



LB-Environmental Pollution Abatement Project (P143594)

MIDDLE EAST AND NORTH AFRICA | Lebanon | Environment, Natural Resources & the Blue Economy Global Practice | IBRD/IDA | Investment Project Financing | FY 2015 | Seq No: 15 | ARCHIVED on 29-Sep-2021 | ISR47993 |

Implementing Agencies: Ministry of Finance, Ministry of Environment, Central Bank

Key Dates

Key Project Dates

Bank Approval Date: 01-Aug-2014

Effectiveness Date: 28-Jan-2016

Planned Mid Term Review Date: 30-Mar-2017

Actual Mid-Term Review Date: 11-Apr-2018

Original Closing Date: 31-Mar-2021

Revised Closing Date: 31-Dec-2021

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The development objectives of the project are to assist the Borrower in: (a) reducing industrial pollution in targeted Industrial Enterprises; and (b) strengthening the monitoring and enforcement capabilities of the MOE.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

Components Table

Name
A.
Technical Assistance (parallel financing):(Cost \$3.00 M)
B.
Investment Sub-projects (IBRD):(Cost \$15.00 M)

Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	<input type="checkbox"/> Moderately Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Implementation Progress (IP)	<input type="checkbox"/> Moderately Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Risk Rating	<input type="checkbox"/> Substantial	<input type="checkbox"/> Substantial

Implementation Status and Key Decisions

The project became effective in January 2016. In spite of delays in the early stages of implementation, the project has been able to build a strong pipeline of sub-projects during the course of the 2018 and 2019 calendar years. To date ten sub-projects are signed and in various stages of implementation--reducing air and water pollution by up to 90 percent in the targeted enterprises and bringing those enterprises in compliance with national environmental laws. Total disbursements amount to US\$11.4 million (76% of loan amount).

Implementation progress slowed down in the past year as a result of the economic crisis in Lebanon and the lack of clarity on disbursement of project funds to commercial banks and to the beneficiaries. Since March 2021, the modalities has been clarified by the Central Bank and a commercial bank has signed a sub-loan agreement with one industry in August 2021. However, the disbursement of funds is awaiting official



confirmation by the Government that the project funds will be released in "fresh \$" and that funding for the PMU will be secured for the duration of the extension. The Government's response should be received by September 30, 2021 in order for the project to be extended till December 2022 and for the project's activities to be initiated. Otherwise, the project will be closed on the current closing date of December 31, 2021.



Risks

Systematic Operations Risk-rating Tool

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	--	<input type="checkbox"/> Substantial	<input type="checkbox"/> Substantial
Macroeconomic	--	<input type="checkbox"/> High	<input type="checkbox"/> High
Sector Strategies and Policies	--	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Technical Design of Project or Program	--	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Institutional Capacity for Implementation and Sustainability	--	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Fiduciary	--	<input type="checkbox"/> High	<input type="checkbox"/> Moderate
Environment and Social	--	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Stakeholders	--	<input type="checkbox"/> Substantial	<input type="checkbox"/> Substantial
Other	--	<input type="checkbox"/> Low	<input type="checkbox"/> Low
Overall	--	<input type="checkbox"/> Substantial	<input type="checkbox"/> Substantial

Results

PDO Indicators by Objectives / Outcomes

Reducing industrial pollution in targeted Industrial Enterprises



► Particulate Matter reduction achieved under the project in the targeted enterprises (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	91.50	91.50	50.00
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
Comments:	All 5 LEPAP sub-projects addressing air pollution are operational. This indicator takes into account the sub-projects implemented at the following industries: Cimenterie Nationale, Zinaline, Sicomo and Ciment de Sibline. The stack measurements for Cimenterie Nationale and Sicomo data is collected from online monitoring systems and for Zinaline and Ciment de Sibline and is an estimation of the emissions and flow rate of the extraction system. The total dust emissions before the implementation of the sub-projects was around 657 kilo tonns/y and the total emissions reduction is equivalent to 602 kt/y (~ 91.5%).			
► BOD/COD reduction achieved under the project in the targeted enterprises (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	98.30	74.00	50.00
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
Comments:	The WWTPs of Kassatly Chtaura, Chateau Ksara, Sicomo and Libanlait's are currently operational, however, the results continue to be affected by the lockdown, specifically for Sicomo as they totally shut down (January – March 2021) and it is not fully operational. Continuous monthly testing by enterprises and MOE monitoring is still taking place to assess the performance of the systems. BOD is tested twice a year as requested by the Litani River Authority (LRA) and those results are shared with MOE by the enterprises. Lastest values show a reduction in BOD from 8.8 tonns/d to 0.1 tonns/day with a resulting efficiency of 99%. The total load of COD before treatment is 14,1 tonns/d and the total COD reduction achieved is 10, 3 tonns/d equivalent to a treatment efficiency of 73%. Resulting in a cumulative efficiency of 74%			
► Industrial solid waste reduced under the project in the targeted enterprises (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	20.00	50.00
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
Comments:	The rendering plant of Wilco PM is the only LEPAP sub-project addressing solid waste and it is currently operated in batches (2-3 days /week). Currently 60 tons of waste. is produced and 12 tons is treated by the rendering plant, with a reduction percentage of 20%. There are currently marketing issues to offload the remaining 80%. An expert is being hired to identify alternative uses and markets for the end product.			

Strengthening the monitoring and enforcement capabilities of the MOE

► Increase in number of non-compliant operational enterprises addressed in letters from MOE to Ministry of Industry, Ministry of Interior, governors, municipalities, and prosecutors (Percentage, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	62.00	184.00	209.00	50.00



Date	01-Dec-2017	29-Sep-2020	28-Jul-2021	31-Dec-2021
Comments:	Baseline 2017: 62 letters. Total letters issued from January 2018 till 24 March 2021: 192 letters (equivalent to an increase of 209.6%). Updated value to be provided			
►Enterprises financed through the project aiming towards the environmental compliance Decree no. 8471-2012 (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	8.00	8.00	10.00
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
Comments:	As of July 2021, eight enterprises borrowed under LEPAP with 10 financed sub-projects (Cimenterie Nationale, Wilco PM, Sicomo, Kassatly Chtaura, Ciment de Sibline, Libanlait, Zinaline and Chateau Ksara). All sub-projects are completed and commissioned.			

Intermediate Results Indicators by Components

Component A – Technical Assistance				
►Guidelines and tools for environmental monitoring/compliance for specific industrial sectors developed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	10.00	10.00	9.00
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
Comments:	Guidelines for the following sectors have been completed: Slaughterhouse, Meat processing, Dairy Industry, Cattle Farm, Cement Mixing, Asphalt Mixing, Cutting Stone, Cement Blocks			
►People trained on environmental compliance/ monitoring/ enforcement and awareness (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	126.00	126.00	100.00
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
►Industrial database including monitoring, permitting, and enforcement data operational (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	Yes	Yes
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
Comments:	Database has been completed			



Component B – Investments (Sub-projects)				
▶ Participating banks lending to enterprises (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	4.00	6.00	4.00
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
Comments:	Audi, Fransabank, Byblos, Bank Med, BEMO			
▶ Enterprises that benefit from LEPAP environmental services (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	65.00	70.00	40.00
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021
▶ Sub-loans issued to enterprises for pollution reduction (Amount(USD), Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	11.39	11.39	14.96
Date	01-Aug-2014	29-Sep-2020	26-Jul-2021	31-Dec-2021

Performance-Based Conditions

Data on Financial Performance

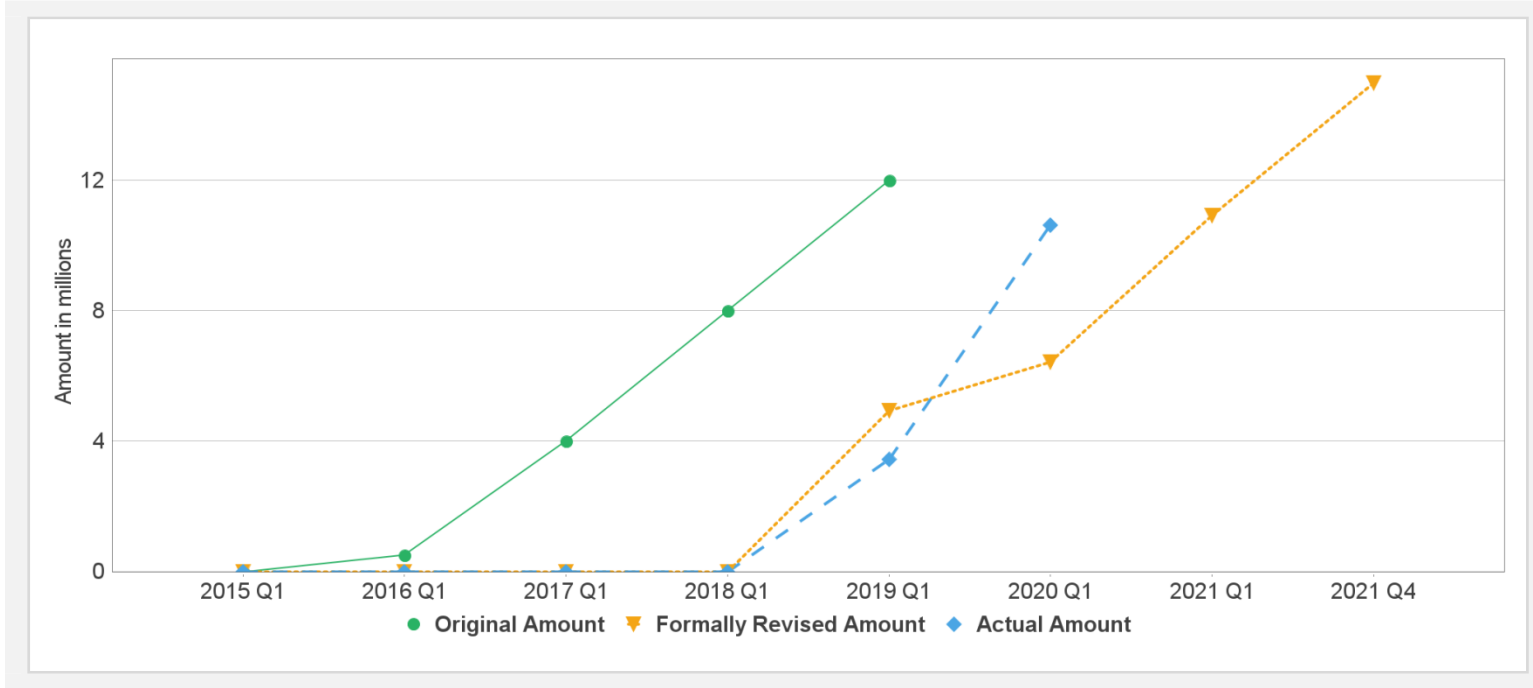
Disbursements (by loan)

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P143594	IBRD-84100	Effective	USD	15.00	15.00	0.00	11.44	3.56	76%

Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P143594	IBRD-84100	Effective	01-Aug-2014	24-Oct-2014	28-Jan-2016	31-Mar-2021	31-Dec-2021

Cumulative Disbursements



PBC Disbursement

PBC ID	PBC Type	Description	Coc	PBC Amount	Achievement Status	Disbursed amount in Coc	Disbursement % for PBC

Restructuring History

Level 2 Approved on 29-Jun-2018 ,Level 2 Approved on 11-Jan-2021

Related Project(s)

There are no related projects.