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Report No.: PAD1771

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL CREDIT AND RESTRUCTURING

IN THE AMOUNT OF SDR 38.9 MILLION
(US\$55 MILLION EQUIVALENT)

TO

THE UNITED REPUBLIC OF TANZANIA

FOR THE

ZANZIBAR URBAN SERVICES PROJECT

MAY 20, 2016

Social, Urban, Rural and Resilience Global Practice
AFRICA Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2016)

Currency Unit = Tanzanian Shillings (Tsh)
US\$1 = Tsh 2,191
US\$1 = SDR 0.70555

FISCAL YEAR

July 1 – June 30

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
DoURP	Department of Urban and Rural Planning
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
GDP	Gross Domestic Product
GIS	Geographic Information System
IFR	Interim Financial Report
LGRCIS	Local Government Revenue Collection and Information System
MKUZA	<i>Mkakati wa Kukuza Uchumi na Kupunguza Umasikini Zanzibar</i> (Zanzibar Strategy for Growth and Reduction of Poverty)
MOFP	Ministry of Finance and Planning
OSR	Own Source Revenue
PAP	Project Affected Person
PDO	Project Development Objective
PMT	Project Management Team
PPP	Public-Private Partnership
RAP	Resettlement Action Plan
RF	Result Framework
RGoZ	Revolutionary Government of Zanzibar
ZanPlan	Strategic and Spatial Development Plan for Zanzibar
STCDA	Stone Town Conservation and Development Authority
ZMC	Zanzibar Municipal Council
ZUSP	Zanzibar Urban Services Project

Regional Vice President:	Makhtar Diop
Country Director:	Bella Bird
Senior Global Practice Director:	Ede Jorge Ijjasz-Vasquez
Practice Manager/Manager:	Idrissa Dia
Task Team Leader:	Andre A. Bald
Co-Task Team Leader:	Gyongshim An

**TANZANIA
ZANZIBAR URBAN SERVICES PROJECT**

CONTENTS

Project Paper Data Sheet	<i>iv</i>
Project Paper	
I. Introduction	1
II. Background and Rationale for Additional Financing	1
III. Proposed Changes	9
IV. Appraisal Summary	13
V. World Bank Grievance Redress	21
Annexes	
1. Revised Results Framework and Monitoring Indicators	22
2. Detailed Description of New Project Activities	26
3. Economic Analysis	33
4. Solid Waste Management Technical Analysis	44
5. Key Risks and Mitigation Measures	50

ADDITIONAL FINANCING DATA SHEET

Tanzania

Zanzibar Urban Services Project Additional Financing (P155392)

AFRICA

GSU19

Basic Information – Parent							
Parent Project ID: P111155		Original EA Category: A - Full Assessment					
Current Closing Date: 30-Jun-2016							
Basic Information – Additional Financing (AF)							
Project ID: P155392		Additional Financing Type (from AUS): Scale Up					
Regional Vice President: Makhtar Diop		Proposed EA Category: A – Full Assessment					
Country Director: Bella Bird		Expected Effectiveness Date: 01-Aug-2016					
Senior Global Practice Director: Ede Jorge Ijjasz-Vasquez		Expected Closing Date: 30-Jun-2019					
Practice Manager/Manager: Idrissa Dia		Report No: PAD1771					
Team Leader(s): Andre A. Bald, Gyongshim An							
Borrower							
Organization Name		Contact		Title		Telephone	Email
Ministry of Finance and Planning		Dr. Servacius B. Likwelile		Permanent Secretary and Paymaster General		+255 754088250	sblikwelile@yahoo.com
Project Financing Data - Parent (Zanzibar Urban Services Project-P111155)							
Key Dates							
Project	Cr	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date
P111155	IDA-48610	Effective	24-Feb-2011	06-Apr-2011	11-Jul-2011	30-Jun-2016	

Disbursements									
Project	Cr	Status	Currency	Original	Revised	Cancelled	Dis-bursed	Undis-bursed	% Disbursed
P111155	IDA-48610	Effective	XDR	25.00	25.00	0.00	15.06	9.94	60.24
Project Financing Data – Additional Financing Zanzibar Urban Services Project Additional Financing (P155392)									
<input type="checkbox"/> Loan		<input type="checkbox"/> Grant		<input type="checkbox"/> IDA Grant					
<input checked="" type="checkbox"/> Credit		<input type="checkbox"/> Guarantee		<input type="checkbox"/> Other					
Total Project Cost:		55.00				Total Bank Financing:		55.00	
Financing Gap:		0.00							
Financing Source – Additional Financing (AF)							Amount (US\$ million)		
Borrower/Recipient							0.00		
International Development Association (IDA)							55.00		
Total							55.00		
Policy Waivers									
Does the project depart from the CAS in content or in other significant respects?							No		
Explanation									
Does the project require any policy waiver(s)?							No		
Explanation									
Team Composition									
Bank Staff									
Name	Role		Title		Specialization	Unit			
Andre A. Bald	Team Leader (ADM Responsible)		Program Leader, Lead Urban Specialist		Urban Development	AFCE1			
Gyongshim An	Co-Task Team Leader		Sr. Urban Spec.		Urban Development	GSU13			
Gisbert Joseph Kinyero	Procurement Specialist (ADM Responsible)		Senior Procurement Specialist		Procurement	GGO01			
Mercy Mataro Sabai	Financial Management Specialist		Sr Financial Management Specialist		Financial Management	GGO31			
Amy Faust	Team Member		Consultant		Urban and Environment	GSU13			

Helen Z. Shahriari	Safeguards Specialist	Sr Social Scientist	Resettlement	GSU07	
Jane A. N. Kibbassa	Safeguards Specialist	Senior Environmental Specialist	Environment	GEN01	
Jeffrey Delmon	Team Member	Sr PPP Specialist	PPP	GCPDR	
Mei Wang	Counsel	Sr Counsel	Counsel	LEGAM	
Christiaan Johannes Nieuwoudt	Team Member	Finance Officer	Disbursement	WFALA	
Faith-Lucy Matumbo	Team Member	Program Assistant	Program Assistant	AFCE1	
Roderick M. Babijes	Team Member	Program Assistant	Program Assistant	GSU19	
Saba Nabeel M Gheshan	Counsel	Counsel	Counsel	LEGAM	
Extended Team					
Name	Title		Location		
Chris Banes	Municipal Engineer				
Robert Breeze	Solid Waste Management Specialist				
Muindi Eric Musyangi	Municipal Engineer				
Gottfried Roelcke	Urban Development Specialist				
Geoffrey Read	Heritage Specialist				
Luz Maria Gonzalez	Economic and Financial Analyst				
Zak Rich	PPP Specialist				
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments
Tanzania	Zanzibar Urban / West Region	Zanzibar Urban / West Region		X	Zanzibar Municipal Council
Tanzania	Pemba South Region	Pemba South Region		X	Mkoani Town Council, Chake-Chake Town Council
Tanzania	Pemba North Region	Pemba North Region		X	Wete Town Council
Institutional Data					
Parent (Zanzibar Urban Services Project-P111155)					
Practice Area (Lead)					
Social, Urban, Rural and Resilience Global Practice					
Contributing Practice Areas					

Cross Cutting Topics				
[x] Climate Change				
[] Fragile, Conflict & Violence				
[] Gender				
[] Jobs				
[] Public Private Partnership				
Sectors / Climate Change				
Sector (Maximum 5 and total % must equal 100)				
Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Water, sanitation and flood protection	Flood protection	36		
Public administration, law, and justice	Sub-national government administration	29		
Water, sanitation and flood protection	Solid waste management	25		
Water, sanitation and flood protection	General water, sanitation and flood protection sector	10		
Total		100		
Themes				
Theme (Maximum 5 and total % must equal 100)				
Major theme	Theme	%		
Urban development	City-wide infrastructure and service delivery	39		
Urban development	Urban services and housing for the poor	39		
Urban development	Municipal finance	11		
Urban development	Cultural heritage	11		
Total		100		
Additional Financing Zanzibar Urban Services Project Additional Financing (P155392)				
Practice Area (Lead)				
Social, Urban, Rural and Resilience Global Practice				
Contributing Practice Areas				
Governance				

Cross Cutting Topics

- Climate Change
 Fragile, Conflict & Violence
 Gender
 Jobs
 Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Water, sanitation and flood protection	Flood protection	35	49	
Water, sanitation and flood protection	Solid waste management	25	73	73
Water, sanitation and flood protection	General water, sanitation and flood protection sector	10	36	30
Public Administration, Law, and Justice	Sub-national government administration	30		

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Urban development	City-wide Infrastructure and Service Delivery	60
Urban development	Municipal finance	15
Urban development	Urban Economic Development	10
Urban development	Cultural Heritage	10
Public sector governance	Tax policy and administration	5
Total		100

Consultants (Will be disclosed in the Monthly Operational Summary)

Consultants Required? To be determined

I. Introduction

1. This Project Paper seeks the approval of the Executive Directors on (i) a proposed additional credit to the United Republic of Tanzania in the amount of SDR 38.9 million (US\$55 million equivalent) for the Additional Financing for the Zanzibar Urban Services Project (referred to as ZUSP, or the project), on standard IDA terms with a final maturity of 38 years including a grace period of 6 years; and (ii) a proposed level-one restructuring to the original project to update the project development objective and the results framework, and extend the credit closing date from June 30, 2016 to June 30, 2019.

2. The original project supports provision of basic infrastructure services, institutional strengthening, and cultural heritage preservation. The proposed Additional Financing (AF) will scale up the impacts and capital investments of the project, as well as enhance and sustain the institutional strengthening activities, and provide the enabling infrastructure to support local economic development and livelihoods. It will include support for (i) durable solutions for urban sanitation, with the first sanitary land fill and sludge treatment facility, (ii) urban upgrading, cultural heritage preservation, and place making, (iii) new systems to improve sustainability of municipal finance for service delivery, (iv) scaling-up small-scale investments in Pemba island, and (v) corresponding institutional strengthening.

3. The proposed AF will also support implementation of the resettlement activities of the original project. Pursuant to OP 10.00 instructions, Management approved the financing of land acquisition and resettlement compensations by the proceeds of the additional credit.

II. Background and Rationale for Additional Financing

A. Background and Context

4. The project is located in Zanzibar, a semi-autonomous archipelago 32 kilometers east of the mainland Tanzania, comprising two main islands—Unguja (area: 1,666 square kilometers, 2012 population 896,721 persons) and Pemba (area: 988 square kilometers, 2012 population: 406,808 persons).¹

5. The Revolutionary Government of Zanzibar (RGoZ)'s *Vision 2020* and *Zanzibar Strategy for Growth and Reduction of Poverty (MKUZA II)* aim to eradicate extreme poverty in Zanzibar and transform Zanzibar to middle income status by 2020. The RGoZ recognizes the importance of (i) livable and sustainable urban areas for economic development and poverty reduction, and (ii) capable institutions for improved service delivery and urban management.

6. Zanzibar is highly urbanized compared to the mainland and most areas in Africa. Almost 600,000 persons (66 percent of the population of the island) live in urban areas on

¹ In 1964, Zanzibar joined with Tanganyika to create the United Republic of Tanzania. While forming part of the United Republic of Tanzania, Zanzibar retains exclusive jurisdiction within its boundaries. The Revolutionary Government of Zanzibar (RGoZ) has its own president, cabinet, legislature, and judicial system. In this respect, the RGoZ has autonomy over issues related to its internal administration and urban planning and development.

Zanzibar's main island Unguja. As a result, the focus of the government is on improving services and the livability of existing urban areas. Well-managed urban areas could help reduce poverty and increase prosperity as cities can propel growth, attract investment, spur innovation and create productive jobs. However, Zanzibar, like many cities in the Tanzanian mainland, has not fully captured the benefits from urbanization (economies of scale and agglomeration) and urbanization has not been accompanied by a transformation towards sectors with higher value-added. The challenges of urbanization are compounded by problems with informality, fragmented institutions, lack of financing, and poor service delivery.

7. Following the recent elections, there is a heightened risk of political instability in Zanzibar. Global experience shows that in areas with similar context – and coupled with high youth unemployment – there is potential for civic unrest. Youth unemployment is approaching 20 percent in Zanzibar, thus addressing this issue is critical to maintain social stability. This AF seeks to capitalize on the investments and supporting technical assistance (presented in Section C) to help develop youth skills and to improve their employment opportunities, as an important factor for promoting political stability and economic development.

8. Agriculture had traditionally been the backbone of Zanzibar's economy but tourism is the fastest growing sector and has increasingly contributed to the island's economic output based on its rich historic, cultural and heritage resources, as declared as a World Heritage Site by UNESCO. Tourism contributes 80 percent of foreign exchange earnings and 27 percent of the gross domestic product (GDP).² Tourism provides an estimated 20,000 to 40,000 jobs, with additional 60,000 to 100,000 persons benefiting from indirect employment such as food suppliers and traders. The Bank is increasingly engaging in the tourism sector with a focus on addressing the obstacles impeding sustainable tourism development and enhancing the livelihoods of communities. The recently completed Bank-financed airport runway extension has led to a significant increase in tourist arrivals (from roughly 180,000 in 2013 to 310,000 in 2014) by allowing larger planes to land, and opening up access to new markets. The forthcoming *National Tourism Development Plan* (led by the Trade and Competitiveness Global Practice) will cover Zanzibar, and this AF will include resources for follow-up activities. The new *Education and Skills for Productive Jobs Program* includes skills training for the tourism and hospitality sector, which can support Zanzibar.

9. There is scope and need to widen the benefits of tourism for local communities in Zanzibar beyond Stone Town (a World Heritage site and main tourist attraction), but existing infrastructure is a constraint. Zanzibar faces significant urban development challenges due to inadequate infrastructure, deficient services and limited financial and institutional capacities. It is in an unsustainable position of being a world class tourist destination without having a sanitary landfill or sludge treatment facility. Only 46 percent of waste generated in the city is collected, thus flooding is more frequent with the blocked drains, trash is visible in tourist areas (Stone Town and beaches), and open dumps are ubiquitous through local (and typically low-income) communities. Tourists' exit surveys flag the island's poor sanitation and waste management as a serious detraction. Inadequate fiscal, skills, and institutional capacity of the

² For the mainland and Zanzibar combined, tourism accounts for 17 percent of GDP.

local governments limit service delivery and affect Zanzibar's ability to maintain its tourism draw, promote investment, and achieve its economic and job creation potential.

10. The new strategic and spatial development plan for Zanzibar (*ZanPlan*) recommends expanding and improving urban services beyond the congested areas concentrated in Stone Town. The plan identifies the Ng'ambo area (a buffer zone of the Stone Town UNESCO heritage site, reference Annex 2) as an improvement district for conservation, services, and place making. It proposes to reposition Ng'ambo to improve local economic activities through upgrading, transit and pedestrian oriented design, and cultural heritage preservation - and create an 'added' tourist destination near Stone Town. This could provide wider economic benefits and job opportunities for youths directly in low-income communities.

11. The AF was prepared in response to the RGoZ's request to continue to support its urban agenda with infrastructure investments and institutional capacity in Zanzibar Municipal Council (ZMC) and Pemba Towns. Given the significant infrastructure demands and limited resources, the government sought to prioritize and align the AF investments that can (i) capitalize on the original project activities, (ii) expand service delivery and improve urban management, and (iii) contribute to economic development and livelihoods, with the tourism sector showing strong potential. The selected AF activities are economically resilient – while they contribute to improving the tourism sector, they are sound as standalone investments providing basic urban services.

B. Original Project

12. A credit of SDR 25 million (US\$38 million equivalent) for ZUSP was approved by the Bank's Board of Executive Directors on February 24, 2011 and became effective on July 11, 2011. The current credit closing date is June 30, 2016. ZUSP is executed by the Project Management Team (PMT) under the implementing agency, the RGoZ's Ministry of Finance and Planning (MOFP).

13. The PDO was to improve access to urban services in Zanzibar and conserve the physical cultural heritage at one public location within Stone Town. ZUSP has three components:

- 1) *Component 1: Institutional Strengthening and Infrastructure Development in the Zanzibar Municipal Council Area (US\$31.2 million)* focuses on the ZMC on Unguja Island through six subcomponents which include: (i) institutional strengthening of ZMC, (ii) preparation of a structure plan for the ZMC, (iii) storm water drainage in the ZMC urban periphery, (iv) street lighting, (v) solid waste collection and transport, and (vi) the Mizingani sea wall and promenade.
- 2) *Component 2: Support to Town Councils on Pemba Island (US\$3.8 million)* assists the three Town Councils on Pemba Island (Chake Chake, Mkoani and Wete) with: (i) institutional strengthening, and (ii) small-scale civil works and equipment.
- 3) *Component 3: Project Management (US\$3.0 million)* provides support to the PMT for project management, supervision of environmental and social

safeguards, project monitoring, and reporting. It also facilitates other implementing ministries and departments to implement and coordinate their activities.

14. Implementation Status. Project implementation experienced start-up delays but it has progressed significantly over the past two years, as has implementation capacity. The project has consistently maintained “Moderately Satisfactory” or higher ratings in the last two implementation status and results report in the past 12 months. All major works contracts—the sea wall, storm water drainage, historic municipal offices, and street lighting—are progressing well, supervision consultants are mobilized, and the ZMC office buildings were completed to historic design specifications. The PMT is fully staffed with the capacity to implement proposed scale-up interventions; analytical studies and capacity building activities were delivered on-schedule, and implementation is moving well and to quality standards.

15. Project implementation is 20 months behind schedule, with a disbursement lag of 40 percent. These figures reflect the slow project start-up period. The primary reason was that the largest contract for the sea wall construction was appraised as a single-source design-build contract to the Agha Khan Foundation, but this arrangement fell through and it was retendered for design, construction supervision, and works, resulting in a 24 month delay. Further, most subprojects lacked detailed engineering designs at appraisal, so considerable time was required to tender for and prepare the designs. There were further implementation delays associated with working in a sensitive cultural heritage environment; and the unanticipated closure of the only waste disposal area, which slowed waste management activities.

16. Compliance with safeguards policies. Overall compliance with triggered safeguards policies (Environmental Assessment OP/BP 4.01, Physical Cultural Resources OP/BP 4.11, and Involuntary Resettlement OP/BP 4.12) is rated as ‘Moderately Satisfactory’. Some shortcomings exist but do not have a material impact on compliance with policy requirements or achievement of development objectives. All risks are manageable with a clear way forward, and the PMT has overall managed safeguards risks effectively. All works components included intensive stakeholder consultations and the preparation of Environmental and Social Management Plans.

17. Compliance with legal covenants. ZUSP has complied with all legal covenants.

18. Fiduciary aspects. A review of financial management in February 2016 found that the project adhered to the credit’s financial covenants, and the disbursement rate had progressively improved. Audits have been submitted on time and issues raised in audit reports have been addressed. The unaudited interim financial reports (IFR) are being prepared on a quarterly basis and reviewed by the Bank. They have been submitted on time and was reviewed and found satisfactory. Procurement, although delayed at the start of the project, has been carried out in accordance with the Bank’s guidelines. Building and maintaining fiduciary capacity will remain critical under the project, both for the ZMC and Pemba Town Councils. Both financial management and procurement have been consistently rated ‘satisfactory’ in the last ISRs.

C. Rationale for Additional Financing and Proposed Activities

19. The AF will scale up the impacts and capital investments of the project, as well as enhance and sustain the institutional strengthening activities, and provide the enabling infrastructure to support local economic development and livelihoods. It will also enable the project to fully achieve the PDO.³

20. The progress under the original project has provided a strong foundation to expand the government's urban agenda for investments, institutions, and finance, and also capitalize on new opportunities supporting the growing tourism sector. The expected improvements and expansion of the storm water drainage network under the original project now enables urban upgrading and redevelopment of markets and public green spaces in areas not previously possible. The urban planning analytical work financed by the original project shows a strong rationale for redevelopment of the Ng'ambo area, which is consistent with the existing spatial development and master plans. Investments in Ng'ambo have potential for larger socioeconomic impacts beyond upgrading. It can also become an additional destination previously off the tourist circuit, providing new livelihood opportunities directly in low-income communities. The engagement and dialogue with the RGoZ in the sanitation sector indicates the critical need to find a durable solution for the solid waste management sector as part of the urban agenda, and to remove a key constraint to the tourism development.

21. Proposed activities. The ZUSP AF includes the following three components and the detailed activities are presented in Annex 2:

- 1) *Component 1: Institutional Strengthening and Infrastructure Development in the Zanzibar Municipal Council Area (US\$35.5 million):* Component 1 includes (i) investments in urban sanitation, including solid waste collection, transport, transfer, and development of a sanitary landfill and septic sludge treatment facilities; (ii) upgrading and redevelopment of the Ng'ambo area, including basic infrastructure, new public green spaces and recreation areas, support for the cultural heritage preservation, and development of public markets; (iii) support for municipal finance of ZMC by modernizing the own source revenue (OSR) collection systems and by advancing the nascent PPP initiatives; (iv) completion and scale-up of works under the original project, including storm water drainage and street lighting, considering their significant environmental and social benefits to the local communities; (v) institutional strengthening support to the RGoZ and ZMC on solid waste management strategy, asset management, information system, and community engagement; and (vi) resettlement cost associated with the storm water drainage works financed under the original project.⁴

³ One PDO indicator relating to the improvement of access to the solid waste services would not be achieved without the AF. See para 22 and the project description in Annex 2 for details.

⁴ The storm water drainage works with resettlement impacts have not commenced because of delays in implementation of the resettlement activities. Resettlement costs have significantly increased after the detailed design. See para 28 and the project description in Annex 2 for details.

- 2) *Component 2: Support to the Town Councils on Pemba Island (US\$5.0 million):* Component 2 includes (i) scaling up of small investments in provision of basic infrastructure such as street lighting, pedestrian footpaths, and local markets;⁵ and (ii) institutional strengthening support to the three Town Councils in Pemba Island on urban planning, asset management, fiscal management, information system, and community engagement.
- 3) *Component 3: Project Management (US\$3.5 million)* provides support to the PMT for the extended project management of the original project and the AF, including regular project activity monitoring, safeguards monitoring and audit, results monitoring and evaluation, fiduciary management and auditing, communications, and office operating costs. It will also facilitate other implementing ministries and departments responsible for specific subcomponents to implement and coordinate their respective activities. In addition, it will support identification and feasibility studies for a future urban operation pipeline in Zanzibar.

22. *Developing durable solutions for the island's sanitation crisis.* The provision of a comprehensive solid waste and sludge disposal system will address Zanzibar's on-going sanitation crisis. This has impacted the poorest communities the most, and is a key issue affecting tourism. The original project financed waste collection and transport equipment on the assumption that the then existing disposal site at Jumbi would continue to be used for the duration of the project. However, that disposal area was closed due to community opposition resulting from the poor environmental conditions. Without alternatives, the municipality disposed of waste in open dumps throughout the urban areas. Conscious of the social, environmental and public health risks, the Bank requested project-financed collection and transport equipment not to be used until an acceptable solution was found. The mid-term review of the original project concluded that a durable solid waste management system for ZMC could only be achieved if a new landfill was constructed. A suitable site has since been identified for the island's first sanitary landfill and sludge treatment facility. In addition to its environmental benefits, this sanitation solution will help Zanzibar strengthen its development potential to boost the local economy. The complementary PPP activities in the AF will support the arrangements for potential private sector operations.

23. *Improving municipal finances through e-government and PPP.* The municipalities have limited financial resources, constraining sustainable development and service delivery. Acknowledging the need and significant potential to improve the own source revenue (OSR) collection and tap the private sector, the RGoZ has requested to introduce the Local Government Revenue Collection and Information System (LGRSIS) following the successful pilots implemented in the Tanzania Strategic Cities Project.⁶ This new system will transform the performance, transparency, citizen focus of ZMC's tax administration systems – and be built on a geographic information system (GIS) platform that can support the government with broader urban management functions such as planning, land administration, and disaster risk

⁵ These investments will be defined during the course of implementation through a participatory process and will undergo screening for safeguards in accordance with the resettlement policy framework and environmental and social management framework.

⁶ In Arusha, LGRSIS has improved the revenue by 260 percent in the first 6 months of operations.

management. Twinning arrangements have started between Zanzibar and mainland counterparts already using LGRCIS. In recognition of the potential of the PPP in addressing the supply and demand gaps in urban infrastructure and improving service delivery, the AF will support capacity building for the newly established organizations in the RGoZ, initial scoping study for potential PPP, and feasibility studies for the identified potential PPP projects, including the AF-financed solid waste management system.

24. *Improving skills and training opportunities for youth employment.* The AF will leverage the technical assistance packages for skills and training opportunities for local youths to prepare the skill set needed to support improved urban management and for local economic development. The PMT will establish working relationships with the local technical universities, and project consultants will provide trainings on skills such as (i) mapping, planning, and GIS, (ii) civil engineering and supervision, (iii) municipal finance and PPP, and (iv) tourism and its value chain analysis. Already during preparation of the AF, an estimated 50 youths from a local university were trained in GIS mapping utilizing drones – additional opportunities such as these will be sought during implementation. Youth employment opportunities will also be addressed through a more sustainable tourism sector, through building working relationships with local technical universities and project consultants. There will also be improved opportunities for non-professional youth employment. The AF will actively facilitate expanding the scope and role of community-based organizations in solid waste collection and material recovery, drain cleaning, and other activities linked with the project investments.

25. *Opportunities for Women and Gender Sensitive Screening.* The AF activities have significant potential to target and enhance benefits to women. Emphasis will be placed to ensure balanced opportunities for women for all project skills training (per paragraph 24). This is expected to open doors for technical jobs (engineering services, ICT, etc) not traditionally availed by women. For consulting services, means for enhancing opportunities for women will be included as part of the technical evaluation criteria. For semi-skilled employment – the terms of reference for contractors will include provisions to encourage companies to hire women, and seek ways to employ them as laborers or supervisors in small-scale community works. Significant opportunities for women’s employment also exist in the solid waste sector – by working with existing community groups, the project will try to improve access to jobs for women and the working conditions. All capital investments will be screened for gender sensitive design. For example, the provision of streetlights shows high returns for improved security, and women’s groups will be consulted on placement of the lighting. The urban upgrading and activities for improvement of greenspaces and market areas will be screened for gender benefits. This will help ensure equal access to new market facilities, safe and secure trading and public spaces, adequate washrooms, and recreation/sports facilities designs exclusively for women and girls.

26. *Enhancing local economic development.* The AF’s focus on improved municipal services will benefit local economic development and quality of life in urban areas. This will be carried out through (i) investments to revitalize low-income areas Ng’ambo, with integrated strategies for local economic development, new commercial areas, and tourism capture, (ii) improving the tourism environment through a durable solution for urban sanitation, (iii) addressing chronic urban flooding in low-income communities, thus reducing

the damages and economic losses associated with recurrent flooding, and (iv) skills training for youths to benefit from increased local economic development opportunities.

27. *Scale-up of drainage and street lighting.* The original project includes improvements to a number of discrete storm drainage systems in the city. Flooding events are common and have become more severe in recent years. Several systems are under construction and the completed sections have already provided significant benefits to protect their catchment area from flooding. The AF will scale up the drainage works to Mwanakwerekwe area devastated by the recent flooding, which also resulted in the main road connected to the proposed landfill site becoming impassable. The AF will also complete and scale up the street lighting investments in the main arterial road connected to the airport and Ng’ambo area reflecting the positive social impact and beneficiary satisfaction of the original project.

28. *Financing resettlement.* There is a significant increase in the resettlement costs for the drainage works in the original project which were originally estimated at US\$45,000 at appraisal based on preliminary designs. With completion of the detailed designs and resettlement action plans (RAPs), updated costs are estimated at US\$3 million. Given the unexpected cost increase, limited public budgets, and non-availability for land-for-land swaps for resettlement, the RGoZ requested the use of the AF credit to pay for compensation for the original project. Pursuant to OP 10.00 instructions, Management approved the financing of land acquisition and resettlement compensations by the proceeds of the additional credit.

29. *Alignment with Country Strategies.* The proposed AF is aligned with the current *Country Assistance Strategy (CAS) 2012-2015*. It contributes to the CAS outcomes for (i) increased access to and quality of water and sanitation services, (ii) improved access to and management of urban services, and (iii) improved accountability and efficiency of public management. The proposed AF will also support *Zanzibar’s Strategy for Growth and Reduction of Poverty* as well as the Bank’s urban sector strategies for Africa. The scope of the AF is consistent with the findings from the *Systematic Country Diagnosis Concept Note*.⁷

30. *AF is the preferred financing mechanism,* as it allows the project to scale up activities for larger impacts, and build on the progress and client capacity. All AF activities can be completed within the proposed three-year extension period of the original project. In addition, the AF brings the benefit of extra time to consolidate gains for capacity building on OSR improvement, PPP, waste management, and community engagement.

31. Project cost and financing. The AF will be implemented over three years and will be financed through Investment Project Financing in the amount of US\$55 million equivalent on IDA terms.

	Project Components	Project Cost (US\$ mil)	IDA Financing (US\$ mil)	Share of total (%)
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⁷ The SCD Concept Note identifies several challenges for sustainability and emerging opportunities relevant to Zanzibar and the scope of AF, including, (i) climate variability and resilience, (ii) urbanization, (iii) declining foreign aid and alternative development financing, and (iv) growing access to ICT.

Component 1: Institutional Strengthening and Infrastructure Development in ZMC Area		35.5	35.5	64.5
1a	Urban sanitation: solid waste collection, transport, transfer, disposal and septic sludge treatment	10.1	10.1	18.4
1b	Urban upgrading and cultural heritage preservation in Ng'ambo area	9.6	9.6	17.4
1c	Support for municipal finance			
	(i) municipal own-source revenue enhancement system	1.5	1.5	2.7
	(ii) public-private partnership	3.0	3.0	5.5
1d	Completion of scale-up of the original project	6.9	6.9	12.6
1e	Institutional strengthening support to RGoZ and ZMC	1.4	1.4	2.5
1f	Resettlement cost for storm water drainage	3.0	3.0	5.5
Component 2: Support to Town Councils on Pemba Island		5.0	5.0	9.2
2a	Scale-up of small investments in Pemba	4.0	4.0	7.3
2b	Institutional strengthening for Pemba Town Councils	1.0	1.0	1.8
Component 3: Project Management		3.5	3.5	6.4
3a	Project management	2.8	2.8	5.1
3b	Preparation of pipeline in Zanzibar	0.7	0.7	1.3
Subtotal – All components		44.0	44.0	80.0
4	Contingencies	11.0	11.0	20.0
Total Project Cost		55.0	55.0	100
Note: Cost estimates for works include allocations for design and consecution supervision.				

III. Proposed Changes

Summary of Proposed Changes	
The AF will scale up the impacts and capital investments of the project, as well as enhance and sustain the institutional strengthening activities, and provide the enabling infrastructure to support local economic development and livelihoods. It will also enable the project to fully achieve the original PDO. The proposal includes a level one restructuring to the original project to update the project development objective and results framework, and extend the credit closing date from June 30, 2016 to June 30, 2019.	
Change in Implementing Agency	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Project's Development Objectives	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Results Framework	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Safeguard Policies Triggered	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change of EA category	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Other Changes to Safeguards	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Legal Covenants	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Loan Closing Date(s)	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]

Cancellations Proposed	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]	
Change in Disbursement Arrangements	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]	
Reallocation between Disbursement Categories	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]	
Change in Disbursement Estimates	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]	
Change to Components and Cost	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]	
Change in Institutional Arrangements	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]	
Change in Financial Management	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]	
Change in Procurement	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]	
Change in Implementation Schedule	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]	
Other Change(s)	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]	
Development Objective/Results		
Project's Development Objectives		
Original PDO		
Improve access to urban services in Zanzibar and conserve the physical cultural heritage at one public location within the Stone Town.		
Change in Project's Development Objectives		
Explanation:		
The AF will scale up activities under the original project with broader impacts in terms of geographical area and target beneficiaries.		
Proposed New PDO – Additional Financing (AF)		
Improve access to urban services and conserve physical cultural heritage in Zanzibar.		
Change in Results Framework		
Explanation:		
The project's key performance indicators have also been revised to reflect the new activities such as landfill, urban upgrading and improving municipal finance. The target values for some other indicators have been updated.		
Compliance		
Change in Safeguard Policies Triggered		
Explanation:		
The scaled-up urban sanitation activities under AF activities trigger three additional safeguard policies: Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36) and Pest Management (OP/BP 4.09). The additional safeguards are triggered due to the waste management site's location in the buffer zone of a protected forest area, and potential risks from invasive species and pests to public health. These additional safeguards are addressed and incorporated in the environmental and social management framework.		
Current and Proposed Safeguard Policies Triggered:	Current (from Current Parent ISDS)	Proposed (from Additional Financing ISDS)

Environmental Assessment (OP) (BP 4.01)	Yes	Yes
Natural Habitats (OP) (BP 4.04)	No	Yes
Forests (OP) (BP 4.36)	No	Yes
Pest Management (OP 4.09)	No	Yes
Physical Cultural Resources (OP) (BP 4.11)	Yes	Yes
Indigenous Peoples (OP) (BP 4.10)	No	No
Involuntary Resettlement (OP) (BP 4.12)	Yes	Yes
Safety of Dams (OP) (BP 4.37)	No	No
Projects on International Waterways (OP) (BP 7.50)	No	No
Projects in Disputed Areas (OP) (BP 7.60)	No	No
Conditions		
Source Of Fund		
IDA	Subsidiary Agreement	Effectiveness
Description of Condition		
The Subsidiary Agreement has been executed on behalf of the Recipient and the Project Implementing Entity (Financing Agreement clause 5.01 (a))		
Source Of Fund		
IDA	Project Implementation Manual	Effectiveness
Description of Condition		
The Recipient has updated the PIM in form and substance satisfactory to the Association. (Financing Agreement clause 5.01 (b))		
Risk		
Risk Category		Rating (S)
1. Political and Governance		Substantial
2. Macroeconomic		Low
3. Sector Strategies and Policies		Substantial
4. Technical Design of Project or Program		Substantial
5. Institutional Capacity for Implementation and Sustainability		Substantial
6. Fiduciary		Moderate
7. Environment and Social		Substantial
8. Stakeholders		Moderate
9. Other (cost overrun)		Substantial
OVERALL		Substantial
Finance		
Loan Closing Date – Additional Financing (Zanzibar Urban Services Project Additional Financing – P155392)		

Source of Funds		Proposed Additional Financing Loan Closing Date			
International Development Association (IDA)		30-Jun-2019			
Loan Closing Date(s) – Parent (Zanzibar Urban Services Project – P111155)					
Explanation: The proposal for the AF includes an extension of the project closing date by 3 years from June 30, 2016 to June 30, 2019. This will allow the ongoing activities under the original project to complete and achieve the targets envisaged in the project design.					
Ln/Cr/TF	Status	Original Closing Date	Current Closing Date	Proposed Closing Date	Previous Closing Date(s)
IDA-48610	Effective	30-Jun-2016	30-Jun-2016	30-Jun-2019	30-Jun-2016
Change in Disbursement Arrangements					
Explanation: Disbursement arrangements have changed to add a new category of expenditure for the costs for land acquisition and resettlement compensation distinct from the other project costs.					
Change in Disbursement Estimates (including all sources of Financing)					
Explanation: Disbursement estimates have changed to reflect the additional funds.					
Expected Disbursements (in US\$ Million)(including all Sources of Financing)					
Fiscal Year	2017	2018	2019		
Annual	10.26	24.01	32.63		
Cumulative	10.26	34.27	66.90		
Allocations – Additional Financing (Zanzibar Urban Services Project Additional Financing – P155392)					
Source of Fund	Currency	Category of Expenditure	Allocation	Disbursement %(Type Total)	
			Proposed	Proposed	
IDA	XDR	Goods, works, non-consulting services, consultants' services, training, workshops and operating costs	36.780	100.00	
IDA	XDR	Land Acquisition and Resettlement Compensations	2.120	100.00	
		Total:	38.900	100.00	

Components				
Change to Components and Cost				
Explanation: The three components under the original project will remain unchanged. The AF will scale up activities and therefore funding will be increased for all components. Given that the feasibility studies for the main infrastructure subcomponents are ongoing and the cost estimates will be subject to change as a result of the feasibility studies and subsequent detailed design, 20 percent contingencies are added to each component.				
Current Component Name	Proposed Component Name	Current Cost (US\$M)	Proposed Cost (US\$M)	Action
Institutional Strengthening and Infrastructure Development in Zanzibar Municipal Council Area	Institutional Strengthening and Infrastructure Development in Zanzibar Municipal Council Area	31.20	75.50	Revised
Support to Town Councils in Pemba	Support to Town Councils in Pemba	3.80	10.10	Revised
Project Management	Project Management	3.00	7.40	Revised
	Total:	38.00	93.00	
Other Change(s)				
Implementing Agency Name	Type			Action
Ministry of Finance and Planning	Project Management Team			No change
Change in Implementation Schedule				
Explanation: Project implementation schedule will be changed reflecting the assessed progress of the ongoing activities under the original project and the projected schedule for the additional activities under the additional financing.				
IV. Appraisal Summary				
Economic and Financial Analysis				
Explanation: Rationale for Public Provision. The AF will mainly finance public goods with significant impact on the local economy and environment. These public goods comprise infrastructure subcomponents that generate substantial economic benefits (positive externalities) for the general public, as they will help boost the local economy and promote private sector investment to generate more income, job opportunities, and foreign exchange earnings as well as improve living conditions, and protect the environment, and cultural and heritage values in Zanzibar. Bank's Value Added. Given the huge financing requirement of the urban sector and the budgetary				

constraints of the RGoZ, the Bank's support goes beyond the provision of infrastructure to comprehensive sectoral planning and municipal finance to ensure the long term sustainability of infrastructure and services, and subsequent positive impacts on local economy. This will help Zanzibar strengthen its development potential and achieve its goals of poverty reduction and socioeconomic transformation under the *Vision 2020* and *Zanzibar Strategy for Growth and Reduction of Poverty*. Further, involving a new development partner mid-way through project implementation would incur high transaction costs to the RGoZ.

Economic Analysis. The economic evaluation was conducted for the following subcomponents: (i) urban sanitation, and urban upgrading and cultural heritage preservation were evaluated together as they both are interrelated and serve the same area and expect to impact the tourism activities and local economy; (ii) support for municipal finance through own source revenue (OSR) enhancement was evaluated under different scenarios of revenue increases; and (iii) small-scale investment in Pemba was evaluated taking as reference some interventions already implemented under the original project. The results show that the proposed project interventions *will impact positively* the development of Zanzibar as they will help boost local economy and improve the quality of life of the residents.

Urban sanitation, urban upgrading and cultural heritage preservation. Expected benefits from these combined subcomponents include (i) cleaner environment, (ii) better sanitary conditions and improved public health, (iii) reduced greenhouse gas emissions, (iv) increased property values, (v) enhanced cultural and recreational values, (vi) enabling the Stone Town to retain the status of UNESCO heritage site and subsequent increase in tourism activities, and (vii) growing local economy and job opportunities. Due to limited availability of data and difficulty in quantifying environmental and public health benefits, it was decided that the economic evaluation would estimate benefits from potential growth of the tourism industry and local economy. Results of the evaluation show that the interventions of urban sanitation, urban upgrading and cultural heritage preservation would be viable when contributing to the increase of tourism activities by at least 0.34 percent per year, which is well below the historical trend and seems a feasible target to achieve. The higher the impact the higher the returns. Assuming a 0.5 percent increase of tourism earnings caused by the subcomponents, the return on investment would be 12 percent. Sensitivity analysis shows that the subcomponents would remain viable when the impact on tourism growth is 0.6 percent per year even if investment cost doubles, or project implementation is delayed by up to four years.

Support for municipal finance through OSR enhancement. This subcomponent is expected to help ZMC increase its OSR. While the specific impact is unknown, the evaluation was conducted assuming feasible targets of collection improvement and comparing with the cost of the intervention. This component is of great importance for ZMC as its fiscal situation has deteriorated in the last five years. The results show that OSR need to increase by at least 7.5 percent per year to pay for the subcomponent cost. This seems feasible especially in light of the fact that the pre-intervention average increase in the last five years was 4.3 percent. The higher the increase of revenues the better the results. In a more realistic scenario where the annual increase in OSR is 15 percent for the first three years, when the impact is expected to be higher, and 6.3 percent thereafter, the net benefit would amount to US\$4 million and the return would be 19 percent. Given that the subcomponent will assist ZMC to introduce a property tax which could become a new source of large revenue as evidenced in many cases in Tanzania and Africa, the evaluated results seem reasonable to achieve. Sensitivity analysis shows that if investment costs increase by 100 percent or project is delayed by four years, the required annual increase of revenues is 10 percent to make the investment viable. If accompanied by other efficiency gains the required level of increase would be lower.

Small-scale investment in Pemba. Expected benefits from building footpaths, under the small-scale infrastructure component in Pemba include (i) better mobility and accessibility for communities, (ii) improved safety in steep slopes, and (iii) reduced accidents and associated time and cost burdens. Of these, travel time savings were estimated by comparing two situations: *without* and *with* interventions. The

results show that benefits are twice as much as the cost and the intervention will yield an 18 percent return. The results are reassuring given that benefits are underestimated as additional benefits such as reduction of injuries, and improvement of security were not measured.

Combined analysis. Assuming that as a result of the AF interventions, tourism income increases by 0.5 percent per year and OSR increase by 15 percent for the first 3 years and 6.3 percent thereafter, the AF would generate about US\$20 million net benefits during the life of the project, yielding a rate of return of 12 percent.

The target thresholds to make the project economically viable seem feasible as the evaluated minimum required growth level for tourism is well below the historical trend, and OSR could increase at a higher rate than the required minimum according to the precedent cases in Tanzania. The evaluation was run with assumptions on the conservative side, which gives confidence to the results; furthermore, additional benefits such as the impacts of the tourism growth on other local economic sectors and impacts on the wellbeing of the local population were not quantified.

Financial Analysis. The financial analysis was conducted for the urban sanitation subcomponent as an only revenue-generating investment. The financial cash-flow of the subcomponent was estimated by comparing costs and revenues under two scenarios: *with-* and *without-*project. The expected net cash-flow equals the difference between incremental revenues and incremental costs from both scenarios.

Given that the feasibility study for the subcomponent is relatively at an early stage and the financial projections for the capital investment and operation and maintenance (O&M) can vary depending on the technical design options, this financial analysis undertaken based on the preliminary design information and cost assumptions should be considered as indicative only and will be subject to further analysis with confirmed design and cost information.

At present, revenues from waste fees cover only 45 percent of O&M cost. The annual O&M costs with the project are expected to increase by 45 percent on average, which would generate a deficit of Tsh 1,500 million (US\$0.7 million) in 2030 - the system would not be sustainable unless other financial sources are used to fund the financial gap. The potential financial means include (i) expansion and effective collection of the waste fees to broader beneficiaries of the improved waste services, (ii) introduction of a landfill tipping fee, (iii) introduction of a new levy or entry fee to the tourists for improved environmental infrastructure and services, and (iv) increase in budgetary allocation from the ZMC's OSR which is expected to increase significantly through the AF-supported LGRCIS and property tax implementation.

These four financial options were examined and the results show that: (i) if the waste fees are expanded and fully charged to all the households served today and those covered by the secondary collection services through community collection points, the operational deficit would be reduced by 80 percent, but this option would require a careful study on the communities' affordability and willingness to pay, and the need to revise the municipal By-law; (ii) if a landfill tipping fee is used to cover the deficits, a fee of US\$10 per ton would be required to fund the operating deficit, or US\$30 per ton to cover the deficits from O&M and investment, (iii) if a new levy or entry fee targeted to the tourists is introduced, US\$2.5 per tourist is needed to recover the O&M cost, and US\$7.5 per tourist is needed to enable full cost recovery of investment as well as O&M costs; and (iv) if the increased revenues expected by the OSR enhancement subproject (15 percent increase in OSR in the first 3 years and 6.3 percent in subsequent years) is used, it would pay for the estimated operating deficit but would fall short to cover the investment cost.

Revenue streams can be increased further by improving waste fee billing and collection efficiency, or by mobilizing new revenue streams through sales of recyclables or recovery of resources or introduction of infrastructure tax to hotel stay and other polluter's pay instruments. It was agreed that the ongoing

feasibility study would conduct further analysis on cost recovery mechanisms reflecting the final design of the solid waste collection, transfer, transport, treatment and disposal system and potential material and resources recovery scheme, to ensure the financial sustainability of the infrastructure investment.

Detailed economic and financial analysis is presented in Annex 3.

Technical Analysis

Explanation:

Technical Analysis

Component 1. This component will support institutional strengthening and infrastructure development in ZMC area in Unguja Island and which comprises (i) urban sanitation for solid waste management and sludge treatment, (ii) urban upgrading and cultural heritage conservation in Ng'ambo area, (iii) support for municipal finance, (iv) completion and scale-up of the original project, (v) institutional strengthening support to RGoZ and ZMC, and (vi) resettlement cost associated with the storm water drainage network under the original project.

A key focus of the urban sanitation subcomponent is to develop durable solutions for the Zanzibar's sanitation crisis through comprehensive improvements to the solid waste and septic sludge management systems including collection, transport, transfer, treatment and disposal. Operation and management demands at Zanzibar's first sanitary landfill and septic sludge treatment facility at the Kibele site may exceed the technical capacity of RGoZ and ZMC agencies resulting in short term operational issues and long term sustainability risks. Various technical, financial and operational options are being assessed by the ongoing feasibility study on (i) design and implementation arrangements for collection, transport, transfer, treatment and disposal, (ii) location and design of a potential material recovery / transfer facility and proposed integration of the existing informal solid waste collection work force into overall system operations, (iii) financial viability of the comprehensive solid waste and septic sludge management systems and potential cost recovery mechanisms, and (iv) potential engagement of the private sector in the design, construction, operation and maintenance of the solid waste and septic sludge management systems. The final design will adopt a technology that is proven in Sub-Saharan Africa, that will suit local topographical and hydrological conditions, and respond to market competition and potential private sector arrangements. Annex 4 presents detailed technical analysis for the urban sanitation subcomponent.

The proposed infrastructure under the urban upgrading and heritage preservation subcomponent—roads, drainage system, street lights, pedestrian amenities, public green spaces and recreational areas, public toilets, and public markets along the central road corridor in Ng'ambo area—will be relatively small scale and low-impact works. The concept design plan for these facilities is under preparation. Given the risks of working in the buffer zone of a UNESCO site, the infrastructure works will require technical rigor in their engineering design to meet the Historic Urban Landscapes guidelines, working in close coordination with and oversight by the Department of Urban Rural Planning (DoURP), Stone Town Conservation and Development Authority (STCDA), and UNESCO, who will also oversee the Stone Town Conservation Master Plan updating to be supported under the AF.

Component 1 also introduces a new revenue collection system (LGRCIS) and a new revenue source (property tax) to ZMC in accordance with the existing policy framework, combined measures of which are expected to contribute to a significant increase in ZMC's own source revenues, thereby improving long term sustainability of the municipal finance, maintenance of infrastructure including the project investments, and service delivery. LGRCIS is modeled after the system piloted under the Tanzania Strategic Cities Project (TSCP), which has demonstrated a great degree of success. The proposed introduction of a property tax will be accompanied by technical assistances for survey, data collection, integration of database with LGRCIS, establishment of valuation methodology, institutional capacity

building, administrative functions for valuation, billing, collection and enforcement, and community engagement and awareness raising.

Institutional strengthening activities under the component 1 will support the RGoZ and ZMC agencies on various training programs, carefully formulated to maximize the long term impact and sustainability of the infrastructure investments made by the original project and the AF. This is based on the lessons drawn from previous urban operations that (i) outcomes of physical investments can only be sustained if they are accompanied by well-programmed capacity building and institutional strengthening; (ii) handover of management of urban infrastructure to local authorities requires continued support during the transition and follow-up period; (iii) capacity development efforts need to include not only technical aspects but also planning and financial management; and (iv) institutional arrangements should lead to broader participation, such as through public awareness programs and capacity building activities for end-users.

Component 2. The small-scale investment works in the three Town Councils in Pemba Island under the original project—footpaths, markets, and abattoirs—are making good progress and have yielded positive benefits to local communities. The investment works were identified with community participation and well received by beneficiaries. The AF will continue and scale-up such small-scale infrastructure investments in Pemba Island, building on the lessons from the original project on the community-driven approach, and design, construction, and supervision practices.

Institutional strengthening activities under the component 2 will support three Town Councils in Pemba Island on various training programs to strengthen their capacities on urban planning, asset management, fiscal management, and basic information system.

Implementation arrangements. The proposed AF will be implemented using the same institutional arrangements, procurement, financial management and disbursement arrangements (with the exception of the opening of an escrow account for payment of resettlement costs) as for the original project, as they have been assessed to be satisfactory by the Bank’s fiduciary team. Reflecting the works on urban upgrading, own source revenue and PPP, additional departments of RGoZ will become involved, supporting implementation and skills transfer. Commensurate with the scale-up and new sectors, additional technical resources will be brought to the PMT. The urban upgrading and cultural heritage preservation subcomponent will be implemented in close coordination with, and oversight by, the DoURP, STCDA, and UNESCO.

Monitoring and Evaluation. The project results framework has been updated to reflect the additional funds and activities of the AF. Some targets and baselines have been revised, taking into account the updated census data and confirmed detailed design outputs. The AF will continue to provide the capacity building support for the monitoring and evaluation of the project implementation. The revised result framework is in Annex 1.

Financial Management (FM). The financial management assessment of the AF is based on the last FM implementation support mission for the original Credit, which indicated satisfactory overall project financial management arrangements. The status quo of the project financial management arrangements will remain the same and using the same disbursement methods (Traditional/SOE) and submission of quarterly interim un-audited financial reports (IFR) and annual project audit reports.

An escrow account will be established to manage compensation funds for the resettlement action plans (RAPs) financed under the AF. This account will be managed by the PMT with the oversight of the RAP implementation committee. The account will be audited by the external auditor (National Audit Office) after completion of RAPs payments. All project affected persons (PAPs) will open bank accounts and a

certified list of names will be sent to the PMT for payments. The PAPs will be informed by the PMT when funds have been deposited.

There are no pending IFR or audit reports in the project and the sector at the time of preparation of this AF. The accounts of this AF will be audited on an annual basis and the external audit report will be submitted to the Bank within six months after the end of each calendar year. The project will comply with the Bank disclosure policy of audit reports and place the information provided on the Bank's official website within one month of the report being accepted as final by the team. The current overall residual FM risk is moderate. Based on this, the Bank will continue to provide implementation support missions twice a year to ensure that project FM arrangements operate well and funds are used for the intended purposes and in an efficient way.

Upon Credit effectiveness, transaction-based disbursements will be used. Disbursements will be made against the submission of monthly Withdrawal Applications and accountability of previous advances. The other methods of disbursing the funds (reimbursement, direct payment, and special commitment) will also be available to the project. The project will sign and submit Withdrawal Applications electronically using the e-signatures module accessible from the Bank's Client Connection website.

Procurement. Procurement under the AF will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011, revised July 2014; "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011, revised July 2014; Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 and revised in January 2011; and the provisions stipulated in the Legal Agreement.

Project implementation is mainstreamed within the government structures with the PMT under the MOFP being responsible for procurement activities. The PMT is supported by ZMC, DoURP and STCDA on technical matters. Procurement performance has been satisfactory. Procurement capacity of the PMT has improved with the presence in the team of the procurement/contract management specialist. The involvement of procurement officers and technical staff from ZMC, DoURP and STCDA in the procurement processes will enhance the capacity for implementation of the project. Training in procurement and contract management will be required for the staff in those entities in order to enhance their capacity in the implementation of the project.

The procurement risk for the AF is assessed as moderate. Implementation capacity of the PMT has significantly enhanced through the implementation of the original project. The proposed capacity building activities under the AF will further enhance the capacity of the implementing agency in general and the PMT in particular to adequately meet the needs of the AF.

Social Analysis

Explanation:

The original project did not prepare a Resettlement Policy Framework (RPF). The only component having resettlement impacts has been the drainage subcomponent, which prepared an Abbreviated Resettlement Action Plan (ARAP) in 2010 based on the preliminary designs.

After the detailed designs were prepared in 2014/2015, the ARAP was determined to be invalid given the design changes and needed to be updated. The original 2010 ARAP estimated 26 PAPs and US\$45,000 in compensation costs, all for partial impacts to properties (trees, fences, septic tanks, etc). After a full RAP

was done after preparation of the designs, there are an estimated 334 PAPs and nearly US\$3 million in compensation costs. Given that the RGoZ is unprepared to cover these costs and lacks sufficient resources, the MOFP has requested to use project funds under the AF to cover the compensation costs under the original project and move forward with the long-delayed drainage works. Additional drainage activities could pose resettlement impacts as well.

Resettlement under the AF activities is expected to be minimal. The Kibele landfill site is in a rural area and within an already protected area where building is prohibited. There has been some unauthorized encroachment by an estimated 20-30 structures within a 500-meter buffer of the site. Many of these are uninhabited structures (e.g. unfinished building foundations). Other upgrading works such as the Ng'ambo urban upgrading would be entirely within existing road right-of-ways and would potentially impact small traders and vendors on a temporary basis during construction.

The following approach has been adopted for the proposed AF activities:

- (i) An RPF for the project as a whole has been prepared and disclosed in Zanzibar and the InfoShop on April 13, 2016. This provides the guidelines and framework for preparation of subproject specific RAPs for each project to be financed by the AF.
- (ii) An updated RAP for the original project's drainage works has been prepared, cleared, disclosed, and is consistent with the principles of the RPF.
- (iii) A separate escrow account will be established to manage compensation to PAPs which will include both internal and external audit, oversight by an independent third party, and intensive supervision by the Bank.
- (iv) The AF will include resources to improve communications and community engagement, which was noted as a shortcoming in the ongoing project. This will build on a communication strategy that was prepared for the ZMC in the original project.

Environmental Analysis

Explanation:

The current ZUSP is a Category A project, and the original project triggered three safeguard policies: Environmental Assessment (OP/BP 4.01), Physical Cultural Resources (OP/BP 4.11) and Involuntary Resettlement (OP/BP 4.12). The original project did not prepare an Environmental and Social Management Framework (ESMF), as subproject-specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs) were prepared before appraisal for each of the subprojects. The most notable environmental safeguard issue under the original project has been due to site safety and security, which in some cases has been lax by contractors and not adequately enforced by supervision consultants. Where this has been noted the PMT has taken swift action, but the Bank has noted a need for improved supervision of site safety under the AF works. No other compliance issues have been noted.

ESMPs were prepared for the original project and included in civil works contracts. These are regularly monitored by supervision consultants and the PMT. Where issues have been noted, for example site safety issues were observed in the implementation of drainage works, the PMT has brought them to the attention of contractors and ensured quick corrections. There have been no major grievances due to project activities, though a lack of community consultation resulted in less than half of the expected solid waste collection points being installed due to non-acceptance of communities stemming from distrust that collection would be managed properly by the municipality. The PMT has requested to improve community outreach and engagement under the AF, which will be included in the institutional strengthening activities.

While the AF activities are consistent with a Category B risk level the project will maintain a Category A status given the sensitivities of operating in or near a World Heritage Site and the current lack of capacity for operating a landfill site, since the AF would support the first of its kind in Zanzibar. The scaled-up waste management activities under the AF trigger three additional safeguard policies: Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36) and Pest Management (OP/BP 4.09). The additional safeguards are triggered due to the waste management site's location in the buffer zone of a protected forest area, and potential risks from invasive species and pests to public health.

The following approach has been adopted for environmental management of the proposed AF activities:

- (i) An ESMF has been prepared for the project as a whole, to guide preparation of ESIA and ESMPs for individual subproject investments under the AF. The ESMF was disclosed in Zanzibar and in the Bank's InfoShop on 10 February 2016.
- (ii) Stakeholder consultation on the ESMF was undertaken on 12 February 2016.
- (iii) An ESIA and ESMP for the Kibele waste management site are under preparation and will influence the detailed design of the site. The ESMP will also be integrated into the overall site operations plan.
- (iv) The AF will include resources to improve communications and community engagement, which was noted as a shortcoming in the ongoing project. A communication strategy was prepared for the overall ZMC and these activities will draw from the strategy.

Risk

Explanation:

The overall AF risk is rated as "substantial" because multiple key risk categories, notably those pertaining to political and governance, sector strategies and policies, project design, institutional capacity, environment and social, and cost overrun are assessed as substantial. The AF will include solid waste management investments that are new to Zanzibar in a sector, which faces significant institutional, environmental, and financial challenges. Risks will be mitigated through measures including (i) comprehensive capacity building activities on the solid waste management, urban upgrading and heritage support, and environmental and social monitoring for the concerned ministries, agencies and local communities, (ii) support for financial sustainability of waste management systems as well as assistance for developing relevant sector strategy, (iii) continued consultation with relevant stakeholders including the STCDA and UNESCO on the design and implementation of urban upgrading and heritage preservation in Ng'ambo area, (iv) high contingency allocation for each proposed AF activities, and (v) close monitoring of project implementation by the Bank, with continuous support from the country office and frequent implementation support missions. Additional details are in Annex 5.

V. World Bank Grievance Redress

32. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework

Project Name: Zanzibar Urban Services Project AF (P155392)		Project Stage: Additional Financing	Status:
Team Leader: Andre A. Bald	Requesting Unit: AFCE1	Created by: Gyongshim An on 18-Feb-2016	
Product Line: IBRD/IDA	Responsible Unit: GSU19	Modified by: Gyongshim An on 11-May-2016	
Country: Tanzania	Approval FY: 2016		
Region: AFRICA	Lending Instrument: Investment Project Financing		
Parent Project ID: P111155	Parent Project Name: Zanzibar Urban Services Project		

Project Development Objectives	
Original Project Development Objective – Parent: Improve access to urban services in Zanzibar and conserve the physical cultural heritage at one public location within the Stone Town	
Proposed Project Development Objective – Additional Financing: Improve access to urban services and conserve physical cultural heritage in Zanzibar.	
Results	
Core sector indicators are considered: Yes	Results reporting level: Project level

Project Development Objective Indicators							
Status	Indicator Name	Core	Unit of Measure		Baseline	Actual (Current)	End Target
No change	1. Households suffering from flooding in ZMC area		Number	Value	3,645	4,095	0
				Date	2011	March 2016	June 2019
				Comment			
Revised	2. People in urban areas (ZMC) provided with access to solid waste management services		Number	Value	75,600	126,215	190,215
				Date	2011	March 2016	June 2019

				Comment			
No change	3. The Stone Town retains status of UNESCO World Heritage City		Yes/No	Value	Yes	Yes	Yes
				Date	2011	March 2016	June 2019
				Comment			
No change	4. Direct project beneficiaries (number), of which females (%)	<input checked="" type="checkbox"/>	Number / Percentage	Value	0	262,311 / 52%	394,765 / 52%
				Date	2011	March 2016	June 2019
				Comment			
New	5. Beneficiaries who feel that project investments reflected their needs	<input checked="" type="checkbox"/>	Percentage	Value	n.a.	n.a.	60
				Date	2011	March 2016	June 2019
				Comment			
Intermediate Results Indicators							
Component 1 – Institutional Strengthening and Infrastructure Development in ZMC Area							
Status	Indicator Name	Core	Unit of Measure		Baseline	Actual (Current)	End Target
No change	1. ZMC's Change Management Strategic Plan developed and under implementation		Yes/No	Value	No	Yes	Yes
				Date	2011	March 2016	June 2019
				Comment			
<i>Marked for deletion</i>	<i>2. Diagrammatic Indicative Structure Plan completed</i>		<i>Yes/No</i>	<i>Value</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>
				<i>Date</i>	<i>2011</i>	<i>2015</i>	<i>June 2019</i>
				<i>Comment</i>			
No change	2. Construction of surface drains completed in ZMC outside of Stone Town		Kilometers	Value	0	1.3	21.8
				Date	2011	March 2016	June 2019

				Comment			
No change	3. Streets with new lighting installed along selected roads and junctions (km)		Kilometers	Value	0	4.2	11.2
				Date	2011	March 2016	June 2019
				Comment			
<i>Marked for deletion</i>	<i>5. Solid waste collection points provided and functional</i>		<i>Number</i>	<i>Value</i>	<i>0</i>	<i>61</i>	<i>n.a.</i>
				<i>Date</i>	<i>2011</i>	<i>March 2016</i>	<i>June 2019</i>
				<i>Comment</i>			
New	4. New landfill of 425,000 cubic meters capacity constructed and equipped for operation		Yes/No	Value	No	No	Yes
				Date	2011	March 2016	June 2019
				Comment			
No change	5. Length of Mizingani sea wall and promenade constructed		Meters	Value	0	150	340
				Date	2011	March 2016	June 2019
				Comment			
New	6. Households provided with access to infrastructure and services due to urban upgrading in Ng'ambo area		Number	Value	n.a.	0	3,246
				Date	2011	March 2016	June 2019
				Comment			
New	7. Zanzibar Heritage Master Plan is updated		Yes/No	Value	No	No	Yes
				Date	2011	March 2016	June 2019
				Comment			
New	8. Feasibility Studies for Public Private Partnerships completed		Number	Value	0	0	4
				Date	2011	March 2016	June 2019
				Comment			

New	9. LGRCIS in ZMC fully operational		Yes/No	Value	No	No	Yes
				Date	2011	March 2016	June 2019
				Comment			
Component 2 – Support to Town Councils on Pemba Island							
Status	Indicator Name	Core	Unit of Measure		Baseline	Actual (Current)	End Target
<i>Marked for deletion</i>	<i>1. Retooling of the three town councils in Pemba completed</i>		<i>Yes/No</i>	<i>Value</i>	<i>No</i>	<i>Yes</i>	<i>n.a.</i>
				<i>Date</i>	<i>2011</i>	<i>March 2016</i>	<i>June 2019</i>
				<i>Comment</i>			
Rephrased	1. Small investments identified and implemented by the three town councils in Pemba		Number	Value	0	9 in progress	14
				Date	2011	March 2016	June 2019
				Comment			

Annex 2: Detailed Description of New Project Activities

1. The original project supports provision of basic infrastructure services, institutional strengthening, and cultural heritage. The proposed Additional Financing (AF) will scale-up project activities to maximize development impacts and sustainability. The proposed activities to be supported by the AF are presented in the Table 1 and detailed in the following paragraphs.

Table 1. AF Activities and Costs

	Project Components	Project Cost (US\$ mil)	Share of total (%)
Component 1: Institutional Strengthening and Infrastructure Development in ZMC Area		35.5	64.5
1a	Urban sanitation: solid waste collection, transport, transfer, disposal and septic sludge treatment	10.1	18.4
1b	Urban upgrading and cultural heritage preservation in Ng'ambo area	9.6	17.4
1c	Support for municipal finance		
	(i) municipal own-source revenue enhancement system	1.5	2.7
	(ii) public-private partnership	3.0	5.5
1d	Completion of scale-up of the original project	6.9	12.6
1e	Institutional strengthening support to RGoZ and ZMC	1.4	2.5
1f	Resettlement cost for storm water drainage	3.0	5.5
Component 2: Support to Town Councils on Pemba Island		5.0	9.2
2a	Scale-up of small investments in Pemba	4.0	7.3
2b	Institutional strengthening for Pemba Town Councils	1.0	1.8
Component 3: Project Management		3.5	6.4
3a	Project management	2.8	5.1
3b	Preparation of pipeline in Zanzibar	0.7	1.3
Subtotal – All components		44.0	80.0
4	Contingencies	11.0	20.0
Total Project Cost		55.0	100

Note: Design and construction supervision consultancy costs are included in the infrastructure costs.

Component 1: Institutional Strengthening and Infrastructure Development in the Zanzibar Municipal Council Area (US\$35.5 million)

Sub-component 1a. Urban Sanitation: solid waste collection, transport, transfer, sanitary landfill and septic sludge treatment facility (US\$10.1 million)

2. The original project financed waste collection and transport system on the assumption that the then existing disposal site at Jumbi would continue to be used for the duration of the project. However, the Jumbi disposal site was closed in 2011 because of significant

community opposition. Without a dedicated disposal site, ZMC has dumped wastes in open scattered sites in populated urban areas resulting in significant social, environmental and public health risks. Septic sludge similarly lacks a proper disposal site. Septic sludge is being dumped in a mangrove forest near historic ruins, thus there is a need for a proper treatment facility. Conscious of the risks, the Bank requested all project-financed collection and transport equipment not to be used until an acceptable solution was found. The mid-term review of the original project concluded that a durable solid waste management system for ZMC could only be achieved if a new landfill was constructed.

3. ZMC with the relevant RGoZ authorities has since identified a former quarry at Kibele for the landfill. They subsequently decided the Kibele site would be also used on an interim basis as a managed disposal site to quickly alleviate problems associated with improper dumping until it could be upgraded to a formal landfill and sludge treatment facility. As a result, Kibele has been accepting solid waste as a managed disposal site since early 2014. Transformation of the Kibele site to a sanitary landfill is highlighted in the Structure Plan for Urban Development Policy for Zanzibar Town (financed under the original project) as an activity that should be done immediately. Septic sludge similarly lacks a proper disposal site, with municipal sewage dumped in a mangrove forest near historic ruins, thus needing a proper treatment facility.

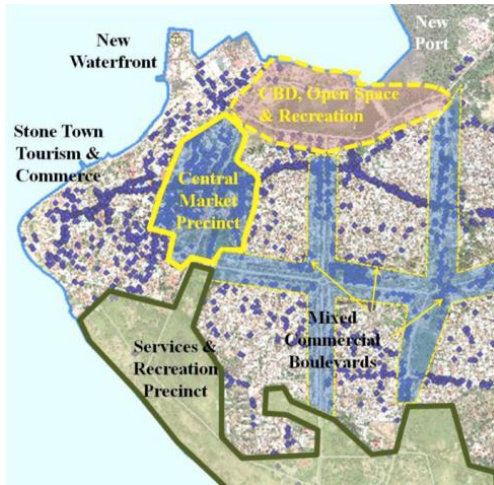
4. The subcomponent will finance (i) construction of the Zanzibar's first sanitary landfill and sludge treatment facility at the Kibele site, (ii) construction of and purchase of equipment for primary collection systems, transportation vehicles, and a potential material recovery / transfer station, (iii) purchase of disposal site operating equipment that will be used initially to improve current operations at the Kibele site and eventually for the landfill to be constructed, and (iv) stabilization of selected existing dump sites.

5. Various technical, financial and operational options will be assessed during the ongoing feasibility study on (i) designs and implementation arrangements for solid waste and septic sludge collection, transport, transfer, treatment and disposal, (ii) location and design of potential transfer / materials recovery facility and proposed integration of the existing informal work forces into overall system operations (iii) financial viability of the comprehensive solid waste management system and cost recovery mechanism, (iv) potential engagement of private sector in the design, construction, operation and maintenance of the solid waste and septic sludge management systems, and (v) risks posed by several key legacy dump sites.

Sub-component 1b. Urban upgrading and cultural heritage preservation in Ng'ambo area (US\$9.6 million)

6. The RGoZ has outlined several priorities for urban upgrading that will promote economic development and promote conservation of Zanzibar's urban cultural heritage. The ZMC Development Strategy and Structure Plan identifies the Ng'ambo area (in the buffer zone of the Stone Town UNESCO site) as a new mixed-use corridor given its strategic location (Figure 1), wide road network, housing density, historic sites, and potential for economic development.

Figure 1. Local Area Map



7. According to the recommendations of the ZMC Development Strategy and Structure Plan and subsequent local area plan prepared by the Department of Urban and Rural Planning (DoURP), the subcomponent will support low-impact urban upgrading using the existing right of ways for public spaces, and develop a new vibrant area of the city to share economic benefits and provide improved services to the underserved areas adjacent to the Stone Town. Specifically, the subcomponent will finance construction and/or rehabilitation of (i) road improvements, (ii) drainage system, (iii) street lights, (iv) pedestrian amenities, (v) public green spaces and recreational areas, (vi) public toilets, and (vii) public markets area improvements along the central road corridor in Ng’ambo area. The concept design plan for these facilities is under preparation (Figure 2). This subcomponent will further support the updating of the Zanzibar Stone Town Conservation Master Plan.

Figure 2. Schematic Design for Urban Upgrading in Ng’ambo Area



8. Detailed design will be prepared for each prioritized infrastructure to be identified by the ongoing concept design plan. Given the risks of working in the buffer zone of a UNESCO site, the design will take into account the Historic Urban Landscapes approach which is

already being piloted in the local area plan for the Ng'ambo area, in close coordination with the DoURP, Stone Town Conservation and Development Authority, and UNESCO.

Sub-component 1c(i). Support for Municipal Finance: own-source revenue (OSR) enhancement system (US\$1.5 million)

9. ZMC is implementing the change management plan prepared under the original project, which made a number of recommendations in relation to (i) increasing the OSR and improving its collection system, (ii) improvement of information and technology system in ZMC, and (iii) implementation of a property tax. ZMC has a number of statutory functions including acquisition of and dealing with land, cleaning, control of open spaces, control of roads, naming and numbering of streets, markets management and sewerage. At present, ZMC's principal revenue sources are: sanitation charges, public markets, car parking management, business licenses, building permits, and rents. Current revenue collection systems within ZMC are largely manual with the exception of a revenue billing system—STORM management information system—that is used for invoicing of sanitation bills. Cash is posted manually to the system.

10. The AF envisages to support ZMC to implement the recommendations of the change management plan and make improvement in its OSR and the revenue collection system. The subcomponent will support developing a Local Government Revenue Collection and Information System (LGRCIS), modeled after the system piloted under the TSCP. The LGRCIS represent global best practice in terms of utilization of geo-spatial data, use of electronic based systems that substantially reduce governance risks and improve accountability, transparency, and impacts. In Arusha, LGRCIS has improved revenue by 260 percent in the first six months of operations. The subcomponent will also support implementation of a property tax which could become a major source of revenue, by assisting ZMC to (i) develop the tax database, including the necessary property attribute data, (ii) establish the valuation methodology and implement valuation, (iii) set up administrative functions of tax valuation, billing, collection and enforcement, and (iv) identify the need for policy and legislative revisions.

Sub-component 1c(ii). Support for Municipal Finance: PPP (US\$3.0 million)

11. In recognition of the potential of the PPP in addressing financial and managerial needs for some key infrastructure, and providing operational efficiency gains to urban services, the Zanzibar parliament recently approved a PPP Law that creates a legal and institutional framework to facilitate PPP transactions. A PPP Technical Committee and a PPP Department have been subsequently established under the Zanzibar Planning Commission. While the concept of PPP is nascent in Zanzibar as is the law, the RGoZ envisions a long term strategic plan for increasing participation by private sectors in finance, design and build, and operation and maintenance of critical infrastructure and services. To this effect, the RGoZ requested for support under the AF on (i) capacity building for the newly formed PPP Technical Committee and PPP Department, (ii) initial scoping study for potential PPP, (iii) feasibility studies for the identified potential PPP transactions, and (iv) transaction advisory services for the identified feasible PPP projects.

12. The capacity building support includes (i) technical assistance to provide in-position support to new organizations, (ii) office retooling of the new organizations, (iii) training and knowledge sharing activities. The scoping study will be conducted for PPP options on urban, transport, power, and tourism sectors. About 10 feasibility studies will be conducted for the identified projects, including (i) the AF-financed solid waste management subcomponent, (ii) the redevelopment of *Caravansera* (housing blocks in Stone Town) for mixed-used property, and (iii) Malindi port redevelopment, as well as new projects to be identified by the scoping study. Finally, transaction advisory services will be provided for about 1-2 projects which are assessed feasible for PPP transactions.

13. With respect to the feasibility study for the AF-financed solid waste management subcomponent, the key objective will be to assess, (i) if the waste management system, as a whole or in different segments of collection, transport, transfer, and disposal, is financially sustainable for PPP engagement—in further elaboration of the ongoing feasibility study of the subcomponent, (ii) if not, what policy, legislative, financial, and managerial measures are required to ensure cost recovery, (iii) what managerial and operational efficiency gains are expected from the private sector engagement in the solid waste management system, and (iv) how the private sector supports transfer of knowledge, skills, and capacity to the RGoZ agencies.

Sub-component 1d. Completion and scale-up of infrastructure works of the original project (US\$6.9 million)

14. The subcomponent will help complete and expand the infrastructure works for storm water drainage, street lightings and ZMC workshop of the original project. The original project included improvements to a number of the discrete storm drainage systems in the city. Flooding events are common and have become more severe in recent years. Several systems are under construction and the completed sections have already provided significant benefits to protect their catchment area from flooding. The Mwanakwerekwe area adjacent to an old quarry, which used to be an informal dump site, is an area blighted by the recent flooding in April 2016 and spread of solid waste from the quarry. The main road through the area from the city to the Kibele landfill site remained impassable for over 4 days after such flooding. The AF will therefore support expanding drainage works to cover the Mwanakwerekwe area through a connection to System C. Equipment for drainage maintenance and cleaning will also be provided.

15. The original project also included a major street lighting component on a main road into the city. The original scheme, powered by solar energy, could not be funded in its entirety due to funding constraints. However the scheme that has been implemented has created significant impact and is greatly appreciated by the beneficiaries. Thus the AF will complete the original scheme as well as expand it to link the city with the airport along the main Airport road. Opportunity will be taken to also improve the median strips where the lighting is being erected with kerbing and greening. The roads to be lit link with the roads proposed for improvement in the upgrading of the Ng'ambo area. This subcomponent will also support completion of ZMC workshop which was scaled down when a cost overrun was anticipated.

Sub-component 1e. Institutional strengthening support to the RGoZ and ZMC (US\$1.4 million)

16. To maximize the long term impact and sustainability of the capital investments made for infrastructure subcomponents, this subcomponent will support the RGoZ and ZMC agencies on technical assistance, equipment and training for (i) solid waste management strategy development, (ii) comprehensive asset inventory and valuation, and preventive maintenance for all urban infrastructure including those financed under the original project and AF, (iii) heritage conservation guidelines and practices, (iv) information technology and management information system, including LGRCIS, and (v) community engagement and awareness raising for urban sanitation, heritage conservation, and property tax implementation.

17. In addition, the AF will leverage the technical assistance packages for skills and training opportunities for local youths. The PMT will establish working relationships with the local technical universities, and project consultants will provide trainings on skills such as (i) mapping, planning, and GIS, (ii) civil engineering and supervision, and (iii) municipal finance and PPP. Where feasible, internship or twinning opportunities will be sought linked with local technical universities. Youth employment opportunities will also be addressed through a more sustainable tourism sector, through building working relationships with local technical universities and project consultants and expanding the role of community-based organizations in solid waste collection and material recovery, drain cleaning, and other activities linked with the project investments.

Sub-component 1f. Resettlement cost for the storm water drainage (US\$3.0 million)

18. The RGoZ requested for the AF to finance resettlement cost for the storm water drainage under the original project for the following grounds: (i) insufficient funding during implementation: At appraisal and based on preliminary design, total compensation was estimated at US\$45,000. Detailed designs for the drainage systems are now completed, and estimated updated costs amount to about US\$3 million. The increase was not anticipated by the RGoZ; (ii) budgetary limitations to finance full costs: Declining revenue cannot cover the budget, this is due to a drop in taxable imports, reduced tourist arrivals due to the current political situation, reduction in general budget support (from normal flows of Tsh 30 billion to Tsh 7 billion), and stalled transfers from mainland. The RGoZ also has additional social and welfare responsibilities due to new government policies requiring free education, additional expenditures on medical supplies (due to drop in donor support) and provision of universal pensions to persons 70 and above; and (iii) land availability constraints: OP 4.12 states that land-for-land options are desirable, but in areas of land scarcity such as Zanzibar urban and peri-urban areas, this is not an option. From the earlier RAPs, the project affected people indicated a clear preference for cash compensation. Pursuant to OP 10.00 instructions, Management approved the financing of land acquisition and resettlement compensations by the proceeds of the additional credit.

Component 2: Support to Town Councils on Pemba Island (US\$5.0 million)

Sub-component 2a. Scale-up of small-scale infrastructure investments in Pemba (US\$4.0 million)

19. The small-scale investment works in the three Town Councils in Pemba Island under the original project are making good progress and are well received by local communities. Works include (i) resurfacing of dirt footpaths in hilly terrain, thereby better connecting communities to social infrastructure (public offices, schools, clinics, etc), (ii) restoration and upgrading of the market in Wete, and (iii) rehabilitating municipal buildings. These small investment works were identified with community participation and the construction works have generally made good progress. Footpaths and stairs on steep slopes in Chake Chake and Mkoani have significantly increased mobility and accessibility for the local communities, and yielded sound economic returns. The AF will scale-up such small-scale infrastructure investments in Pemba Island, building on the lessons from the original project on the community-driven approach, and design, construction, and supervision practices.

Sub-component 2b. Institutional strengthening of Pemba Town Councils (US\$1.0 million).

20. The subcomponent will provide institutional strengthening support to the three Town Councils in Pemba Island on technical assistance, equipment and training for (i) urban planning, (ii) asset management and preventive maintenance for the small infrastructure, (iii) fiscal and management capacity building, including potential introduction of LGRCIS, (iv) basic information technology and geographic information system, and (v) community engagement and awareness raising for the project activities. In addition, training and skills opportunities for youths will also be provided in the Pemba Town Councils.

Component 3: Project Management (US\$3.5 million)

21. This component will provide support to the PMT for the extended project management of the original project and the AF, including regular project activity monitoring, safeguards monitoring and audit, results monitoring and evaluation, fiduciary management and auditing, communication, steering committee support, and office operating costs. It will also facilitate other implementing ministries and departments responsible for specific subcomponents to implement and coordinate their respective activities. In addition, it will support an identification and feasibility study for the new urban sector pipeline in Zanzibar.

Annex 3. Economic and Financial Analysis

Rationale for Public Provision and the Bank's Value Added

1. The AF will mainly finance public goods with significant impact on the local economy and environment. These public goods comprise infrastructure subcomponents that generate substantial economic benefits (positive externalities) to the general public, as they will help promote private sector investment to generate more income, job opportunities, and foreign exchange earnings as well as improve living conditions, and protect the environment, and cultural and heritage values in Zanzibar.
2. Given the huge financing requirement of the urban sector and the budgetary constraints of the RGoZ, the Bank financing is justified and only additional to the sector financing. In addition, the Bank's support goes beyond the provision of infrastructure to comprehensive sectoral planning and municipal finance to ensure the long term sustainability of infrastructure and services, and subsequent positive impacts on local economy. This will help Zanzibar strengthen its development potential and achieve its goals of poverty reduction and socioeconomic transformation under the Vision 2020 and Zanzibar Strategy for Growth and Reduction of Poverty. Further, involving a new development partner mid-way through project implementation would incur high transaction costs to the RGoZ.

Methodology

3. The economic evaluation of the original project used cost benefit analysis for three subcomponents: (i) construction of the Mizingani sea wall; (ii) storm water drainage; and (iii) street lighting. For the sea wall, benefits were measured by avoided damage cost when the structures were properly protected by the sea wall, plus the preservation of cultural heritage and associated tourism activities. For the drainage, benefits were measured by the avoided damage costs when no floods occur. For the street lighting, benefits were measured by the increase of sales when hours of operation for the shops in the areas increase by one hour. For the solid waste, the cost was compared with the expected service charge.
4. For the AF, economic analysis was conducted for the following 4 subcomponents, using a cost-benefit approach: (i) urban sanitation, and urban upgrading and cultural heritage preservation were evaluated together as they both are interrelated and serve the same area and expect to impact the tourism activities and local economy; (ii) own source revenue (OSR) enhancement was evaluated under different scenarios of revenue increases; and (iii) small-scale investment in Pemba, was evaluated taking as reference some interventions already implemented under the original project. Financing analysis was conducted for the urban sanitation subcomponent as the only revenue-generating subcomponent. The evaluation was complemented with sensitivity analysis.
5. The cost-benefit analysis was done by comparing the costs and benefits under the two scenarios: *with-* and *without-*project. The expected net benefit was calculated by the difference

between incremental benefits and incremental costs of both scenarios. A discount rate of 6 percent was used⁸ and 20-years lifetime of the project interventions was assumed.

6. The financial analysis was conducted for the urban sanitation subcomponent as an only revenue-generating investment. The financial cash-flow of the subcomponent was estimated by comparing costs and revenues under two scenarios: *with*- and *without*-project. The expected net cash-flow equal the difference between incremental revenues and incremental costs from both scenarios. The *without*-project scenario was projected assuming that current service level remains unchanged. The *with*-project scenario was projected including costs and targets planned under the subproject.

Economic Analysis

Urban sanitation and Urban Upgrading and Cultural Heritage Preservation

7. The proposed interventions under these combined subcomponents will complement some of the works already implemented under the original project on solid waste management and it will also scale-up activities in urban upgrading, redevelopment, and cultural heritage preservation at Ng'ambo area. The AF will fund the expansion of the solid waste collection system and construction of a new sanitary landfill and sludge treatment facility. This is expected to have such benefits as: (i) cleaner environment, (ii) better sanitary conditions and improved public health, (iii) reduced greenhouse gas emissions, (iv) enabling the Stone Town to retain the status of UNESCO heritage site and subsequent increase in tourism activities, and (v) growing local economy and job opportunities. The Ng'ambo area, adjacent to historic Stone Town, has been identified by the RGoZ as an emerging growth and service area. The plan is to improve public and commercial services to the lower-income communities outside of Stone Town, and transform underutilized public spaces with low-cost interventions to create a vibrant urban area. The scale-up activities will upgrade basic services in Ng'ambo (lighting, pedestrian improvements, bus shelters, etc.), improve public green space, and develop new market spaces, to spread economic activities beyond Stone Town and help protect historic assets.

8. Zanzibar is a world class tourist destination rich in culture and old Arabic architecture, and declared as a World Heritage site by UNESCO. The island has been a target for high-class tourists competing closely with other Indian Ocean Islands. Despite this, Zanzibar does not have a sanitary landfill or sludge treatment facility. Septage from households is now disposed in a mangrove forest near historic ruins. Open dumping is common in dense urban areas. This poses a serious threat to the public health. In addition, the sanitation crisis has affected the island's reputation as a tourist destination as found in tourist exit surveys.

9. The proposed intervention is expected to impact positively the tourism industry, which represents about 27 percent of Zanzibar's gross domestic product (GDP), second largest contributor to the Zanzibar's economic output next to the cloves production.⁹ According to Zanzibar Tourism Commission, tourism is becoming a leading economic sector in the island,

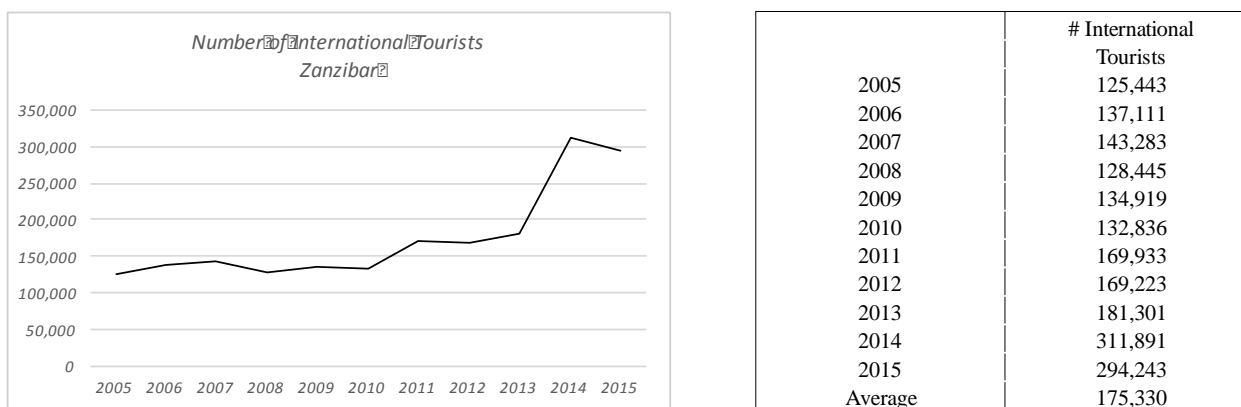
⁸According to the guidelines established by the Sustainable Development Group of the World Bank in February 2016.

⁹Webpage of Revolutionary Government of Zanzibar (RGoZ). 2013.

providing 11,500 workers with direct employments and an additional 45,000 people engaged in associated tourism activities. The RGoZ estimates that about 50 percent of the island’s population would be involved in tourism activities by the year 2020. The RGoZ also expects that the tourism sector will catalyse the promotion of private investments in other local industries and subsequent employment. The income from the tourism sector has been growing and it is a main source of Zanzibar’s foreign currency earnings, accounting for 70 percent of the total.¹⁰

10. According to the 2013 International Visitors’ Exit Survey Report conducted by the National Bureau of Statistics of Tanzania,¹¹ Zanzibar’s earning from the tourism sector in 2013 increased by 11.6 percent to US\$210.5 million compared with US\$175 million in 2012. The number of international tourists has grown at an annual rate of 9 percent and in 2015 almost 300,000 tourists visited Zanzibar.¹² The duration of stay in Zanzibar was 6 days, compared to 10 days in Tanzania.

Figure 1. Number of International Tourists Arriving at Zanzibar. 2005-2015



Source: Zanzibar Tourism Commission

11. The survey also showed that the average expenditure per person per night in Tanzania in 2013 was US\$284. For Zanzibar the expenditure per person per day was not presented in the survey. For this evaluation the expenditure per tourist was estimated by dividing the total tourism earning by number of tourists. The results show that for 2012 and 2013 the average expenditure per tourist per night in Zanzibar was US\$173 and 194 respectively.

12. The interventions of urban sanitation and urban upgrading and cultural heritage preservation subcomponents are expected to give positive impacts on the tourism sector in Zanzibar, which in turn will boost local economy. Since the specific impact and the magnitude of such impact on the tourism by the subcomponents is uncertain, the evaluation was conducted under different scenarios of growth rates for the tourism sector and the breakeven point to make the project economically viable was estimated. The results were validated with historical information.

¹⁰Ibid

¹¹National Bureau of Statistics of Tanzania, the 2013 International Visitor’s Exit Survey Report, March 2015.

¹²Tanzania Tourism Commission.

13. The tourism earnings were projected for the 20 years' life of the project. The scenarios were run by applying different growth rates to the number of tourists. The projected earnings from each scenario were compared with the earnings at the base case scenario in which current levels remained constant, the difference between the two being counted as incremental benefits. This evaluation used the 2013 average expenditure per person (US\$194 per night) and 6 days' average stay. The number of tourists in the base case scenario was calculated as the average of 2005-2015: 175,330.

14. It is expected that the interventions on urban sanitation, urban upgrading and cultural heritage preservation will have long term impacts on the tourism sector and thus the annual growth rate for the entire life of the project was evaluated. The same results would be obtained if the benefits are measured as impacts on avoiding decline of tourism due to the subcomponents.

15. The results show that the subcomponents will be viable if they help increase the tourism earnings (or impede its decline) by at least 0.34 percent per year. The higher the impact the better the returns. Assuming that 1 percent annual increase of the tourism earnings is caused by the subcomponents, the benefits would be three times as much the costs and the return on investment would be 25 percent.

Table 1. IRR of the Urban Sanitation, Urban Upgrading and Cultural Heritage Subcomponents

Annual growth rate of tourism earnings	Present Value of Incremental Flows (000 US\$)			IRR
	Costs	Benefits	Net Benefits	
0.34%	33,259	34,194	935	6%
0.50%	33,259	50,585	17,327	12%
1.00%	33,259	103,079	69,820	23%

16. The results of the evaluation are reassuring given that: (i) the minimum growth of 0.34 percent required to make the project viable is significantly lower than the growth rate of the number of tourists in the past 10 years (9 percent average per year); (ii) the number of tourists used in this evaluation corresponded to the average of 2005-2015, which is 40 percent lower than the actual number registered in 2014 and 2015; and (iii) additional benefits to the local economy and employment that will come along the increase of tourism activities were not quantified.

17. Sensitivity analysis shows that the subcomponents would remain viable when the impact on tourism growth is at least 0.6 percent per year even if investment costs double, or project implementation is delayed by up to four years.

Table 2. Sensitivity Analysis for Cost Overruns or Project Delay

	Cost overrun	Breakeven point to make the project viable (minimum required rate for tourism growth)
Investment Cost	50%	0.4%
	100%	0.6%
Project delays	3	0.35%

OSR Enhancement

18. The subcomponent will help ZMC with the implementation of the Local Government Revenue Collection and Information System (LGRCIS) and introduction of property tax, which is expected to increase in revenues from own sources.

19. According to the accounting records of ZMC from the last five years, about 60 percent of total revenues were generated from its own sources, and the remaining 40 percent correspond to state grants. The increase of revenues (4.3 percent per year) was outpaced by the increase of expenditures (11 percent per year), deteriorating the fiscal situation. In 2009/10 revenues were 34 percent higher than expenditure, and by 2013/14 revenues were lower than expenditures by 1 percent, resulting in fiscal deficits. Increase of expenditures was higher than inflation, which was on average 8 percent per year, while revenues' increase was well below inflation.

Table 3. Zanzibar Income/Expenditure Analysis 2009/10-2013/14 (Tsh million)

Fiscal Variable	2009/10	2010/11	2011/12	2012/13	2013/14
<i>Total Income</i>	2,624	2,532	2,694	2,866	2,923
<i>Own Income</i>	1,454	1,338	1,477	1,546	1,723
<i>State Grant</i>	1,170	1,194	1,218	1,320	1,200
<i>Expenditure</i>	1,957	2,011	2,511	2,890	2,940
<i>Overall Fiscal Outcome +/-</i>	667	521	184	(25)	(18)
<i>Financial Indicators</i>					
Own revenue/total revenues ¹	0.55	0.53	0.55	0.54	0.59
State Grants/total revenues ¹	0.45	0.47	0.45	0.46	0.41
Self Financing Index ¹	0.74	0.67	0.59	0.53	0.59
Growth overall revenues ¹		-3.5%	6.4%	6.4%	2.0%
Growth of the expenditures ¹		2.7%	24.8%	15.1%	1.7%

Source: ZMC Accounting Records 2013/14

¹ Own calculations

20. This subcomponent is expected to help ZMC improve the financial management and control the deterioration of the fiscal situation, by increasing OSR and offering efficiency gains. State grants have remained at similar levels during the analysed period and they are not expected to increase in the future to finance the gaps between the own sources revenues and expenditures.

21. Given that the impact of the subcomponent on improving the fiscal situation is uncertain, different scenarios were run to test the minimum efficiency gains needed to make the investment viable. Analysis was conducted for feasible targets of OSR increase and compared with the level under the *without* project scenario, i.e. average OSR increase rate of 4.3 percent p.a. in the past five years. Incremental benefits corresponded to the difference between the scenarios with and without efficiency gains projected for a 10-year period after

the interventions. Net benefits were then calculated as difference between the incremental benefits and incremental costs.

22. The results show that OSR would have to increase by at least 7.5 percent per year to make the investment viable, which is 3.2 percent above the base case scenario. In a more realistic scenario where the annual increase in OSR is 15 percent for the first three years, when the impact is expected to be higher, and 6.3 percent thereafter, the net benefit would amount to US\$4 million and the return would be 19 percent. Given the subcomponent will assist ZMC to introduce a property tax which could become a new source of large revenue as evidenced in many cases in Tanzania and Africa, the evaluated results seem reasonable to achieve. The higher the increase the better the returns. If OSR increases by 20 percent per year for the first three years and 6.3 percent thereafter, the rate of return would be 27 percent.

Table 4. IRR of the OSR Enhancement Subcomponent

Increase of Own revenues	Present Value of Flows (000 US\$)			IRR
	Costs	Benefits	Net Benefits	
7.5% annual growth	1,818	2,007	189	7%
15% for first three years and 6.3% thereafter	1,818	3,970	2,152	19%
20% for first three years and 6.3% thereafter	1,818	5,745	3,927	27%

23. Sensitivity analysis shows that if investment cost increases by 50 percent, the required increase of revenue would be 8.5 percent per year to make the investment viable. Similar increase would be needed if project implementation is delayed by four years. If accompanied by other efficiency gains the required level of increase would be lower.

Table 5. Sensitivity Analysis for Cost Overruns or Project Delay

	Cost overrun	Breakeven point to make the project viable (minimum required rate for OSR growth)
Investment Cost	50%	8.5%
	100%	10%
Project delays	2	8%
	4	8.5%

Small-scale infrastructure investments in Pemba

24. This subcomponent includes footpaths, public markets, abattoirs, street lights, etc. Of these, only footpaths works were evaluated based on the information from the previous interventions under the original project, which already shows positive benefits to the local communities. Footpaths and stairs on steep slopes in Chake Chake and Mkoani have significantly improved mobility and accessibility for the neighbouring communities. These also provided convenience and safety to all residents living nearby, as they are wider, more open, and accompanied by public lights. Local residents have saved travel time when they go out for daily activities, such as work, school, shopping, or visiting neighbours and relatives. Additional benefits are related with health issues as the path is more secure to walk, thereby reducing the chances of accidents and injuries.

25. Some pictures on the state of footpaths before and after rehabilitation are shown below.

Figure 2. Examples of Footpaths before Rehabilitation.



Figure 3. Examples of Footpaths after Rehabilitation.



26. The economic evaluation for the small infrastructure investment in Pemba was conducted by estimating the benefits of the travel time savings by comparing two situations: *without* and *with* interventions. This is a conservative approach as other benefits related to security and health were not estimated.

27. Benefits were estimated taking as reference the interventions already implemented under the original project in Mkoani Town Council, where 17 footpaths were built. For each of these pathways the number of households was counted, the length of the paths was measured before and after intervention, as well as the average walking time under both situations. Some of the rehabilitated pathways increased their length improving the accessibility of additional households. Summary of interventions in Mkoani shows that 792 households benefited and each person saves on average 8 minutes per time in walking along the pathway.

Table 6. Summary of Footpaths Built under the Original Project in Mkoani.

Mkoani Footsteps	# of footsteps	# of households	Distance (meter)		Time walking along the footpath (minutes)		
			Before	After	Before	After	Time Saving
Total	17	792	1,559	1,897	239	110	129
Average per footstep		47	92	112	14	6	8

28. The value of travel time savings was measured assuming that each beneficiary walks along the pathway twice a day. Travel time unit cost was estimated using the minimum wage published by the Minister of Labour and Employment at the United Republic of Tanzania¹³ in 2013 (update to 2015). The minimum wage is established according to economic sector and area of work. For this evaluation the value of time was estimated as the average minimum wage of domestic and construction workers (TZS 1,038/hour¹⁴ or about US\$0.6/hour). The minimum wage was reduced by half to account for unemployed and children. As a result, the benefits were estimated at about US\$5 per person per month. The benefits calculated for the life of the project were compared with the cost of interventions.

29. The results show that benefits were twice as much the costs and the return yielded by interventions was 18 percent. This result is reassuring given that benefits are underestimated. Some additional benefits related to reduction of injuries and improvement in security were not included.

Table 7. IRR of the Mkoani footsteps

	Present Value of Flows (000 US\$)			IRR
	Costs	Benefits	Net Benefits	
Footpaths	591	1,145	554	18%

Summary for Combined Subcomponents

30. Assuming that as a result of the AF interventions, tourism income increases by 0.5 percent per year and OSR increase by 15 percent for the first 3 years and 6.3 percent thereafter, the AF would generate about US\$26 million net benefits during the life of the project, yielding a rate of return of 15 percent.

Table 8. Summary of Results of Economic Evaluation

	Present Value of Flows (000 US\$)			IRR
	Costs	Benefits	Net Benefits	
Urban sanitation, urban upgrading and cultural heritage (Assuming 0.5% annual growth rate of tourism)	33,259	50,585	17,327	12%
OSR enhancement (Assuming 15% annual increase in OSR for the first 3 years and 6.3% thereafter)	1,818	3,970	2,152	19%
Pemba footpaths	591	1,145	554	18%
Total	35,667	55,700	20,034	12%

31. The target thresholds to make the project economically viable seem feasible as the evaluated minimum required growth level for tourism is well below the historical trend, and OSR could increase at higher rates than the required minimum according to the precedent cases in Tanzania. The evaluation was run with assumptions on the conservative side, which

¹³Ministry of Labor and Employment, United Republic of Tanzania, Notice to the Public New Minimum Wages for Private Sectors. 1st July 2013.

¹⁴The minimum wage of 2013 was adjusted to 2015 prices with inflation rate published by the Tanzania National Bureau of Statistics.

gives confidence to the results; furthermore, additional benefits such as the impacts of the tourism growth on other local economic sectors and impacts on the wellbeing of the local population were not quantified.

Financial Analysis

32. Solid waste services are provided by the Zanzibar Municipal Council (ZMC) along with sewerage and drainage. The current coverage rate of waste collection service is 46 percent. The subcomponent is expected to expand the coverage rate of the collection service to 70 percent by 2020 and to 90 percent by 2030 and complement the solid waste collection with appropriate sanitary landfill for final disposal. It is estimated that the waste generation per capita at 0.45 kg per day plus an additional rate of 0.3 kg for waste generated by the non-residential sectors (commercial, institutional, street sweeping, etc). Today's population at ZMC is 230,474 growing at an annual rate of 1.1 percent.

Cash Flow with and without the project

33. ZMC sanitation department receives around Tsh 300 million from service related fees (waste fees). During 2009 to 2014, 20 percent of total revenues of the ZMC came from waste fees; 27 percent from public markets; 21 percent from business licenses, and the remaining 32 percent from other charges. Revenues from solid waste fees increased by 5 percent per year.

34. The waste fees are predominantly paid by the commercial sector, while the residents are almost not contributing at all. By-Laws of June 23, 2006 set the structure of cost recovery by means of waste fees. The charge for small businesses is Tsh 7,500 /month (about US\$3.6 per month) and for residents the fee is set at Tsh 3,000 /month (about US\$1.4). However, about 90 percent of waste fees are collected from commercial sector. The By-Laws do not allow ZMC to charge residents, unless they receive door to door collection services. Thus the current secondary waste collection and the waste transfer and disposal cannot be financed via fees.

35. ZMC waste services were run with an operating deficit of Tsh 360 million in 2014, only 45 percent of the O&M costs are recovered by revenues. The *without* project scenario assumed that both current waste fees and O&M costs per ton remained constant during the lifetime of the project, Tsh 11,191/ton and Tsh 22,741/ton respectively. Revenues and costs were projected keeping the coverage of waste collection service at 46 percent.

36. With the project, the average annual O&M costs will increase by double. If waste fees remain constant, revenues would cover only 34 percent of the O&M costs. The gap between revenues and O&M costs will widen gradually and the deficit will increase. By 2030 the deficit will reach Tsh 1,458 million. The incremental changes between the two scenarios show that if waste fees do not increase and there is no other financial source, the project will generate a financial gap of Tsh 1,000 million by 2030.

Table 9. Financial Projections of the Waste Service Operation *with* and *without* project (Tsh million)

	2015	2020	2025	2030
<i>Without Project situation</i>				
Revenues	324	343	362	383
O&M costs	(660)	(697)	(736)	(778)
Operating Deficit	(336)	(354)	(374)	(395)
<i>With Project situation</i>				
Revenues	324	522	630	749
O&M costs	(660)	(1,539)	(1,857)	(2,207)
Operating Deficit	(336)	(1,016)	(1,227)	(1,458)
<i>Incremental situation</i>				
Revenues	-	179	268	366
O&M costs	-	(841)	(1,121)	(1,429)
Operating Deficit	-	(662)	(853)	(1,063)

37. When incremental net cash-flows are discounted to estimate the present value, the total operating deficits along the lifetime of the project would be Tsh 6,054 million or about US\$3 million. When capital expenditure was included, the present value of the incremental deficit would be Tsh 26,632 million or about US\$12 million. At present, revenues from waste fees cover only 45 percent of O&M cost.

38. The system would not be sustainable unless other financial sources are used to fund the financial gap. The potential financial means include (i) expansion and effective collection of the waste fees currently charged only to the households and commercial entities served by the door-to-door waste collection services (Tsh 3,000 per month for households and Tsh 7,500 per month for businesses according to the municipal By-laws) to broader beneficiaries of the improved waste services, (ii) introduction of a tipping fee per ton charged at the gate of the landfill, (iii) introduction of a new levy or entry fee to the tourists for improved environmental infrastructure and services, and (iv) increase in budgetary allocation from the ZMC's own source revenue (OSR) which is expected to increase significantly through the AF-supported LGRCIS and property tax implementation.

39. These four financial options were examined and the results show that: (i) if the waste fees are expanded and fully charged to all the households served today and those covered by the secondary collection services through community collection points, the operational deficit would be reduced by 80 percent, but this option would require a careful study on the communities' affordability and willingness to pay, and the need to revise the municipal By-law; (ii) if a landfill tipping fee is used to cover the deficits, a fee of US\$10 per ton would be required to cover the operating deficit, or US\$30 per ton to cover the deficits from O&M and investment, (iii) if a new levy or entry fee targeted to the tourists is introduced, US\$2.5 per tourist is needed to recover the O&M cost, and US\$7.5 per tourist is needed to enable full cost recovery of investment as well as O&M costs; and (iv) if the increased revenues expected by the OSR enhancement subproject (15 percent increase in OSR in the first 3 years and 6.3 percent in subsequent years) is used, it would pay for the estimated operating deficit but would fall short to cover the investment cost.

Table 10. Potential Financing Options to Cover the Expected Deficits (Tsh million)

	NPV of flows		Equivalent per year	
	Without investment cost (Tsh million)	Including Investment Cost (Tsh million)	Without investment cost (Tsh million)	Including investment costs (US\$ 000)
Net cash-flow (with project situation)	(9,905)	(30,484)	(1,020)	(3,139)
Options to fund the deficit:				
(i) Expansion and effective collection of waste fees				
Increase in revenues	7,821	7,821	805	805
New deficit	(2,084)	(22,663)	(215)	(2,333)
(ii) Introduction of tipping fee				
Tipping fee required (US\$/ton)	10	30	10	30
Increase in revenues	10,191	30,572	1,049	3,148
New deficit	285	89	29	9
(iii) Entry fee charged to tourists				
Entry fee required (US\$/tourist)	2.50	7.50	2.50	7.50
Revenues from entry fee	10,217	30,652	1,052	3,156
(iv) Use of increased OSR				
Increase in revenues	12,000	12,000	12,000	12,000
New deficit	2,094	(18,484)	216	(1,903)

40. Combined measures would be able to cover the expected deficits. The OSR is expected to increase more significantly than analyzed in the assumed scenario, through the AF-supported LGRCIS and property tax implementation. Waste fees for collection services and tipping fees for the disposal services at the landfill would also help increase revenues to a large extent. However, given the sensitivity of the tariff issue, community education and awareness campaigns should be undertaken along with service improvement. These actions should also be accompanied by efficiency gains from the ZMC for billing and collection system. Entry fee for the tourists is another feasible option with a good rationale of improving infrastructure and services that help boost tourism.

41. Revenue streams can be increased further by mobilizing new revenue sources through sales of recyclables or recovery of resources or introduction of infrastructure tax to hotel stay and other polluter's pay instruments. It was agreed that the ongoing feasibility study would conduct further analysis on cost recovery mechanisms reflecting the final design of the solid waste collection, transfer, transport, treatment and disposal system and potential material and resources recovery scheme, to ensure the financial sustainability of the infrastructure investment.

Annex 4: Solid Waste Management Technical Analysis

Introduction

1. The Department of the Environment (DOE) has been given reasonable powers to oversee the management of solid wastes and septic sludge in Zanzibar through the National Environment Policy of 2013 and the Environmental Management Act, No 3 of 2015. Powers include the ability to plan, undertake research, set policies, issue permits, monitor, report on and enforce provisions. Although DOE has the necessary powers, they have not yet developed specific policies, standards or guidelines for solid wastes and septic sludge. However, the Department of Health is now preparing solid waste regulations that would duplicate any regulations to be promulgated by the Department of the Environment. It has also been reported that some Regional and District authorities are passing solid waste by-laws to address local problems.
2. DOE has reasonable technical and management capacity to initiate a solid waste management program for Zanzibar. The challenge is finding the resources necessary to oversee such a program. Regional and District authorities, outside of ZMC, lack sufficient technical and financial capacity to build an effective monitoring, reporting and compliance system. Additional resources would be required before technical and managerial support and training would be effective at the regional and district levels. This lack of capacity could become an issue if solid waste from the Regions and Districts was to be disposed of at Kibele.
3. ZMC has the responsibility to oversee and manage the solid waste and septic sludge management systems. ZMC has about 200 staff and uses 8 solid waste collection vehicles including 2 skip container trucks to service 80 skip containers at 80 skip pads. The existing service coverage using the equipment is about 50 percent. ZMC also operates 1 vacuum truck that manages septic sludge in concert with 5 private sector vacuum trucks. ZMCs annual budget for solid waste management is about US\$300,000. About half of these expenditures are covered by waste fees collected mainly from businesses.
4. The original project design assumed that an existing disposal site at Jumbi would continue to be used for the duration of the project. As a result, project financing focused on the provision of skip pads, skip containers and skip loaders to transport wastes to the disposal site. The disposal site at Jumbi was closed in 2011 however, because of significant community opposition. ZMC resorted to dumping wastes in open scattered sites in populated urban areas resulting in significant environmental, social and public health risks. Similarly, septic sludge is being dumped into a mangrove forest adjacent to a cultural heritage site generating additional environmental and social risks.
5. ZMC with the assistance of the Departments of the Environment, Roads, Urban and Rural Planning and Forests conducted a two stage assessment process in 2013 to evaluate a potential site for a landfill and sludge disposal facility at Kibele, a former quarry outside of the municipal area. The team used the same process and criteria developed by HP Gauff for an earlier feasibility study in 2005. The Kibele site met all exclusionary criteria and scored higher than sites considered for landfilling in 2005.

6. The RGoZ subsequently decided that the Kibele site would be used initially as a managed disposal site to quickly alleviate problems associated with improper dumping and, in the longer term, as a formal landfill and sludge treatment facility. Although ZMC and other government departments had committed to initially operate the Kibele site as a controlled disposal site, it has been operated as an open dump because of a lack of equipment.

7. The RGoZ contracted Gauff Ingenieure in 2015 to prepare a feasibility study and preliminary designs for an efficient and integrated solid waste and septic sludge collection, transfer, transportation and disposal systems that supports the social and economic growth for ZMC and builds on the initial investments made under the ZUSP. The feasibility study will also be evaluating the risks associated with several priority legacy dump sites within ZMC. The consultant submitted an Initial Preliminary Design Report in January, 2016 including preliminary design considerations for a landfill and septic sludge treatment system at Kibele. The consultant submitted a system options report and analysis in April 2016. A stakeholder workshop will be held to outline system options and seek stakeholder input.

Progress to Date and Sustainability Risks

8. Technical / Safeguard Issues at Kibele: The mid-term review (MTR) concluded that an acceptable solid waste management system for ZMC could only be achieved if a new landfill was constructed at the Kibele site. Although broader environmental and social risks to the community have been addressed by stopping indiscriminate dumping, Kibele could still pose a risk to the drinking water aquifer used by the Zanzibar Water Authority (ZAWA) if not upgraded to a landfill. Without a landfill liner, leachate collection system and groundwater monitoring wells, there is some potential that one well (U-67) operated by ZAWA could be contaminated if contaminants migrated from the site. The feasibility study will also be assessing the risks posed by solid waste disposed of at the site since 2014. This risk assessment will determine whether these wastes will need to be transferred to the new landfill cell or otherwise stabilized.

9. Other Safeguard Issues at Kibele: The Kibele site is being used as a dump site without fencing or routine supervision. As a result, waste is being discharged over the edge of the quarry without being compacted or covered. Frequent landfill fires create significant emissions to the neighborhood and the environment. Wind-blown litter is also an issue for the local environment. A Landfill Operating and Management Plan for the landfill and sludge treatment system is being developed by the feasibility consultant. This will provide operators and managers with clear direction aimed at overall system efficiency and minimizing emissions / discharges from the landfill and septic sludge treatment facility.

10. The potential for encroachment is also significant because of the lack of regular supervision and adequate fencing. Methane gas generation from the site and smoke from fires can pose health threats to farmers and others that encroach upon the site.

11. Need for Landfill Equipment: Upgrading Kibele to a landfill will also require financing for landfill equipment. Waste will need to be compacted and covered on a routine basis.

Cover material will need to be quarried and transported to the site. Groundwater will need to be monitored. Without additional investments in appropriate landfill equipment and monitoring instrumentation, the existing unacceptable practices and risks posed at Kibele will continue.

12. Collection System Coverage: According to the recent measurements by Gauff Ingenieure, ZMC collects 85 t/day of solid waste and has service coverage of about 46 percent. This level of coverage is poor and results in increased litter, informal dump sites and blocked drainage systems. Investments in primary collection systems, collection points and transportation vehicles are essential. The need for smaller collection vehicles for the narrow streets of Stone Town is particularly important to increase service coverage.

13. In addition, outreach and education programs aimed at building community awareness of the environmental and social issues posed by solid waste and septic sludge mismanagement will be critical to improving overall system performance. Support for community based organizations (CBOs) will also improve waste practices at the household level.

14. Solid Waste Transfer and Material Recovery: The Kibele site is approximately 20km from the central business district (CBD). At this distance, the cost of transportation becomes a significant component of overall O&M expenses. The life expectancy of the skip loaders is only expected to be about 7 years given the distance travelled from the CBD and the number of trips per day.

15. There is also limited material recovery in ZMC except for the informal removal of plastic bottles from the waste stream. There is no formal system in place to recover materials for recycling. The feasibility and design consultant will be considering the potential for a solid waste transfer station that could include formalized material recovery. There will have to be consideration of additional materials that can be recovered from the waste stream where there is a market.

16. Technical Capacity: At this point, ZMC does not have the technical capacity to operate an integrated solid waste management system. The proposed investments will add additional technical complexity while there is little track record of implementing formal waste management systems and no experience in managing landfills. Without trained staff, the collection and transportation systems could quickly fall into disrepair. The landfill will likely revert to an open dump. Targeted and tiered capacity building is essential for system managers, supervisors and operating staff. Any training provided will have to be consistent with the Training Needs Assessment prepared for the Department of Finance through ZUSP project funding.

17. There is an opportunity to coordinate training for the waste system and disposal site operators with training proposed for solid waste personnel from the Tanzania Strategic Cities Program (TSCP). The TSCP training program consists of a training needs assessment, classroom and field training and start-up support. The training needs assessment, classroom training and field training in South Africa have already taken place. Staff from ZMC and the

Department of the Environment has already participated in the classroom component of this training. The start-up training is scheduled for later this year.

18. Policy Framework / Institutional Development: If a decision is made to use the private sector to design, build, operate or manage aspects of the solid waste or septic sludge management systems, a comprehensive regulatory system will need to be considered to provide clear direction for the private sector operators and DOE compliance staff. Without clear regulatory and contract provisions, the private sector will be reluctant to participate. These risks would be significantly higher if the Department of Health passes solid waste regulations that overlap with solid waste regulations to be passed by the Department of the Environment or by-laws passed at the Regional and District levels.

SWM Risk Mitigation Measures for Additional Financing

19. To ensure proper management, maintenance and sustainability of the landfill financed under the project, additional investment is required. Cumulative impacts of poor waste management and infrastructure maintenance, leading to flooding, public health and safety impacts, are possible. If the landfill is not well managed, some impact on groundwater quality is possible.

20. Proposed investments will address the risks identified in paragraphs 8 through 18 above. The feasibility and design consultant, ZMC and discussions during the appraisal mission have resulted in the the following proposed investments:

21. It has been estimated that total costs for waste collection equipment, sludge disposal, landfill, disposal site equipment plus engineering (15 percent) and contingencies (20 percent) will be in the order of US\$7,725,000. These estimates do not include solid waste policy development and implementation costs, capacity building for DOE or ZMC staff, public education and awareness building, CBO support, primary collection in poor areas or legacy dump site / Kibele waste stabilization. These estimates are based on overall system cost estimates prepared by Gauff Ingenieure plus proposals and estimates from ZMC.

22. Cost estimates for the collection and transportation system proposed by the consultant include improvements to thirty (30) collection points, four (4) skip trucks, a transfer station with compactor, three (3) long haul trucks with nine (9) 40m³ containers. These investments will significantly improve system coverage and the overall quantities of solid waste collected. The transfer station, compactor and long haul vehicles will effectively keep the costs of the transportation down.

23. Septage is currently dumped by vacuum tanker operators in an open area adjacent to a heritage site on the edge of Stone Town. It is now proposed to put in place appropriate septage management arrangements to ensure proper registration of operators and to determine the quantities of septage currently collected and dumped. Based on data gleaned so far, the feasibility study and additional survey information, a treatment facility is to be developed at the Kibele landfill site. A conceptual design for the facility has been outlined and costed in the FS. Cost estimates include for the access and septage reception, drying beds to reduce

moisture content, basic treatment in anaerobic ponds and then a Mechanical Biological Treatment (MBT) facility to treat waste (septic sludge and organic components of the solid waste) before subsequent utilization of the material produced as landfill cover material.

24. Cost estimates for the landfill include internal access roads, security fencing, buildings, weighbridges, lined cells, leachate collection and treatment system, gas venting and a surface water management system. The proposal also includes landfill equipment to address off-site and on-site human health and environmental risks from litter, dust, odours and smoke from fires. With these investments, ZMC will be able to regularly compact and cover wastes minimizing the potential for workers and off-site residents to be impacted. The additional landfill equipment will help ZMC to optimize site capacity and overall lifespan by achieving optimal compaction.

25. Overall investments do not include environmental monitoring equipment for groundwater or landfill gas. The investments also omit costs for vehicle maintenance. Vehicle maintenance will either have to be outsourced or undertaken by existing municipal maintenance programs.

26. Additional investments will also be required to build technical capacity for ZMC and other RGoZ staff involved in solid waste and septic sludge system operations and management. As noted earlier, this training will be integrated into the TSCP solid waste training that is now underway. TSCP training has been contracted to a South African training consortium and includes the following elements:

- Practical Classroom (completed in 2014 in Arusha, Tanzania)
- Field Training (completed in 2014 in South Africa)
- Start-up Support (to take place at a landfill to be opened in 2016)
- Ongoing Technical Support (to be available for 6 months after TSCP landfills operational)

27. The next phase of training will be start-up support at a landfill in one of the TSCP cities in 2016. The intention is to bring operational staff from each of the seven (7) TSCP cities to take part in opening and operating the selected landfill with trainers from the South African consortium. Because of the nearly 2 year delay between initial training and landfill opening, a refresher course has been added immediately preceding the start-up training.

28. Staff from ZMC and other government departments have already taken part in the practical classroom training in Arusha. It is proposed that they take part in the refresher training and landfill start-up training in 2016. Cost estimates would be in the order of \$30,000 for travel, accommodation, classroom materials and an add-on session between the South African trainers and ZMC staff to address questions specific to Zanzibar.

29. It is also proposed that additional training be provided immediately before the Kibele landfill opens for service. The focus of this detailed technical training would be on the Landfill Operating and Management Plan (LOMP) being developed as part of the Gauff design contract. It would also include start-up support for the landfill in Kibele similar to the

start-up support offered for TSCP LGAs. Cost estimates for the training and start-up support, if provided by the South African training consortium, would be in the order of US\$170,000 including the cost of travel, accommodation and classroom materials in Zanzibar.

30. The feasibility consultant is evaluating the risk potential posed by legacy dump sites such as Jumbi, Amani and Mwanakewerekwe. It is proposed that ZUSP AF support efforts by ZMC to stabilize these sites so they can be returned to open public green space. Stabilization could take the form of waste compaction, cover and vegetation. Returning the sites to open public green space will also reduce the risks of further building encroachment and the associated methane risks. Efforts are underway to prepare stabilization options for ZMC consideration. Costs for stabilization of the three legacy sites and in-situ stabilization at Kibele could exceed \$400,000. If a decision is made to transfer existing waste at Kibele to the new landfill cell, costs could be higher.

31. It is proposed that support be provided to develop and implement a solid waste management strategy for Unguja and Pemba to address emerging governance issues between the Departments of Environment and Health as well as the Regional and District levels. This national strategy would also evaluate technical capacity issues at the Regional and District levels if a decision is made to require solid waste from large generators such as hotels to be disposed of at Kibele. It is anticipated that the process to arrive at a consensus could be funded through the MDTF for Sustainable Urban Development - Operationalizing Urbanization Reviews in TSCP and ZUSP. Priority action plans could be considered for funding under ZUSP AF.

32. If a decision is taken to utilize the private sector to design, build, operate or manage elements of the solid waste and septic sludge management systems, a reasonably comprehensive policy framework would likely be required. This framework could include solid waste and septic sludge regulations addressing solid waste set-out and source separation requirements, collection frequency as well as standards for vehicles, the material recovery / transfer station, the sludge treatment facility and the landfill. The framework would also prescribe infractions and related penalties. A complementary training program for DOE, regional and district staff would be essential.

33. If ZMC is to operate the solid waste and septic sludge systems, design and operational requirements could be addressed through system operating and management plans coupled with regulated system performance requirements and prescribed infractions and penalties. A Landfill Operating and Management Plan is already being developed by the design consultant. A complementary training program for DOE, regional and district staff would be essential.

Annex 5: Assessment of Key Risks

Risk category	Rating	Comments
1. Political and governance	S	There is a new political risk, with the complications arising from the recent election in Zanzibar in March 2016 independently held from the mainland national elections in October 2015. The situation is more or less resolved since the election was held, but the risk is an undercurrent of distrust or resentment by citizens that could risk political instability when combined with the socioeconomic situation such as high unemployment. However, this is expected to be a short-term issue and not anticipated to affect implementation.
2. Sector strategies and policies	S	While the urban sector strategies and policies have been significantly strengthened with the support of ZUSP, the addition of the waste sector poses a substantial risk to the AF. Political will to address the sanitation crisis is high, but Zanzibar does not yet have a policy or regulatory framework for the waste sector, enforcement of current rules is weak, and the sector is critically under-resourced while own-source revenues are very limited.
3. Technical design of project	S	Urban upgrading and heritage support in Ng'ambo area in the buffer zone of the UNESCO heritage site will need technical rigors in its engineering design to meet the Historic Urban Landscapes guidelines and require continuous coordination with the Department of Urban and Rural Planning, Stone Town Conservation and heritage Authority, and UNESCO. The addition of the landfill and sludge treatment facility will add additional technical complexity to ZUSP while there is little track record of implementing formal waste management system and no experience in managing landfills.
4. Institutional capacity for implementation and sustainability	S	While capacity has significantly increased in the PMT to date, the addition of large waste management investments and urban upgrading could stretch the technical capacity of the PMT and other related agencies. Capacity for M&E is still limited.

Risk category	Rating	Comments
5. Environment and social	S	Being a Category A project and with infrastructure investments being made within a World Heritage City location, safeguard policies need special and constant attention. The current climate is a risk to some operations, namely the drainage and solid waste investments. In general impacts are expected to be site-specific, but cumulative impacts of poor waste management and infrastructure maintenance are possible, leading to flooding, public health and safety impacts. If the landfill is not well managed, some impact on groundwater quality is possible. With the proposed AF financing of the resettlement cost of the original project, additional scrutiny will be required to monitor the implementation of the resettlement activities and the operation of dedicated account for resettlement compensation.
6. Other	S	There is a risk of cost overrun related to the project location in an island. The project experienced limited participation of the potential construction companies in the bidding process for the works and goods packages. The costs of construction and equipment are subject to changes depending on the shipping and insurance conditions and the sources of materials as well as price of the limited bidders.
Overall	S	The overall risk is assessed as “Substantial” because multiple key risk categories, notably those pertaining to sector strategies and policies, technical project design, institutional capacity, and environment and social, are assessed as substantial.

Risk Mitigation

1. The sector strategy and policy risks related to the waste sector will be mitigated by (i) support for developing a sector strategy and associated institutional and regulatory framework, (ii) comprehensive capacity building activities for the concerned ministries, local agencies, and local communities, and (iii) potential engagement on PPP modality subject to feasibility study to be supported by the AF.
2. The risks originating from the project’s design will be mitigated by (i) continued consultation with relevant stakeholders including STCDA and UNESCO on the design and implementation of urban upgrading and heritage support in Ng’ambo area, (ii) additional capacity building support to PMT with technical capacity to manage new project components, (iii) ensuring solid waste designs are technically sound and build on lessons learned through the waste component of the TSCP.
3. Institutional capacity for implementation and sustainability risks will be mitigated by (i) continued capacity building for the PMT, ZMC, STCDA, and the Department of Environment (DoE), especially with respect to new subcomponents in waste management and urban upgrading, (ii) assessing if the PMT will require additional staffing for the AF

implementation, close monitoring of project implementation by the Bank, with continuous support from the country office and frequent implementation support missions.

4. Environmental and social risks will be mitigated by (i) close engagement with the Department of Environment during the ESIA process during AF preparation and monitoring during implementation, (ii) capacity building for the PMT, ZMC, DoE and relevant stakeholders on environmental and social monitoring in the waste sector, (iii) support for a Strategic Environmental and Social Assessment of the waste sector, (iv) enhanced implementation support by the Bank with continuous support from the country office and frequent implementation support missions.

5. Cost overrun risks will be mitigated by (i) technical rigors in engineering and design with the support of technical experts, (ii) capacity building of the PMT and ZMC engineers on the design, procurement and contract management, and (iii) high contingency allocation.