

## INTEGRATED SAFEGUARDS DATA SHEET

### APPRAISAL STAGE

**Report No.: ISDSA5324**

**Date ISDS Prepared/Updated:** 16-Jul-2013

**Date ISDS Approved/Disclosed:** 22-Jul-2013

#### I. BASIC INFORMATION

##### 1. Basic Project Data

<b>Country:</b>	Mozambique	<b>Project ID:</b>	P132551
<b>Project Name:</b>	Mozambique - Maputo Peri-urban Sanitation (P132551)		
<b>Task Team Leader:</b>	Peter M. Hawkins		
<b>Estimated Appraisal Date:</b>		<b>Estimated Board Date:</b>	31-Jul-2012
<b>Managing Unit:</b>	TWIAF	<b>Lending Instrument:</b>	Specific Investment Loan
<b>Sector(s):</b>	Sanitation (100%)		
<b>Theme(s):</b>	Urban services and housing for the poor (80%), Pollution management and environmental health (20%)		
<b>Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?</b>			No
<b>Financing (In USD Million)</b>			
Total Project Cost:	1.78	Total Bank Financing:	0.00
Total Cofinancing:		Financing Gap:	0.00
<b>Financing Source</b>			<b>Amount</b>
Borrower			0.00
Japan Social Development Fund			1.78
Total			1.78
<b>Environmental Category:</b>	C - Not Required		
<b>Is this a Repeater project?</b>	No		

##### 2. Project Development Objective(s)

##### 3. Project Description

Context:

62% of the population in urban areas of Mozambique (5.1 million people) currently lack access to

even basic improved sanitation facilities, and, with about two thirds of Mozambique's population growth between now and 2050 estimated to be in urban areas, access to improved sanitation facilities in such areas is set to continue to be a critical challenge. The lack of access to improved sanitation is acute in the informal settlements and peri-urban areas of Mozambique's capital, Maputo, resulting in frequent cholera outbreaks, widespread diarrheal disease and high child mortality. The issue of urban poverty is receiving increasing attention from Government, and the improvement of urban sanitation is an explicit goal in the country's most recent poverty reduction strategy, as well as being the subject of a current inter-ministerial initiative. The Maputo Municipal Council has also recently included sanitation improvement, after many years of neglect, in an on-going program of decentralization to improve basic services in peri-urban areas. The project aims to demonstrate how peri-urban sanitation can be upgraded, working across one of Maputo's seven municipal districts.

The project will also contribute to the on-going Second Maputo Municipal Development Project, funded by the World Bank, and, in particular, provide complementary technical inputs to a PPIAF grant under that project which is providing business development services to small-scale sanitation service providers in the same area.

#### Component 1: Sanitation infrastructure

Expected result: About 140,000 people have access to and are using improved on-site sanitation facilities by the end of the two-year project

##### Activities:

- Hold further participatory consultations on the nature and siting of improved communal and shared sanitation facilities within tenement plots;
- Support local Activists to build the capacity of communities to participate in the construction and design processes;
- Undertake participatory design process for improved communal and shared sanitation facilities;
- Construct improved communal sanitation facilities;
- Establish locally-based operation and maintenance systems with sustainable financing (links to Component 3);
- Explore “blended financing” options for communal sanitation facilities, involving the municipality, community and private sector;
- Facilitate access of owner-occupiers to competent builders and fabricators of components for latrines (see also Component 3 below).

##### Outputs:

- Approximately 250 improved shared sanitation facilities (one or two latrine units)
- Approximately 50 large tenements with improved communal sanitation facilities (typically a four-cubicle block with a septic tank)
- Approximately 3,500 owner-occupiers upgrade their toilets or build new ones
- Locally-based operations and maintenance arrangements and financing established
- Initial recommendations on “blended financing” models (for financing of communal sanitation) developed

Note that “improved” does not mean upgrading of existing facilities (these are often totally lacking) but rather the construction of new ones that meet the national and international standards for “improved sanitation facilities”. Any substandard existing facilities will be closed; superstructure will be demolished and substructure, including any fecal sludge therein, will be covered and backfilled, remaining buried.

## Component 2: Development of desludging services

Expected result: Viable formal, professional, hygienic and affordable desludging services are available to about 140,000 people by the end of the two-year project. These will be provided on demand by small enterprises, against user payments.

All sludge removed from latrines and septic tanks will be dumped at the municipal wastewater treatment works. Ample capacity is available, since connection rates to the sewerage system are about 50% of design capacity, rising only very slowly (the system was built more than 25 years ago), and the expected additional loading arising from improved fecal sludge management is less than 5% of the design capacity. A facility specifically for treating fecal sludge has been approved by the Municipal Council, and is about to be constructed near the project area. This will be evaluated under the project, and may also be used once its capacity and performance have been shown to meet the relevant national standards.

Because the primary collection equipment adapted to narrow access ways in dense slum areas is neither suitable nor economic for use on the 5-10 km of roads to the municipal treatment plant, small transfer facilities will be constructed, and emptied by conventional 5-10 ton vacuum tankers. The transfer facilities will consist of a subsurface tank (basically a moderately large septic tank, about 8m<sup>3</sup>) and a hopper arrangement for pouring in the sludge. Hard standing, drainage and a water tap will also be provided for cleaning. They will as far as possible be constructed in the service providers' premises, where their existing solid waste businesses are based, and where they keep, clean and maintain their equipment. In one or two cases it may be necessary to use public land, which will be done in full discussion with the community and the Municipality, and a secure perimeter wall will be established to prevent unauthorized access. If neither option is available, no tank will be built in that area.

### Activities:

Develop an entirely new and innovative technical, financial and organizational model for the provision of hygienic desludging services to replace the very unhygienic informal sector services which are all that is currently available:

- Support individual informal pit emptiers to become employees or partners in micro-enterprises (in principle 11 – one per bairro, though in a few cases one micro-enterprise may cover two bairros), offering hygienic desludging services by:
  - Linking them with existing micro-enterprises collecting solid waste under contracts with the municipality or other community based enterprises, which already have knowledge of the bairros and have an established micro-enterprise structure; or
  - Supporting individual informal pit emptiers to come together to form more formal desludging micro-enterprises
- Equip desludging services with appropriate equipment (manual and simple mechanical desludging tools, protective clothing)
- Establish a fund for operators to obtain credit for purchasing and fitting out simple transfer trucks (1-2 ton capacity with standard plastic tanks) for moving sludge between latrines and transfer stations. This will be managed at district level by CMM, with proceeds from repayment being used to lend to individual householders for latrine upgrading. In some cases, grants may be given to households identified as vulnerable and unable to make necessary improvements.
- Further develop the gulper sludge extraction device
- Develop replicable funding systems to capitalize desludging businesses
- Train micro-enterprise staff (pit emptiers) in areas including hygienic desludging techniques,

using new tools, business planning, and rate setting

- Construct sludge transfer stations as needed (following assessment of where these could be located and shared between bairros – up to 11 stations). These will consist of a 6-10m<sup>3</sup> subsurface tank, water supply for cleaning equipment and the installation itself, and fencing to exclude unauthorized personnel.
- Discuss with women and girls the issue of menstrual waste management, develop methods of managing this waste, and educate women, girls and pit emptiers on how to implement them
- Establish regulatory oversight and control mechanisms at local and CMM level, with linkages to the sector regulator, CRA to ensure standards are put into practice by desludging service providers
- Develop reliable systems for servicing the transfer stations, as far as possible on a cost recovery basis
- Investigate the potential for decentralized treatment and disposal of sludge, including possible co-composting with organic solid waste

Outputs:

- Viable desludging businesses established and accessible to all residents of the target area (required capacity estimated around 2 tonnes per bairro per day, equivalent to 50 liters per person per year)
- 11 desludging micro-enterprises suitably equipped and trained
- Financing system for desludging micro-enterprises developed
- 11 transfer stations and sustainable servicing system established
- Regulatory oversight mechanism established and recognized by CRA
- Options for decentralized sludge treatment identified, evaluated and piloted where appropriate

### Component 3: Community level sanitation and hygiene promotion and monitoring

Expected result: Sanitation status of all c.31,000 households monitored at least twice yearly, with consolidated data available at district level, and effective promotion and follow-up of good hygienic practices in place, anchored locally in the Block Leader system by the end of the two-year project.

Activities:

- Build capacity of the Sanitation Section of CMM's Water and Sanitation Department (SS-CMM) to provide training and backup services to the districts and bairros, to undertake sanitation planning, and to ensure effective operation of the sludge transfer stations
- With SS-CMM, train Block Leaders to undertake regular monitoring and promotion of good sanitation and hygiene in their areas of c.70-80 households each, and provide on-site support as needed
- Investigate and, where feasible, introduce a mobile phone-based system to facilitate the collection of monitoring data, and also feedback from the community on, for example, the quality of desludging services
- Support the selection and training of bairro-level water and sanitation overseers (responsáveis de água e saneamento) to deal with user complaints and support the monitoring process
- Build capacity at bairro level to maintain a current database of water and sanitation monitoring data
- Build capacity in the SS-CMM (activists) and local CBOs to provide support to community-level sanitation and hygiene promotion activities
- Plan and implement community-level sanitation and hygiene promotion campaigns in collaboration with district, bairro and block level personnel, and SS-CMM

- Establish bairro-level oversight and support systems for user-managed communal facilities
- Prepare and use promotional materials, including where appropriate printed material, video, audio, community theatre, music and dance, and use of local media
- Develop and implement a “dirtiness index” based on monitoring data, and publicize it periodically to generate a competitive desire to improve sanitation and hygiene conditions in each bairro, possibly making use of ICT-based mapping technologies

**Outputs:**

- About 140,000 people have increased awareness of appropriate sanitation and hygiene practices and maintain their toilets in a clean and sanitary condition
- About 55 local Activists in trained participatory methodologies, PHAST, CLTS, hygiene promotion strategy and information collection
- About 825 Block Leaders trained in sanitation and hygiene promotion and monitoring
- 11 water and sanitation overseers trained and in place to support sanitation and hygiene promotion and monitoring and deal with user complaints
- 55 SS-CMM and CBO activists trained in sanitation and hygiene promotion
- SS-CMM professional staff trained and equipped to provide effective management of peri-urban sanitation
- Promotional materials, programs and events
- Sustainable community-based participatory monitoring systems established and suitable for replication Dirtiness index regularly publicized

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

The project is designed to service 11 low income, unplanned peri-urban areas of the capital city, Maputo, precisely in the bairros of Nlhamankulo District, namely Chamanculo A, Chamanculo B, Chamanculo C, Chamanculo D, Malanga, Aeroporto A, Aeroporto B, Unidade 7, Munhuana, Minkadijuine and Xipamanine. Nlhamankulo is one of 7 districts that make up the municipality of Maputo. Simplified land title (alternate DUAT) has been awarded to residents in part of the area concerned, but “squatters’ rights” are generally respected throughout. The project will only make use of unoccupied public land being availed the local Government, under strict Municipal oversight, or of space within occupied plots allocated by their owners.

#### **5. Environmental and Social Safeguards Specialists**

<b>6. Safeguard Policies</b>	<b>Triggered?</b>	<b>Explanation (Optional)</b>
Environmental Assessment OP/ BP 4.01	Yes	
Natural Habitats OP/BP 4.04	No	
Forests OP/BP 4.36	No	
Pest Management OP 4.09	No	
Physical Cultural Resources OP/ BP 4.11	No	

Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/BP 4.12	No	
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	No	
Projects in Disputed Areas OP/BP 7.60	No	

## II. Key Safeguard Policy Issues and Their Management

### A. Summary of Key Safeguard Issues

**1. Describe any safeguard issues and impacts associated with the Restructured project.  
Identify and describe any potential large scale, significant and/or irreversible impacts:**

The project is classified as an environmental and social category B type, due specifically to activities supported under component 1, which are site specific, very small in size, and thus likely to produce only minor and easily manageable negative effects. This only requires a partial assessment as the planned activities are rather expected to have a substantial positive impact and be beneficial to these poor beneficiaries living in these densely settled peri-urban areas of the capital city, Maputo. More specifically, possible negative impacts which could occur and that need to be prevented are: (i) release of odors due to inappropriate handling of fecal sludge; (ii) eruption of cholera, and/or other waterborne diseases within the community, especially among the kids/toddlers and elderly people, often known as the most vulnerable ones, due to the inadequate management of sanitation facilities; (iii) degradation of the local environment due to leakage from toilets or desludging facilities releasing fecal material into water courses and open ground; and (iv) social conflicts in case of miscommunication and lack of participation of primary beneficiaries in the sustainable communal management of project-built sanitation facilities. These will be mitigated through the social communication and hygiene promotion components of the project, on which a considerable emphasis will be put.

No significant negative impact is expected from construction site debris, as this will only occur in minimal quantities from excavating latrine pits or septic tank sites in uncontaminated soil, and can be directly accommodated on-site.

Land expropriation is not expected during the implementation because only unoccupied land will be used. The very small amounts of public land required will be officially donated by the municipality and cleared from any claim, whilst space for sanitary facilities within privately held plots will only be used with the full agreement and cooperation of the plot-holders. However, the fragility of the context (specifically, the informal nature of the settlements concerned, the social fabric of project-affected families, and the family inheritance process) requires good social and environmental safeguards mechanisms throughout the lifecycle of the project, as a preventative measure. In light of the activities described in component 1, two safeguards policies are triggered, namely OP/BP 4.01 (Environmental Assessment) and OP/BP 4.12 (Involuntary Resettlement). Basic requirements of the above two safeguards policies are addressed in the Environmental and Social Management Framework Checklist (ESMFC) prepared by the Borrower and disclosed both

in-country and at the InfoShop prior to appraisal. Furthermore, as described above, no significant or irreversible impacts are foreseen, either at this stage of project preparation, or during its implementation. The ESMFC provides the basis for addressing both environmental and social related issues, though the likelihood of land disputes is extremely low (given the existing family/kinship structure) and not expected to present operational or social problems. A signed document will be produced in respect of each parcel of land to be used, acknowledging the owner's agreement to use it.

Possibly the most significant risks are those related to the operation and management of the sludge transfer system. Whilst no social impacts are foreseen, and environmental impacts would not exceed the release of some odors during discharge into or emptying of the tank (experience with similar existing facilities shows that in between such operations, there is no smell), the transfer system depends on sustainable funding for the secondary transport of fecal sludge to the treatment works. In order to address this issue, the project team is already working with PPIAF and the future service providers to develop viable business models capable of covering these costs. Concurrently, the team is also working with the Municipality on generating revenue for all aspects of sanitation, which could be used in part for subsidizing transfer if found to be necessary - indeed, this possible use was one of the important reasons for looking at the proposed sanitation fee to be added to water bills. The agreed target is to introduce the charge in early 2015, after the next election. In the event that both these strategies fail, the transfer facilities will be closed and permanently deactivated by emptying and backfilling them with soil.

**2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:**

Expected positive impacts include better health and quality of life for tenement residents due to the use of improved sanitary facilities, and less environmental pollution and disease due to hygienic fecal sludge disposal at the municipal wastewater treatment works, instead of in ditches and on open land within the residential area covered by the project. This will be further sustained by offering substantial and continuous technical capacity-building and awareness raising on health and hygiene to all beneficiaries and service providers. No adverse long-term impacts are foreseen, and the scale of project is small in any case.

If any of the facilities built under the project are eventually abandoned due to change of use of the private or public land used, or discontinuation of the transfer system, the land can easily be returned to a useable state without environmental or health risks. The "infectious" parts of all these structures are underground, and can easily and safely be backfilled with soil, abandoned and the superstructures demolished. This is already done routinely in thousands of cases, where people have a full latrine and also have sufficient space to knock it down and build a new one – this is more typical in the larger plots on the urban periphery; the need for desludging services arises precisely because this option is no longer available in the dense slum areas. An abandoned transfer tank might even be seen as an asset, as it has a nice concrete top surface that is good for use as outside space – subsurface decentralized treatment units similar to large septic tanks have been used on public land in Indonesian slums, and have proven very popular venues for outdoor activities. For these reasons, it is not considered necessary to prepare an RPF, and the EMF-EMP template should be sufficient to handle any social issues arising.

**3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.**

Not considered as not applicable.

**4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.**

In compliance with the safeguards requirements, the Borrower has prepared a comprehensive ESMFC to comply with the basic requirements of both triggered safeguards policies (OP/BP 4.01 and OP/BP 4.12). Preparation of this safeguards instrument involved extensive participatory consultation with various stakeholders, including women, youth the poor and most vulnerable groups in the targeted communities. This consultation was further validated by the World Bank during team field visits to project intervention communities. The mission appreciated the communities' level of knowledge and understanding of the project, from which they have very high expectation. These consultations also involved civil society organizations, one of which is expected to accompany the implementation process. The ESMFC was reviewed by the Safeguards team and cleared by the Regional Safeguards Adviser (ASPEN); and thereafter publicly disclosed both in-country (April 22, 2013) and at the InfoShop (April 22, 2013) respectively prior to appraisal.

The Mozambican (MICOA) regulatory framework on environmental and social assessment, although still weak in some areas, seems well thought through and sufficient for a project of this type and scale. The project implementing agency (WSUP) has satisfactory internal capacity (a Focal Point) for the successful implementation of the ESMFC, namely the person in charge of sanitation work, who already has strong work experience in wastewater and sludge management in the EU, which has strict environmental and social regulations. Moreover, since there has been a coordinated effort with MICOA in preparing this project, provision is further made by the project to enhance the technical capacity of WSUP, its partner agency, the Maputo Municipal Council (CMM), and beneficiary communities via the Latrine Users' Associations (LUAs) to be established by WSUP. The Focal Point, in close collaboration with the LUAs, will ensure appropriate implementation and follow-up of both the social and environmental safeguards mitigation measures outlined in the ESMFC as well as overall complementary social development measures such as the inclusion and mainstreaming of gender and vulnerable groups throughout the project lifecycle.

The Maputo Municipal Council (CMM) has a long history of implementing World Bank funded projects, including ones with major environmental and social impacts orders of magnitude greater than those expected under this JSDF project, and can reasonably be expected to adequately deal with any issues arising in this case. WSUP is specialized in sanitation and has a proven track record of dealing with the relevant environmental and social issues since its establishment about 10 years ago. WSUP has successfully managed projects funded by USAID, AusAID and other donors which also demand high environmental and social standards. Moreover, in addition to technical support from the World Bank safeguards specialists, a dedicated TA element is included in the project to reinforce the existing social and environmental management expertise in both the CMM and WSUP.

**5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.**

The key stakeholders in the implementation of this JSDF project are primarily the beneficiary communities, amongst whom expectation of this project is extremely high as, it clearly will alleviate the very difficult situation they face in respect of access to safe, modern and socially, environmentally and communally friendly sanitation facilities. Other key stakeholders naturally include (i) the Project Support Unit including a small management and technical team that will provide overall project coordination and oversight in collaboration with WSUP and existing

institutional structures to enhance and mainstream project activities, (ii) the SS-CMM, (iii) desludging service providers, and (iv) Civil Society Organizations to be involved in the implementation of some activities, particularly the establishment and training of the Latrine Users' Associations (LUAs). Since consultation is not a one-window shop but rather an iterative process which aim, especially in this project aims to change people's mentality and behaviour in the short and long term, these stakeholders will be consulted and their views fully taken into consideration throughout project implementation.

### **B. Disclosure Requirements**

<b>Environmental Assessment/Audit/Management Plan/Other</b>		
Date of receipt by the Bank		04-Apr-2013
Date of submission to InfoShop		22-Apr-2013
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors		
"In country" Disclosure		
Mozambique		22-Apr-2013
<i>Comments:</i>		
<b>If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.</b>		
<b>If in-country disclosure of any of the above documents is not expected, please explain why:</b>		

### **C. Compliance Monitoring Indicators at the Corporate Level**

<b>OP/BP/GP 4.01 - Environment Assessment</b>		
Does the project require a stand-alone EA (including EMP) report?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]
If yes, then did the Regional Environment Unit or Sector Manager (SM) review and approve the EA report?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]
<b>The World Bank Policy on Disclosure of Information</b>		
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]
<b>All Safeguard Policies</b>		
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]
Have costs related to safeguard policy measures been included in the project cost?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]

### III. APPROVALS

Task Team Leader:	Peter M. Hawkins	
<i>Approved By</i>		
Regional Safeguards Advisor:	Name: Alexandra C. Bezeredi (RSA)	Date: 18-Jul-2013
Sector Manager:	Name: Jaehyang So (SM)	Date: 22-Jul-2013