

Document of
The World Bank

Report No: ICR00003737

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-42590, IDA-54960)

ON A

CREDIT

IN THE AMOUNT OF SDR 164.4 MILLION

(US\$244.9 MILLION EQUIVALENT)

TO

THE UNITED REPUBLIC OF TANZANIA

FOR A

WATER SECTOR SUPPORT PROJECT

May 23, 2016

Water Global Practice
Africa Region

CURRENCY EQUIVALENTS

Currency Unit = Tanzania Shilling (TZS)

TZS 1,287 = US\$1 (At appraisal)

US\$1.00 = SDR 0.67664 (At appraisal)

TZS 2,200 = US\$1 (At completion)

US\$1.00 = SDR 0.67664 (At completion)

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
AfDB	African Development Bank
BWB	Basin Water Board
BWO	Basin Water Office
BRN	Big Results Now
CAS	Country Assistance Strategy
CDD	Community-driven Development
CDMT	Central Data Management Team
CLTS	Community-led Total Sanitation
COWSO	Community-owned Water Supply Organization
DAWASA	Dar es Salam Water and Sewerage Authority
DDCA	Dam and Drilling Construction Agency
DFID	U.K. Department for International Development
DP	Development Partner
EIRR	Economic Internal Rate of Return
eNPV	Expected Net Present Value
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
FA	Financing Agreement
FM	Financial Management
GoT	Government of Tanzania
IA	Implementing Agency
ICR	Implementation and Completion Results Report
ICT	Information and Communication Technology
IFR	Interim Financial Report
IRR	Internal Rate of Return
IWRM	Integrated Water Resources Management
IWRMD	Integrated Water Resources Management and Development
KfW	<i>Kreditanstalt für Wiederaufbau</i>
LGA	Local Government Authority
M&E	Monitoring and Evaluation
MIS	Management Information System
MDG	Millennium Development Goal
MoHCGEC	Health Community Development, Gender, Elders and Children
MoEVT	Ministry of Education and Vocational Training
MoESTV	Ministry of Education, Science, Technology, and Vocational Training
MoHSW	Ministry of Health and Social Welfare

MoU	Memorandum of Understanding
MoWI	Ministry of Water and Irrigation
MTR	Midterm Review
NPV	Net Present Value
NGO	Nongovernmental Organization
NSC	National Sanitation Campaign
NRW	Non-revenue Water
NWB	National Water Board
O&M	Operation and Maintenance
PAD	Project Appraisal Document
PCU	Project Coordination Unit
PDO	Project Development Objective
PIM	Program Implementation Manual
PMO-RALG	Prime Minister Office's Regional Administration & Local Government
PMU	Project Management Unit
PO-RALG	President Office's Regional Administration and Local Government
RF	Results Framework
RPF	Resettlement Policy Framework
RWS	Rural Water Supply
RWSS	Rural Water Supply and Sanitation
SWAp	Sector-wide Approach
SC	Steering Committee
TA	Technical Assistance
TTL	Task Team Leader
TWG	Technical Working Group
UWSSAs	Urban Water Supply and Sanitation Authority
WPMS	Water Point Mapping System
WRM	Water Resource Management
WSS	Water Supply and Sanitation
WSP	Water and Sanitation Program
WSDP	Water Sector Development Program
WSSA	Water Supply and Sanitation Authority
WSSP	Water Sector Support Project
WSWG	Water Sector Working Group
ZAMCOM	Zambezi Watercourse Commission

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UNITED REPUBLIC OF TANZANIA
Water Sector Support Project

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DATA SHEET

A. Basic Information			
Country:	Tanzania	Project Name:	Water Sector Support Project
Project ID:	P087154	L/C/TF Number(s):	IDA-42590,IDA-54960
ICR Date:	05/25/2016	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	GOVERNMENT-UNITED REPUBLIC OF TANZANIA
Original Total Commitment:	XDR 135.40M	Disbursed Amount:	XDR 164.34M
Revised Amount:	XDR 164.39M		
Environmental Category: A			
Implementing Agencies:			
Co-financiers and Other External Partners:			

B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	11/01/2005	Effectiveness:	07/26/2007	07/26/2007
Appraisal:	09/27/2006	Restructuring(s):		06/29/2011 05/21/2014
Approval:	02/13/2007	Mid-term Review:	02/01/2010	04/01/2010
		Closing:	02/29/2012	12/31/2015

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes:	Moderately Satisfactory
Risk to Development Outcome:	Substantial
Bank Performance:	Moderately Satisfactory
Borrower Performance:	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Moderately Satisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Moderately Satisfactory
Overall Bank Performance:	Moderately Satisfactory	Overall Borrower Performance:	Moderately Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators

Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	Yes	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Moderately Satisfactory		

D. Sector and Theme Codes

	Original	Actual
Sector Code (as % of total Bank financing)		
Central government administration	6	6
General water, sanitation and flood protection sector	8	8
Sanitation	7	7
Sub-national government administration	11	11
Water supply	68	68

Theme Code (as % of total Bank financing)		
Other human development	13	13
Pollution management and environmental health	13	13
Rural services and infrastructure	25	25
Urban services and housing for the poor	25	25
Water resource management	24	24

E. Bank Staff

Positions	At ICR	At Approval
Vice President:	Makhtar Diop	Hartwig Schafer
Country Director:	Bella Deborah Mary Bird	Judy M. O'Connor
Practice Manager/Manager:	Jonathan S. Kamkwala	Jaime M. Biderman
Project Team Leader:	Yitbarek Tessema	Francis Ato Brown
ICR Team Leader:	Sing Cho	
ICR Primary Author:	Sing Cho	
	Oliver Mark Jones	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The development objective of the project is to support the GOT's poverty alleviation strategy through improvements in the governance of water resources management and the sustainable delivery of water supply and sanitation services.

Revised Project Development Objectives (as approved by original approving authority)

The Development Objective is to assist the recipient in: a) improving integrated water resources management by strengthening water sector institutions; and b) expanding access to water supply and sanitation services.

(a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Number of people in urban areas provided with access to Improved Water Sources under the project (Number, Core)			
Value quantitative or Qualitative)	73%	90%	2,995,910	3,000,000
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	The indicators and targets were revised during restructuring and additional financing. The ICR rating factors the town WS systems that were not commissioned at closing and moved to WSDP-II. 100%			
Indicator 2 :	Number of people in rural areas provided with access to Improved Water Sources under the project			
Value quantitative or Qualitative)	53%	65%	7,990,000	9.2 million
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	The indicator and targets were revised during restructuring and additional financing. 116% achievement. The change from last ISR is due to number of incomplete contracts that are moved to the second phase of the program.			
Indicator 3 :	Basin Water Offices fully operational and implementing an approved plan for integrated basin water management			
Value quantitative or Qualitative)	2	6	3	6
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	All the 9 basin office are operational and six basin plans completed but implementation of the plans not started.			
Indicator 4 :	Number of people with access to improved sanitation under the project			
Value quantitative or	TBD	95%	2,706,000	5,150,000

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Qualitative)				
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	The indicator and targets were revised during restructuring and additional financing. achieved 190%			
Indicator 5 :	Direct project beneficiaries			
Value quantitative or Qualitative)			5,679,626	7,476,706
Date achieved				12/31/2015
Comments (incl. % achievement)	The indicator was introduced during additional financing as the number of female direct beneficiaries as proportion of the total beneficiaries from rural and urban WS improvement. Achievement is 131%			
Indicator 6 :	Female beneficiaries			
Value quantitative or Qualitative)	0	51.70%		51.7%
Date achieved	07/01/2011	12/31/2015		12/31/2015
Comments (incl. % achievement)				

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	central water board functional			
Value (quantitative or Qualitative)	0	1		1
Date achieved	07/01/2007	12/31/2015		12/31/2015
Comments (incl. % achievement)	100% achievement. The earlier board finished its term and a new board is constituted recently.			
Indicator 2 :	Water points developed in program area			
Value (quantitative or Qualitative)	3,900	41,900	31,747	35,908
Date achieved	07/01/2007	02/29/2012	12/31/2015	09/30/2015
Comments (incl. % achievement)	The ICR recommended increased attention and action to sustain the achieved result. 113% achieved.			

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
achievement)				
Indicator 3 :	Urban Water and Sewerage Authority (UWSA) registered as Category A			
Value (quantitative or Qualitative)	8	19	16	15
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)				
Indicator 4 :	New piped household water connections that are resulting from the project intervention			
Value (quantitative or Qualitative)	0	190,000	237,287	244,270
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	The indicator monitored additional household connections resulting from the program intervention. 103% achievement.			
Indicator 5 :	All 9 BWO capturing essential IWRM information			
Value (quantitative or Qualitative)	0	9	9	9
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	100% achievement			
Indicator 6 :	8 Integrated River and Lake Basin Development and Management Plans approved by 2015			
Value (quantitative or Qualitative)	0	8	3	6
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	The integrated water Resources management and Development plans were developed in six of the nine basins awaiting for final approval by the National Water board. 200% achievement.			
Indicator 7 :	8 catchments and 7 sub-catchments committees established and functioning in all basins by 2015			
Value (quantitative or Qualitative)	0	20 percent	15 (8 catchment and 7 sub-catchment committees)	6 (3 catchment and 3 sub catchment committees)
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	40% achievement.			

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 8 :	All 9 BWOs granting, monitoring, and enforcing water rights and pollution control			
Value (quantitative or Qualitative)	0	9	9	9
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	100 % achievement.			
Indicator 9 :	Number of villages which signed the declaration to improve household sanitation			
Value (quantitative or Qualitative)	0	600	12,000	16,183
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	135% achievement.			
Indicator 10 :	60% of program village water committees/ COWSOs registered as legal entities			
Value (quantitative or Qualitative)	0 percent	80 percent	60 percent	28 percent
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	47% achievement.			
Indicator 11 :	100% of program districts with fully-staffed RWSS teams implementing a fully participatory sector plan			
Value (quantitative or Qualitative)	50 percent	100 percent	100 percent	53.6 percent
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	54% achievement.			
Indicator 12 :	Steering Committee, Water Sector Working Group and 4 Technical Working Groups operational			
Value (quantitative or Qualitative)	No	Yes (SC, WSWG, and 4 TWGs)	Yes	Yes
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	100 % achievement.			
Indicator 13 :	MoW develops and implements national MIS			
Value	No	Yes	Yes	Yes

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
(quantitative or Qualitative)				
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	100% achievement. The MIS is up and operational.			
Indicator 14 :	Report assessing the water related institutions and the achieved results developed			
Value (quantitative or Qualitative)	No	Yes	Yes	Yes
Date achieved	07/01/2007	02/29/2012	12/31/2015	12/31/2015
Comments (incl. % achievement)	The assessment is performed as part of the annual sector status report.			

G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	07/19/2007	Satisfactory	Satisfactory	0.00
2	03/19/2008	Satisfactory	Satisfactory	17.25
3	07/10/2008	Moderately Satisfactory	Moderately Satisfactory	17.25
4	02/06/2009	Moderately Satisfactory	Moderately Satisfactory	53.08
5	06/30/2009	Moderately Satisfactory	Moderately Satisfactory	53.08
6	11/18/2009	Moderately Satisfactory	Moderately Satisfactory	80.63
7	06/08/2010	Moderately Satisfactory	Moderately Unsatisfactory	99.82
8	02/02/2011	Moderately Unsatisfactory	Moderately Unsatisfactory	111.52
9	07/13/2011	Moderately Unsatisfactory	Moderately Unsatisfactory	117.68
10	01/31/2012	Moderately Satisfactory	Moderately Satisfactory	117.68
11	08/06/2012	Moderately Satisfactory	Moderately Satisfactory	149.19
12	02/16/2013	Moderately Satisfactory	Moderately Satisfactory	181.86
13	08/26/2013	Moderately Satisfactory	Moderately Satisfactory	181.86
14	03/03/2014	Moderately Satisfactory	Moderately Satisfactory	209.53
15	08/02/2014	Moderately Satisfactory	Moderately Satisfactory	209.89
16	12/15/2014	Moderately Satisfactory	Moderately Satisfactory	238.59
17	06/11/2015	Moderately Satisfactory	Moderately Satisfactory	238.59
18	12/28/2015	Moderately Satisfactory	Moderately Satisfactory	251.69

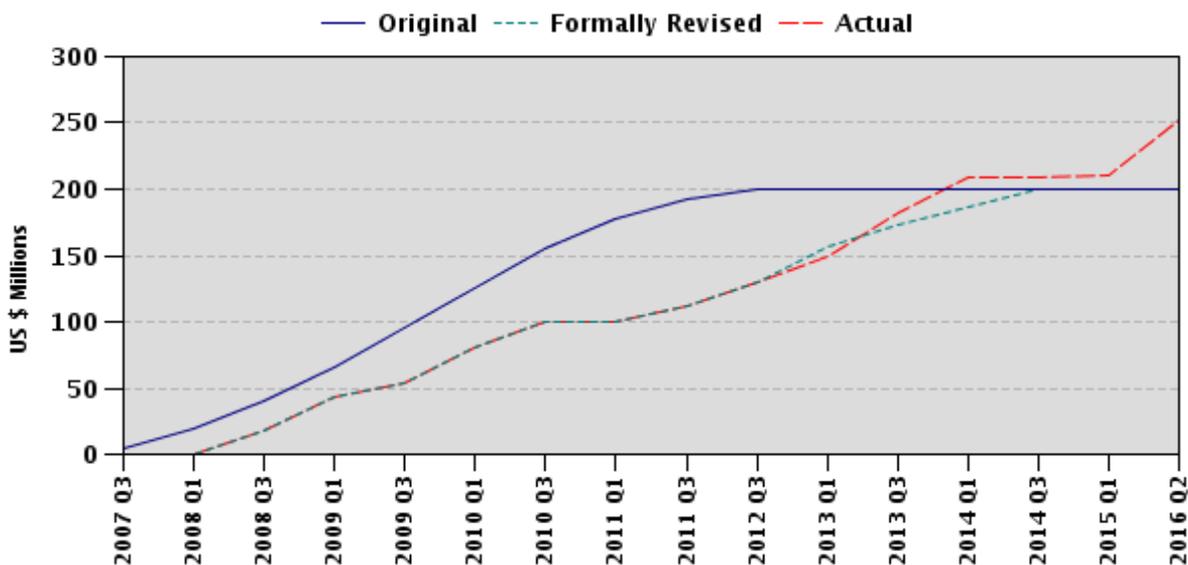
H. Restructuring (if any)

Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
06/29/2011	Y	MU	MU	117.68	to revise the institutional arrangements of the Ministry of Water (MoW) and about 300 implementing agencies to enhance the implementation capacity and oversight mechanism.
05/21/2014	N	MS	MS	209.53	Additional financing to scale up rural water supply activities and to complete activities under water resources management and Urban WS components.

If PDO and/or Key Outcome Targets were formally revised (approved by the original approving body) enter ratings below:

	Outcome Ratings
Against Original PDO/Targets	Moderately Satisfactory
Against Formally Revised PDO/Targets	Moderately Satisfactory
Overall (weighted) rating	Moderately Satisfactory

I. Disbursement Profile



1. Project Context, Development Objectives, and Design

1.1 Context at Appraisal

1. By the end of 2005, about 14.2 million rural residents and 1.8 million urban residents in Tanzania were reported to be without access to safe water supply. In addition, 50 percent of the rural population were without improved sanitation based on the defined standard¹ required to meet the Millennium Development Goals (MDGs). The quality of service remains poor largely because of inadequate maintenance and insufficient investment in the water sector. To achieve the National Strategy for Growth and Reduction of Poverty (aka MKUKUTA, its Swahili acronym) targets, 11.2 million more people needed to gain access to improved water supply by 2010, and to reach the MDG targets, an additional 11.6 million people needed access by 2015. To meet the Development Vision of the Government of Tanzania (GoT) target of 90 percent coverage by 2025, a further 24.6 million people will need access to improved water supply.

2. The 2006 Tanzania Water Resources Assistance Strategy underscores the central role water plays in the performance of key sectors of the economy and highlights the consequences of underinvestment in (a) water supply and sanitation (WSS) services as a fundamental basic need for productive livelihoods and (b) irrigation and hydropower developments on food and energy security. It brings to the fore how highly vulnerable the performance of key sectors of the economy (energy, agriculture, industry, livestock, mining, tourism, and fisheries) are to droughts, floods, and inadequate management of water resources. It emphasizes the urgent need for investments in integrated water resources development and management, good governance of water resources, and the protection and conservation of important water sources—rivers, lakes, aquifers, and wetlands.

3. By 2006, the GoT adopted a road map for sector transformation which included, among other things, the issuance of the National Water Sector Development Strategy (2006) and launch of a sector-wide approach (SWAp) to implement the 20-year sector development program. The SWAp incorporates structures for joint Government-development partner (DP) dialogue and a joint financing mechanism that includes a basket fund and an additional 'earmarked' funding allocated by a number of DPs outside of the basket to support special projects in selected subprojects.

4. The vision of the Water Sector Development Program (WSDP¹) includes both improvement to water resources governance and management and increased WSS service levels, as well as measures to develop sector capacity. Through investment of the World Bank and other DPs, the WSDP is one of the largest national water programs currently in operation in Africa, with funding in the order of US\$1.3 billion

¹ As defined by the Joint Monitoring Program of United Nations Children's Fund and World Health Organization an 'improved' sanitation facility is one that hygienically separates human excreta from human contact, using the following facilities: A flush toilet uses a cistern or holding tank for flushing water, and a water seal (which is a U-shaped pipe below the seat or squatting pan) that prevents the passage of flies and odors. A pour flush toilet uses a water seal, but unlike a flush toilet, it uses water poured by hand for flushing (no cistern is used). A piped sewer system is a system of sewer pipes, also called sewerage, that is designed to collect human excreta (feces and urine) and wastewater and remove them from the household environment. Sewerage systems consist of facilities for collection, pumping, treating and disposing of human excreta and wastewater. A septic tank is an excreta collection device consisting of a watertight settling tank, which is normally located underground, away from the house or toilet. The treated effluent of a septic tank usually seeps into the ground through a leaching pit. It can also be discharged into a sewerage system. Flush/pour flush to a pit latrine refers to a system that flushes excreta to a hole in the ground or leaching pit (protected, covered). Ventilated improved pit latrine or a pit latrine with a slab is a dry pit latrine whereby the pit is fully covered by a slab or platform that is fitted either with a squatting hole or seat. The platform should be solid and can be made of any type of material (concrete, logs with earth or mud, cement, and so on.) as long as it adequately covers the pit without exposing the pit content other than through the squatting hole or seat, and the composting toilet.

for Phase I (WSDP I). The World Bank, the largest single contributor to the WSDP after the GoT, placed its IDA resources in the basket fund. A Memorandum of Understanding (MoU) set out the terms of engagement for DPs, including roles in relation to supervision and monitoring and ensured harmonization of DPs' policy through agreement to follow the World Bank policy guidelines in fiduciary and safeguards.

5. The World Bank's engagement in the WSDP was based on the lessons learned and the achievements from three closed sector projects² and three ongoing sector projects at the time of the Project Appraisal Document (PAD) development,³ all of which provided opportunities for scaling up the commenced work. In addition, the implementation of this project provided opportunities to build on the lessons learned from the three Global Environmental Facility lake basin management programs implemented by the World Bank and other DPs. The World Bank's long-term engagement in the sector has had a consistent approach based on careful planning and has allowed time for the essential, and often challenging, policy and institutional reform initiatives to mature.

1.2 Original Project Development Objectives (PDO) and Key Indicators (as approved)

6. The development objective of the project was to strengthen sector institutions for integrated water resources management and improve access to water supply and sanitation services. The Financing Agreement (FA) stated the project development objective (PDO) in a more streamlined manner: (a) improving integrated water resources management by strengthening water sector institutions and (b) expanding access to water supply and sanitation services.

1.3 Revised PDO and Key Indicators, and reasons/justification

7. While there was no change to the PDO, the PDO was mistakenly recorded as "to support GoT's poverty alleviation strategy through improvements in the governance of water resources management and the sustainable delivery of water supply and sanitation services" in the portal, which was corrected during the additional financing (AF) in 2014.

8. **Key indicators.** The PAD specified that by the end of the project, the GoT would have met its MKUKUTA sector targets and be well on the way to meeting the MDGs for improved WSS coverage across all segments of the population, as well as have in place a sustainable regulatory framework for comprehensive water resources management and development. The MKUKUTA framework included specific indicators to be achieved by 2010, and the key indicators in the PAD aligned with these as set out in the first column of table 1. It should, therefore, be noted that the targets included in the PAD and subsequent revisions are for the entire WSDP (funding set out in annex 1), not just for the World Bank-funded portion of program.

9. All four key indicators from the PAD were modified in June 2011 at the time of the restructuring, and a new indicator was introduced to track the number of direct female beneficiaries. Table 1 compared the original key indicators and provides the rationale for the change, as set out in the restructuring document. While the targets for the new indicators were updated at the time of the restructuring, the targets were further amended at the time of the refinancing. It is these targets that are included in table 1.

² Urban Sector Rehabilitation Project (USRP)-Cr.2867-TA, River Basin Management and Smallholder Irrigation Improvement Project (RBMSIIP)-Cr.2900-TA and Power IV Project-Cr. 1405-TA.

³ Rural WSS Project-Cr.3623-TA, Dar es Salaam WSS Project-Crn3771-TA, Lower Kihansi Environmental Management Project-Cr.3546-TA and Lake Victoria Environmental Management Project - Cr 2908-TA.

Table 1. Summary of Original and Revised Key Indicators

Original		Revised		Rationale for Change
Key Indicator	Target	Key Indicator	Target	
Basin water offices (BWOs) strengthened and fully operational and have integrated basin plans approved by basin stakeholders	6 out of 9	Basin water offices fully operational and implementing an approved plan for the integrated basin water management	3 out of 9	Due to delay in the preparation of the Integrated Water Management and Development Plan, some of which are supported by other partners. Procurement for consultancies would have been processed for all 9 basins by the end of 2011.
Increased proportion of rural population with access to clean and safe water from 54 percent in 2003 to 65 percent in 2010	6.4 million people	Number of people in rural areas provided with access to improved water sources under the project	8 million people	Alignment with CORE indicator wording and reduced targets compared to the original due to increased unit costs and change in technology mix.
Increased proportion of urban population with access to clean and safe water from 73 percent in 2003 to 90 percent and access to improved sewerage facilities from 17 percent in 2003 to 30 percent in 2010	3.5 million people	Number of people in urban areas provided with access to improved water sources under the project	3 million people	
95 percent of people with access to improved sanitation by 2010 and 100 percent of schools to have adequate sanitary facilities by 2010	n.a.	Number of people provided with access to improved sanitation under the project (a) In urban areas (b) In rural areas	2.71 million people	Alignment with CORE indicator and with revised project scope and measures. The project is restructured to focus on improved sanitation and hygiene. Also change the target from access ratio (percentage) to number of people (500,000) with access to improved sanitation covering both rural and urban (small towns) areas
n.a.	n.a.	Number of direct project beneficiary, of which female (percent)	5.7 million	Inclusion of mandatory CORE indicator

1.4 Main Beneficiaries

10. The community-driven development (CDD) approach adopted in the program provided the opportunity for primary beneficiaries to manage their own WSS facilities and fully participate in water resources planning, management, and development decision making. Beneficiary institutions directly involved in project implementation and management included the Ministry of Water and Irrigation⁴ (MoWI), President Office's Regional Administration and Local Government (PO-RALG);⁵ Ministry of Health and Social Welfare (MoHSW);⁶ Ministry of Education, Science, Technology, and Vocational Training (MoESTV); local government authorities (LGAs); urban water supply and sanitation authorities (UWSSAs); Community-owned Water Supply Organizations (COWSOs); Water Development and Management Institute ; and Dam and Drilling Construction Agency (DDCA) and line agencies at regional and district levels responsible for WSS service provision. Through Component 4 of the project, it was aimed to strengthen the capacity of these institutions to plan, implement, and monitor the outputs of the project.

11. The restructuring in June 2011 was initiated by the MoWI to address the additional financial requirement due to communities' preferences for larger piped schemes with higher unit costs, rather than the envisaged and less expensive hand pumps. This change in technology made the original targets unrealistic despite increased budget made available from the DPs, as set out in annex 1. The targets were again amended at the time of the AF based on the progress against targets at the time and additional beneficiaries that would be reached through the AF. While the institutional beneficiaries remained the same, it should be noted that the MoHSW mandate increased following the restructuring, as they took greater control of sanitation and hygiene-related activities.

1.5 Original Components (as approved)

Component 1. Strengthening of Water Resources Management and Development Framework (estimated at US\$75.0 million)

12. This component aimed to focus on the strengthening of basin institutions for planning and management of water resources, as well as intervening in stress reduction, water resources management through improving prioritization and allocation mechanisms, and infrastructure development investments. This component aimed to support nine water basin offices to improve their capacity to undertake their mandated water resource management responsibilities. In addition, the component aimed to put in place integrated water resources management and development (IWRMD) plans to guide water resource management (WRM) in the basins and finance the preparation of studies and selected priority investments.

Component 2. Scaling-up of Rural WSS Services Delivery to Meet MDGs (estimated at US\$290.0 million)

13. This component aimed to provide support to LGAs in the provision of WSS services through the implementation of district WSS Plans. This entailed improvements in water supply (mainly shallow wells

⁴ It should be noted that during most of the project life the ministry was named the Ministry of Water, and only toward the end of the project life did it change to the Ministry of Water and Irrigation. To maintain consistency throughout the document, the Ministry of Water and Irrigation (MOWI) has been used.

⁵ It should also be noted that toward the end of the project, the President Office's Regional Administration and Local Government (PO-RALG) was renamed as the Prime Minister Office's Regional Administration and Local Government; however, for consistency, this document will continue to refer to the institutional structure as the PO-RALG.

⁶ It should also be noted that toward the end of the project, the Ministry of Health and Social Welfare was renamed the Ministry of Health Community Development, Gender, Elders, and Children, but for consistency in the document, the Ministry of Health and Social Welfare (MoHSW) has been used.

and boreholes with hand pumps, small gravity, and mechanized borehole piped schemes) and sanitation services (latrines promotion and handwashing programs) to rural communities, health centers, and schools.

Component 3. Scaling-up of Urban WSS Services Delivery (estimated at US\$510.0 million)

14. This component aimed to provide support to improve utility practice in Dar es Salaam, regional and district capitals, and gazetted small towns and national multi-village schemes in the provision of WSS services. The component also aimed to support the execution of utility business plans and improvements in water supply (mainly piped schemes) and sanitation services (sewerage systems, latrines promotion, and handwashing programs).

Component 4. Supporting Sector Institutional Strengthening and Capacity Building (estimated at US\$58.0 million)

15. This component aimed to provide support for (a) operationalizing the new role of the MoWI, including support for the development of the ten-year corporate strategy, technical assistance (TA) for corporate planning and management information system (MIS), development and operational support for new offices, vehicles, and office equipment; (b) subsector planning and operational capacities (development of regulations and subsector operational procedures and guidelines, including environmental management monitoring) and sectoral policy, legal, and institutional harmonization; (c) sector coordination and performance monitoring and implementation of a communication strategy; and (d) capacity-building support for MoWI staff and associated water-related institutions, the local private sector and the DDCA, the Water Development and Management Institute and other sector-related training institutions, support for community-based organizations, nongovernmental organizations (NGOs), and COWSOs and support to the Energy and Water Utility Regulatory Authority.

1.6 Revised Components

Component 1. Strengthening of Water Resources Management and Development Framework (estimated at US\$66.0 million)

16. There was no change in the component's description but the scope was reduced and the budget reduced by US\$9 million, from the originally planned US\$75 million.

Component 2. Scaling-up of Rural WSS Services Delivery to Meet MDGs (estimated US\$379.0 million)

17. The cost estimate was increased by US\$89 million, from US\$290.0 million, and the implementation arrangements for the sanitation and hygiene subcomponent (including small towns) were modified so that the sanitation and hygiene subcomponent fell under the oversight of the MoHSW, with the MoWI retaining overall coordination responsibility. A revised fund flow arrangement through the MoHSW was agreed upon and a dedicated budget for promoting household adoption of latrines and handwashing facilities in program villages was established with revised targets.

Component 3. Scaling-up of Urban WSS Services Delivery (estimated at US\$745.0 million).

18. The cost estimate was increased by US\$235 million, from US\$510.0 million. Although household connection works to existing sewerage networks were continued, most new sewerage development works were postponed to the next phase of the WSDP, and thus, the sewerage coverage target was decreased. This is because the majority share of the budget for Component 3 was needed to meet the urban water supply requirements.

Component 4. Supporting Sector Institutional Strengthening and Capacity Building (estimated at US\$66.0 million)

19. The cost estimate was increased by US\$8 million, from US\$58 million, mainly due to the extension of the program implementation period and additional undertakings to improve monitoring and evaluation (M&E) and other institutional development activities.

1.7 Other Significant Changes

20. The project went through four restructurings of different levels, including one for the AF as shown in table 2.

Table 2. Summary of Project Restructurings

Approval Date	Goals of Restructuring	Comments/Justification
06/29/2011	(a) Adjust the Results Framework (RF) to reflect current conditions (b) Revise scope for some components (c) Strengthen project oversight and institutional arrangements (d) update project cost and financing plan (e) tighten measures for financial management (FM)	Shortcomings were identified at the midterm review (MTR), so there was a need to enhance the quality of implementation related to planning, budgeting, monitoring, and reporting. It was agreed to revise the MoU to consider the introduction of a new Steering Committee (SC). In addition, the four Thematic Working Groups were transformed into Technical Working Groups (TWGs) aligned to each of the four components, to enable them to deal with component specific issues and actions with representatives of key implementing agencies (IAs) in a focused manner. The MoWI adopted an MIS to manage budget, finance, procurement, contracts, and monitoring. The MoWI appointed a full-time project coordination unit (PCU) team manager to oversee the project implementation. The budget was increased to cover the additional cost requirements because of the delay and increased unit cost because of the change in technology.
02/29/2012	Two-year extension to February 28, 2014	The extension was necessary to allow the client to make substantive progress in all activities. The borrower requested a 16-month extension, but the World Bank approved a two-year extension to ensure that all planned activities were completed satisfactorily.
07/7/2013	Reallocation of credit funds	IDA allocation is required to adjust the budget needs of the sanitation and hygiene subcomponent, considering the latest budget/disbursement plan of the GoT and earmarked and other basket financiers, to ensure that the component will fully achieve its objectives.
11/14/2013	Six-month extension to August 31, 2014	Additional time was needed to allow for utilization of the remaining funds in the project accounts of the IAs and processing of an AF of US\$40.0 million equivalent, to fill a financing gap created by unanticipated increase in costs and more costly schemes, as well as allow for completion of ongoing project activities.
05/21/2014	AF of IDA Credit SDR 29.0 million (US\$44.90 million equivalent) and extend the closing date to December 31, 2015	The AF provided support for (a) execution of subprojects in the remaining 628 villages and (b) completion of ongoing contracts under the water resources and urban water supply components of the program that are facing financing constraints.

21. **Financing plan.** Changes in the financing plan were made as part of the June 2011 restructuring to reflect changes in the amounts provided by various DPs and an increase in the total WSDP I budget from US\$951 million to US\$1,255 million financed by basket, earmarked, and GoT funds. The AF covered the additional cost requirements because of the delay and increased unit cost because of the change in technology. Additional funds became available from the (a) African Development Bank (AfDB) that committed additional Units of Account 64.7 million (US\$55 million equivalent) to WSDP I and joined the basket from FY11/12 dedicated for rural water supply (RWS) and sanitation (as it did in the PAD), and (b) French Development Agency (*Agence Française de Développement*) committed €30 million (US\$36 million equivalent) to the basket in FY10/11. It should be noted that at this stage the World Bank did not provide additional financing. A table of the funding is included in annex 1.

22. **Additional financing.** In May 2014, a further financing plan revision was made during the mobilization of the AF. At this time the World Bank provided US\$44.90 million from IDA. In addition to the World Bank additional support, €10 million (US\$15 million equivalent) was provided by *Kreditanstalt für Wiederaufbau* (KfW) and GBP 10 million (US\$13 million equivalent) from the U.K. Department for International Development (DFID). In total US\$102.9 million was provided in AF, increasing the program's total to US\$1,357.9 million. This enabled the scope of the project to be expanded to complete the planning interventions across different components, as set out in section 1.6.

23. **Extension of the project closing date.** The closing date of the original credit was extended twice, initially to August 31, 2014, and then following the AF, the closing date was set at December 31, 2015.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design, and Quality at Entry

24. **The project provided both a catalyst and direct support for a wider process of sector transformation.** The joint sector support program was adopted to allow DPs (including the World Bank) to cofinance the GoT's sector program and in the process nurture the sector policy dialogue process and institutions to maturity. This provided opportunity to move the program into alternative financing instruments, such as the preferred GoT budget support instrument, in the future. The involvement of a number of DPs in this program provided both a continuity of engagement with the GoT and the opportunity to leverage a wider range of DP technical skills to support the achievement of the program's goals. The uniting of donor resources also enabled the WSDP to go beyond focusing on water resources management, water supply, and sanitation services and helped the GoT advance the development of the water sector. Hence, policy and institutional reforms activities were selected in the context of the GoT's nationwide Water Sector Development Strategy, supported by sector master plans and other strategies.

25. **Longevity of planning and investment horizon.** The WSDP was designed to be implemented in four phases, each spanning five years without restrictions for DPs to join or withdraw from the program, which has provided flexibility for the program to evolve and new DPs to join. While it did provide some level of uncertainty as the investment of DPs were not secured beyond the ongoing phase, it also created the right level of motivation for the GoT to deliver the program's targets to maintain existing DPs and attract investment from additional DPs.

26. **The project design was technically sound, and through the focus on institutional strengthening and WRM, set the basis for sustainability.** The four components were consistent with and supported the two main parts of the PDO, water resource management and improved access to water supply and sanitation services. The inclusion of the WRM element into the project was a logical progression from previous interventions, as well as the wider evolution of the sector. The value of strengthening WRM institutions to support the sustainability of water sources was clear. The design also included interventions

to address the challenge of the uncoordinated approach to the provision of WSS services at LGA levels. This involved strengthening institutional structures through improving the coordination and integration of the three key line agencies: MoWI, PO-RALG, MoESTV, and MoHSW. In addition, this aimed to improve effort to decentralize, which had traditionally been hampered by the weak capacity of LGAs and other relevant departments at regional and district levels.

27. **Implementation readiness was assessed during appraisal.** In relation to the WRM element, instrumentations and operational guidelines for the basin offices were discussed and water resource tender documents and first-year investment programs for a number of basin offices were prepared. For RWS, assessments of LGAs were conducted and qualified LGAs were identified to receive capital development grant for quick win investment subprojects. Procurement was completed for selection of cluster technical service providers; however, the selection had to be cancelled and repeated for the procurement procedure. Designs and tender documents were prepared for several urban water utilities to implement their first-year investment program.

28. **The project target and indicators went through significant change during the course of the project.** All four of the PDO key indicators were modified to align with the wider sector indicators. Indicators were changed from percentage-based coverage to incremental number of service population (based on the number of household connections and community water points) according to the required core indicators. Due to rapid population growth, increased unit costs, and community technology preference, the targeted number of community water points and household connections in urban and rural areas were revised. While seven of the intermediate targets did not change, ten targets were modified, and two targets were dropped considering revised budget allocation, M&E capacity, and data availability.

29. **Adequacy of Government commitment.** The GoT has remained committed to the overall objectives and goals of the WSDP I program, during its implementation. This is well demonstrated by the establishment of an SC by the GoT following the restructuring in 2011, despite the slow start of the project and the changing development content. The SC provided overall guidance and coordination of the project, which enabled upward access to the political decision making and downwards to the PCU, the project management unit (PMU) and the project implementation units. The PCU and PMU were maintained in the MoWI, while the project implementation units were established within each of the responsible line agencies. The Big Results Now (BRN) Initiative, detailed on box 1, showed significant commitment for the rural water subsector, with the MoWI one of only six ministries to benefit from the initiative.

30. **Commitment reaffirmed by the GoT's planning and launched the second phase of WSDP (WSDP II) in September 2014.** The planned next phase has reinforced the 20-year vision of the WSDP and will enable ongoing reform in the water sector, which builds on and reinforces those begun under WSDP I. These reforms remain critical in driving the project into the next phase and contributing to the longer-term sustainability of its outcomes. The ability of the GoT to develop and evolve the long-term vision of this initiative, through adaptive learning and prioritizing critical interventions based on available funding will be critical to its long-term success.

31. **Assessment of risks.** The appraisal team realistically assessed the project's overall risk as Substantial. Critical risks were identified; these include timeliness in the release and transfer of the GoT and DPs funds to IAs to ensure timely delivery of results on the ground; inadequacies in the capacity for FM and procurement, particularly at the LGA level; and risks associated with the multiplicity of implementation entities and subsector, which resulted in the need for multi-sectoral coordination. No safeguard risks were identified.

32. **Risks, not identified at appraisal, which affected the project's implementation.** Some of the risks that affected project implementation included the communities decision to shift to new rural water

technology leading to increase in costs, the financial sustainability of scheme due to high operation and maintenance (O&M) costs, weak FM procedures, and the issue of coordination within and between Government ministries and agencies.

2.2 Implementation

33. **During the start-up phase, WSDP I faced major delays and implementation challenges because of its unprecedented size and scope.** The program design placed strong emphasis on initial capacity development and did not envisage much physical construction in the first year or so. The hiring of design and supervision consultants for the RWS and sanitation schemes in all LGAs took about two years from the start of the project. Despite a number of relatively small projects implemented during the program inception, it still took considerably longer for outputs to be delivered on the ground, particularly for RWS.

34. **Capacity to manage and implement the program took more time to develop.** A SWAp requires greater government control and oversight, including the regular and comprehensive coordination of nearly 300 IAs and with increased reliance on the effectiveness of post-implementation reviews. It took more time than expected for the IAs to reach an adequate level of capacity to manage the program, which led to a longer transaction process and associated additional cost requirement. While there was faster progress in certain areas, for example, the water resources and urban water supply components, the quality of implementation has suffered because of inadequate and inconsistent capacity of the multiple IAs. The limited availability and capacity of the private sector to engage in implementation of different elements of the project also led to delays and the need for increased scrutiny of private sector outputs to ensure quality.

35. **Community-level capacity was also underestimated.** During the implementation of the CDD approach, communities opted for extensive piped and complex multi-village water schemes. The shift from hand pumps to piped water schemes changed the dynamics in relation to the management of the rural water schemes. Less than 5 percent opted for hand pumps as opposed to the 55 percent that was envisaged at appraisal. The high-cost and more-complex technologies selected were a significant change from what was envisaged in the design, which not only required additional investment but had implications on communities' ability to sustainably manage water infrastructure. Communities were less able to cope with planning, budgeting, and management of the more complex water schemes on their own. This risk could have been mitigated by clearer guidance in relation to the available budget for schemes being provided to the consultant engaged by LGAs.⁷ This could have been achieved without undermining the CDD approach and ensured more schemes were constructed within the available resource envelope.

36. **The MTR,** originally planned for September 2009 was rightly deferred until March–April 2010 because of the initial slow pace of implementation. The overall implementation status was downgraded from Moderately Satisfactory to Moderately Unsatisfactory, because of the poor monitoring capacity and the inconsistent and inaccurate financial and M&E results that were reported. In addition, the original outcome and output targets were flagged as being unlikely to be achieved. The World Bank team agreed with the MoWI on a time bound action plan to address the issues and a process to restructure the project, which was approved in June 2011.

37. **Restructuring of the project (level 2).** The Tanzania Development Vision 2025 review conducted by the GoT in 2009/2010 revealed that even with notable growth of the economy, poverty persisted particularly among peri-urban and rural populations. To overcome this threat, a proposal was made to make social equity investments, which guaranteed the inclusion of the vulnerable groups in the planning, and

⁷ Consultants were engaged by LGAs and tasked with working with communities and designing the batches of ten village schemes in each LGA.

interventions were prioritized to fast-track provision of the basic services for broad-based and pro-poor growth.

Box 1. The Big Results Now ‘BRN’ Initiative

To fast-track the implementation of Tanzania Development Vision 2025, the GoT introduced a three-year special program from 2013/2014 to 2015/2016, the BRN Initiative, for which six sectors were selected, including the RWS subsector. The rural water element of the BRN program was mainstreamed within WSDP I. The BRN Initiative planned to achieve 67 percent rural water coverage by 2015. Although the water supply coverage figures that were being reported before the BRN indicated that about 57 percent of people in rural areas had access to safe water supply, the detailed lab⁸ analysis of water point data found that the actual baseline coverage was about 40 percent with 5.3 million rural residents having lost water supply due to inadequate maintenance of infrastructure. Since its commencement in July 2013, the BRN interventions have been focused on expansion of existing facilities; rehabilitation of dysfunctional water points; construction of new facilities; establishment of O&M capacity of COWSOs; integration of data management; and improvements in procurement, performance management, and capacity building (staffing). Though the initiative has brought major improvement in the pace of implementation of ongoing activities, the mismatch between additional new commitments and Government budget allocation resulted in considerable backlog of unpaid amount for executed works and consultancy services at the end of the first phase and spillover of a number of ongoing RWS contracts to the second phase. The GoT has decided to prioritize completion of these projects in allocation of resources to the second phase of the program.

38. The combination of the new political focus on the Tanzania Development Vision and the slow start to the project implementation highlighted through the MTR were the main stimuli for the initial restructuring. The restructuring involved significant dialogue and negotiation between the Government and the DPs involved in the SWAp. The action plan that was developed (annex 2 of the restructuring paper) clearly identified a number of areas where the GoT would need to focus to operationalize the restructuring and achieve the newly established targets. This first restructuring involved a change in scope and outcomes of the project to fit the budget allocation and increased cost. Specifically, the restructuring (a) adjusted the RF to reflect the development in the sector; (b) revised the scope for some components; (c) strengthened project oversight and institutional arrangements; (d) updated project cost and financing plan; and (e) tightened measures for FM.

39. During the restructuring it was decided to focus on improving the status of rural sanitation in the country, as at that time only 11% of the population had access to improved sanitation. As per the GoT’s policy on sanitation and the National Sanitation Campaign (NSC), the focus was on the promotion of sanitation behavior change, with the households investing their own resources to upgrade their unimproved toilets to improved ones. Capital expenditure was allocated to upgrading or building new school toilet units under the program. About US\$24 million was invested under WSDP-I through the NSC, for both sanitation and hygiene hardware (in schools) and promotion (households and schools).

40. The restructuring was approved with 55 percent of the loan disbursed and with 90 percent of the original time elapsed. This left insufficient time to complete the revised project scope and led to the need for the second and the final restructuring to extend the project by two years and six months, which also included the AF to scale up the project in line with the new scope. The overall project rating was upgraded to Moderately Satisfactory in January 2012, following the improvement in project performance in 2011 that was achieved after the restructuring.

2.3 Monitoring and Evaluation (M&E) Design, Implementation, and Utilization

41. **M&E design.** The water sector in Tanzania lacked clear definitions, useful metrics and procedures, and a good information and communication technology (ICT) system to serve as a custodian in facilitating

⁸ ‘Lab’ in the context of the BRN preparation was used to refer to workshops held to develop ideas.

effective data management. Hence, the M&E system was designed to enable the whole sector to assess program implementation and to inform modifications on time so that the PDO and intermediate results could be achieved. The M&E system aimed to complement the performance-based, stepped approach used to be used in program implementation.

42. **There were weaknesses in the original RF.** The original indicators in the RF could have been more clearly articulated and their framing made them difficult to track. In addition, the associated targets were not consistently stated as they were expressed in percentage terms in some places and absolute numbers in others. The WSDP Restructuring Plan addressed this, with more clearly defined indicators and targets.

43. **M&E implementation.** The system for reviewing and monitoring the WSDP I harnessed a combination of tools, including joint sector reviews, joint supervision missions, and TWGs for each program component. These processes provided a mechanism for the engagement of the relevant DPs to support and guide the program. The documentation of these sector-wide and inclusive activities, notably the annual Water Sector Status Reports, provided important points of reference in planning and monitoring.

44. **Adequate data management systems were not established until late in the program.** The development of the MIS was delayed; however, once operational, it was satisfactory for measuring the project outputs. The MoWI set up a Central Data Management Team (CDMT) for the rural subsector, which led to the implementation of a more robust reporting protocol. The CDMT acts as a custodian for all data and information pertaining to the rural water subsector and leads the collection, storage, and use of data. The CDMT operationalizes the integrated computer-based M&E system just before the project closed, to produce the M&E data in the borrower's completion report.

45. **A water point mapping system (WPMS) was developed to address poor data quality and availability.** WSDP I prioritized the development and implementation of an extensive WPMS that would geocode⁹ all rural water points in Mainland Tanzania. In 2011, the MoWI engaged a local firm that geotagged and collected basic data from approximately 75,000 water points during 2012 and 2013. After encountering numerous technical and implementation challenges, a web-based WPMS was launched in 2014. So far about 600 staff have been trained to use the WPMS, including district water engineers, technicians, COWSO registrars, and engineers at the regional level.

46. **M&E utilization.** The fragmented M&E systems, with poor communication of data between different IAs and the MoWI, led to operational challenges during the early stages of WSDP I. However, despite the slow implementation of the WPMS initiative, the MoWI now has an inventory of water points in the country, which includes data on their status and functionality. The enhanced MIS integration into the Water Sector Integrated M&E Framework, comprising the restructured RF and other tools, also provided a more effective foundation for planning and monitoring.

2.4 Safeguard and Fiduciary Compliance

47. **Financial management.** In the early stages of implementation, it was realized that the MoWI was not able to accurately prepare and monitor budgets, work plans, financial reports and contractual records due to the lack of an effective MIS. Thus, the MoWI could not satisfactorily fulfill required actions in accordance with the MoU, Program Implementation Manual (PIM), and FAs. As detailed in the Aide Memoires of March/April and September 2010 supervision missions, the Controller and Accounting General Special Audit Report (September 2010), and the Technical Audit Report (January 2011), the

⁹ Geocoding is the process of converting addresses into geographic coordinates (like latitude and longitude), which can be used to place markers on a map.

coordination mechanism between the MoWI and around 300 IAs needed to be enhanced to allow for the efficient and effective management of a program of this size.

48. **Use of the PIM.** A study conducted by Japan International Cooperation Agency during the implementation period found that the PIM was not used as effectively as planned at all levels. The PIM's length and complexity resulted in LGA staff seeking operational guidance through direct communication with regional engineers, through scheduled or ad hoc meetings. Despite this, staff at the regional and LGA/utility level were reasonably well-informed of program rules and funding opportunities. Learning from this experience, for WSDP II, a simplified web-based PIM has been developed and uploaded on the MoWI website.

49. **Capacity building effectively developed FM capacity in the project.** Despite initial delays, a web-based MIS connecting all IAs countrywide for financial and contract management was established in 2011. User training was provided to all IAs including more than 800 staff from different agents and UWSSAs, leading to MIS significantly enhanced capability within the sector. The MoWI completed the verification and validation of financial data loaded in the MIS and reconciled the Interim Financial Reports (IFRs) since the beginning of the program up to FY11/12 Q4. The results of this exercise were reviewed and confirmed by the controller and accounting general with the report issued on August 30, 2012. The IFR for FY12/13 Q4 were cleared by the World Bank, confirming that the MoWI was able to produce IFRs on a regular basis and based on the MIS.

50. **Improvements to MIS.** During implementation, it was noted that due to system deficiencies, MIS data entry was tedious and inefficient and the system was generally perceived as difficult to operate. This led to efforts to enhance the MIS, including enabling the capturing of data beyond financial management, and to facilitate the capture of the WSDP's contract and overall program budget management. The system enhancement was meant to enable procurement, safeguards, and physical progress reporting and make it a more user-friendly tool for monitoring program implementation. This enhancement became operational in October 2014. The experience further stressed the importance of maintaining an accurate and reliable MIS for WSDP II.

51. **The FM and disbursement arrangements currently established under the WSDP (and Water Sector Support Project) were deemed adequate and acceptable.** The program faced a number of challenges in the past. These issues were identified through FM supervision missions, in-depth FM reviews, and external audits of FY08/09, FY09/10, and FY10/11. The main issues included, among others, non-reconciling closing and opening balances, late submission of IFRs, poor quality of IFRs, long outstanding advance, failure to track funds disbursed to LGAs, poor record keeping, and deficiency in internal audit. The FM strengthening measures were properly undertaken to address the identified issues. With intensive follow-up and close monitoring of agreed actions, these interventions have yielded results. The audit reports for FY12 and FY13 show great improvement and all the audit reports have shown unqualified opinions since then.

52. **Procurement.** During the WSDP, procurement was one of the major challenges due to the limited capacity of project actors, especially at the LGAs' level, to effectively implement the procurement processes. The fact that MoWI directly appointed contractors and scheme designs were subject to MoWI approval undermined the thrust for decentralization and limited LGA control over implementation. To some degree this might explain the marginalization of a districtwide planning processes. While the MoWI's approach could be viewed as pragmatic, given the size of the program and limited LGA capacity, the need to refer to the centre for approvals contributed to the initial delays. The lengthy procurement process, including the inability to secure timely no-objections, contributed to the delay of many elements of the project, especially in Component 2. In addition, inadequate capacity in contract management issues contributed to implementation delays and additional costs. In an effort to address the challenge, the MoWI

facilitated training on donor-funded project procurement to IAs (LGAs). As a result of this effort, procurement management improved significantly over the last two years of the program.

53. **Environment and social safeguards.** The project was classified as environmental Category A and safeguard screening Category A. It triggered four safeguard polices: (a) Environmental Assessment (OP/BP 4.01); (b) Involuntary Resettlement (OP/BP 4.12); (c) Safety of Dams (OP/BP 4.37); and (d) Projects on International Waterways (OP/BP 7.50). The Resettlement Policy Framework (RPF) and Environmental and Social Management Framework (ESMF) were all disclosed in-country and at the World Bank's InfoShop in September 2006. The project did not finance the construction of any new dams. However, at appraisal, there was reference to the possibility of financing the Kidunda Dam Project to regulate the Ruvu River and secure the water supply for Dar es Salam, which was dropped during implementation. To address Projects on International Waterways (OP/BP 7.50), a Riparian Notification Document was prepared to cover the whole duration of project and sent to the riparian countries on September 8, 2006.

54. Since the project was approved in February 2007, 968 subprojects have been screened for environmental and social risks and impacts. The vast majority of subprojects were Category C, with negligible impacts. Despite being rated as Category C, the substantial number of subprojects that had to undergo safeguard screening placed significant burden on the World Bank team which, combined with the quality assurance review, resulted in delays in processing safeguards documents. Since the initial delays in implementation of safeguard activities stemming from significant capacity constraints, the project's safeguards performance has gained momentum and substantially improved following the MTR and subsequent project restructuring. Since that time, a dedicated safeguards team, and ultimately a unit, has been formed within the MoWI, supported by an international safeguards adviser hired to provide just-in-time capacity-building assistance and establish a risk-based safeguards monitoring tool. Additionally, safeguards training was provided to IAs at the central and decentralized levels by both the World Bank and the MoWI. Safeguards supervision has also been strengthened through the joint World Bank-MoWI team field visits to supervise subproject sites and review safeguards management.

2.5 Post-completion Operation/Next Phase

55. **Water resource management.** Six out of nine IWRMD plans were completed and are pending approval by the National Water Board (NWB). The preparation of the remaining three IWRMD plans will be financed under Water Sector Support Project-II. The MoWI has initiated a study to identify and mobilize sustainable financing sources for the BWOs. WSDP II will include support to operationalize the NWB and ensure that it effectively coordinates competing water uses and implementation of completed basin plans.

56. **With the growing impact of climate change, the BWOs need to provide information and data to support effective decision making in this regard.** This will require the establishment and maintenance of more robust monitoring and data sharing mechanisms to support effective integrated WRM and reduce the potential negative impacts climate change might have on water security. The consolidation of data and harmonization of analysis tools is a task that should be urgently prioritized under WSDP II.

57. **Rural water supply and sanitation.** Only 1,821 (28 percent) COWSOs out of 6,408 planned COWSOs were established during the project period. This indicates that a COWSO was registered under each of the new schemes funded by the program but the program did not succeed in extending the COWSO registration beyond the 10-village schemes per LGA. This was exacerbated by the fact that the LGAs lacked budget to build the capacity of the COWSO and provide the necessary follow-up technical and managerial assistance. Fortunately in FY16, the project managed to highlight this issue and the MoWI subsequently allocated TZS 10 million (roughly US\$5,000) to each LGA to register and provide technical support to COWSOs. To support the registration of COWSOs, the TA provided by the World Bank's Water and Sanitation Program (WSP) (2013–2015) developed a COWSO Competency Model, which described in

detail the required institutional capacities and competencies of COWSOs, including governance, technical, financial, and operational capacities.

58. **Urban water supply and sanitation.** By design, the project implementation arrangements were established within the existing 23 regional UWSSAs, which were directly responsible for the implementation of their respective project components. This arrangement resulted in a seamless transition to the management and O&M phase of all assets created under the project. Out of the 23 UWSSAs, 15 are rated as category A utilities. KfW is supporting a study to increase the UWSSAs' access to market-based financial sources, to strengthen their financial viability.

59. **Institutional strengthening and capacity building.** The MoWI had established a strong foundation for monitoring water points, through the creation of the WPMS, distribution of global positioning system devices, and establishment of the CDMT to provide support and manage data. However, the capacity to implement these tools is currently varied, and a focus going forward should be to ensure all LGAs can maximize these tools. In addition, the ongoing monitoring of other key indicators, such as access and use of sanitation services, management of fecal sludge, and wider water resource utilization parameter, needs to be strengthened.

60. **Better data required for improved WRM decision making.** Increasing demand for water, specifically in urban areas and for agricultural development, in the context of increasingly unpredictable climate, will require improved coordination mechanisms to address competing demand for water. COWSOs, CMCs, and Basin Water Boards (BWBs) require high quality and timelier data, as well as increased capacity to analyze data, to enable them to make effective decisions in relation to water use and allocation in the future.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design, and Implementation

61. The PDO was highly relevant at appraisal and remained so through to project completion. At completion, this project's outcome also contributed to two themes in the 2012–2015 Country Assistance Strategy (CAS) and directly supported the CAS strategic objective, 'Build Infrastructure and Deliver Services'. Under this objective, the activities were directly relevant to the CAS outcomes, "increased access to and quality of water and sanitation services." The rural and urban WSS components focused directly on delivering improved services, in line with national and international targets. The water resources component assists with the creation of institutions and an enabling environment to ensure that finite water resources are effectively managed and developed. Given the above, the rating for relevance of objectives is High.

62. **The background analysis that informed the project design and the rationale for World Bank support was sound.** The approach benefitted from and built on the sound background analysis used in the preparation of the overall WSDP program. The project components represented a logical division of the interventions planned under the project, both aligning with the key indicators and also the division of responsibilities between key Government agencies. The decision during the project to further separate out the sanitation component of the project demonstrated a measured response to the changing sector context, which enhanced the implementation arrangement to focus on delivery of results. Minor shortcomings included underestimation of certain risks, and need for strengthened coordination among the implementing agencies. Given the above, the rating for relevance of design and implementation, is Substantial.

3.2 Achievement of Project Development Objectives

63. The PDO encompassed two elements: (a) improving integrated water resources management by strengthening water sector institutions and (b) expanding access to WSS services.

64. **PDO1: Strengthen sector institutions for integrated water resources management. (Modest).** The MoWI promoted institutional and legal reforms at the transboundary, national, and basin levels to address multi-sectoral water management and development needs. Six IWRMD plans were completed in line with the original target despite the revised target being reduced to three. Even though the official approval by the NWB and enactment of the plans is not yet completed, the plans are already under implementation.

65. In addition, the NWBs and BWBs are in place and functioning, which is demonstrated by the fact that 4,330 water-use permits and 24 discharge permits were granted across the nine basins. At the catchment level, three catchment committees have been formed, and 95 COWSOs have been established. Feasibility studies, Environmental and Social Impact Assessment (ESIAs), and detailed designs for three¹⁰ multipurpose dams have been completed. Design for rehabilitation of five dams in the Internal Drainage Basin has been completed and one dam out of the five has been rehabilitated. Progress was also seen in related areas, which complemented the wider objectives of the WRM component, including the fact that a Water Quality Management and Pollution Control Strategy was put in place. In addition, water quality testing laboratories were strengthened and a few of them were certified during the program.

66. In managing transboundary water resources, a number of agreements have been concluded and ratified, including Cooperative Framework Agreement for the establishment of the Zambezi Watercourse Commission (ZAMCOM), an agreement to establish a Joint Ruvuma River Water Commission, and the 1997 UN Watercourses Convention. The Convention for the Establishment of a Joint Water Commission for Songwe River Basin is in the process of ratification.

67. Despite the significant achievement in this area, the level of coordination among the sectors competing for water resources and the financial capacity of the basin offices to run their day-to-day responsibility has not been adequately addressed. This has resulted in the implementation of the IWRMD plans not being as advanced as expected. In addition, the further strengthening of new water user associations is still required to enable their effective participation in WRM decision making.

68. **PDO2: Improve access to water supply and sanitation services (Substantial).** The GoT had made significant progress in providing access to safe water supply in rural and urban areas, with 3 million urban and 9.2 million rural people gaining access to safe water supply. It is estimated that 7.08 million females¹¹ benefited from the project's interventions, which is 124 percent of the revised target of 5.7 million.

69. In rural areas, water supply investments improved access to safe drinking water through different typologies: multi-village and single-village piped water supply schemes and water supply to clustered households and single households. Rainwater collection systems and wells with hand or electric/diesel-run pumps were also financed. Through the project an additional 9.2 million people gained access as compared to the revised target of 8 million. In urban areas, the program aimed to provide improved access to water supply for 3 million people in 109 small towns, 19 regional municipalities, and Dar es Salaam City. While the program met the revised target for population with access to drinking water in urban areas, the final number has been estimated to be lower than the number reported in the borrower's Implementation and Completion Results Report (ICR), based on available data and considering schemes that were not fully

¹⁰ Farkwa in Dodoma, Lugoda/Ndembera in Iringa, and Kidunda in Morogoro.

¹¹ As set out in the revised RF, the proportion of female beneficiaries is to be calculated as 51.7 percent of the total direct beneficiaries.

completed during the project period. In parallel to increased water connections, the average percentage of non-revenue water (NRW), decreased from 37 percent in 2007 to 35 percent in September 2015.

70. Access to improved sanitation services was provided to a total of 5.15 million people (1.03 million households) against the target of 2.71 million people, in addition about 0.62 million household have constructed handwashing facilities, and 1,680 schools have constructed new or upgraded their school sanitation facilities. At the restructuring, the indicator was changed from access rate to incremental number of beneficiary population. In urban areas, 15,648 additional sewerage connections were achieved through the support of the program. With the mainstreaming of sanitation through the NSC, increased focus and momentum was given to the sanitation component of the project. However, the shortage of resources at the LGA level and the uncertainty over the continuity of support under the NSC hindered the achievements of the NSC, as well as the opportunity to scale up and reach out to the people outside of the program area. While the program’s target was met, this was only 68 percent of the NSC target of 1.52 million households.

71. A summary of the achievement against the key indicators and target is included in table 3, and further details of the achievement are included in annex 2. The project’s outcomes have been assessed against the achievements for the entire duration including the extension. More details are provided in annex 3 and the datasheet.

Table 3. Achievement against Key Indicators

	Revised Key Indicators	Revised Targets	Actual Results	% Achieved
1	BWOs fully operational and implementing an approved plan for the integrated basin water management	3	6	67
2	Number of people in rural areas provided with access to improved water sources under the project	8 million	9.2 million	116
3	Number of people in urban areas provided with access to improved water sources under the project	3 million	3 million	100
4	Number of people provided with access to improved sanitation under the project	2.71 million	5.15 million	190
5	Number of direct project beneficiaries, of which female	5.7 million	7.08 million	124

3.3 Efficiency

72. The predominant number of schemes, based on community preferences, were deep-boreholes-mechanized-piped schemes; at appraisal, such typical scheme was anticipated to cost about US\$64,500 and expected to serve 1,500 people with average cost of about US\$43 per capita. At the end of the project, the expenditure of US\$476 million on rural water resulted in provision of water to about 9.2 million, working out to an expenditure of US\$52 per capita. The higher than anticipated per capita costs can be attributed to increases in project costs due to delays in implementation.

73. A cost-benefit analysis was conducted for RWS following the assumptions adopted at project appraisal. The combined economic internal rate of return (EIRR) across the sampled villages calculated at project appraisal ranges between 11 percent and 35 percent. At the time of the ICR, following the same models, the combined EIRR of the project ranges between 12 percent and 17 percent. The positive net present value (NPV) and the internal rate of return (IRR), which is higher than the opportunity cost of capital for the selected sample villages, have shown that the project is still economically viable despite the significant increase in the cost of providing services.

74. The economic analysis includes public health benefits, which were not included at the time of appraisal. Other widely accepted potential benefits are not included because of lack of reliable data. They are opportunity cost of school absenteeism among the targeted school-age population; estimated value of loss of life avoided as a result of improvements in water and sanitation; reduced coping cost that households would otherwise spend to fill the service gap from alternative sources; capacity improvement in the public and private sector; reduction in girls' school dropout rates; and women's empowerment. Moreover, the benefits of the integrated WRM are also hard to quantify and not included. If these benefits could be quantified, the EIRR for all schemes would be greater.

75. With regard to financial sustainability, out of 23 UWSSAs supported by the program, 14 UWSSAs have attained Category A status (financially autonomous utility) compared to 9 at the beginning of the project. While utilities have made significant improvement with regard to metering ratios, revenue collection efficiency, staff operational efficiency, working ratios, and other indicators, the improvement in overall efficiency (volume of water for which the utility collects revenue to the total volume it produces) is found to be low (57 percent). This is mainly because of unsatisfactory performance in reducing NRW, which is still above 35 percent for most of the UWSSAs. Hence, UWSSAs, particularly those with high NRW, need to redouble their effort to improve their operational efficiency by reducing NRW and taking other operational efficiency measures.

76. While the project targets were met, it should be noted that the closing date of the project was extended twice to facilitate this. When considering the significant increase in unit cost and resulting AF required, despite the widening scope and scale, the financial and economic returns of the project estimated at appraisal would have been reduced. However, the potential economic benefits and the wider economic impacts of the project beyond the sector (such as health, education, labor productivity, poverty reduction, and women empowerment) were not considered at appraisal. When these wider economic benefits and impacts are considered, the project can still be considered, to some extent, as economically viable at completion; hence, the rating for efficiency is deemed to be Modest.

3.4 Justification of Overall Outcome Rating

Rating: Moderately Satisfactory

77. Given the high relevance of objectives, substantial relevance of design, modest achievement of improving the integrated WRM objective, substantial achievement on achieving expanding access to WSS services, and modest efficiency, the overall project outcome is rated Moderately Satisfactory.¹²

3.5 Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender aspects and Social Development

78. According to the World Bank's Tanzania Mainland Poverty Assessment (2012), around 12 million Tanzanian people are still below the poverty line. While the poverty headcount declined by around 18 percent, the absolute number of poor people only declined by 10 percent, from 13.2 million to 11.9 million from 2007 to 2011/12, because of population growth. Likewise, the absolute number of extreme poor decreased by only 7 percent, declining from 4.5 million to 4.2 million. Poverty is particularly pervasive in the rural areas, where around 70 percent of the Tanzanian population lives. About 10 million people in the rural areas live in poverty, and 3.4 million live in extreme poverty, compared to less than 1.9 million living in poverty and 0.75 million people in extreme poverty in the urban sector.

¹² Even though there was a change in some of the outcome targets, it was not substantial, and a split evaluation was not conducted since the original targets for (a) PDO1 were met (six basins out of nine) and (b) PDO2 (access to water and sanitation) were exceeded over the lifetime of the project. Hence, it would not affect the overall rating.

79. This project did not specifically aim to alleviate poverty, but it is well known that the poor suffer more from lack of access to safe water and sanitation services. The CDD approach and incorporation of COWSOs under the institutional arrangements was designed to ensure that equity considerations are reflected in water-use decisions. However, many factors still undermined this, including the fact that not all COWSOs were functional, and the varying level of capacity with COWSOs resulted in power imbalances. Further, technical support and capacity building is required to level the playing field within and among COWSOs. This would be further helped by improved transparency in WRM decisions to ensure that the needs of the poor and of domestic water users are given due priority.

80. At the time of restructuring, the inclusion of an indicator related to the number of female direct beneficiaries was an attempt to increase the focus and monitoring of gender considerations. However, this indicator alone does not provide a clear insight into the impact of the program on women and girls. The AfDB evaluation report indicated that as a result of the greater proximity of the new water points, women in communities served by the program reported significant time savings, some of which they use for economically beneficial activities. The economic context of rural Tanzania means that the opportunities for converting saved time to higher incomes and enhanced livelihoods are limited. In other words, the opportunity cost of women's time is very low. While shorter water collection distances are an undeniable benefit with regard to women's well-being, the economic benefits that accrue are limited. While not well captured in the project monitoring systems, the access to improved sanitation is globally recognized to increase the dignity and safety of women and girls.

(b) Institutional Change/Strengthening

81. The institution strengthening of water resources management has made progress during the program period; water resources management regulations have been issued; NWBs and BWBs have been established and are operational with limited capacity. However, establishing and operationalizing of institutions with decentralized autonomy is a complex process, which has extensively delayed the institutions' strengthening. The national and basin institutions have not been able to operate effectively mainly because of lack of adequate funding and limited coordination at the national and basin levels.

82. The capacity of the national government agencies, local government agencies, and UWSSAs was strengthened significantly, both through well-targeted capacity building TA and through learning by doing. This resulted in the acquisition of practical knowledge on project management, international procurement practice, contract management, and FM through on-the-job training. The local governments have also improved their knowledge of commercialization, private sector participation, cost recovery, and volume-based tariffs in the water sector through uplifting the capacity of the local operators for the O&M of wastewater treatment plants (Category A/B/C) and development of the relevant studies.

83. Implementation of the WSDP demanded strong coordination both vertically and horizontally between sector institutions and IAs, given the multi-sectoral nature of the program as a whole. Progress in sector-wide coordination and collaboration has been observed during the life of project, through the establishment of a mechanism to guide and manage the program, especially for WSS activities. In relation to WRM, a mechanism to strengthen the coordination among the various institutions that are competing for water resources needs to be established to ensure informed decision on trade-offs and complementarity between the various sector plans and priorities.

(c) Other Unintended Outcomes and Impacts

84. The AfDB evaluation report indicated that the incidence of diarrhea (the proxy for health benefits) has reduced significantly. This has not been consistent across age groups as the reduction has been less (4 percent) among children under five years of age and more significantly (10 percent) among the general population in the surveyed villages where the WSDP has installed new water systems. This is despite the

continuing widespread occurrence of E.coli contamination, the use of unimproved water sources during the rainy season, and the poor coordination of sanitation and hygiene interventions with the introduction of water schemes. These are all factors that would have probably constrained the positive impact on diarrhea incidence among young children. Overall, the health impact of the WSDP is less striking than what might have been anticipated because some of the assumptions in the WSDP's implicit theory of change have not been fulfilled.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

85. No beneficiary survey was conducted during or after the project's implementation. The sector's annual sector review meetings provided a forum for stakeholders to be consulted and input into the wider program, the last of which took place in January 2016. The private sector and NGOs presented their views on issues related to WSDP implementation, which were broadly similar to the issues other stakeholders and IAs expressed. In addition to inadequacy in coordination and interaction between sectors, the private sector highlighted quality control of the outputs from providers while the NGOs highlighted their observation on the need for great equity considerations, pro-poor planning, and mitigation for climate change under WSDP II.

4. Assessment of Risk to Development Outcome

Rating: Moderate

86. The original project highlighted some key risks, including inadequacies in FM and procurement capacity and risks associated with the number of implementation entities, including subsector and multi-sectoral coordination. Most of the risks identified in the original project have materialized, especially the limited capacity to manage safeguards implementation at decentralized levels, FM, procurement, and contract administration. As a result, there have been delays in the completion of several contracts, resulting in increased costs. After the restructuring in 2011, the Government has made good progress in managing fiduciary and safeguards issues, and a series of reforms that were established have led to improved implementation performance. Implementation capacity has been strengthened by establishment of a program coordination unit in the MoWI, which is headed by a dedicated director and recruited support staff, including three external professionals for FM, procurement, and M&E. The inter-ministerial coordination related to water resources planning and management needs, as well as procurement capacity needs to be further strengthened.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

Rating: Moderately Satisfactory

87. There were several strengths highlighted in the project design. The approach was strategically relevant and in line with the national policy and the CAS. The project's financing structure was unique in combining the IBRD loan with the DPs' funds. The World Bank was recognized by other DPs for playing a leadership role in establishing the mechanism to bring the DPs together to support the GoT's SWAp. This resulted in close collaboration between the DPs and a focus of promoting efficiency and replicable delivery models through participatory approaches. However, with the project adopting a CDD approach, the unpredictability of financial cost related to community choices (such as technology) could have been more clearly articulated in the financial analysis and some provision for this variability built into the design.

88. The project concept and PDO were highly relevant and well aligned with national policy priorities and the World Bank's CAS (section 2.1). The preparation quality of the project, as set out in the PAD, was

of a high standard, and the project design was based on a thorough analysis of sector issues. Applicable safeguards policies were identified and the World Bank carefully reviewed the RPF and ESMF, as well as the high-quality economical and financial analysis. Findings of the latter were fed into the project design. Therefore, the final design was appropriate and was focused on demonstrating a new, integrated solution to a significant water sector challenge. This involved the effective delivery of water and sanitation services to help the GoT meet the MDGs in the water and sanitation sectors and good governance of water resources for water users. Although the restructuring revised the scale and scope of the project, the PDO and component design were sound and remained unchanged. A few shortcomings are cited in section 2.1. Notably, the SWAp was complex and some indicators designed were rather difficult to monitor. A few risks were not included or were under-assessed. The institutional arrangements should have included strong coordination with the PO-RALG, MoHWS, and MoESTV for the implementation of rural water supply and sanitation (RWSS). The total number of staff weeks used for the project preparation was 131.4, and support from the Water expert team (WET) was also obtained to provide on-time support to the team during the project preparation. For these reasons, quality at entry is rated Moderately Satisfactory.

(b) Quality of Supervision

Rating: Satisfactory

89. **Supervision of the project took place in a period of wider sector transformation.** The quality of supervision needs to be placed into both the internal and external context. In relation to the external context, supervision took place through newly established coordination structures, which aimed to support an increased focus sector collaboration and harmonization. The WSDP joint implementation arrangements are outlined in the MoU between the DPs and the GoT. The MoU guided the Joint Water Sector Review and the TWGs and provided the main framework for technical-level interactions among the IAs, as well as a means of identifying and resolving issues affecting the effective and efficient implementation of the WSDP. Supervision was carried out in a professional manner through formal biannual joint supervision missions with the Government counterpart institutions coordinated by the PCU and DPs. The WSDP SC engaged the chief executives of the relevant government ministries and the DPs. The twice-yearly meetings provided high-level policy guidance, and approved annual work plans and disbursement schedules. The program facilitated the establishment and functioning of the four TWGs, one per component, which met at least once every quarter to review the progress and implementation issues and decide on the required follow-up actions for their respective components.

90. **Supervising a complex project was compounded by changing internal management.** From an internal perspective, despite the length of this project and the number of subtasks increasing complexity, the overall management of the project was undertaken effectively. The project was managed by four task team leaders (TTLs) during its lifetime. Despite the number of TTLs, the transition between the TTLs was smooth and management continuity maintained. Throughout implementation, the World Bank's task team was proactive, flexible, and decisive in interpreting and applying World Bank policies and the covenants in the FA and MoU, as well as in providing sufficient resources to address project issues as they arose.

91. The World Bank followed up formal supervision with day-to-day interaction with the client. The World Bank maintained a focus on attaining the PDO despite the initial delays caused by the institutional setup. The task team identified the need to restructure the project at the MTR, processed the restructuring on time, and correctly presented the incentive for a two-year extension to get the buy-in from the MoWI to introduce institutional strengthening and commitments. The total number of staff weeks was 579.43 during the supervision stage (and ICR), and WET financing was also obtained to provide timely TA, like Dar es Salam Water and Sewerage Authority (DAWASA) organizational assessment. Due to the complex nature of the program, and the leading role of the World Bank in supervising the entire program, the expenditure of the supervision was very high. For these reasons, quality at supervision is rated Satisfactory.

(c) Justification of Rating for Overall Bank Performance

Rating: Moderately Satisfactory

92. Based on detailed assessment in the two areas above, the overall rating for the World Bank's performance is Moderately Satisfactory.

5.2 Borrower Performance

(a) Government Performance

Rating: Moderately Satisfactory

93. The GoT established and maintained mechanisms to facilitate the necessary political interface (SC) and effective program management (PMU) and provide the necessary interagency coordination arrangements consistent with the PDO. The GoT maintained this strong commitment to the project up until the program completion, though there was delay during the early stages of implementation. Also, a restructuring was required to revise the scale and scope of the project. When the need for additional financing was identified, the GoT engaged effectively to ensure this proceeded on time, and simultaneously the GoT showed good endeavor to successfully secure additional contribution from other DPs.

94. A significant reason for the delays in the project was the slow release of funds from the national level, both the Ministry of Finance and MoWI, to the IAs. The use of the Bank of Tanzania by the Ministry of Finance to channel funding to the IAs did not prove to be an efficient means to facilitate swift disbursement of program resources.

95. The BRN Initiative contributed to the acceleration of implementation of the WSS component, specifically in rural areas. However, the promise of additional funds articulated through the BRN Initiative proved to be overestimated. The result of this was that LGAs were misled into contracting too many water supply schemes before securing available resources to ensure that the contracts would be fulfilled. Many contracts had to be abandoned by the contractors because of default of payment by the owners, which induced a crisis of trust among villagers toward their LGAs. In response to this, the GoT has committed to complete all commenced schemes in the coming year and allocated budget to achieve this in the latest budget.

(b) Implementing Agency or Agencies Performance

Rating: Moderately Satisfactory

96. The IAs, who had the responsibility of managing program implementation in each region, were coordinated by the PCU established under the MoWI. In the course of program implementation, the PCU became more stable and performed better as it acquired experience. One of the causes of the slow start to the program was the weak capacity of the IAs and the time taken to adopt and implement the necessary program procurement, finance, and monitoring systems. However, now that this capacity is in place, the fact that the PCU is a permanently constituted unit, as an integral part of the MoWI's organizational structure, provides long-term advantages.

97. Despite the multifaceted nature of the program, many key government stakeholders responsible for delivery did not engage in the program from the start as expected. The PO-RALG, MoHSW, and MoESTV should have been engaged in the program planning and implementation from the inception of the project. However, these institutions did not effectively engage in the program until after the restructuring, and this contributed to the delays in implementation, specifically under Component 2. The re-aligned TWGs are now functioning well in analyzing component issues, proposing mitigation majors and providing a constant monitoring platform. Discussions between Government and DPs on program matters become a lot easier, amicable and productive during the program implementation.

98. For two years in row (2013/14 and 2014/15), the Financial Audits carried out by the Controller and Auditor General issued a certificate of unqualified (clean) opinion on the program financial statements. This is a huge improvement compared to the first two years of program implementation and indeed it is no mean achievement. The financial management arrangements were deemed satisfactory and acceptable.

99. The impact of the BRN on expectation has been mentioned above in paragraph 93; however, the NSC also failed to provide the expected resources. The lack of resources provided to the LGAs by the NSC led to serious shortage of ward health officers and transportation facilities for village health workers, which hindered routine monitoring and follow-up in majority of the LGAs. However the GoT has given priority to completion of projects under construction before embarking on new project. The Government has also committed itself to clearing of overdue certificates and bills from contractors and consultants. Consequently, the FY 2016/17 GoT budget approved by parliament for the water sector is double that of the previous year.

100. The future of the NSC is still unclear and this has given rise to uncertainty over the mechanism to promote sanitation in future phases of the WSDP. These shortcomings were also compounded by the lack of funding to support the long-term operation for sustainable provision of RWS and sanitation services to vast proportions of rural population, that is, no funding allocation in the LGA budget.

(c) Justification of Rating for Overall Borrower Performance

Rating: Moderately Satisfactory

101. This overall rating is Moderately Satisfactory, based on the performance of both the government and IAs, as detailed above.

6. Lessons Learned

102. **Establish and embed a coordination mechanism among ministries and main stakeholders to facilitate the river basin planning and monitoring processes.** While the support to institutional strengthening will need to be continued, focus can now be placed on delivering results on the ground through implementing basin plans, improving public access to data and information and knowledge products for improved management, and facilitating informed investment decision making. It is clear from the initial work done in this area that accelerated progress in these areas will require a mechanism that allows for involvement of major stakeholders at all levels (local, basin, and national). A mechanism for inter-ministerial collaboration on the IWRMD at the basin level and at the catchment management level will need to be rolled out and applied going forward.

103. **Achieving sustainable water service delivery continues to be a major challenge for RWS provision in Tanzania.** Sustainable service delivery of RWS can be defined as the sufficient, affordable, and continued access to safe water supply. In 2013, the nationwide water point mapping exercise proved to be an effective mechanism to provide greater insights into the functionality and sustainability of water services. The water point mapping process revealed that out of Tanzania's rural water points, 55 percent were functional, 7 percent needed repair (with short breakdown time), and 38 percent were nonfunctional (longer breakdown time). Future intervention for improvement in RWS provision should address key aspects such as adequate data management system, affordable technology choice, strong and empowered community organizations, and a system for backstopping TA from the LGAs. A result-based intervention would best fit to address these factors.

104. **The development of alternative management models for COWSOs will require modification to public policy and support to improve business climate.** Lessons from post implementation shows that there is a need to consider different management models which can address the shortcoming of COWSOs

and address sustainability of schemes. This could include professional backup systems anchored in well-capacitated institutions and accountability mechanisms that trigger the provision of such services to ensure service sustainability. Private sector development is still in a relatively early stage of development compared to other countries across the continent, and this has affected the engagement of local private sector in the management of rural water schemes. However, as demonstrated in a recent World Bank global study,¹³ private sector business models can be viable and are shaped by the right public policies and business climate.

105. WSS service provision requires focus on performance improvements and NRW reduction to cope with the growing demand and rapid urbanization. Progress during the program period has been hampered by high water losses and poor O&M, both of which are symptoms of institutional weaknesses. These challenges are exacerbated by the ever-increasing demand for services because of high rates of urbanization and growing industrial use. Given the planned substantial increase in water production, which will exacerbate the abovementioned challenges, especially water loss and NRW, it is important to improve the efficiency of the utilities to improve the efficiency of the sector. The GoT's effort to reform the WSS service-providing institutions in Dar es Salaam and the plan to improve operational efficiency of the utilities needs increased attention and accelerated implementation, including consideration for collaboration with the private sector. Coordination with other institutions in the city such as the municipalities are also required, especially in the areas of on-site sanitation.

106. Water and sanitation to be positioned on an equal footing from the start, using the leverage linked to access to water. The identification of sanitation as a separate subsector at the MTR and the establishment of the NSC brought more focus to sanitation, specifically in rural areas. However, currently the GoT is still reliant on donor resources for sanitation intervention (except for sewerage), and it is given less attention within the GoT's policies and strategies. A significant effort is needed to increase improved latrine coverage in rural areas, which the National Census (2012) pegs at 32 percent but the Joint Monitoring Program report of 2015 records at 8 percent. The urban sanitation challenges is increasingly complex due to a number of factors including the institutional and technological perspectives. It should also be noted that the new sanitation indicators and definition under the Sustainable Development Goals will require higher level of services and the monitoring of sanitation beyond on-site facilities.

107. Ensure capacity-building support is sufficient and targeted at key areas of weakness, including TA to support the implementation of decentralization. The project clearly demonstrated that there is a need to further improve the capacity of IAs in the areas of procurement, contract management, FM, and safeguards for them to deliver on increased and complex responsibilities associated with the decentralized implementation arrangement. In addition, the project also highlighted the need to strengthen implementation and monitoring capacity at the decentralized level. This is best achieved through additional technical expertise and a mechanism that allows for complementarity between the public and private service providers. This being so, the MoWI's control of program implementation should not be maintained as a long-term strategy. Instead, more emphasis should be placed on technical support to the BWBs and LGAs to help them carry out their devolved responsibilities.

108. Sector monitoring needs continued development to improve understanding of water resources and WSS outcomes and impact. Progress was made in relation to the monitoring of the project and wider sector monitoring systems during the project period. However, further investments are needed to increase capacity to monitor the sector and ensure reliable data for decision making. While the indicators for water supply have been agreed and consistency implemented, similar indicators for WRM, sanitation, and hygiene still need to be developed, agreed, and implemented. In addition, future phases of the WSDP

¹³ World Bank. 2014. *Tapping the Markets: Opportunities for Domestic Investments in Water and Sanitation for the Poor*.

should include a stronger equity and gender lens at the time of the baseline and within the monitoring system. More nuanced information on those who have received water would enable the development of a more targeted approach to reach the poorest sections of society. This would also enable a better understanding of how women and girls benefit from improved access to water and sanitation services (such as time saving, economic activities, and school attendance) and the ability of women to play an active and influential role in decision making during the planning and implementation of interventions.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/Implementing Agencies

109. The MoWI had been taking the leading role during the project implementation, and other IAs have increased their engagement after the project was restructured in 2011 with different levels of inputs. Both the MoWI and other IAs were proud of the SWAp, taking advantage of the joint dialogue platform to enhance the synergy among the DPs and the implementation efficiency. The following are key comments from the project completion report:

- **Flow of funds.** Delays in the releases and transfer of funds to the IAs for subproject implementation have led to inflated costs because of delay in payment of contracts' certificates and invoices, ultimately resulting in slow pace in achieving the targets. An in-depth analysis of the fund flow arrangement for the water sector was done by stakeholders and it was jointly agreed that there was a need for the MoWI to expedite the establishment of a Tanzania shillings settlement account at the Bank of Tanzania to rectify the existing problem.
- **Credibility of data.** Data quality (collection, analysis, and reporting) has been a challenge in WSDP I, especially for the rural subsector. Though improvements were noted in the course of implementation, especially after the establishment of the WPMS, still the MoWI, in coordination with the PO-RALG and LGAs, needs to quickly enhance the mechanism for data collection, verification, and regular updating, for proper WSDP implementation.
- **Procurement staff.** During the start of implementation of WSDP I, the PMU (MoWI) was inadequately staffed and did not have sufficient capacity and knowledge in donor-funded projects. This contributed to a slow pace in procurement processing and increased the number of addendums and variations because of lack of knowledge in contract management.

(b) Cofinanciers

110. **DFID/KfW/DPG - water.** The co-chairs of and the secretariat of the DPs group for the water sector expressed appreciation toward the World Bank for the leadership in shaping the biggest SWAp in the country and the efforts made to secure the quality of program implementation. The World Bank is a recognized leader and catalyst for the WSDP, and the World Bank played a leadership role in its operational design and launch. The World Bank has been especially effective and appreciated by other DPs for its role in assessing and strengthening national capacity and systems for procurement, FM, and safeguards, which gave some DPs the confidence to provide pooled funding. Therefore, some of them also expressed uncertainty regarding the next phase of the program, given that the World Bank is focusing on selected components of the program and is not handling the fiduciary and safeguards review and coordination of the entire program.

111. **AfDB¹⁴ - coordination.** Coordination between the line ministries involved in implementation and oversight responsibility has long been a challenge. The existing SC needs to be strengthened to ensure

¹⁴ AfDB's comments from Impact Evaluation Report dated December 2015.

effective coordination, and ongoing effort to establish a system of coordination between the various sector institutions needs to be institutionalized and strengthened further.

112. **AfDB - flow of fund.** The Ministry of Finance should expedite reforms to public FM systems that ensure predictable, smooth, and prompt transfer of domestic and donor funding to the LGAs for the implementation, operation, and maintenance of RWSS programs.

113. **AfDB - affordability of WSS technology.** The GoT should undertake a careful review of affordability issues as they are related to the provision of the National Water Policy for users to pay for improved rural water supplies. While current poverty levels persist, the effectiveness of these improved supplies in enhancing health outcomes were compromised while users turned to unimproved water for financial reasons.

114. **AfDB - O&M support to CWSOs.** The GoT should recognize that most CWSOs will be unable to pay in full for maintenance and replacement costs of their water supply infrastructure (to 2025). It should, therefore, replace the current ad hoc approach to financial support from the LGAs to CWSOs for these costs with revisions to the National Water Policy that specify what types of CWSO maintenance and repair costs will be subsidized, and how. It should adjust budgetary subventions to the LGAs accordingly. Policy and procedures for RWSS should recognize more explicitly that long-term institutional maintenance is vital for the sustainability of CWSOs and, therefore, for the sustainability of the program as a whole. Personnel, training, and recurrent budgets should be adjusted to reflect this reality.

(c) Other partners and stakeholders

115. **Civil society and private sector stakeholders.** The inputs of these stakeholders have not been directly sorted through the ICR process; while they are part of the broader WSDP SWAp, they have not been part of the financing mechanism. However, as mentioned earlier, the annual sector reviews have provided an opportunity to gain their insight on the program. The last annual sector review meeting took place in January 2016, and during this meeting the NGOs raised the need to enhance the pro-poor focus in targeting beneficiaries at the LGA level, address sustainability of improved services, and increase attention on mitigation of climate change during WSDP II.

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in US\$, millions equivalent)

Components	Appraisal Estimate (US\$, millions)		Refinancing Estimate (US\$, millions)		Actual/Latest Estimate (US\$, millions)
	Total WSDP	IDA	Total WSDP	IDA	Total WSDP
Component 1: Basin Level: Strengthening of Water Resources Management and Development Framework	75.0	50.0	89.0	41.0	75.9
Component 2: Local level: Scaling-up of Rural WSS Services Delivery to Meet MDGs	290.0	60.0	484.0	54.0	475.9
Component 3: Utility Level: Scaling up of Urban WSS Services Delivery	510.0	60.0	769.0	129.9	719.8
Component 4: National Level: Supporting Sector Institutional Strengthening and Capacity Building	58.0	20.0	73.0	16.0	85.0
Contingency/Unallocated	18.0	10.0	6.0	4.0	0.0
TOTAL	951.0	200.0	1,421.0	244.9	1,356.6
Share of Financing	—	21.0%	—	17.2%	—

(b) Financing

Source of Funds	Commitments (US\$, millions)				Actual Disbursement (September 30, 2015)
	Appraisal Estimate (A)	Restructuring (B)	Additional Finance (C)	Total (B + C)	
Borrower	251.00	251.00	30.00	281.00	363.69
United States - Millennium Challenge Account	207.00	53.00 ^a	—	53.00	49.47
IDA	200.00	200.00	44.90	244.90	251.69
Bilateral Agencies (unidentified)	83.00	510.00 ^b	—	510.00	317.60
AfDB	80.00	135.00	—	135.00	183.54
KfW	70.00	66.00	15.00	81.00	93.19
Netherlands: Ministry of Foreign Affairs/Ministry of Development Cooperation	60.00	40.00	—	40.00	31.42
DFID	—	—	13.00	13.00	76.09
French Development Agency (<i>Agence Française de Développement</i>)/France	—	—	—	—	40.66
Basket Balance (pool)	—	—	—	—	6.98
Total	951.00	1,255.00	102.90	1,357.90	1,414.33

Note: a. At the time of appraisal, the Millennium Challenge Account planned to finance a substantial amount of water related infrastructure in Dar es Salaam, including a dam, mains water line, and the rehabilitation and expansion of a wastewater treatment plant. However, by the time of restructuring, this had been reduced to focus solely on the rehabilitation and expansion of a water treatment plant; hence, the budget allocated was substantially reduced.

b. The large increase was because of newly joined DPs and an increase in the amount from existing ones.

Annex 2. Output by Component

Project Component Output Description	Targets at Appraisal (PAD)	Revised Targets	Actually Achieved at Completion (ICR)	PAD (percent)	Restructured (percent)
Component 1. Strengthening of Water Resources Management and Development Framework					
Central water board functional	1	1	1	100	100
BWO capturing essential Integrated Water Resources Management (IWRM) information	9	9	9	100	100
Approved IWRMD plans	9	3	6	0	0
Percent of sub-catchment and COWSOs fully functional	40	20	60 (8 out of 15 catchment/sub catchment committees were gazetted, 95 COWSOs established)	100	100
BWOs adopt national sustainable financing options for IWRM	9	9	0	0	0
45 watersheds and 25 groundwater recharge areas legally gazetted as protected areas	45/25	Included into basin wide Key Performance Indicator	n.a.	n.a.	n.a.
Increase smallholder irrigation schemes with improved water-use efficiency 8 percent to 15 percent	—	Dropped	n.a.	n.a.	n.a.
BWOs granting, monitoring, and enforcing water rights and pollution control	9	9	100	100	100
Priority water resources investment completed	—	Dropped	n.a.	n.a.	n.a.
Component 2. Scaling-up of Rural WSS Delivery to Meet MDGs					
Water systems developed in program area	41,900	31,747	35,908	112	90
percent of program village water committees registered as legal entities	80	80	28.42	35.53	35.53

Project Component Output Description	Targets at Appraisal (PAD)	Revised Targets	Actually Achieved at Completion (ICR)	PAD (percent)	Restructured (percent)
Percent of program districts with fully-staffed RWSS teams implementing a fully participatory sector plan	100	100	53.6	70	70
Component 3. Scaling-up of Urban WSS Services Delivery					
Utilities expand coverage of service area with potable and reliable water	90	192,000 (HH con.)	257,411	n.a. (68 percent/84 percent in Dar es Salaam / regions)	134
Utilities expand coverage of service area with sewerage service	30	Dropped	—	n.a. (20 percent in Dar es Salaam / regions)	n.a.
Percent of households have access to basic sanitation	95	Dropped, and replaced with indicator on access to sanitation	—	n.a.	n.a.
UWSSAs registered as Category A	20	15	15	75	100
Component 4: Supporting Sector Institutional Strengthening and Capacity Building					
Steering Committee, Water Sector Working Group and Technical Working Groups operational	Yes	Add SC to Water Sector Working Group and 4 TWG	Yes	—	—
Percent of RWS and Sanitation funding transferred through LGCDG system	100	90	No data	No data	No data
MoWI develops and implements national MIS	Yes	Yes	Yes	—	—
Number of strengthened private sector companies, NGOs, community-based organizations, and training institutions contributing to the WSS sector	Number	Amend as reporting (Yes/No)	No	—	—

Annex 3. Economic and Financial Analysis

1. During appraisal, a separate economic analysis was carried out for both urban and rural components and also for different types of technologies, wherever possible. The economic analysis was conducted on the basis of a ‘framework project’ in which the investments identified are only indicative since they are demand-driven rather than preselected.

Rural Water Supply and Sanitation

2. For RWS, subprojects considered to represent a wide range of water supply conditions were selected from three representative districts (Mpwapwa, Rufiji, and Kilosa) and two villages in each district. Comparisons of potential water supply technologies were made, providing the economic rate of return for different technologies under a range of conditions. The economic benefits computed during appraisal include the benefit from time saved while fetching water from a closer source and benefits from the incremental demand for water valued at the average demand price. The NPVs were estimated for all technologies and villages under consideration and comparisons made.

3. However, since project appraisal, various changes have been observed in the major factors used to estimate the economic and financial returns of the project. The major changes are illustrated in table 4.1:

Table 4.1. Comparison of Factors for Economic Analysis

No.	Description	Measurement Unit	At Appraisal	At AF	Actual at Completion
1	Per capita cost				
	Pumped schemes	US\$ per capita	29–43	34–90	24–90
	Gravity scheme	US\$ per capita	34–51	29–80	34–90
2	Total cost of RWS	US\$, millions	290.0	500.1	489.0
3	Demand				
	Per capita demand (for pumped schemes)	Liters per day	20	20	25
4	Technology choice				
	Hand pumps	Percent	48	5	5
	Gravity schemes	Percent	—	42	15
	Pumped schemes	Percent	—	53	80
5	Minimum wage for agriculture	US\$/month	30	—	68
6	Exchange rate US\$1 = TZS	US\$1 = TZS	1,300	—	2,170

4. An economic cost-benefit analysis was conducted for the same representative districts and villages used during appraisal to assess the economic returns of the project at completion. However, as over 80 percent of the schemes constructed under the project are mainly pumped schemes, the analysis does not provide returns by technology type other than the pumped schemes. The analysis follows the same structure as the analysis undertaken for project appraisal, with costs and benefits assessed over a 20-year period. Costs and benefits are discounted at a rate of 12 percent.

5. **Cost.** Both investment cost and operational cost are included in the cost stream: (a) for investment cost, the actual contract values awarded in the three representative districts (four contracts from Mpwapwa, nine contracts from Rufiji, and two contracts from Kilosa) are used and (b) operational cost is also obtained

from the actual O&M cost of the respective schemes. It is also assumed that pumps and electromechanical equipment will be replaced at the end of the tenth year.

6. **Benefit estimation.** In the financial analysis, the actual revenue collected by the respective schemes during 2014 from beneficiaries in the form of a fee is projected for the period covered in the analysis. The findings of the Tanzania RWS Survey conducted by the MoWI in 2014 is used to measure benefits from the project with regard to household income gain from time saved in fetching water. According to the survey, the average time required to fetch water, including waiting time and round trip, has reduced to 21 minutes in Mpwapwa, 16 minutes in Kilosa, and 18 minutes in Rufiji. It is assumed that only 50 percent of the saved time will be used productively and a minimum wage rate of US\$2.82 per day (US\$0.35 per hour)¹⁵ adjusted for shadow wage rate is used to calculate the income gained because of the project.

7. While economic benefits from improved health as a result of the project were omitted at appraisal, the benefits are partly included in the current analysis. Increased household income gained as a result of reduced absenteeism of the working-age population and caretakers because of reductions in diarrheal illness for children and adults and reduced household health and health-related expenditure resulting from minimized prevalence of diarrheal disease are factored into the economic analysis. A study by Guy Hutton has estimated that access to improved basic community water supply has an impact of reducing diarrheal diseases by 34 percent.¹⁶ This proportion is used to estimate diarrheal cases avoided because of the project.

8. While at appraisal, only 10 percent increase in investment cost was considered in the sensitivity analysis, as shown in table 4.2, the average per capita cost of pumped schemes has significantly increased at completion. However, as shown in table 4.2, the positive NPV and the IRR higher than the opportunity cost of capital for all the selected sample villages have shown that the project is still economically viable despite the significant increase in the cost of providing the service as well as a shift in a more complex and expensive technological choice.

Table 4.2. Comparison of eNPV and EIRR at Appraisal and at Completion

No	Districts	At Appraisal		At Completion	
		eNPV (US\$)	EIRR (percent)	eNPV	EIRR (percent)
1	Mpwapwa	51,436	24	109,703.12	17
2	Rufiji	33,536	35	28,883.06	12
3	Kilosa	2,076	11	60,088.20	16

Note: eNPV = Expected Net Present Value in efficiency prices.

9. There are several other potential benefits that are not factored into the cost-benefit analysis both at completion and at appraisal because of lack of reliable data. Some of these include opportunity cost of school absenteeism among the targeted school-age population; estimated value of loss of life avoided as a result of improvements in water and sanitation; reduced coping cost that households would otherwise spend to fill the service gap from alternative sources; capacity improvement in the public and private sector; reduction in girls' school dropout rates; and women's empowerment, among others. Therefore, the

¹⁵ Reference <http://www.africapay.org/tanzania/home/salary/minimum-wages>.

¹⁶ According to Guy Hutton's Water and Sanitation Assessment on Benefits and Costs of the Water and Sanitation Targets for the post 2015 development agenda (January 2015), access to improved community water sources, basic piped water, and piped water of high quality have an impact of reducing diarrheal disease by 34 percent, 45 percent, and 79 percent, respectively.

estimated benefits from the project can be considered conservative, and it can reasonably be assumed that the actual benefits will be much higher than this.

10. As the government policy is no subsidy for household sanitation facilities, an economic analysis was not conducted for the sanitation component both at appraisal and at completion.

Urban Water Supply and Sanitation

11. The cost-benefit analysis conducted at appraisal for the urban WSS component estimated an NPV of US\$394 million at 12 percent discount rate and the corresponding IRRs at 34 percent. The sensitivity analysis conducted has shown positive NPV and IRR greater than the discount rate at 20 percent reduction in revenue items and 20 percent increase in cost items. However, as shown in table 4.3, the original assumptions used during appraisal in estimating the financial and economic return were overoptimistic. These changes have triggered restructuring of the project with increased resource allocation through AF and dropping of sewerage coverage targets. However, the restructuring paper failed to re-estimate the economic and financial returns based on the changes.

Table 4.3. Comparison of Factor for Economic and Financial Analysis Urban WSS

No.	Description	Measurement Unit	At Appraisal	At Additional Financing	Actual at Completion
1	Service coverage assumptions				
	% of population covered by Stand Pipes				
	Dar es Salaam	%	80%	35%	
	Regional Centers	%	80%	58%	
	District Small towns	%	80%	74%	
2	Per capita cost				
	House hold connections	US\$/per capita	19-37	120-170	75-154
	Stand Pipes	US\$/per capita	19-37	65-85	
3	Total cost of urban water supply	US\$, millions	511	745	728
4	Population Growth				
	Dar es Salaam	%	3		6
	Regional Centers	%	3		5
	District Small towns	%	3		4.2

12. The project has provided access to improved water supply for about 3.6 million urban residents through 295,200 new private connections and 1,340 new stand pipes. In addition, the average per capita water consumption in the 23 UWSSAs has increased to about 45 lpcd from 25 lpcd estimated at appraisal. During appraisal it was estimated that households provided with private connection will increase their water use from 20 lpcd to 60 lpcd and this will improve the welfare of the newly connected households by about TZS 1,140 per person per day (US\$320 per person per year). Though quantifying the welfare gain at completion is difficult because WTP analysis has not been done; compared to the high cost of alternative sources, the welfare of newly connected households has significantly improved.¹⁷

¹⁷ In Dar es Salaam, Tanzania, owners of private boreholes sell a 20 liter bucket of water at a price ranging from TZS 50 to 500 depending on the locations, and small vendors sell a bucket of 20 liter of water at a price ranging between TZS 100 and 500. (Trans local learning for Water Justice City Profile of Dar es Salaam Tanzania, WatJust May 2015)

13. The significant increase in the cost component will definitely reduce the financial and economic returns of the project estimated at appraisal. However, the potential economic benefits excluded from the project and the wider economic impacts of the project beyond the sector (health, education, labor productivity, poverty reduction, women empowerment, and so on will definitely make the project relevant and economically viable at completion.

Financial Analysis

14. According to the financial analysis conducted at appraisal, out of the 19 utilities at regional centers, 9 UWSSAs were classified as Category A, 8 as Category B, and 2 as Category C.¹⁸ It is assumed that gradual tariff increase combined with improved operational and investment efficiency will enable all water utilities to move to Category A. To this end and to realize the gradual cost recovery policy of the Government, the project has been supporting the utilities through (a) provision of grants for the development of business plan and investment plans, and interventions to enhance investment and operational efficiency and (b) provision of sub-loans for implementing investment plans. According to EWURA December 2014 Water Utilities Performance Review Report,¹⁹ the average tariff has reached TZS 739 per m³ in regional centers and 14 UWSSAs have attained Category A status (financially autonomous utility) compared to 9 at the beginning of the project, while 4 UWSSAs are classified as Category B and the remaining 6 are classified as Category C.

15. While utilities have made significant improvement with regard to metering ratios, revenue collection efficiency, staff operational efficiency, working ratios, and other indicators, the improvement in overall efficiency (volume of water for which an utility collects revenue to the total volume it produces) is found to be low (57 percent). This is mainly due to unsatisfactory performance in reducing NRW, which is still above 35 percent for most of the UWSSAs.²⁰ Hence UWSSAs particularly those with high NRW need to redouble their effort to improve their operational efficiency by reducing NRW and other operational efficiency indicators.

¹⁸ Category A Urban Water and Sewerage Authorities (UWSAs) are expected to cover all annual costs for O&M, including staff wages, cost of electricity, and some contribution to investment. Category B UWSAs are expected to meet their O&M costs including cost for electricity while the Government pays salaries for seconded employees; Category C UWSAs are expected to partially meeting their O&M costs while the Government pays the remaining costs.

¹⁹ Energy and Water Utility Regulatory Authority <http://www.ewura.go.tz>

²⁰ NRW for Arusha, Bukoba, Musoma, Mwanza, Tabora, Morogoro, Mtwara, Babati, Mpanda Lindi, and Singida, WSSA and DAWASCO are above the average NRW value of 36.2 percent.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Leonard John Abrams	Consultant	GWADR	—
Vahid Alavian	Adviser	AFTG1 - HIS	—
Solomon Alemu	Consultant	GWADR	—
Devendra Bajgain	Sr Water and Sanitation Spec.	GWA01	—
Francis Ato Brown	Lead Water and Sanitation Spec.	GWA03	TTL
Fook Chuan Eng	Lead Water and Sanitation Spec.	GWA02	—
Serigne Omar Fye	Consultant	GENDR	—
Steve J. Gaginis	Senior Finance Officer	CTRDM - His	—
Wambui G. Gichuri	Practice Manager	GWA04	—
Rafik Fatehali Hirji	Sr Water Resources Spec.	GWA06	—
Muthoni W. Kaniaru	Senior Counsel	LEGFI	—
England R.M Mtei	Program Assistant	AFCE1	—
Vedasto Rwechungura	Program Officer	AFTFE - HIS	—
Mercy Mataro Sabai	Sr Financial Management Specialist	GGO31	FM Specialist
Perla San Juan	Temporary	AFTU1 - HIS	—
Pascal Tegwa	Senior Procurement Specialist	GGODR	Procurement Specialist
IJsbrand Harko de Jong	Lead Water Resource Management	GWA03	—
Paul Kriss	Lead Urban Specialist	GSURB	Economist
Supervision/ICR			
Solomon Alemu	Consultant	GWADR	—
Devendra Bajgain	Sr. Water and Sanitation Spec.	GWA01	—
Francis Ato Brown	Lead Water and Sanitation Spec	GWA03	—
Jason R. Cardosi	Consultant	IEGSD	—
Anne Christensen	Jr Professional Officer	GWASA	—
Bella Lelouma Diallo	Sr Financial Management Specialist	GGO25	—
Naima A Hasci	Sr Social Scientist	GSU03	—
Rafik Fatehali Hirji	Sr Water Resources Spec.	GWA06	—
Evelyne C. Kapyra	Program Assistant	AFCE1	—
Rosemary Mukami Kariuki	Lead Water and Sanitation Spec	GWADR	—
Jane A. N. Kibbassa	Senior Environmental Specialist	GEN01	—
Gisbert Joseph Kinyero	Senior Procurement Specialist	GGO01	Procurement Specialist
Gabriel Lwakabare	Consultant	GWADR	—
Midori Makino	Lead Evaluation Officer	IEGSD	—
Rehema Mercy Mashayo	E T Temporary	AFCE1	—
Donald Paul Mnene	Consultant	GGODR	—
Markus Moeller	Consultant	GFADR	—
England R.M Mtei	Program Assistant	AFCE1	—
Samuel Dawuna Mutono	Sr. Water and Sanitation Spec.	GWASA	—
Claire Louise Rhodes	—	GCCCCF	—
Mercy Mataro Sabai	Sr. Financial Management Specialist	GGO31	—
Helen Z. Shahriari	Sr. Social Scientist	GSU07	Social Specialist
Satoru Ueda	Lead Dam Specialist	GWAGS	—
Kameel Virjee	Financial Specialist	GWASA	—
IJsbrand Harko de Jong	Lead Water Resource Management	GWA03	—

Names	Title	Unit	Responsibility/ Specialty
Caroline van den Berg	Lead Water Economist	GWA04	—
Yitbarek Tessema	Lead Water and Sanitation Specialist	GWA01	TTL
Pieter Waalewijn	Sr Water Resources Mgmt. Spec.	GWA03	Co-TTL
C. Ajith Kumar	Sr Water and Sanitation Specialist	GWASA	WSP Team Leader
Michael Eriu Okuny	Sr Financial Management Specialist	GGO31	FM Specialist
Nicole Andrea Maywah	Consultant	GENDR	Environment Specialist
Oliver Jones	Senior Water and Sanitation Specialist	GWASA	ICR Co-Team Leader
Sing Cho	Senior Water and Sanitation Specialist	GWA02	ICR Co-Team Leader
Wendwosen Feleke	Operation Officers	GWA07	ICR Economist

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of Staff Weeks	US\$, thousands (including travel and consultant costs)
Lending		
FY04	14.09	77.59
FY05	12.48	69.00
FY06	29.16	197.69
FY07	50.96	259.53
FY08	24.71	116.50
Total:	131.40	720.31
Supervision/ICR		
FY07	0.28	1.82
FY08	28.82	189.01
FY09	89.04	451.87
FY10	64.09	451.91
FY11	109.95	462.15
FY12	99.66	367.79
FY13	77.95	396.04
FY14	71.28	332.46
FY15	21.85	131.89
FY16	9.60	71.80
Total:	579.43	2,889.77

Annex 5. Summary of Borrower's ICR

1. The MoWI prepared a comprehensive ICR that followed the World Bank's recommended format for the preparation of the borrower's ICR and the full report is in the project files. Please note that the figures included in the below summary were provided by the borrower at the time of reviewing the ICR. The figures in the originally submitted borrower's ICR reflected progress till September 2015, and revised figures, included below, reflect progress till December 2015.

2. It should also be noted that the borrower provides comment on the World Bank ICR, these comments were of editorial nature and have been incorporated in the document. There were no comments in relation to the rating or core findings of the ICR.

Program Components - Major Achievements

Water Resources Management Component

3. During WSDP I, the following achievements have been realized: NWB and BWBs are in place and functioning, 4,330 water-use permits and 24 discharge permits were granted in all 9 basins, 3 catchment committees have been formed, 1 catchment and 4 sub-catchments are in progress. The number of COWSOs established is 95. However, strengthening the existing ones and forming new water-user associations are still required to enable effective participation of water users in the management of water resources.

4. Six IWRMD plans have been completed namely Ruvuma and Southern Coast, Internal Drainage Basin, Lake Tanganyika Basin, Lake Rukwa, Rufiji and Lake Nyasa Basin but they are yet to be approved by the respective boards and the NWB. For Wami/Ruvu, a water resources assessment report is in place, and the IWRM plans will be completed during WSDP II Project Preparation Advance. The IWRMD plans of Lake Victoria and Pangani Basin will be completed during the WSDP II.

5. In managing transboundary water resources, a number of agreements have been concluded and ratified including the Cooperative Framework Agreement for the agreement to establish ZAMCOM; an agreement to establish the Joint Ruvuma River Water Commission and 1997 United Nations Watercourses Convention. The convention for the establishment of a Joint Water Commission for Songwe River Basin is in the process of ratification.

6. A feasibility study, ESIA, and detailed design for multipurpose dams of Farkwa in Dodoma, Lugoda/Ndembera in Iringa, and Kidunda in Morogoro have been completed. Design for rehabilitation of five dams in the Internal Drainage Basin has been completed and one dam out of the five has been rehabilitated. Thirty boreholes were drilled in Pangani Basin to promote conjunctive use of groundwater and surface water for social and economic development, out of which twenty-two were successful. Installation of electricity and pumps is in progress.

7. In the water quality subcomponent of WRM, the following key achievements have been realized:

- Analytical chemicals and equipment for 16 laboratories and the Ngurdoto Research Station were procured and distributed to the respective laboratories. This has improved analytical performance among laboratories.
- There has been significant improvement in the availability of reliable water quality data and information for various uses.

- One laboratory (Mwanza Laboratory) has been accredited by the Southern African Development Community Accreditation Services and given a special identification number, TEST-50011 (chemical analysis to ISO/IEC 17025:2005).
- Public awareness on de-fluoridation technology and its importance in reducing health-related risks associated with high level of fluoride has increased among community members and institutions.
- Two laboratories (Bukoba and Shinyanga) have been rehabilitated while Kigoma and Singida laboratories are being constructed.
- The quality status of new and existing water supply sources in rural and urban areas have been established and the best available treatment technology was recommended.

Rural Water Supply and Sanitation Component

8. This component has managed to improve provision of clean, adequate, and safe water and promotion of improved hygiene and sanitation services in rural areas in the LGAs. The coverage of RWS service has risen from 54 percent at the inception of the program in 2006/2007 to 69 percent in December, 2015. These services are provided from 89,461 cumulatively constructed and maintained water points serving 21,910,562 beneficiaries.

9. Under the initiative of improving water services for at least 10 villages in each LGA, a total of 22,941 water points have been constructed from 852 water projects in 1,144 villages serving 5,246,382 people. For projects outside the 10-villages initiative, 5,720 water points were constructed in 283 completed water projects at 414 villages, serving 1,464,180 beneficiaries as of December 2015 from June 2013.

10. Out of 6,408 villages with COWSOs planned to be established, 1,821 (28.42 percent) are in place as of December 2015. In total there are 901 COWSOs registered by the new WSS Act No. 12 of 2009.

11. The MoWI has prepared a database for all water points in RWS projects, which is known as the WPMS. To ensure quality of data and a proper updating mechanism on the status of new and existing water points, the ministry has established a CDMT which will be the custodian of all water sector data in RWS subprogram. The ministry has distributed GPS devices to 125 LGAs in Mainland Tanzania for the purpose of capturing coordinates and related information of newly constructed water points to be uploaded in the system.

Sanitation and Hygiene

12. With regard to the NSC, the implementation is in progress in 163 LGAs in all regions. In these LGAs, a total of 6,184 villages have been sensitized with 17,220 sub-villages signing the declarations to end open defecation. At household levels, the project has resulted in 1,030,817 (68 percent) out of the overall targeted 1.52 million households gaining access to improved sanitation. However, weighed against the target (1,251,349 households) for the released funds as of September 30, 2015, the percentage achievement on household sanitation stands at 82 percent. On the side of hygiene, 625,676 (50 percent) handwashing facilities have been constructed. On the other hand, progress on school WASH, indicates that 1,680 against 812 schools targeted have constructed/rehabilitated their toilets. Out of 1,680 schools, 1,168 were able to achieve this through NSC funds and 512 through other sources such as the council's own source, community initiatives, and DPs (earmarked and others). In addition, 1,913 schools have active sanitation and hygiene clubs to promote and maintain the culture of cleanliness.

13. With regard to the NSC, a lot of efforts on capacity building was directed on the training of the national and subnational community-led total sanitation (CLTS) facilitators and local masons. The trainings yielded 677 CLTS facilitators throughout the country being trained by the Ministry of Health, Community

Development, Gender, Elders and Children. The facilitators at the LGA level cascaded the trainings at ward level to obtain grass route CLTS facilitators groomed to serve communities in their localities. In addition, a number of district and ward WASH focal persons were trained and oriented on the use of school WASH guidelines and the toolkit.

Urban Water Supply

14. Investment and capacity building under WSDP I has benefited 23 regional centers, water supply and sanitation authorities (WSSAs) through provision of safe and clean water to 1,960,750 additional people because of the construction of additional 179,950 domestic connections and 645 additional kiosks. Currently, 4,136,800 people have access to water supply through 363,655 domestic connections and 2,001 kiosks in the 23 regional towns, which is equivalent to 86 percent of urban population.

15. Parallel to increased water connections, the average percentage of NRW, decreased from 37 percent in 2007 to 35 percent in December 2015. The MoU signed between the MoWI and the regional UWSSAs, requires the regional UWSSAs to achieve the NRW target of 20 percent. The MoWI will continue to follow up on the UWSSAs with high NRW to draw up a framework for dealing with NRW to be undertaken by all utilities. Currently there are 15 registered Category 'A' utilities comprising 13 regional centers UWSSAs, DAWASA and one district town WSSA (KAHAMA WSSA).

16. On the sewerage, 231,825 additional people have access to sewerage services through 19,111 additional connections equivalent to 20 percent of urban population for Dar es Salaam and 10 WSSAs with sewerage services altogether. For the coming WSDP phase, on-site sanitation and off-grid sludge disposal systems will also be monitored.

17. In Dar es Salaam, DAWASCO has been involved in improving service delivery resulting in 1,442,585 additional people benefiting from the program. Areas serviced by DAWASA, which include Kibaha, Bagamoyo, and Dar es Salaam City have been provided with access to safe and clean water supply through additional 94,999 domestic connections and 88 additional kiosks. There are currently 148,000 water supply connections and 203 kiosks in sub-urban areas of Dar es Salaam. A total of 2,260,600 people equivalent to 68 percent are served with safe and clean water.

18. In the district towns WSSAs, small towns and national projects, the program has benefited 958,420 additional people through 69,667 additional domestic connections and 1,047 additional kiosks. The program in Dar es Salaam, regional WSSAs, district towns WSSAs, and national projects has benefited 4,361,755 additional people totaling to 8,637,530 with access to clean and safe water. Spillover projects after closure of WSDP I will be implemented using finance of the GoT.

Institutional Strengthening and Capacity Building

19. During WSDP I, a total of 106 offices have been constructed and 73 office buildings rehabilitated for WSDP IAs; 254 motor vehicles, 477 motor cycles, 1,248 various office equipment including computers, printers, scanners, photocopiers, and so on and an assortment of communication and networking equipment have been procured, delivered, and distributed to all WSDP IAs. About 85 percent of offices at Ubungu Maji have been connected with local area network/wide area network.

20. The PCU has facilitated sector coordination; dialogue mechanism implemented as scheduled and reporting has been improving over time. Annual reviews, financial audits, and performance assessments were conducted as planned with an exception of technical audits, which were done thrice in six years instead of annually.

21. Coordination has been strengthened between the MoWI and line ministries by conducting meetings such as TWG2, and Joint Water Sector Review to discuss and deliberate on issues raised in the monitoring reports, supervision missions and other critical management aspects of RWSS. These meetings used to track progress of implementation of program activities and advise accordingly.
22. The sector communication strategy was developed and disseminated to LGAs, WSSAs, and BWOs. A total of 93 radio and TV programs and adverts were aired. More than 40,000 posters and fliers were distributed to stakeholders especially during Maji Week events.
23. In Human Resources, a total of 958 new employees were recruited and deployed to the MoWI and various other outpost stations. Also, a total of 9,787 staff from all the WSDP IAs were trained in groups. Out of those, 8,669 were trained from 2007 to June 2014; and 1,118 were trained during the FY14/15 (annex 2). As a result, the ability of the ministry to execute its mandated tasks has improved.
24. The MoWI ICT strategy was approved in 2010 and the ICT unit, which coordinates the functional WSDP MIS has been strengthened. The MIS has contributed a great deal in improving WSDP financial reporting. Currently, efforts are underway to make sure that the MIS also produces progress reports.
25. Out of 2,586 planned procurements and contract management activities, 2,239 contracts were awarded to successful bidders. Out of the awarded contracts, 1,621 contracts have been completed and 617 contracts are in progress; 46 contracts were initiated but not yet signed, 252 contracts have been cancelled.
26. The program managed to recruit technical assistants for Procurement, M&E, FM, and Safeguard. The technical assistants for Components 1, 3, and 4 were successfully procured and delivered relatively good results. The program faced operational difficulties with the technical assistants for Component 2 whose contract was later terminated. Currently, the component has another technical assistant who started working from December 2015.
27. The following has been achieved in the Water Development and Management Institute: (a) 14 staff rooms capable of accommodating 28 staff have been rehabilitated, 998 chairs with writing tops have been supplied and fixed in 9 classrooms, and the library has been furnished and 2,098 books purchased; (b) the computer laboratory has been renovated, furnished and 100 computers installed for training of students; (c) 5 laboratories have been rehabilitated and their respective equipment and instruments purchased; (d) 3 double cabin pick-ups and one minibus have been procured for students use including study tours; and (e) 1 generator of 250 KVA capacity has been procured and installed.
28. Earthwork machine, groundwater exploration, drilling machines, office and design and soil laboratory equipment were procured for the DDCA. The support from the program has enabled the DDCA to increase its capacity over the years as follows: (a) groundwater survey - the capacity has increased from covering 300 sites to 500 sites per year; (b) drilling activities - number of days spent at each site reduced from about 2 weeks to 5 days per site and the capacity to drill increased from 300 to 400 sites per year.
29. Since 2007, a total of 3,241 boreholes have been drilled in the country with a success rate of 85 percent and (c) construction of small and medium dams; 20 constructed, 6 rehabilitated, 46 designed, and 69 soil investigations and testing performed for dam construction purposes. As a result of the improved capacity of the agency, drilled boreholes have contributed to a cumulative yield of 174,440,342 m³/day, which is a considerable contribution to new water sources in the country. On the other hand, the dams constructed have a combined total storage capacity of 5,609,603 m³.
30. **Environmental management.** The environmental management unit has been established at the ministry to provide technical guidance and offer follow ups (monitoring) to all IAs to adhere to the ESMF

and guidelines regarding implementation of projects done by all WSDP components. Safeguard instruments guiding the implementation of safeguards management measures in different projects implemented under WSDP I were developed including the ESMF, RPF, and Guidelines of Good Environmental and Social Practices.

31. There has been a gradual paradigm shift of implementing safeguard measures in WSDP I as one of the important tools of enhancing environmental and social sustainability in all projects which were planned to be implemented in WSDP I. The Water Sector Status Report (2015) indicates that a total of 1,075 projects were planned to be screened, then the screened projects were classified into different categories in the components for safeguards compliance. Screened projects determined whether to continue with the study of undertaking of PSEA/ESIA and Resettlement Action Plan in all 968 out of 1,075 projects under WSDP I after being screened (Categories A, B, and C). Up to the end of WSDP I as reported in this report (annexes 3.1 and 3.2), a number of projects subjected to Category A, B, and C were already at different stages of final implementation.

32. All projects that required land acquisition and resettlement reallocation before project implementation adhered to the RPF as a safeguards instrument and guided the preparation of the Resettlement Action Plan. Eventually, project-affected people fully participated in the process of valuation and compensation was done accordingly.

Evaluation of the Performance of the World Bank and Other DPs

33. The performance of the World Bank carrying out its fiduciary tasks delegated to it by the other DPs has been rated as Satisfactory. The sector was supervised closely on a regular basis and in accordance with the agreed water sector dialogue mechanism guided by the WSDP-MoU. The specified expertise representing procurement, FM, safeguards, monitoring and supervision, capacity development, and all technical aspects were dedicated to this arena.

34. The World Bank took the lead in critically reviewing the submitted requests/documents for any procurement, safeguard, and financial matters and granted a 'no objection' based on the set criteria. The response for any query was mainly to solve any implementation challenges. Also for the matter of improving the quality of the documents submitted, the World Bank provided tailor-made procurement training to the Government and IA officers to improve the quality and speed of any submissions to the World Bank.

Evaluation of the Performance of the Government

35. The performance of the Government was Moderately Satisfactory. High commitment has been observed throughout the program implementation in ensuring the agreed counterpart fund is available and the allocated fund for the WSDP is transferred to the respective IAs and all financial accountability measures are done. To ensure proper oversight and coordination of the WSDP, a PCU with adequate number of staff was established to coordinate the WSDP in accordance with the MoU. Also, collaboration with line ministries (MoHSW, PMO-RALG, MoF, and Ministry of Education and Vocational Training) was facilitated and the MoU between ministries was signed. Also, as a key implementer, the M&E and general oversight role was performed; the MoWI and water sector stakeholders prepared and approved policy, strategies, manuals, guidelines, and other working instruments to be provided to the IAs for easy WSDP implementation.

36. Since the WSDP is probably termed to be the first and the biggest program in Sub-Saharan Africa, shortcomings such as inadequate routine monitoring and reporting on outcomes as well as shortage of staff within the sector were recorded sometimes in some areas.

Lessons Learned

37. **Flow of fund.** Delays in the release of funds for project implementation have led to the inflated costs because of unpaid contracts and an ultimately slow pace in achieving the targets. An in-depth analysis of the fund flow arrangement for the water sector was done by stakeholders and they jointly agreed on the need for the MoWI to expedite the establishment of a Tanzania Shillings holding account at the Bank of Tanzania to rectify the existing problem.

38. **Credibility of data.** Data quality (collection, analysis, and reporting) has been a challenge in WSDP I, especially for the rural subsector. Though there were some improvements noted in the course of implementation, especially after the establishment of the WPMS, still the MoWI, in coordination with the PO-RALG, needs to quickly enhance data collection, verification, and a regular updating mechanism for proper WSDP implementation.

39. **Staffing.** During the start of implementation of WSDP I, the PMU (MoWI) was inadequately staffed and did not have sufficient capacity and knowledge in donor-funded projects. This contributed to a slow pace in the procurement process and increased the number of addendums and variation because of lack in knowledge of contract management.

40. The key lessons learned are (a) recruitment of staff at all levels should be done directly from institutions recognized by the Government according to establishments to fill the gap to the IAs; (b) the Government should budget for O&M activities at all levels of water supply projects; and (c) clustering/twinning of the utilities has to be implemented. This will enhance the capacity of the small towns, which seemed to be under capacitated in the WSDP.

Annex 6. Comments of Co-financiers and Other Partners/Stakeholders

1. The document was circulated to the other donors supporting the sector program for their review and input. The other donor comments reflected that the document captured the key progress, challenges and lessons emerging from the program. Specific comments were received from AfDB and DFID.

2. DFID's comments focus on the shifting preference of communities to more expensive technology, the lack of private sector and the GoT's capacity, specifically institutional capacity through addition positions put in place through the program. AfDB's comments emphasized the importance of the BRN in prioritizing investment in the sector and financial commitments of the GoT to complete ongoing schemes supported by the program.

3. In addition the AfDB conducted an evaluation of the program, and based on the findings of this evaluation, comments are listed in the following paragraphs.

4. Component 2 of the WSDP I, supported through basket funding by the AfDB's RWSS Program, has made significant institutional and technical progress. The former was a prerequisite for the latter, although it took longer than necessary to lay the foundation for the accelerated rates of implementation that began to emerge in the latter years of Phase I. Outputs have been stronger at the level of outputs than of outcomes. Neither technical nor institutional progress has been adequate, and significant enhancements are still needed in both areas before there can be a genuine prospect of sustainable outcomes, full impact, replicability, and achievement of national water and sanitation targets.

5. **Lessons learned.** The AfDB's impact evaluation suggests a number of lessons that arise from the implementation of the RWSS Program within Component 2 of the WSDP I.

- The efficiency and effectiveness of an otherwise sound and competent program can be seriously compromised by inefficient management of funds at the central government level.
- A second major factor affecting the viability and sustainability of rural water and sanitation in Tanzania, as currently designed, is the recurrent budgeting for LGAs. The current levels of budget subventions to Council Water and Sanitation Teams gravely compromise the sustainability of the WSDP Component 2 achievements to date.
- For a rural WSP to be adequately effective, it is essential that the water and sanitation components be adequately coordinated, preferably through an integrated program under the authority of a single ministry. The coordination and integration are needed at the central and local government levels and should lead to coordinated implementation at the community level.
- Despite the apparent general understanding and acceptance among the public in rural Tanzania that water is an economic good for which users should pay, the depth of poverty is such that many people are prepared to turn away from an improved water supply to an unimproved one when the latter is fairly readily available (in the rainy season). This has important implications for the achievement of the health outcomes that improved rural water supplies are expected to achieve.
- Policy expectations about the role of the private sector in the rural water and sanitation sector can be fulfilled during the design and implementation phase of new schemes, but current conditions make it difficult for users to pay for private sector services during the O&M phase,

and the private sector is consequently inadequately developed in rural Tanzania with regard to such services. An ongoing public sector role in support of O&M must be anticipated.

- The development of community-based institutions for the ownership and operation of rural water supplies and the continuing advocacy of appropriate sanitation and hygiene should not be viewed as a one-time event. Ongoing institutional maintenance is a prerequisite for sustainability in the sector. The public sector has an ongoing responsibility to ensure that this maintenance takes place—although elements of the required support services could, in theory, be provided by the private sector.
- In the technical, institutional, economic, and market conditions of rural Tanzania, the use of diesel-based technologies for RWS is challenging. Many COWSOs or other user institutions are incapable of operating and maintaining diesel generators efficiently for their full design life. Alternative technologies, where feasible, are likely to be preferable.

6. **Recommendation.** On the basis of the findings of the AfDB evaluation, they recommend the following:

- The responsible ministries should expedite reforms to public FM systems that ensure predictable, smooth, and timely transfer of domestic and donor funding to the LGAs for the development, operation, and maintenance of rural water and sanitation systems and programs.
- Within feasible fiscal limits, the Government should strive to increase recurrent funding to Council Water and Sanitation Teams.
- The Government should undertake a careful review of affordability issues as they relate to the provision of the National Water Policy for users to pay for improved rural water supplies. While current poverty levels persist, the effectiveness of these improved supplies in enhancing health outcomes will remain compromised while users turn to unimproved water for financial reasons.
- The Government should recognize that, at least for the remainder of the WSDP period (to 2025), most COWSOs will be unable to pay in full for maintenance and replacement costs of their water supply infrastructure. It should, therefore, replace the current ad hoc approach to financial support from the LGAs to COWSOs for these costs with revisions to the National Water Policy that specify what types of COWSO maintenance and repair cost will be subsidized and how. It should adjust budgetary subventions to the LGAs accordingly.
- Policy and procedures for RWS and sanitation should recognize, more explicitly, that long-term institutional maintenance is vital for the sustainability of COWSOs and, therefore, for the sustainability of the program as a whole. Personnel, training, and recurrent budgets should be adjusted to reflect this reality.
- In WSDP II, the NSC should be reintegrated with programs for the development of rural water supplies, under a single management structure—which could span two ministries.
- The MoWI should expedite existing efforts to review and develop the options of main electricity connections and solar technologies for RWS systems using groundwater.

Annex 7. List of Supporting Documents

1. Project Appraisal Document.
2. Financing Agreement.
3. Amended MOU between GoT and DPs, June 28, 2011.
4. Amendment to MOU between GoT and DPs, June 24, 2013.
5. Project Restructuring Papers.
6. Mission Aide Memoires and Back to Office reports.
7. Implementation Status Reports.
8. Program Implementation Manual for WSDP dated February 2007.
9. Resettlement Policy Framework Dated September 2006.
10. Environmental and Social Management Framework dated September 2006
11. Draft Final Resettlement Action Plan for Environmental and Social Impact Assessment for Upgrading the Kidunda Dam Access Road, August 2014
12. Water Supply and Sanitation Act, 2009
13. Water Resource Management Act, 2009
14. Water Sector Development Program Phase II, July 2014
15. Water Sector Status Report, November 2015
16. Final Borrower's Implementation Completion Reports, 2016
17. World Bank/WSP.2011. *Enabling Environment End-line Assessment: Tanzania.*
18. World Bank.2011. *Impact Evaluation of Large-Scale Sanitation and Hygiene Interventions.*
19. World Bank.2012. *PPP in Water Supply and Sewerage Services in Dar Es Salaam.*
20. World Bank/WSP.2012. *Economic Impacts of Poor Sanitation In Africa: Tanzania.*
21. World Bank/WSP. 2012 *Scaling Up Handwashing and Rural Sanitation: Findings from a Baseline Survey in Tanzania.*
22. World Bank/WSP.2014. *Surveys on Rural Water Supply in Tanzania.*
23. World Bank.2016. *Improving Sustainability of Rural Supply: Lessons from Tanzania.*
24. Ruth Carlitz. 2016. *Money Flows, Water Trickles: Explaining the Disconnect between Spending and Improved Access to Clean Water in Tanzania.*

25. DFID Final Draft Report on Measuring and Maximizing Value for Money of Rural Water Supply Investment in Tanzania – January 2016.
26. AfDB Impact Evaluation of Rural Water Supply and Sanitation Program, December 22, 2015.
27. JICA/ OPML. *Evaluation of the Water Sector Development Programme* Tanzania, April 2013

