NRSP is to improve access and services to 769 villages in seven governorates.⁶ These governorates were selected because their WSCs are representative of the utilities in the Nile Delta and they have many unserved

⁵ Satellites are the most remote peripheral areas of villages or subvillages.

⁶ Beheira, Dakahliya, Sharkiya, Damietta, Menoufiya, Gharbiya and Giza.

settlements, which contribute highly to the discharge of untreated wastewater into the Al-Salam Canal and Rosetta branch of the Nile River. To provide sanitation coverage to the selected governorates, the WB is supporting the Government through the SRSSP. Besides increased coverage, the main objective of SRSSP is to strengthen institutions and policies to ensure improved and sustainable sanitation services. The WB prepared the SRSSP in accordance with its Policy on Program-for-Results Financing (PforR Policy)⁷ (discussed in more detail in paragraph 10 below). Under the PforR, the funds are released on achievement of results using DLIs and DLRs. The SRSSP has three key Results Areas. The first focuses on service expansion overseen by the WSCs. The second focuses on the performance of the WSCs, including improving operational and financial efficiency, building capacity for program management, and building capacity for expanded citizen engagement activities. The third focuses on strengthening the national water and sanitation (WSS) sector framework, with priorities including revising the tariff, developing a National Water Supply and Sanitation Sector Strategy, and approving procedures for land acquisition under the NRSP. The SRSSP is to be implemented in two phases: the SRSSP-1 is already under implementation by the WB (discussed in more detail in paragraph 12 below); the SRSSP-2 is proposed to be jointly cofinanced by AIIB and the WB.⁸

10. The WB's PforR is a type of investment project governed by a policy framework that is separate and distinct from the WB's Investment Project Financing (IPF). In particular, the criteria against which the environmental and social risks and impacts and procurement risks of a PforR are assessed are contained in the PforR Policy, and differ from those included in the WB's safeguard and procurement policies for IPFs. While these latter IPF policies are fully aligned with those of AIIB, the same cannot be said of the procurement and safeguard elements of the PforR Policy. Therefore, AIIB staff have assessed the PforR Policy as it has been applied to the SRSSP and have concluded that its application is appropriate (see Section 4 on Program Assessment). A policy waiver is being requested (see Section 5 on Need for a Waiver) below.

11. An additional distinction between PforRs and IPFs is the manner in which they are disbursed. Unlike WB IPF loans (and AIIB's sovereign-based loans), which disburse against specific expenditures (goods, works or services) for an activity under the Project, the PforR loan disburses against the verified results (or outputs) of these activities. These verified results are known as DLRs. The linkage back to the expenditures under the PforR is through the limitation on the financing, to the effect that the amount disbursed may not exceed the actual costs of the program. If it does, the difference must be refunded to the WB. The same approach will be used by AIIB for disbursement of its financing.

12. The WB approved a loan of USD550 million in August 2015 for SRSSP-1, which covers three governorates (Beheira, Dakahliya, and Sharkiya). The loan is expected to close by June 2022 (revised closing date). To date the implementation progress of the SRSSP-1 has been

⁷ The World Bank. 2017. *Program-for-Results Financing*

(<https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=3684&ver=curren>)

⁸ The WB names the SRSSP-1 as "The Parent Program" covering three Governorates (Beheira, Dakahliya, Sharkiya); and the SRSSP-2 as "The Additional Financing (AF) for the SRSSP" which include three additional eligible Governorates (Damietta, Gharbiya and Menoufiya) and two of the Parent Program Governorates (Dakhaliya and Sharkiya).

successful. The SRSSP-1 established 5,892 rural household sanitation connections by May 2018, demonstrating the WSCs' ability to deliver a capital program using funding provided directly by the MHUUC—a core institutional reform under the program. Detailed design for more than 92,000 household connections (under DLI1) has been finalized and tendering is underway. Thirteen contracts of USD146 million have already been awarded. This is complemented by achievement of key sector reform initiatives: bi-annual transfers of performance-based grants from the MHUUC/PMU to the WSCs (DLI2); preparation and approval of Performance Improvement Action Plans (PIAPs) for each of the WSCs and Annual Performance Assessment (APA) (DLI3); preparation, approval, and the start of implementation of a new national tariff for water and sanitation services (DLI4); and approval of standard operating procedure (SOP) for land acquisition under NRSP (DLI6). The PMU within the MHUUC has also been established (DLI5). As of June 27, 2018, the SRSSP-1 had disbursed USD288.45 million (52.4 percent).

13. In view of successful implementation of SRSSP-1 to date, the Government has requested the WB and AIIB to jointly cofinance Phase 2 of the SRSSP (SRSSP-2), which will cover 107 villages of the remaining three selected governorates (Menoufiya, Gharbiya and Damietta) and also 26 villages of Dakahliya and Sharkiya governorates, which were part of the SRSSP-1.⁹ The DLIs under the proposed SRSSP-2 are shown in Annex 3.

3. The Program

A. Rationale

14. The Nile Delta is particularly important for the Government not only because it is home to 50 percent of the population but because of extreme population density (> 1,000 inhabitants per square kilometer), a very high water table (up to one meter below ground level), and a very intricately woven and tight web of canals and drains. Lack of sanitation infrastructure poses a significant health burden, environmental damage (including contamination of groundwater), and economic losses. Addressing the sanitation problems in the Nile Delta will have lasting beneficial impacts on health, environment, income of the population, economic externalities and public benefits because of the high value of scarce water resources.

15. Absence of sewerage networks and limited sewage treatment facilities have caused serious issues for the people of the SRSSP governorates. Villagers have constructed several informal sewerage networks, septic tanks, and sanitary trenches on their own. Although these self-reliance efforts are commendable, the quality of works varies and is generally suboptimal. In many places, trenches are choked, and sewage overflows into the streets. Communities have reported that raw sewage percolates into shallow aquifers and consequently contaminates drinking water and pollutes irrigation supplies, causing serious public health and environmental problems. This has particularly affected the poor, who are obliged to spend their limited resources on health, as a result of waterborne diseases and consumption of contaminated agricultural

⁹ Beheira Governorate will not be covered under the SRSSP-2 since all its eligible villages are covered under the SRSSP-1.

products. These critical impacts will likely escalate if timely actions are not taken by the Government to plan and coordinate the needed investments.

16. AIIB and the WB will each contribute USD300 million to cover the total external financing of USD600 million needed to implement the SRSSP-2. The SRSSP-2 will build on the success and strong impact of SRSSP-1, by expanding the geographical coverage to the three other governorates (i.e., Menoufiya, Damietta and Gharbiya) that discharge into the same highly polluted Al-Salam Canal and Rosetta branch of the Nile River. It will allow for expansion and deepening of the program, delivery of results on the ground in a reasonable timeframe, and preserve the positive momentum created under the SRSSP-1.

17. The SRSSP-2 is therefore aligned with AIIB's mandate to promote and strengthen economic growth through investment in sustainable infrastructure, including, among others, water supply and sanitation, and environmental protection. The SRSSP-2 follows the country's strategic infrastructure priorities in achieving the development goals reflected in Egypt's NRSP, which aims to provide universal access to rural sanitation services and encourage improved performance, accountability and sustainability at the service-provider level. AIIB adds value through enhancing financial viability and supporting adherence to international standards on wastewater management. Cofinancing with the WB using the PforR modality provides AIIB with valuable learning experience regarding this investment modality.

18. The SRSSP-2 meets AIIB's project quality requirements with its technical and expected economic and financial soundness; aims to adequately address environmental, social, and fiduciary issues; and is compatible with AIIB capacity related to technical and institutional areas. Since this will be the first AIIB investment in provision of environmentally sound sanitation services in Egypt, the SRSSP-2 will build AIIB's reputation in the country as a recognized partner in this sector. In summary, in addition to fulfilling AIIB's core mandate of promoting sustainable infrastructure for economic growth, the investment in the SRSSP-2 will minimize environmental pollution, promote human health, reduce poverty and ensure gender sensitive development. Thus, the program will demonstrate AIIB's support for green initiatives in Egypt.

19. Women will benefit substantially from the SRSSP-2 because (a) women spend more time within the residential neighborhoods than men and thus will benefit more from the improved hygiene of the sewerage network and (b) a reduction in waterborne and contamination-related illness will help to relieve women of their traditional burden of care for the sick family members. The SRSSP-2 will directly address gender issues by involving women's groups in community-level program activities—including women in WSC training activities—and conducting community training and mobilizational campaigns for program beneficiaries in each village and satellite to ensure active participation of women.

20. Basis for investing in Non-Regional Members. AIIB's Strategy on Financing Operations in Non-Regional Member Countries¹⁰ proposes three principles for determination of eligibility of

¹⁰ Financing Operations in Non-Regional Member Countries (Technical Note), Feb. 24, 2018.

investments for AIIB financing in nonregional members. The Strategy states that projects that are aligned with one or more of the three principles may be considered for possible AIIB financing. Highlighting one of the principles, the Strategy states that “the Bank may consider investments in non-regional Members which the Board of Directors considers are geographically proximate to and economically integrated with Asia. Egypt, a non-regional Member having territory in the Asian continent, meets this Principle.” Therefore, Management considers that the SRSSP-2 is eligible for AIIB financing.

21. It is increasingly recognized that health and other basic services including WSS fall into the category of global public goods rather than being national or local in nature. The policies of their production, dimension of their delivery, detrimental impacts of their non-availability, and socioeconomic benefits engendered by their provision transcend national borders with global implications. Water supplies are shared across regions and nations and therefore the problems associated with water scarcity, water insecurity and environmental degradation reach across national borders, resulting in a growing need for international collective action involving multilateral development agencies. It was in this context that the United Nations General Assembly recognized, through a resolution in 2010,¹¹ the human right to WSS and acknowledged that clean drinking water and sanitation are essential to the realization of all human rights. Emphasizing that access to WSS—a key target of the Sustainable Development Goals—has to be realized on a global scale to make the planet more sustainable, the resolution called upon international organizations to provide financial resources, capacity-building and technology transfer to help countries, in particular developing countries, to provide safe, accessible and affordable drinking water and sanitation for all. The SRSSP is assisting the Government on all of these.

22. The cross-geographic nature of water can be illustrated by the Al-Salam Canal, which is planned to provide water for the cultivation of approximately 150,000 hectares in the deserts of North Sinai on the southwestern tip of Asia. The canal is a locus for human and animal activities, and currently receives untreated sewage from the SRSSP area and its surroundings. More than 12 billion cubic meter/year of Nile Delta drainage water is annually discharged into the Mediterranean Sea. The SRSSP-2 will contribute significantly to mitigating the negative impacts of the drainage water on the environment by providing sanitation infrastructure and services to rural villages along the Al-Salam Canal and reducing pollution in this waterway. Hence, it directly targets environmental improvement and benefits the Asia region.

23. At this stage of AIIB’s development to focus staff and institutional capacity on the regional members, investments in Non-Regional Members are jointly cofinanced with, and led by, other development finance institutions. The SRSSP-2 has been prepared in close collaboration with the WB. The WB and AIIB will conduct joint supervision of the SRSSP-2.

¹¹ Resolution A/RES/64/292. United Nations General Assembly, July 2010.

B. Objective

24. The objective of the SRSSP is to strengthen institutions and policies for increasing access and improving rural sanitation services in selected governorates in the Arab Republic of Egypt. This will be accomplished through implementing key sector and institutional reforms together with rehabilitation and construction of integrated infrastructure for collection, treatment, and disposal of household sewage.

25. A Results Framework and Monitoring (Annex 1) has been designed to measure the achievement of the SRSSP-2 objective by outcomes, and intermediate results by result areas respectively. For the physical works component, the key indicators include: (a) number of people provided with access to improved sanitation facilities; (b) number of new functioning household connections made to working sanitation systems; and (c) percentage of new functioning household connections in satellites made to working sanitation systems. For the other components, the key indicators pertain to (a) Improved Operational Systems and Practices of WSCs, which include APA for each WSC implemented, operating ratio, citizen's engagement: complaints handling/ grievance mechanism operational, citizen's engagement, procurement and financial management systems improved; and (b) Strengthened National Sector Framework, which include new national tariff structure to allow for sustainable cost recovery approved, central unit to coordinate Egypt's National Rural Strategy established, revised National Rural Sanitation Strategy adopted, SOP on land acquisition for NRSP issued.

C. Program Description and Components

26. Leveraging the existing implementation arrangements, which were well established under SRSSP-1, the SRSSP-2 will focus on scaling up sanitation coverage in the five governorates. Utilizing the existing enabling environment established under the ongoing SRSSP-1, the SRSSP-2 will ensure more efficient, accountable, and geographically enlarged rural sanitation services. It is estimated that the SRSSP-2 will cover 133 villages of the five governorates and benefit a population of about 892,000. The SRSSP-2 will also ensure that the inhabitants of satellites receive services as well. This will help to maximize the program's development impacts.

27. The SRSSP is piloting a system of fiscal transfers of Performance Based Capital Grants (PBCG) to strengthen accountability and transparency at the local utility level for the delivery of rural sanitation services. Disbursements of the PBCG are linked to an incentive regime that has been designed and implemented on a transparent and predictable basis and is centered on operational, financial, institutional and citizen engagement parameters. The SRSSP activities are designed around three key Results Areas. The scope of each Result Area is available in Annex 2 and is summarized in Table 1.

Table 1: Scope of Results Area

Expected Results	GEOGRAPHIC SCOPE
Results Area 1: Improved Sanitation Access	
About 178,000 new households (about 892,000 people) connected to working sanitation systems in villages and satellites in the five governorates	Targeted Villages and Satellites
Results Area 2: Improved Operational Systems and Practices of WSCs	
Improved capacity, investment planning, operations and general service delivery of each of the five participating WSCs	WSCs in the five Governorates
Results Area 3: Strengthened National Sector Framework	
Improved enabling environment for more sustainable rural sanitation services	Rural Egypt

28. In SRSSP-2, AIIB will finance the results of the physical works component for the targeted governorates (RA-1), whereas the WB's financing will be mainly used for the other components (RA-2 and RA-3), which are highlighted in Tables 1 and 2. AIIB's involvement in the SRSSP-2, designed in close consultation with the WB and the Government, is unique in that its financing support is for sanitation infrastructure development, yet it will be able to influence and contribute to the institutional and donor coordination efforts across the board as well as institutional and sector reforms and service delivery.

29. Specifically, AIIB loan will finance part of the costs allocated to results achieved through implementation of the following component—under respective DLRs¹² elaborated in Annex 3—with the Borrower financing the remaining costs allocated to these results:

- The physical infrastructure for providing sanitation services to about 178,000 households. It is estimated that the SRSSP-2 will include approximately 25 clusters, each with two to six villages with their own WWTP, covering 133 villages. The component will include: construction of new or expansion/rehabilitation of existing treatment plants; construction or upgrading of pumping stations; and construction of integrated sewerage networks, consisting of collectors and pumping mains.

30. The WB loan will finance the results achieved from the components concerned with engineering designs for sanitation systems and connections (under DLR 1.4 elaborated in Annex 3) and strengthening the related institutions and policies (under DLIs 2-8 of Annex 3), including:

- Improved sanitation access.
- Improvement of the WSCs' operational systems and practices.
- Further strengthening of the national sector framework; the sector's institutions, especially the Egyptian Water Regulatory Agency (EWRA); and its policy and monitoring and evaluation.

¹² DLRs 1.5, 1.6, 1.7.1, and 1.7.2; all relating to construction of and connection to sanitation systems.

31. The WB loan will also finance a technical assistance component under its IPF instrument, which will focus on strategic sector issues; capacity building for key institutions; and strengthening of the enabling environment. Specific activities include: (a) strengthening EWRA's regulatory functions to enable it to deliver its business mandate; (b) strengthening the capacity of the Borrower to verify the program's DLIs/DLRs through, inter alia, hiring of an Independent Verification Agent; (c) strengthening the capacity of the program implementing entities in achieving the DLIs/DLRs through learning and training support; (d) strengthening the capacity of the PMU in management, monitoring and evaluation of activities through financing the required goods, consultant services and operating costs; and (e) strengthening the capacity of the MHUUC/PMU in performing WSS planning and policy making functions through carrying out related advisory and analytical studies, and capacity building activities.

D. Cost and Financing

32. Total cost of the SRSSP-2 is estimated at USD694 million (Table 2), to be financed as follows: (i) a sovereign-backed loan of USD300 million from AIIB with a 34-year term, including a grace period of five years, made on standard terms for sovereign-backed loans, (ii) a sovereign-backed loan of USD300 million from the WB with a 34-year term, including a grace period of five years; and (iii) USD94 million counterpart financing by the Government.

Table 2. Cost and Financing (USD million)

S. No.	SRSSP-2 Components	Total	AIIB		WB		Borrower	
			Amount	Share	Amount	Share	Amount	Share
1.	Establishment and functioning of at least 178,317 household (HH) connections to working sanitation systems in villages and satellites, of which at least 10% are in satellites [DL11]:							
	A. Preparation of connection engineering designs	30.00	-	-	30.00	100%	-	-
	B. Construction of and connection to sanitation systems	393.25	299.25	76%	-	-	94	24%
2.	Annual transfer of PBCGs by MHUUC to WSCs [DLI2]	32.00	-	-	32.00	100%	-	-
3.	Design and implementation of the APA system for the WSCs, and WSC achievement of the required APA weighted index scores in	150.00	-	-	150.00	100%	-	-

S. No.	SRSSP-2 Components	Total	AIB		WB		Borrower	
			Amount	Share	Amount	Share	Amount	Share
	accordance with the Program Operations Manual							
4.	Preparation and approval of a new national tariff structure for water supply and sanitation services by MHUUC to allow for sustainable cost recovery (already implemented [DLI4])	-	-		-	-	-	-
5.	Establishment of PMU and approval of a National WSS Sector Strategy by MHUUC [DLI5]	12.00	-	-	12.00	100%	-	-
6.	Approval of Standard Operating Procedures for land acquisition by MHUUC [DLI6]	9.25	-	-	9.25	100%	-	-
7.	Strengthen the national regulatory framework for WSS [DLI7]	31.00	-	-	31.00	100%	-	
8.	Development and approval of a financial model updating the tariff structure that allows for sustainable cost recovery of WSS services [DLI8]	20.00	-	-	20.00	100%	-	
9.	IPF TA	15.00	-	-	15.00	100%	-	-
10.	Front-end Fee	1.50	0.75		0.75			
	TOTAL	694.00	300.00	43.2%	300.00	43.2%	94.00	13.6%

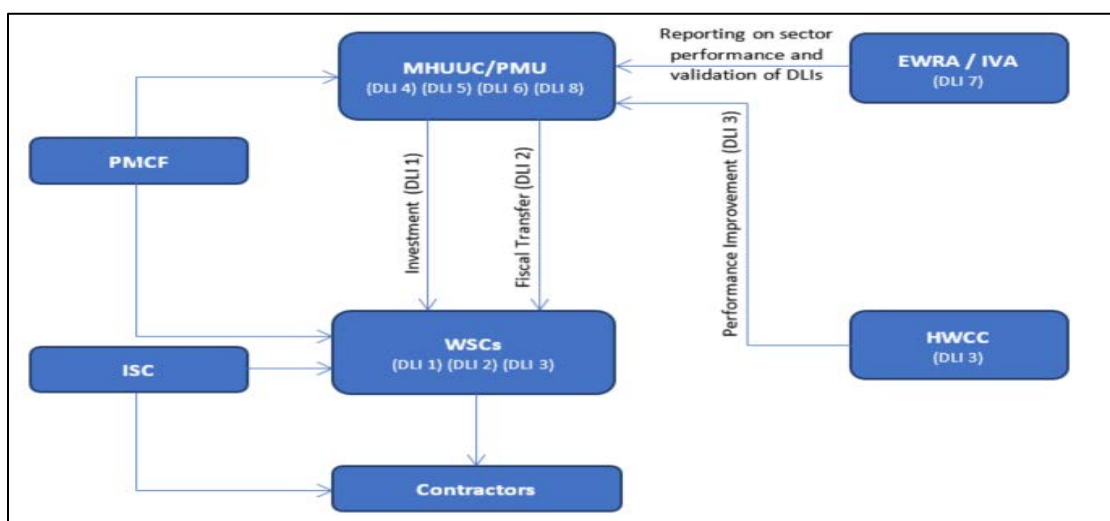
33. AIB financing will cover only the results achieved under the physical infrastructure component of the program (Table 2, 1B), which is based on the estimated cost of the number of household connections. The WB will fund 100 percent of the results achieved related to the engineering designs for the physical infrastructure component (Table 2, 1A), and all associated results under DLIs 2-8 which mainly relate to the estimated cost of soft components. The Borrower will provide the counterpart funding of USD94 million to complete the financing of the physical infrastructure cost in the targeted governorates.

E. Implementation Arrangement

34. The MHUUC has established a PMU within the Ministry that reports to the Minister. The PMU provides overall management and coordination of the NRSP and aligns donor-funded programs with the Government's sanitation strategy. The PMU is already coordinating the ongoing SRSSP-1 and will continue to guide the WSCs in implementing the SRSSP-2. Other key responsibilities of the PMU are to: (a) prepare a full-scale strategic action plan for the NRSP; (b) supervise procurement activities; (c) follow up on implementation of projects at the governorate level; (d) review and approve investment plans relating to village sanitation projects, including executive plans; (e) ensure that the different project implementation agencies submit periodic follow-up and evaluation reports; (f) ensure that the projects' designs and implementation activities are performed in accordance with the projects' conditions agreed to by the financiers; (g) send performance reports to the MHUUC; (h) specify the reasons for plan deviations, if any, and propose remedial actions; and (i) work with donors and partners who finance the projects in accordance with the strategic plan. The PMU is being assisted by a Program Management Consultant Firm (PMCF). This firm plays a key role in overall program management and coordination, and provides critical support to the PMU, including on program management, planning of program activities, supervision of engineering work, assistance in procurement processes, and quality assurance relating to overall implementation of the program.

35. The MHUUC/PMU, through the WSCs, will implement the SRSSP-2 with the support of the PMU and ensure improved service delivery (with the support of the HCWW). The WSCs, with the help of their respective Program Implementation Units (PIUs) and Implementation Support Consultants (ISCs), will be responsible for procurement, detailed design and construction supervision. A Steering Committee at Ministerial level has also been established to provide oversight to the SRSSP. Figure 1 illustrates implementation entities and their responsibilities.

Figure 1: Implementing Entities and Responsibilities



36. The key implementation arrangements for the SRSSP-2 are already in place, which include (a) fully mobilized PMU at the MHUUC; (b) fully staffed WSCs to implement the program

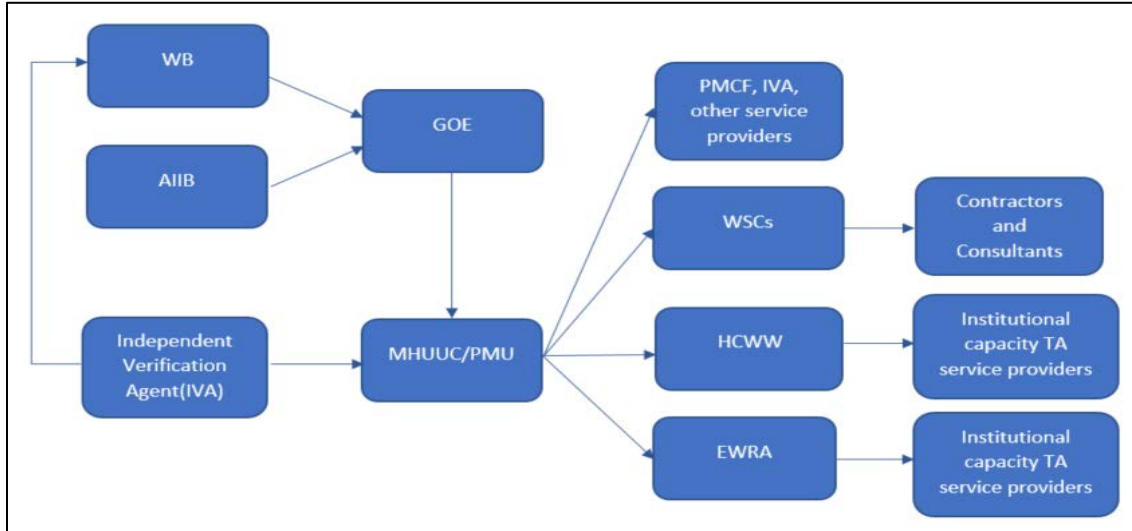
following the training to be provided through the program; and (c) fully mobilized PMCF within the PMU, which will complete the conceptual and detailed design for the works of all the clusters in Dakahliya and Sharkiya Governorates where ISCs are already deployed. This will enable the PMU to award the works contracts for these governorates by the early part of the first year of SRSSP-2 implementation. Moreover, a new PMCF and ISCs are being hired to support the PMU and SRSSP-2 WSCs respectively. The WB has also approved the use of SRSSP-1 funds for advance due diligence and detailed design of the initial set of contracts under the SRSSP-2.

37. The nature of SRSSP implementation at the rural level will require close and frequent technical support from MHUUC/PMU as well as the financiers. Hence, the WB has recently established a key task team based in its country office in Cairo. The highly experienced technical and safeguards specialists of the WB are closely supervising implementation of the ongoing SRSSP-1 and helping WSCs in promptly resolving day-to-day issues faced by the program. These local arrangements will extend to SRSSP-2 as well. Beside the current practice of frequent field visits of the WB's country office team to the SRSSP areas, it has been agreed that AIIB and the WB will jointly field at least two formal supervision missions each year to provide implementation support and monitor performance. In addition to the above missions, AIIB staff will regularly monitor day-to-day SRSSP-2 implementation progress not only for the physical works but also, as a learning experience, for the institutional development under PforR Financing.

38. As the lead cofinancier, the WB will supervise the SRSSP-2 on behalf of AIIB, in accordance with the WB's policies and procedures applicable to the Program, and a Program Co-lenders' Agreement to be signed between AIIB and the WB. The WB will provide all services related to safeguards, procurement, financial management, disbursements, program monitoring and reporting in accordance with its PforR Policy and Procedure.

39. **Funds Flow and Disbursement Arrangements.** Upon satisfactory achievement of DLRs relating to physical infrastructure (Footnote 12), AIIB will disburse its funds, and on satisfactory achievement of DLR 1.4 of Annex 3 (detailed engineering design for physical infrastructure) and of all other DLIs, the WB will disburse its funds, in both cases to the General Treasury (specifically to the MHUUC account at the Central Bank of Egypt). The achievement of DLI targets will be confirmed by an Independent Verification Agent, based on agreed verification protocols as a trigger to release of funds after review and acceptance by the WB on behalf of AIIB, in accordance with the Co-Lenders' Agreement. Upon receipt of AIIB and WB loan proceeds, the MHUUC through the PMU will authorize the release of funds to all eligible recipients based on their performance results, which are outlined in detail in the Program Operations Manual. The payments will be made in accordance with Egyptian financial management systems. Specifically, the MHUUC will transfer all funds, including PBCGs, to the WSCs according with the following criteria: (a) their eligibility and entitlement; (b) support for performance improvement activities to HCWW and EWRA; and (c) actual amount disbursed to consultants and other service providers. The PBGC funds will be released to the WSCs in two installments per year, separated by at least four months, in accordance with the investment plans provided by the WSCs (Annual Capital Investment Plans). The WSCs will prepare monitoring reports and submit them to the PMU. An Annual Audited Program Financial Statement will be provided by the MHUUC, including a management letter. Funds flow is shown in Figure 2.

Figure 2: Fund Flow



40. For the disbursements under DLI1, an amount of USD30 million is allocated by the WB for the detailed design, and USD300 million allocated by AIB for the physical works. Separate DLRs under DLI1 have been designed for the respective disbursements by the WB and AIB, as illustrated in Annex 3.

4. Program Assessment

A. Technical

41. The SRSSP-2 aims to align investment planning and execution with O&M, to improve service delivery, reduce overall construction and O&M costs, and improve operational sustainability. To improve service delivery and sanitation access, the Government's rural sanitation strategy focusses on economies of scale for wastewater treatment, whereby villages and associated satellites are required to be clustered to achieve technical viability and operational efficiency. The planning approach is to connect a set of unserved villages and satellites with an existing WWTP in a cluster, which could be rehabilitated and/or expanded to meet the demand for treating additional sewage using the improved technical solutions. The SRSSP-2 will follow the design approach being used under the SRSSP-1, which is addressing current technical weaknesses in program preparation, technology selection, procurement, and contract management. The SRSSP-2 will evaluate the specific actions being taken under the SRSSP-1 for improving the WSCs' operational, managerial, and financial performance to ensure their operational sustainability. Some steps toward greater sustainability are already being taken. Among these, the approval of a new national tariff for WSS and its implementation in line with the revised tariff plan are encouraging.

42. Each of the approximately 25 clusters under the SRSSP-2 will have its own WWTP. A matrix for selection of the treatment technology, developed under the SRSSP-1, ranks and

prioritizes various technical solutions. The selection criteria include several subjective as well as objective factors such as capital expenditures, operating expenditures, land requirement, ease of O&M, and WSC performance record, etc. The Nile Delta, where the targeted governorates are located, is a fertile and very densely populated region, and is subject to an ever-increasing population stress. Land is scarce and very expensive. Therefore, the PMCF's selection of a treatment technology is highly influenced by land availability within the boundary of an existing WWTP – systems with lower physical footprints get assigned higher priority. Consequently, while most of the existing WWTPs are based on conventional activated sludge systems or oxidation ponds, because of the large physical footprint of such systems, they have been ranked lower during the feasibility phase. Technologies with a smaller physical footprint, such as sequential batch reactors, have been ranked higher because of the relatively reduced land requirement. The alignment of pumping mains has similarly been influenced to follow public roads and streets as making a separate right-of-way available is not feasible. The O&M of the chosen technologies will be ensured by promoting greater WSC involvement in design and construction of the treatment plants. Additionally, specific O&M needs will be reflected in the 5-year business plans as well as the annual business plans, which the WSCs will develop during implementation.

B. Economic and Financial

43. **Costs and Benefits.** The economic analysis for the SRSSP-2 was conducted based on the same methodology as applied to the SRSSP-1 (consumer surplus approach), comparing “without SRSSP-2” and “with SRSSP-2” scenarios following a discounted cash-flow analysis.¹³ The costs considered were for capital investments and O&M. Financial costs were converted to economic costs by considering the shadow prices for the respective items.¹⁴ The benefits were categorized in private (or direct) and indirect economic benefits. Private benefits are directly accrued and valued by beneficiary households and include health, environmental and social benefits. Private benefits were quantified based on the households' willingness to pay.¹⁵ Indirect economic benefits reflect benefits resulting from positive externalities on the downstream communities such as public health benefits, increase of agricultural productivity and recreational activities, which are not directly captured by the willingness to pay of individual beneficiary households. The detailed approach and results are presented in Annex 5.

44. **Economic Analysis.** The Economic Internal Rate of Return (EIRR) and Economic Net Present Value (ENPV) of the SRSSP-2 was estimated based on a discounted cashflow analysis considering the costs and benefits. The EIRR was estimated at 20.6 percent and the ENPV at EGP 3,095 million¹⁶ based on a 12 percent discount rate. Sensitivity analysis was performed with

¹³ The analysis and results were reviewed and discussed during SRSSP-2 appraisal. An additional sensitivity analysis was conducted for the purpose of AIIB's appraisal.

¹⁴ In the case of the investment costs, custom duties and taxes were removed. For energy and electricity, economic prices are increased by 20 percent to reflect the amount of subsidy.

¹⁵ The willingness to pay of households was estimated by considering their revealed willingness to pay for private on-site sanitation solutions and their operation and maintenance.

¹⁶ For the calculation of the NPV, the residual value of the infrastructure after 25 years was not considered.

respect to increased construction cost, increased O&M cost, and decreased program benefits. The program EIRR remains above the social discount rate of 12 percent in all scenarios.

45. **Financial Analysis.** The recent tariff reform as well as the financial performance of the WSCs of Gharbiya, Menoufiya, Damietta, Sharkiya and Dakahliya have been analyzed to assess the financial sustainability of the SRSSP-2.¹⁷ Since the approval of the SRSSP-1, considerable success has been achieved in increasing the WSS tariff toward O&M cost-recovery levels while phasing out subsidies. Since 2015, the WSS tariffs have been increased in three rounds, which amount to a cumulative increase in the tariff by more than 100 percent, with the most recent round containing the highest increase, at approximately 45 percent. The wastewater tariff is defined as a fixed proportion of the water tariff, which was raised to 75 percent during the last tariff increase. The water tariff is defined as a block tariff to ensure affordability by poorer segments of society¹⁸.

46. The analysis of past financial data show a broadly similar, weak but improving financial position for the five WSCs under the SRSSP-2. The three new WSCs included in the SRSSP-2 show negative earnings before interest and taxes in 2016/17, but have been reducing such losses since 2012/2013, with the exception of WSC Damietta, which suffered financially due to the removal of the Damietta plant.¹⁹ The WSCs of Damietta and Menoufiya both experienced a reduction in non-revenue water from 29 percent to 22 percent and 27 percent to 20 percent respectively. The Gharbiya WSC showed no clear trend in reduction of non-revenue water, which stayed roughly constant over the period of analysis (slight reduction from 32 to 31 percent). During the past two years, three of the five program WSCs have reached cost recovery in terms of O&M cost. The Dakahliya and Damietta WSCs will fall short of reaching cost recovery of O&M expenditures in 2018/2019, but have demonstrated a positive trend toward cost recovery. In light of the PIAPs (DLI3) under the program as well as the ongoing efforts of the Government to gradually raise tariffs to allow for sustainable cost recovery (DLI4), the financial position of the WSCs is expected to improve further during the program period. The detailed analysis and results are presented in Annex 5.

C. Fiduciary and Governance

47. The SRSSP-2 oversight arrangements, including fiduciary arrangements, have been assessed by the WB against the PforR Policy. The PforR Policy requires an assessment of the fiduciary systems, which “considers whether the PforR Program Systems provide reasonable assurance that the financing proceeds will be used for intended purposes, with due attention to

¹⁷ The financial performance of the Sharkiya and Dakahliya WSCs was analyzed in the framework of the appraisal of Phase 1 of the SRSSP and has been updated for the appraisal of Phase 2. A new analysis of the financial performance of the Gharbiya, Menoufiya and Damietta WSCs has been performed.

¹⁸ As a result of the redefinition of the consumption-level-based tariff blocks, more households fall into higher tariff blocks. For this reason, the increase in revenue due to the tariff increase goes beyond the average increase per tariff block.

¹⁹ Ownership of the Damietta Water and WWTP was transferred from the WSC to the New Urban Communities Association. Operators of WTPs and WWTPs benefit from relatively higher tariffs as compared to end-consumer water tariffs. The Damietta WSC was not able to recover operating expenses from operating revenues in 2016/2017 in both water and wastewater activities, however, the company has shown improved financial performance since 2012/2013, with the exception of last year (2016/2017).

the principles of economy, efficiency, effectiveness, transparency, and accountability. The PforR Program procurement systems are assessed as to the degree to which the planning, bidding, evaluation, contract award, and contract administration arrangements and practices provide reasonable assurance that the PforR Program will achieve intended results through its procurement processes and procedures. The PforR Program financial management systems are assessed as to the degree to which the relevant planning, budgeting, accounting, internal controls, funds flow, financial reporting, and auditing arrangements provide reasonable assurance on the appropriate use of PforR Program funds and safeguarding of its assets. The fiduciary assessment also considers how PforR Program Systems handle the risks of fraud and corruption, including by providing complaint mechanisms, and how such risks are managed and/or mitigated. Activities that involve procurement of works, goods, and services under contracts whose estimated value exceeds specified monetary amounts (high-value contracts) are normally not eligible for the PforR Financing, and are excluded from the PforR Program.”²⁰

48. The fiduciary systems to be applied to the SRSSP-2 have been appraised by the WB and found to be acceptable. To satisfy itself that the fiduciary arrangements meet the PforR Policy requirements, the WB conducted a fiduciary systems assessment in 2015 for the entire program and updated the fiduciary system assessment for SRSSP-2 in April 2018. The first assessment report identified all known fiduciary weaknesses and proposed mitigation measures to address them. Based on the assessment, the Government has adopted a Procurement Procedures Manual (PPM) and Standard Bidding Documents (SBDs) to strengthen the procurement governance under the SRSSP-1. The updated assessment report for the SRSSP-2 covers the three new WSCs in the additional program area. The WB fiduciary risk rating has been lowered from High to Substantial due to: (a) the development of the PPM and SBDs; (b) establishment of a capacity building hub at the American University in Cairo to train implementation personnel from the three new WSCs prior to effectiveness of the loan in addition to training of the three participating WSCs in the SRSSP-1; (c) training and application of a new complaints handling mechanism for contractors; and (d) experience gained by the PMU in transferring funds to the WSCs on a timely basis. Remaining risks include the weak capacity of the new WSCs and the absorptive capacity of the market, which may cause delays, inadequate quality, and higher costs. A Program Action Plan (PAP) for supporting the fiduciary system has been drawn up by the WB for the WSCs to implement.

49. AIIB conducted its own fiduciary due diligence during the appraisal stage and verified that the WB’s PforR fiduciary systems assessment and the client’s procurement capacity as well the procurement arrangements (internal governance and staffing) are acceptable. Considering the involvement of new WSCs/PIUs under the SRSSP-2 and the risks identified by the WB in its 2018 fiduciary systems assessment, AIIB rates the fiduciary risk as “High,” but the proposed mitigation measures and internal controls (as summarized above and explained in detail in Annex 6 – Fiduciary Assessment) provide reasonable assurance that the financial proceeds will be used for intended purposes, with acceptable transparency, accountability and economy. The suggestions from AIIB are: (a) continued procurement training on PPM and SBDs for new WSCs/PIUs; (b)

²⁰ See, WB’s PforR Policy, Sections III.8, 10.

increased PMU involvement in implementation of the SRSSP-2; and (c) expedited selection of the technical consultant for detailed designs to meet the program’s implementation needs.

50. Procurement under the SRSSP-2 PforR components will be governed by public tender procedures (the main procurement method indicated in the PPM), in which competition is open for all the participants to get the best offer through a fair tender evaluation. Works and goods contracts will be procured for construction of new or expansion/rehabilitation of existing treatment plants; construction or upgrading of pumping stations; and construction of integrated sewerage networks consisting of collectors and pumping mains. Consulting services procurement may cover technical and management supporting capacity building. The IPF component, which will support technical assistance and capacity building activities and will be entirely financed under the WB financing, will be procured in accordance with WB’s Procurement Regulations for IPF Borrowers, dated July 2016, revised November 2017, and the procurement plan approved by the WB.

51. As required under the PforR Policy, the WB has set ceilings for contracts to be included in the SRSSP-2. Only contracts below the following ceilings will be eligible for inclusion in the program:

Table 3. Contract Thresholds under the SRSSP-2

Works	< USD 50 million
Goods	< USD 30 million
IT and Non-consulting service	< USD 20 million
Consulting service	< USD 15 million

52. Based on the above analysis, the proposed procurement arrangements are deemed acceptable to AIIB.

53. **Anti-corruption.** AIIB is committed to preventing fraud and corruption in its financing. It places the highest priority on ensuring that the projects it finances are implemented in strict compliance with AIIB’s Policy on Prohibited Practices or PPP (2016). To the extent that the WB’s “Guidelines on Preventing Fraud and Corruption in Program-for-Results Financing” dated Feb. 1, 2012 and revised July 10, 2015 (Anti-Corruption Guidelines) are similar to AIIB’s PPP, the WB’s Anti-Corruption Guidelines will apply to the program activities financed in whole or in part by the proceeds of AIIB and the WB loans. Detailed requirements will be specified in the Loan Agreement and will also be included in the Co-Lenders’ Agreement.

D. Environmental and Social

54. The environmental and social systems to be applied under SRSSP-2 have been assessed by the WB against the PforR Policy, which requires that “the environmental and social systems assessment considers, as may be applicable or relevant in a particular country, sector, or PforR Program circumstances, to what degree the PforR Program Systems: (a) promote environmental and social sustainability in the PforR Program design; avoid, minimize, or mitigate adverse impacts, and promote informed decision-making relating to the PforR Program’s environmental and social impacts; (b) avoid, minimize, or mitigate adverse impacts on natural habitats and

physical cultural resources resulting from the PforR Program; (c) protect public and worker safety against the potential risks associated with: (i) construction and/or operations of facilities or other operational practices under the PforR Program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the PforR Program; and (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards; (d) manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards; (e) give due consideration to the cultural appropriateness of, and equitable access to, PforR Program benefits, giving special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups; and (f) avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes. Activities that are judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people are not eligible for the PforR Financing and are excluded from the PforR Program.”²¹

55. The WB’s environmental and social systems assessment (ESSA) has been complemented by a PAP at the operational level. The ESSA and PAP have been subject to consultation and have been disclosed by the WB.²² The Executive Summary of the ESSA in Arabic has also been disclosed.²³ While the ESSA is different in its scope and methodology from the approach used by the WB under its Environmental and Social Safeguard Policies for conventional IPF, AIIB finds that the ESSA is sound and that the systems in place provide an appropriate and acceptable approach under the SRSSP-2 for management of its environmental and social issues.

56. As noted above, under the PforR Policy, the SRSSP-2 will exclude activities that are likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people and which, in IPFs, would be governed by the WB’s Environmental and Social Safeguard Policies and would be placed in screening Category A. Consequently, a country environmental and social management system based on the ESSA will be applied for the SRSSP-2, given that the environmental and social risks and impacts are moderate in nature, not unprecedented or irreversible, limited in their scope and can be successfully managed using good practices. If the SRSSP-2 were to be implemented under the Environmental and Social Policy of AIIB, this would mean that it would be placed in Category B given its moderate environmental and social risks and impacts. The country systems were reviewed to ascertain their adequacy to address the environmental and social risks as identified during the ESSA. The country’s legislation related to environmental safeguards was found to be adequate; gaps found in the legislation pertaining to land acquisition have been addressed through the adoption by the Government of the SOP for securing land.

²¹ See, WB’s PforR Policy, Sections III.9, 10.

²² <http://documents.worldbank.org/curated/en/174281528990876317/>.

²³ <http://documents.worldbank.org/curated/en/812541525719863688/Addenda-to-environmental-and-social-systems-assessment-executive-summary>

57. AIIB has conducted a review of the ESSA prepared for the SRSSP-2 according to the requirements of WB's PforR Policy, and has confirmed that the systems in place for the SRSSP-2 are adequate for the management of the environmental and social risks and impacts of the program. The review of the ESSA analyzed the capacity of the existing government systems and accordingly the Government's ability to plan and implement effective measures for environmental and social risk and impact management.

58. As part of AIIB's review, the existing operational procedures of the WSCs were studied. AIIB's review also involved a series of consultations by AIIB with a wide range of stakeholders, including the communities in the villages. Discussions were held with the HCWW and WSCs operating in the SRSSP governorates to understand the ongoing practices in service delivery and the capacity of the institutions to deal with the requirements of the PforR Policy.

59. **Environmental Risks and Impacts under the SRSSP-2.** The overall environmental impact of the SRSSP-2 is expected to be positive in terms of ensuring public health security of the rural communities through establishment of appropriate sanitation and sewerage systems. The SRSSP-2 will support adequate collection and treatment of sewage, according to the standards of the Borrower's Law 48/1982.²⁴ The ESSA indicates that none of the interventions under the SRSSP-2 would cause significant adverse environmental impacts that are sensitive, diverse, and unprecedented, or with an area of influence effectively exceeding the footprint of the SRSSP-2 facilities. The environmental risks of the SRSSP-2 are generally considered of moderate significance, although some specific risks, such as sludge handling and institutional capacity, were rated Medium. The WWTPs include two-stage sedimentation and interim aeration, followed by chlorination before the treated effluent is released in a drainage canal.²⁵ The sludge collected after initial screening is transported to a landfill site. Thereafter, sludge generated during the treatment process is collected in a sludge thickener (tank). It is then dried (in a drying bed) and distributed to farmers at a cost, after testing of quality.

60. The primary environmental risks are related to: (a) handling of sludge; (b) handling of solid waste separated at the screens of WWTPs and pumping stations, and the grit separated at WWTPs; (c) discharge of noncompliant effluent; (d) safety risks in handling chlorine and other hazardous substances; (e) dewatering operations during construction, possibly affecting neighboring structures and lands; and (f) risks of handling or disturbing culturally valuable objects or sites. These risks are identified and mitigation plans are formulated in environmental and social assessments/environmental and social management plans (ESIAs/ESMPs) that are prepared at the cluster level.

61. A systematic arrangement for measuring the quality of effluent and sludge has been established. A series of standard water quality parameters are tested in a systematic manner for effluent samples. Microbiological and heavy metal parameters are used for sludge quality testing.

²⁴ The Law for the Environment regulated by the Ministry of State for Environmental Affairs and its executive agency - the Egyptian Environmental Affairs Agency.

²⁵ The drainage canal collects wastewater from irrigation channels as well as wastewater (treated or untreated) from households.

62. The identified environmental risks and impacts of the SRSSP-2 are of moderate significance and will be addressed through (a) updating and implementing the Program Operations Manual, which will be finalized within 30 days of loan effectiveness; and (b) implementation of site-specific cluster ESMPs, which will be developed during design of the infrastructure and made part of contract documents.

63. **Social Risks and Impacts under the SRSSP-2.** The key social risk is related to land acquisition for installing WWTPs and pumping stations. Land required for the SRSSP-2 will be secured either through voluntary settlement with appropriate compensation, if required, or using state-owned land. The process of securing land appropriately is ascertained through the implementation of the SOP (established under the SRSSP-1), which has been approved by the Government. Field assessment indicated that the SOP is being appropriately implemented, wherein substantial community mobilization is generated before the land donation process takes place. Donations are also realized in the form of collective contributions from communities for purchase of land required for installation of program-related facilities. This community contribution reflects the demand for the benefits of the rural sanitation program. However, there are risks related to the institutional capacity of the WSCs to implement the SOP for land acquisition and subsequent program implementation delays due to land acquisition processes.

64. The PIU, based in WSC, conducts a series of awareness generation campaigns to mobilize and motivate communities to participate in the program and the process of land purchase. It has been observed that following the process of mobilization, community members are willing to participate. Instances of households unwilling to contribute to land purchase are rare. The WSCs do not have any funds for purchasing land; however, the HCWW has procedures in place to ensure that transactions for securing land are fair and to the satisfaction of the landowners and the beneficiary community.

65. The price of land is decided collectively by the local beneficiaries and the landowners at the village level. The land price is negotiated and finalized in the village level meetings. The local Village Level Committee facilitates the process of negotiation. The land owner, thereafter, signs a Memorandum of Understanding with the HCWW, transferring title of the land to the authority for the program.

66. Discussions held with contractors at SRSSP-1 sites indicated that strict safety measures are followed during construction and O&M. Laborers are provided with personal protective equipment and safety tool box talks are held at the time of induction as well as during the start of any construction activity. Safety assessments (Hazard Identification Risk Assessment) are conducted for every construction activity and safety supervision is mandatory. Also, disruptions at the local level due to construction activities are addressed appropriately through sound construction planning and management processes. A multi-layer Grievance Redress Mechanism is in place to redress community level concerns and complaints. The first level of contact is the Village-level Committee and its network of organizations established under the SRSSP-1. Secondly, community members can call a hotline to register complaints. Finally, they can approach the respective PIU. Discussions with the Governorates revealed that the majority of

complaints are received through the hotline and that most concerns/complaints are redressed within 24 hours, while some may take up to 72 hours to resolve.

67. **Positive Gender Impacts.** Women suffer the most from lack of sanitation infrastructure in the villages. They are often engaged in cleaning sludge from tanks and the substantial cost of having the tanks emptied also affects women, since they are primarily responsible for running household affairs. The sanitation infrastructure will have an additional positive impact specifically on women since households with sewerage connections become eligible for gas connections under Egyptian regulations, thus enabling them to obtain clean cooking fuel. Documentation of village-level case studies and reviews of lessons learned focusing on women beneficiaries will be conducted during the course of implementation.

68. The lessons from the SRSSP-1 have been used to further strengthen the ESSA for the SRSSP-2, and greater emphasis has been placed on the issues of community engagement and construction safety. The institutions within the three new governorates are being strengthened to address the implementation of the PAP that complements the ESSA. Under the PAP, Citizen Engagement and Social Assessment Systems will be institutionalized in the targeted WSCs. This will ensure that critical issues, such as community health and safety, labor protection, land, labor influx, and gender are addressed.

69. **Projects on International Waterways.** The WB has triggered OP/BP 7.50, Projects on International Waterways, for the operation; having assessed the operation in light of that OP/BP, the WB has determined that riparian notification is not required since the SRSSP-2: (a) will not adversely change the quality or quantity of water flows to other riparians; and (b) will not be adversely affected by the other riparians' possible water use. AIIB has reviewed OP/BP 7.50 and finds that it is materially consistent with the International Waterways requirements set out in Section III of the Operational Policy on International Relations. AIIB has also reviewed the WB's assessment and finds it to be satisfactory.

E. Risks and Mitigation Measures

70. WB carried out an integrated risk assessment of the various risk categories for the SRSSP-1 and updated the risk ratings for the SRSSP-2, assigning the program an overall "Medium" risk. Three of the individual indicators, namely, institutional capacity, technical design, and environmental and social, have been categorized as having "Medium" risks. Based on the WB categorization and AIIB's assessments of various program-level risks, the SRSSP-2 has been assigned an overall "Medium" risk rating by AIIB; the risks are manageable with mitigation measures.

71. Given the use of country systems for procurement and the financial management systems of the individual WSCs, the fiduciary and procurement risks have been categorized by AIIB as "High." The risks in the individual categories of Social (because of potential land acquisition) and Technical (due to the nature of construction in congested villages and proposed technology for wastewater treatment) have been rated as "Medium." Key institutional, fiduciary, technical, and

environmental and social risks which have been categorized as having Medium risks are detailed in Table 4 with their mitigation measures.

Table 4. Risks and Mitigation Measures

No.	Risk Category	Description	Mitigation Measures
1.	Institutional Capacity (Medium)	Concerns over sustainability of reforms and absorption capacity for implementation	<ul style="list-style-type: none"> - Technical support through targeted technical assistance and guidance by PMU - Continuity of knowledge and sharing of lessons learned during the SRSSP-1
2.	Fiduciary (High)	Risks related to budgetary delays, funds flow and inexperience of WSCs in procurement and financial matters	<ul style="list-style-type: none"> - Training in financial management at a capacity-building hub of American University - Implementation of the SRSSP-2 through approved PPM and SBDs - Transfer of fiscal grants against key performance indicators - Continued oversight (WB and AIB) for implementation of PAP
3.	Technical (Medium)	Lack of WSCs' technical capacity in O&M of completed infrastructure	<ul style="list-style-type: none"> - Continued usage of tools and material developed under SRSSP-1 - Knowledge exchanges among Phase 1 and Phase 2 WSCs
4.	Environmental and Social (Medium)	Legal and procedural changes relating to land acquisition and availability of adequate land for WWTPs and pumping stations through use of Government land and/or access to land through donations	<ul style="list-style-type: none"> - Review of SOP for land acquisition, and revision and update of the procedure to reflect the emerging risks - ESMP will provide guidance on critical environmental and social issues

5. Need for a Waiver

72. The WB has prepared the SRSSP-2 in accordance with its PforR Policy. The environmental and social management system and the fiduciary system to be applied to the

SRSSP-2 have been fully appraised by the WB under the PforR Policy. This PforR Policy is separate and distinct from the WB's procurement policy and its environmental and social safeguard policies that govern conventional IPF, and with which AIIB's Procurement Policy (PP) and Environmental and Social Policy (ESP) are aligned. Given the differences in approach between the PforR Policy and AIIB's PP and ESP noted above in paragraphs 47 and 54, the PforR Policy cannot be considered to be materially consistent with AIIB's ESP and PP. Nevertheless, the systems proposed to be applied to the SRSSP-2 have been found to be acceptable by the WB under the PforR Policy. Management also considers these systems to be appropriate for use under this program for the reasons described above in detail in paragraphs 48-52 and 55-68 and summarized below.

73. While the fiduciary risks are rated as "high," the procurement system in place for this SRSSP-2, including the PPM and SBDs and the procurement ceilings, is considered adequate given the risks identified. The environmental and social impacts and risks are rated as "medium" and no activities to be included in the SRSSP-2 would be classified as environmental and social Category A activities under AIIB's ESP. The country's existing system, enhanced by the SOP and Program Operations Manual, provides an adequate system to manage the program's environmental and social risks and impacts.

74. On this basis, (a) a waiver of the application of AIIB's ESP and PP; and (b) the application of the WB's PforR Policy to this cofinancing in lieu of AIIB's ESP and PP, are requested.

Annex 1: Results Framework and Monitoring²⁶

PDO Indicators by Objectives/ Outcomes (Key indicators to measure the achievement of each aspect of the PDO statement)		DLI #	Unit of Measure	Baseline (2018)	End Target (2024)
Objective 1: Strengthen institutions for increasing access and improving rural sanitation services in the participating Governorates of Egypt	1. People provided with access to “improved sanitation facilities” under the SRSSP-2		Number	0	892,000
	2. WSC Operating Ratio	KPI under DLI 3	Percentage	84.3	100
Objective 2: Strengthen policies for increasing access and improving rural sanitation services in the participating governorates of Egypt	3. National WSS Sector Strategy approved by MHUUC	5.2	Text	N	National WSS Sector Strategy approved
	4. Annual sector monitoring reports produced by EWRA	7.4	Number	0	3

Intermediate Results Indicators by Results Area (critical processes, outputs or intermediate outcomes indicators needed to achieve each aspect of the PDO)		DLI #	Unit of Measure	Baseline (2018)	End Target (2023)
Results Area 1: Improved Sanitation Access	1. New functioning household connections to working sanitation systems ²⁷	1	Number	0	178,317

²⁶ Source: The World Bank.

²⁷ Yearly cumulative targets for HH connections – for SRSSP-2: Yr 1 (0); Yr 2(9,000); Yr 3 (38,000); Yr 4 (120,000); Yr 5 (178,317)

Intermediate Results Indicators by Results Area (critical processes, outputs or intermediate outcomes indicators needed to achieve each aspect of the PDO)		DLI #	Unit of Measure	Baseline (2018)	End Target (2023)
Results Area 2: Improved Operational Systems and Practices of WSCs	2. Number of WSCs meeting the yearly minimum APA standards	3	Number	0	6
	3. Collection efficiency of the participating WSCs	KPI under DLI3	Percentage	TBD ²⁸	TBD
	4. Efficiency in concluding each procurement process	KPI under DLI3	Percentage	TBD	TBD
	5: Citizen engagement (values disaggregated by gender where feasible) a) Beneficiary feedback/citizen report card (CRC)/ satisfaction survey undertaken b) Percent of complaints that WSCs receive that are resolved within 24 hours c) Women participating in consultation activities, in Local community committees, d) Women forums that are established and who participated in program design and/or implementation	KPI under DLI3 ²⁹	a) Per cent ³⁰	TBD ³¹	TBD
			b) Percent	TBD ³²	TBD
c) Percent			17	45	
d) Number			0	26	
e) Number			TBD ³³	TBD	

²⁸ Baselines and targets will be updated and included in the results framework once they are determined as part of the PIAP/APA process, by the end of Year 3.

²⁹ As part of the PIAP process, WSCs have a target related to grievance redress, namely the percent of complaints resolved within 24 hours

³⁰ The CRC survey will be prepared in Year 1 of the SRSSP-2 for all WSCs, it will be repeated on cycles (TBD). The indicator that should be monitored is the increase in the percentage of the responsiveness of the WSCs to the citizens.

³¹ MHUUC has hired a consultant for conducting the baseline of the CRC

³² Baselines and targets will be updated and included in the results framework once they are determined as part of the PIAP/APA process, by the end of Year 3.

³³ This indicator will be updated at the stage of formulating the PIUs staffing in three new governorates within a year of the effectiveness of SRSSP-2

Intermediate Results Indicators by Results Area (critical processes, outputs or intermediate outcomes indicators needed to achieve each aspect of the PDO)	DLI #	Unit of Measure	Baseline (2018)	End Target (2023)	
e) Female staff at the PIUs/WSCs level (number, female participation)					
6. Number of WSCs that have trained their staff on the procurement procedures manual, standard bidding documents, and the Complaints Handling Mechanism		Number	0	5	
7. Functioning waste water treatment plants in participating governorates operating to Egyptian standard	3	Percent	TBD ³⁴	TBD	
Results Area 3: Strengthened National Sector Framework	8. Financial model and tariff structure approved by the MHUUC	8	Text	No	Financial model and tariff structure approved by the MHUUC
	9. Implementation of the Standard Operating Procedures for land acquisition under participating WSCs implemented by MHUUC and inter-ministerial MOU signed	6	Text	No	Yes
	10. A WSS information system is established by EWRA and is functional at the program level	7.3	Yes/No	No	Yes

³⁴ As part of the PIAPs, WSCs are tracking this percentage of functioning WWTPs.

Annex 2: Detailed Program Description

A. Program Scope

1. The SRSSP, supported by AIIB and the WB, aims at strengthening institutions, policies, and physical infrastructure for increasing access and improving rural sanitation services in selected governorates in the Arab Republic of Egypt. The SRSSP is embedded in the Government's NRSP, and it will also pilot further institutional strengthening to be scaled-up eventually in other governorates. The SRSSP aims to reduce poverty and enhance shared prosperity in a sustainable manner by providing access and improved services in rural villages and satellites, which had often been excluded from basic sanitation service provision in the past. This will be accomplished through improved wastewater collection, treatment, household connections to sewerage systems, and sound technical and financial management.

2. The Program builds on the Government's decision to shift from a centralized model of service delivery to a decentralized model that empowers governorate-level WSCs to play a key role in infrastructure planning, design, and development for improving WSS service. For the Program, the Government has made a strategic choice to pilot a system of fiscal transfers of PBCG to strengthen accountability and transparency at the local utility level for the delivery of rural sanitation services in selected governorates. Disbursements of the PBCG are linked with an incentive regime of APAs that is designed and implemented on a transparent and predictable basis centered on a formula considering operational, financial, institutional, and citizen engagement dimensions.

3. WB approved a loan of USD550 million for the first phase of the Program, SRSSP-1, in July 2015 focusing on three governorates of Beheira, Dakahliya, and Sharkiya. The Government is now scaling up the Program to three additional governorates of Damietta, Gharbiya and Menoufiya (as well as including additional villages of the two SRSSP-1 governorates of Dakahliya and Sharkiya) through a second phase, SRSSP-2, with the support of AIIB and the WB.

B. Program Activities

4. The program activities are designed around three Key Result Areas: 1) Improved Sanitation Access; 2) Improved Operational Systems and Practices of WSCs; and 3) Strengthened National Sector Framework. Scope of each Results Area is summarized in Table 1.

Table 1: Scope of Result Area for SRSSP-2

Expected Results	GEOGRAPHIC SCOPE
Results Area 1: Improved Sanitation Access	
About 178,000 new households (about 892,000 people) connected to working sanitation systems in villages and satellites in the five governorates	Targeted Villages and Satellites
Results Area 2: Improved Operational Systems and Practices of WSCs	
Improved capacity, investment planning, operations and general service delivery of each of the five participating WSCs	WSCs in the five Governorates
Results Area 3: Strengthened National Sector Framework	
Improved enabling environment for more sustainable rural sanitation services	Rural Egypt

1) Activities under Result Area 1: Improved Sanitation Access (Financed by AIB)

5. The SRSSP-2 is structured to incentivize the provision of access to sanitation in 133 villages of the five selected governorates, each serviced by a separate WSC. Improved access is determined by a connection to a sewer network that is linked to a wastewater treatment facility meeting Egyptian treatment standards, or to any other acceptable sanitation solution (including decentralized systems). SRSSP-2 targets about 178,000 new connections, or approximately 892,000 people living in unserved villages and satellites. The new household (HH) connection could be for a house, or a unit/an apartment in a building. Disbursement is based on the achievement of DLRs relating to the completion of final designs, the execution of construction contracts, and the achievement of new HH connections, as illustrated in Annex 3.

6. The PBCG is defined as Fiscal Transfers from the Central Government to WSCs annually provided they meet certain eligibility requirements identified in the Verification Protocol and described in the Program Operations Manual. Introduction of the PBCG system is a key contribution of this program to strengthen accountability and transparency at the local utility level for the delivery of rural sanitation services in the targeted governorates. The WSCs can use the performance grant to finance a list of investments included in their Annual Capital Investment Plans. Each Program sub-project will be screened by the WSC for its potential environmental and social impacts. Sub-projects that exceed standard procurement thresholds will be excluded. The Program Operations Manual provides the criteria and procedures for the prioritization and selection of subprojects to be included in the Annual Capital Investment Plan.

7. **Grant Cycle:** The allocation and disbursement of the PBCG follows the Government's annual budget cycle and provides incentives for efficient public expenditure management. The Performance Grants are programmed into the national budget and disbursed to the WSCs. PBCG funds will be released to WSCs by the MHUUC in two installments per year, separated by at least 4 months, and based on the investment plan provided by the WSCs. The annual performance

grant cycle and the linking of the allocation and disbursement of the performance grant to the institutional and operational performance of the WSC provides the right incentives to ensure efficient and timely execution of the annual capital investment plans. This results-based approach, by linking the program financing with the achievement of specific DLR, provides incentives to the WSCs, MHUUC, and HCWW to coordinate their efforts to attain the SRSSP objectives.

2) Activities under Result Area 2: Improved Operational Systems and Practices of WSCs (Financed by WB)

8. Participating WSCs are incentivized to improve investment planning, operations and maintenance, and service delivery through the compensation and reward mechanisms built into APAs. APAs are designed and implemented on a transparent manner centered on a formula taking into account four key dimensions: operational, financial, institutional, and citizen engagement. The weights of the four categories are approximately 25 percent each. These performance standards relate to WSCs performance. The Egyptian Water Regulatory Authority (EWRA) will carry out the APA in accordance with the APA manual. The APA will assess the performance of the WSCs in terms of the following:

- Operational: comprising indicators that will include wastewater treatment plants in compliance with Egyptian law and standards and may include O&M cost recovery and Septage management.
- Financial: including indicators such as (1) operating ratio; and (2) collection efficiency.
- Institutional: addressing areas such as efficient procurement and contract management processes, as well as financial management processes such as internal controls and audit opinions.
- Citizen engagement: ensuring: (1) complaints handling mechanisms are in place; (2) base line for beneficiary feedback surveys / citizen report cards is established; (3) procedural guidelines for community engagement are prepared; (4) access to information related to services delivery to beneficiaries is available, and (5) community consultations to inform the community about sanitation systems models, technologies and operation and maintenance schemes.

9. Cost recovery will be one of the critical factors in determining the performance score of the respective WSCs. The performance improvements put in place, as well as the APA weighted scores, will help support and incentivize each WSC to improve efficiency and reduce costs. Because the Program is structured as results-based, and therefore does not prescribe any specific technology (although in accordance with Egyptian standards), it is expected that unit costs should eventually decrease. Moreover, because the Program places investment-planning responsibility with the WSCs, it is expected that the WSCs, HCWW, and the MHUUC will strive for more cost-efficient solutions that would reduce operating costs by better aligning investment choices with feasible and efficient operating procedures. By placing the operating ratio in the APA formula, the WSC's are given an explicit and transparent incentive to improve along these lines.

10. Accountability to citizens for greater voice and inclusion will form a critical pillar of the APA, as well as of performance improvements supported more broadly through the Program. Citizen engagement through citizen report cards/ beneficiary feedback surveys, awareness campaigns, community outreach guidelines, and strengthened communications systems of WSCs, and the development of a strategy for serving the poor, are all integral to the Program. They are incorporated either directly through results-based incentives, required measures, or through capacity-building programs. Engaging and including women will be an important element within the citizen engagement activities. Gender plays a key role in setting and shaping health and sanitation attitudes in the household, and therefore women shall be at the center of concerns in order for any citizen engagement strategy to be successful. Overall, an important framework has been embedded in the operation to leverage client feedback, public availability of information on WSCs performance and response to clients, and the role of the regulator and independent verification underpinning these processes.

11. In order for the WSCs to be able to deliver on the annual performance targets established in the APAs, they will need technical support, which is embodied in the PIAPs for addressing managerial and operational gaps and weaknesses. The PIAP would be similar to detailed business plans and would include measures to improve performance across the areas of the APA (operational, financial, institutional, and citizen engagement). In general, the PIAP would include, among other things: (i) the identification of gaps and weaknesses in the existing systems and processes of the WSCs with a focus on the areas measured under the APA; (ii) the development of modern management and financial systems; (iii) plans for improving all aspects of revenue administration, including billing systems, collection and administration of arrears, lowering the cost of revenue collection, and administration; (iv) plans for setting up non-revenue-water reduction programs; (v) plans for removing key deficiencies in water supply and wastewater management systems; (vi) strategies and measures for improved citizen engagement and consumer relations (including management of customers complaints and participation mechanisms); and (vii) a pro-poor strategy for each WSC to help identify the needs of poor households and the best options for ensuring sustained delivery (e.g., phased payments of household connection fees).

12. The Program therefore sets up a system of interlinked incentives and performance enhancement measures, which aim to test a new service delivery model that empowers local utilities to deliver improved services to beneficiaries. Through a well-designed and carefully implemented PIAP, the WSCs will be strengthened to achieve the requisite scores on the APAs, which will in turn determine the magnitude of the PBCG (fiscal transfers) from the Government to the WSCs.

3) Activities under Result Area 3: Strengthened National Sector Framework (Financed by WB)

13. MHUUC/PMU will coordinate the Program activities for strengthening the enabling environment that will allow for more efficient and accountable rural sanitation service delivery and lend more fluidly to future scaling up. This includes: (i) development of a program for WSS

services that would enable cost recovery; (ii) the development of a National WSS Sector Strategy; and (iii) updating the standard operating procedures for land acquisition which has been developed and approved under the SRSSP-1. These measures are critical elements for the long-term sustainability of the sector. A series of consultations and citizen engagement will help embed these institutional changes more firmly into the sector. The PforR being implemented in the program governorates will in particular rely on these institutional changes to support the deeper changes in service delivery mechanisms, but these broader institutional strengthening and national strategy developments will also in turn enable replicability and scalability of the new service delivery mechanisms being piloted by the Program.

14. The new water and wastewater tariff structure will constitute a first step toward a coherent national policy framework for setting WSS tariffs, subsidies, and cost-recovery goals. By supporting the new water and wastewater tariff structure, the Program will contribute to the financial sustainability of the WSCs to recover O&M costs. It will also support expanding affordable WSS services for the poor, since the new structure includes cross-subsidies in which the first two consumption tiers (0–20 cubic meters per month; generally reflecting consumption levels of poor families) are subsidized.

15. The National WSS Strategy will be spearheaded by the PMU. The Strategy will incorporate clear guidance and policy on service delivery models, infrastructure development, technologies selection, including more cost-effective approaches through the Code of Practice, pro-poor service delivery, financing, cost recovery, community and citizen engagement mechanisms, and private sector participation, among other key areas that would shape access and service delivery in the sector. The strategy will lay the groundwork for a future national scale-up of the institutional and service-delivery model being piloted through the Program in the selected governorates. Work on the strategy, and related due diligence, will identify any potential obstacles to a broader decentralization process for the WSS sector in rural Egypt, and will suggest ways to move forward for scaling up.

16. Through the introduction of SOPs for land acquisition for the rural sanitation sector, this Program aims to support measures that may have an impact on timely implementation. Issues surrounding land acquisition have played a large role in the rural sanitation sector in Egypt, and therefore the Program has provided measures to mitigate related risks. Such operating procedures will not only help ensure timely implementation of the Program, but will also form an important part of the enabling environment for scaling-up. The development of these procedures and related awareness raising will also help to strengthen communication and engagement among stakeholders.

C. Description of the IPF Component (financed by WB)

17. WB is introducing an IPF component for technical assistance on strategic sector issues with the allocation of USD15 million under the SRSSP-2 loan. The IPF will support the PMU for effective implementation of the PforR; capacity building for key institutions within the sector; and strengthening the enabling environment for efficient and accountable rural sanitation service

delivery, including, inter alia: (i) developing a financial model that will allow for sustainable cost-recovery for WSS services; (ii) strengthening EWRA's regulatory functions to enable it to deliver its business mandate; (iii) strengthening the Borrower's capacity in verifying the Program's DLIs/DLRs including hiring of an independent verification agent (IVA); (iv) strengthening the capacity of the PMU in performing management, coordination, monitoring and evaluation functions for the operations, through financing the required goods, consultancy services and operating costs.

18. Specifically, this component will finance the required office space, goods (e.g., vehicles), equipment (e.g., computers), staff, consultancy services, travel, training and operating costs that will allow the PMU to carry out its responsibilities for project implementation. These responsibilities include project management and coordination; management of independent verification process; procurement and financial management; social and environmental safeguards management; oversight, and strategic project communications and outreach; and updating necessary documents from the SRSSP-1, such as the Program Operations Manual. Support will also be provided for undertaking preliminary assessments for a possible next phase of activities under NRSP in Upper Egypt.

19. **Support to EWRA** capacity building activities would include: (i) training, study tours, workshops and events; (ii) development of the WSS information management system , including specific training; (iii) activities to improve EWRA's institutional performance including institutional development surveys, development of the job TORs, and staff training; (iv) developing an economic-financial model for calculating tariffs and subsidies to ensure the economic/financial equilibrium of the services, sustainable cost recovery, and affordability (social aspects); (v) preparation of a range of SOPs and a Business Plan for EWRA; and (vi) hiring of experts to support EWRA in improving its institutional effectiveness.

20. It is expected that the information management system will include activities such as (i) design of the WSS information system (WSSIS); (ii) development of standardized indicators to be used to measure WSC's performance; (iii) harmonization activities on existing WSC's information systems (currently there are a few information systems in place in the WSS sector, with different geographical scopes, purposes, periodicity and indicators). The SRSSP-2 will support harmonization of data collection protocols, indicators and definitions; (iv) benchmarking system. EWRA will gradually make WSC's performance information public and user-friendly. An analytical report and an interactive website offering benchmarking results are among the options under consideration.

21. IPF will support to MHUUC in developing a financial model for calculating tariff structure for sustainable cost recovery and affordability.

22. Procurement under the IPF component will be carried out in accordance with the WB's Procurement Regulations for IPF Borrowers, dated July 2016, revised November 2017, the loan agreement and the procurement plan approved by the WB. The Guidelines on Preventing and

Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants,” dated Oct. 15, 2006, and updated January 2011 and July 1, 2016.

Annex 3: Allocation of Proceeds of AIIB and WB Loans under Respective DLIs/DLRs

Category (including Disbursement Linked Indicator as applicable)	Disbursement Linked Result (as applicable)	Amount of the WB Financing (USD)	Amount of AIIB Financing Allocated to DLR (USD)	Disbursement Calculation Formula	Percentage of the Eligible Expenditures to be Financed
DLI #1: Establishment and functioning of at least 178,317 new household (HH) connections to working sanitation systems in villages and satellites, in the Dakahliya, Sharkiya, Damietta, Gharbiya and Menoufiya Governorates, of which at least 10% of the connections are in satellites.	DLR #1.4 ³⁵ Final designs completed for at least 100,000 connections.	30,000,000	0	USD300 for each connection designed. The minimum payment is USD750,000 for 2,500 HH connections designed, up to the allocated amount.	Not applicable
	DLR #1.5 All construction contracts awarded for the first 25 clusters	0	74,250,000	USD2,970,000 for each of the first 25 clusters for which all contracts for construction are awarded	
	DLR #1.6: Establishment of 100,000 HH connections.	0	126,180,000	USD1,261.80 for each HH connection established. The minimum payment is USD6,309,000 against 5,000 HH connections established, up to the allocated amount.	
	DLR #1.7.1: Establishment of 40,000 HH connections over and above already established 100,000 HH connections	0	50,472,000	USD1,261.80 for each HH connection established above 100,000 HH connections. The minimum payment is USD6,309,000 for 5,000 HH connections established up to the allocated amount. No payments will be made until (i) at least	

³⁵ All other DLRs i.e, 1.1 to 1.3 relate to WB Financing under the ongoing Phase 1 of the SRSSP.

Category (including Disbursement Linked Indicator as applicable)	Disbursement Linked Result (as applicable)	Amount of the WB Financing (USD)	Amount of AIB Financing Allocated to DLR (USD)	Disbursement Calculation Formula	Percentage of the Eligible Expenditures to be Financed
				8,916 new HH connections have been established in “satellites” out of total of the HH connections established under this Agreement; and (ii) DLR 1.6 has been achieved and allocated amount disbursed.	
	DLR #1.7.2: Establishment of 38,317 HH connections over and above already established 140,000 HH connections.	0	48,348,000	USD1,261.80 for each HH connection established above 140,000 HH connections. The minimum payment is USD6,309,000 for 5,000 HH connections established up to the allocated amount. No payments will be made until (i) at least 8,916 new HH connections have been established in “satellites” out of total of the HH connections (cumulative of 17,832 of HH connections in satellite villages) established under this Agreement; and (ii) DLR 1.7.1 has been achieved and allocated amount disbursed.	Not applicable

Category (including Disbursement Linked Indicator as applicable)	Disbursement Linked Result (as applicable)	Amount of the WB Financing (USD)	Amount of AIIB Financing Allocated to DLR (USD)	Disbursement Calculation Formula	Percentage of the Eligible Expenditures to be Financed
DLI #2: Bi-annual transfer of Performance-based Capital Grants (PBCGs) by MHUUC to eligible WSCs pursuant to the provisions of paragraph 6 of Section I.C of Schedule 2 to this Agreement.	DLR #2.2: PBCGs have been transferred by MHUUC to Damietta WSC, Gharbiya WSC, and Menoufiya WSC	32,000,000	0	USD2,666,667 for each Damietta WSC, Gharbiya WSC, and Menoufiya WSC for each FY20, FY21, FY22, and FY23 up to the allocated amount	Not applicable
DLI #3: Design and implementation of the Annual Performance Assessment (APA) system for the WSCs, and WSCs achievement of the required APA weighted index scores in accordance with the Operations Manual.	DLR #3.4: Performance Improvement Action Plans (PIAPs) acceptable to the WB prepared for Damietta WSC, Gharbiya WSC, and Menoufiya WSC and the existing APA manual updated to include. Damietta WSC, Gharbiya WSC, and Menoufiya WSC.	15,000,000	0	USD15,000,000	
	DLR #3.5: Each of Damietta WSC, Gharbiya WSC, and Menoufiya WSC has achieved a minimum weighted index	135,000,000	0	USD11,250,000 for each of Damietta WSC, Gharbiya WSC, and Menoufiya WSC for each of FY20, FY21, FY22, FY23	

Category (including Disbursement Linked Indicator as applicable)	Disbursement Linked Result (as applicable)	Amount of the WB Financing (USD)	Amount of AIB Financing Allocated to DLR (USD)	Disbursement Calculation Formula	Percentage of the Eligible Expenditures to be Financed
	of APA scores, in accordance with the Operations Manual.				
DLI #5: Establishment of PMU and approval of a National WSS Sector Strategy by MHUUC.	DLR #5.4: Develop an action plan with timelines acceptable to the WB, for implementation of the National WSS Sector Strategy	12,000,000	0	USD12,000,000	
DLI #6: Standard Operating Procedures (SOPs) for land acquisition developed under the Program updated by MHUUC acceptable to the Bank and approved for implementation	DLR #6.2: (i) the SOPs developed under the Program are updated in form and substance acceptable to the WB; and (ii) an inter-ministerial MOU for the implementation of the updated SOPs is signed	9,250,000	0	USD9,250,000	
DLI #7: Strengthen the national regulatory framework for WSS.	DLR #7.1: A Ministerial decree issued by MHUUC to establish a unified WSS information	4,000,000	0	USD4,000,000	

Category (including Disbursement Linked Indicator as applicable)	Disbursement Linked Result (as applicable)	Amount of the WB Financing (USD)	Amount of AIB Financing Allocated to DLR (USD)	Disbursement Calculation Formula	Percentage of the Eligible Expenditures to be Financed
	system (prior result).				
	DLR #7.2.1: Approval of the EWRA business plan by the EWRA Board.	3,000,000	0	USD3,000,000	
	DLR #7.2.2: Approval of the EWRA's standard business operating procedures by the EWRA Board.	3,000,000	0	USD3,000,000	
	DLR #7.3.1: Approval by the EWRA Board of a design manual for the WSS information system, established by EWRA in collaboration with the PMU for tracking the performance of the WSCs within the Program Area.	3,000,000	0	USD3,000,000	
	DLR #7.4: Annual reports on the performance of the rural water and sanitation sector at the national level	18,000,000	0	USD6,000,000 for each annual report published each year for FY 22, FY23, FY24	

Category (including Disbursement Linked Indicator as applicable)	Disbursement Linked Result (as applicable)	Amount of the WB Financing (USD)	Amount of AIIB Financing Allocated to DLR (USD)	Disbursement Calculation Formula	Percentage of the Eligible Expenditures to be Financed
	published by EWRA.				
DLI#8: Approval of a financial and tariff model that allows for sustainable cost recovery of WSS services.	DLR #8.1: Ministerial decree issued by MHUUC for the development of a financial model for the updating of the tariff structure that allows for sustainable cost recovery of WSS services. (Prior Result)	10,000,000	0	USD10,000,000	
	DLR #8.2: Approval by MHUUC of the financial and tariff model that allows sustainable cost recovery of WSS services	10,000,000	0	USD10,000,000	
Goods, non-consulting services, consulting services, Operating Costs and Training and Workshops under the Project.	-	15,000,000	0	-	100%
Front-end Fee to be paid pursuant to Section 2.03 of this Agreement in accordance	-	750,000	750,000	For AIIB Loan Amount payable pursuant to Section 2.03 of AIIB Loan Agreement in accordance with the	

Category (including Disbursement Linked Indicator as applicable)	Disbursement Linked Result (as applicable)	Amount of the WB Financing (USD)	Amount of AIB Financing Allocated to DLR (USD)	Disbursement Calculation Formula	Percentage of the Eligible Expenditures to be Financed
with Section 2.05 (b) of the General Conditions				2.07 (b) of the General Condition. For WB Loan Amount payable pursuant to Section 2.03 of WB Loan Agreement in accordance with the 2.05 (b) of the General Condition.	
Interest Rate Cap or Interest Rate Collar premium to be paid pursuant to Section 4.05(c) of the General Conditions		0			
TOTAL AMOUNT	-	300,000,000	300,000,000	-	

Annex 4: Technical Assessment

A. Program Strategic Relevance

1. The Government, having attained close to universal coverage for potable water supply in rural areas (96 percent), launched the NRSP in 2014 to address the low coverage of sanitation in rural areas (19 percent). Rural sanitation is identified as one of the Presidential priorities.
2. The strategic approach of the Government is to promote decentralized decision making at the governorate level by increasing the financial viability, operational, and managerial performance and capacity of WSCs, and improving the overall accountability framework at the local level. More efficient delivery of infrastructure, with improved service delivery at the local level, should be combined with the creation of an enabling environment at the national level since some of the underlying constraints, for example the low tariff, need to be addressed at the sector level.

B. Key Lessons Learned

3. SRSSP-2 builds on the key lessons that have been learnt in the first phase of the SRSSP, including:
 - The current model under the Program is successful in expanding sanitation coverage by delivering HH connections through the WSCs and allowing direct transfer of funds from the MHUUC to the WSCs.
 - Attract construction industry and consulting firms with appropriate packaging of contracts, raising awareness and dissemination of the new procurement framework including the PPM and the Complaint Handling Mechanism.
 - Promote greater managerial involvement of the WSCs at board level in the implementation of the Program with attention to performance improvements of WSCs.
 - Set a more realistic time frame for meeting the deadlines of DLIs/DLRs and make them scalable as much as possible.
 - Strengthen monitoring and evaluation systems of WSCs to ensure good quality of data and reporting, and to improve decision making, comparability between WSCs, and sector oversight.
 - In light of the economic reforms, more attention should be paid to financial modelling and updating the tariffs setting on the WSCs.
 - Combining the lending operation with targeted technical assistance from the outset is key to creating capacity.

C. Monitoring and Evaluation Program Technical Soundness

4. The Program is assessed as technically sound. The selection of villages is based on reaping economies of scale for wastewater treatment systems by clustering villages. Detailed Master Plans at the level of the governorates must be updated by WSCs, including prioritization criteria, detailed costing, and technologies. A pipeline of detailed projects should be further

prepared based on these Master Plans. The PforR also addresses another crucial area - the conformity of Water and Wastewater facilities in subsidiary companies to Egyptian laws, regulations, and codes, and to management requirements (including human resources, occupational health and safety, operations, maintenance, and quality assurance). The Program is expected to address some current technical weaknesses, including in project preparation, technologies selection, procurement and contract management.

5. The total number of villages in command area of the program governorates that pollute Al Salam Canal and the Rosetta Branch were first identified by HCWW and WSCs and filtered with master plan units of each WSC. A second criterion was to exclude villages in clusters that depend on WWTP under construction by central agencies to avoid any overlap. The application of these criteria allowed the selection of 107 villages in the three Governorates of Gharbiya, Menoufiya and Damietta (population of 639,135) and 26 villages in Sharkiya and Dakahliya (population of 252,550). Below table summarizes the technical pre-appraisal findings for the SRSSP-2

Table 1: Expected investment budget for SRSSP-2

Governorate/WSC	Gharbiya	Menoufiya	Damietta	Sharkiya	Dakahliya	Grand Total
Number of unserved polluting villages	26	69	12	13	13	133
Total Population to be served	162,365	405,500	71,270	97,483	155,067	891,685
Number of connections	32,473	81,100	14,254	19,493	30,997	178,317
Total Number of Districts	3	7	3	2	3	18
Total Number of clusters	5	10	5	2	3	25
Number of WWTP under construction by ISSIP2		1				1
Number of WWTP with idle capacity	2	4				6
Number of WWTP that needs extension	2	7	6	1	1	17
Number of new WWTP	2	3		1	2	8
Total Existing WWTP (Nr)	35	19	25	34	48	161
Total Design Capacity (1000m³/Day)	603,090	359,500	268,700	487,300	629,500	2,348,090
Actual capacity (1000m³/Day)	382,412	270,165	264,792	340,690	558,276	1,816,335
Actual/Design capacity (%)	63%	75%	99%	70%	89%	77%
Number of WWTP with idle capacity	2	4				6
Number of WWTP that needs extension	2	7	6	1	1	17

Governorate/WSC	Gharbiya	Menoufiya	Damietta	Sharkiya	Dakahliya	Grand Total
Number of new WWTP	2	3		1	2	8
Required Capacity (1000m ³ /Day)	43,000	44,000	42,000	45,000	25,000	199,000
Additional / Existing Design capacity (%)	7%	12%	16%	9%	4%	8%

6. **Cost estimates of household connections.** Based on a large data set of the construction costs in preceding years, the average per household connection cost is estimated as USD3,000. This is built on investments on the physical infrastructure associated with the households connections including treatment plant, pumping stations, and sewerage networks consisting of collectors and pumping mains. Based on the nine construction contracts awarded under the SRSSP-1, the average household connection cost has been computed as USD4,000.

D. Assessment of Results Areas

a. Assessment of Results Area 1 – Improved Access to Rural Sanitation

7. **Access to sanitation.** The Government defines access to sanitation only in terms of access to public sewer networks. In this case, sanitation coverage levels are significantly low given that in Egypt only 19 percent of rural households are currently connected to sewerage networks. Many rural villages have attempted to improve the situation themselves by constructing *Bayaras* (trenches) in the Nile Delta and installing informal sewerage networks. However, the *Bayaras* are no longer functioning due to the high groundwater table, the low permeability of soil in the Delta, and the dramatically increased use of water by piped water supply, combined with rapid population growth.

8. **Infrastructure investments.** At the core of many problems associated with the WSS sector, especially regarding infrastructure delivery is the centralized model of decision-making for infrastructure investment. This model favors the large national organizations and the separation of infrastructure investment, construction, and rehabilitation from management, operation, and maintenance of the systems. Sector initiatives and investments to date have been mainly directed at sanitation infrastructure—in particular sewerage networks and wastewater treatment plants—as opposed to a combination of infrastructure development and sound management of existing facilities. The separation of infrastructure construction from operations has created its own set of problems such as over reliance on outside vendors and consulting firms; selection of technologies based only the construction phase rather than the whole life cycle planning; and construction without due consideration of operational sustainability.

9. **National Rural Sanitation Strategy.** The Government of Egypt has developed a rural sanitation strategy based on clustering villages around wastewater treatment plants so that they can be served economically. This strategy is backed up by governorates' WSS Master Plans. The Master Plans: (i) accommodate the current and future changes in population; (ii) evaluate the

existing status and identify the required modifications (renewals and replacements) of the existing facilities; (iii) make project investments needed to provide universal water and wastewater services throughout Egypt with a horizon of 2037; and (iv) select priority projects. Villages can be reached through centralized systems if they can be conveniently clustered to allow economies of scale, or also through decentralized systems. Within the 375 existing WWTPs, three types of technology are used in 80 percent of them (relatively large WWTPs): Activated Sludge – 37 percent; Oxidation Ditches – 25 percent; and Waste Stabilization Ponds – 16 percent. The following considerations are important in selecting the technology:

- Effluent treatment performance to be achieved to reach the Law 48 standard.
- Capital cost, in particular power costs.
- Operating cost.
- Land requirements and availability
- Proven technology.

10. **Decentralized wastewater treatment solutions.** Many villages and satellites are not connectable to large sewer networks in the short- and medium-term for various reasons. Such villages may best be served by decentralized solutions or by suitable improved septage management. The costs and benefits of these technological options and approaches need to be analyzed to guide investment decisions. Feasibility studies will look at different options and their entire life costs. The unit cost of approximately USD600/per capita including all relevant costs of feasibility, design, environmental safeguards, and construction supervision, although high, is considered realistic.

11. **Cost efficiencies** can also be achieved using more appropriate technical norms and standards to facilitate the inclusion of satellites. Detailed Master Plans at the governorate level must be updated by the WSCs, particularly involving prioritization criteria, detailed costing, and technologies.

b. Assessment of Results Area 2 – Improved operational systems and WSCs practices

12. **WSCs' Performance.** Improving the operational, managerial, and financial performance of the WSCs are critical for the sustainability of the investments in sanitation infrastructure. The WSCs are far from financially autonomous. There is uncertainty and lack of clarity in the data. Salaries (77 percent of costs) take up nearly all the income. Electricity is the next largest cost at 13 percent, meaning that salaries and electricity account for 90 percent of costs. Deficits are financed in part by non- payments of electricity bills. Maintenance is also often deferred due to insufficient funds.

13. The main challenge in terms of sustainability is related to the capacity of WSCs to maintain the systems and ensure sound assets management. The Program addresses these issues by providing capacity building to WSCs and training to the technical staff engaged in operation and maintenance. The existing subsidiary companies at the governorate level that are charged with

management, operation, and maintenance of the systems are generally very weak. Institutionally, these WSCs are beholden to the central level organizations from which they have inherited assets that they must operate and maintain.

14. **Service delivery targets.** The service delivery targets of the NRSP and the PforR will not be met and sustained through infrastructure development alone. Although many of the constraints of poor service delivery are associated with poor design and construction quality, there are institutional constraints both at the WSC and the sector levels. Over staffing and skills shortages crucially affect performance. There are also governance considerations, such as the composition of the WSC boards, which do not effectively represent consumer interests and potentially slow down the pace of reforms. The WSCs and HCWW are aware of these and other constraints and have developed a number of programs and initiatives, sometimes with the support of donors, to address them. It is crucial that these initiatives are further supported and consolidated rather than reinventing new ones. At the sector level, EWRA does not exert as strong a governance influence on WSCs as it could, and the low tariff undermines all attempts for financial autonomy. The low tariff also makes consumers indifferent, since they are unlikely to complain about a service that is close to free.

15. **Service delivery challenges.** While the rationale for developing sanitation infrastructure is strong, there will be challenges in project delivery at the local level. Some of the WSCs have experience in delivering projects under the donors' funded projects including WB, but actual implementation volumes have been low. A key weakness is to ensure the high quality of designs and construction supervision. The WSCs should take ownership over planning of the work by selecting priority projects and by procuring and administering contracts. In this way, the ISCs will provide the key to successful delivery. It will be important that the procurement of the ISCs focuses on quality issues and not simply on the cost. ISCs ability to work constructively with the WSCs is also important. The ISC will provide full time support and guidance and provide the opportunity for WSC staff to learn on the job.

16. Human resource development is needed to underpin and sustain the performance of the WSCs. The WSCs are overmanned but also underskilled. The WSCs inherited an unwieldy and inadequately qualified staff which combined with a long recruiting ban from 2006, means that many of the companies lack a solid middle management cadre. This has compromised their ability to undertake their functions. There is an opportunity, even allowing for the salary levels, to recruit, train, and retain young, talented Egyptian technicians and professionals. It is evident that the WSCs are already doing this.

c. Assessment of Results Area 3 – Strengthened National Sector Framework

17. Financially, the WSCs are heavily subsidized by the central Government and have no independent authority to raise the nationally set tariffs. There had been several attempts to introduce higher tariffs. Some progress was made prior to the Program in raising the tariffs of industrial and large-scale users and in affecting small gradual increases in the WSS tariffs. However, the tariff was still insufficient to provide an operational surplus, leading to the deferred maintenance and operational shortcuts. Many external donors, most notably USAID through their

Water Policy and Regulatory Reform program, had drawn attention to the need for EWRA to be truly independent if the sector is to benefit from systematic improvement in the governance arrangements.

E. Progress of SRSSP-1

18. The SRSSP-1 has made good implementation progress after a slow start-up. As of early May 2018, about 92,000 household connections had been designed; 5,000 connections were established; and 15,000 connections were under construction. This is complemented by the achievement of key sector reform initiatives: bi-annual transfers of performance-based grants from MHUUC to the WSCs; preparation and approval of PIAPs for each of the WSCs and APA; preparation, approval, and the start of implementation of a new national tariff for WSS services; establishment of the PMU and the government's approval of the SOPs for land acquisition under NRSP. WB started disbursements under SRSSP-1 after fulfillment of all legal covenants and the verification of the initial DLIs. Progress on PAP has been satisfactory. The Program Agreement between the PMU and implementing entities (i.e., WSCs; HCWW; and the Egyptian Water Regulatory Agency, EWRA) is in place and the Program Operations Manual has been approved. As of June 27, 2018, the SRSSP-1 had disbursed USD288.45 million (52.4 percent).

Annex 5: Economic and Financial Analysis

A. Economic Analysis

1. A cost-benefit analysis based on the consumer surplus method was conducted by comparing costs and benefits under a “with SRSSP-2” scenario to the corresponding cost and benefit streams under a “without SRSSP-2” scenario. The considered benefits from the sanitation service provided through the SRSSP-2 were valued through the willingness to pay of direct beneficiaries and (consumer surplus) and benefits to downstream users.

2. **Costs:** The economic investment costs were estimated at 7,812 EGP million, including construction costs as well as engineering consulting services. The estimated investment cost was divided into its constituent parts such as construction cost, electromechanical cost, skilled labor cost, unskilled labor cost, etc. Sewage assets are reported to have a long life cycle, which is assumed 60 years. The life span of the electromechanical components is shorter and was assumed 20 years for the purpose of this analysis. The categorized financial costs were converted into their corresponding economic values using standard conversion factors. The O&M costs were estimated item-wise based on technical cost norms of WSCs in Egypt. The first two years of O&M costs are comprised in the construction contracts and are not reported separately.

3. **Benefits:** The planned sanitation intervention in the Delta region has direct and indirect benefits. The range of possible benefits that are attributable to the SRSSP-2 are:

- Private health and other benefits (e.g., reduced smell).
- Public health benefits through reduced disease transmission.
- Agricultural reuse value of reclaimed water and nutrients.
- Reduced public health expenditure due to reduced disease burden.
- Appreciation of property values due to reduced environmental pollution.
- Enhanced dignity and general quality of life.
- Reduced operational costs of sanitation service institutions attributable to efficiency gains due to institutional strengthening.

4. The sanitation intervention is expected to yield health benefits for the direct beneficiary households, which receive a new sewer connection, and improved public health through reduced disease transmission due to generally lower level of pathogens and a cleaner environment downstream. Public health expenditures are expected to decrease due to reduced burden of disease. Further, the improvement of the cleanliness of the concerned neighborhoods will lead to reduced smell, enhanced dignity and general quality of life and an appreciation of property values for those living in areas improved through the SRSSP-2. Institutional strengthening of the WSCs will lead to efficiency gains, which are expected to reduce overall operational costs of sanitation.

5. The above benefits are difficult, if not impossible, to quantify and to value on an individual basis. Hence, the present analysis groups private (or direct) and public (indirect) benefits. Private

benefits are directly accrued and valued by beneficiary households and include health, environmental and social benefits. Private benefits were quantified based on the household's willingness to pay.³⁶

6. The willingness to pay can be determined through direct and indirect methods. The direct way of estimating households willingness to pay involves applying the contingent valuation technique, in which potential sanitation service customers are asked how much they are willing to pay for different types and levels of sanitation services. The direct method is to collect data on observed expenditure behavior. The present analysis is based on data collected on observed household expenditures for private sanitation solutions (e.g., *bayaras* and informal sewer networks) of currently unserved households in the Nile delta.

7. Indirect economic benefits reflect positive externalities on the downstream community such as public health benefits, increase of agricultural productivity and recreational activities, which are not directly captured by the willingness to pay of beneficiary households. The indirect economic benefits have been estimated by considering the incremental benefits and avoided damage costs when in-stream pollution from untreated sewage is considerably curbed. It was assumed that one-third of the unserved population of the respective Governorates benefit from indirect benefits. The level of benefits was estimated through an avoided costs approach based on the results of M Owaygen, B Larsen, M Sarraf (2004), a study carried out in a similar context.³⁷ According to the study, the cost of inadequate sanitation amounts to 0.5 percent to 1.2 percent of GDP for the concerned population. For the purpose of analysis, the midpoint estimate of 0.85 percent was chosen and multiplied with the estimated downstream population benefiting from indirect economic benefits.³⁸

8. **Results:** The EIRR and ENPV of the SRSSP-2 were estimated based on a discounted cashflow analysis considering the costs and benefits. The EIRR was estimated at 20.6 percent and the ENPV at EGP3,095 million³⁹ based on a 12 percent discount rate.

9. **Sensitivity analysis** was performed with respect to increased construction cost, increased O&M cost, and decreased benefits. The EIRR remains above the social discount rate of 12 percent in all scenarios. The detailed results are reported in Table 1.

³⁶ The willingness to pay of households was estimated by considering their revealed willingness to pay for private on-site sanitation solutions (incl. O&M) following estimates from Buhl-Nielsen (2014): Cost sharing arrangements for rural sanitation in Egypt.

³⁷ M Owaygen, B Larsen, M Sarraf (2004): Cost of environmental degradation. The Case of Lebanon and Tunisia, Environmental Economics Series. June 2004.

³⁸ The downstream population benefiting indirectly by the Project was estimated 30% of the unserved households of the same Governorate. This is considered a conservative assumption as also downstream users outside the Governorate benefit from the intervention.

³⁹ In this analysis, the residual value of the infrastructure after 25 years of operation has not been considered.

Table 1: Discounted Cash Flow Analysis of Costs and Benefits (in EGP million)

Year	Construction Costs	Operation & Maintenance Costs	Direct Economic Benefits	Indirect Economic Benefits	Total Benefits	Net Benefits	20% increase in Construction Cost	20% increase in O&M Cost	20% decrease in Economic Benefits
2018	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0
2020	1,172	0	0	0	0	-1,172	-1,406	-1,172	-1,172
2021	1,953	0	0	0	0	-1,953	-2,344	-1,953	-1,953
2022	2,344	0	487	171	659	-1,685	-2,153	-1,714	-1,817
2023	2,344	0	863	309	1,172	-1,172	-1,641	-1,201	-1,406
2024		144	1,240	455	1,695	1,551	1,551	1,522	1,212
2025		144	1,248	469	1,717	1,573	1,573	1,544	1,230
2026		144	1,263	483	1,745	1,601	1,601	1,573	1,252
2027		144	1,289	497	1,786	1,642	1,642	1,614	1,285
2028		144	1,317	512	1,829	1,685	1,685	1,656	1,319
2029		144	1,345	527	1,873	1,729	1,729	1,700	1,354
2030		144	1,375	543	1,918	1,774	1,774	1,745	1,391
2031		144	1,406	560	1,965	1,822	1,822	1,793	1,428
2032		144	1,439	576	2,015	1,871	1,871	1,842	1,468
2033		144	1,473	594	2,067	1,923	1,923	1,894	1,509
2034		144	1,510	611	2,121	1,977	1,977	1,949	1,553
2035		144	1,549	630	2,179	2,035	2,035	2,007	1,599
2036		144	1,592	649	2,241	2,097	2,097	2,068	1,649
2037		144	1,639	668	2,307	2,163	2,163	2,135	1,702
2038		144	1,691	688	2,379	2,235	2,235	2,206	1,759
2039		144	1,749	709	2,458	2,314	2,314	2,285	1,822
2040		144	1,814	730	2,545	2,401	2,401	2,372	1,892
2041		144	1,889	752	2,641	2,497	2,497	2,469	1,969
2042		144	1,977	775	2,752	2,608	2,608	2,579	2,057
Total	7,812	2,735	1,724	775	42,064	31,517	29,955	30,913	23,105
NPV	4,592	537	5,931	2,294	8,224	3,095	2,176	2,956	1,450
IRR						20.6%	17.2%	20.3%	16.2%

DR	12.0%
NPV	3,095
IRR	20.6%

B. Financial Analysis

10. In this section, recent tariff reforms and the financial position of the WSCs are considered to assess the financial sustainability of the SRSSP-2.

11. **Recent tariff reforms:** The wastewater bill (surcharge) is calculated as a percentage of the water bill; hence, it is based on water consumption and the water tariff. Water and wastewater

services are charged in one bill. Tariffs are consumption based and unified in all governorates/geographical areas. However, they vary depending on the type of user (i.e. domestic, commercial, industrial, government, etc.) and the consumption block for domestic customers. In some cases, where consumption cannot be measured, a fixed charge is applied. The Government has announced to raise water and wastewater tariffs gradually and reduce subsidies.

12. A five-year tariff scheme was announced and was made effective on September 2017, which implies a relatively high annual increase in tariffs, consistent with the economic reform policies of removing subsidies for goods and services, which includes water provision. In the recent years, a tariff increase was implemented to increase water charges by two percent per annum and the wastewater surcharge of 1 percent per month. The September 2017 increase constitutes the second tariff increase. The planned tariff increases are shown in Table 2.

Table 2: Proposed Tariff Increase Scheme for the Next 5 Years-September 2017

Sector	2016/17 Current Tariff	2017/18 Proposed Tariff for 1st Year	2018/19 Proposed Tariff for 2nd Year	2019/20 Proposed Tariff for 3rd Year	2020/21 Proposed Tariff for 4th Year
Domestic Sector					
Consumption Block: 0 - 10 m3	0.30	0.45	0.50	0.55	0.60
Consumption Block: 10 - 20 m3	0.70	1.20	1.30	1.40	1.50
Consumption Block: 20 - 30 m3	1.05	1.65	1.85	2.05	2.25
Consumption Block: 30 - 40 m3	1.35	2.00	2.30	2.60	2.90
Consumption Block: Above 40 m3	1.55	2.15	2.55	2.95	3.35
Nondomestic Sectors					
Commercial	1.60	2.00	2.50	3.00	3.50
Industrial	1.80	2.20	2.70	3.20	3.70
Tourism	2.00	2.40	2.90	3.40	3.90
Government	3.10	3.35	3.60	4.10	4.60
Services	3.15	3.40	3.65	4.15	4.65
Other	6.95	6.95	7.45	7.95	8.45
Domestic Sector	<i>57</i>	<i>63</i>	<i>69</i>	<i>75</i>	<i>81</i>
Nondomestic Sectors	<i>86</i>	<i>92</i>	<i>98</i>	<i>100</i>	<i>100</i>

Source: Holding Company for Water & Wastewater Company (HCWW), 2017.

13. Given the need to increase the tariff further, the government approved in June 2018 a new tariff schedule, which foresees a yearly tariff increase, to be applied effective for the water bill of May. This step illustrates the government's commitment to improving the financial situation of WSCs. This tariff announcement is unprecedented in a number of ways. First, it implies a further increase compared to the last tariff increase of September 2017; Second, the new approach includes a periodically recurring yearly tariff increase as opposed to the usual five-year plan; which in the past has fallen short of achieving substantial tariff increases in real terms due to

inflation, Third, it proposed a relatively high new tariff for landscape irrigation, social/sports club activities; Fourth, the tariff policy specifies the highest tariff for frontier governorates, which are generally seaside governorates, instead of allocating one tariff for the whole country; Fifth, the policy combines fixed charges with a progressive tariff schedule for domestic clients, implying that for high domestic consumption, the water bill will increase significantly; and sixth, the policy also increased the fixed fees (sustainability charge).

14. The most recent tariff increase depends on the consumption level of the particular household and implies an increase in the consumer's water and wastewater bill by at least 50 percent, if consumption is kept the same. The gradual increase in water and wastewater tariffs constitutes considerable progress toward achieving cost recovery for the provision of water supply and sanitation services in Egypt.

Table 3: Most Recent Tariff Increase Scheme
(effective as of May 2018)

Sector	2018/2019 Current Tariff
Water Tariff (LE/ m3)	
Domestic Sector	
Consumption Block: 0 - 10 m3	0.65
Consumption Block: 10 - 20 m3	1.60
Consumption Block: 20 - 30 m3	2.25
Consumption Block: 30 - 40 m3	2.75
Consumption Block: Above 40 m3	3.15
Nondomestic Sectors	
Commercial	3.60
Industrial	4.55
Tourism	4.60
Government	3.40
Services	3.30
Others	9.00
Social and sports Club	10.00
Special tariff for frontier governorates	13.00
Wastewater Surcharge (%)	
Domestic Sector	75
Nondomestic Sectors	98
Frontier governorates	50

Source: Prime Minister Decree 2018

15. **Financial Performance of the WSCs.** Two of the five WSCs included in the SRSSP-2 are already part of SRSSP-1. The financial analysis of the two WSCs Dakahliya and Sharkiya was

carried out at the time of the appraisal for the SRSSP-1 and has been updated for the purpose of AIB's appraisal.⁴⁰ Under the cofinanced SRSSP-2, the WSCs Gharbiya (GWSC), Menoufiya (MWSC) and Damietta (DWSC) have been included in addition to the two WSCs. A separate financial analysis has been carried out for these three new WSCs. The below tables show key indicators on the WSCs financial position and compare past O&M cost to past revenue for all five WSCs. Overall, the five WSCs show a broadly similar, weak, but improving, financial position.

Gharbiya WSC

16. Gharbiya WSC was established in 2004 as the sole provider of water and wastewater services in Gharbiya Governorate. Gharbiya WSC witnessed an average annual growth of three percent and two percent in the number of water and wastewater connections during the period under study, respectively. The rate of unaccounted-for-water fluctuated between 32 percent and 26 percent throughout the period of analysis and showed a small decrease from 32 percent in 2012/2013 to 31 percent in 2016/17.

17. Operating revenues increased at a higher rate (23 percent annually) than the increase in operating costs (seven percent annually), implying higher capacity for cost recovery. The WSC achieved cost recovery of basic O&M costs from total operating revenues (operation ratio) in 2015/16 and 2016/17, however it is not yet capable to recover operating expenses from tariff revenues. Wastewater represents around 29 percent and 35 percent of the company's operating revenues and expenses, respectively. Cost recovery ratios improved over the period under study. The company can cover basic operating expenses from operating revenues in water revenue but cannot cover operating expenses for the wastewater activity from wastewater revenues. Throughout the period of analysis, the WSC was able to reduce its losses from an EBIT margin of -93 percent in 2012/2013 to an almost break-even level EBIT margin of -4 percent in 2016/2017.

Gharbiya WSC	FY	FY	FY	FY	FY
	2012/13	2013/14	2014/15	2015/16	2016/17
Key Commercial Data/ Indicators					
Number of connections Water	853,633	879,007	888,341	924,614	950,425
Number of connection Wastewater	490,095	510,827	519,324	523,933	536,481
Unaccounted for water	32%	26%	31%	26%	31%
Water/wastewater tariff revenue (EGP '000)				330,529	400,910
Operating revenue (EGP '000)	232,292	338,582	356,279	445,538	535,361
Operating Expenses (EGP '000)	342,312	356,706	382,458	410,154	449,130
EBIT margin	-93%	-36%	-35%	-16%	-4%
Cost Recovery Ratio					

⁴⁰ For this reason, the format, content and period of analysis differs between the WSCs Sharkiya and Dakahliya and the other three WSCs Gharbiya, Menoufiya and Damietta.

Gharbiya WSC	FY	FY	FY	FY	FY
	2012/13	2013/14	2014/15	2015/16	2016/17
Key Commercial Data/ Indicators					
Tariff revenue recovery of operating expenses				81%	89%
Operation ratio (Operating revenues recovery of operating expenses)	68%	95%	93%	109%	119%

Menoufiya WSC

18. Menoufiya WSC was established in 2007 as the sole provider of water and wastewater services in Menoufiya Governorate. The company witnessed a progressive increase in the number of water connections (three percent per annum) during the period under study and a significant increase of 28 percent in the number of wastewater connections in 2016/2017 compared to 2015/2016. The company was able to improve unaccounted-for-water from 27 percent in 2012/2013 to 20 percent in 2016/2017.

19. Operating revenues increased at a higher rate (26 percent annually) than the increase in operating costs (11 percent annually), implying higher capacity for cost recovery. The WSC achieved cost recovery of basic O&M costs from total operating revenues (operation ratio) in the last two years, witnessing a significant improvement, however it is not yet capable to recover operating expenses from tariff revenues; cost recovery is within reach as it recovers more than 90 percent of operating expenses during the last two years. Wastewater represents around 21 percent and 22 percent of the company's operating revenues and expenses, respectively. The company can cover basic operating expenses from operating revenues (operation ratio) in both water and wastewater activities. Throughout the period of analysis, the WSC was able to reduce its losses from an EBIT margin of -107 percent in 2012/2013 to an EBIT margin of -13 percent in 2016/2017.

Menoufiya WSC	FY	FY	FY	FY	FY
	2012/13	2013/14	2014/15	2015/16	2016/17
Key Commercial Data/ Indicators					
Number of connections Water	740,403	760,648	799,173	833,911	843,690
Number of connection Wastewater				275,071	351,241
Unaccounted for water	27%	27%	20%	18%	20%
Water/wastewater tariff revenue (EGP '000)				330,741	385,240
Operating revenue (EGP '000)	182,506	238,141	297,800	433,393	464,589
Operating Expenses (EGP '000)	275,491	289,644	332,106	361,239	413,853
EBIT margin	-107%	-65%	-47%	-9%	-13%
Cost Recovery Ratio					
Tariff revenue recovery of operating expenses				92%	93%

Menoufiya WSC	FY	FY	FY	FY	FY
	2012/13	2013/14	2014/15	2015/16	2016/17
Key Commercial Data/ Indicators					
Operation ratio (Operating revenues recovery of operating expenses)	66%	82%	90%	120%	112%

Damietta Water and Sanitation Company

20. Damietta WSC was established in 2004 as the sole provider of water and wastewater services in Damietta Governorate. The company witnessed a stagnation in the number of water and wastewater connections during the period;

21. The WSC was capable to improve unaccounted-for-water from 29 percent in 2012/2013 to 22 percent in 2016/2017. Operating revenues increased at a rate (six percent annually) lower than the increase in operating costs (11 percent annually), limiting WSCs capacity for cost recovery.

22. The company was not capable of achieving cost recovery of basic O&M costs (operation ratio), neither from tariff revenue nor from total operating revenues during the period under study, however the cost recovery ratios were improving during the period, except for last year (2016/2017) when the company experienced decline in tariff revenue by 18 percent and a significant increase of operating costs by 18 percent, which had double impact on the cost recovery capacity of the company. The decline in revenues is attributed to the transfer of the of new Damietta plants to the new Urban Communities Association. Wastewater represents around 19 percent and 42 percent of the company's operating revenues and expenses, respectively; The WSC cannot cover basic operating expenses from operating revenues in neither water and wastewater activities (operation ratio), with higher degree in wastewater. Throughout the period of analysis, the company was able to reduce its losses from an EBIT margin of -70 percent in 2012/2013 to an EBIT margin of -46 percent in 2015/2016. Due to the transfer of assets, the EBIT margin decreased to -95 percent in 2016/2017.

Damietta WSC	FY	FY	FY	FY	FY
	2012/13	2013/14	2014/15	2015/16	2016/17
Key Commercial Data/ Indicators					
Number of connections Water	300,525	308,312	314,970	286,452	303,562
Number of connection Wastewater	201,994	206,125	213,032	196,482	198,986
Unaccounted for water	29%	29%	24%	23%	22%
Water/wastewater tariff revenue [1] (EGP '000)	112,016	143,274	156,910	179,955	147,659
Operating revenue [2] (EGP '000)	132,108	148,994	176,312	199,585	169,930
Operating Expenses [3] (EGP '000)	174,018	198,062	220,777	225,731	265,650
EBIT margin	-70%	-74%	-63%	-46%	-95%
Cost Recovery Ratio					

Damietta WSC	FY	FY	FY	FY	FY
	2012/13	2013/14	2014/15	2015/16	2016/17
Tariff revenue recovery of operating expenses	64%	72%	71%	80%	56%
Operation ratio (Operating revenues recovery of operating expenses)	76%	75%	80%	88%	64%

23. For Dakahliya WSC and Sharkiya WSC, the WB had carried out financial analysis at the time of appraisal of the SRSSP-1. For the purpose of AIIB's appraisal, the analysis was updated.

Dakahliya WSC

24. Dakahliya WSC was established in 2004 as the sole provider of water and wastewater services in Dakahliya Governorate. The WSC has seen an expansion in its water service and sewerage activities, which has led to an almost doubling of total O&M expenditures for both water supply and sewerage within four years. Due to an increased customer base and increases in tariffs, the tariff revenue has more than doubled over the same period showing an overall positive trend in moving toward cost recovery of O&M expenses through tariffs. The O&M cost recovery level is estimated at 91 percent for the financial year 2018/19. Due to the phase-out in O&M subsidies through HCWW, the O&M Cost Funding Gap remains at nine percent in 2018/19 despite the stark increase in tariff revenue.

Dakahliya WSC	FY	FY	FY	FY
	2015/16	2016/17	2017/18	2018/19
Water Services (EGP '000 000)	404	487	561	802
Sewerage (EGP '000 000)	233	248	288	394
Total Expenditures (EGP '000 000)	637	735	849	1196
Tariff revenues (EGP '000 000)	516	663	709	1091
O&M subsidies (HCWW, EGP '000 000)	68	38	0	0
Total Revenue (EGP '000 000)	584	701	709	1091
O&M Cost Recovery	81%	90%	84%	91%
O&M Cost Funding Gap (EGP '000 000)	-53	-34	-140	-105

Sharkiya WSC

25. Sharkiya WSC was established following the reform process started in 2004 with the establishment of the HCWW, as the sole provider of water and wastewater services in Sharkiya Governorate. The company has seen an expansion in its water service and sewerage activities, which has led to an increase in its total O&M expenditures for water services and sewerage by 77.5 percent within four years. Due to an increased customer base and increases in tariffs, the tariff revenue increased 2.8 times over the same period allowing the WSC to achieve an approximate break-even in cost recovery of O&M expenses through tariffs in the financial year 2017/2018 despite a phase-out in O&M subsidies through HCWW. The O&M cost recovery level

is estimated at 103 percent for the financial year 2018/2019 achieving a break-even in O&M cost through tariff revenue.

Sharkiya WSC	FY	FY	FY	FY
	2015/16	2016/17	2017/18	2018/19
Water Services (EGP '000 000)	253	259	406	507
Sewerage (EGP '000 000)	161	171	182	228
Total Expenditures (EGP '000 000)	414	430	588	735
Tariff revenues (EGP '000 000)	271	315	579	757
O&M subsidies (HCWW, EGP '000 000)	40	0	7	0
Total Revenue (EGP '000 000)	311	315	586	757
O&M Cost Recovery	65%	73%	98%	103%
O&M Cost Recovery Gap (EGP '000 000)	-103	-115	-2	22

26. The analysis of the financial position of the WSCs reveals two key issues, which limit the companies' ability to reach cost recovery from tariff revenue.

- Low tariffs: Tariff setting is beyond the control of the companies. A new tariff scheme is in place, which aims at gradually raising the water and wastewater tariffs and has already shown initial positive results. Since 2015, the rounds of tariff increases have been implemented.
- Technical inefficiency: Unaccounted-for-water is creating an extra burden on the companies' ability to recover their cost.

27. In light of the activities under the SRSSP-2 and the ongoing efforts to gradually increase tariffs while phasing-out subsidies, the financial position of the WSCs is expected to further improve during the SRSSP-2 period. Improving the WSCs business practices through PIAPs (DLI #3) and establishing a new tariff structure to allow for sustainable cost recovery (DLI #4) are key DLIs under this Program for Results and are expected to improve the financial position of the five WSC during the implementation period of the SRSSP-2.

Annex 6: Fiduciary Assessment

1. AIIB conducted the fiduciary due diligence and verified that the WB's Fiduciary Systems Assessment (FSA) and the client's fiduciary capacity and arrangements (internal governance and staffing) are acceptable by AIIB at appraisal stage. Considering the weak capacity of the new WSCs/PIUs that will be involved in SRSSP-2 and the risks identified by the WB in FSA 2018, AIIB rates the fiduciary risk as "High" at appraisal stage. The suggestions from AIIB are (i) continued procurement training on PPM and SBDs be provided to new WSCs/PIUs; (ii) increased PMU's involvement in implementation of SRSSP-2; and (iii) expedited selection of the technical consultant for detailed design needs to meet the program implementation needs.

A. Summary of Fiduciary Systems Assessment done by WB

2. The FSA is built on the WB's knowledge of the WSS Sector in Egypt. The preliminary assessment of this Program and the sanitation sector in general indicates that potential challenges can be mitigated if proper governance arrangements are in place and enforced. The sector's structure and the legal mandates of the different entities pose some overlapping and sometimes conflicting responsibilities that influence accountability and may dilute it. For example, infrastructure investment is the responsibility of entities that are different from those in charge of operation and maintenance. While this may be due to legal and institutional requirements, the sector cannot properly function unless strengthened governance arrangements are in place, with roles clearly demarcated, and with each party accountable for its own deliverables and performance.

3. Previous WB's experience with the sector revealed a lengthy and inefficient path for the flow of funds through a series of implementation constraints. The flow of funds (WB, National Organization for Potable Water and Sanitary Drainage [NOPWASD], HCWW/PMU, WSCs/RSU, contractors) and the corresponding flow of documentation from WSCs back through the same channels resulted in a high and unjustifiable transaction cost. While there were implementation delays at several operational levels, delays in payments processing was also noted. For example, substantial delays in processing contractors' invoices (in some cases, contracts allowed 28 days for invoice payment but in practice took 54 days) were caused by opaque controls and lack of a streamlined process (inefficient reviews, correspondence and approval steps). The new Program is designed to enable a more efficient flow of funds and information across the implementation units/departments by reducing the flow of transactions documentation across different entities, while requiring periodic reporting and monitoring of progress indicators, as well as independent verification.

4. The Program's operational procedures will require introducing mandatory lead times for the different processes and critical milestones such as the preparation of designs and specifications, bidding documents, bid appraisals, contract awards, and the processing of contractors' invoices. Quality assurance arrangements should ensure that such measures are duly enforced. Internal audit functions should periodically test the system's functionality and report weaknesses and/or irregularities to an independent audit committee as a prelude to remedial actions being taken.

5. The WSCs are not subject to the provisions of Egypt's Public Procurement Law 89/98. While the Procurement Law (89/98) in Egypt establishes that "the State's Administrative Body Units, inclusive of ministries, departments, bodies having special balances, as well as Local Administration Units, Public Authorities, whether being servicing or economic, shall be subject to its provisions", the WSCs have their own internal Procurement Procedures Manual (PPM) for the Program. A review of the PPM of the three participating WSCs revealed that they replicate Law 89/98 almost in its entirety (probably reflecting the fact that the State is the sole shareholder). Examination of the WSCs procurement rules and procedures revealed that the main issues facing the WSCs include: i) the need for improvement of procurement practices; ii) inconsistent interpretation and application of rules and procedures; iii) the nonexistence of an independent protest mechanism other than an appeal to the Competent Authority. Although the WSCs have Standard Bidding Documents (SBDs), the qualification, evaluation, and award criteria are not sufficiently clear. The contract conditions can be improved to achieve a more equitable balance between employer and contractor.

6. None of the WSCs has clear instructions for handling complaints, and there are no clear contractual dispute resolution procedures. WSCs have established that complaints are to be addressed to the chairperson who then forwards them to the respective departments for preparation of an official response. The system cannot be considered to be independent or transparent. As a result, it has been agreed that a Complaints Handling Mechanism (CHM) will be developed and implemented within MHUUC to i) establish a complaints handling mechanism that ensures expert and independent decisions by a Review Panel regarding complaints for alleged breaches of the procurement procedures; ii) establish a Registry to receive and manage complaints; iii) establish a Review Panel Administration to manage the Review Panel and procedures for individual complaints; and iv) establish the procedures for the conduct of the complaints review. A CHM has been established under SRSSP-1 but its full establishment in as much as its operationalization and appointment of the independent panel members continues to be challenging.

7. The assessments during the phase one revealed that the WSCs have limited capacity for providing adequate contract administration and management. The WSCs have only been involved with network construction. Preparation of the designs/specifications, procurement and construction of trunk lines and wastewater treatment plants has been the responsibility of NOPWASD. In the case of network construction, the designs, specifications, and construction supervision have traditionally been subcontracted in view of the absence of WSC in-house capacity in this area.

8. There are several entities responsible for addressing fraud and corruption issues in Egypt. While some of these entities are required to publish annual reports in accordance with Egypt's 2014 Constitution, these reports are not yet publicly available, as the entities' relevant laws have not been amended to reflect the new constitutional requirements. The following agencies are the anti-corruption actors: i) The Central Auditing Organization (CAO); ii) The Office of the General Prosecutor; iii) The Administrative Control Authority (ACA); iv) The Administrative Prosecution

Authority (APA); v) The Illegal Profiting Apparatus (IPA); vi) The Money Laundering Combating Unit (MLCU); and viii) The Complaints Handling Unit in the Ministry of Finance (MoF). In the light of the above, the development and implementation of a complaints handling mechanism is recommended.

9. The FSA identified the following risks and constraints:

- a) Inconsistent application of rules and procedures.
- b) Lack of performance information, linked to an inability to collect and interpret data.
- c) Lack of accountability mechanisms such as a functioning complaint and grievance mechanism. Issues associated with the quality of designs and specifications, and the accuracy of cost estimates.
- d) Issues associated with contract management, such as non-performing contractors and weak contract supervision.
- e) Flow of funds arrangements involve multiple players with potentially conflicting interests/priorities.
- f) The traditional practices in the sector meant that the WSCs were not entrusted with undertaking major capital investments, while the new Program envisages WSCs mainly implementing capital investments.
- g) The significant delays in processing payments experienced under other projects raise concerns about inefficiency and potential irregularities.

10. Given the above, the overall fiduciary risk for the Program has been assessed as substantial by the WB. Mitigating measures were identified to strengthen the fiduciary systems and address the gaps and are reflected in the following Program Action Plan (PAP).

B. Program Action Plan

11. As a result of the identified weaknesses and constraints, the key performance indicators associated with the actions required to mitigate the above risks are described below:

- a) PMCF (either by extending the scope of services of the current PMCF or by identifying and hiring another firm) and ISC have to support the three new entrants under SRSSP-2.
- b) PPM and SBDs should be adopted by the three new WSCs and procurement staff should be trained.
- c) Maximum lead time is set up for transactions approval and payments processing, per the Operations Manual in the new WSCs.
- d) A modern internal audit function should exist in the WSCs to contribute to a systematic and disciplined approach to evaluate and improve the effectiveness of governance, risk management and control processes.
- e) Annual financial reports should be publicly available through the website.
- f) Automated accounting information systems functioning in the three new WSCs.
- g) Disseminate and promote the CHM which was developed under phase one.

- h) Ensure that all bidding requests, bidding documents, bid evaluation results, including on direct contracting, parent and final contract amounts are advertised in the Government e-portal: www.etenders.gov.eg
- i) Agree on procurement performance indicators and start collecting and analyzing data.
- j) Ensure quality and completeness of designs and specifications, including reliable and accurate of cost estimates.
- k) Verify and confirm the technical and financial qualifications of contractors. It has been agreed that MHUUC will send a clear message to all WSCs that during the technical evaluation stage, the bidders' qualifications must be verified. Qualification criteria, including minimum financial and technical requirements, as well as past performance, are to be applied. Bidders that do not comply with the qualification requirements will be rejected at this stage.
- l) Ensure quality of consultants selected for preparing designs and specifications, as well as construction supervision.
- m) The formation of a construction department in all WSCs is a welcome initiative which will be critical to ensure institutional capacity building and sustainability of the WSCs.

C. Institutional Framework and Fiduciary Arrangements under the SRSSP

12. Historically, NOPWASD has been responsible for investment planning, design and supervision of construction of WSS infrastructure projects. Works are funded through the State budget. After completion and at the end of the contractual maintenance period, the facilities are handed over to the HCWW and WSCs for future operation, maintenance, and management. WSCs carry out maintenance work, repairs, and minor extensions using their own financial resources. In recent years, the HCWW and the WSCs have gained experience under donor financed projects and, with the support of consultants, have been undertaking elements of design and contract management of the systems that WSCs will later operate. All procurement activities under SRSSP will be completely decentralized and carried out by the WSCs' organizational structure through their existing procurement departments. WSCs need to be strengthened and procurement staff needs training in complex procurement (trunk lines and wastewater treatment plants) because they lack experience in this type of complex/high value procurement. It is expected that the identified weaknesses and constraints will be overcome with the support and assistance that the ISCs and the PMCF will provide to the WSCs.

13. A Program Management Unit (PMU) has been established within the MHUUC. This PMU, reporting directly to the Minister, will be the main counterpart for AIIB and WB for the Program. The PMU has been established by Ministerial Decree No. 154. In addition to its coordinating and monitoring function, the PMU will also have a quality assurance role. The MHUUC provides the overall water and wastewater sector leadership. The MHUUC sets sector policy and coordinates its overall investment program. The Ministry oversees a number of specialized agencies and public service companies including EWRA, HCWW, NOPWASD, and the Cairo and Alexandria Potable Water Organization.

14. The WSCs will be supported by the ISCs and the PMCF engaged by PMU. The appointment of a qualified engineering firms to take full professional responsibility for the designs

is the main measure for ensuring satisfactory designs. The ISCs will provide support and advice in all the technical aspects related to program implementation including, but not limited to: i) pre-feasibility and feasibility studies; ii) preparation of detailed designs, specifications and cost estimates; iii) support to the WSCs through the entire procurement cycle; iv) contract management; v) construction supervision; vi) commissioning; and vii) handover of the sanitation systems.

15. All Program funds will be released to the General Treasury (specifically to the MHUUC account at the Central Bank) against “Disbursement Linked Indicators” (DLIs) that were agreed with the Government of Egypt, and duly verified by an IVA. In parallel, MHUUC will finance the WSCs according to agreed financing triggers and performance results. Annual capital grants will be paid to WSCs in line with their approved capital investment plans. This will enable WSCs to initiate contracting using the capital grants they receive from MHUUC. WSCs’ eligibility for the following year’s capital grant will depend on an annual performance assessment conducted for each of the three WSCs.

16. As with other line ministries, MHUUC’s budget execution is subject to an ex-ante control system run by the MoF financial controllers and which includes transaction-based compliance controls over payments, recording of transactions, and the production of accounts at unit level. This is in addition to the Ministry’s own due diligence. MHUUC accounting units are subject to ex-post review of compliance by the Directorate for Financial Inspection in the Accounts and Financial Directorates Department of the MoF.

17. The Program financial statements will be prepared by the PMU established at MHUUC. Since the Program funds in the State budget are transmitted through the MHUUC account at the Central Bank, MHUUC PMU is in a better position to capture and report on the overall Program disbursements. This includes the capital grants to WSCs, transfers to the HCWW and WSCs for preparing and implementing performance improvement plans, and expenditures incurred by MHUUC itself in the course of strengthening the national rural sanitation sector framework. The financial statements will be subject to annual audits by an independent external auditor. In addition, the IVA will review the achievement of the Disbursement-Linked Indicators in accordance with verification protocols.

18. **Procurement planning.** Fiduciary assessment revealed a disconnect between procurement planning and budget availability. Procurement planning for the fiscal year is done before the budget is allocated, and with over-ambitious goals at this stage. The procurement plan is subsequently adjusted to the available budget and the priorities are set by each WSC. Procurement plan implementation accords with the applicable rules and procedures for each procurement method applied in conformity with the PPM. WSCs do their best to consolidate the procurement of goods to achieve economies of scale. DLI-3 under Result Area 2 (Improved Operational Systems and Practices of WSCs), addresses planning instruments as a key area of concern. The detailed Master Plans will include the baseline, the expected scope, and the detailed plans. The Five-Year Plans with project estimates, annual investment plans, and respective procurement plans, are derived from the Master Plans. Improvement in WSC procurement

performance, including planning and implementation, is regarded as vital for successfully implementing the investment program. As specified in the Program arrangements, funds will flow from the National Budget to the WSC annual budget as fiscal transfers. Much attention has been focused on ensuring that the WSCs will have the funds available to fulfill the contractual obligations related to financing their capital investment projects, as prioritized in their annual capital investment plans.

D. Status on Procurement and Financial Management

19. The FSA revealed that the WSCs have adequate staffing in terms of numbers to implement the current activities, but that they require capacity building given that implementation of the Program involves additional activities. Capacity is being built of the three WSCs of the first phase through the technical assistance provided by ISCs and PMCF. The procurement system is functioning in accordance with the PAP at an acceptable level. The three WSCs are using the PPM and the SBD. The PPM has been updated to reflect lessons learned from the initial experience. The CHM will become fully operational once the Independent Panel members are appointed. Progress is being made in the use of the Government e-portal (www.etenders.gov.eg) but is being complemented by the publication of additional information on the WSCs' websites. The current portal may need further technical enhancements to allow the WSCs to advertise all relevant information. The procurement management established under the first phase will continue in SRSSP-2. The integrity of procurement process has been assessed to be well safeguarded.

20. The Program financial management system provides reasonable assurance that the WB loan proceeds are being used for intended purposes. For the first phase, the external auditor has completed the first Program audit for the period of Dec. 31, 2015 to June 30, 2017 and has provided an unmodified audit opinion, reflecting the fair presentation of the Program "Cash Receipts and Disbursements" statement. Implementation of financial software needs more attention from the PMU, as expenditures are expected to increase rapidly over the coming period.

21. Implementation progress and changes in fiduciary risks to the Program will be monitored regularly. During the planned supervision missions, compliance with the activities required to address the weaknesses and constraints identified in the FSA will be verified and monitored. As part of the implementation, the PMU will be required to prepare a progress report on procurement indicators before every supervision mission, so that the team can identify together with the client the main issues and proceed to work on improvement measures during the mission. Fiduciary staff will continue to be fully integrated and work with the task teams to examine the achievement of Program results, the DLIs of a fiduciary nature and the implementation of the PAP.

Annex 7: Summary Environmental and Social Systems Assessment

1. In general, the local legislation, policies, and guidelines sufficiently address the environmental and social issues associated with the Program, with a few gaps. In terms of complying with those standards and integrating them into the procedures of HCWW/WSCs, there are however many gaps. Limited institutional capacity is one of the main drawbacks in the existing procedures of HCWW/WSCs, since many of the required environmental and social measures were carried out by NOPWASD, which left the HCWW/WSCs with limited practical experience in those areas. Furthermore, some issues such as sludge handling and HSE issues require resources that are not readily available in the WSCs. Current procedures and correspondent gaps in complying with national legislation, policies, and guidelines are described and discussed below.

2. **Environmental Assessment.** An environmental assessment for projects is required by Law 4/1994, modified by Law 9/2009 or “The Law for the Environment,” which is the main legislation regulating environmental protection in Egypt. It is regulated by the Ministry of State for Environmental Affairs (MSEA) and its executive agency, the Egyptian Environmental Affairs Agency (EEAA). Since the Law went into effect in 1994, significant improvements have been introduced in the environmental legal system utilizing the experience gained in implementing the law during the past 20 years. According to Law 4/1994, the Environmental Impact Assessment (EIA) is a licensing requirement for development projects that are likely to cause impacts on the environment. The existing EIA Guidelines (modified in 2009) include detailed requirements for the EIA process, including social assessment and consultation, and they are compatible with the WBG environmental assessment requirements. Regarding the procedures of environmental assessment, the EIA preparation and fulfillment of the EEAA requirements is well-defined in the Guidelines. In addition, EIA approval is well integrated into the licensing system for new projects, especially the sanitation projects. For the sanitation sector, NOPWASD formerly took the lead in undertaking EIAs since it is responsible for the new investments. The WSCs therefore have limited experience and capacity in environmental assessment and in keeping the Environmental Register compliant with Law 4/1994. This gap has been addressed in the PAP.

3. **Effluent Standards.** The Nile Protection Law 48/1982 is the main legislation regulating water quality in the River Nile, its two branches, canals, drains, and groundwater aquifers. Although the effluent standards in Law 48/1982 are not highly stringent when compared to effluent standards in other countries, it can be shown, in the context of its application in Egypt, that they are actually very demanding, mainly due to the large areas not covered with sanitation services and to the amount of investments needed to connect those areas to secondary treatment facilities with disinfection.

4. Most of the WWTPs in the Program areas are complying with Law 48/1982 standards of effluent quality. This is usually verified at the WWTP level through taking daily samples from the influent, effluent, and different points in the treatment stream. When water quality issues arise, there is direct coordination to improve the operation at the problem area and to return them to meet the standards. Such plants usually meet the effluent quality standards except for a few cases where some operational problems arise.

5. On the other hand, there are some WWTPs that are known for being non-compliant with the effluent standards for different reasons. The common reason is that those WWTPs require investments for major repairs or extensions to be able to provide sufficient treatment. Some of the overloaded WWTPs, which face operational problems, tend to bypass the discharges that exceed effective capacity to the drain. This is not a documented procedure or a technical recommendation, but some WWTP managers tend to do this to maintain their effluent quality as high as possible, especially when the bypass line, or the discharge outfall to the drain, are not monitored, but inspection bodies usually take effluent samples from the effluent collection point after chlorination. Furthermore, some WSCs connect villages to pumping stations, which are not connected to WWTPs due to a lack of funding for the construction of force mains, so these pumping stations discharge untreated sewage to drains. This is defined as “negative discharge” and is one of the shortcomings addressed by the PAP.

6. **Handling of Sludge.** The handling of sludge generated at WWTPs is regulated through Law 93/1962 and the Executive Regulations by Decree 44/2000. The Law states that if the dried sludge is to be used as organic fertilizer, it must meet certain standards, otherwise it should be landfilled or safely incinerated. These standards are generally equivalent to international sludge standards. As described in the PAP, WSCs do not monitor the sludge quality as required by Law 93/1962 and Decree 44/2000 before selling it as fertilizer.

7. **Management of Sewerage Networks.** Connecting households and commercial industrial facilities to the sewerage networks is controlled by Law 93/1962 and Decree 44/2000. The Law sets standards for wastewater parameters (e.g. what could be accepted in the network), meaning that industries and commercial establishments generating high load wastewater should install pretreatment units for their wastewater before discharging it into the sewers. These standards are frequently monitored for industrial establishments. The design and operation of networks and pump stations are regulated through the Engineering Codes issued by Decrees 286/1990 and 268/1997 respectively. The Codes set out the standards that should be applied during the design, construction, and operation of networks and PSs to avoid blockage, seepage, structural collapse, hydraulic and electromechanical malfunctioning, etc. Private networks are not allowed, unless they are licensed by the regulatory authority and fulfill the Engineering Codes requirements. Regulatory bodies however find it difficult to prevent private networks, such as those built autonomously by some villages and which end at watercourses.

8. **Handling of Septage.** According to Law 48/1982, the discharge of septage evacuated from individual septic tanks and cesspits into freshwater canals or drains is not allowed, but in terms of application, the implementation of the provisions of the Law has met little success due to the difficulty of enforcing it. The septage is normally removed from cesspits in unserved areas by local contractors using tankers which subsequently discharge the septage into the nearest location (e.g., an agriculture drain or even into freshwater canals). Most WSCs do not allow septage to be discharged into their sewers and WWTPs, since no system exists for regulating septage discharges. WSCs are generally unwilling to accept septage with high organic loads that would add to the shock loads received in WWTPs and could affect their performance and the

quality of the final effluent. The lack of an official system to handle septage, although helping to reduce shock loads at WWTPs level, risks not attaining the objectives of sanitation projects on surface water quality, since the unregulated small-scale septage discharges into surface water will continue to be one of the major pressures on water quality. One of the Program results is therefore to improve on-site sanitation and introduce an official system to serve remote areas and satellites. This system will be identified during the feasibility studies for each governorate.

9. **Handling of Hazardous Substances.** The handling procedures for hazardous substances and waste are set out in appropriate detail in Law 4/1994. The handling of chlorine cylinders, which are the most common hazardous substances handled within WWTPs, is further detailed in the Engineering Code for Wastewater Treatment Plants (Decree 169/1997). The Engineering Codes for fire protection include adequate measures for safeguarding against fire risks. However, in terms of application, some of the facilities' designs do not comply with these safeguards, and safety issues sometimes arise during operation. The PAP includes measures to resolve these issues by including H&S standards in the ToRs for the design works and allowing H&S staff to review and verify the designs.

10. **Solid Waste Management.** Solid waste is usually accumulated in screens of WWTPs and PSs and is separated in grit removal chambers. The separated solid waste should be appropriately handled by the facilities. Solid waste management is regulated by specific articles set out in Law 4/1994 as well as in the General Cleansing Law 38/1967. In terms of application, WSCs usually do not adequately collect and dispose of solid wastes at licensed sites. This shortcoming has been addressed in the PAP.

11. **Health and Safety.** The Labor Law (Law 12/2003), the main legislation regulating H&S issues, includes a chapter on the work environment and health and safety issues. It also carries a comprehensive annex on safety standards intended to minimize physical, dynamic, biological, and chemical risks. Notwithstanding the existence of standards aimed at minimizing occupational health and safety risks, the H&S departments in the WSCs in practice do not have sufficient manpower to monitor, audit, and ensure that sanitation facilities meet these standards. Many construction contractors, for example, often fail to comply with H&S requirements and close supervision of works is required to ensure construction safety. This shortcoming has been addressed in the PAP.

12. **Cultural Heritage.** Law 117/1983 covers the protection of antiquities and culturally-valuable sites. Since Egypt has one of the world's richest store of antiquities from ancient civilizations, the Government places high importance on their protection and preservation. The Law includes provisions for protecting the structure of known and still-unknown antiquities by setting forth specific procedures for chance finds. The Law provides adequate safeguards against negative impacts during the construction phase of the Program interventions (and the Antiquity Authorities are closely inspecting registered sites to ensure that they are protected).

13. **Land Tenure and Laws on Land Expropriation in Egypt.** There are three main forms of land ownership in Egypt: public or State land (*Amlak Amiriya* in Arabic), private land (*Mulk horr*),

and *waqf* land (land held as a trust/endowment for religious or charitable purposes). Article 33 of the 2014 Constitution provides that “the State shall protect the three types of ownership: public, private, and cooperative.” Article 35 of the Constitution also provides that “private properties shall be protected, and the right to inheritance thereto is secured.” The Constitution (Article 63) states that “all types of involuntary relocation using force or excessive violence is banned, and violators of this Article will be dealt with by the Courts.” Law 10 of 1990 on Expropriation of Ownership for Public Interest regulates cases where private land is needed for public interest projects. Expropriation of property is further regulated by Law 59 of 1979 on the Establishment of New Urban Communities, and Law 3 of 1982 on Urban Planning. The term “public interest” in an expropriation context is defined in Article 2 of Law 10/1990, which covers, inter alia, water supply and sewage projects. Law 10/1990 describes the expropriation procedures, starting with a declaration of public interest pursuant to a Presidential Decree, accompanied by a Memorandum on the required project and a complete plan for the project and its buildings (Law 59/1979 and Law 3/1982 provide for the Prime Minister to issue the Decree). The Decree and the accompanying Memorandum must be published in the Official Gazette, with a copy (of the Decree) displayed for public viewing in the main offices of the local government unit concerned. Several operational steps follow before the land is finally acquired. At the central level, the Government agency responsible for implementing the land expropriation in the public interest is the Egyptian General Authority for Land Survey (ESA). ESA is charged with the formation of the expropriation and compensation committees. The executing body could be another Ministry (e.g. the Ministry of Housing) or a Governorate. This executing body would accordingly be responsible for paying compensation to affected groups through ESA (or under its supervision), offering alternative resettlement options, and implementing the resettlement project. At the local level, several local departments and directorates should be involved in the resettlement program depending on the type of program to be implemented and the type of the land ownership. Although Law 10/1990 does not clearly specify that lessees could be entitled to compensation, the lessees implicitly belong to the group of “rights holders” referred to in this Law. It is clear, however, that lessees may not have recourse against the landlord for the termination of their lease agreements as a result of the expropriation act. Another important issue that has not been addressed in Egyptian law is the right of squatters to claim compensation in the event of displacement or resettlement. Egyptian legislation does not recognize squatters’ rights. However, Egypt’s experience in dealing with this issue demonstrates that due to political pressure and the importance of the social dimension, the Government has been forced to provide alternatives for these groups of households, in terms of alternative shelter, cash or in-kind (e.g.; jobs) compensation.

14. **Land acquisition procedures.** When a rural sanitation project is being planned and land is needed, priority is usually given to obtaining state-owned land in order to avoid negative resettlement impacts on the population. In the event of state-owned land being unavailable, there are four other ways of obtaining land for pumping stations and WWTPs: i) voluntary land donation, ii) a community contribution, which is a very common approach for siting pumping stations; iii) willing buyer-willing seller approach; and iv) acquiring land through the use of eminent domain. The WSCs are not closely involved in the process of finalizing land purchases (willing buyer-willing seller approach) for pumping stations and WWTPs because the responsibility for

investment in sanitation projects is officially mandated to NOPWASD. Although there is no legal obstacle to the WSCs undertaking land acquisition through purchase and donations, the WSCs' shortage of resources often restricts their ability to do so (especially land purchasing). Donated land or land obtained because of a community contribution, for building pumping stations, is a more common experience of the WSCs compared to purchasing for WWTP. The Properties Department, under the Legal Department within the WSC, is responsible for the land purchase (in the very few cases of WSCs involvement in land purchase) and for accepting donated land or land obtained through community land contributions for pumping stations. For WWTPs, the land is obtained mainly through the willing buyer-willing seller method. WSCs are reluctant to employ eminent domain to acquire land because it could take much longer.

15. Decrees and procedures for regulating households' connection fees. Under Law 27/1978, the cost of household connections is the responsibility of the beneficiary. According to the WSCs, the exact amount that each household is requested to pay depends on the distance of the house from the main source, the number of houses participating in the communal inspection chambers, and the amount of works and material associated with each item.

16. **Procedures for engaging with communities.** Previously, HCWW was not heavily involved in planning and preparing rural sanitation projects. The formal role of the HCWW and the WSCs is more focused on O&M. There is no structured mechanism for carrying out communities' needs assessments for sanitation projects, or for engaging communities in the planning of projects. In cases where private land for pumping stations or WWTP is needed the WSCs play a more technical and legal role. Social aspects related to land are relatively neglected. During project construction (especially the construction of networks), the WSCs supervise the contractors. Monitoring the construction process is a technical matter. Social issues that may arise (e.g., damage to structures) are handled reactively. There is no local grievance system or systematic method for consultations with local communities during construction. During project operation and maintenance, the HCWW and the WSCs possess several key mandates that involve community engagement in the project operations and maintenance. Awareness raising, measuring community satisfaction (part of project monitoring), and handling grievance mechanisms are the key relevant activities that are supposed to ensure community engagement during project operation.

17. **Procedures for Redressing Grievances.** The Hotline is one of the key formal grievance channels and is designed to be the single official channel. The HCWW is working to strengthen the Hotline system, including the call centers within the WSCs, and aims to make this channel the only official one for receiving complaints. However, in practice most complaints are still being sent through informal channels including verbally to laboratory staff, maintenance service staff, security, commercial personnel, or the media. These informal channels maintain no accurate documentation or records on complaints received or dealt with.

18. **Risk screening against WB's OP9.00 Core Principles.** A preliminary risk assessment has been carried out using the Environmental and Social Risk Screening Format included in OP 9.00, and the likely environmental and social effects have been addressed. Since the Program

will be implemented in rural areas suffering health, economic, and psychological pressures, and also in polluted watercourses in the downstream of the Nile, the interventions are expected to effectively address the geographic shortcomings. No sensitive habitats are located within the Program areas, and the risk to culturally valuable sites is low. In terms of sustainability, the Program is expected to enhance the sustainability of watercourses by enhancing their quality, and the sustainability of agriculture lands by alleviating the rising groundwater table problems as well as by improving the quality of irrigation water. In terms of institutional complexity, the environmental and social issues will be handled by different bodies under the MHUUC umbrella and the system is expected to operate without complexity. Although institutional capacity is currently limited, the PAP identifies measures for capacity improvement. There are no governance or corruption risks associated with the environmental aspects of the Program. The overall environmental risks have been rated as "Medium" and the overall social risks have been rated as "Substantial."

19. **The overall impact of the Program is expected to be positive.** The Program will allow for adequately discharging and treating large amounts of sewage according to the standards set by Law 48/1982. Prior to the Program, the sewage was being inadequately collected and discharged to watercourses.

20. The environmental benefits include providing adequate treatment to about 90,000 m³/day of sewage that was formerly inadequately discharged to watercourses. This treatment regime will improve health conditions to Program beneficiaries and help alleviate the rising groundwater table problem. Septage management will form part of the interventions.

21. The main environmental risks are: improper handling of sludge (substantial), improper handling of solid wastes separated at WWTPS and PSs (medium), discharging noncomplying effluent (medium), the safety of workers and neighbors of WWTPs handling chlorine, diesel and laboratory chemicals (medium), sewerage blockages/leakages during operations, especially private networks (medium), integrity of structures during dewatering operations (medium) and improper handling of chance-find culturally valuable objects (low). Furthermore, the limited institutional capacity of the WSCs poses a substantial risk of inadequate Program implementation.

22. The main environmental impacts are changing land use in the PS and WWTP footprints, temporary impacts during construction, and impacts on lands caused by receiving waters from compliant effluent, sludge, and solid waste. These impacts are considered of low significance.

23. **Social Benefits, Risks and Impacts.** The implementation of the Program will help alleviate the negative impacts by providing a sanitation service that the poor rural communities of the targeted Governorates urgently require. It is expected that the Program will produce several important benefits and positive returns for local communities, including:

1. Economic savings at the household level.
2. Health and safety benefits.
3. Creation of an enabling environment for community development at village level.

4. Enhanced public hygiene awareness.
5. Special benefits for women and children.
6. Creation of jobs at the villages level.

24. The program will entail land acquisition for constructing the pumping stations and the WWTP. If not handled carefully, land acquisition might result in serious impacts on individual landowners and land users. At this stage, since the technical design of the Program is at an early stage, it is difficult to know the exact amount of land that will be needed. Therefore, it is also difficult to estimate the number of landowners and land users who would be affected by the land transaction process. The severity of the impact of land acquisition depends on a number of factors, and case-by-case analyses will need to be carried out by the WSCs before Program implementation in order to define the magnitude of the impacts, the affected persons, and methods for mitigating the impacts. The main land-related risks that have been identified are:

1. Limited capacities of the WSCs to manage land issues.
2. Potential delay caused by land acquisition issues.
3. Lack of a consistent and transparent approach to managing land-related issues.
4. Livelihoods risk related to lands.
5. Poor management of the temporary impacts related to land.

25. The following are the key non-land related risks identified: 1) risk of damage associated to construction activities; 2) non-land-based livelihoods risks; 3) weak demand, acceptance and readiness for projects in certain communities; 4) risk of social tensions resulting from exclusion of certain villages; 5) risks of lack of affordability by poor households; and 6) potential escalation of unresolved community concerns/complaints.

26. On the impacts side, a number of negative impacts might result from the construction phase of the project. The most important include temporary impacts on land, including the temporary use of land for construction camps and storage of materials; the potential damage to crops; permanent land acquisition; and the potential impacts on the livelihoods of affected rural families. There are also potential impacts related to the inconvenience to local communities, and on local activities in the villages (e.g., on local businesses) during the construction phase.

27. **Performance of WSCs with regard to the Legal and Regulatory Framework on Environmental Aspects.** The main shortcomings can be summarized as follows: There are no clear guidelines to control the management of septage. Although there are legal restraints on establishing private sewers that discharge to watercourses, there are no enforcement mechanisms or alternative solutions to these networks. While such networks have important benefits for the villages served, the legal framework and technical guidelines do not allow for a sound solution. The Program design would allow for connecting those networks, with a due diligence assessment of their conditions, through the ISC, and for taking feasible measures to improve them. There are no explicit standards for land contamination, and no explicit requirements for ensuring secondary containment of hazardous substance storage tanks (110 percent of storage capacity), and for taking adequate precautionary measures while filling the

tanks. This shortcoming would be addressed by including appropriate requirements in the ToRs of site-specific ESIA, to be prepared and supervised by the WSCs.

28. In terms of implementation of, and compliance with, the relevant laws and standards, there are some weaknesses and gaps in the system including: The strict punishment of noncompliant WWTPs operators sometimes leads to opposite results (i.e., operators tend to bypass a portion of the received influent to meet the effluent standards). The “negative discharge” by PSs, although done as a last resort in the absence of sufficient financing, should be assessed according to the advantages and disadvantages of starting the connections without having sufficient resources to discharge the collected wastewater in a WWTP. Most WWTPs do not keep a suitable environmental register, frequently updated according to the requirements of Law 4/1994. Most WWTPs do not handle sludge, solid waste removed by screens, or remove grit according to the requirements of the law. This needs to be improved, as indicated in the PAP. Safety procedures need to be improved and integrated within the procedures for design, construction, and operations of networks and WWTPs.

29. **Performance of WSCs with regard to the Legal and Regulatory Framework on Land Acquisition.** The existing laws and regulations have a number of positive features with regard to land acquisition, most importantly including provisions related to compensation, sharing information with affected persons, the rights of affected persons to appeal, and provisions related to temporary damage and associated compensation. A review of the legal and regulatory framework set against international best practices reveals several shortcomings in the following areas: Consultation with affected individuals Identification of entitled categories; Absence of a proactive local level mechanism for handling grievances Land Valuation Process; Replacement Cost; Performance of WSCs with regard to the legal and regulatory framework on grievance mechanisms.

30. **Adequacy of Institutional Arrangements and Land Acquisition Capacity.** The analysis of the existing institutional arrangement and capacity for handling land acquisition issues showed a number of shortfalls and gaps that need to be addressed to allow for a more standardized approach to land acquisition. Most importantly, the predominantly technical and legal methods used to handle land acquisition generate increased costs for managing land-related social issues. This could be attributed to a substantial lack of capacity, a shortage of human resources, and unclear institutional mandates. The absence of an inter-agency coordination role to facilitate the process of obtaining approvals results in very substantial delays in finalizing land acquisition.

31. **Adequacy of Institutional Arrangements for Handling Community Engagement Issues.** The institutional assessment on handling community engagement showed that existing resources and mechanisms for managing community engagement have several strengths, including: availability of teams for awareness and communication initiatives at the Governorate level; teams working under agreed annual work plans; the existence of monitoring and evaluation system for the assessing the performance of the WSCs; the existence of several community-based monitoring techniques (e.g., surveys); and the existence and application of solid awareness

and communication guidelines, Certain institutional gaps were identified which can be summarized as follows: Limitations in the mandates of the WSCs' scope and capacity; shortage of human resources and staff at the Markaz and village level High staff turnover rate; lack of monitoring systems to measure the impacts and the efficiency of the implemented community-based activities, including awareness rating; lack of resources for logistical support and inconsistent capacities of the assigned teams.

32. Adequacy of Institutional Arrangements for Handling Grievance Redress. The following are the main identified gaps related to the existing grievance mechanism, specifically the Hotline:

- Deficiencies in the mode of operation due to lack of automation of the system
 - o The informal channels (including direct complaints to technicians) are still used in preference to the Hotline.
 - o Problems in the monitoring system: monitoring is done only in selected cases because, due to database shortcomings, the HCWW does not have full access to all the calls.
- The time lag for resolving complaints is not clearly communicated to complainers.
 - o Operation and maintenance issues take precedence over grievance issues focused on project planning, design and construction.

33. Recommended Actions to Address Identified Risks and Gaps. The ESSA has developed a PAP aimed at the gaps that have been identified which is being implemented in first phase and will be followed up under SRSSP-2. Training and capacity building will be key prerequisites to enable the assigned teams to carry out their responsibilities as stipulated in their ToRs. The Program will provide support during the various stages of PAP implementation and the capacity-building program.

Annex 8: Sovereign Credit Fact Sheet

A. Recent Economic Development

1. Egypt is a lower-middle income country. The Egyptian economy was adversely affected by the political and regional shocks in 2011. Economic growth slowed to an average of around two percent per annum between FY2012 and FY2014. The overall fiscal deficit widened from seven to eight percent of GDP prior to the revolution to 10-13 percent thereafter. Meanwhile, public debt increased from 70 percent of GDP in 2010 to 96.9 percent of GDP in 2016. Egypt also has a structural trade deficit. In addition to weak exports, low foreign private capital inflows have contributed to recurrent balance of payments challenges.

2. Nevertheless, the Egyptian economy has shown some signs of recovery since 2014/2015, following a new political regime and various policy adjustments including implementing subsidy and tax reforms to support fiscal consolidation, transitioning the Egyptian Pound (EGP) to a free float regime, and raising interest rates to reduce inflationary pressures. Furthermore, to support Egypt's economic reform program, the IMF approved a three-year arrangement under the Extended Fund Facility in November 2016, amounting to USD12 billion. GDP growth rebounded to 4.2 percent in 2016/2017. In July 2017, inflation peaked at 35 percent, reflecting the pass-through from the devaluation of the EGP and the increases in energy prices and the VAT rate, and has started to moderate since then supported by the tightening of the monetary policy stance. The current account deficit was 6.5 percent of GDP in 2016/2017. With the floating of the exchange rate, capital inflows increased and international reserves reached five months of imports of goods and services.

B. Economic Indicators

Selected Macroeconomic Economic indicators (2015-2019)

Economic Indicators	2015/16	2016/17	2017/18*	2018/19*	2019/20*
National income and prices (change %)					
Real GDP growth	4.3	4.2	5.2	5.5	5.8
CPI (change %, end of period)	14.0	29.8	10.4	15.2	8.3
Government operations (% of GDP)					
Overall balance (General government)	-11.2	-11.4	-9.5	-6.6	-5.7
External debt (nominal, % of GDP)	16.8	30.8	34.6	30.3	27.7
Gross external financing need (% of GDP)	7.6	9.9	10.3	8.4	7.6
Public sector debt (% of GDP)	96.9	103.3	91.3	86.7	80.8
Public gross financing needs (% of GDP)	45.2	38.4	35.6	29.1	33.8
Money and credit					
Broad money (M2, annual % change)	18.6	39.3	20.4	19.7	14.7
Reserves (in months of imports)	3.1	5.5	5.7	5.2	4.5
Current account balance (% of GDP)	-6.0	-6.5	-4.4	-3.9	-3.5
Exchange rate (USD/EGP. EOP)	7.83	18.0	17.7		

Note: * denotes projected figures

Source: IMF Country Report No. 18/14, WEO April. 2018 and Thomson Reuters

C. Economic Outlook and Risks

3. Looking ahead, Egypt's growth is projected to strengthen further to 5.2 percent in 2017/18 and to six percent in the medium term, provided prudent macroeconomic policies are maintained and the scope of growth-enhancing reforms is broadened. Inflation is expected to decline to around 12 percent by June 2018 and to single digits by 2019. The current account is expected to narrow to about 4.4 percent of GDP in 2017/18 and to about 3.5 percent of GDP by 2021/2022 with improved external competitiveness, reforms of the business environment, and a further recovery in tourism.

4. There are, however, internal and external risks to the economic growth outlook. Internally, given the inherent difficulties in implementing a strong and wide-ranging reform program, a slower-than-expected implementation could result in revenue shortfalls and affect progress in reducing the fiscal deficit. In addition, failure to tighten monetary policy sufficiently may lead to high inflationary pressures amid the currency depreciation. Externally, geopolitical uncertainties, tighter global financial conditions, lower-than-expected growth in Egypt's main trading partners thereby resulting in weak tourism, shock in market appetite, decrease in export, and lower remittances from the Gulf countries would have negative spillover effects on domestic growth.

5. In terms of debt, IMF indicates that Egypt's public debt is sustainable, but is subject to significant risks. The debt is projected to decline to 87 percent of GDP by 2018/2019 and 68 percent of GDP by 2022/2023. The main risks are weaker growth and insufficient fiscal consolidation, in which case public debt will only decline modestly to 99 percent of GDP by 2022/2023 from 103 percent of GDP by 2016/2017. Contingent liabilities arising from state-owned enterprises and government guarantees present additional risks. Sustained fiscal consolidation in combination with structural reforms to boost growth is needed to put Egypt's debt on a steady declining path.

6. Egypt's external debt is sustainable under program assumptions and IMF's medium-term projections. The external debt increased by 14 percentage of GDP to 30.8 percent in 2016/2017 amid large external borrowing by the public sector to finance the BOP need and the impact of the exchange rate depreciation on GDP. It is projected to increase in 2016/2017 but the level of external debt remains relatively low by international standards and is projected to decline to about 25.7 percent of GDP in the medium term on the back of the projected improvement of the external position under program policies.⁴¹

⁴¹ International Monetary Fund (IMF), 2018, 2017 Article IV Consultation, Second Review under the Extended Arrangement under the Extended Fund Facility, and Request for Modification of Performance Criteria—Press Release, Staff Report; and Statement by the Executive Director for the ARAB Republic of Egypt, January 2018.