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# Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 07-Sep-2017 | Report No: PIDISDSC20540



**BASIC INFORMATION**

**A. Basic Project Data**

Country Mozambique	Project ID P161777	Parent Project ID (if any)	Project Name Mozambique Urban Sanitation and Drainage Project (P161777)
Region AFRICA	Estimated Appraisal Date Feb 26, 2018	Estimated Board Date Sep 14, 2018	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) Republic of Mozambique	Implementing Agency National Directorate of Water Supply and Sanitation (DNAAS), Water and Sanitation Infrastructure Management Agency (AIAS)	

**Proposed Development Objective(s)**

To increase access to sanitation services in selected cities and increase national capacity to plan and implement sanitation investments in Mozambique.

**Financing (in USD Million)**

Financing Source	Amount
IDA Grant	135.00
<b>Total Project Cost</b>	<b>135.00</b>

Environmental Assessment Category A-Full Assessment	Concept Review Decision Track II-The review did authorize the preparation to continue
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**Note to Task Teams:** End of system generated content, document is editable from here.

Other Decision (as needed)



## B. Introduction and Context

### Country Context

1. **Mozambique remains one of the poorest countries in the world.** Mozambique ranks 180 out of 187 countries in the 2015 Human Development Index. Of a total population of approximately 25 million (2015), nearly half (11.2 million) are living in poverty. This contrasts with Mozambique's rapid economic growth over the past two decades, which has been increasingly driven by large capital-intensive public and private investment projects which have limited linkages to the rest of the economy and have not translated into poverty reduction. Accessibility to basic services remains low: only one in three households has access to safe water, one in ten to sanitation, and one in four to electricity. Average life expectancy at birth is 50.3 years and malaria remains the most common cause of death, responsible for 35 percent of child mortality and 29 percent for the general population. Persistent poverty is concentrated in two provinces, Nampula and Zambezia, where poverty rates have increased, while the rest of the country has experienced reduction in poverty rates of over 10 percent since 2003.

2. **The potential for growth remains strong but limited infrastructure and poor access to services remain binding constraints to socioeconomic development.** Mozambique's gas production prospects shape expectations for a recovery in growth to 6.6 percent by 2018<sup>1</sup>, given the positive outlook for key commodity prices in the near term. However, the economic recovery of the country is dependent on a number of complex factors, including the need for significant improvements on governance and consolidation of the decentralization process. Furthermore, there is a need to develop institutional reforms to strengthen service provision and improve accountability, especially for public services in both rural and urban areas such as drinking water supply and sanitation, roads and electricity.

3. **Poor women and children suffer disproportionately from inadequate access to safe water and sanitation.** Greater exposure to pathogens cause regular cholera outbreaks (on average 7,500 cases per year), endemic diarrheal disease (on average 715,000 reported cases per year), and widespread childhood stunting (42 percent in children under five) according to the Mozambique WASH Poverty Diagnostic (MWPD, 2017). The World Health Organization (WHO) estimates that 17 percent of under-five deaths in Mozambique (10,700 children per year, approximately 90 percent caused by poor WASH services) are the result of diarrheal diseases, resulting in very high child mortality (108 per 1,000 live births). The provinces with the highest disease risk values are Cabo Delgado, Tete, Zambezia, and Nampula (MWPD). The latter two also have the highest rates of stunting. An estimated 14 percent of newborns begin life with low birth weight, increasing their risk of infant mortality, delayed cognitive and motor development, and stunting. Deficient sanitation in the peri-urban neighborhoods of the cities within these provinces accounts for the low health outcomes.

4. **Urbanization in Mozambique results in increased demand for capital intensive urban infrastructure and management of urban services.** About 8.5 million (over 30 percent of Mozambique's population) live in urban areas<sup>2</sup>. Of these, about 33 percent live in greater Maputo and about 43 percent in intermediate cities which play an increasingly important role as economic growth poles and as destinations for migration from rural areas. The urban population is growing at an annual rate of 3.4 percent and is expected to account for half the country's total population by 2025. There are approximately 18 intermediate cities with populations between 100,000 and 500,000; of these 8 are in Nampula and Zambezia provinces. None of these cities presently has sanitation coverage that exceeds 50 percent of the population or has any sanitation treatment facilities. To meet the demands of ongoing urbanization, the country will require major investments, estimated at US\$2.05 billion for the sanitation sector (National Strategy for Urban Water and

<sup>1</sup> World bank (2016), Mozambique Economic Update: *Facing Hard Choices, Maputo, Mozambique*

<sup>2</sup> Estimates for 2015 from National Institute of Statistics (INE) and UN (2014)



Sanitation, 2011), if it expects to reach the ambitious SDG target of 100 percent access to sanitation in urban areas by 2030.

5. **Mozambique is expected to face some of the most extreme climate change effects in all of Sub-Saharan Africa, including increased urban vulnerability to flooding and erosion.** Globally, Mozambique ranks 36<sup>th</sup> in terms of vulnerability and 144<sup>th</sup> in terms of readiness<sup>3</sup>, indicating significant risk to national social and economic development. Climate change and extreme weather-related shocks pose a significant cross-cutting risk to growth and poverty reduction for Mozambique's urban population, especially in coastal areas and along flood prone rivers, where most of the major cities are located. Adding to this challenge, informal settlements, where over 80 percent of the urban population reside, are particularly vulnerable to flooding and erosion. Without investments in flood resilient sanitation and drainage infrastructure, Mozambique's cities will face increasing risk and set-backs in reducing high-mortality due to waterborne diseases.

#### Sectoral and Institutional Context

6. **Access to water and sanitation is low and highly inequitable.** Four decades after independence, only half of the population has access to improved water supply, and in rural areas, most people (63 percent) still rely on unimproved sources and practice open defecation (52 percent)<sup>4</sup>. Though significant progress has been made in improving water supply services in the larger cities, the poorest people in the largest cities still face several challenges in accessing sanitation and water supply services. Access to safely-managed sanitation is also geographically inequitable and highly concentrated in Maputo at 89 percent compared to 25 percent of urban households outside the capital city region (see Annex 1 for a map showing percentage of population with unsafe sanitation).<sup>5</sup> In addition, among urban households in the bottom 40 percent (B40) of wealth quintiles, access to safely-managed sanitation is estimated at 9 percent in 2015, roughly similar to the 8 percent access by the B40 of rural populations (MWPD, 2017).

7. **Urban sanitation has re-emerged as a nationally recognized priority** with the approval of the National Urban Water and Sanitation Strategy in 2011. Mozambique had one of the biggest sanitation programs in Africa for peri-urban sanitation during the 90s, but it collapsed in the early 2000s due to limited funding. In the 2011 strategy, the sanitation component encompasses both storm water drainage and wastewater/fecal sludge management<sup>6</sup> and provides strategic direction of the sector through 2025. Following this overall strategy, a more specific National Integrated Sanitation Program "*Programa Integrado de Saneamento*" (PIS) was approved in 2014. The PIS includes priority actions for the first five years (2015-19), including building capacity for three strategic priorities to: (1) improve the multi-sectoral institutional framework and strengthen institutions engaged in the integrated sanitation program; (2) strengthen the role and capacities of municipalities for implementing programs to improve sanitation; (3) accelerate the provision and sustainability of local sanitation services. While the government included the PIS in its *Plano Quinquenal 2015-2019*, the Ministry of Finance has not established a standing budget allocation for the implementation of the PIS. The Program consists of a series of investments and policy reforms designed to address the immediate and medium-term sanitation investment needs towards defining the longer-term solution to universal sanitation access.

8. **The current institutional arrangements for urban sanitation under the authority of the Ministry of Public Works, Housing, and Water Resources (MOPHRH) are complex and only partially implemented.** The National

<sup>3</sup> ND-GAIN (University of Notre Dame Global Adaptation Index) is global index that summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience.

<sup>4</sup> WHO/UNICEF (2015) Joint Monitoring Programme for Water Supply and Sanitation (JMP), "Progress on Drinking Water and Sanitation—2015 Update

<sup>5</sup> 2015 data from *Poverty Diagnostic for Water Supply, Sanitation, and Hygiene (WASH)* Background Paper I, p42. (World Bank)

<sup>6</sup> This definition of "urban sanitation" will be used throughout this PCN. Fecal sludge management includes emptying, hauling, disposing and treatment fecal wastes contained in non-flush or poor flush onsite sanitation solutions.



Directorate of Water Supply and Sanitation (*Direcção Nacional de Abastecimento de Água e Saneamento – DNAAS*) is the lead policy agency for both urban and rural water supply and sanitation; and investment planning and implementation in the rural areas through the Provincial and District Governments<sup>7</sup>. Under a Delegated Management Framework (DMF), the Water and Sanitation Infrastructure Board (*Administração de Infraestruras de Água e Saneamento, AIAS*) – is the national agency responsible for managing water supply assets in small towns, and public sanitation assets (sewerage and drainage infrastructure) in all urban settlements in Mozambique<sup>8</sup>; the Water Supply Infrastructure and Asset Investment Agency (*Fundo de Investimento de Infraestrutura e Patrimônio de Abastecimento de Água – FIPAG*) is responsible for water supply in large urban centers<sup>9</sup>; and the Water Regulatory Council (*Conselho de Regulação de Água – CRA*) is responsible for guaranteeing the balance of interests between the stakeholders involved, from the asset manager to service providers and consumers.<sup>10</sup> CRA is therefore charged to oversee and regulate all entities (public and private) that provide urban water and sanitation services<sup>11</sup>. Diagram 1 in Annex 2 shows the institutions involved in the water sector.

9. **The incomplete DMF.** Among the key sector challenges is the fragmented institutional framework and lack of clarity on roles and responsibilities for sanitation, especially at the central government level. In particular, the roles for DNAAS and AIAS are not clear as both can plan and manage investments for sanitation. Under the DMF, critical infrastructure is supposed to be developed by FIPAG and AIAS through financing from Government, development partners, and other financial institutions. Autonomous (preferably private) entities are then to be contracted by FIPAG or AIAS to operate and maintain the systems for providing urban water services or sanitation services. However, in the urban water subsector, FIPAG actually operates many systems itself; while in the urban sanitation subsector, municipalities are the main operators with a few exceptions. In fact, according to the National Urban Water and Sanitation Strategy (2012-2025)<sup>12</sup>, municipal councils are charged with instituting a comprehensive approach to managing all elements of the sanitation service chain, in both urbanized and non-urbanized areas.

10. **Sanitation service provision is a clear municipal competency** as defined in the 1997 local government framework laws and associated regulations. Municipalities are therefore responsible for both sanitary sewerage and storm water drainage as well solid waste management. Municipalities are also responsible for regulation and enforcement of domestic and private sector land use, as well as environmental management of both solid and liquid waste and associated sanitation facilities. Furthermore, municipal councils play an important role collaborating with local public health authorities in sanitary education and hygiene promotion. To date, the main focus of municipal sanitation efforts has been on solid waste management and the maintenance of small mixed rainwater/sewerage networks located in downtown areas of major cities. Municipalities lack the human and financial resources to implement their sanitation mandate.

11. **Backbone sanitation infrastructure is largely non-existent.** There have not been any major investments in sanitation in Mozambique and excluding Maputo and Beira, untreated raw sewage (often mixed with rainwater runoff) is discharged into the sea or nearby rivers. Even in Maputo, waste treatment facilities have been neglected for over 20 years, resulting in dilapidated sewers and sewage treatment due to lack of maintenance and resulting negative

<sup>7</sup> Boletim da república (2015) Resolução 19/2015 de 17 de Julho, Maputo, Moçambique

<sup>8</sup> Boletim da República (2009) Decreto 19/2009 de 13 de Maio, Maputo, Moçambique

<sup>9</sup> Boletim da República (1998) Decreto 74/98 de 23 de Dezembro, Maputo, Moçambique

<sup>10</sup> Boletim da República (1998) Decreto 74/98 de 23 de Dezembro, Maputo, Moçambique

<sup>11</sup> Revision of the CRA statute in 2011 expanded its competencies to include regulation of urban sanitation, including sanitary sewerage, wastewater transport and treatment as well as storm water drainage.

<sup>12</sup> Ministério das Obras Públicas e Habitação (2012), Estratégia Nacional de Água e Saneamento Urbano (2012-2025), Maputo, Moçambique



environmental impacts on surrounding neighborhoods<sup>13</sup>. **Off-network facilities or on-site sanitation are key to improving urban access to sanitation services.** To further complicate the situation, networked sanitation systems have extremely limited coverage, generally reaching less than 10 percent of the municipal population and less than 20 percent of municipal territory. In the near term, the small sewerage networks cannot feasibly be expanded to meet the demand for household sanitation in populous peri-urban neighborhoods. Thus any urban sanitation initiative that aims to significantly expand coverage will require a significant focus on “localized solutions,” i.e. domestic latrines and small septic tanks, along with associated services. To date, the limited on-site sanitation and faecal sludge management (FSM) is handled by the domestic private sector, with minimal regulation. But Government policy recognizes this reality and there is a greater emphasis on FSM and the role of private sector actors as providers of FSM services (from construction to collection and disposal) in the PIS and other sectoral plans and program documents.

12. **Drainage investments are integral part of sanitation services and provide both public health and economic benefits.** As noted above, flooding is a common threat to many urban and peri-urban neighborhoods, especially in Mozambique’s coastal cities which are most vulnerable to climate related impacts. In low-lying areas, seasonal rains often result in widespread contamination of standing floodwater with fecal waste. The resulting spread of pathogens, especially among small children, results in seasonal increases in water-borne diseases which undermine the health benefits resulting from increased latrine coverage. Thus, strategic investments in improved drainage for high-risk, low-income neighborhoods are often needed to accompany investments in sanitation infrastructure in order to achieve the needed improvements to public health. In some cases, the willingness of households or communities to invest in improved latrines or small septic systems may also be undermined by the risk of flooding which could destroy or degrade their sanitation assets.

13. **Financing arrangements for urban sanitation are underdeveloped.** Despite Government recognition of sector needs, the financing framework is yet to be established. Very little is known about affordability, reliability, or efficiency of services in urban areas since sanitation systems are still in their infancy. At present, there are no capital financing mechanisms for urban sanitation investments. Unlike the role of FIPAG in mobilizing and managing urban water supply investments, AIAS has limited experience in resource mobilization and managing multi-city investment programs for urban sanitation. Regulations permit the establishment of sanitation fees at the municipal level to recover operation and maintenance costs but how to charge for services is unclear and inconsistently undertaken (either on a water bill or electricity bill). Arguably, the easiest way to charge for sanitation services is to include the charge on the water bill but this can only be done subject to the prior approval by CRA and this approach is not well-aligned with local government legislation. To date only two municipalities, Beira and Quelimane<sup>14</sup> have signed the required regulatory framework agreements with CRA; and although recent sanitation projects have included institutional support to establish entities for operation and maintenance of sanitation assets (such as in Beira), a sustainable financial and service delivery model has not been developed. In the end, local government legislation and regulations will need to be established for all municipalities to allow sanitation fees to be charged and collected. A proper asset manager responsible for capital investment planning and finance mobilization will also be needed.

#### Relationship to CPF

14. **The proposed project would be the first in a ‘Series of Projects’ (SoP) to contribute directly to the Country Partnership Framework’s (CPF) overall objective of supporting more inclusive growth.** The CPF recognizes the risks to

<sup>13</sup> As detailed in the Greater Maputo Sanitation and Drainage Master Plan completed in 2015 with IDA funding through the Cities and Climate Change Project.

<sup>14</sup> Similar agreements are currently under discussion by CRA with Maputo and Nampula Municipal Councils.



human development when access to essential basic services is neither equitable nor sustainable and part of the CPF's Focus Area 2, Investing in Human Capital, explicitly prioritizes reducing the incidence of water and sanitation-related diseases by providing improved access to water and sanitation services to an additional 1.1 million people living in peri-urban areas and small towns (Objective 7). The proposed project is directly aligned to this Objective since it will finance investments with the aim of increasing access to safely-managed sanitation services in peri-urban areas. The Project will reduce the prevalence of unhygienic environmental conditions in urban neighborhoods that contribute to high rates of child stunting, trigger perennial cholera epidemics and chronic diarrhea outbreaks, and high child mortality in some of the country's most important cities. Thus, by addressing the drivers of public health risks, the project will directly contribute to improving the health status of the urban poor. Furthermore, through the focus on pro-poor investments and policy reform, the Project will also ensure more equitable provision of sanitation services for more inclusive urban development.

15. **The proposed project will also contribute to the enhancing sustainability and resilience.** The proposed project will also support CPF Focus Area 3, Objective 11 because improved sanitation and drainage will contribute to increased resiliency of low-lying urban neighborhoods, many of which include informal settlements populated by vulnerable populations. By strengthening municipal financing and management of sanitation services, the project will enhance the capacity of municipal councils for sustainability and resilience.

### C. Proposed Development Objective(s)

**Note to Task Teams:** The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet.

Program-level PDO: To increase access to sustainable sanitation services in urban areas of Mozambique.

Project-level PDO: To increase access to sanitation services in selected cities and increase capacity to plan and implement sanitation investments in Mozambique.

Key Results (From PCN)

Proposed Key Results include:

- Number of people provided with access to safely managed sanitation facilities under the project (disaggregated by male and female) [CORE INDICATOR]
- Number of investment plans approved
- Volume (cubic meters) of BOD pollution loads removed by treatment plants supported under the project (either wastewater or fecal sludge treatment plants)
- Number of municipalities with sanitation service delivery entities operational

### D. Concept Description

16. **The proposed project represents the first in a 'Series of Projects' (SoP) aimed at supporting the implementation of the National Urban Water and Sanitation Strategy and the Integrated Sanitation Program (PIS).** The project would help Mozambique meet the SDG sanitation target of ending open defecation and ensuring universal access to sanitation by 2030. This ambitious goal requires a broad and sustained effort to establish and expand sustainable urban sanitation services and infrastructure. The Government sees this proposed project as the entry point for putting in place the institutional, management and financial frameworks for the national strategy's implementation



and to begin strengthening necessary organizational capacities at the central and municipal levels (PIS objectives). In addition, given the lack of attention to this sector in the 40 years since national independence, the investment backlog is large and demand will continue to grow due to rapid urbanization.

17. **The proposed project (project one) will lay the groundwork for the institutional, management, and financial frameworks to develop and implement context-appropriate sanitation infrastructure (e.g., sewerage rehabilitation, fecal sludge treatment plants, storm water drainage) and services in selected cities over five years (2018-2022).** Because of the complex institutional, technical and social challenges inherent in urban sanitation, the first project will fulfill a critical role in clarifying and improving existing policy and institutional frameworks so that financing can increase and services can be effectively provided at a greater scale in subsequent phases. The first project will identify and initiate support for sector reforms that will continue in subsequent projects of the SoP. As noted above, the increased capacity of municipalities to provide and coordinate service provision at the local level will be a key part of the sustainability of the infrastructure financed by the first project. During the first project a limited number of cities will be targeted in agreement with Government (e.g., Nampula, Quelimane, Tete<sup>15</sup>) for implementing investment packages. By the end of project one, additional cities will be selected and investment packages prepared. **Project two (2022-2027)** would expand the service provision models developed in project one to other municipalities. Project two could be designed as a Program for Results Operation (PforR). Project two would also coincide with the end of the current National Urban Water and Sanitation Strategy (in 2025) and would support the definition of the next national strategy. **Project three (2027-2032)** would consolidate the gains achieved under the previous projects, expand coverage to the remaining 27-30 cities with the aim of achieving universal access and consolidate reforms for sustainability. Project three could similarly be designed as a Program for Results Operation (PforR).

18. **Because of the need for long-term sustainable impact, three important guiding principles, as agreed with Government, will guide the SoP design.** First, policy and institutional frameworks (including legislation) and division of responsibilities between central government and local government entities need to be clarified. This will help sequence reforms for the short- (project one) and medium-terms (project two and three) to achieve an effective sanitation system in the long-term. **Second**, the Government has requested that the proposed project one help set up a system to operationalize the national strategy (aligned with the PIS objectives) for improving urban sanitation across the country; not merely provide financing for investments in a handful of cities. So by adopting a programmatic approach, the foundation will be established for longer-term implementation of the national strategy upon which Government, the Bank and other development partners and financiers could build. **Third**, because of the integrated nature of sanitation, the right mix and sequencing of investments (e.g., fecal sludge management, sewerage rehabilitation and expansion, drainage expansion) will be identified on a city-by-city basis so that each city has a roadmap for achieving the related SDGs and urban resilience. Due to the chronic cholera epidemics that plague selected cities including Nampula, Quelimane, and Tete, priority will be given to these.

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<sup>15</sup> Population of Nampula (638,000); of Quelimane (245,000); of Tete (213,000)



## Project Components

**Component 1. Investments in urban sanitation infrastructure and services (\$85 million).** This component will support increasing access to safely managed sanitation services in targeted cities<sup>16</sup> through investments in sanitation and drainage.

The component will finance the design, construction, and supervision of sanitation and drainage infrastructure in each targeted city as well as associated environmental and social safeguards assessments. This component will also finance preparation of investment plans, feasibility studies, engineering designs, environmental assessments, and other pre-investment activities for the next set of cities to be included in Project two of the SoP. Activities include (but are not necessarily limited to):

- (i) Backbone infrastructure:
  - a. Rehabilitation and expansion of sewerage networks including network connections;
  - b. Small to medium scale drainage infrastructure;
  - c. Wastewater treatment plants.
- (ii) FSM:
  - a. Upgrading and construction of household latrines under cost sharing arrangements (to be defined in project preparation) with users;
  - b. Development of pro-poor fecal sludge collection services under PPP arrangements;
  - c. Construction of fecal sludge treatment facilities and transfer stations if necessary.

Investments will be complemented by communication campaigns and the development of operation and maintenance plans and funding mechanisms (see component 2 below).

**Component 2. Strengthening municipal sanitation services (\$20 million).** This component will strengthen the capacity of the municipalities to provide sanitation services. The municipalities selected will be the ones that benefit from component 1 above. This component will finance technical assistance to municipalities and sanitation service provision entities related to:

- a) Definition of service standards, technical guidelines, and operating procedures for sanitation service provision as well as operation and maintenance of sanitation infrastructure;
- b) Communication with citizens and local partners, including specific approaches to women, children and vulnerable groups, to enhance understanding and motivation to improve sanitation practices and make use of available sanitation related services;
- c) Monitoring systems and social accountability mechanisms to ensure equitable access, affordability, reliability and efficiency of services;
- d) Cross-sectoral collaboration and coordination with public health departments and NGOs for hygiene promotion etc.
- e) Legal and regulatory aspects to allow sanitation fees to be charged and collected;
- f) Financial management to improve accountability and transparency.

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<sup>16</sup> Additional cities may be contemplated during Project One depending on further analytical work during project preparation, discussion of priorities with Government, and the availability of resources once investment cost estimates are available.



The TA package above will be tailored to the needs of the municipalities on a case-by-case basis. Performance-based grants<sup>17</sup> which strengthen both incentives and financial capacity of municipalities to effectively deliver sanitation services will also be considered.

**Component 3. Strengthening sanitation services in Greater Maputo (\$15 million).** This component will support investment and technical assistance to the municipality of Maputo for the provision of sanitation services. The component will support:

- a) Rehabilitation of the existing Greater Maputo Waste Treatment Facility located in the Infulene area;
- b) Improvements to the handling of wastewater and fecal sludge to ensure reliable and environmentally safe transport to the Greater Maputo Waste Treatment Facility; and
- c) Capacity building of the municipal sanitation department and other relevant stakeholders to ensure equitable access, affordability, reliability and efficiency of services.

**Component 4. Strengthening national sanitation policy and project management (\$15 million).** This component will strengthen national capacity to (i) support planning, implementation, and monitoring of the national urban sanitation program and (ii) ensure effective project implementation. It will include:

(iii) Technical assistance to support:

- a. Refinement of the legal and institutional framework for urban sanitation;
- b. DNAAS, AIAS and CRA to improve planning, management, and monitoring of activities related to the PIS;
- c. CRA with the development of appropriate tariff and billing systems;
- d. FIPAG with transparent revenue collection and transfer mechanisms;
- e. Cross-sectoral coordination and collaboration among related Directorates including the National Directorate for Municipal Development (DNDA/MAEFP); National Institute of Health, etc.

(iv) Technical assistance to support:

- a. Overall project management and coordination;
- b. Fiduciary compliance including financial management, procurement and environment and social safeguards;
- c. Monitoring and Evaluation;
- d. Communications and publicity.

It is expected that AIAS will be responsible for overall project management and host the principle project implementation unit (PIU). Dedicated teams will be established in DNAAS, CRA and FIPAG.

**Note to Task Teams:** The following sections are system generated and can only be edited online in the Portal.

<sup>17</sup> Introduction a performance-based grant instrument at municipal level would provide an opportunity to align incentives and develop capacities associated with future PforR financing mechanisms.



## SAFEGUARDS

### A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project will support the development of sanitation infrastructure (e.g. sewerage rehabilitation, fecal sludge treatment plants, storm water drainage) and services in selected cities over five years where vulnerable communities are subject to recurrent water-borne diseases and where cholera outbreaks have become routine. Although targeted cities for the first project are known (Nampula, Quelimane and Tete), exact location of where the intervention will take place, is not yet known at this stage, except the rehabilitation of the existing Greater Maputo Waste Treatment Facility located in the Infulene area, to be financed under Component 3. The Maputo Waste Treatment Facility is located along the banks of the Infulene River, which borders the Municipalities of Maputo and Matola. The Infulene river runs north-south and flows into the Espírito Santo estuary, which is a sea-arm on the western shore of Maputo Bay.

The Maputo Waste Treatment Facility is in a very poor physical condition and will require major work to restore functionality. Water quality and quantity data at entry and exit are not available. Therefore, preparatory studies will be needed to set a baseline and realistic targets. Environmental (river contamination) and social (land use in surrounding areas, presence of solid waste, deposition of water from factories and significant amounts of oils and other contamination in the lagoons by sewage trucks) liabilities will have to be addressed. Restoring and properly operating the plant will also result in the economic displacement of potentially several hundred people who cultivate large areas within the proposed footprint of the plant and in its immediate vicinity –using water from the plant discharge points and the lagoons to irrigate the land and sludge from the plant to fertilize the soil. These small growers work in poor conditions and produce vegetables including many salad greens that may not be fit for consumption. At least some of these growers are organized in a handful of associations. Also affected will be businesses and other entities who use sewage trucks discharging into the lagoons and the operators who offer these services, and possibly the nearby beer and tire producers. The Municipality is making incipient efforts to register the trucks and charge a fee for their use of the plant, but currently there is no quality control at entry.

### B. Borrower's Institutional Capacity for Safeguard Policies

The project will be implemented by the Ministry of Public Works, Housing and Water Resources (MOPHRH) at central level through several of its subordinated institutions and by municipalities at the local level. The agencies at central level – DNAAS, AIAS, FIPAG and CRA - have some experience and capacity in managing Bank funded operations. AIAS is currently implementing two Bank-funded projects and its performance is deemed adequate. However, none of the municipalities currently have adequate capacity for project implementation and will require extensive capacity building including for environmental and social safeguards.

A project implementation unit (PIU) will be established at the Water and Sanitation Infrastructure Management Agency (AIAS). AIAS has established some years ago, as part of other ongoing World Bank financed projects (WASIS II, Cities and Climate Change Project) some institutional capacity to handle the safeguard requirements of those present projects. on Component 3. However, though AIAS is experienced in dealing with environmental and social (E&S) safeguards requirements is helpful, it will be necessary to recruit at least one environmental and one social safeguards specialist to be part of the PIU to and help ensure that present project interventions in all components are in compliance with the World Bank's safeguards policies and national legislation, including providing relevant assistance to other project Implementation Agencies, especially the Municipalities in the selected cities. As the municipalities have no adequate capacity for E&S safeguards implementation, dedicated E&S safeguards personnel will be required in all Municipalities where project activities will be implemented. The PIU, through its E&S Specialists will be responsible for overall project



oversight in compliance with the social and environmental safeguard requirements of WB policies of Mozambican laws and regulations. Given the complexity of the project, during appraisal contractual arrangements for construction supervision and independent safeguards oversight will be discussed and agreed with the Borrower for inclusion in the Project budget and bidding documents.

**C. Environmental and Social Safeguards Specialists on the Team**

Paulo Jorge Temba Sithoe, Environmental Safeguards Specialist  
Maria Do Socorro Alves Da Cunha, Social Safeguards Specialist

**D. Policies that might apply**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project is classified as Category A since proposed activities mainly under component 1 and 3 (Investments in urban sanitation infrastructure and services and strengthening sanitation services in Greater Maputo) are expected to generate significant environmental and social impacts. While project activities will largely contribute to positive outcomes, such as reducing the prevalence of unhygienic environmental conditions in urban neighborhoods that contribute to high rates of child stunting, trigger cholera epidemics and chronic diarrhea outbreaks, and lead to high child mortality, such activities will also generate adverse environmental and social impacts that require due safeguards consideration. Proposed activities include: i) Rehabilitation and expansion of sewerage networks including network connections; small to medium scale drainage infrastructure; wastewater treatment plants, ii) Upgrading and construction of household latrines, iii) Development of pro-poor fecal sludge collection services, iv) Construction of fecal sludge treatment facilities and transfer stations, v) Major rehabilitation of the existing Greater Maputo Waste Treatment Facility. These activities can possibly contribute to public nuisance, odor, noise and vibration during construction and operation, soil contamination and eruption of cholera, and/or other waterborne diseases, loss of assets and livelihoods within the community, especially among vulnerable groups, such as the small producers in the plant and surrounding areas. The current state of the Maputo plant and the complete absence of inflow and outflow controls and inadequate use of sludge and discharge water for agriculture are a liability. Sludge



treatment will be an issue and may require dealing with toxic waste disposal. There is little or no information about the potential locations for treatment plants proposed for other cities. Consequently, OP 4.01 is triggered and an ESMF will be prepared to provide guidance and procedures for the preparation of subsequent ESIA/ESMPs once the specific details of the subprojects designs and location are known. ESMF/ESIAs/ESMPs will include provisions to address OP 4.04 (Natural Habitats) and OP 4.11 (Physical Cultural Resources) requirements. For the rehabilitation of the existing Greater Maputo Waste Treatment Facility, an ESIA will be prepared (in parallel with the ESMF). The specification of the ESIA scope and key content will require the availability of the engineering design which should consider the whole system, namely collection, pumping stations, repression lines, etc. The ESMF will also assess the current institutional arrangements and provisions in place in AIAS (Water Infrastructure and Sanitation Administration) to handle the safeguards requirements of the program as a whole and will establish the requirements for any additional institutional capacity assessment for participating municipalities and any other participating entities, and contractual arrangements for supervision and oversight. The ESMF will clarify the safeguard arrangements for the PPP arrangements related to the development of pro-poor fecal sludge collection services. The ESMF will also include an indicative budget for capacity building, training and monitoring programs for all PIUs including the municipalities. Both the ESMF, and the ESIA/ESMP for the Rehabilitation of the Greater Maputo Waste Treatment Facility will make use of the World Bank Group's General Environmental Health and Safety Guidelines and the Industry Sector Guidelines for Water and Sanitation. The ESIA/ESMP for the Greater Maputo Waste Treatment Plant will also include an environmental and social liability assessment (or audit) of the existing facility and the ESIA/ESMP will include corrective measures to address any liability. The ESMF and the ESIA/ESMP will be consulted upon and publicly disclosed both in-country and at the Bank's InfoShop prior to appraisal. The ESMF and the ESIAs/ESMPs will include Stakeholder Engagement Plans for the



		<p>program and for each subproject as part of their respective ESMPs. Each ESMP will also address relevant social aspects such as gender and vulnerability, equitable access, environmental and hygiene education, and health and safety issues during construction and operation of the infrastructure. Appropriate Grievance Management System and E&amp;S monitoring and supervision framework will also be established at the PIU and other relevant entities.</p>
Natural Habitats OP/BP 4.04	TBD	<p>This policy recognizes that the preservation of natural habitats is essential to protect biodiversity; for the preservation of environmental services and products for human society, and for long term sustainable development. Considering the location of project activities close to terrestrial and aquatic ecosystems, such as the Infulene river (for the case of rehabilitation of the Greater Maputo Waste Treatment Facility) and also the fact that potential targeted cities in Zambezia, Nampula and Tete provinces are located in coastal areas and close to river banks (the case of Tete city). While every effort will be made to site project activities so that they will not directly impact natural habitats, effluent discharges, emissions, sludge disposal, and drainage infrastructure among other project elements/activities could produce impacts on such habitats. Hence, both the ESMF and ESIA/ESMP for Greater Maputo will include detailed provisions to address pollution prevention and the Natural Habitats Policy requirements.</p>
Forests OP/BP 4.36	No	The project does not involve or affect forests.
Pest Management OP 4.09	No	The Project is not expected to involve any activities requiring pest management at this point, but this will be reviewed during appraisal.
Physical Cultural Resources OP/BP 4.11	Yes	<p>The nature and scope of the proposed activities suggest triggering OP 4.11 to ensure that any cultural resources are identified and properly managed. This includes subproject siting and design criteria that will seek to ensure that the proposed activities will avoid disturbing or affecting physical cultural resources. Additionally, the ESMF and subsequent safeguards instruments will include screening and chance finds procedures to address OP 4.11 basic requirements. The ESIA/ESMP for Greater Maputo Treatment Facility will also address this aspect.</p>
Indigenous Peoples OP/BP 4.10	No	There are no Indigenous Peoples in the project areas.



Involuntary Resettlement OP/BP 4.12	Yes	<p>The project will finance activities such as rehabilitation and expansion of sewerage networks including network connections, construction of wastewater treatment plants and fecal sludge treatment facilities and transfer stations, drainage infrastructure and other works that could necessitate land acquisition and could result in involuntary resettlement of people and/or loss of (or loss of access to) assets, means of livelihoods or resources. Details of most activities will not be known until project implementation. The Government will prepare a Resettlement Policy Framework (RPF) to identify resettlement impacts and guide the preparation of site/subproject specific Resettlement Action Plans (RAP) as needed. The RPF will be prepared by the Client and reviewed by the WB, and disclosed in-country and at the InfoShop prior to Appraisal. The subproject or site specific RAPs as needed, will be prepared, consulted on and disclosed and will have to receive the non-objection of the Bank prior to bidding of the corresponding subproject. The RAP for the rehabilitation of the Greater Maputo Treatment Facility will be prepared prior to appraisal along the ESIA/ESMP. A site visit revealed that a large number of small horticultural producers in the plant area and immediate vicinity will be affected. Displacement is likely to be economic only with the RAP focusing on compensation/ livelihood restoration, but this remains to be determined upon further investigation during project preparation.</p>
Safety of Dams OP/BP 4.37	No	<p>This Project does not have any activities related to dams.</p>
Projects on International Waterways OP/BP 7.50	Yes	<p>This policy is triggered as some of the wastewater treatment plants may discharge to the Zambezi River, which is considered to be international waterway as defined by this policy. However, the project activities will ensure that effluents to be released will be treated to meet international acceptable standards. Therefore proposed project activities will not adversely impact the quality or quantity of water flows to other riparians. Furthermore, provided the activities are rehabilitation, the project meets the criteria defined in paragraph 7 (a) of OP 7.50 and is eligible for an exception to notification requirements.</p>
Projects in Disputed Areas OP/BP 7.60	No	<p>The project is not taking place in disputed areas.</p>



### **E. Safeguard Preparation Plan**

Tentative target date for preparing the Appraisal Stage PID/ISDS

Dec 18, 2017

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

An ESMF (including stakeholder management plan and grievance redress mechanism), and RPF for the project and an ESIA/ESMP and RAP for rehabilitation of the Greater Maputo Waste Treatment Facility including stakeholder engagement plan and grievance redress mechanism, as well as an environmental and social liability assessment (or audit) of the existing facility and an action plan including corrective measures to address any liability, will be developed. The development of these studies will start in September 2017.

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**APPROVAL**

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**Note to Task Teams:** End of system generated content, document is editable from here.