

Document of
The World Bank

Report No: ICR00003937

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IBRD-79220)

ON A

LOAN

IN THE AMOUNT OF EUROS 105.2 MILLION AND US\$35 MILLION
(US\$175 MILLION EQUIVALENT)

TO THE

OFFICE NATIONAL DE L'EAU POTABLE (ONEP)
(NATIONAL POTABLE WATER AUTHORITY)

WITH THE GUARANTEE OF THE
KINGDOM OF MOROCCO

FOR A

REGIONAL POTABLE WATER SUPPLY SYSTEMS PROJECT

June 22, 2017

Global Practice Water, GWA05
Country Department, MNC01
Middle East and North Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective as of June 30, 2016)

Currency Unit = Moroccan Dirham (MAD)

MAD 9.7154 = US\$ 1.00

US\$ 1.00 = € 0.8798

€ 1.00 = US\$1.1367

MAD 11.0432 = € 1.00

MOROCCO FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ENGLISH		FRENCH	
Aide-Memoire	AM	-	-
Autonomous Inter-Municipal Water and Electricity Distribution Authority of El Jadida and Sidi Bennour	-	Régie Autonome Intercommunale de Distribution d'Eau et d'Électricité des Provinces d'El Jadida et de Sidi Bennour	RADEEJ
Autonomous Inter-Municipal Water and Electricity Authority of the Safi Province	-	Régie Autonome Intercommunale de Distribution d'Eau et d'Electricité de la Province de Safi.	RADEES
Country Assistance Strategy	CAS	-	-
Cost-Benefit Analysis	CBA	-	-
Country Management Unit	CMU	-	-
Country Partnership Strategy	CPS	-	-
Country Partnership Framework	CPF	-	-
Rural Municipality	-	Commune Rurale	CR
Department for Access to Potable Water	-	Direction Généralisation de l'Eau Potable (ONEP)	DEP
General Department of Hydraulics	-	Direction Générale de l'Hydraulique	DGH
Moroccan Dirham	DH	-	-
Environmental Assessment	EA	-	-
Environmental and Social Management Plan	ESMP	-	-
Economic Rate of Return	ERR	-	-
Financial Management	FM	-	-
Financial Monitoring Report	FMR	-	-
Financial Rate of Return	FRR	-	-
Program for Universal Access to Potable Water Supply	-	Programme de Généralisation de l'Eau Potable	GEP
Operator	-	Gardien Gérant	GG
Government of Morocco	GOM		
Household Connection	HC	Branchement Individuel	BI
International Bank for Reconstruction and Development	IBRD	-	-
Implementation Completion Report	ICR	-	-

Investment Project Financing	IPF	-	-
Implementation Status Report	ISR	-	-
Land Acquisition Framework	LAF	-	-
Millennium Development Goals	MDG	-	-
Ministry of Energy, Mines, Water and Environment	-	Ministère de l’Energie, des Mines, de l’Eau et de l’Environnement	MEMEE
Middle-Income Country	MIC	-	-
Mid-Term Review	MTR	-	-
Monitoring and Evaluation	M&E	-	-
Operation and Maintenance	O&M	-	-
Net Present Value	NPV	-	-
Output-Based Aid	OBA	-	-
National Electricity and Potable Water Board	-	Office National de l’Electricité et de l’Eau potable	ONEE
National Potable Water Board	-	Office National de l’Eau potable	ONEP
Project Appraisal Document	PAD	-	-
Water Supply Program for Rural Populations	-	Programme d’Approvisionnement Groupé en Eau Potable des Populations Rurales	PAGER
People Affected by the Project	PAP	-	-
National Liquid Sanitation and Wastewater Treatment Program	-	Programme National d’Assainissement Liquide et d’Épuration des Eaux Usées	PNA
National Rural Sanitation Program	-	Programme National d’Assainissement Rural	PNAR
Project Development Objective	PDO	-	-
Project Implementation Unit	PIU	-	-
Results Framework	RF	-	-
Rural Water Supply	RWS	-	-
Rural Water Supply and Sanitation	RWSS	-	-
Specific Investment Loan	SIL	-	-
Social Mobilization Team	SMT	-	-
Standpipe	SP	Borne-fontaine	BF
Technical Assistance	TA	-	-
Value Added Tax	VAT	-	-
Water Supply and Sanitation	WSS	-	-
Water User Association	WUA	-	-

Senior Global Practice Director:	Guang Zhe Chen
Country Director:	Marie Françoise Marie-Nelly
Sector Manager:	Steven N. Schonberger
Project Team Leader:	Stephane Raphael Dahan
ICR Team Leader:	Antonio Manuel Rodriguez Serrano
ICR Authors:	Antonio Manuel Rodriguez Serrano Elizabeth Hunter Eiseman

MORROCO
REGIONAL POTABLE WATER SUPPLY SYSTEMS PROJECT

CONTENTS

DATA SHEET	
A. Basic Information.....	i
B. Key Dates	i
C. Ratings Summary	ii
D. Sector and Theme Codes.....	ii
E. Bank Staff.....	iii
F. Results Framework Analysis	iii
G. Ratings of Project Performance in ISRs	ix
H. Restructuring.....	ix
I. Disbursement Profile	x
REPORT	
1. Project Context, Development Objectives and Design.....	1
1.1 Context at Appraisal	1
1.2 Original Project Development Objectives (PDO) and Key Indicators (as approved)	3
1.3 Revised PDO (as approved by original approving authority) and Key Indicators	3
1.4 Main Beneficiaries.....	3
1.5 Original Components (as approved).....	3
1.6 Revised Components	5
1.7 Other significant changes	5
2. Key Factors Affecting Implementation and Outcomes	6
2.1 Project Preparation, Design and Quality at Entry	6
2.2 Implementation.....	10
2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization	12
2.4 Safeguard and Fiduciary Compliance.....	13
2.5 Post-completion Operation/Next Phase	15
3. Assessment of Outcomes.....	17
3.1 Relevance of Objectives, Design and Implementation	17
3.2 Achievement of Project Development Objectives.....	17
3.3 Efficiency.....	18
3.4 Justification of Overall Outcome Rating	20
3.5 Overarching Themes, Other Outcomes and Impacts	20

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops	21
4. Assessment of Risk to Development Outcome.....	22
5. Assessment of Bank and Borrower Performance	23
5.1 Bank Performance	23
5.2 Borrower Performance.....	24
6. Lessons Learned	26
7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners.....	27
Annex 1. Project Costs and Financing.....	28
Annex 2. Outputs by Component	29
Annex 3. Economic and Financial Analysis	31
Annex 4. Bank Lending and Implementation Support/Supervision Processes.....	36
Annex 5. Beneficiary Survey Results	38
Annex 6. Stakeholder Workshop Report and Results.....	39
Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR	40
Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders	46
Annex 9. List of Supporting Documents	47

Data Sheet

A. Basic Information			
Country:	Morocco	Project Name:	MA-Regional Potable Water Supply Systems Project
Project ID:	P100397	L/C/TF Number(s):	IBRD-79220
ICR Date:	08/08/2016	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	Office National de l'Electricité et de l'Eau potable (ONEE) with a guarantee by the Government of Morocco
Original Total Commitment:	USD 175.00M ¹	Disbursed Amount:	USD 96.22M
Revised Amount:	-		
Environmental Category: B			
Implementing Agencies:			
Office National de l'Electricite et de l'Eau Potable (ONEE) Branche Eau Avenue Mohamed Belhassan El Ouazzani 10220 Rabat-Chellah Kingdom of Morocco Tel: (212-537) 759-600 Fax: (212-537) 759-106			
Cofinanciers and Other External Partners: N/A			

B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	01/14/2009	Effectiveness:	07/15/2010	02/15/2011
Appraisal:	10/26/2009	Restructuring(s):	-	05/09/2013 12/23/2015
Approval:	06/15/2010	Mid-term Review:	09/15/2014	09/22/2014
		Closing:	12/31/2015	06/30/2016

¹ As stated in section 2.01 of the Loan Agreement, "the Bank agrees to lend to the Borrower, on the terms and conditions set forth or referred to in this Agreement: (a) the amount of one hundred five million two hundred thousand Euros (€105,200,000); and (b) the amount of thirty five million Dollars (US\$35,000,000) as such amounts may be converted from time to time through a Currency Conversion in accordance with the provisions of Section 2.07 of this Agreement ("Loan"), to assist in financing the project described in Schedule 1 to this Agreement ("Project")."

C. Ratings Summary

C.1 Performance Rating by ICR

Outcomes:	Unsatisfactory
Risk to Development Outcome:	Substantial
Bank Performance:	Unsatisfactory
Borrower Performance:	Unsatisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)

Bank	Ratings	Borrower	Ratings
Quality at Entry:	Unsatisfactory	Government:	Moderately Unsatisfactory
Quality of Supervision:	Unsatisfactory	Implementing Agency/Agencies:	Unsatisfactory
Overall Bank Performance:	Unsatisfactory	Overall Borrower Performance:	Unsatisfactory

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):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Unsatisfactory		

D. Sector and Theme Codes

	Original	Actual
Major Sector/Sector		
Public Administration		
Public administration- Water, sanitation and flood protection	5	5
Water, Sanitation and Waste Management		
Water Supply	100	95
Major Theme/Theme/Sub Theme		
Urban and Rural Development		
Rural Development	80	80
Rural Infrastructure and service delivery	80	80
Urban Development	20	20
Urban Infrastructure and Service Delivery	20	20

E. Bank Staff		
Positions	At ICR	At Approval
Vice President:	Hafez M. H. Ghanem	Shamshad Akhtar
Country Director:	Marie Françoise Marie-Nelly	Françoise Clottes
Practice Manager:	Steven N. Schonberger	Francis Ato Brown
Project Team Leader:	Stephane Raphael Dahan	Pier Francesco Mantovani
ICR Team Leader:	Antonio Manuel Rodriguez Serrano	
ICR Primary Author:	Antonio Manuel Rodriguez Serrano Elizabeth Hunter Eiseman	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The Project development objective (PDO) is to increase access to potable water supply for selected communities in the project provinces of Nador, Driouch, Safi, Youssoufia, Sidi Bennour, and Errachidia.

In the Loan Agreement:

The objective of the Project is to increase access to potable water supply for selected local communities in the Project Provinces.

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

The PDO was not revised.

(a) PDO Indicator(s)

PDO Indicators	Baseline Value 2010	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
PDO Indicator 1	Number of people in villages of project areas with access to potable water through standpipe or house connection service			
Value	0	336,000	N/A	2,161
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.64%. Although treatment plants, regional trunk lines, pumping stations, reservoirs and secondary networks were almost completed during implementation, the tertiary network remained largely incomplete and the majority of the SPs constructed are not connected or not operational (see Annex 2).			
PDO Indicator 1.a	Number of people in selected villages of project areas in the Nador and Driouch provinces with access to potable water through standpipe or house connection service			
Component 1.a				
Nador/Driouch				
Value	0	76,000	N/A	2,161
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 2.84%. Of the 591 SPs constructed, only 11 are operational. 88 of the SPs are connected to the network but are pending operational arrangements. Communities have struggled to find			

	operators willing to manage water distribution and sales in part because of the low pay. Another reason for the high number of non-functioning SPs is that most communities wanted HCs service and saw the intermediary SP solution as a risk to the timing of HC development.			
PDO Indicator 1.b Component 1.b Safi Youssoufia / Sidi Bennour.	Number of people in selected local communities located in project areas in the Safi Youssoufia or Sidi Bennour provinces with access to potable water through standpipe or house connection service.			
Value	0	260,000	N/A	0
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. None of the 1,092 SPs constructed is connected to the network. The commissioning of SPs services will only be effective after the treatment plant, trunks, secondary networks, pumping stations, reservoirs and tertiary network are completed.			
PDO Indicator 2	Number (or percentage) of people in villages of project areas served by HC			
Value	0%	55%	N/A	0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. Although treatment plants, regional trunk lines, secondary networks, pumping stations, and reservoirs were almost completed during implementation, the tertiary network remained largely incomplete (see Annex 2). Moreover, the inclusion of HC targets in the results framework was disconnected from the Project's investments. HC-service development was outside of the financing scope of the loan and pivoted on community contributions. It should be noted, however, that World Bank projects that were being implemented in parallel supported the development of mechanisms for HC connections.			
PDO Indicator 2.a Component 1.a Nador/Driouch	Number (or percentage) of people in villages of project areas located in the Nador and Driouch provinces served by HC			
Value	0%	70%	N/A	0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. At the time of the ICR, no HC was constructed.			
PDO Indicator 2.b Component 1.b Safi Youssoufia / Sidi Bennour.	Number (or percentage) of people in selected local communities located in project areas in the Safi Youssoufia or Sidi Bennour provinces served by house connection			
Value	0%	50%	N/A	0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0%. At the time of the ICR, no HC was constructed.			
PDO Indicator 3	Average volume of water supplied through standpipes (lpcd)			
Value	0	10	N/A	0
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. Information on the volume of water supplied through the 11 SPs that are operational in Nador/Driouch was			

	not available. Nevertheless, this volume is practically zero when averaged by population, including the unserved.			
PDO Indicator 3.a Component 1.a Nador/Driouch	Average volume of water supplied through standpipes (in liters per capita per day) in selected local communities in project areas located in the Nador and Driouch provinces.			
Value	0	10	N/A	-
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. Information on the volume of water supplied through the 11 SPs that are operational in Nador/Driouch was not available.			
PDO Indicator 3.b Component 1.b Safi Youssoufia / Sidi Bennour.	Average volume of water supplied through SP (lpcd) in selected local communities in project areas located in the Safi Youssoufia or Sidi Bennour provinces.			
Value	0	10	N/A	0
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. None of the 1,092 SPs constructed are operational as the Safi treatment plant, trunk lines, secondary networks, pumping stations, reservoirs, and the tertiary network remained incomplete.			
PDO Indicator 4	Average volume of water supplied through HCs (lpcd)			
Value	0	37.90	N/A	0
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. At the time of the ICR, no HC was constructed (see comment on PDO Indicator 2).			
PDO Indicator 4.a Component 1.a Nador/Driouch	Average volume of water supplied through house connections (in liters per capita per day) in selected local communities in project areas located in the Nador and Driouch provinces.			
Value	0	40	N/A	0
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. At the time of the ICR, no HC was constructed (see comment on PDO Indicator 2).			
PDO Indicator 4.b Component 1.b Safi Youssoufia / Sidi Bennour	Average volume of water supplied through house connections (in liters per capita per day) in selected local communities in project areas located in the Safi Youssoufia or Sidi Bennour provinces.			
Value	0	35	N/A	0
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. At the time of the ICR, no HC was constructed (see comment on PDO Indicator 2).			
PDO Indicator 5	Average volume of water supplied through the Tafilalet trunk line			
Value	0	+20%	N/A	+0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0.00%. The reinforcement and rehabilitation of Tafilalet system water production capacity and trunk pipeline works are not completed, so no additional volume of water is supplied through it.			

(b) Intermediate Outcome Indicator(s)

Indicators	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
I.O.1. The rural communities demanding standpipe (SP) or household connection (HC) service have been identified through a demand-driven and participatory approach.				
I.O. Indicator 1.1	% of villages visited to assess demand for standpipe or house connection service through a demand-driven and participatory approach.			
Value	0%	100%	N/A	100%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 100%. All villages visited.			
I.O. Indicator 1.1.a Component 1.a Nador/Driouch	Percentage of villages located in the Nador and Driouch provinces visited to assess demand for standpipe or house connection service through a demand-driven and participatory approach.			
Value	0%	100%	N/A	100%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 100%. All villages visited.			
I.O. Indicator 1.1.b Component 1.b Safi Youssoufia / Sidi Bennour	Percentage of villages located in the Safi, Youssoufia or Sidi Bennour provinces visited to assess demand for standpipe or house connection service through a demand-driven and participatory approach			
Value	0%	100%	N/A	100%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 100%. All villages visited.			
I.O. Indicator 1.2	% of communities that signed SP and/or HC co-financing agreements			
Value	0%	100%	N/A	94.59%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 94.59%. Out of the 37 Rural Communities in the Project provinces, 35 signed co-financing agreements and 2 are in the process of signing.			
I.O. Indicator 1.2.a Component 1.a Nador/Driouch	Percentage of rural communities located in the Nador and Driouch provinces which signed the co-financing agreement corresponding to standpipe and/or house connection service provision.			
Value	0%	100%	N/A	100%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 100 %. All 12 Rural Communities located in the Nador and Driouch provinces signed.			
I.O. Indicator 1.2.b Component 1.b Safi Youssoufia / Sidi Bennour	Percentage of rural communities located in the Safi, Youssoufia or Sidi Bennour provinces which signed the co-financing agreement corresponding to standpipe and/or house connection service provision.			
Value	0%	100%	N/A	92.00%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016

Comments (incl. % achievement)	Achievement rate is 92.00%. All 14 Rural Communities located in Safi and Youssoufia signed. Out of the 11 Rural Communities located in Sidi Bennour, 9 signed and 2 are in the process of signing.			
I.O. Indicator 1.3	% of rural communities that paid the initial up-front fee			
Value	0%	100%	N/A	5.41%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 5.41%. Only 2 out of the 35 Rural Communities in the Project provinces paid the up-front fee paid. The ratio between the number of communities with co-financing agreements signed and those with up-front fee paid of 6%. Communities were more hesitant than expected to pay upfront fees. Despite most communities signed the co-financing agreement, only a few households in Nador have actually paid the initial up-front fee.			
I.O. Indicator 1.3.a Component 1.a Nador/Driouch	Percentage of rural communities located in the Nador and Driouch provinces which have paid the initial up-front fee.			
Value	0%	100%	N/A	8.33%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 8.33%. Only 1 out of the 12 rural communities from Nador and Driouch paid the up-front fee. Around 3,250 households located in the targeted communities in Nador and Driouch, which signed the co-financing agreement, contributed to the initial up-front fee payment.			
I.O. Indicator 1.3.b Component 1.b Safi Youssoufia / Sidi Bennour	Percentage of rural communities located in the Safi Youssoufia or Sidi Bennour provinces which have paid the initial up-front fee.			
Value	0%	100%	N/A	4.00%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 4.00%. Only 1 out of the 11 rural communities from Sidi Bennour paid the up-front fee. None of the households in the 14 targeted communities located in the Safi Youssoufia province, which signed the co-financing agreement, paid the initial up-front fee.			
I.O.2. Arrangements for proper operation and maintenance of the village SP or HC systems are in place.				
I.O. Indicator 2.1.	% of villages for which O&M arrangements are in place			
Value	0%	100%	N/A	2%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 2%. SP operators are appointed in consultation with the communities after the SP is connected. In addition to a limited number of SPs connected to the system, communities have struggled to find operators.			
I.O. Indicator 2.1.a Component 1.a Nador/Driouch	Percentage of villages located in project areas of Nador and Driouch provinces where operation and maintenance arrangements of the village SP or HC systems are in place.			
Value	0%	100%	N/A	10%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 10%. SP operators are appointed in consultation with the communities after the SP is connected. In addition to a limited number of SPs connected to the system, communities have struggled to find			

	operators willing to manage water sales and distribution in part because of the low pay. Another reason for the high number of non-functioning SPs is that communities are waiting for HCs to be installed.			
I.O. Indicator 2.1.b Component 1.b Safi Youssoufia / Sidi Bennour	Percentage of municipalities located in project areas of Safi Youssoufia or Sidi Bennour provinces where operation and maintenance arrangements of the SP or HC system are in place.			
Value	0%	100%	N/A	0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0%. The tertiary network has not been completed.			
I.O.3. ONEP is effectively outsourcing the operation of HC-service.				
I.O. Indicator 3.1.	% of villages with HC-service with O&M outsourced to local operators			
Value	0%	100%	N/A	0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0%. This indicator was included in the PAD but not in the arrangements for result monitoring. Neither ONEP nor the Project team tracked this indicator.			
I.O.4. Solutions for the development of improved individual sanitation facilities have been developed.				
I.O. Indicator 4.1.	% of households served by individual HC that have adequate grey water collection facilities			
Value	0%	55%	N/A	0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0%. No HCs were constructed under the Project.			
I.O. Indicator 4.1.a Component 1.a Nador/Driouch	Percentage of households served by individual HC located in Nador and Driouch provinces which have adequate grey water collection facilities.			
Value	0%	70%	N/A	0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0%. No HCs were constructed under the Project.			
I.O. Indicator 4.1.b Component 1.b Safi Youssoufia / Sidi Bennour	Percentage of households served by individual HC located in Safi Youssoufia or Sidi Bennour provinces which have adequate grey water collection facilities.			
Value	0%	50%	N/A	0%
Date Achieved	05/03/2010	12/31/2015	N/A	06/30/2016
Comments (incl. % achievement)	Achievement rate is 0%. No HCs were constructed under the Project.			

G. Ratings of Project Performance in ISRs

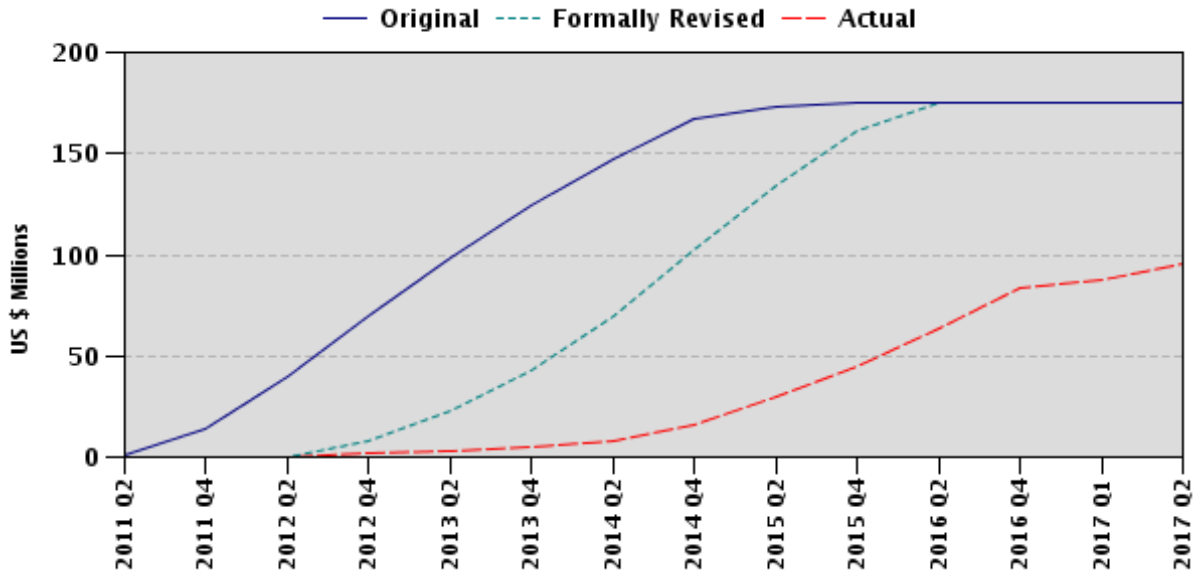
No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	06/30/2010	Satisfactory	Satisfactory	0.00
2	05/11/2011	Satisfactory	Satisfactory	0.00
3	01/10/2012	Satisfactory	Moderately Satisfactory	0.00
4	08/28/2012	Satisfactory	Moderately Satisfactory	1.72
5	06/20/2013	Moderately Satisfactory	Moderately Satisfactory	5.28
6	01/01/2014	Moderately Satisfactory	Moderately Satisfactory	8.29
7	06/22/2014	Moderately Unsatisfactory	Moderately Unsatisfactory	16.28
8	12/19/2014	Moderately Unsatisfactory	Moderately Unsatisfactory	29.07
9	06/12/2015	Moderately Unsatisfactory	Moderately Unsatisfactory	43.74
10	12/29/2015	Moderately Unsatisfactory	Moderately Unsatisfactory	63.37
11	06/08/2016	Unsatisfactory	Unsatisfactory	78.64

H. Restructuring

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		
05/09/2013	No	S	MS	4.64	Project restructured to reflect the change of the borrower's name from ONEP to ONEE in the Project's Loan and Guarantee Agreements. The Office National de l'Eau Potable (ONEP), the original Borrower, was merged (regroupé) with the Office National de l'Electricité (ONE) as mandated by Law 40-09, which was promulgated on September 29, 2011 and made effective on April 24, 2012. The new legal entity resulting from the merger was named the Office National de l'Electricité et de l'Eau potable (ONEE).

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		
12/23/2015	No	U	U	63.37	Project restructuring to extend the project closing date by 6 months, from December 31, 2015 to June 30, 2016. A 24-months extension was deemed necessary to ensure full achievement of the PDO. However, the Bank proposed extending the closing date in two phases. The second phase restructuring, which would have extended the closing date by an additional 18 months, depended on reaching full compliance with OP4.12 requirements and overall implementation progress. The second phase restructuring was not carried out due to the difficulties faced by ONEE to fully meet the conditions set by the Bank coupled with weak project performance.

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1 Context at Appraisal

1. At the time of the Project's Appraisal, the Government of Morocco (GoM) was actively involved in closing the country's poverty gap. Pro-growth reforms, sustained investments and targeted social development and protection reforms were gradually lowering poverty rates. In 1999, 19 percent of Morocco's population lived below the poverty line; by 2007, that percentage had dropped to nine percent. Rural poverty, however, remained a pressing issue. Over two thirds of the population that remained below the poverty line resided in rural areas.

2. Rural poverty was accompanied by limited access to water supply and sanitation (WSS) services. Local Governments, *Communes Rurales* (CRs), were responsible for WSS service provision but had limited capacity to provide these services. To increase access, the GoM launched the Rural Water Program (PAGER). The National Potable Water Board (ONEP)² and the General Department of Hydraulics (DGH) led implementation of the PAGER Program. ONEP connected larger rural centers to its regional water conveyance systems, and the DGH developed standalone systems for remote rural areas. The Program had impressive results. From 1995 to 2004 access to improved water³ increased from 14 to 61 percent in rural areas.

3. Building on this success, in 2004, the GoM launched its Universal Water Access Program (GEP). GEP aimed to extend access to 96.5 percent of the population by 2017. To accelerate results, the GoM designated ONEP as the sole implementing agency. Before GEP, ONEP's responsibilities had been limited to potable water production, transmission in bulk to large urban distribution utilities, and the provision of WSS services to secondary urban and rural centers. With GEP, ONEP became the central sector planner and operator, responsible not only for water production and distribution but also for Rural Water Supply (RWS) and the upgrading of secondary WSS operations. ONEP's increased responsibilities brought capacity issues as well as financial challenges to the fore.

4. The GoM Programs took a two-pronged approach to extending access that included building standpipes (SP) and establishing household connections (HCs). Although national surveys and project evaluation reports indicated 92 percent of rural households aspired to HCs, the Programs primarily supported the construction of SPs to increase access. This was in part because extending access to SPs was adequate for achieving GEP coverage goals. As such, ONEP's strategy was to first extend SPs to improve coverage. Extending HCs posed complications for ONEP given the lack of cost-effective management models that could be rolled out at scale. ONEP had attempted to promote Water User Associations (WUA) to manage systems, but results had been mixed. Nevertheless, the conveyance laterals financed under the GoM Programs were designed for HC-service demand flow rates and underuse of the systems posed a risk to the quality of the water. At the time of Appraisal, ONEP was examining different HC-service management

² ONEP is a state-owned commercial and industrial enterprise with financial and administrative autonomy. Accordingly, it operates as a private sector entity and the systems in place are based on the principles and procedures of the commercial law of the Kingdom of Morocco (BIRD II PAD).

³ ONEP defined improved access as having a standpipe within 100 to 150 meters from the household.

models, ranging from the direct development and operation by ONEP to the full outsourcing of HC-service to local private operators.⁴ The GPOBA-funded rural pilot for HC-service development in Jorf el Melha tested a full outsourcing model that was expected to boost HC service development.⁵

5. Another complication with the expansion of HC connections was the lack of grey water solutions in rural Morocco. Morocco launched a National Sanitation Program for urban areas in 2006 but at the time of Appraisal had not yet developed a national rural sanitation strategy. Rural sanitation was left mainly to individual households and access to improved sanitation solutions was estimated at only 40 percent. ONEP neither had a mandate nor resources to address rural sanitation needs.

6. *Rationale for Bank Involvement.* The Bank had significant experience supporting the Moroccan water sector (See Table 1). In addition to having provided financing for the PAGER program, the Bank was financing since 2005 a Rural Water Supply and Sanitation Project (P086877, known as BIRD I) that supported the launching of the GEP and was focused on extending SP access to the western parts of the Safi and El Jadida Provinces. The Bank’s approval of this Project (BIRD II) and the Oum Er Rbia Sanitation Project (BIRD III) in 2010 represented a consolidation and continuation of the Bank’s support to the sector. A key distinguishing factor between the BIRD II and BIRD I Projects was that rather than tap existing regional trunk lines, BIRD II supported the construction of production infrastructure and regional trunk lines to reach areas with substantial access needs and to increase reliability of supply in urban areas.

7. *Higher Level Objectives.* The GoM was focused on increasing access to potable water in underserved urban and rural areas. The GoM’s 2020 Rural Development Strategy sought to improve conditions in rural areas by increasing access to basic infrastructure and social services. The Project directly supported this Strategy through extending access to Morocco’s most critically underserved areas. The Project also supported both the 2005 to 2009 Country Assistance Strategy (CAS), which developed a “water pillar” aimed at “improving water management and access to water and sanitation services,” and the 2010 to 2013 Country Partnership Strategy (CPS), which stressed developing equitable, sustainable and affordable WSS services.

Table 1. Snapshot of Bank Involvement in the WSS Sector

<i>Years</i>	1997-2002	2005-2014	2007	2010- 2013	2010-2016	2010-2017	2014-2021
<i>Project</i>	Rural Water Supply and Sanitation	Rural Water Supply and Sanitation	Water Sector Developmenta	GPOBA (W1): Morocco Rural Water OBA	Regional Potable Water Supply Systems	Oum Er Rbia Sanitation Project	Rural Water Supply Project

⁴ Output-Based Aid in Morocco (Part 2): Expanding Water Supply Service in Rural Areas – OBA Approaches Note Number 26 (June 2009).

⁵ This model was later assessed by ONEE as the most cost efficient management model and was rolled out with Bank and GPOBA support in areas including Safi Youssoufia.

	Project (P040566)	Project (P086877, BIRD I)	I Policy Loan (P095840)	Schemes TA Grant (P125870)	Project (P100397, BIRD II)	(P098459, BIRD III)	(P145529, BIRD IV)
<i>Financing</i>	USD 10.00M	USD 60.00M	USD 100.00M	USD 0.25M	USD 175.00M	USD 43.00M	USD 158.60M
<i>PDO</i>	To improve the access of rural populations to safe water.	To support the Government program to increase sustainable access to potable water supply in rural areas, while promoting improved wastewater management and hygiene practices.	To provide annual budget support and to sustain the implementation of a broad program of reforms in Morocco's water sector.	To scale up the implementation of OBA water schemes based on the delegation by national utility ONEP of the provision of water services to small -scale private operators in various rural areas of Morocco.	To increase access to potable water supply for selected local communities in the Project Provinces.	To improve the access to sustainable sanitation and pollution reduction service for the dwellers of ten medium and small towns in the Oum Er Rbia river basin.	To provide access to safe and reliable drinking water supply for rural communities in targeted underserved areas in the Project area.

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

8. The Project Development Objective (PDO), as established in the Loan Agreement, was to increase access to potable water supply for selected local communities in the Project Provinces. The PDO in the PAD shared the same objective but specified the names of the selected provinces: Nador, Driouch, Safi, Youssoufia, Sidi Bennour, and Errachidia.

9. The key indicators were: (i) Number of people in villages of project areas with access to potable water through SP or HC service; (ii) Number (or percentage) of people in villages of project areas served by HC; (iii) Average volume of water supplied through SPs; (iv) Average volume of water supplied through HCs; and (v) Average volume of water supplied through the Tafilalet trunk line.

1.3 Revised PDO (as approved by original approving authority) and Key Indicators

10. Neither the PDO nor the Key Indicators were revised during Project implementation.

1.4 Main Beneficiaries

11. The Project aimed to provide 340,000 people in villages and 300,000 people in medium and small cities with access to potable water.

1.5 Original Components (as approved)

12. The Project's components as per the Loan Agreement are presented below. The components in the Project Appraisal Document (PAD) added more detail in respect to HCs. Key information that was included in the PAD and not in the Loan Agreement is also presented below.

Component 1. Water production, conveyance and supply in the Project Provinces:

13. Component 1a. Nador and Driouch Provinces. (1) expansion of the capacity of the raw water pumping station and of the Nador water treatment plant; extension of the raw water pipe network; increase in conveyance capacity through the expansion of a regional trunk line; and (2) construction of about six (6) lateral mains, storage tanks, pumping stations and public standpipes for the supply of selected small urban centers and villages.

14. Additional information from the PAD: “In addition to providing new access to potable water in the above mentioned 185 villages, this component will allow to meet growing water demands in the Al Aroui urban municipality, in new tourist development areas surrounding the City of Nador, and in CRs already served along the Nador-Midar corridor. It is estimated that thanks to such new RWS facilities, village distribution networks for HC-service will also be installed by ONEP and CRs in about 150 of the newly served 185 villages outside of the financing scope of the loan.”

15. Component 1b. Safi, Youssoufia and Sidi Bennour Provinces. (1) construction of an intake, a pumping station and a water treatment plant on the Doukkala High Service Canal; and construction of a new regional trunk line in each of Safi, Youssoufia and Sidi Bennour Provinces; and (2) construction of lateral mains, storage tanks, pumping stations and public standpipes for the supply of selected villages.

16. Additional information from the PAD: “This component will provide new access to potable water and meet demand in approximately 800 villages. It will also enable the further development by ONEP and the CRs, outside of the financing scope of the loan, of distribution networks for HC-service in an estimated 350 to 400 of these villages.”

17. Component 1c. Errachidia Province. Strengthening and rehabilitation of the production and transmission systems of the Tafilalet water scheme, consisting of: provision of equipment for new bore wells; construction of tanks and connection pipelines between the bore wells and the main pipeline; reinforcement of conveyance capacity between selected locations, including construction of new boosting stations; and replacement of pipes and installation of new pipes between selected locations.

18. **Component 2. Environmental Impact Mitigation and Grey Water Management.** Mitigation of the environmental impacts of increased grey water flows in selected rural areas in the Project Provinces, consisting of: (1) support for the development of private sector activities for improved on-site sanitation, through the presentation of compliant sanitation facilities and the provision of training on appropriate techniques, and targeted communication and outreach campaigns; and (2) construction of grey water collection networks in selected areas.

19. In the PAD, this activity is focused on villages that opt for HC-service: “In villages opting for HC services where habitat density and soil conditions may not allow safe grey water disposal by traditional drainage nor by on-site sanitation systems, the Project has included a provision of 36 million DH to allow for the construction of small grey water collection networks.” The PAD also details activities for the development of private sector activities and financing “matches” on a village-by-village basis.

20. **Component 3. Implementation Support and Capacity Building.** (1) Technical assistance in support of Project implementation, including assistance for: management and monitoring of Project activities, carrying out of participatory approaches to service provisions, integration of hygiene and wastewater management with improvement in water supply services, and screening and determining solutions to improve grey water management; (2) Building of the Borrower's capacity to design and implement the outsourcing to private sector providers of the operation and maintenance for household connection service; (3) Technical assistance to develop feasibility studies and designs for household connection distribution system and grey water management system, and to implement pilots of on-site sanitation systems.

21. Additional information from the PAD: "Specific activities identified by ONEP, estimated at MAD 17.89 million include i) new information systems to track RWS project implementation and operation; ii) staff training programs; iii) technology watch activities and study tours, iv) the upgrade of ONEPs customer service information systems to accommodate specific rural HC-service needs, and v) the implementation of a RWS cost-recovery study."

1.6 Revised Components

22. The Project's components were not revised.

1.7 Other significant changes

23. Over the course of implementation, the Project underwent two restructurings. The first restructuring (May 9, 2013) had no impact on Project implementation but was enacted to reflect the merger between ONEP and the National Electric Office (ONE). The resulting organization was named the National Electric and Potable Water Office (ONEE). In this report, we use ONEE or ONEP depending on the context, or simply refer to the organization as "the Office." The name of the Borrower in the Loan Agreement and the Guarantee Agreement was adjusted to reflect this merger. The second restructuring (December 23, 2015) proposed extending the closing date of the Project using a phased approach. Under this restructuring, the Project was granted a six-month extension to resolve land acquisition issues and improve the Project's social safeguard rating. If the Project had successfully resolved these issues, a second restructuring that included an 18-month extension of the closing date would have been considered. For more detail on each of these restructurings see *Section H of the Data Sheet*.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

24. *Background analysis.* ONEP selected Project intervention areas based on provincial master plans that they had developed after in-depth village surveys. The selected areas represented some of the most critically underserved rural areas in Morocco. Extending coverage to these areas directly supported the GoM's goal of narrowing the service gap between rural and urban areas and meeting the Millennium Development Goals (MDGs). ONEP's investment plans included technical solutions and their respective costs for each city and village. The technical designs were prepared based on sound technical criteria, yet social issues, such as the need for land acquisition and the demand for HCs versus SPs, were not incorporated in the designs. The social contexts of the selected provinces, however, were quite distinct. Nador was more urban and was developing at a faster rate than Safi. Nador's population had higher purchasing power and, on a whole, demanded more advanced solutions. Although Safi's communities were not as dispersed as Nador's, the population was on a whole poorer and primarily aspired to SP coverage.

25. The Project built on the experience of the BIRD I Project. At the time of Appraisal, the Project team realized that land acquisition was not being conducted in accordance with Bank policy in BIRD I.⁶ BIRD I had relied on ONEP's "clearly established procedures"⁷ for land acquisition. In contrast, for this Project, the team developed a Land Acquisition Framework (LAF) based on Moroccan legislation and OP 4.12 (*See Paragraph 33 for more detail*).

26. *Project design.* The Project's PDO was straightforward and measurable. The water component responded directly to needs in the sector and directly supported the GEP. The Technical Assistance (TA) component was well aligned with ONEP's need for support, especially in regional offices, and the need to develop models by which ONEP could feasibly extend HC services to rural areas.

27. Although the Project highlighted the demand and need for HCs in rural Morocco, the Project did not finance any HCs. Rather, the Project depended on the rural municipalities, the households and ONEP to finance the HCs.⁸ Despite this "outsourcing" of HC costs, the Project's results framework highlighted HCs (*see M&E Design Section*), and the Project's grey water management component depended on HCs coming to fruition. The design's dependence on HCs was particularly risky given that ONEP was, at the time of Appraisal, focused on extending SPs. ONEP did not include financing for HCs in its request for financing. As mentioned earlier, ONEP's plan was to extend SPs as a first course of action to reach GEP goals. At the time of Appraisal, ONEP was still not ready to extend HCs at scale.

⁶ Rather than following Moroccan legislation for land acquisition processes (as stipulated in the BIRD I Project), ONEP was using a Ministerial Decree to acquire land and to begin construction before measures for compensation had been put in place.

⁷ BIRD I PAD.

⁸ "The cost of village distribution networks and household connections is not covered by the IBRD loan, nor included in the above table. Such cost is to be shared by local governments (50 percent) and by beneficiaries and ONEP (50 percent)." Annex 5, BIRD II PAD.

28. The inclusion of a grey water management component was positive in principle as it anticipated that HCs would be implemented at scale in the future.⁹ Nevertheless, the Project did not actually finance any HCs, and ONEP did not have the capacity to finance and operate rural sanitation systems. In addition to not having a clear mandate to provide grey water services in rural areas, ONEP did not have ample staff to lead these activities and did not see entering the sector as a financially viable move. The inclusion of grey water activities was also risky in terms of the Project implementation timeline as HCs had to be made before¹⁰ the grey water management activities could be carried out. Given the context, complementary TA to support the GoM in the development of sector policy may have been more apt.

29. The bulk of Project financing concentrated on regional water supply infrastructure that ONEP was committed to carrying out. Even though the water treatment plants and regional trunk lines were designed to service both rural and intermediate cities, the Project did not capture urban beneficiaries in the Project's results framework (*See M&E Design Section*). The "value-add" activities (HCs and grey water) reflected needs in Morocco and represented an integrated approach to RWSS but were not well aligned with ONEP's priorities and growth strategies. ONEP was not willing to take steps that would affect its bottom line and extend its responsibilities beyond its actual capacity and mandate. ONEP was one of the highest performing utilities in the region and had access to various sources of financing, enabling it to exercise greater discretion in selecting Project activities.

30. **Implementation Arrangements.** ONEP, the Borrower and implementing agency, had considerable experience implementing Bank-financed projects. Rather than creating a project implementation unit, ONEP utilized its existing structure and staff, with the support of TA, to carry out the Project. ONEP's core strengths lay in carrying out large-scale infrastructure projects. ONEP relied on TA for the overall implementation of the Project. Provincial and regional offices, with support from TA consultants and ONEP's headquarters, were responsible for overseeing the technical, social and environmental studies, community mobilization activities, communication campaigns and the construction and supervision of works. The capacity of each of the provincial offices, however, was not examined at Appraisal. The same implementation structure was utilized for the BIRD I Project.

31. ONEP's mandate was to ensure that the rural population had access to functioning SPs. CRs were expected to establish agreements with ONEP that defined their financial contributions¹¹ as well as responsibilities for infrastructure operation and maintenance (O&M) and service delivery. For example, for SP service delivery, the CRs would usually appoint an operator (*Gardian Gerant*) to manage the SP. The operators would purchase bulk water from ONEP at a subsidized rate and sell to villagers at a maximum price of DH 10/m³.

32. **Safeguards.** Environmental Assessment (OP/BP 4.01) and Involuntary Resettlement (OP/BP 4.12) were triggered at Appraisal. The Project was rated Category B; the requisite partial Environmental Assessment of the Project was finalized in October 2009 and an Environmental

⁹ Adequate sanitation solutions are required before implementing HCs.

¹⁰ Several areas that ONEP serviced already had HCs and were prepared for grey water management activities.

¹¹ CRs were expected to provide 15 percent of the lateral main construction costs, 50 percent of costs for the water distribution networks and 50 percent of costs for wastewater collection networks (BIRD II PAD).

and Social Management Plan (ESMP) was established. Pre-feasibility studies indicated that the Project would not entail physical resettlement or impact the populations' residences or economic activities. Involuntary Resettlement was triggered because of the land acquisition that would take place under the Project. ONEP estimated 59 percent (public and private)¹² of the Project's total land area would have to be acquired to position pipes and erect water tanks, pumping stations and water treatment plants.¹³

33. At Appraisal, there was lack of consensus within the Bank on whether to utilize Bank or country systems to address land acquisition issues. To address this ambiguity, the team developed a LAF. The Project's LAF was based on Morocco's existing regulations and the requirements of OP 4.12. The final draft of the LAF reflected the inputs of ONEP, Bank lawyers and expert consultants. Although the LAF prepared for this Project represented improvement from the BIRD I approach,¹⁴ it did not propose solutions for people who did not have land titles. Moreover, a Land Acquisition Plan (LAP) to guide the implementation of the LAF was not developed at this stage.¹⁵ Although the land that would be impacted by works had been identified, no steps were taken to outline the specific steps and measures that would need to be carried out for the acquisition of each land plot. In addition to a lack of preparedness, ONEP's capacity to carry out land acquisition in compliance with OP 4.12 was overestimated at design (*See Safeguards Implementation Section for more detail*).

34. ***Adequacy of Government Commitment.*** The GoM acted as the guarantor of the Project's loan. The Project's water component was closely aligned with the GoM's priorities and strategic goals. The Project directly supported the GoM's GEP Program, which aimed to extend improved access to 96.5 percent of the population by 2017. Furthermore, the GoM/ONEP 2010 to 2014 Framework Agreement, which outlined the GoM's infrastructure and service development objectives as well as the GOM's commitment to financially support those objectives, was closely aligned with the Project.¹⁶

¹² BIRD II PAD pg. 84

¹³ Land to be acquired represented an average of 0.1 hectare per plot. The Project had minimal overall impact on the livelihood of affected persons. In all cases, the land plots were used for agricultural purposes, and did not require physical relocation of people. The majority of the plots acquired were used to lay out pipes. In these cases, while ONEE technically owns the land, it allows former owners to resume their farming activities on the acquired land plots after completion of works and therefore there is little or no permanent physical impact on livelihoods. The main consequence for affected persons is that they would not be able to sell that land in the future. Source: Memo to the Country Director on the Restructuring of BIRD IV, October 30, 2016.

¹⁴ PAD, BIRD I, Annex 10, Appendix 2, "ONEP already has clearly established procedures for acquisition or temporary occupation of land, and these are in accordance with Moroccan law and acceptable to the IBRD. Therefore, a formal resettlement policy framework document was not prepared. Instead a summary framework for land acquisition has been prepared and disclosed, with the relevant Moroccan legal codes and related ONEP procedures attached." PAD, BIRD II, Annex 10, "The LAF was prepared in accordance with the provisions of this law [Moroccan Law No. 7-81] and according to the requirements of World Bank OP 4.12. Specifically, the proposed policy framework for land acquisition includes measures which ensure that the affected population is: (i) Informed of the options available to them and the rights attached to handing over of land or land transfer; (ii) Consulted, provided with several choices and informed of realistic alternatives to the technical and economic plans; and (iii) immediately provided with compensation, equivalent to total replacement costs for the loss of assets directly attributable to the project. Securing full compliance with OP 4.12 should remain a forefront concern during project implementation and supervision."

¹⁵ The LAP for Errachidia was prepared in December 2014, for Nador et de Driouch Provinces in April 2015, and for the Sadu, Yousseoufia et Sidi Bennour Provinces in April 2015.

¹⁶ The 2010 to 2014 Framework Agreement was organized around the following objectives: (i) the strengthening and expansion of existing production and transmission infrastructure in order to secure the supply of the Kingdom's cities and urban centers; (ii) the completion of the projects related to the Universal Access to potable water for the rural population in order to reach an average access rate of 91 percent throughout the Kingdom; (iii) the implementation of a sewerage investment program in 121

35. In addition, the GoM demonstrated its support of a transition to HC services through endorsing financing rules in 2009 that would make HC-service cost-neutral for ONEP. Beneficiaries would be required to contribute MAD 3,500 for each HC (as opposed to the previous rate of MAD 2,500) and CRs would be responsible for 50 percent of the distribution system capital costs at the village level. CRs under management have a different financial arrangement (30% CR, 70% ONEE). For individual connections, households will have to pay the riparian tax similarly to ONEP.

36. **Assessment of Risks.** The design team rated the Project’s technical aspects as low-risk given the quality of the available technical designs, the site visits carried out during Appraisal and the Bank’s history of working with ONEP. The overall Project risk was rated as *Moderate* given the risks associated with HC and grey water activities. Although risks related to the sustainability of HCs were identified and adequate mitigation measures were proposed, the risk of ONEP supporting the extension of SPs over HCs was not identified. This risk was particularly acute given that Project results and economic benefits depended heavily on the extension of HCs and the Project did not finance any HCs. Beyond TA to increase ONEP’s capacity to design and implement contracts for outsourcing HC-service operations and maintenance under Component 3, the Project included no HC-specific activities.

37. The risks related to grey water activities, namely that the HCs would not be installed and the lack of national policies for rural sanitation, were not identified. In addition, although land acquisition issues became apparent in 2009 in BIRD I, and the BIRD II PAD recognizes that “Securing full compliance with OP 4.12 should remain a forefront concern during project implementation and supervision,” no risks related to the application of the LAF were identified. Furthermore, risks relating to slow procurement processes for TA – an issue that was also apparent in the BIRD I – were not identified.

towns and urban centers and the progressive taking over of the sewerage collection service in all towns and centers where ONEP is operating the potable water distribution system; and (iv) and the implementation of the provisions of Law 69-00 related to the financial control of public enterprises by the State.

2.2 Implementation

38. ***Project readiness and initial procurement delays.*** The Project was approved at a low degree of readiness. The Bank team rushed to bring three Morocco water-related projects to the Board at the same time.¹⁷ Once approved, the Project took eight months to reach effectiveness because of delays preparing the Standard Bidding Documents, which had not been agreed upon prior to Board Approval and formed part of the Project's Operational Manual. Once effective, the Project continued to face delays. Implementation relied on a large TA contract, and although TA had been traditionally difficult to hire in Morocco, the bidding documents were not prepared until after Board Approval. The bidding process for the TA contract took 18 months.

39. In parallel, ONEE had begun a performance-based bid for the construction of two water supply treatment plants (WTPs). ONEE, however, had only one person with the capacity and availability to assess the bids. ONEE received 16 proposals for the extension of the Nador WTP and 13 proposals for the construction of the Safi WTP. The work involved in making these proposals comparable and carrying out the required three rounds of questions and answers was tremendous given that each proposal had a different technical design. ONEE required the assistance of the TA firm to carry out this evaluation. Once contracted, the TA firm spent much of its resources and time evaluating the WTP proposals, further delaying the implementation timeline. By the time the two WTP contracts were launched, nearly three years had passed, and Project implementation remained practically at zero.

40. ***The evolution of Bank supervision on land acquisition issues.*** Land acquisition issues further delayed the Project's implementation timeline. Despite the Project's LAF, during the first years of implementation, ONEE followed its customary practice of beginning works as individual compensation issues were being attended to. In illustration of this, ONEE did not adopt formal Land Acquisition Plans (LAP) for implementation of the LAF until 2014/2015.¹⁸ Although the Team repeatedly raised this issue and the Bank carried out a number of country level reviews on land acquisition, Bank Management did not issue clear instructions on how to address ONEE's lack of compliance with OP 4.12. In addition, safeguard implementation support was weak due to high turnover of social specialists in the Task Team. Overall, during the first years of implementation, there was limited safeguard supervision and limited knowledge (both within the Bank and ONEE) on the status of land acquisition in Project areas. Despite significant issues, the Bank maintained a Satisfactory social safeguards rating until June 2014.¹⁹ The Bank held a lenient view towards land acquisition in Morocco.

41. A series of factors, including changes in the Bank's task and management teams as well as an analysis of land acquisition in ongoing projects carried out as part of the preparation for the Bank-financed Rural Water Supply Project (BIRD IV Project, P145529), brought ONEE's non-compliance with OP 4.12 to the forefront. The high-level revelation that ONEE had not been

¹⁷ BIRD III (P098459) and the Modernization of Irrigated Agriculture in the Oum Er Rbia Basin Project (P093719)

¹⁸ The LAP for Errachidia was prepared in December 2014, for Nador et de Driouch Provinces in April 2015, and for the Sadu, Youssoufia et Sidi Bennour Provinces in April 2015. The Task Team had begun preparing a LAPs in 2011/2012, but they were not formally adopted.

¹⁹ In June 2014, the Task Team downgraded the social safeguards rating to Moderately Satisfactory. The rating was not downgraded to Moderately Unsatisfactory until December 2014.

compensating landowners in accordance with OP 4.12 and Moroccan law led the Bank to formally reiterate in 2015 that construction should not begin on any land plot that had not reached OP 4.12 compliance. This clear stance on OP 4.12 compliance reflected a concerted effort from the Task Team, the Water Global Practice (GP) and the Country Management Unit (CMU), all of which had undergone changes in key personnel, to uproot the status quo in Morocco. The Bank's effort is especially notable as the adoption of a clear stance on how to handle OP 4.12 compliance put the BIRD II at risk of non-completion and made Bank project implementation in Morocco far more complicated.

42. The stricter approach to OP 4.12 compliance in the Moroccan water sector further delayed Project implementation and played a significant role in the non-completion of the large majority of Project activities that, given their non-compliance, never should have been started. The scope of the non-compliance only became clear towards the end of the Project, and ONEE was not prepared to become rapidly OP 4.12 compliant. ONEE did not have a centralized and well-managed database on the status of land in rural areas, making it difficult to monitor the process and ensure compliance with OP 4.12 at the ground level. In addition, land acquisition plans had not been formally developed for the Project, and ONEE was unsure of the steps that needed to be followed to reach compliance. Land acquisition was particularly difficult, as the majority of Project Affected Persons (PAPs) did not have land titles. Bank supervision, especially in regard to safeguards management, during this phase of implementation became increasingly hands-on. The Bank developed a series of actions, which are detailed in the *Social Safeguards Compliance Section*, to guide ONEE to compliance.

43. ***Restructuring and Mid-Term Review (MTR)***. After the initial delays due to quality at entry and the subsequent land acquisition delays, ONEE needed approximately two additional years to fully implement the Project. At the MTR, ONEE prepared a restructuring paper that recommended a two-year extension, a modification of the grey water component as well as adjustments to the Project's results framework. The restructuring, however, was not formalized at this point. The Bank would not approve the restructuring paper and extension unless ONEE could prove that it was compliant with OP 4.12. Once ONEE had agreed on a remediation plan and had demonstrated significant progress in setting up escrow accounts for unpaid PAPs, the Project team obtained a waiver of OP/Bank Procedure (OP/BP) 10.00 to extend the closing date for six months (the time period was based on ONEE's request) with the possibility of a second extension of eighteen months if the land acquisition issues were fully resolved.

44. The Bank Team's decision to close the Project if ONEE could not reach OP 4.12 compliance within six months was courageous and uncommon in the Bank. With the extension of the Project hinged on OP 4.12 compliance, ONEE began to seriously focus on carrying out the LAPs and made considerable progress²⁰ towards reaching compliance. In addition to raising land acquisition issues to the highest levels within ONEE and motivating ONEE's serious engagement on improving land acquisition processes, the Bank's decision sent a clear message on OP 4.12 compliance to project teams throughout the region and task team leaders throughout the Bank. Although ONEE was unable to reach compliance before the end of the Project, ONEE's capacity

²⁰ As of July 1st 2016, 74 of the 103 BIRD II contracts were OP 4.12 compliant.

to manage land acquisition improved significantly during implementation, benefiting other ongoing projects.

45. ***BIRD IV and the Portfolio Consolidation Approach.*** The BIRD IV, which became effective in 2014, maintained a similar PDO to the BIRD II - *To provide access to safe and reliable drinking water supply for rural communities in targeted underserved areas in the Project area* - and was being implemented in parallel. Moreover, the same Task Team was managing supervision. As the closing date for the BIRD II approached and the possibility of reaching OP 4.12 compliance became increasingly small, ONEE proposed restructuring the BIRD IV Project to create space for the remaining BIRD II works. The Bank approved ONEE's request given ONEE's tremendous efforts and progress on complying with OP 4.12 during the last months of Project implementation.²¹ To accommodate the BIRD II works, ONEE had to take the courageous decision to drop a US\$30 million activity from the BIRD IV Project. The portfolio consolidation provided a means to ensure that the remaining BIRD II contracts would reach OP 4.12 compliance and that the BIRD II's expected outcome would come to fruition, albeit post-Project, thanks to the transfer of BIRD II's unfinished works to the BIRD IV Project. Moreover, the termination of the BIRD II Project and the consolidation approach resulted in a transformation of ONEE's approach to land acquisition.

46. ***Grey water.*** As mentioned in the Project Design section, the grey water component, designed to mitigate the environmental impacts of grey water flows from HCs, was an outlier. In 2014, the GoM began preparing a National Rural Sanitation Program (PNAR), and ONEE was hesitant to engage in the sanitation sector before the release of the Program. Given these issues, ONEE proposed a restructuring that included dropping this component from the Project and only financing HCs in households that already had adequate sanitation solutions.²² This adjustment was never made given the land acquisition issues and the decision to not further extend the Project's closing date.

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

47. ***M&E Design.*** The Project indicators were easy to understand and provided a means to measure the Project's accomplishment of the PDO. Nevertheless, the inclusion of two PDO-level indicators on HCs represented a disconnect from Project investments. While the Project intended to create an environment for HCs through TA and studies, the Project did not include any investments to extend HC connections. Moreover, the Results Framework did not provide an

²¹ The Bank Team gave the following rationale for the restructuring: "However, given the efforts undertaken and progress by the Borrower on the agreed actions, and in order to support the future implementation and completion of BIRD II activities to provide potable water access to rural communities, it is proposed to finance ongoing and upcoming BIRD II activities under the BIRD IV Project." (Memo to the CD for the Restructuring of the BIRD IV Project).

²² From the proposed restructuring: "PNAR is expected to provide financial assistance and management oversight of rural sanitation nationwide. GoM regulation stipulates that the mandate for sanitation does not belong to ONEE but to the community and rural households themselves, in the case of onsite sanitation. No activities to develop sanitation solutions or grey water management have been implemented under the project as ONEE is awaiting the conclusions of the PNAR studies. There is little visibility on the timeline or the financial arrangements for the PNAR, and this is unlikely to change in the short-term. Therefore, the Client has proposed that a coordinated approach to rural sanitation be applied between this Project and the Rural Water Supply Project (P145529), which was approved by the World Bank in April 2014. With this approach, each household must have access to a suitable sanitation solution prior to benefiting from a household connection for water supply. These conditions must be clearly defined and documented, and the distribution of roles and responsibilities of stakeholders highlighted during social mobilization."

indicator to track the Project's urban beneficiaries. Although the Project's focus was on rural communities, the planned works also benefited urban residents.²³

48. **M&E Implementation.** The implementation arrangements for M&E of the Project were straightforward. ONEE was responsible for collecting data and submitting semi-annual Project reports that included information on financial, technical and procurement issues. ONEE was also responsible for conducting a participatory MTR and a final evaluation of the Project that included customer satisfaction surveys on beneficiary samples (one before the MTR and one before the end of the Project) and an environmental audit of each WTP (to be carried out one year after the works' completion).

49. In practice, the TA consultants collected information for M&E. Hard copies of semiannual reports were submitted to ONEE's local offices. ONEE conducted a MTR as planned but did not carry out customer satisfaction surveys. During the MTR, the Task Team and ONEE agreed on a new results framework. Although the revised results framework was never formalized during the restructuring, ONEE began tracking the revised indicators.²⁴ These "restructured" indicators were better aligned with the BIRD IV's results framework.²⁵ In addition, as mentioned in the *Implementation Section*, ONEE's internal structure for monitoring land acquisition data was inadequate.

50. **M&E Utilization.** The data on the indicators was not used to inform decision-making given that most indicators remained at or close to zero throughout the life of the Project. The proposed information system to monitor RWS implementation and operation and the surface and groundwater quality-monitoring program were not developed.²⁶ These activities were included under Component 2 of the PAD as part of the monitoring and capacity building provisions of the ESMP and were to be funded by ONEE and implemented as part of its operations. During the last six months of Project implementation, the data on PAPs' compensation and land acquisition processes became key to determining the success and the level of completion of the Project. As detailed in the *Safeguard Compliance Section* below, the collected data ultimately resulted in the decision to not further extend the Project's closing date. Post-project, ONEE and the Bank Team developed an M&E system to monitor the OP 4.12 compliance of the remaining plots. See the *Post-Completion* section for more detail.

2.4 Safeguard and Fiduciary Compliance

51. **Environmental Assessment, OP 4.01.** ONEE finished with a Satisfactory Environmental Safeguard rating. ONEE planned to conduct the environmental audits of the WTPs within a year of the contractors' final handover of the plants. At the time of the ICR, the Nador plant was 100

²³ In fact, most of the Project's final beneficiaries were urban residents.

²⁴ The revised framework was, however, formally communicated to ONEE, informed in Bank systems and was, de facto, used to monitor Project implementation from that point on.

²⁵ Proposed indicators that ONEE was monitoring included: (i) Number of villages receiving potable water (PDO-level); construction of a water treatment plan (percentage of progress); (ii) kilometers of laid pipes; (iii) kilometers of pipes for distribution networks for rural communities; and (iv) cubic meters of water reservoir capacity constructed.

²⁶ Nevertheless, ONEE carries out water quality control and monitoring at the intake, treatment plants, and various points in the distribution network.

percent complete and being tested. Once completed the testing period, the environmental audit of the Nador WTP was conducted on January 26, 2017. The Safi WTP was 95 percent complete and was expected to be completed by June 2017. The foreseen testing period for the Safi WTP was one year, so ONEE plans to conduct the environmental audit of this plant by September 2018. However, the testing period may be extended if issues arise that need to be addressed by the contractors before they handover the WTP to ONEE.

52. ***Involuntary Resettlement, OP 4.12.*** As described in the *Implementation Section*, ONEE was initially reluctant to shift its approach to land acquisition in order to become OP 4.12 compliant. During the last months of implementation, however, ONEE made significant progress implementing the land acquisition remediation plan. Nevertheless, ONEE was unable to complete the plan in time for further extension of the Project’s closing date. The main obstacle was the timely engagement of PAPs in the compensation process. After Project’s closing, ONEE conducted two rounds of door-to-door visits for almost all the PAPs who had yet to be fairly compensated. As detailed in the Memo to the CD for the Restructuring of the BIRD IV Project, the door-to-door visits resulted in the clarification of the legal status of the land plots, availability of land titles, and PAPs’ positions regarding the proposed compensation amount among other themes. The compensation process, however, was more complex and time-consuming than ONEE and the Project Team had anticipated. For example, ONEE could not reach the owners of 548 land plots (35 percent of total land plots) during visits or at subsequent meetings. In addition, owners lacked land titles, a requirement for the transfer of ownership and payment of compensation under Moroccan law, for 418 land plots. The owners of 90 plots claimed they had land titles but did not bring adequate documentation to meetings to sign amicable agreements. To ensure payment to all PAPs and achieve compliance with OP 4.12, the Bank and ONEE agreed on a number of measures to address the different scenarios.²⁷ As of May 2017, almost 95 percent of the land plots in question had reached OP 4.12 compliance, 86 of the 103 corresponding contracts had been transferred to the BIRD IV and other 8 contracts are in the process of being transferred to the BIRD IV.²⁸ Given the current progress, the BIRD IV Project team estimates the remaining contracts are likely to be transferred by the end of June 2017. The social safeguards team will continue to supervise the process until all PAPs have been fairly compensated.

53. More than a Project-specific issue, land acquisition represented a systemic problem in the country. The lack of a clear consensus within the Bank on the application of OP 4.12 in Morocco compounded this problem and jeopardized the team’s efforts to handle land acquisition issues. As

²⁷ As detailed in the Memo to the CD for the Restructuring of the BIRD IV Project, the following measures for the different case scenarios (absentee, lack of land titles, etc.): (i) village-level consultations, announced through local media (newspaper, posters, visits by village leader, etc.) organized to inform PAPs of ongoing expropriation, availability of compensation, and procedures and timeframe to obtain payment; (ii) a minimum of two household-level visits by ONEE team (and village leader), and if needed follow-up contacts made through personal/household letters, phone-call, posters etc. carried out to inform PAPs of ongoing expropriation, availability of compensation, and procedures to obtain payment; (iii) in cases no direct contact could be established, at least one month should be allowed for PAPs to respond; (iv) effective efforts should be made by the Borrower to help PAPs without land title to obtain documents and proceed with compensation payments; and (v) if PAPs are not available despite reasonable efforts to contact them the compensation amount will be made available in escrow. All efforts and actions were to be documented in an agreed format, including the types of messages delivered, their recipients, authors, dates and locations of delivery and the means mobilized. In line with these principles, the team prepared, in collaboration with GPSURR, a “compliance criteria” document detailing all the actions that ONEE needs to undertake and document to achieve OP 4.12 compliance for each of the different case scenarios.

²⁸BIRD IV Implementation and Status & Results Report Sequence 6, May 12, 2017

stated in the BIRD I ICR, “It is fair to stress that obstacles to the swift completion of land acquisitions in accordance with OP BP 4.12 provisions are beyond ONEE’s sole control. The institutional framework governing land acquisition and compensation is complex, and the widespread absence of official land titles remains an overarching obstacle to the claiming and receipt of compensation.” Over the course of implementation, land acquisition became an increasingly important issue at the national level. In October 2016, the King of Morocco made a speech in which he highlighted the importance of land acquisition and of representing the population fairly throughout the acquisition process.²⁹

54. ***Fiduciary Compliance.*** On a whole, ONEE complied with the Project’s procurement and financial management (FM) requisites. The Project finished with Moderately Satisfactory procurement and FM ratings. ONEE had a system in place to manage procurement processes adequately. Nevertheless, ONEE’s internal procurement processes, especially for hiring consultants, were lengthy. Beside ONEE’s limited capacity to effectively prepare for and carry out bidding processes involving complex technologies were evidenced during the selection of the firm and the solution for the Nador and Safi WTPs.

55. FM remained sound throughout implementation. Over the course of implementation, ONEE made marked gains in submitting IFRs in a timely fashion. One of the key FM issue the Project encountered was a delay in ONEE’s Board’s validation of audit reports. Although ONEE has demonstrated FM capacity, several processes could have been strengthened to improve efficiency. In particular, ONEE lacked a dedicated information system for externally financed projects that facilitated information exchange between the various departments that dealt with FM issues. Financial information was not tracked in a consolidated manner in “real time,” and coordination between the various offices at the central and regional levels was weak. The portfolio “deep dive” exercise carried out in 2016 included an analysis of ONEE’s FM capacity and resulted in a number of recommendations and tools to improve ONEE’s performance.

2.5 Post-completion Operation/Next Phase

56. The BIRD IV Project, which became effective in December 2014, supports the same objective as BIRD II - to provide access to safe and reliable drinking water supply for rural communities. The Bank will finance unfinished BIRD II contracts that reach OP 4.12 compliance by June 30, 2017 through BIRD IV.³⁰ The Bank’s decision to close the BIRD II Project as a result of non-compliance with OP 4.12 brought greater attention to land acquisition issues within ONEE.

²⁹ <http://www.maroc.ma/fr/discours-du-roi>

³⁰ “Contracts would be added to BIRD IV scope through updates of the Procurement Plan. Each time the Borrower seeks Bank no objection to update the Procurement Plan incorporating new contracts from BIRD II, the TTL and the Safeguards Specialist would verify their compliance with OP 4.12: they would ensure that the Borrower has undertaken and documented all the actions described in the “compliance criteria.” At that point, expenses incurred for activities carried out in the interim period (between July 1st and the time of OP 4.12 compliance achievement) and future eligible expenses would be allowed to be financed as well under BIRD IV. Withdrawal applications for expenditures incurred in the interim period would require the Task Team’s confirmation of contracts’ compliance with OP 4.12 and procurement requirements.” Source: Memo to the Country Director on the Restructuring of BIRD IV, October 30, 2016.

To accommodate these additional contracts, ONEE and the Bank approved a restructuring for BIRD IV in August 2016 that dropped rural distribution activities that had been significantly delayed to ensure ample financing was available to fund the BIRD II's remaining 103 contracts (estimated at approximately US\$30 million). ONEE's approval of this restructuring was courageous and illustrated ONEE's commitment to improve its management of OP 4.12. In an effort to meet compliance before the June 30 transfer deadline, ONEE requested additional TA under BIRD IV to strengthen its capacity to manage land acquisition. With the support of this TA, ONEE has developed an information system for monitoring compliance with OP 4.12 and has been actively working with the affected population and the critical departments and institutions to resolve these issues. ONEE's efforts to identify and resolve land acquisition issues before considering contracts eligible for financing have resulted in marked improvement. To-date, 86 of the 103 contracts have reached OP 4.12 compliance and have been transferred to BIRD IV. Most of BIRD II outcomes will be captured under BIRD IV. BIRD IV is also directly benefiting from ONEE's improved capacity to manage land acquisition issues. ONEE's shift in mindset towards land acquisition will have a resounding impact on ONEE's approach to other works projects.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

Relevance of Objectives

Rating: High

57. The Project’s development objective remains highly relevant for Morocco and the World Bank. As mentioned in the Post-Completion Section, the BIRD IV Project shares similar objectives to this Project. The Project’s objectives are also still strongly aligned with the GoM’s sector goals. For instance, the GoM’s 2020 Rural Development Strategy prioritizes increasing access to basic infrastructure throughout the country. The Project’s objectives also directly support the 2014 to 2017 CPS, particularly Pillar IV “Promotion of social programs guaranteeing equitable access to basic services and strengthening solidarity and equal opportunities across citizens, generations, and regions,” and strategic Outcome 3.4, “Expand access to basic services (water, sanitation, electricity, transport, telecommunications, health, education).” BIRD II’s objectives also directly support the World Bank’s twin goals of ending extreme poverty by 2030 and promoting shared prosperity for the bottom 40 percent given the Project’s focus on improving the quality of life of Morocco’s poorest residents by providing them with access to improved water.

Relevance of Design

Rating: Modest

58. The Project’s components were well aligned with the PDO, reflected lessons learned from the BIRD I project, and directly supported ONEE’s provincial master plans. On a whole, the Project’s design – beyond the grey water component – is still highly relevant for ONEE. Nevertheless, the design was largely focused on infrastructure investments and had a relatively limited focus on institutional strengthening. In addition, the design did not fully identify and address the risks related to land acquisition and the extension of HCs. Moreover, the Project’s M&E framework included two PDO-level indicators on HCs, representing a disconnect from Project investments, and did not provide a means to measure urban beneficiaries.

3.2 Achievement of Project Development Objectives

Rating: Modest

PDO: The objective of the Project is to increase access to potable water supply for selected local communities in the Project Provinces.

59. The Project did not meet any of its outcome indicators by the closing date (June 30, 2016). Although 55 percent of the original Loan amount was disbursed (US\$ 96.22 million), the regional works and rural water systems were not operational at the Project’s close. The Project made significant progress developing regional infrastructure, including trunks, secondary networks, pumping stations, reservoirs and treatment during implementation. Project outputs included the laying of over 2,300 km of pipes, the construction of 25,600 cubic meters of storage capacity, and the installation of 1062 SPs (See Annex 2 for further detail on the outputs). The Project, through effective on-the-ground outreach, also successfully assessed demand for HCs or SPs in all of the

selected communities. In addition, over 90 percent of households in those communities signed co-financing agreements for service provision. At the close of the Project, the WTP in Nador was completed and was being tested. The Nador WTP will improve the quantity, quality and continuity of water service for 81,000 rural residents and 146,000 urban residents. The WTP in Safi was approximately 95 percent finished, and ONEE was actively overseeing its completion. Once completed, the Safi WTP will provide 279,000 rural residents and 33,000 urban residents of the three municipalities (Safi, Jamat Shaim and Sebt Ghzoula). Safi's Autonomous Inter-Municipal Authority for Water Supply and Electricity Distribution (RADEES) will utilize this treated water in its distribution network.

60. Yet, at the end of this Project, the tertiary network – the key to achieving the outcome indicators - remained incomplete, largely because of land acquisition issues. At the time of the Project's close, 11 of the SPs were operational, 88 SPs were connected but pending operation arrangements and 1,683 SPs were constructed but not yet connected. No HCs had been established. As mentioned in the design section, although there was great demand in the communities for HCs, the Project contained no financing for HCs. Other operations/TA in Morocco focused on developing management models, financial arrangements and procedures for rolling out HCs, but the BIRD II did not facilitate implementation of these models.

61. Despite limited progress on finalizing the tertiary network, the BIRD II's infrastructure investments laid the groundwork for achieving the PDO in the near future *and* extending access to improved water throughout the Project's targeted regions. Most of BIRD II's outcomes will be captured under BIRD IV. During the August 2016 restructuring, BIRD IV's results framework was adjusted to reflect the addition of over 300,000 beneficiaries from the BIRD II Project. BIRD II activities that are very likely to be completed in BIRD IV include: the completion of the Safi water treatment plant and the construction of close to 1,000 km of pipelines, 15,000 cubic meters of storage, 1,500 SPs as well as 4,200 HCs. Although the transfer of the works to BIRD IV depends on their OP 4.12 compliance, as of May 2017, almost 95 percent of the land plots in question had reached OP 4.12 compliance, 86 of the 103 remaining corresponding contracts had been transferred to the BIRD IV and other 8 contracts are to be transferred immediately. Given the current progress, the BIRD IV Project team estimates the remaining contracts are likely to be transferred by the end of June 2017. Thus, given the likelihood of achievement of results, the rating is Modest.

3.3 Efficiency

Rating: Negligible

62. The economic and financial benefits of the Project have not yet been reaped. The benefits will be captured under the BIRD IV Project. Given the fact that the majority of the benefits of the BIRD II will be captured under the BIRD IV, the ICR team carried out ex-post and hypothetical economic analyses where the latter considers that the SPs will eventually be operational.

63. *The Economic Analyses* results are as follows:

1. The ex-ante economic analysis results, which are based on various scenarios of growth of SP and HC coverage, proved that the three sub-projects were viable.³¹
2. The ex-post economic analysis results show that the Project is not viable. The Project has a negative net present value (NPV) of 10% over 41 years for the entire Project (US\$117 million) and sub-projects (US\$ -43, -61, and -14 million respectively), a negative economic Internal Rate of Return (ERR) and a negative present value (PV) benefit cost (B/C) ratio across the board. When using the Bank's required interest rate,³² the NPV reached US\$ -136 million. Rural household benefits associated with access to the 11 SPs (US\$135,202 based on a benefit of US\$256 per household as retained by the ex-ante economic analysis) barely affected the overall result.³³
3. The hypothetical economic analysis is based on a very conservative stance and was calculated only for the Nador and Safi sub-components given that there are specific targets for these regions in the result framework. Both components are viable when using an interest rate of 6% with an aggregate NPV of US\$11.8 million (US\$0.3 and 10.8 million respectively) with an economic IRR of 7% and PV B/C of 1.1. However, these results are negative when using the PAD original 10% interest rate.

64. *Financial Analysis.* The ex-ante financial analysis was also carried out in Nador/Driouch, Safi/Youssoufia/Sidi Bennour and Errachidia. While financial costs were based on Project appraisal costs, financial benefits were measured in terms of incremental (with/without Project) cash flows for ONEE (See Annex 3).

65. The ex-post financial analysis is significantly less profitable than the ex-ante financial analysis due to the forgone revenues and the 41-year timeframe retained in the ex-ante analysis. Nevertheless, the surveys conducted during the preparation of the BIRD II indicate that most households aspire to have a household connection in the near future. The results provide an overall negative NPV of MAD -1.5 billion discounted at 8% at appraisal and sub-projects (MAD -536, -794, and -192 million respectively), a negative financial IRR and a negative PV B/C ratio across the board. A 4% interest rate is considered to account for the current interest rate and translates into an NPV that is slightly more negative with MAD -1.7 billion.

66. *Audit.* The ex-ante analysis showed that, in general, ONEE's rural activities could not ensure their financial equilibrium and needed to be cross-subsidized with urban revenues. Therefore, the financial feasibility of BIRD II was directly related to ONEE's ability to generate sufficient cash through its urban potable water production activities. As ONEE could not assess its ability to cover its operating costs and service its long-term debt, it was agreed that ONEE would maintain a debt service coverage ratio (defined as the annual cash flow from operations, less the

³¹ A combined economic internal rate of return for the three sub-projects was not calculated at appraisal but amounted to 13.6%.

³² The interest rate used for the cost benefit analysis was decreased, in line with new 2016 World Bank policy, from 10% to 6%.

³³ In addition to the lack of completion of a number of activities, the economic viability of the Project was impacted by the following factors: (i) Moroccan currency depreciated between appraisal (US\$ 1= MAD 7.63) and the ICR (US\$ 1= MAD 9.77) period; (ii) the Euro depreciated; (iii) the interest rate used for the analysis was decreased from 10% to 6% given the 2016 World Bank policy; and (iv) since early 2016, energy subsidies (beyond those on butane) in Morocco were completely removed.³³ Still, these three parameters barely affect the outcome of the ex-post cost-benefit analysis: the Project was not economically viable.

change in working capital requirement and increased interest expense over the annual debt service) of more than 1.2 (See Annex 3).

67. ONEE was not able to maintain the debt service coverage ratio from 2010 until 2012. In 2013, after the merger of ONEP and ONE, ONEE's debt service coverage ratio improved. The 2016 audit, which is expected to be released after June 2017, will further shed light on the effect of the BIRD II on ONEE.

3.4 Justification of Overall Outcome Rating

Rating: Unsatisfactory

68. Based on the Project's *High* relevance of objectives rating, *Modest* relevance of design rating, *Modest* efficacy rating and *Negligible* efficiency rating, the overall outcome rating is Unsatisfactory.

3.5 Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects, and Social Development

69. The Project focused on Morocco's most underserved areas. In some intervention areas, residents have been relying on untreated rain or groundwater. Access to treated water within 100 to 150 feet of residents' homes will decrease waterborne illness, reduce the amount of time residents spend collecting water, and bring public health, education and gender benefits.

70. The Project, through the Social Mobilization Team (SMT), has promoted women's participation along with men in community discussions related to the Project activities.

71. The Project has also, albeit in its final months, helped residents navigate the compensation process for land expropriation. Previously, if residents did not place a claim for the expropriated land within a certain time frame, they lost their right to compensation. This was especially difficult for residents that did not have land titles. ONEE now, in line with OP 4.12, is proactively reaching out to the residents and tracking responses to ensure that residents are properly compensated.

(b) Institutional Change/Strengthening

72. The Project's strict enforcement of OP 4.12 led to a mindset change at ONEE. The standards for compliance with OP 4.12 shed light on the weakness of ONEE's internal land acquisition monitoring system as well as the importance of having adequate social mobilization teams at the ground level to carry out land acquisition procedures effectively. Moreover, the strict enforcement of OP 4.12 has inspired ONEE to incorporate greater social analysis at the time of technical design in order to reduce the need for land acquisition. In addition, coordination between ONEE's legal and technical departments has improved.

73. The BIRD II brought land acquisition compliance issues to a high corporate level within the Bank and the Moroccan Government. The Bank's decision to close the Project set a precedent

on the seriousness of the Bank on OP 4.12 compliance. As one Bank participant said, “Safeguards compliance will never be seen the same before and after this Project in Morocco and possibly the region and the Bank as a whole.” The BIRD II had an extraordinary impact on social safeguards management at the Project-level and at the Bank, country and regional levels.

(c) Other Unintended Outcomes and Impacts (positive or negative)

74. Although the results framework focuses on rural beneficiaries, the Project will have a significant impact on the quality and quantity of water in urban areas as well. The investments in WTPs, trunk lines, pumping stations and storage tanks in Nador and Safi will provide water to nearby urban areas, servicing over 200,000 residents. The exact number of urban beneficiaries was not tracked during implementation.

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

Not Applicable.

4. Assessment of Risk to Development Outcome

Rating: Substantial

75. The Project's development outcomes have yet to materialize, but the risk that the outcomes will not materialize is low. As detailed in the Post-Completion Section, BIRD IV will finance the Project's contracts so long as land acquisition issues have been resolved in line with OP 4.12. Thus far, 86 of the 103 remaining contracts have been transferred to BIRD IV. The BIRD IV Project team estimates that all of the contracts will be transferred by the end of June 2017. The BIRD IV August 2016 Restructuring opened financing for all of the contracts and adjusted the results framework targets to reflect the transfer of beneficiaries from BIRD II to BIRD IV.

76. The large majority of the works financed under this Project are regional infrastructure works that will be operated and maintained by ONEE. ONEE has a high level of technical competence, especially as it pertains to major infrastructure works and the risk to the sustainability of these structures is low. The sustainability risks associated with the actual distribution of water within communities, however, are higher. Of the 1,683 SPs constructed, only 11 are functioning commercially and 88 are functioning industrially (receiving water). The primary reason why 88 functioning SPs are still not functioning commercially is that they were only recently connected and communities are still in the process of identifying operators willing to manage water sales and distribution. Operators (*Gardiens Gérants*) are hard to come by in part because of the low pay, which requires them to find additional means of income. Nevertheless, once the SPs begin to function commercially they are quite sustainable; a survey of BIRD I SPs showed that two to three years after commissioning, most of the SPs were still being used.³⁴ Another reason for the high number of non-functioning SPs is that communities are expecting HC service and perceive the intermediary SP solution as a risk to future HC service development. ONEE's ability to develop viable and scalable models for domestic service delivery will be key to the sustainability of the distribution systems.

77. The ongoing BIRD IV Project will also play a key role in mitigating the risks associated with the tertiary network. Most of the pending work under the BIRD II Project will be captured under the BIRD IV. In addition, the GoM and ONEE's Framework Program for 2014 to 2017 includes measures to recover debts from local governments and value added tax refunds from the GoM. The Agreement also includes plans to increase tariffs to promote sustainability. The tariff adjustments provided for under the Program Contract have been respected for the distribution and sanitation activities. However, the sales tariffs applied to the operators (*Gardiens Gérants*) have not been affected, given their social character. The measures outlined in this Framework will help promote the overall financial sustainability of ONEE.

³⁴ Khadija Bourarach (November 2016).

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

Rating: Unsatisfactory

78. The overall design of the Project was well aligned with Morocco's sector priorities and ONEE's growth plans. Nevertheless, the Bank also promoted the inclusion of several activities that were not aligned with the Project's core investments and ONEE's top priorities. As mentioned in the Project Design Section, the inclusion of HC targets in the results framework was disconnected from the Project's investments, as the Project did not include financing for HCs. Despite the lack of financing or concrete plans for establishing HCs, the economic analysis was based on 70 percent HC coverage levels. In addition, the grey water component (as described in the PAD) focused on areas where HCs had been established. Furthermore, the Project's grey water component was out of sync with ONEE's responsibilities and was dependent on national policies that had yet to be defined. The inclusion of these elements increased the complexity of the Project and resulted in misalignment with ONEE's top priorities.³⁵

79. In addition to these structural issues in Project design, the Project was approved with a low level of readiness. The Standard Bidding Documents were not ready and the preparatory work for the TA contract and other major contracts had not been carried out at the time of Approval. This lack of readiness contributed to an over two-year delay in Project implementation.

80. The issues related to land acquisition were underestimated at a country and Project level. The Bank's failure to reach a consensus on how to handle the application of OP 4.12 in Morocco weakened the Task Team's capacity to successfully evaluate and handle land acquisition issues. Furthermore, Project preparation did not include the development of a LAP or an analysis of the status of each land plot that would be affected by the Project.

(b) Quality of Supervision

Rating: Unsatisfactory

81. The Bank team conducted regular supervision missions and successfully motivated an improved approach to land acquisition by the end of the Project. Nevertheless, for the majority of Project implementation, safeguard support was not adequate. In addition to a high turnover of social specialists, the Bank had not taken a clear stance on how to handle OP 4.12, and levels of enforcement of OP 4.12 varied in the region. In this context, rather than downgrade social safeguard ratings when issues with OP 4.12 and the lack of information on land acquisition became apparent, the Bank Team maintained Satisfactory or Moderately Satisfactory ratings. Although the Team had tried to resolve issues on a Project-level and had repeatedly flagged the issue to management, a significant change in approach did not occur until the Task Team, Water GP and CMU (all of which had undergone changes in personnel) aligned their efforts in the last year of Project implementation to clarify the Bank's approach to OP 4.12 in the region and to focus on

³⁵ The GEP prioritized extending access to SPs.

resolving land acquisition issues. This marked a new, pro-active, flexible and hands-on phase of supervision, which resulted in significant progress in respect to land acquisition.

82. In the last months of supervision, the Bank took a courageous decision to close the Project. This strategic decision transformed ONEE's approach to land acquisition, which became a high-level issue in the Office. During this phase of supervision, the Bank team closely monitored progress and assisted in the improvement of ONEE's system for land acquisition. The Bank's decision to, based on the improved performance of ONEE, move pending BIRD II works to BIRD IV and consolidate the portfolio was also highly strategic. Not only did that ensure that over 300,000 people would not be left without improved service, but it also benefited the BIRD IV, which was suffering from significant delays (only 2 percent of the loan was disbursed at the time). Ultimately, the closing of the Project was done at the cost of the Project but not at the cost of the results. While the Task Team's efforts in the initial phase of supervision did not lead to a change in the status quo in Morocco, the final phase of Bank supervision, which benefited from strong alignment between the Task Team, the CMU and the Water GP, was pro-active and led to a high-level change in the enforcement of land acquisition policy on a regional level.

(c) Justification of Rating for Overall Bank Performance

Rating: Unsatisfactory

83. Based on the *Unsatisfactory* Quality at Entry and Quality of Supervision ratings, the overall Bank performance is rated as Unsatisfactory.

5.2 Borrower Performance

(a) Government Performance

Rating: Moderately Unsatisfactory

84. The GoM's strategic goals were directly linked with the Project's objectives. The GoM acted as the Loan's guarantor but was not involved in implementation of Project activities. Nevertheless, the GoM promoted measures to create a favorable environment for ONEE's extension of sustainable management models in rural areas. During preparation, the GoM supported financial rules that would make extension of HCs cost-neutral for ONEE. In addition, the GoM/ONEE Framework Agreements included several measures to promote the financial sustainability of ONEE's rural operations. The GoM also covered ONEE's operating deficit. A significant shortcoming was the GoM's delay in finalizing the PNAR. Given the implementation modalities for the PNAR and the institutional responsibilities for grey water management in rural areas were to be officially defined, ONEE preferred to concentrate its efforts in urban sanitation in line with the objectives of the National Liquid Sanitation and Wastewater Treatment Program (PNA).³⁶ As a result of the GoM's delay in finalizing the PNAR, the Project made almost no progress on Component 2, *Mitigation of environmental Impacts – Grey water management*.

³⁶ PNA concentrates in urban areas and sets two specific objectives: i) achieve a global connection rate to sewerage network in urban areas of 75% by 2016, 80% by 2020 and 100% by 2030 and ii) Achieve a volume of treated wastewater of 50% by 2016, 60% by 2020 and 100% by 2030.

(b) Implementing Agency Performance

Rating: Unsatisfactory

85. ONEE acted as both the borrower and the lead implementing agency. ONEE's environmental, FM, procurement and M&E performance remained Moderately Satisfactory or Satisfactory for the majority of the Project. ONEE developed sound technical solutions and successfully oversaw the near completion of the Project's major infrastructure works.

86. ONEE's biggest implementation challenge was complying with Moroccan Law on land acquisition and OP 4.12. ONEE did not have the structure or the capacity to implement land acquisition procedures at scale and was initially reluctant to apply the LAF. With the impending close of the Project, ONEE acted quickly to resolve land acquisition issues to the extent possible and significantly improved performance. Nevertheless, ONEE was unable to reach full compliance by June 2016. Given ONEE's lack of compliance, the Project's closing date was not extended for an additional 18 months.

87. Land acquisition issues were exacerbated by weak communication and coordination between ONEE's departments at the central level and between the central and regional offices. In addition, ONEE did not have social mobilization activities integrated in its organizational structure and relied on TA firms to carryout social engagement strategies.

88. Despite these issues, ONEE made significant strides in improving its land acquisition processes and has begun integrating these processes into its general operating strategy. In addition, ONEE's decision to carry BIRD II works to the BIRD IV Project illustrated ONEE's commitment to fully complying with OP 4.12 and ensuring the best possible outcome of the BIRD II, albeit post-Project.

89. (c) Justification of Rating for Overall Borrower Performance

Rating: Based on the Moderately Unsatisfactory rating of the Government performance and Unsatisfactory rating of the Implementing Agency, the overall Borrower performance is rated as Unsatisfactory

6. Lessons Learned

90. ***Preparing well before launch.*** Launching projects before they are fully prepared increases the risk of inadequate designs, implementation delays and incompleteness of project activities. The BIRD II Project was prematurely launched given pressure to move the Project forward. The Project's low level of readiness resulted in nearly two years of implementation delays. With projects that are approved before preparation is complete, it would be worthwhile to plan for an extended implementation period from the outset. Providing the client with financing for preparatory activities may also assist in efficient project preparation and ensure higher quality at entry.

91. ***Reaching consensus on the application of safeguards at the country level.*** Task teams need to have clear and consistent guidance on the application of the Bank's social safeguards. Task teams are neither empowered nor responsible for determining how safeguards should be applied and handled in each country context. During the first years of implementation, the Task Team raised concerns about the lack of compliance to no avail. A clear approach to OP 4.12 only emerged when the Water GP, the CMU and the Task Team reached a consensus and focused their efforts on clarifying how OP 4.12 should be handled. Clearer and stricter guidance during preparation could have helped ONEE identify the requirements and steps that it needed to follow to reach OP 4.12 compliance. Addressing land acquisition issues prior to effectiveness and ensuring timely engagement of PAPs in the compensation process could have reduced the implementation delays, which contributed to the non-completion of the large majority of Project activities.

92. ***Integrating citizen engagement activities in the project cycle.*** The integration of a social analysis in the preparation of technical designs can significantly reduce the need for land acquisition. With BIRD II, land acquisition issues could have been minimized had the technical designs taken social issues into account. Pipes, plants and other hardware could have been positioned to avoid, whenever possible, the need for land acquisition. For example, in the preparation of technical designs for BIRD IV the social teams presented alternative plans that reduced the need for expropriation of lands by 50 percent (from 2000 plots to 1000 plots). In addition to simplifying implementation, the decreased need to acquire land decreases the overall cost of implementation. Social analysis at the time of design should also be taken into account to inform the type of WSS solution. In the BIRD II Project, the beneficiaries' economic standing and expectations varied significantly from province to province. ONEE may see potential cost-savings by integrating social mobilization teams in its organizational structure, especially given the benefits of engaging citizens throughout the project cycle.

93. ***Establishing framework agreements to accelerate implementation.*** The coordination and collaboration with other departments of ONEE, public entities and local authorities from which authorizations to work on the public domain will be sought (authorization to cross roads, channels, forest areas, etc.), can ensure streamlined, pragmatic procedures and easier planning and implementation. Initiating consultations before implementation to discuss the big picture, project areas and works options may help screen and address potential problem spots.

94. ***Downgrading projects to spur action.*** Downgrading projects may seem more trouble than it is worth given the increased level of attention and restrictions downgraded projects attract. Nevertheless, candor in project ratings when appropriate promotes transparency and can be important in raising the level of dialogue and attention to the issue at hand. For example, the downgrading of the BIRD II's social safeguard rating and the decision not to extend the Project's closing date inspired high-level discussion on land acquisition and motivated ONEE to pay greater attention to compliance in the BIRD IV Project.

95. ***Thinking outside the box to manage problematic projects.*** In addition to downgrading, the BIRD II incorporated several creative methods to spur action and to maximize the long-term impact of the Project. The two-pronged approach to restructuring the Project impelled ONEE to take a serious look at land acquisition issues within the BIRD II and the BIRD IV. The Bank's decision to employ this approach – even though it risked closing the Project prematurely – was courageous and set a precedent for other projects in Morocco and far beyond. The portfolio consolidation approach enabled the Bank to ensure that the BIRD II's impact would not be cut short *and* to bolster the progress of the BIRD IV Project. Because of these creative, 'beyond-Project vision,' approaches, BIRD II closed at the cost of the Project but not at the cost of the results or the beneficiaries.

96. ***Selecting lending instruments to strengthen strategic partnerships going forward.*** BIRD I, II, III and IV are, at their core, infrastructure projects. Although the infrastructure work has had a significant impact on WSS access in Morocco, the Bank's "value add" on sector strategy has been limited. The choice of lending instruments may influence the level of dialogue. ONEE is a high performing utility with established priorities and operating strategies as well as considerable access to financing. With standalone projects, it is often difficult to engage in high-level sector dialogue. Looking forward, the Bank should critically analyze its approach on how to provide value to ONEE and the sector beyond infrastructure financing. Engaging in a Program for Results or SWAP-type approach may encourage a higher level of dialogue and have the added benefit of diminishing land acquisition issues.

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

97. ONEE considers that "*had the Bank implementation support and supervision assured the necessary guidance, handholding and close cooperation for meeting the requirements of OP 4.12, the Project would have been implemented in full compliance with this policy.*" ONEE commented that the World Bank was the first donor to close a Project because of land acquisition issues. Although the Bank provided TA to ONEE for the formulation of the LAF based on Morocco's existing regulations and the requirements of OP 4.12 during Project preparation and the LAPs for implementation of the LAF. The Bank underestimated ONEE's capacity to carryout land acquisition in compliance with OP 4.12.³⁷

³⁷ Comment from the October 2016 ICR fact-finding mission.

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in USD Million equivalent)

Project costs	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Component 1 - Water Production, Conveyance and Supply in the Project Provinces	160.12	125.16	78.17%
Sub-Component 1.a Nador and Driouch provinces	57.21	45.22	79.05%
Sub-Component 1.b Safi, Youssoufia and Sidi Bennour provinces	79.34	63.59	80.14%
Sub-Component 1.c Errachidia province	23.57	16.35	69.38%
Component 2 - Mitigation of environmental impacts of grey water management	6.03	0.00	0.00%
Component 3 - Implementation support and capacity building	8.85	5.89	66.51%
Total Financing Required	175.00	131.05³⁸	74.88%

(b) Financing

Source of Funds	Type of Cofinancing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		41.00	34.83	85.00%
International Bank for Reconstruction and Development		175.00	96.22	54.98%

³⁸ IBRD financing need without taxes from ONEE's Completion Report (Nov 8, 2016)

Annex 2. Outputs by Component

This section provides the information on the outputs by Project's component.

Output	Planned	% Physical Progress	% Operational	Comments
Component 1 - Water Production, Conveyance and Supply in the Project Provinces				
Sub-Component 1.a Nador and Driouch provinces				
Extension of the Nador potable water treatment plant	1 WTP	100 %	100%	
Doubling of the existing Nador-Midar regional trunk line.		90%	0%	
Construction of storage tanks, pumping stations		50%	0%	
Construction of six rural conveyance laterals connecting the trunk line to approximately 185 villages.		50%	50%	
Construction of public standpipe delivery systems	448 SPs			591 SPs constructed 88 SPs connected 11 SPs operational
Sub-Component 1.b Safi, Youssoufia and Sidi Bennour provinces				
Construction of the Safi potable water treatment plant on Doukkala High Service Canal	1 WTP	95%		
Construction of trunk regional pipeline Safi for Safi/Youssoufia system (75 km, 500 to 700 mm)		90%		
Eleven (11) lateral mains from the regional trunk lines (piquages), storage tanks, and SP for the supply of 525 villages in Safi and Youssoufia provinces		50%		838 SP Built 0 SP connected 0 SP operational
- System S1 – 163 villages	252	72%		
- System S2 - 84 villages	313	94%		
- System S3 - 99 villages	273	71%		
Construction of trunk regional pipeline for 215 villages in Sidi Bennour province (34 km, 400 mm to 75 mm)		50%		
Four (4) lateral mains for the supply of Sidi Bennour villages		50%		254 SPs constructed 0 SPs connected 0 SPs operational
- System J1 - 215 villages	254	19%		
Sub-Component 1.c Errachidia province				
Reinforcement and rehabilitation of Tafilalet system water production capacity	Increased by 105 l/s	80%		
Tafilalet regional trunk pipeline - doubling of the pipeline between Arfoud and Errissani	100	40%		

Output	Planned	% Physical Progress	% Operational	Comments
Component 2 - Mitigation of environmental impacts of grey water management				
Pilot and promote the development of a market for the installation of improved on-site sanitation facilities in the Nador and Driouch provinces	1 pilot	0%		
Monitoring and capacity building provisions of the Environmental and Social Monitoring Plan				These activities funded by ONEP and implemented as part of its operations were not reported
- Development and update of environmental management manuals	1	100%		
- Environmental audits of the new water treatment plants operation	2	0%		
- Environmental management capacity building workshops, technical assistance to ESMP implementation and reporting	1	0%		
- Surface and groundwater quality monitoring program.	1	0%		
Component 3 - Implementation support and capacity building				
Technical assistance (TA) to ONEP's project implementation	1	64%		
Capacity building (CB) to ONEP's overall RWS program				
- New information systems to track RWS project implementation and operation	1	0%		
- Staff training programs	1	0%		
- upgrade of ONEP's customer service information systems to accommodate specific rural HC-service needs	1	0%		
- RWS cost-recovery study	1	0%		

Annex 3. Economic and Financial Analysis

1. *Background.* The Morocco BIRD II ICR ex-post economic and financial analyses of the WSS schemes were compared to the PAD ex-ante economic and financial analyses. A review of ONEP/ONEE's audit proved difficult to perform as only the audits from 2010 to 2015 were available. The 2016 audit is not expected to be ready before June 2017. The merger between ONE and ONEP in 2012 also complicated the analysis of the audits.
2. Although trunks, secondary networks, pumping stations, reservoirs and treatment plants were completed during implementation, the tertiary network remained largely incomplete. The Project's expected benefits will accrue as the tertiary network and connection installations are completed. Although the number of households benefiting from the 11 operational SPs is unknown, the PAD estimated that on average 78.1 households with 4.3 individuals per household (based on 78.1 households per Douar and a targeted population of 336,000) benefited from each SP. Based on this estimation, the population covered by SPs at the end of the Project was 3,718 people, equivalent to 1.1% of the PAD's targeted population, and 1.0% of the targeted population after the restructuring. The outcomes expected from the completion of the tertiary network are not considered in the ICR ex-post economic analysis (Table 1).
3. As a result, the Project resulted in almost no health (improved access to water supply reduces water-borne diseases that cause premature death as well as financial burden), environmental (proper sanitation management reduces pollution of water bodies, including the contamination of underground water), economic (improved access to water reduces the time spent fetching water and the cost of water, increasing economic opportunities, especially for the poor) and social (improved access to water reduces the time spent fetching water and the psychophysical stress associated with contaminated water) benefits for households.
4. The ICR's economic and financial analyses follow the same methodological process as at appraisal, but several adjustments were needed to reflect the current shadow prices after the removal of energy subsidies in 2015, the adjusted water tariffs, ONEE's financial standing since the merger of ONEP and ONE, and exchange rates among other changes.
5. *Economic Analysis.* Ex-ante, ex-post and hypothetical economic analyses were carried out. The hypothetical analysis considers that the SPs will eventually be operational although the forthcoming benefits fall outside the BIRD II's achievements.
6. The ex-ante economic analysis was carried out in three provinces, Nador/Driouch, Safi/Youssoufia/Sidi Bennour and Errachidia. While economic costs were based on the adjusted Project appraisal costs, economic benefits were derived from HC and SP rural and urban area users who would benefit from the Project. A cost-benefit analysis (CBA), which used an interest rate of 10% and included a sensitivity analysis at 8% and 12%, was performed and fulfilled the three following criteria: NPV of the net BC flow greater than zero; economic IRR greater or equal to the interest rate; and a PV of B/C ratio greater than 1.
7. More specifically, the CBA, which covered the water schemes to the detriment of the sanitation schemes, used the following data:
8. The cost flow included the: (i) costs of construction, equipment, feasibility studies and works supervision of the regional water supply schemes; (ii) costs of local distribution networks,

HCs and SPs; and (iii) costs of operation and maintenance based on different scenarios of expansion of HCs.

9. The benefit flows were based on recent data on demand for HC and SP services and information on coping mechanism in the absence of a reliable piped water supply.

10. The ex-ante economic analysis results, which are based on various scenarios of growth of SP and HC coverage, proved that the three sub-projects were viable. A combined ERR for the three sub-projects was not calculated at appraisal but amounts to 13.6%. The results are illustrated in Table 1.

11. The ex-post economic analysis shows that the Project was not economically viable; the Project has a negative NPV at 10% over 41 years for the entire project (US\$ 117 million) and sub-projects (US\$ -43, -61, and -14 million respectively), a negative ERR and a negative PV B/C ratio across the board as illustrated in Table 1. When using the currently required interest rate, the NPV reached US\$ -136 million. Rural household benefits associated with access to the 11 SPs barely made a positive difference (US\$135,202, based on a benefit of US\$256 per household as retained by the ex-ante economic analysis). The Moroccan currency depreciated between appraisal (US\$ 1= MAD 7.63) and the ICR (US\$ 1= MAD 9.77), the Euro also depreciated, the interest rate used for the CBA, in line with 2016 World Bank policy, was decreased from 10% to 6%, and energy subsidies (except on butane) were completely removed in 2015. Still, these adjustments barely affect the outcome of the ex-post CBA analysis. The Project was not economically viable.

12. The hypothetical economic analysis is based on a very conservative stance and was calculated for the Nador and Safi sub-components given that the results framework includes specific targets for these areas. Both sub-components are viable when using an interest rate of 6% with an aggregate NPV of US\$11.8 million (US\$0.3 and 10.8 million respectively) with an economic IRR of 7% and PV of B/C of 1.1. However, these results are negative when using the original 10% interest rate.

Table 1: BIRD II Project Ex-ante, Ex-post and Hypothetical Economic Analyses

Sub-Project	Unit	Nador/ Driouch	Safi/ Youssoufia/ Sidi Bennour	Errachidia	Total	Viability Criteria
Analysis						
Ex-ante BCA, 2009						
IRR	±%	13.9%	13.4%	13.5%	≈13.6%	≥10%
NPV (rate = 8 %)	US\$ million	49.0	61.9	20.4	131.3	>0
NPV (rate = 10 %)	US\$ million	25.8	31.1	10.2	67.1	>0
NPV (rate = 12 %)	US\$ million	10.3	10.3	3.5	24.1	>0
VA B/C	Ratio	>1	>1	>1	>1	>1
Urban population targeted	#				300,000	
Douar targeted	#	217	640	0	957	
Rural Population targeted	#	76,000	260,000	36,200	336,000 + 36,200	

Exchange rate as of November 3, 2009: US\$ 1= MAD 7.63

Restructuring, 2015						
Urban population targeted	#				300,000	
Douar targeted	#	214	787	0	1,001	
Rural Population targeted	#	81,000	279,000	NA	360,000	
Ex-post BCA, 2016						
IRR	±%	<0%	<0%	<0%	<0%	≥6%
NPV (rate = 6 %)	US\$ million	-50.1	-70.8	-15.2	-136.1	>0
NPV (rate = 10 %)	US\$ million	-42.8	-60.5	-13.7	-116.9	>0
VA B/C@6%	Ratio	<1	<1	<1	<1	>1
HC finalized	#	0	0	0	0	
SP constructed	#	345	717	0	1,062	
-of which SP operational	#	11	0	0	11	
SP still to be constructed	#	246	375	0	621	
Financial cost	US\$ million	56.2	79.4	19.4	155.0	
Economic cost	US\$ million	51.7	73.0	17.9	142.6	
Economic benefits	US\$ million	0.1	0.0	0.0	0.1	
Hypothetical BCA, 2016						
IRR	±%	6%	7%	NA	7%	≥6%
NPV (rate = 6 %)	US\$ million	0.3	10.8	NA	11.8	>0
NPV (rate = 10 %)	US\$ million	-15.5	-16.0	NA	-31.4	>0
VA B/C @6%	Ratio	1.35	1.5	NA	1.1	>1
Exchange rate as of June 30, 2016: US\$ 1= MAD 9.77						

Note: BCA carried out in MAD and denominated in US\$. Totals may not add up due to rounding. **Highlighted cells** are included in the Result Framework.

Source: World Bank BIRD II PAD, Report No: 47593-MA, 2010; and Rapport d'Achèvement, BIRD II No. 7922-MA, 2016.

13. *Financial Analysis.* The ex-ante financial analysis was also carried out in the three provinces cited above. While financial costs were based on Project appraisal costs, financial benefits were measured in terms of incremental (with/without project) cash-flows generated for ONEE. A CBA, which used an interest rate of 10%, which is above the usual market rate and was probably used to account for uncertainties, was performed and did not fulfill the following three criteria: NPV of the net BC flow greater than zero; financial IRR greater or equal to the interest rate; and a PV of B/C ratio greater than 1. Moreover, the long term marginal cost of water was calculated (MAD/m³) and is much higher than the current tariff (Table 2).

14. More specifically, the ex-ante CBA, which covered the water schemes used the following data:

- The cost flow included: (i) all water supply investments, i.e., 92% of the total Project costs; (ii) taxes (VAT); and (iii) inflation at a two percent annual rate for operating expenditures and renewal investments from ONEE's own funding.
- The benefit flows were based on: (i) incremental sales of water delivered to *douars* using current rates (MAD 2.37/m³ for water supplied to SPs and MAD 3.62/m³ for water delivered to operators); (ii) incremental sales of water delivered to ONEE's direct customers in urban centers using ONEE's water rates; (iii) incremental sales of water delivered to municipal water and electricity utilities (RADEES and RADEEJ (the Autonomous Water and Electricity Authority of El Jadida and Sidi Bennour) using ONEE's bulk water rates; (iv) annual tariff increases estimated in line with the assumptions

of the financial model; (v) contributions of communes and the population for 20% of the cost of conveyance (regional trunk lines, lateral mains and storage); and (vi) the Bank loan repayment.

15. Unlike the results of the ex-ante economic analysis, the ex-ante financial analysis is not profitable for any of the targeted areas. The Project had an overall financial rate of return of -2.1% at an 8% interest rate and a negative NPV of MAD 96.8 million (Table 2).

Table 2: BIRD II Project Ex-ante and Ex-post Financial Analyses

Sub-Project	Unit	Nador/ Driouch	Safi/ Youssoufia/ Sidi Bennour	Errachidia	Total	Viability Criteria
Ex-ante BCA, 2009						
IRR	±%	0.7%	-6.2%	2.3%	-2.1%	≥8%
NPV (rate = 8%)	MAD million	-23.7	-58.4	-13.2	-96.8	>0
VA B/C	Ratio	<1	<1	<1	<1	>1
Long term marginal cost	MAD/m ³	18	24	13		
Urban population targeted	#	89,000	40,000	171,000	300,000	
Douar targeted	#	217	640	0	957	
Rural Population targeted	#	76,000	260,000	36,200	336,000 + 36,200	
Exchange rate as of November 3, 2009: US\$ 1= MAD 7.63						
Restructuring, 2015						
Urban population targeted	#				300,000	
Douar targeted	#	214	787	0	1,001	
Rural Population targeted	#	81,000	279,000	0	360,000	
Ex-post BCA, 2016						
IRR	±%	<0%	<0%	<0%	<0%	≥4%-8%
NPV (rate = 4 %)	MAD million	-606.2	-909.2	-216.6	-1,732.0	>0
NPV (rate = 8 %)	MAD million	-535.9	-793.7	-192.1	-1,521.7	>0
VA B/C	Ratio	<1	<1	<1	<1	>1
HC tariff in 2015 bloc 1	≤6 MAD/m ³				2.37	
HC tariff in 2015 bloc 2	>6 m ³ ≤12				7.39	
Financial cost	US\$ million	60.5	71.7	21.1	153.2	
Exchange rate as of June 30, 2016: US\$ 1= MAD 9.77						

Note: CBA carried out in MAD and denominated in US\$. Overall Sub-component ex-ante ERR is an estimate. Totals may not add up due to rounding. **Highlighted cells** are included in the Result Framework.

Source: World Bank BIRD II PAD, Report No: 47593-MA, 2010; and Rapport d'Achèvement, BIRD II No. 7922-MA, 2016.

16. The ex-post CBA covered the water schemes and used the following data:

- The cost flow included: (i) all water supply investments, i.e., 81.5% of the total Project costs out of the 92% appraised with the residual amount cancelled; (ii) taxes (VAT); and (iii) operating expenditures and renewal investments from ONEE's own funding.
- The benefit flows were based on: (i) no incremental sales of water delivered to douars from beneficiary contribution (MAD 500 per household) as 11 SP were achieved and no HCs were installed until early 2017; (ii) incremental sales of water delivered to ONEE's direct customers in urban centers using ONEE's current water tariffs starting in 2017; (iii) incremental sales of water delivered to RADEES and RADEEJ using ONEE's bulk water rates starting in 2017; (iv) commune contributions to the Project were not achieved and

reached about MAD 70 million, or 47% of the target, for the cost of conveyance (regional trunk lines, lateral mains and storage); (v) the Bank loan was reduced accordingly but is being repaid.

17. The ex-post financial analysis is significantly less profitable than the ex-ante financial analysis due to the forgone revenues and the 41-year timeframe retained in the ex-ante analysis. Nevertheless, the surveys conducted during the preparation of the BIRD II indicate that most households will aspire to have a household connection in the near future. The results provide an overall negative NPV of MAD -1.5 billion discounted at 8% at appraisal and sub-projects (MAD -536, -794, and -192 million respectively), a negative financial IRR and a negative PV B/C ratio across the board as illustrated in Table 2. A 4% interest rate is considered to account for the current interest rate and translates into an NPV that is slightly more negative with MAD -1.7 billion.

18. **Audit.** The ex-ante analysis showed that, in general, ONEE's rural activities could not ensure their financial equilibrium and needed to be cross-subsidized by urban revenues. Therefore, the financial feasibility of BIRD II was directly related to ONEP's ability to generate sufficient cash through its urban potable water production activity. As ONEP could not assess its ability to cover its operating costs and service its long-term debt, it was agreed that ONEP would maintain a debt service coverage ratio (defined as the annual cash flow from operations less the change in working capital requirement and increased interest expense over the annual debt service) of more than 1.2 (Table 3).

Table 3: ONEE Actual, Projection and Targeted Debt Service Coverage Ratio

Entity Indicators	Year	ONEP			ONEE			
		2010	2011	2012	2013	2014	2015	2016
A. Cash generated by operations (before interest)		1.71	1.74	1.77	4.20	5.49	5.91	NA
B. Working Capital Requirements		0.65	0.72	0.41	0.61	1.65	1.29	NA
C. Debt service		1.44	2.21	1.28	1.78	2.00	2.90	NA
D1. Ex-Post Debt service coverage ratio (A-B/C)		0.74	0.46	1.06	2.02	1.92	1.59	NA
D2. Ex-Ante Debt service coverage ratio		1.73	1.24	1.49	1.41	1.25	1.21	1.73
D3. PAD Debt service coverage ratio target		>1.2	>1.2	>1.2	>1.2	>1.2	>1.2	>1.2

Source: ONEE Certified Audits 2011-2015; and World Bank BIRD II PAD, Report No: 47593-MA, 2010.

19. ONEE was not able to maintain the debt service coverage ratio from 2010 until 2012. In 2013, after the ONE and ONEP merger, ONEE's debt service coverage ratio improved, compared to ONEP. The 2016 audit, which is expected to be released after June 2017, will further shed light on the effect of the BIRD II on ONEE. Nevertheless, BIRD II's delayed revenues, which will start accruing in early 2017, are unlikely to affect the BIRD II's repayment schedule as the GoM guaranteed the loan.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Pier Francesco Mantovani	Lead Water and Sanitation Spec.	GWA08	TTL
Anas Abou El Mikias	Consultant	GGODR	
Sherif Kamel F. Arif	Consultant	GEN05	
Augustin Maria	Sr Urban Spec.	GSU10	
Zakia B. Chummun	Program Assistant	GWA06	
Abdeljalil Derj	Consultant	MNCMA	
Philippe Huc	Sr Water & Sanitation Spec.	MNSWA - HIS	
Abdoulaye Keita	Senior Procurement Specialist	GGO05	
Hassan Lamrani	Consultant	MNCMA	
Li Song	Senior Environmental Specialis	GENDR	
Richard Verspyck	Consultant	GWA07	
Wendy E. Wakeman	Lead Social Development Specia	MNSSU - HIS	
Supervision/ICR			
Stephane Raphael Dahan	Sr Water & Sanitation Spec.	GWASO	TTL
Richard Abdounour	Sr Water Supply & Sanitation Spec.	OPSVP	
Xavier Chauvot De Beauchene	Sr Water & Sanitation Spec.	GWA07	TTL
Philippe Huc	Sr Water & Sanitation Spec.	MNSWA - HIS	
Abdoulaye Keita	Senior Procurement Specialist	GGO05	
Anas Abou El Mikias	Consultant	GGODR	
Markus Friedrich Vorpahl	Senior Social Development Spec.	GSU05	
Najat Maalla M'Jid	Consultant	MNCMA	
Khalid Anouar	Consultant	MNCMA	
Philippe Marin	Sr Water & Sanitation Spec.	GWA03	
Aissatou Diallo	Senior Finance Officer	WFALN	
Laila Moudden	Financial Management Analyst	GGO23	
Mohammed A. Bekhechi	Consultant	GEN05	
Claudine Kader	Program Assistant	GWA05	
Antonio Rodriguez Serrano	Sr Water & Sanitation Spec.	GWA03	TTL ICR
Elizabeth Eiseman	Consultant	GWA02	
Fadi M. Doumani	Consultant	GEN07	

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY09	34.3	295.8
FY10	52.0	346.6
FY11	14.8	71.9
Total:	101.1	714.3
Supervision/ICR		
FY12	6.6	40.0
FY13	10.5	53.9
FY14	6.0	54.0
FY15	16.7	119.5
FY16	29.55	238.6
FY17	7.15	93.0
Total:	76.5	599.0

Annex 5. Beneficiary Survey Results
(if any)
Not applicable.

Annex 6. Stakeholder Workshop Report and Results
(if any)
Not applicable.

Annex 7. Summary of Borrower's ICR and/or Comments on ICR

1. ONEE's Completion Report was submitted to the Bank on November 8, 2016. The document was coordinated by the Development and Coordination Division of the Directorate (*Direction de la Généralisation de l'Eau Potable*, DEP), the unit in charge of the national rural water program implementation and overall coordination of projects.

2. The Report is divided into two chapters: Chapter 1, presenting the project, contextual background, geographic scope, costs and financing, internal consistency, as well as the main modifications to the project's content; and Chapter 2, on project implementation. This second chapter reports in detail the preparation, supervision, and procurement of the project, a financial evaluation of the project components, the findings of the social mobilization teams, as well as issues with the operationalization of works and related delays and other information relevant to the project.

3. This Annex presents a summary of ONEE's Completion Report concluding sections, including (i) a recap of the challenges faced during project implementation, and (ii) lessons learned and recommendations to consider for future similar projects.

4. ***Throughout the execution of the project there were several difficulties, which compromised its smooth progress. Some of these problems reported by ONEE are included below.***

5. *Preparation Stage:*

- The need to reassess one part of the studies because of technical reasons (change in paths, characteristics of pipes, etc.)
- Changes in reservoir sites and pumping stations that were linked to opposition from local populations (resumption of implementation studies, geotechnical studies, etc.)
- Relaunch of certain procurement packages, mainly due to a 1st unsuccessful call for proposals.
- For the drinking water supply system in Sidi Bennour, an unfavorable attitude displayed by the populations of two rural towns, Oulad Amrane and Bni Dghough, after the first visit by the social mobilization teams.

6. *Implementation Stage:*

- Opposition expressed by the populations occupying land that was planned for the installation of production lines, engineering structures, and poles for lying electrical lines (intervention from firms was impossible since compensations had not been resolved).
- Opposition expressed by residents that did not accept to cede their land and that, because of a lack of compensation, refused to let firms place their equipment and connect the pipes to reservoirs and tanks. This opposition was sometimes exacerbated by a wait-and-see policy of the local authorities and rural communes, which were not sufficiently involved in the project.

- Difficulties to secure authorizations to work on roads, canals, forest areas, railway lines, major wadis, etc. from institutions such as water basin agencies, the Public Works provincial offices, the National Railroad office, etc., and the absence of framework agreements to resolve these issues rapidly.
- In the requests for crossing authorizations, technical records that were not examined in their entirety by the concerned authorities, which resulted in a back and forth between them and ONEE.
- Long and complicated procedures with ONEE's electricity branch for the power supply of water stations (several steps such as studies, quotes, approval of plans, connections, availability of electricity meters, etc.)
- Unexpected difficulties in excavating works due to rockier soils than expected.
- Oppositions manifested by urban municipalities which refused to have pipes crossing through big centers, like in the case of Sebt Gzoula.
- Companies that abandon their work lots assigned in a sub project and move their equipment and personnel to other sites managed by other companies. This problem goes hand in hand with the heavy workload of a firm that has been awarded too many lots, exceeding their capacity to mobilize sufficient resources in relation to their needs.
- The completion of civil works depends on the advance of other lots, notably the lots of supply and distribution pipes.
- Delayed payments to contractors may cause a slowdown in their pace of work (liquidity problems and increase of bank fees).
- The lack of synchronization between lots, particularly with pipes and civil works, which makes one wait for the other one, resulting in the prolongation of delays.
- In cases where the implementation of works was delayed, acts of vandalism (robberies of pipes, caps, pieces of equipment, and destruction of small civil works, etc.) are committed, which forces firms to hire their own security services.
- The implementation of works was delayed by other problems such as long procedures for procurement and contracting of civil works.

Main mitigation measures implemented by ONEE

- It was requested from the TA to have a higher involvement of technicians that work with construction sites and the social mobilization teams in conflicts that arise between the communities and ONEE, regarding temporary occupations and expropriations when compensations take time to be provided. It was requested from them to take a "facilitator" role between these parties for the plaintiff to allow the companies to continue their work, while waiting for the legal procedures to evolve (creating a climate of confidence).
- The TA recruited initially an expert in expropriation procedures to support the topographic services and land operations of the concerned general directorates in the creation and implementation of their expropriation files. This agent was able to settle many of the opposition problems that obstructed the smooth progress of the works at Safi. Additionally, he intervened to establish and update regularly the land acquisition plan.
- Secondly, the ONEE requested from the TA to mobilize an IGT expert and a topography team to take charge of the expropriation procedures, which were initially designated to the general directorates and the DAJ. This team completed a colossal work; nonetheless,

despite all its efforts the problem of expropriations was not settled in its entirety before the closing of the loan.

- For the crossing authorizations (roads, canals, railroads), the DEP encouraged the organization of meetings with high authorities at the province level to bring other authorities (DRETL, water basin agencies, Eaux et Forêts, etc.) to be more flexible and allow the speed up of procedures and prevent delaying the implementation of subprojects.
- The social mobilization teams worked closer with the local authorities to request their support in their activities with the local populations and convince them to not delay the works, provided that the compensation procedures would be conducted quickly.
- ONEE made arrangements to reduce delays in processing bills and ensure payments to companies were done faster than before.
- ONEE encouraged consultations between the electricity and water branches to simplify procedures to connect electric lines and water systems and reduce delays in this process.
- In regards to crossing permits, the DEP sought to anticipate the preparation of technical records with the help of companies and the TA to have them quickly in the approval circuit. The technicians of the TA were also in charge of following up with these records at the provincial level to bring them to a successful conclusion.
- The most important measure consisted in the consignment at the CDG level of an important amount that represents the compensations of the beneficiaries of the regions of the BIRD II program.
- Before accepting the works, the reservation of meters, the timely provision of ONEE's laboratorians, with their means of operation, the designation of a manager and the support of the social mobilization teams to speed up the completion of administrative procedures were all planned so that the implementation of works wouldn't be delayed.

Lessons and Recommendations

7. In view of the experience of the BIRD I project and the preparation and implementation of the BIRD II project, ONEE considered important to share the following lessons and recommendations to be further considered in suitable contexts.
8. The main causes of delays recognized in the completion of works:
 - The opposition from local residents that represents of the main causes of delays in the completion of works.
 - The tardiness in the compensation procedures of beneficiaries is considered as a factor that delays the resolution of conflicts with land owners.
 - The excessive tardiness in the administrative procedures to obtain the authorization to work on roads, canals, forests, railroads, etc. throughout the process of installing pipes.
 - The difficulty of collaboration between the water and electricity branches of ONEE for the connection of electric lines to water stations.
 - The lack of support of the local authorities in general, which do not make an effort to play an active role in the resolution of conflicts.
 - The acts of vandalism, and the failure of some companies that do not provide enough resources to prevent delays.
 - The workload schedule of important bidding companies, in relation to their technical, material, and financial capabilities.

- The delays in payment of companies that experience problems of liquidity.

9. The following are recommendations prepared by the ONEE team, following the preparation and implementation of the BIRD II project:

- Social aspects should take an important place in the preparation of the technical studies for these projects, to make sure there is a clear understanding of what are the populations' needs in terms of service mode, the number and location of water points mostly needed by households, and zones where other systems are already in service.
- It is helpful to make sure that the zones of intervention are in 2 or 3 neighboring provinces to facilitate the implementation of works and to prevent dispersed interventions.
- Facilitate supervision and implementation missions by engineers based in each of the 4 zones of installation of sub projects (with technicians under their responsibility). This solution must be pursued to have a global supervision and coordination of projects.
- Do not start works while problems of temporary land occupation, expropriation, or compensation have not been completely resolved, to prevent the populations that feel affected from delaying the advance of works.
- Obtain the respective authorizations to cross or go along roads, canals, railways, forest areas, highways, etc. well in advance of the implementation of the works.
- Develop framework agreements between ONEE and other institutions such as the DRETL, Eaux et Forêts, the water basin agencies, the ADM, the ONCF, etc. to facilitate and accelerate the procedures of occupation and crossings. It is also important to work with them so that the technical records are examined and commented on in their entirety to prevent a back-and-forth between parties.
- Examine the workload schedule of bidding companies before the assignment of works in a complete manner, considering other projects financed also by ONEE and other contracting bodies, and see if the launch of new contracts on top of the one assigned to the company are compatible with the availability of their resources (in terms of materials, finances, human resources, etc.). It might be important to revise the evaluation criteria during the process of call for proposals. Similarly, it could be important to limit the number of civil work lots that a company would like to take part on, to prevent any risks in case the successful tenderer must to perform a volume of works superior to its capabilities of mobilizing its resources.
- Take note of poor performing companies for reference in future calls for offers.
- Avoid as much as possible to have "idle" networks to prevent the deterioration of works and acts of vandalism.
- Establish an internal agreement between ONEE's water and electricity branches to resolve rapidly the issues faced connecting water treatment plants to electricity lines and to ensure the operation of infrastructure can start right after the reception of works.
- Request from the social mobilization teams, in strong collaboration with the concerning mixed agencies, to raise awareness and inform the local authorities to take ownership of the project, and to obtain their complete adhesion and continuous support.
- Anticipate and schedule the interventions of mixed agencies so that their mobilization, and the one of the technicians, collectors, etc. can be done in a timely manner, without having to wait for them.

- In new projects, it is advised to plan in the composition of the TA specialized personnel to take charge solely of fragmented surveys and land operations.

Summary of the comments on the draft ICR

10. As set of comments on the draft ICR was received from ONEE on June 21, 2017. Below is a summary of the main comments:

- In ONEE's opinion, some of the ICR's unsatisfactory ratings should be nuanced. According to ONEE, thanks to the transfer of BIRD II's unfinished works to the BIRD IV Project, the BIRD II's expected outcome would come to fruition, albeit post-Project. Beside putting all constructed SPs in operation will only depend on actions and procedures that are sometimes time-consuming but always succeed eventually.
- ONEE agreed urban beneficiaries were not captured in the Project's results framework. However, ONEE observed the Project's design considered the link between urban and rural areas. Water demand and requirements for both, rural and urban beneficiaries, were considered in the design, production, treatment and distribution capacity of the regional water systems.
- With regards to household connections, ONEE recalled his mission is to ensure that the rural population has access to drinking water. Therefore, they concentrated investments in water production, treatment plants, transport, distribution networks and antennas to the SPs. For the HC development, ONEE follows a financial scheme based on co-financing by municipalities and households, which were not implemented under the Project, mainly because tertiary distribution networks were not completed.
- With regards to Component 2, ONEE claimed grey water management component were out of the Project's scope. In fact, Project restructuring requested by the Government in April 2015 (letter received on April 14, 2015) in accordance with the findings of the Project mid-term review mission carried out from 22 September to 2 October 2014, included, inter alia, a two-year extension, dropping Component 2 from the Project and aligning the results framework to the BIRD IV. The restructuring, however, was not formalized at this point. The Project was granted only a six-month extension to resolve land acquisition issues and improve the Project's social safeguard rating, with the possibility of a second extension of eighteen months if those issues were fully resolved. Given the land acquisition issues and the decision to not further extend the Project's closing date, these adjustments were never made.
- In ONEE's opinion, the main source of the delay with regards to the performance-based bid for the construction of the Nador and Safi WTPs was the selection method, which required evaluating all the technical proposals received. Per ONEE, this method, which in line with good international procurement practices, was imposed by the Bank. ONEE, however, had only one person with the capacity and availability to assess the bids. ONEE received 16 proposals for the extension of the Nador WTP and 13 proposals for the construction of the Safi WTP.
- Also, in view of certain divergences with the ICR estimates on ONEE Actual, Projection and Targeted Debt Service Coverage Ratio (Table 3), ONEE asked the ICR team to provide the source and calculation method. However, the Bank clarified the estimates are based on ONEE Certified Audits 2011-2015 shared by ONEE.

- ONEE provided some clarifications regarding the timing of WTPs' environmental audits: the environmental audit of the Nador WTP was conducted on January 26, 2017 and the environmental audit of the Safi WTP is planned on September 2018.
- Finally, ONEE indicated that *“had the Bank implementation support and supervision assured the necessary guidance, handholding and close cooperation for meeting the requirements of OP 4.12, the Project would have been implemented in full compliance with this policy.”* Although the Bank provided TA to ONEE for the formulation of the LAF based on Morocco's existing regulations and the requirements of OP 4.12 during Project preparation and the LAPs for implementation of the LAF. The Bank underestimated ONEE's capacity to carryout land acquisition in compliance with OP 4.12.

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders
Not applicable.

Annex 9. List of Supporting Documents

Project-Specific Documents:

- Project Information Document, February 2007
- Note de Synthèse de l'Etude du Schéma Directeur du Réseau de Transport et de Répartition, ONEE, 2007
- Project Appraisal Document, May 2008
- Project Paper on Additional Loan
- Loan Legal Agreements
- Implementation Status and Results Reports
- Aide Memoires
- Aide Memoire for ICR mission
- Environmental Assessments
- Electricity Tariff Study
- Semi-annual Progress Reports
- ONEE Annual Activity reports from 2009 to 2014
- ONEE Implementation Completion Report, October 2016

Additional Documents:

- Programme de généralisation de l'eau potable (GEP), 2004
- Programme National d'Assainissement Liquide (PNA), 2006
- MA-Water Sector Reform (PESW Phase2) (P101669)
- Maroc - Revue Stratégique du Programme National d'Assainissement, May 2008
- MA-Water Sector Reform (PESW Phase 3) (P107020)
- Programme National d'Assainissement Liquide et d'Epuration des Eaux Usées 2008-2012
- GPOBA (W1): Morocco Rural Water OBA Schemes TA Grant (P125870)
- Output-Based Aid in Morocco (Part 2): Expanding Water Supply Service in Rural Areas – OBA Approaches Note Number 26 (June 2009)
- First Water Sector Development Policy Loan (P095840)
- MA-Rural Water Supply (P145529)
- Land Acquisition in Morocco: Analysis of policies and improvement of planning and management procedures (P161589)
- Study on Management and Sustainability of Stand Points in Rural Areas in Morocco - Stand Points Built under the BIRD I Project by Khadija Bourarach

MAP: IBRD 33450R3

