

AFRICAN DEVELOPMENT BANK



MALAWI

NKHATA BAY TOWN WATER SUPPLY AND SANITATION

APPRAISAL REPORT

RDGS/AHWSAI/PGCL DEPARTMENTS
October 2018

TABLE OF CONTENTS

Project Summary	iv
Results Based Logical Framework	v
I – STRATEGIC THRUST AND RATIONALE	1
1.1. <i>Project Linkages with Country Strategy and Objectives</i>	1
1.2. <i>Rationale for Bank’s Involvement</i>	1
1.3. <i>Donor Coordination</i>	2
II - PROJECT DESCRIPTION	3
2.1 <i>Project Components</i>	3
2.2 <i>Technical solution retained and other alternatives explored</i>	4
2.3 <i>Project type</i>	5
2.4 <i>Project cost and financing arrangements</i>	5
2.5 <i>Project’s Target Area and Population</i>	6
2.6 <i>Participatory process for project identification, design and implementation</i>	6
2.7 <i>Bank Group Experience, Lessons Reflected in Project Design</i>	7
2.8 <i>Key performance indicators</i>	7
III – PROJECT FEASIBILITY	8
3.1 <i>Economic Performance</i>	8
3.2 <i>Environmental and Social impacts</i>	8
IV – IMPLEMENTATION	10
4.1 <i>Implementation Arrangements</i>	10
4.2 <i>Implementation Schedule</i>	11
4.3 <i>Procurement Arrangement</i>	11
4.4 <i>Financial Management and Disbursement Arrangements and Funds Flow</i>	12
4.5 <i>Monitoring</i>	13
4.6 <i>Governance</i>	13
4.7 <i>Sustainability</i>	14
4.8 <i>Risk Management</i>	14
4.9 <i>Knowledge Building</i>	15
V – LEGAL INSTRUMENTS AND AUTHORITY	15
5.1 <i>Legal instruments</i>	15
5.2 <i>Conditions associated with Bank’s intervention</i>	15
VI – RECOMMENDATION	16
Appendix 1. Map of Malawi showing Nkhata Bay Town	I
Appendix 2. Malawi’s Comparative Socio-Economic Indicators	II
Appendix 3. Table of ADB's Portfolio in Malawi as at 30 th May 2018	III
Appendix 4. Water Supply and Sanitation Projects Financed by the Bank and Other Development Partners	IV

Currency Equivalents

May 2018

National currency is Malawi Kwacha (MWK)

1 UA = 1.43806 US\$

1 UA = 1,062.95 MWK

1 US\$ = 739.16 MWK

Fiscal Year

1 July – 30 June

Weights and Measures

1 metric tonne (t) = 2,205 lbs.

1 kilogramme (kg) = 2.205 lbs.

1 metre (m) = 3.281 ft.

1 kilometre (km) = 0.621 mile

1 square kilometre (km²) = 0.386 square mile

1 hectare (ha) = 0.01 km² = 2.471 acres

Acronyms and Abbreviations

AfDB	African Development Bank	NTF	Nigerian Trust Fund
ADF	African Development Fund	NPP	National Procurement Procedures
BPM	Bank Procurement Policy and Methodology	NPV	Net Present Value
BPS	Borrower Procurement System	NRWB	Northern Region Water Board
CBM	Community Based Management	NWDP	National Water Development Programme
CEO	Chief Executing Officer	NWP	National Water Policy
CLTS	Community Led Total Sanitation	OPEC	Organisation of Petroleum Exporting Countries
COMW	AfDB Malawi Country Office	OFID	OPEC Fund for International Development
CPIA	Country Policy and Institutional Assessment	ODF	Open Defecation Free
CSI	Core Sector Indicators		
CSP	Country Strategy Paper	O & M	Operation and Maintenance
DCT	District Coordination Team	PCR	Project Completion Report
		PIT	Project Implementation Team
DC	District Council	PIU	Project Implementation Unit
DPs	Development Partners	PMU	Programme Management Unit
EA	Executing Agency	PMP	Procurement Methods and Procedures
EIRR	Economic Internal Rate of Return	PRCA	Procurement Risks and Capacity Assessment
ESAP	Environment and Social Assessment Procedures	QPR	Quarterly Progress Report
ESMP	Environmental and Social Management Plan	RDGS	Regional Directorate for Southern Africa
ESW	Economic and Sector Work	RPS	Recipient Procurement System
GFS	Gravity Fed Schemes	RMC	Regional Member Country
GoM	Government of Malawi	RWSSI TF	Rural Water Supply & Sanitation Initiative Trust Fund
IPR	Implementation Progress Report	SBD	Standard Bidding Document
JMP	Joint Monitoring Programme (UNICEF/WHO)	SDG	Sustainable Development Goal
IWRM	Integrated Water Resources Management	STI	Sexually Transmitted Infection
KPI	Key Performance Indicators	SWAp	Sector Wide Approach
MoAIWD	Ministry of Agriculture, Irrigation and Water Development	SWG	Sector Working Group
M & E	Monitoring and Evaluation	TA	Technical Assistance
MDG	Millennium Development Goal	ToR	Terms of Reference
MGDS	Malawi Growth and Development Strategy	UA	Unit of Accounts
MIUWSP	Mzimba Integrated Urban Water and Sanitation Project	UNICEF	United Nations Children's Fund
MTR	Mid Term Review	USD	United States Dollars
MWK	Malawi Kwacha	VIP	Ventilated Improved Pit
NBTWSSP	Nkhata Bay Town Water Supply and Sanitation Project	WASH	Water, Sanitation and Hygiene
NCB	National Competitive Bidding	WPCs	Water Point Committees
NGO	Non-Governmental Organization	WSS	Water Supply and Sanitation
NSP	National Sanitation Policy	WUA	Water User Association

Grant Information

Client's information

RECIPIENT Republic of Malawi
EXECUTING AGENCIES Ministry of Agriculture, Irrigation and Water Development
and the Northern Region Water Board (Water Utility)

Financing plan

Source	Amount (million)	Instrument
ADF	UA 10.500	Grant
OFID	UA 8.344	Loan
Government of Malawi	UA 2.399	Contribution
TOTAL COST	UA 21.243	

ADF/OFID key financing information

ADF Grant	Terms
Interest type	N/A
Interest rate spread	N/A
Commitment fee	N/A
Other fees	N/A
Tenor	N/A
Grace period	N/A
EIRR (base case)	19.55% (NPV MWK 12.03 billion)

Timeframe - Main Milestones (expected)

Project approval	October 2018
Effectiveness	December 2018
Launch	January 2019
Completion	December 2022
Last Disbursement	June 2023

Project Summary

1. *Project Overview:* The overall objective of the Nkhata Bay Town Water and Sanitation Project (NBTWSSP) is to contribute to the achievement of the country's goals as stipulated in the Malawi Growth and Development Strategy (MGDS-III, 2017 - 2022) and Malawi's Vision 2020. The project development objective is to improve the health and livelihoods of the residents of Nkhata Bay Town and surrounding areas through access to potable and sustainable water supply and improved sanitation services.

2. The project's main outcomes are (i) increased percentage of people with access to potable water from 37% to 90%; (ii) increased percentage of people having improved access to basic sanitation from 45% to 85% and (iii) sustained availability of reliable water. At output level, it will result in new infrastructure in terms of constructed water treatment plant, pipelines, storage reservoirs, improvement in faecal sludge and solid waste management, public latrines, community members trained and community kiosks operated. The project is planned to be implemented in 48 months beginning in January 2019 with financing of UA10.5 million from ADF Grant, UA8.344 million loan from OPEC Fund for International Development (OFID) to be administered by the Bank, and UA2.399 million from Government of Malawi as its counterpart contribution.

3. At completion of the project by end of 2022, the project will benefit 60,000 people directly in the Nkhata Bay Town and surrounding areas and additional 220,000 people will benefit indirectly whose administrative, social and economic needs depend on services offered from Nkhata Bay Town. The project will have a direct positive health benefit, enabling improved education opportunities for women and school age children, productive/livelihood opportunities created and employment through expanded service and improved private sector activities. All of these will be made possible by the improved service coverage in the intervention areas.

4. *Assessment of Needs Met:* Access is currently estimated at an average of 37% for water supply and 45% for sanitation in the project beneficiary area, lower than national averages. Nkhata Bay Town has been expanding with prospects for further growth. It is a key centre for the Mtwara Development Corridor connecting the countries of Malawi, Tanzania and Zambia. The Town is a port on Lake Malawi and is a main link on Mtwara Development Corridor, a reason for which the Bank is supporting the Mzuzu to Nkhata Bay Road Upgrading. In addition to being a transit Town for businesses along the lakeshore to the main City of Mzuzu in the northern region of Malawi, the Town is an attraction to tourists, which is another area of employment generation for the area. Lack of adequate water and sanitation services will therefore be a constraint for improvement of the quality of life and socio-economic development of the area. In addition, the project presents opportunities to scale up catchment area protection, improvement in controlling pollution, water conservation and sustainable utilization in response to the risk of climate variability and change.

5. *Bank's Added Value:* Among the donors involved in Malawi's water and sanitation sector, the Bank is perceived to have a strong hold and comparative advantage. The Bank has supported a water and sanitation project co-financed by Australian Aid and is currently financing one water and sanitation project co-financed by OFID. This partnership is reinforced with this project financing arrangement with OFID. Furthermore, with the Bank's high level engagement and continued support to the sector, the Bank's influence at policy and strategic level is instrumental. This is evidenced through its support for the review and update of the water policy and now through this project for the sanitation policy review.

6. *Knowledge Management:* The implementation of this project will result in the development of skills and knowledge in specific areas: (i) community management of water supply; (ii) stepped approach to improve sanitation and hygiene practices; (iii) climate informed catchment protection and management practices; (iv) learning from the sanitation policy implementation and improvement needed, (v) cost of service and building an affordable tariff system that promotes efficiency; and (vi) promoting the culture of performance and accountability through performance contracts.

VII. Results Based Logical Framework

Country and Project Name: Malawi: Nkhata Bay Town Water Supply and Sanitation Project

Purpose of the project: To contribute to socio-economic growth for Nkhata Bay Town and the country by improving the health and livelihoods of the residents of Nkhata Bay Town and surrounding areas through access to potable and sustainable water supply and improved sanitation services.

RESULTS CHAIN		PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
		Indicator (including CSI)	Baseline (2018)	Target (2022)		
IMPACT	Improved health and livelihoods of Nkhata Bay Town residents and surrounding areas	1. No. of reported incidences of water borne diseases (proportion of persons suffering from diarrhoeal diseases)	3.4%	1%	MGDIII performance Report National Statistical Office (NSO), Project monitoring reports, supervision missions, mid-term and end evaluations	Risk 1. People in rural area continue to use unsafe source of water
		Access to improved water services at national level Access to improved sanitation at national level	87% (2016) 52% (2016)	90% 85%		
OUTCOME	1. Increased coverage of clean water supply and improved and inclusive sanitation	1.1 Percentage (No.) of people with access to potable water supply, of which 51% female (CSI) ¹ 1.2 Time measure of improved water supply service per day 1.3 Percentage of people with access to improved sanitation, of which 51% female (CSI)	1.1 37% 1.2 16 hours 1.3 45%	1.1 90% 1.2 24 hours 1.3 85%		Mitigation: awareness campaign and suitable mode service Risk 2. unwillingness by the beneficiaries to pay for service
	2. Creation of employment opportunities	1.4 % of Non Revenue Water (NRW) 2.1 Number of skilled and unskilled jobs created (temporal/Permanent)	1.4 55% 2.1 0	1.4 28% 2.1 300 (250/50)		
OUTPUTS	Water Infrastructure Development 1.1. Water supply scheme rehabilitated and upgraded 1.2. Improvement in catchment of Nkhata Bay River	1.1.1 Water treatment plant capacity increased 1.1.2 Length of Transmission main constructed 1.1.3 Length of distribution system constructed 1.1.4 No. of additional water connections 1.1.5 Additional Volume of Storage Capacity	1.1.1 1,450m ³ /d 1.1.2 5 km 1.1.3 24 km 1.1.4 0 1.1.5 0	1.1.1 19,623m ³ /d 1.1.2 38 km 1.1.3 137 km 1.1.4 2,000 1.1.5 8060m ³	Project monitoring reports (QPR/IPRs), supervision missions Project Completion Report, Audited financial reports	Mitigation: training, organisation capacity building through establishing water user associations Risk #3 Co-financing
	Sanitation and Hygiene 2.1. Residents sensitisation on improved S&H & communicable diseases 2.2 Sanitation and Hygiene Plan and Investment Strategy prepared 2.3 Solid & Wastewater management	1.2.1 Catchment management plan prepared 1.2.2 No. of seedlings planted 2.1.1 No. of people sensitised on improved sanitation & hygiene, HIV/AIDS, STI and malaria 2.1.2 No. of additional sanitation facilities in public schools and markets 2.2.1 Sanitation and Hygiene Investment Plan prepared 2.3.1 Improved solid waste management and faecal sludge management	1.2.1 0 1.2.2 0 2.1.1 0 2.1.2 0 2.2.1 0 2.3.1 No	1.2.1 1 1.2.2 400,000 2.1.1 20,000 (>50% F) 2.1.2 35 2.2.1 1 2.3.1 Yes		
KEY ACTIVITIES	Institutional Capacity Building and Project Management 3.1 Community structures strengthened 3.2 Utility governance improved 3.3 Policy review and update	3.1.1 No. of members of water point committee members trained 3.1.2 No. of kiosk operators trained in entrepreneurship 3.2.1 Multi Year Framework Performance Agreement Designed and implemented 3.2.2 Tariff Assessment completed and applied 3.3.1 Sanitation Policy reviewed and updated	3.1.1 0 3.1.2 0 3.2.1 0 3.2.2 0 3.3.1 0	850 [women>50%] 85 [women>50%] 3.2.1 1 3.2.2 1 3.3.1 1		INPUTS Financial resources: ▪ ADF: UA 10.50 million ▪ OFID: UA 8.344 million ▪ GoM: UA 2.399 million ▪ Total: UA 21.243 million
	ACTIVITIES 1. Water Infrastructure Development: expansion and upgrading of water treatment plant, transmission, distribution system – UA 17.551 million 2. Sanitation and Hygiene: Preparation of Sanitation and Hygiene Plan and Investment Strategy, construction of sanitation facilities & sensitisation – UA 1.901 million 3. Institutional Capacity Building & Project Management: Sector policy support, utility governance improvement, oversight planning and management of the project including audits – UA 1.792 million					

¹ CSI – Bank Core Sector Indicators

Project Implementation Schedule

Activity	2018			2019						2020						2021						2022					
	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Board Approval			■																								
Financing Agreement Signature			■																								
Effectiveness for First Disbursement			■																								
Launch Mission				■																							
Water Infrastructure																											
Procurement for Water design review and supervision services	■	■	■	■																							
Design Review services				■	■	■	■	■	■																		
Pre-qualification for Works		■	■	■	■																						
Tendering for works contract							■	■	■	■	■	■	■	■	■												
Works Implementation including defects liability											■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Sanitation and Hygiene																											
Procurement of TA for sanitation Investment Plan	■	■	■	■																							
Investment Plan and Design Preparation				■	■	■	■	■	■	■	■	■	■	■	■												
Tendering for works contract											■	■	■	■	■												
Works Implementation												■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Institutional Capacity Building																											
Community mobilisation, sensitisation and trainings					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Sector Support for Policy Implementation							■		■		■		■		■		■		■		■		■		■		
Tarrif and Affordability Study				■	■	■	■	■	■	■	■	■	■	■	■												
Procurement of Project Auditor				■	■	■	■	■	■	■	■	■	■	■	■												
Project Audit											▲											▲					
Supervision Mission/JTR		●			●	▲		●			●	▲		●			●	▲		●		●	▲		●	▲	
Mid Term Review																						▲					
Project completion																											
Project Disbursement Deadline - June 2023																											

REPORT AND RECOMMENDATION OF THE MANAGEMENT OF THE AfDB GROUP ON PROPOSED GRANTS TO MALAWI FOR NKHATA BAY TOWN WATER SUPPLY AND SANITATION PROJECT

Management submits the following Report and Recommendation on a proposed ADF grant not exceeding UA 10.5 million to co-finance the Nkhata Bay Town Water Supply and Sanitation Project in Malawi.

I STRATEGIC THRUST AND RATIONALE

1.1. Project Linkages with Country Strategy and Objectives

1.1.1 The country's broad objective is to reduce poverty through sustainable socio-economic growth and infrastructure development as stipulated in the MGDS-III (2017-2022), which is the country's overarching operational medium-term development strategy. According to MGDS-III, the baseline figure for poverty headcount (measured by consumption below the poverty line) was 51% in 2016/17 and GoM has set a target to reduce it to 34% by 2022. With a theme of "Building a productive, competitive and resilient nation", MGDS-III will focus around five priority areas: (i) Agriculture, Water Development and Climate Change Management; (ii) Education and Skill Development; (iii) Energy, Industry and Tourism Development; (iv) Transport and ICT Infrastructure; and (v) Health and Population. As one of the five priorities, water development is key to the socio-economic development of the country which has direct impact on the lives of people particularly women and children. Water, sanitation and hygiene services have an impact on every aspect of life including health, education, productivity and the economy. In accordance with the National Water Policy (2005), the GoM aims at achieving 100% water supply access in the country by the year 2025. The National Sanitation Policy (2008) also promotes improved sanitation and aims to achieve full coverage in the country by 2030 and as enunciated by the Sustainable Development Goals (SDGs). Furthermore, Malawi's Nationally Determined Contributions (2015) prioritises scaling-up of adaptation measures in the water sector.

1.1.2 The proposed strategic theme of the new CSP 2018-2022 is: Supporting the foundations for private sector development to build economic resilience to unlock the Private Sector. Through improving water supply and sanitation services, the project, which is included in the new CSP will remove some bottlenecks to socio-economic growth by improving health and livelihoods of the population in Nkhata Bay Town and surrounding areas. The project is aligned to the Bank Group's Ten Year Strategy (2013 – 2022) with its twin objectives of inclusive growth and transition to green growth. It focuses on infrastructure, one of Bank Strategy's five core operational areas. It will promote green growth by improving catchment management for Nkhata River while ensuring inclusiveness of vulnerable and poor people as beneficiaries of potable water supply and improved sanitation services. It will contribute to socio-economic empowerment of women by lessening the time needed to fetch water, thus allowing improved participation in income-generating activities, in line with the second pillar of the Bank Group Gender Strategy (2014-2018). It will significantly improve the quality of lives of the people of Nkhata Bay Town and surrounding areas, which is one of the Bank's High 5s. The proposed project is also in line with the Bank's Climate Change Action Plan (2017), Integrated Water Resource Management (2000) and Urban Development Strategy (2011) by integrating sustainable environmental management with water use and addressing key constraints in the Town.

1.2. Rationale for Bank's Involvement

1.2.1 Nkhata Bay Town and its surrounding villages have got population of 53,700 (2018). The area has been growing and the prospects of further growth are high as it is a key centre for Mtwara Development Corridor among the countries of Malawi, Tanzania and Zambia. The Town is a port on Lake Malawi and is a main link on Mtwara Development Corridor which is one of the 17 priority corridors for development by Southern African Development Community (SADC) and within the

framework of Bank's Regional Integration Policy and Strategy (2014-2023). In addition to being a transit town for businesses along the lakeshore to the main City of Mzuzu in the northern region of Malawi, the Town is an attraction to tourists, which is another area of focus by the Bank in Malawi. In order to improve trade facilitation and reduce traffic accidents, the Bank is supporting the reconstruction of Mzuzu-Nkhata Bay road (UA 21.89 million) which will be completed in December 2018. According to Nkhata Bay District Council, among some development plans of the Town include upgrading of the lake resorts/motels, community football pitch, new prison, public beach, technical college, new jetty, boarding secondary school. The proposed project will address the infrastructural bottlenecks that have negatively impacted increased socio-economic and private sector growth and investment, while also supporting investments that enable resilience building in the country. The Bank support to the project will assist to increase access to clean water and improved sanitation in Nkhata Bay Town and surrounding areas with estimated population of 60,000 by 2022. This will also facilitate the development of the planned infrastructure and complement to improve trade and business facilitation in the Town, Mzuzu City and surrounding areas. The project will also assist to sustainably manage the country's water resources particularly for Nkhata River and to improve community resilience to climate change and variability.

1.2.2 The Bank has a long history of involvement in Malawi's water and sanitation sector dating back to 1976. It is viewed as a trusted partner having a comparative advantage due to its long-term presence on the ground. The proposed project will contribute significantly to the required sector financing outlined in Malawi's Water Sector Investment Plan. The project will build on impacts of earlier and ongoing Bank interventions in the country (Mzuzu-Nkhata Bay Road Upgrading, Mzimba Integrated Water and Sanitation and Sustainable Rural Water and Sanitation Infrastructure Projects) and in particular their contribution to the Mtwara Development Corridor. The project's impactful contribution and the Bank's comparative position in the sector has enabled it to attract co-financing as demonstrated in this project.

1.3. Donor Coordination

1.3.1 There is strong collaboration among the Water and Sanitation Sector Development Partners (DPs) in the country, who regularly meet to discuss sector issues. The DPs are mainly engaged in policy dialogue, financing projects and programmes, and Economic Sector Work (ESWs). The DPs are part of the Sector Working Group (SWG), co-chaired by the Ministry of Agriculture, Irrigation and Water Development (MoAIWD) and DPs Coordinator, which makes decisions, assesses and reports on progress on the implementation of agreed programmes and projects in the sector. The DPs who are active in Malawi include: AfDB, World Bank, UNICEF, European Union (EU), European Investment Bank (EIB), JICA, UK's DfID, WaterAid, OPEC Fund for International Development (OFID) and United States Agency for International Development (USAID). The sector has a coordinated network of Non-Government Organizations (NGOs) under the Water and Environmental Sanitation NGO Network. The Bank leveraged a total of US\$ 14.0 million co-financing from the Australian Government (formerly Australian Aid for International Development, AusAID) for the implementation of NWDP and US\$ 14.85 million from OFID to co-finance the implementation of Mzimba Integrated Urban Water and Sanitation Project. The Bank's preparation and appraisal missions met with the Development Partners briefing them on the scope and intended objective of the proposed project. OFID is co-financing the proposed project with US\$12 million.

1.3.2 The contribution of the DPs to the sector in terms of monetary volume is presented in Table 1 below.

Table 1: Development Partners Support

Sector or subsector*	GDP	Size Exports	Labour Force
Water and Sanitation	[4.2%]	[N/A]	[%]
Capital Public Expenditure in the Water and Sanitation Sector (2013– 2017)			
Government	Donors		
22 UA m	255 UA m	AfDB	17 %
8%	90%	UNICEF	17%
		EU & EIB	6%
		WB	52%
		Others	8%
Level of Donor Coordination			
Existence of Thematic Working Groups			YES
Existence of SWAps or Integrated Sector Approaches			YES
AfDB's Involvement in donors coordination			Active

II - PROJECT DESCRIPTION

2.1 Project Components

2.1.1 The project will comprise the following three components: (i) Water Infrastructure Development; (ii) Sanitation and Hygiene Improvement; and (iii) Institutional Capacity Building and Project Management; and Table 2.1 below provides a summary of components and outputs.

Table 2.1: Project Components and Activities

No.	Component name	Est. cost (UA m)	Component Outputs
A	Water Infrastructure Development	17,551 [9.047]	<ul style="list-style-type: none"> - Rehabilitation and upgrade of raw water intake; - Rehabilitation and upgrade of water treatment plant; - Rehabilitation and upgrade of transmission pipelines; - Rehabilitation and upgrade of distribution system (pipelines, pumping stations and service reservoirs); - Provision of goods for service connections; - Setting up Catchment management Committee; - Catchment management strategy development and trainings; - Tree planting; - Design and Supervision Services for Nkhata Bay Scheme.
B	Sanitation and Hygiene	1,900 [0.941]	<ul style="list-style-type: none"> - Preparation of Sanitation and Hygiene Plan and Investment Strategy; - Provision of technical assistance for the Town to develop a faecal sludge management and solid waste management system; - Provision of onsite sanitation facilities for schools and public facilities; - Promotion of improved sanitation and hygiene facilities and practices; - Improvement of solid waste and faecal sludge management facilities.
C	Institutional Capacity Building and Project Management	1,792 [0.512]	<ul style="list-style-type: none"> - Sector policy implementation support; - Affordability and Tariff Assessment; - Training of NRWB staff, MoAIWD and community capacity building; - Project oversight and management; - Social issues/compensation; - Monitoring and reporting system; - Project audits.
	Total	21,243 [10.500]	<i>Exclusive of Government Taxes</i>

Note: Amount in [] are ADF financing

2.2 *Technical solution retained and other alternatives explored*

2.2.1 The current Nkhata Bay Town water system was first constructed in 1960 and upgraded in 1980 and 2003. The demand in the proper town (3,862m³/day) exceeded the current capacity (1450m³/day) in 2010 and was due for major upgrading for the past eight years. However, the current demand including the surrounding areas for which this project seeks to provide service reached 11,000m³/day by 2018. The rationale for the chosen alternative to upgrade and expand the current system with Lake Malawi as a source of water is based on: (i) good raw water quality with minimum treatment requirements (ii) the lake is a natural impoundment with several rivers flowing in and the abstraction has no impact on the lake level (iii) upgrading the current facility is a better alternative financially and technically from operation perspective, and (iv) no good quality of ground water in the area. The foregoing factors have informed the design and the existing treatment plant will be expanded to a 19,623m³/day capacity with the system providing water to the town and surrounding villages in eight pressure zones. Some of the facilities of the project will also be designed to use solar power.

2.2.2 With regards to sanitation, the project will focus on hygiene and sanitation promotion and marketing, in accordance with the National Sanitation Policy. This is expected to create demand as opposed to the supply driven approach. The focus will be on onsite sanitation as appropriate in the context of development of the areas. The water borne sewerage system is not the chosen system for wastewater management at this stage due to cost consideration and due to rugged terrain which requires separate feasibility studies. The project will support the provision of public sanitation facilities and develop a medium to long term investment plan including immediate improvement plans for collection and faecal sludge management and solid waste management. The project will contribute to capacity development of masons and other artisans (of which 30% will be female) as a continuation of the highly successful strategy of encouraging and supporting local private entrepreneurs in the construction of improved facilities. Through the sanitation centre, women and youth will be trained on how to generate income within the value chain of sanitation and support will be provided to micro-enterprises who will be engaged in solid waste collection and recycling activities.

2.2.3 Table 2.2 below presents technical options, which were analysed as part of finding the optimal solution to address the challenge being faced by Nkhata Bay Town on water supply and sanitation.

Table 2.2: Project alternatives considered and reasons for rejection

Alternative name	Brief Description	Reasons for Rejection
Abstracting Ground Water	For the newly developed areas where the piped water supply system will be extended, an alternative is to drill boreholes and supplement the system with additional water.	Water from the boreholes in these areas is known to be salty and has high fluoride content.
Surface water impoundment from a river	Source development from Thumbi, Nkhata and Lichizi rivers	Flows inadequate during dry season requiring expensive impoundment. These rivers flow into Lake Malawi.
Separate Water Systems for individual Villages outside Nkhata Bay	Some beneficiary villages or settlement outside Nkhata Bay are close to the lake and there is the option to establish independent source development and piped systems.	The cost of managing independent source and systems is burdensome and the option of creating economy of scale makes service provision affordable.
Sewerage System	Provision of water borne sewerage system with a treatment facility for the sewage	No feasibility carried out to make a full scale assessment but this option is expensive and will not serve all. The preferred option is to promote appropriate and affordable sanitation through marketing and demand generation

2.3 Project type

2.3.1 The project is part of the Government's priority investment area and will be implemented as a stand-alone investment project by the water utility – Northern Region Water Board.

2.4 Project cost and financing arrangements

2.4.1 The total cost of the Project for the components defined above is estimated at UA 21.244 million (equivalent to US\$ 30.55 million), including contingencies but net of taxes and duties, of which UA 14.366 million (68%) is in foreign currency and UA 6.878 million (32%) in local costs. Table 2.3 below provides a summary of the project costs by component. These cost estimates are based on the set of proposed activities to be undertaken and recent unit rates obtained from contractors, as well as from experience of on-going projects in the county. The estimates include price contingency of 7% and physical contingency of 8%.

Table 2.3: Project cost estimates by component [‘000 UA]

Components	Foreign	Local	Total	% Foreign Exchange
Water Infrastructure Development	11275	3,987	15,262	75%
Sanitation and Hygiene	826	826	1,652	50%
Institutional Capacity Building & Project Management	390	1,168	1,558	25%
Total Base Costs	12491	5981	18,472	
Contingencies (physical and Price – 15%)	1874	897	2,771	
Grand Total	14365	6878	21,243	

2.4.2 ADF, OFID and the GoM through the NRWB will finance the total cost of the project as shown in Tables 2.4 to 2.7 below. The Bank will finance UA 10.5 million and OFID loan of US\$12 million (UA8.345 million). The Bank financing accounts for 50% of the total project cost, OFID 39% and the GoM/NRWB 11% valued at UA 2.399 million.

Table 2.4: Financing Plan (‘000 UA)

Source	ADF	OFID	GoM/NRWB	Total
Water Infrastructure Development	7,867	7,256	139	15,262
Sanitation and Hygiene	818	0	834	1,652
Institutional Capacity Building & Project Management	445	0	1,113	1,558
	9,130	7,256	2,086	18,472
Contingencies (physical and Price – 15%)	1,370	1,088	313	2,771
Total	10,500	8,344	2,399	21,243

Table 2.5: Sources of financing [‘000 UA]

Source	Foreign Exchange	Local Currency	Total	%
ADF	8,073	2,427	10,500	50%
OFID	6,291	2,053	8,344	39%
GoM/NRWB	-	2,399	2,399	11%
Total	14,364	6,879	21,243	

Table 2.6: Project cost by category of expenditure and Source of Financing [‘000 UA]

Category of Expenditure	ADF Grant		OFID Loan		Govt	Total	
	Foreign	Local	Foreign	Local	Local	Foreign	Local
Works	7,180	1,795	5,650	1,412	1,120	11,158	3,763
Goods	669	167	0	0	0	582	145
Services	224	224	641	641	0	751	751
Operational Costs	0	241	0	0	1,279	-	1,321
Total Project Cost	8,073	2,427	6,291	2,053	2,399	14,364	6,879

Table 2.7: Expenditure schedule by component [‘000 UA]

Component	2019	2020	2021	2022	Total
1. Water Infrastructure Development		4,400	11,000	2,151	17,551
2. Sanitation and Hygiene	300	700	901		1,900
3. Institutional Capacity Building & Project Management	250	542	500	500	1,792
Total Costs	550	5,642	12,401	2,651	21,243

2.5 Project’s Target Area and Population

2.5.1 The project will focus on the rehabilitation and expansion of water supply system and improvement of sanitation infrastructure and hygiene practices in Nkhata Bay Town and surrounding rural settlements (Appendix 1). The Project boundaries include Kapingama to the north (6.2km), Chisu to the north-west (17.7km), Mpamba (through Pundu) to the west (19km), Chombe to the south-west (15.1km), Chizi Point (through Bwelero) to the south-east (11km) and Sanga to the south (25.9km) from Nkhata Bay Town Centre. An estimated population of 60,000 at completion by end of 2022 and 105,000 (in 2040) will benefit from the project. It is expected that about 51% of the beneficiaries will be female. In addition, the project will benefit 220,000 people indirectly from the economic, administrative and social services offered in Nkhata Bay Town (schools, markets/shopping, health facilities, police/justice, district offices). It will also create more than 300 jobs during the construction phase and 50 jobs during the operation of the scheme. The project will also improve resilience of water resources to climate impacts with related improved catchment management and reduction of pollution to sustain water supply and sanitation facilities. Additional demographic information on the target beneficiaries and the population, respectively, is included in Annex B7 and B8 of the Technical Annex.

2.6 Participatory process for project identification, design and implementation

2.6.1 Extensive consultations with various stakeholders, including project beneficiaries, line ministries, District Council, DPs and private businesses took place during the early stage of the project feasibility preparation (2016), Environmental and Social Impact Assessment (2017) and the Bank’s project preparation and appraisal missions (2018). The consultations with the various stakeholders revealed the need for inclusiveness in service provision, which resulted in incorporating the surrounding rural villages around Nkhata Bay and designing appropriate affordable means of securing service for these communities. Furthermore the consultations raised awareness and enabled the communities and local authorities to define their roles in the execution of the project. The NRW will hold bi-annual consultations with representatives of the communities to provide them with information regarding the project and also get their views and identify key emerging issues. The project will continue to use a Project Task Force which will be drawn from various stakeholders to provide strategic guidance on the implementation of the project.

2.7 Bank Group Experience, Lessons Reflected in Project Design

2.7.1 The Bank's current active portfolio in Malawi amounts to UA 225.5 million with an overall disbursement rate of 47.6 %. The overall performance of the country's portfolio in May 2018 was rated as *satisfactory* with implementation objectives and development outcomes scores of 3.3 and 3.4 respectively. The Bank is currently implementing the Sustainable Rural Water and Sanitation Infrastructure for Improved Health and Livelihoods and the Mzimba Integrated Water Supply and Sanitation Projects whose implementation is on track and expected to be completed before end of 2019.

2.7.2 Key lessons learnt from the on-going projects under implementation in Malawi as well as lessons reflected in PCRs elsewhere have been taken into account in formulating the project. Some of the key lessons included:

- (i) The use of country structures ensures seamless coordination and builds sustainable capacity in the institutions. The project will be implemented through existing structures within NRWB thereby creating the capacity for implementing more projects;
- (ii) Integrating urban and surrounding rural areas in service provision is crucial for ensuring social cohesion among communities and ensuring equity. In this regard the project included service provision for rural villages around the main town and this was defined in consultation with the public;
- (iii) Building linkages with policy and sector capacity is instrumental for continued dialogue and engagement on key and strategic issues. In this regard, the project included the review and update of the sanitation policy and instituting the culture of performance in service provision;
- (iv) Sustained hygiene promotion in order to generate demand for sanitation and also bring desirable behavioural changes requires continuous focus and collaboration among stakeholders. The project will therefore support effective collaboration among stakeholders through the Project Task Force and bi-annual consultations with representatives of beneficiaries. The project will also assist the local authorities to develop a blue print for stepped improvement in sanitation.

2.8 Key performance indicators

2.8.1 The Project Result Based Logical Framework reflects the key performance indicators for the project at output, outcome and impact levels. These indicators are in line with the CSI and the national sector M&E framework. The key performance indicators included are: (i) at outcome level increased percentage of people with access to potable water, increased percentage of people having improved access to basic sanitation and availability of reliable water (ii) at output level measures of water and sanitation infrastructures built, actual connections, trainings and capacity built (disaggregated by gender). The project will undertake a validation exercise at commencement of the project and project closure to collect end-line data. The project implementation schedule and procurement plan will also be monitoring tools for activities leading towards outputs.

III PROJECT FEASIBILITY

3.1 Economic Performance

Table 3.1: Key Economic Figures

EIRR 19.55% and NPV Malawi Kwacha (MWK) 12.03 billion (at 12% base case)
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NB: detailed calculations are available in Annex B7

3.1.1 The economic analysis of the project has been undertaken by comparing “with project” and “without project” of the various costs and benefits that will accrue to the beneficiaries of the improved water supply and sanitation services in Nkhata Bay and surrounding areas. The proposed project will promote environmental health, which will enhance the quality of life and well-being of the beneficiary population. The economic returns are measured in terms of the benefits which accrue to beneficiaries in the form of regular and adequate drinking water supply, improved sanitation practices, and a general improvement in living conditions. The costs side includes capital investments, periodic replacement costs, and incremental operating and maintenance costs. All costs and benefits are considered net of duties and taxes. In addition, the economic life of the investment is estimated at 25 years. The project’s economic rate of return is 19.55 %. The value is higher than the opportunity cost of capital of 12% and thus the project is considered economically viable. Sensitivity analysis to test the robustness of the EIRR was carried out to determine the impact of adverse variations. The EIRR changes to 16.5% assuming that investment cost increases by 20%, and drops to 15.4% when the benefits of the project are assumed to decrease by 20%. The analysis shows that the project is economically viable and socially beneficial for Nkhata Bay Town. Annex B7 shows the assumptions and the calculations of the EIRR.

3.2 Environmental and Social impacts

3.2.1 The project was validated as Category 2 on 7 February 2018 in line with the Bank’s Environmental and Social Assessment Procedures (ESAP). The categorization is based on the observation that the expected adverse impacts are site specific and were not deemed irreversible. An Environmental and Social Management Plan (ESMP) was prepared in accordance with the Bank’s Integrated Safeguards System and the ESAP and was disclosed on 9 July 2018.

3.2.2 The negative impacts, which may occur during the construction phase include: (i) Soil erosion as a result of land clearing and excavation works and a reduced rate of vegetative recovery on affected soils will occur due to soil compaction; (ii) Pollution and siltation due to runoff water (iii) Dust and fugitive emissions will emanate from land clearing, excavation and transportation of construction materials in the course of the construction activities; (iv) Loss of vegetation; (v) Increase in prevalence of sexually transmitted infections (STIs), including HIV and AIDS due to influx of sex workers into the area. Adverse impacts that may arise during the construction and operational phase will include the modification of the landscape due to construction of the project facilities and increased generation of waste water discharge to the environment respectively.

3.2.3 An ESMP has been prepared with details of mitigation measures designed to address the expected negative impacts. A monitoring framework for implementation of the management plan has been developed with details of actions and responsibilities for NRW and other stakeholders. In addition monitoring verifiable indicators for each of the mitigation measures have also been indicated. The total cost of ESMP implementation is estimated at 48,636 USD per year whereas the cost of monitoring is estimated at 7,500 USD per year.

3.2.4 Apart from the public health benefits of improved sanitation, the project will also have other positive impacts due to its technical design. The project will involve the selective replacement of small or too old pipelines. This invariably will be of beneficial environmental impact as it will ensure a more efficient water resource use and delivery, avoiding leakages and accumulation of

sludge and its attendant water pollution. This will also contribute positively to the water systems' energy efficiency. In addition the selective replacement of old pipes will also ensure that excavations and soil disturbance that may lead to erosion are avoided. Catchment management activities and waste management programs will also support conservation efforts and increase the resilience of the communities to climate change.

Climate Change

3.2.5 The project was identified as Category 2, potentially vulnerable to climate risk, which could have a bearing on asset performance and sustainability of intended project outcomes. The main concerns relate to increased intensity and frequency of extreme events. The potential negative impacts of flooding and excessive rise in lake water levels will be taken into account when locating critical infrastructure such as the treatment plant to avoid damage from inundation. Also, to reduce the impact of fluctuating lake water levels in the event of extreme drought scenarios, the intake will be 150m from lake shore and at a depth of 3 below the minimum lake water level. The minimum and maximum lake water levels are 473m and 474.5masl. Furthermore, the NRW has a climate change strategy in place and developed adaptation and mitigation programs with which the project will have synergies. Water conservation and catchment protection and management activities have been integrated into the project design.

Social

3.2.6 The project implementation will contribute to ameliorating the social and economic conditions of the project beneficiaries. These benefits primarily include but not limited to job creation during the construction and operational phases of the project, improved sanitation, hygiene and health, reduction in sanitation related diseases and infant/child mortality rates. Currently the water supply scheme for Nkhata Bay produces inadequate water, such that the communities supplement with untreated water sourced from boreholes, rivers and the lake. After completion of the project, there will be a significant increase in the quantity of treated water. Increased availability of treated water will result in improved sanitation and hygiene. Households, businesses and industries will be able to access additional improved sanitation facilities. Treated water will also be available in public places and institutions including health centres, markets, trading centres and schools which will consequently enhance, sanitation and hygiene. Access to potable water and improved hygiene practices among the rural population will contribute to a reduction in morbidity and mortality, especially among young children and improve health outcomes. Improved health conditions will reduce the mortality rate and incidence of waterborne and skin diseases.

3.2.7 The project has included provision in its design towards managing health risks especially with respect to the implementation of an awareness and prevention program about HIV/AIDS and STIs, and TB. This will also contribute to enhancing on-going efforts by NRW in the fight against HIV/AIDS among the staff and communities working with the Water Utility. These activities will include providing health education and sensitization to workers and surrounding communities and monitoring applicable health indicators.

3.2.8 The most immediate negative social impacts of the project involves right of way acquisition and limited damage to properties due to the construction works involved. In general these impacts are largely in the form of damages to field crops/trees and the NRW has engaged with local authorities to identify, value and compensate for these damages. According to the ESIA assessment carried out by the project proponent, the project will not involve any form of involuntary resettlement. However, the project will endeavour to avoid major damage by confining the activities within the road reserves and circumventing permanent structures. In addition, no one is expected to be resettled because of this Project.

Gender

3.2.9 The project will benefit both genders in terms of employment opportunities during both construction and operational phases of the project. These benefits will be of higher significance for women and vulnerable groups who would have improved job opportunities and improved living standards given the improved access to potable water. It is noted that sourcing water for domestic use is a time intensive activity that is predominantly managed by women and young girls in the project area. The number of hours spent on collecting water will be reduced significantly by the establishment of water points closer to public institutions and villages. This will allow women to spend time in productive activities and family welfare.

3.2.10 Where appropriate, employment of local people from the project area will be prioritised to encourage community ownership and sustainability of the project. It is envisaged that at least 30% of the unskilled and semi-skilled jobs shall be preserved for women being mindful of nature of work and cultural orientation. This will be instituted through appropriate clauses in the contractors contract.

3.2.11 The NRW and the respective key stakeholders are expected to ensure that employment opportunities to be created by the project are inclusive of women and the youth groups, in an endeavour to eliminate gender imbalances prevailing in the proposed project area. In particular the community water points management will be led by women and they will receive appropriate entrepreneurship trainings.

3.2.12 The project design has also included other activities aimed at improving the social welfare of women and girls. These activities include sensitization programs on gender related violence and discrimination and Planned Parenthood at the community level and delivered in liaison with local authorities. The project, through its gender mainstreaming activities will improve the role of both gender in natural resource management, and ensure economic empowerment and involvement in decision making to improve livelihoods.

Involuntary resettlement

3.2.13 No Involuntary resettlement will arise as a result of this project.

IV IMPLEMENTATION

4.1 Implementation Arrangements

4.1.1 The Recipient of the ADF Grant will be the GoM through Ministry of Finance, Economic Planning and Development (MoFEPD), and the MoAIWD and the NRW will be the Executing Agencies (EA). MoFEPD will pass the resources to the NRW through a subsidiary financing agreement on terms and conditions acceptable to the Bank. The MoAIWD will provide overall sector policy direction to the NRW. The NRW, which is a parastatal organization under the MoAIWD was established in 1996 following the enactment of the Waterworks Act No. 17 of 1995. The Board is responsible for provision of water supply and waterborne sanitation services to the town and urban centres in the Northern Region of Malawi including Nkhata Bay Town. The NRW has organizational capacity and experience in implementing donor funded projects. It also established a permanent Project Implementation Unit (PIU) as a regular unit within its structure recognizing the need for special skills for delivery of projects under the oversight of the Infrastructure Development Department. This project will therefore be implemented by an existing and well staffed PIU.

4.1.2 The Project will have a Task Force to coordinate activities with the various agencies of the Government and provide guidance to project implementation. The Task Force will comprise

Directors from various Ministries including the Ministry of Agriculture, Irrigation and Water Development, Ministry of Finance, Economic Planning and Development, Ministry of Local Government and Rural Development, Ministry of Justice and Constitutional Affairs, Ministry of Natural Resources, Energy and Mining, Ministry of Lands, Housing and Urban Development, Ministry of Health and Population, Ministry of Education, Science and Technology and Ministry of Gender, Children, Disability and Social Welfare; (ii) a director from Nkhata Bay District Council; and (iii) the Principal Secretary for MoAIWD as the chair person. This Task Force is existing and functioning for Mzimba Integrated Water and Sanitation Project and it will continue for this project with the addition of the representative of the Nkhata Bay District Council. In addition, Board of Directors of the NRWB will oversee the overall operations of the NRWB including infrastructure development projects. Detailed implementation arrangements are included in Appendix 5 of the Technical Annex.

4.2 Implementation Schedule

4.2.1 The project will be implemented over a period of 48 months from January 2019 after fulfilment of conditions for first disbursement. Implementation of the major works will commence during the first quarter of 2020 and Mid Term Review (MTR) will be conducted in the first quarter of 2021. The expected physical completion of the project is by 31st December 2022.

4.3 Procurement Arrangement

4.3.1 “Procurement of goods (including non-consultancy services), works and the acquisition of consulting services, financed by the Bank and OFID for the project, will be carried out in accordance with the *“Procurement Policy and Methodology for Bank Group Funded Operations” (BPM)*, dated October 2015, and following the provisions stated in the Financing Agreement. Specifically, Procurement would be carried out following:

- **Recipient Procurement System (RPS):** Specific Procurement Methods and Procedures (PMPs) under BPS comprising its Laws and Regulations as stipulated in Public Procurement and Disposal of Public Assets Act 2016 (Act No. 27 of 2017) and Public Procurement Regulation, 2004 as amended to be in consistent with the new law, using the national Standard Bidding Documents (SBDs) or other Solicitation Documents agreed during project negotiations for various group of transactions to be entailed under the project.
- **Bank Procurement Policy and Methodology (BPM):** Bank standard PMPs, using the relevant Bank Standard Solicitation Documents SBDs, for contracts that are either: (i) above the thresholds indicated in Annex B5, Para. B.5.3.2, or (ii) in case BPS is not relied upon for a specific transaction or group of transactions; and (iii) in case BPM have been found to be the best fit for purpose for a specific transaction or group of transactions.

4.3.2 **Procurement Risks and Capacity Assessment (PRCA):** the assessment of procurement risks at the Country, Sector, and Project levels and of procurement capacity at the Implementing Agency, were undertaken¹ for the project and the output has informed the decisions on the procurement regimes (BPS, Bank or Third party) being used for specific transactions or groups of similar transactions under the project. The appropriate risks mitigation measures have been included in the procurement PRCA action plan proposed in Annex B5, Para. 5.3.8. Proposed in Para. B.5.8.

4.3.3 In order to accelerate implementation of the project, the Bank has approved the application for advance contracting procedures for the Prequalification of Contractors for the main water supply

¹ See Technical Annexes for details

civil works and procurement of consultancy services for design and supervision, and investment plan and design preparation for sanitation facilities in line with the Procurement Policy. The approved advance contracting activities have been at the Recipient's own risk in case of delay or non-approval of the project. In the event that contracts are concluded prior to the approval of the financing, the retroactive financing amount is limited to the ceiling of UA200,000 for the prior approved contracts within a period of 4 months prior to the date of signature of the Agreement.

4.4 Financial Management and Disbursement Arrangements and Funds Flow

Financial Management

4.4.1 The Northern Region Water Board (NRWB) has extensive experience in the implementation of projects funded by various development partners and it currently manages the Mzimba Integrated Urban Water and Sanitation Project, which is funded, by the African Development Bank and the OFID. The existing project has performed satisfactorily with regard to the financial management aspects. The Board prepares the relevant quarterly reports and financial statements as well as complying with the Bank's audit submission timelines. The NRWB financial management function has the staff with requisite qualifications and experience in the management of donor-funded projects and will therefore be well-placed to manage the proposed funding. The existing systems shall be adopted for budgeting, accounting, transaction processing and internal controls and shall be based on the existing financial procedures manuals.

4.4.2 Given the fiduciary requirements related to the AfDB financing and the funding provided by other development partners, the NRWB will retain the existing financial management arrangements including the Project Accountant and an Assistant Accountant, with the appropriate qualifications and experience, to primarily focus on the project-related financial management tasks. The Project Accountant will report to the Project Coordinator and the Finance Director.

4.4.3 Based on the appraisal of financial management within the NRWB, it is established that the existing systems are adequate to ensure the appropriate financial management of the proposed funding. In line with the current practice, the external audit of the project will continue to be conducted by independent auditors recruited through competitive bidding. The External Auditor will be the statutory auditors of the Board subject to periodic rotation requirements and the applicable procurement guidelines. The NRWB Internal Audit Department will perform periodic internal audit reviews. The internal audit reports will also be reviewed by the Bank as part of ongoing monitoring. The Bank will undertake a minimum of two FM supervision missions in addition to desk reviews of financial reports in order to ensure the adequacy of financial arrangements and to recommend remedial action. The overall financial management risk is assessed as "Low".

4.4.4 **Disbursement arrangements:** The project would make use of the Bank's various disbursement methods including (i) Direct Payment, (ii) Special Account (SA) and (iii) Reimbursement methods in accordance with Bank rules and procedures as laid out in the Disbursement handbook as applicable. The Special Account will be used to meet the smaller eligible expenditure items while the direct payment method will be used for larger contractual payments eligible under the financing agreement. The Bank will issue a Disbursement Letter and its contents will be discussed and agreed with the Recipient during negotiations. Detailed FM and disbursement arrangements are also included in the Technical Annex B.4.

4.4.5 **Reporting and External Audit:** In accordance with the Bank's financial reporting and audit

requirements, the project will be required to prepare and submit a quarterly financial report to the Bank not later than forty-five (45) days after the end of each calendar quarter. The project will prepare and submit annual financial statements, audited by the statutory auditors of the Board, together with the auditor’s opinion and management letter to the Bank not later than six (6) months after the end of the financial year. The detailed auditing arrangements are included in the Technical Annex B.6.

4.5 Monitoring

4.5.1 The NRW, will be responsible for the overall monitoring and supervision of the Project activities including the ESMP implementation. The NRW will prepare progress reports on a quarterly basis, which will highlight the status of the various project activities, financial and procurement status or performance, asset management, environment, social and gender safeguards, risks and mitigation measures, and the progress towards meeting the project’s targets as reflected in the project result-based logical framework. NRW will submit these progress reports to the Bank, MoAIWD and MoFEPD. Furthermore, Quarterly/bi-annual supervision visits and review meetings (by the Project Task Force and Board of Directors), and half-yearly Bank missions will track implementation progress. There will be MTR in the first quarter of 2021. Once the project approaches substantial completion, an end line survey will be carried out and a project completion report will be prepared. A summary of the main milestones is presented in the table below.

Table 4.1 – Key Project Milestones

Timeframe	Milestone	Monitoring Process/feedback loop
September 2018	Request for Proposals (Advance Procurement)	First RfPs approved and issued to firms
September 2018	Board Approval	Financing Approval
November 2018	Signing of Agreements	Financing agreements signed
December 2018	Effectiveness for first disbursement	Declared effective by the Bank
January 2019	Launching	Launching workshop organised
February 2020	Works commencement	First works contract signed
January 2021	Mid Term Review	Mid Term Review conducted
December 2022	Completion of Project	Commissioning and project completion report

4.6 Governance

4.6.1 In accordance with the Waterworks Act, 1995, the development and management of water supply and sanitation services in cities and towns is delegated to Water Utilities. Malawi has five Water Boards (Lilongwe, Blantyre, Northern Region, Central Region and Southern Region). The performance monitoring of the water utilities is done by the Government through the Office of the President and Cabinet (Department of Statutory Corporation) on administrative issues and MoAIWD on technical issues. While it recognises the importance of regulating the performance of the water utilities, Government has not been successful in establishing a robust regulatory framework and body for water supply and sanitation services in the country. In order to improve the corporate performance and governance aspects of the NRW, the Project will support preparation of framework performance contract between the Board of Directors of the NRW and GoM covering key performance targets including operational, technical, institutional, commercial, and financial KPIs. These performance contracts will then be considered for rolling out to other utilities in the sector.

4.6.2 The Project implementation shall fall within the ambit of NRW’s existing Governance structures. A tender committee exist among others to oversee implementation of capital projects,

and the project shall fall in this category. The PIT will also include an expert with adequate experience in procurement and contract management. Furthermore, an internationally recognized engineering firm will be recruited to assist with procurement and then supervise the construction works. These shall reinforce transparency and accountability during tendering and award of contracts. The Bank through COMW and RDGS shall also closely monitor the procurement activities under the project and shall provide assistance whenever necessary.

4.7 Sustainability

4.7.1 NRWB collects adequate revenue to provide water services in its mandated areas. The utility applies constant tariff (per m³) ranging from MWK 535/m³ to MWK 2469/m³ for five different customer categories, with an average MWK 1250 per m³. The current tariff level is higher than operations and maintenance cost recovery, but short of full cost recovery. At completion of the project, the incremental revenue (MWK 2,163 million) generated from the project will more than offset the incremental recurrent costs (MWK 346 million). Consequently, there will not be any need for budgetary support or subsidies from GOM for operations and maintenance of the project. However, there is need to review and update the tariff structure to reflect efficient cost of service provision and to ensure that tariffs are set to promote economic efficiency and conservation of water. In this regard, the project will include a detailed tariff study which takes into account the social nature of water services and affordability, and make recommendations. The outcome of the study will inform Government's decision in tariff adjustments and for this the Government shall prepare guidelines on the implementation of the recommendations of the tariff and affordability study. part of the "undertakings" of ADF financing.

4.7.2 In an effort to promote accountability and performance culture, the Board of NRWB and the Secretary of the Treasury signs Share Holder's Letter of Expectations to serve as the basis for development of NRWB corporate plans and quarterly reports. In addition, the CEO of the NRWB signs with Chief Secretary to the Government a Performance Contract for the same period – for one year. These agreements are short term and don't provide incentives for a sustainable impactful performance. The project will support the Government to develop a multi-year performance agreements that promotes efficiency, economy and sustainability. At scheme level, the NRWB has got a dedicated team that manages the Nkhata Bay system and this team operates through a performance agreement. The scheme team functions under the oversight and technical back stopping of the Technical Services Department of the NRWB. The project will support the NRWB to provide trainings to the scheme staff in an effort to improve their customer relationship skills in anticipation of the increased magnitude of the customers. The project will also support the establishment and trainings of Water User Associations (WUAs) in the surrounding rural areas to manage the use of water from communal water points. Women will take prominent role in the WUAs.

4.8 Risk Management

4.8.1 One of the challenges the project may face is unwillingness by the beneficiaries to pay for the new services. This is particularly so for the majority who hitherto have not been benefiting from any public water supply services. Some may resort to use of unsafe source of water or some resorting to vandalism. These risks will be mitigated by the mode of delivery of service being designed to suite the particular group of beneficiaries. The project will also undertake tariff and affordability study. The tariff setting will take into account affordability by different categories of beneficiaries. In addition, the project will include public awareness and extensive sensitization campaigns to get beneficiaries on board.

4.8.2 OFID will be providing 39% of project costs. It remains a risk if OFID could not timely

provide financing during the implementation of the project. The Bank will agree with OFID on the parallel financing terms and modalities. The approval process will also be synchronised to facilitate smooth implementation of the project. In addition, as one of the conditions precedent to first disbursement by the Bank, the GoM will have to conclude agreements with OFID and share the signed agreements with the Bank. The other related risk is the availability of counterpart budget as in most other projects. This risk is mitigated by having the NRW (financially autonomous entity) as the contributor including contributions in kind.

4.9 Knowledge Building

4.9.1 The implementation of this project will result in the development of skills and knowledge in the specific areas of: (i) community management of water supply; (ii) stepped approach to improve sanitation and hygiene practices; (iii) catchment protection and management practices by establishing Catchment Management Committee in accordance with the new legislation; (iv) learning from the sanitation policy implementation and improvement needed, (v) understanding the cost of service and building an affordable tariff system that promotes efficiency; (vi) promoting the culture of performance and accountability through performance contracts; etc. Knowledge will be captured and disseminated through reporting from the executing agency, supervision reports, Mid Term Review, project completion reporting and specific reports. The results and lessons learned will be shared with stakeholders through seminars and workshops and other sector review mechanisms. The M&E reports from the project will feed into the sector monitoring and contributes towards the annual sector performance for discussion with stakeholders.

V LEGAL INSTRUMENTS AND AUTHORITY

5.1 Legal instruments

The legal instrument for the financing will be ADF Grant Agreement.

5.2 Conditions associated with Bank's intervention

A. Conditions Precedent to Entry into Force

The Grant Agreement shall enter into force upon signature by the Recipient and the Fund.

B. Conditions Precedent to First Disbursement for the Grant: The obligation of the Fund to make the first disbursement of the Grant shall be conditional upon the entry into force of the Grant Agreements and the fulfilment by the Recipient, in form and substance satisfactory to the Fund, of the following conditions:

- a) Execution and delivery of a Subsidiary Agreement between the Recipient (represented by the Ministry of Finance, Economic Planning and Development) and NRW, for on-lending or on-granting the proceeds of the Grant to NRW, on terms and conditions acceptable to the Fund; and
- b) The execution and delivery of a co-financing agreement between the Recipient and OFID in respect of the Project with terms and conditions acceptable to the Fund or the submission of evidence that the Recipient has secured financing from alternative sources to cover the financing gap resulting from failure to obtain the Co-financing of the Project.

C. Other Conditions:

Prior to use of Special Account disbursement method, the Recipient shall submit to the Fund a disbursement application with one (1) Special Account denominated in foreign currency, in the name of the Project, at a bank acceptable to the Fund for the deposit of the proceeds of the Grant, and one (1) local currency (MWK) for transfer of funds from the foreign currency Special Account.

D. Undertakings

- (i) The Recipient shall, and shall cause NRW to maintain the permanent project implementation unit (the "PIU") within NRW at all times until completion of the Project, with the mandate, staffing and resources satisfactory to the Fund.
- (ii) The Recipient shall establish and maintain a task force with composition, mandate and resources satisfactory to the Fund which shall coordinate activities with the various agencies of the Recipient and provide guidance for Project implementation. The task force will comprise (i) directors from various Ministries including the Ministry of Agriculture, Irrigation and Water Development, Ministry of Finance, Economic Planning and Development, Ministry of Local Government and Rural Development, Ministry of Justice and Constitutional Affairs, Ministry of Natural Resources, Energy and Mining, Ministry of Lands, Housing and Urban Development, Ministry of Health and Population, Ministry of Education, Science and Technology and Ministry of Gender, Children, Disability and Social Welfare; (ii) a director from Nkhata Bay District Council; and (iii) the Principal Secretary for Ministry of Agriculture, Irrigation and Water Development as the chairperson.
- (iii) carry out the Project in accordance with the Environmental and Social Management Plan (ESMP), the Fund's Safeguards Policies, the Environment Management Act (Cap. 60:02 Laws of Malawi) and other applicable national legislation in a manner and in substance satisfactory to the Fund;
- (iv) prepare and submit to the Fund, as part of the Project Report, quarterly reports on the implementation of the ESMP including any implementation failures and related remedies thereof;
- (v) refrain from taking any action which would prevent or interfere with the implementation of the ESMP including any amendment, suspension, waiver, and/or avoidance of any provision thereof, whether in whole or in part, without the prior written concurrence of the Fund; and
- (vi) cooperate fully with the Fund in the event that the implementation of the Project or change in Project scope results in hitherto unforeseen displacement and /or resettlement of persons, and shall not commence any works in the affected area under the Project, unless all Project affected persons (PAPs) in such areas have been compensated and/or resettled in accordance with a Resettlement Action Plan, to be prepared.
- (vii) not later than 31st December 2021, prepare guidelines on the implementation of the recommendations of the tariff and affordability study;
- (viii) ensure that NRW makes timely provisions in its annual budgets for its counterpart contribution to the implementation of the Project; and

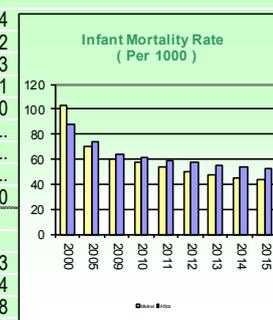
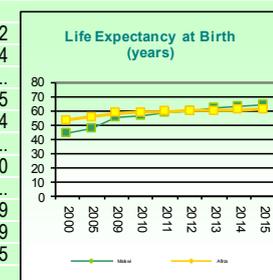
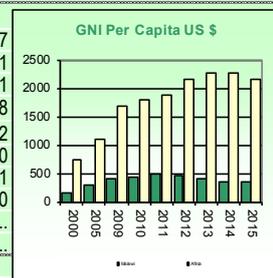
(ix) ensure that any applicable co-financing of the Project is provided in a timely manner.

VI – RECOMMENDATION

Management recommends that the Board of Directors approve: (i) a Grant of UA 10.5 million from the Resources of the Fund to the Republic of Malawi for the purposes and subject to the terms and conditions stipulated in this report; and (ii) the administration of the OFID financing of UA 8.344 (USD 12) million of the Project.

Appendix 2. Malawi's Comparative Socio-Economic Indicators

	Year	Malawi	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2016	118	30,067	97,418	36,907
Total Population (millions)	2016	17.7	1,214.4	6,159.6	1,187.1
Urban Population (% of Total)	2016	16.5	40.1	48.7	81.1
Population Density (per Km ²)	2016	188.3	41.3	65.1	33.8
GNI per Capita (US \$)	2015	350	2 153	4 509	41 932
Labor Force Participation *- Total (%)	2016	81.1	65.7	63.5	60.0
Labor Force Participation **- Female (%)	2016	81.2	55.7	48.9	52.1
Sex Ratio (per 100 female)	2016	99.8	100.1	106.0	105.0
Human Develop. Index (Rank among 187 countries)	2015	170
Popul. Living Below \$ 1.90 a Day (% of Population)	2010	70.9	...	12.6	...
Demographic Indicators					
Population Growth Rate - Total (%)	2016	3.1	2.5	1.3	0.6
Population Growth Rate - Urban (%)	2016	4.0	3.6	2.4	0.8
Population < 15 years (%)	2016	44.9	40.9	27.9	16.8
Population 15-24 years (%)	2016	20.5	19.3	16.9	12.1
Population >= 65 years (%)	2016	3.4	3.5	6.6	17.2
Dependency Ratio (%)	2016	93.7	79.9	54.3	52.0
Female Population 15-49 years (% of total population)	2016	23.2	24.0	25.7	22.8
Life Expectancy at Birth - Total (years)	2016	64.8	61.5	69.9	80.8
Life Expectancy at Birth - Female (years)	2016	65.7	63.0	72.0	83.5
Crude Birth Rate (per 1,000)	2016	38.1	34.4	20.7	10.9
Crude Death Rate (per 1,000)	2016	7.1	9.1	7.6	8.6
Infant Mortality Rate (per 1,000)	2015	43.4	52.2	34.6	4.6
Child Mortality Rate (per 1,000)	2015	64.0	75.5	46.4	5.5
Total Fertility Rate (per woman)	2016	5.0	4.5	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	634.0	476.0	237.0	10.0
Women Using Contraception (%)	2016	55.6	31.0	62.2	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2005-2015	1.8	41.6	125.7	292.2
Nurses and midwives (per 100,000 people)	2005-2015	33.6	120.9	220.0	859.4
Births attended by Trained Health Personnel (%)	2010-2015	87.4	53.2	69.1	...
Access to Safe Water (% of Population)	2015	90.2	71.6	89.4	99.5
Access to Sanitation (% of Population)	2015	41.0	39.4	61.5	99.4
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2015	9.1	3.4
Incidence of Tuberculosis (per 100,000)	2015	193.0	240.6	166.0	12.0
Child Immunization Against Tuberculosis (%)	2015	90.0	81.8
Child Immunization Against Measles (%)	2015	87.0	75.7	83.9	93.9
Underweight Children (% of children under 5 years)	2010-2015	16.7	18.1	15.3	0.9
Prevalence of stunting	2010-2014	42.4	33.3	25.0	2.5
Prevalence of undernourishment (% of pop.)	2015-2016	20.7	16.2	12.7	...
Public Expenditure on Health (as % of GDP)	2014	6.0	2.6	3.0	7.7
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2010-2016	145.5	101.2	104.9	102.4
Primary School - Female	2010-2016	147.0	98.4	104.4	102.2
Secondary School - Total	2010-2016	43.4	52.6	71.1	106.3
Secondary School - Female	2010-2016	41.0	50.2	70.5	106.1
Primary School Female Teaching Staff (% of Total)	2010-2016	42.0	47.1	59.8	81.0
Adult literacy Rate - Total (%)	2010-2015	66.0	66.8	82.3	...
Adult literacy Rate - Male (%)	2010-2015	73.0	74.3	87.1	...
Adult literacy Rate - Female (%)	2010-2015	59.0	59.4	77.6	...
Percentage of GDP Spent on Education	2010-2015	5.6	5.0	4.0	5.0
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2014	40.3	8.7	11.2	10.3
Agricultural Land (as % of land area)	2014	61.4	41.7	37.9	36.4
Forest (As % of Land Area)	2014	33.6	23.2	31.4	28.8
Per Capita CO2 Emissions (metric tons)	2014	0.1	1.1	3.5	11.0



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

last update :

June 2017

UNAIDS; UNSD; WHO; UNICEF, UNDP; Country Reports.

Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Appendix 3. Table of ADB's Portfolio in Malawi as at 30th May 2018

#	Project Name	Funding Window	Approval Date	Effective 1st Disb. Date	Final Disb Date	Amount Approved	Disbursed Amount	Disb Rate	Age (years)	IP (Impl. Prog.)	DO (Dev. Objectives)	Overall Performance Status
AGRICULTURE SECTOR						43,917,048	24,319,431	55.38	3			
1	SMALLHOLDER IRRIGATION AND VALUE ADDITION PROJECT (SIVAP/FUN	[ADF]	3/13/2013	10/4/2013	31.12.2018	253,000	212,069	83.82	5.2	3	3	NPPP
	SMALLHOLDER IRRIGATION AND VALUE ADDITION PROJECT (SIVAP/FUN	[GAFSP TF]	3/13/2013	10/4/2013	31.12.2018	27,299,048	23,870,226	87.44				
2	FEASIBILITY STUDY ON THE ESTABLISHMENT OF AN AGRICULTURE COO	[ADF]	12/11/2015	8/23/2016	30.04.2018	365,000	30,689	8.41	2.4			
3	AGRICULTURAL INFRASTRUCTURE AND YOUTH AGRIBUSINESS PROJECT	[ADF]	9/28/2016	3/21/2017	30.06.2022	16,000,000	206,447	1.29	1.6	3	2	PP
TRANSPORT SECTOR						64,250,000	25,941,710	40.38	4.79			
4	MZUZU-NKHATA BAY ROAD REHABILITATION PROJECT NACALA ROAD CORRIDOR PROJECT PHASE IV (LIWONDE-MANGOCHI) MA	[ADF]	3/13/2013	2/13/2014	31.12.2018	21,890,000	15,457,782	70.62	5.15			
5	NACALA ROAD CORRIDOR PROJECT PHASE IV (LIWONDE-MANGOCHI) MA	[ADF]	12/3/2013	3/26/2015	31.12.2018	42,360,000	10,483,928	24.75	4.43			
WATER SUPPLY/SANIT						36,807,971	12,178,070	33.09	2.98			
6	SUSTAINABLE RURAL WATER AND SANITATION INFRASTRUCTURE FOR IM and MZIMBA INTEGRATED URBAN WATER AND SANITATION PROJECT	[ADF]	4/30/2014	5/20/2015	31.12.2019	15,000,000	5,544,024	36.96	4.02	3	3	NPPP
	SUSTAINABLE RURAL WATER AND SANITATION INFRASTRUCTURE FOR IM	[NTF]	4/30/2014	5/20/2015	31.12.2019	5,000,000	3,596,122	71.92				
	SUSTAINABLE RURAL WATER AND SANITATION INFRASTRUCTURE FOR IM	[RWS S]	4/30/2014	6/10/2015	31.12.2019	2,967,510	1,606,018	54.12				
7	MZIMBA INTEGRATED URBAN WATER AND SANITATION PROJECT	[ADF]	10/23/2015	2/25/2016	31.12.2019	3,600,000	1,431,906	39.78	2.53	3	3	NPPP
	MZIMBA INTEGRATED URBAN WATER AND SANITATION PROJECT	[OPEC]	12/18/2015	3/9/2016	31.12.2020	10,240,461	0	0	2.38			
SOCIAL SECTOR						64,270,071	48,839,867	75.99	4.68			
8	SUPPORT TO HIGHER EDUCATION SCIENCE & TECHNOLOGY & TECHNICAL, JOBS FOR YOUTH AND LED	[ADF]	2/8/2012	7/23/2012	30.06.2018	9,050,000	7,641,563	84.44	6.25	3	3	NPPP
	SUPPORT TO HIGHER EDUCATION SCIENCE & TECHNOLOGY & TECHNICAL	[ADF]	2/8/2012	7/23/2012	30.06.2018	10,950,000	8,911,897	81.39				
	SUPPORT TO HIGHER EDUCATION SCIENCE & TECHNOLOGY & TECHNICAL	[NTF]	2/8/2012	7/23/2012	30.06.2018	6,500,000	3,955,730	60.86				
9	COMPETITIVENESS AND JOB CREATION SUPPORT PROJECT	[ADF]	12/16/2011	6/26/2012	31.12.2017	10,000,000	9,099,577	91	6.4	3	3	NPPP
10	JOBS FOR YOUTH MALAWI	[ADF]	12/7/2016	6/1/2017	31.12.2020	7,520,000	119,415	1.59	1.4			
	JOBS FOR YOUTH MALAWI	[ADF]	12/7/2016	6/1/2017	31.12.2020	1,250,071	111,685	8.93				
11	PROTECTION OF BASIC SERVICES	[ADF]	4/29/2015	25/06/2015	31.03.2018	19,000,000	19,000,000	100	3.02			
MULTI SECTOR						13,286,992	4,473,000	33.66	1.86			
12	PUBLIC FINANCE MANAGEMENT INSTITUTIONAL SUPPORT PROJECT	[ADF]	10/8/2013	3/24/2014	6/15/2018	2,980,000	2,695,319	90.45	4.58	3	3	NPPP
13	PUBLIC FINANCE MANAGEMENT INSTITUTIONAL SUPPORT PROJECT-PHA	[ADF]	9/10/2015	12/2/2015	30.09.2018	1,860,000	1,039,200	55.87	2.65	3	3	NPPP
14	MALAWI NACALA RAIL AND PORT VALUE ADDITION PROJECT	[FAPA]	5/23/2017	07/09/217	31.12.2020	686,992	8,364	1.22	0.95			
15	2016 MALAWI ECONOMIC CENSUS	[ADF]	7/5/2017	18/11/2017	31.12.2018	760,000	730,117	96.07	0.83			
16	PROMOTING INVESTMENT & COMPETITIVENESS IN TOURISM SECTOR	[ADF]	1/11/2018	2/3/2018	31/12/2021	7,000,000	0	0	0.3			
TOTAL						222,532,082	115,752,078	52.02	2.9	3.4	3.3	

Note: Ratings (1-4): Highly Unsatisfactory = 1; Unsatisfactory = 2; Satisfactory = 3; Highly Satisfactory = 4 NPP = Non Potentially Problematic Project; PP = Problem Project; and PPP = Potentially Problematic Project

Appendix 4. Water Supply and Sanitation Projects Financed by the Bank and Other Development Partners

Donor	Sub-sectoral Focus	Name of Project/Status	Amount (US\$) million
AfDB/OFID	UWSS	Mzimba Integrated water and sanitation -ongoing-	20.3
AfDB	RWSS Policy Review Water Resources Capacity Development and Decentralisation	Sustainable Rural Water and Sanitation Infrastructure for Improved Health -ongoing-	35.5
AfDB/WB	RWSS Policy Water Resources Capacity Development and Decentralisation	National Water Development Program -completed in December 2013-	48.3
AusAID	RWSS Water Resources Capacity Development	National Water Development Program -completed in December 2013-	14.0
WB	UWSS	Lilongwe Water and Sanitation Project -ongoing-	102.0
WB	Policy and Sector Reforms RWSS UWSS Water Resources	National Water Development Project II -completed-	17.0
WB/ACGF	RWSS	National Water Development Project II -completed-	25.0
EIB	Urban Water and Sanitation	Lilongwe Water Supply and Sanitation -ongoing-	30.0
EIB	UWSS	Peri-Urban Water and Sanitation Project -completed-	48.5
EIB	UWSS	Malawi NRW Water Efficiency Project for Mzuzu and Ekwendeni water supply systems -ongoing-	24.0
Exim Bank	UWSS	Mulanje Water and Sanitation Project -ongoing-	23.5
BADEA	RWSS	Chitipa Water Supply and Sanitation -ongoing-	10.0
DfID/UNICEF	RWSS	Malawi Rural Water Supply, Sanitation and Hygiene Program -ongoing-	29.9