



RESTRUCTURING PAPER
ON A
PROPOSED PROJECT RESTRUCTURING
OF
LB-ENVIRONMENTAL POLLUTION ABATEMENT PROJECT
APPROVED ON AUGUST 1, 2014
TO
REPUBLIC OF LEBANON

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ENVIRONMENT & NATURAL RESOURCES GLOBAL PRACTICE

MIDDLE EAST AND NORTH AFRICA

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ABBREVIATIONS AND ACRONYMS

AICS	Italian Cooperation
BdL	Bank of Lebanon
BOD	Bio-Oxygen Demand
CAP	Compliance Action Plan
COD	Chemical Oxygen Demand
CPF	Country Partnership Framework
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
LEPAP	Lebanon Environmental Pollution Abatement Project
MOE	Ministry of Environment
MOI	Ministry of Industry
MTR	Mid-Term Review
PDO	Project Development Objective
PM	Particulate Matter
PMU	Project Management Unit
RF	Results Framework



BASIC DATA

Product Information

Project ID P143594	Financing Instrument Investment Project Financing
Original EA Category Financial Intermediary Assessment (F)	Current EA Category Financial Intermediary Assessment (F)
Approval Date 01-Aug-2014	Current Closing Date 31-Mar-2021

Organizations

Borrower Ministry of Finance	Responsible Agency Ministry of Environment,Central Bank
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Project Development Objective (PDO)

Original PDO

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.

Summary Status of Financing

Ln/Cr/Tf	Approval	Signing	Effectiveness	Closing	Net Commitment	Disbursed	Undisbursed
IBRD-84100	01-Aug-2014	24-Oct-2014	28-Jan-2016	31-Mar-2021	15.00	3.47	11.53

Policy Waiver(s)

Does this restructuring trigger the need for any policy waiver(s)?

No



The World Bank

LB-Environmental Pollution Abatement Project (P143594)



I. PROJECT STATUS AND RATIONALE FOR RESTRUCTURING

A. *Project Status*

- (i) The Lebanon Environmental Pollution Abatement Project is a financial intermediary loan of US\$ 15 million with a parallel grant in the amount of €2.3 million (equivalent to US\$ 3.0 million at Board approval) financed by the Italian Cooperation (AICS). The project development objectives 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.
- (ii) The project aims to achieve its objectives through two components: (i) Component A (US\$ 3 million) with an objective to strengthen the capacity of the Ministry of Environment (MOE) through technical support and training, the banking sector and the industrial associations for environmental performance and compliance and provide project management support; and (ii) Component B (US\$ 15 million) will provide concessional loans through the banking sector for pollution control to enterprises in order to bring their air emissions, effluent discharges and industrial waste generation towards compliance with national environmental standards in a cost-effective manner.
- (iii) Project effectiveness was delayed due to the political deadlock that prevented Parliament to vote on the World Bank loan. Furthermore, delays in disbursement were due to finalizing the contract between BdL and the participating banks; changes in the loan terms stipulated in Circulars issued by Bank of Lebanon (BdL); and World Bank requirements of a fixed term loan disbursement threshold of at least US\$ 3 million which meant that the Project Management Unit (PMU) needed to mobilize a number of clients to achieve the threshold. It took until January 12, 2018 to overcome the hurdles and retroactively disburse US\$ 3.44 million.
- (iv) A Mid-Term Review (MTR) mission was carried out in April 2018 to: i) review the project's implementation progress for each component and progress against the development objectives and indicators as per the results framework; ii) review institutional arrangements for project management, implementation, and monitoring and evaluation; iii) review the status of environmental and social safeguards, procurement, financial management, and disbursement; and iv) assess the need for project restructuring in order to improve project performance and ensure project outcomes.



Progress Towards Achievement of Project Development Objectives (PDO)

- (v) The MTR confirmed the project objectives remain highly relevant to the priorities of Lebanon and the Country Partnership Framework (CPF) Objective 1b: Reduced industrial, hazardous and wastewater pollution. The first part of the PDO on ‘reducing industrial pollution in targeted industrial enterprises’ is mainly on track and expected to be achieved. In terms of results and progress of indicator targets: 2 of the 3 enterprises that have received sub-loans have reduced their air pollutants by more than 50% (40% of target); 3 of the 15 targeted enterprises are borrowing for pollution reduction and working towards compliance (25% of target); 8 guidelines for sector Environmental Impact Assessments (EIAs) for industries have been developed (89% of target); 55 people have been trained on environmental monitoring and compliance (92% of target); 11, 200 microgram/m³ of particulate matter (PM) has been reduced under the project and 62,000 people have reduced exposure to PM10 as a result of this (1240% of target). However, the second part of the PDO on ‘strengthening the monitoring and enforcement capabilities of the MOE is lagging behind, and activities related to this objective (Component A) will be accelerated in order to ensure the objective is achieved.
- (vi) The MTR concluded that the Results Framework (RF) needs to be fine-tuned and clarified to adequately reflect project activities and targets revised in line with the implementation progress and expected results at the end of the project, with targets that were not defined at approval set. The need to have additional indicators to capture the second PDO on strengthening monitoring and enforcement capabilities of MOE was also identified. There will be no changes to the PDO as it is still relevant and achievable. The changes to the Result Framework will be the only change to the project and there is no change in project scope or activities.
- (vii) To improve project performance, a six-month action plan with key actions were agreed with the client following the MTR:
- Firming the sub-project pipeline with investment subprojects to be financed by the undisbursed IBRD funds
 - Making MOE funds available for the Technical Assistance (TA) activities and to support PMU operations till end of project
 - Strengthening Monitoring and Enforcement Capacity of MOE by the creation of a consolidated database, training of different stakeholders, communications to create awareness, and development of guidelines in industrial sectors and MOE administrative procedures for environmental monitoring and enforcement
 - Disbursement planning for the IBRD funded project component by quarter till end December 2018
 - Monthly Updates on Action Plan
- (viii) These actions are being monitored monthly with the PMU sharing a monthly report on the status of progress with respect to all agreed actions, along with a plan to ensure that the agreed actions materialize in a timely manner.

B. Rationale for Restructuring

The restructuring is necessary to adequately capture the achievement of the objectives and ensure there are indicators at the appropriate level to measure each aspect of the PDO, with realistic targets set in line with project activities that can be achieved in the project life. The changes to the indicators will set clear targets and clarify the definition of indicators. This is necessary to be able to demonstrate project results at the end of the project and achieve the development objectives.



II. DESCRIPTION OF PROPOSED CHANGES

- (i) The proposed level two restructuring will involve changes to the indicators in the Results Framework (RF). PDO level and intermediate indicators need to be fine-tuned and clarified to adequately reflect project activities and targets revised in line with the implementation progress and expected results at the end of the project. Targets of some indicators were not defined at approval, while some are unrealistic and unlikely to be achieved as there will not be enough financing to provide sub loans to the targeted number of enterprises. Also, absolute numbers for targets of some current indicators cannot be determined at this time as the full pipeline is unknown.
- (ii) Some Intermediate level indicators need to be moved to the PDO level as they are outcome indicators and some output oriented indicators moved to the intermediate level. Additional indicators to capture the second PDO on strengthening monitoring and enforcement capabilities of MOE are needed. The proposed changes to the RF and reasons are outlined below:

Proposed Changes to the Results Framework

Indicator (PAD annex 1)	Target	Proposed Action	Proposed Indicator	Target	Reason
PDO Indicators					
Enterprises financed through the project that conform to the environmental compliance Decree no. 8471-2012 <i>Description: Any industrial enterprise that would borrow funds through the LEPAP mechanism to develop and implement a CAP that is in conformity with MOE's Environmental Compliance Decree no. 8471-2012. The CAP is therefore a condition for accessing LEPAP funds for one sub-project but it is not a requirement for implementing all the sub-projects included in the CAP.</i>	15	Revise	Enterprises financed through the project aiming towards the environmental compliance Decree no. 8471-2012 <i>Description: Any industrial enterprise that would borrow funds through the LEPAP mechanism to develop and begin the implementation of a CAP. The CAP is therefore a condition for accessing LEPAP funds for one sub-project but it is not a requirement for implementing all the sub-projects included in the CAP.</i>	10	The wording of the indicator needs to be clarified to indicate that these are enterprises that are working towards complying with the decree and may not necessarily receive the Environmental Compliance Certificate (ECC). Target is also revised to a more realistic number.
Enterprises that would reduce their BOD discharges (t) by more than 50%	10	Revise	BOD/COD reduction achieved under the project in the targeted enterprises	50%	This indicator will be refined to make it outcome oriented to measure pollution reduction impact. Since the pipeline is not fully defined at this time, a 50% overall pollution reduction is proposed for the target instead of absolute number of tons.
Enterprises that would reduce their air pollutants (PM10) by more than 50%	5	Revise	Particulate Matter reduction achieved under the project in the targeted enterprises	50%	



Indicator (PAD annex 1)	Target	Proposed Action	Proposed Indicator	Target	Reason
PDO Indicators					
Industrial or municipal solid waste reduced or recycled under the project		Revise	Industrial waste reduced under the project in the targeted enterprises	50%	Moved from intermediate level to PDO level to measure industrial waste reduction outcomes and wording modified to remove 'municipal'. Since the pipeline is not fully defined at this time, a 50% overall pollution reduction is proposed for the target instead of absolute number of tons.
		Add	Increase in number of non-compliant operational enterprises addressed in letters from MOE to MOI/ Ministry of Interior and municipalities, governors-municipalities and environmental prosecutors	50%	This will measure the increase in the number of non-compliant operational enterprises addressed in letters from MOE to MOI/ Ministry of Interior and municipalities, governors-municipalities, environmental prosecutors to measure strengthened capacity for enforcement. These letters will have specific recommendations on actions and deadlines to bring enterprises into compliance with EMP, permitting or compliance decree. Since MOE actually does not impose penalties, fines, closure etc. they can only make recommendations to the environmental prosecutors, Governor, or MOI. A baseline will be taken now of the number of action letters sent in a year.
Participating Banks	3	Revise	Participating banks lending to enterprises	4	Clarifying indicator to include "lending to enterprises". Target increased to 4 since the original target of 3 was already achieved.
Enterprises borrowing	15	Drop			This overlaps with PDO indicator 1



Indicator (PAD annex 1)	Target	Proposed Action	Proposed Indicator	Target	Reason
Intermediate Indicators					
Sub-loans (#)	20	Drop			This target cannot be achieved nor determined at this time as the pipeline is not fully defined and some enterprises may borrow more than the minimum US\$100K which means actual number will be less than 15 for the US\$15m total financing
Sub loans (US\$)	15	Revise	Sub-loans issued to enterprises for pollution reduction	\$14.96M	Clarifying indicator to include “issued to enterprises for pollution reduction” to link to PDO1
Establishment of Guidelines for Sector EIA	9	Revise	Guidelines and tools for environmental monitoring/compliance for specific industrial sectors developed	9	Clarifying indicator to include tools and other guidelines that are needed for strengthened capacity and demonstrate link to the PDO2. Indicator will measure outputs under LEPAP and not previous projects. The guidelines will be available in English and Arabic and made available on the MOE database. A perception survey will be done at end of project to track the use of these guidelines and how it has strengthened capacity as well as downloads (if on web).
Regularly published monitoring reports covering environmental compliance of participating enterprises by MOE <i>Description of Indicator from PAD: MOE will upload the monitoring of pollution reduction information of the participating enterprises on its website when the equipment is up and running. Website to be updated as soon as a new enterprise is in conformity</i>	5	Revise	Industrial database including monitoring, permitting, and enforcement data operational (Yes/No)	Yes	Indicator was renamed and moved from PDO to intermediate level. Original indicator does not adequately measure monitoring and enforcement capacity as this is only reporting on the participating industries. Enforcement is currently not measured as not all industries that need to comply are reported on. The database for monitoring, permitting, compliance and enforcement will have the electronic information required for carrying out and tracking these functions. This



Indicator (PAD annex 1)	Target	Proposed Action	Proposed Indicator	Target	Reason
<i>with the Environmental Compliance Decree.</i>					database can be linked to MOI database and expanded in phases with additional features and functions added in future.
		Add	Enterprises that benefit from LEPAP environmental services	40	This indicator is added to capture the industries that benefitted from LEPAP TA, for example those that has environmental audits prepared or a CAP but did not go on to receive loans. This will exclude the enterprises that receive sub loans to avoid double counting.
People trained	60	Revise	People trained on environmental compliance/ monitoring/enforcement and awareness	100	Clarifying indicator to include what the people will be trained on and to demonstrate link to the PDO2. Also increased target as this needs to include the banking sector, MOI, prosecutors etc. Assessments of the training will be done with a survey taken by participants on how useful it was in addressing the knowledge gaps and how it has strengthened their capacity.
Direct project beneficiaries (including female)	5000	Drop			No longer a mandatory Core Sector Indicator and a low level indicator. Target cannot be determined at this time as the pipeline is not fully defined and the number of people living around the project interventions is not known.
Particulate Matter reduction (PM10) achieved under the project	TBD	Drop			Overlaps with PDO indicator
Number of people with exposure to PM10 in the area of the project	TBD	Drop			This is no longer a mandatory Core Sector Indicator, and target cannot be determined at this time as the pipeline is not fully defined and the number of people living around the project interventions is not known.



Indicator (PAD annex 1)	Target	Proposed Action	Proposed Indicator	Target	Reason
Volume (mass) of COD pollution load Reduction achieved under the project	TBD	Drop			Overlaps with PDO indicator

III. SUMMARY OF CHANGES

	Changed	Not Changed
Change in Results Framework	✓	
Change in Implementing Agency		✓
Change in DDO Status		✓
Change in Project's Development Objectives		✓
Change in Components and Cost		✓
Change in Loan Closing Date(s)		✓
Cancellations Proposed		✓
Reallocation between Disbursement Categories		✓
Change in Disbursements Arrangements		✓
Change in Disbursement Estimates		✓
Change in Overall Risk Rating		✓
Change in Safeguard Policies Triggered		✓
Change of EA category		✓
Change in Legal Covenants		✓
Change in Institutional Arrangements		✓
Change in Financial Management		✓
Change in Procurement		✓
Change in Implementation Schedule		✓
Other Change(s)		✓
Change in Economic and Financial Analysis		✓
Change in Technical Analysis		✓
Change in Social Analysis		✓



Change in Environmental Analysis

✓

IV. DETAILED CHANGE(S)**RESULTS FRAMEWORK****Project Development Objective Indicators**

Enterprises financed through the project aiming towards the environmental compliance Decree no. 8471-2012

Unit of Measure: Number

Indicator Type: Custom

	Baseline	Actual (Current)	End Target	Action
Value	0.00	3.00	10.00	Revised
Date	01-Aug-2014	15-May-2018	31-Mar-2021	

BOD/COD reduction achieved under the project in the targeted enterprises

Unit of Measure: Percentage

Indicator Type: Custom

	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	50.00	Revised
Date	01-Aug-2014	15-May-2018	31-Mar-2021	

Particulate Matter reduction achieved under the project in the targeted enterprises

Unit of Measure: Percentage

Indicator Type: Custom

	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	50.00	Revised
Date	01-Aug-2014	15-May-2018	31-Mar-2021	

Regularly published monitoring reports covering environmental compliance of participating Enterprises by MOE

Unit of Measure: Number

Indicator Type: Custom

	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	5.00	Marked for Deletion
Date	01-Aug-2014	20-Dec-2017	30-Sep-2020	

Industrial waste reduced under the project in the targeted enterprises

Unit of Measure: Percentage



Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	50.00	New
Date	01-Aug-2014	15-May-2018	31-Mar-2021	
Increase in number of non-compliant operational enterprises addressed in letters from MOE to MOI/ Ministry of interior and municipalities, governors-municipalities and environmental prosecutors Unit of Measure: Percentage Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	50.00	New
Date	01-Aug-2014	15-May-2018	31-Mar-2021	

Intermediate Indicators

Participating banks lending to enterprises				
Unit of Measure: Number				
Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	3.00	4.00	Revised
Date	01-Aug-2014	15-May-2018	31-Mar-2021	
Enterprises borrowing Unit of Measure: Number Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	15.00	Marked for Deletion
Date	01-Aug-2014	20-Dec-2017	30-Sep-2020	
Sub-loans Unit of Measure: Number Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	20.00	Marked for Deletion



Date	01-Aug-2014	20-Dec-2017	30-Sep-2020	
Sub-loans issued to enterprises for pollution reduction				
Unit of Measure: Amount(USD)				
Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	3.43	14.96	Revised
Date	01-Aug-2014	15-May-2018	31-Mar-2021	
Guidelines and tools for environmental monitoring/compliance for specific industrial sectors developed				
Unit of Measure: Number				
Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	8.00	9.00	Revised
Date	01-Aug-2014	15-May-2018	31-Mar-2021	
People trained on environmental compliance/ monitoring/ enforcement and awareness				
Unit of Measure: Number				
Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	55.00	100.00	Revised
Date	01-Aug-2014	15-May-2018	31-Mar-2021	
Direct project beneficiaries				
Unit of Measure: Number				
Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	5000.00	Marked for Deletion
Date	01-Aug-2014	20-Dec-2017	30-Sep-2020	
Female beneficiaries				
Unit of Measure: Percentage				
Indicator Type: Custom Supplement				
	Baseline	Actual (Current)	End Target	Action
Value	0.00	0.00	51.00	Marked for Deletion



Particulate matter reduction achieved under the project

Unit of Measure: Microgram/m3

Indicator Type: Custom

	Baseline	Actual (Current)	End Target	Action
Value	0.00		0.00	Marked for Deletion
Date	01-Aug-2014	20-Dec-2017	30-Sep-2020	

Number of people with exposure to PM10 in the area of the project

Unit of Measure: Number

Indicator Type: Custom Supplement

	Baseline	Actual (Current)	End Target	Action
Value	0.00		0.00	Marked for Deletion

Volume(mass) of COD pollution load reduction achieved under the project

Unit of Measure: Tones/year

Indicator Type: Custom

	Baseline	Actual (Current)	End Target	Action
Value	0.00		0.00	Marked for Deletion
Date	01-Aug-2014	20-Dec-2017	30-Sep-2020	

Industrial or municipal solid waste reduced or recycled under the project

Unit of Measure: Tones/year

Indicator Type: Custom

	Baseline	Actual (Current)	End Target	Action
Value	0.00		0.00	Marked for Deletion
Date	01-Aug-2014	20-Dec-2017	30-Sep-2020	

Industrial database including monitoring, permitting, and enforcement data operational

Unit of Measure: Yes/No

Indicator Type: Custom

	Baseline	Actual (Current)	End Target	Action
Value	No	No	Yes	New



Date	01-Aug-2014	15-May-2018	31-Mar-2021	
Enterprises that benefit from LEPAP environmental services				
Unit of Measure: Number				
Indicator Type: Custom				
	Baseline	Actual (Current)	End Target	Action
Value	0.00		40.00	New
Date	01-Aug-2014	15-May-2018	31-Mar-2021	