



## Ulaanbaatar Clean Air Project (P122320)

EAST ASIA AND PACIFIC | Mongolia | Energy & Extractives Global Practice |  
IBRD/IDA | Investment Project Financing | FY 2012 | Seq No: 18 | ARCHIVED on 29-Jan-2021 | ISR45213 |

Implementing Agencies: Mongolia, UBCAP Project Management Unit

## Key Dates

### Key Project Dates

Bank Approval Date: 03-Apr-2012

Effectiveness Date: 18-Dec-2012

Planned Mid Term Review Date: 19-Jan-2015

Actual Mid-Term Review Date: 19-Jan-2015

Original Closing Date: 30-Jun-2017

Revised Closing Date: 31-Dec-2021

## Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The development objective (PDO) is to enable consumers in ger areas to access heating appliances producing less particulate matter emissions and to further develop selected medium-term particulate matter abatement measures in Ulaanbaatar in coordination with development partners.

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

No

## Components Table

Name

- A. Ger Area Particulate Matter Mitigation:(Cost \$21.70 M)
- B. Central Ulaanbaatar Particulate Matter Mitigation:(Cost \$2.30 M)
- C. Project Management and Monitoring and Evaluation:(Cost \$3.80 M)
- D. Electricity for heating in targeted ger areas:(Cost \$5.60 M)

## Overall Ratings

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

## Implementation Status and Key Decisions

The Additional Financing (AF), approved by the World Bank Board of Directors on September 30, 2019, was declared effective on April 27, 2020. The AF focuses on two activities: (i) support 5,000 more households (HHs) acquiring electric thermal storage (ETS) heaters under the newly added Component D; and (ii) scale up the residential energy efficiency improvement program under Component A. The AF also continues to support the government in strengthening clean heating regulations and their enforcement.

The procurement of the first batch of Electric Thermal Storage (ETS) heaters has been completed in October 2020. The COVID-19 pandemic caused delays and slow pace of the implementation, especially the installation of ETS and insulation of households. An incentive program to support the uptake of ETS units will be put in place.



## Risks

### Systematic Operations Risk-rating Tool

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

## Results

### PDO Indicators by Objectives / Outcomes

Enable consumers in ger areas to access heating appliances producing less particulate matter emissio				
► Coverage of targeted households with eligible services (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	90.00	90.00	80.00
Date	18-Dec-2012	31-Dec-2016	22-Jan-2021	31-Dec-2016
Comments:	The end target for coverage of targeted households with eligible services is 80 percent, and is already been surpassed under the original IDA credit.			
► Additional number of households provided with access to clean heating appliances (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	5,000.00



Date	14-Jun-2019	16-Jun-2020	22-Jan-2021	31-Dec-2021
Comments:	The additional number of households provided with access to clean heating appliances is a new PDO indicator for the AF.			
<b>► Percentage of Project beneficiaries reporting an improvement in quality of heating (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.30	85.00
Date	14-Jun-2019	16-Jun-2020	22-Jan-2021	31-Dec-2021
Comments:	The Percentage of Project beneficiaries reporting an improvement in quality of heating is a new indicator under the AF to measure the improvement in comfort level, convenience, and cleanliness as a result of Component A and Component D.			

<b>Develop selected medium-term particulate matter abatement measures in Ulaanbaatar</b>				
<b>► Approval by relevant counterparts of principle recommendations and action plans developed by the Project for selected medium term abatement measures (no. of action plans approved) (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	4.00	4.00	4.00
Date	03-Apr-2012	31-Dec-2016	30-Jun-2018	31-Dec-2016
Comments:	The target for this indicator has been achieved under the original IDA credit.			
<b>► Inter-agency and donor coordination framework for air pollution abatement measures developed and functioning (cumulative no. of years) (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	1.00	6.00	6.00	6.00
Date	03-Apr-2012	30-Jun-2018	30-Jun-2018	30-Jun-2018
Comments:	The target for this indicator has been achieved under the original IDA credit.			

### Intermediate Results Indicators by Components

<b>A. Ger Area Particulate Matter Mitigation</b>				
<b>► Laboratory tests supported by UBCAP (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	761.00	761.00	155.00



Date	03-Apr-2012	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			
<b>► Subsidy mechanism disbursing (% of available funds) (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	96.00	96.00	100.00
Date	18-Dec-2012	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The subsidy under the original IDA credit is 100 percent disbursed.			
<b>► Number of stoves declared eligible for UBCAP support (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	22.00	22.00	5.00
Date	03-Apr-2012	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			
<b>► Number of stove models proposed for participation (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	77.00	77.00	10.00
Date	03-Apr-2012	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			
<b>► Persons/ local producers trained in clean stove development, ceramic molding and production (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	28.00	28.00	50.00
Date	15-May-2015	16-Jun-2020	31-Dec-2020	31-Dec-2021
Comments:	The target for this intermediate indicator for the original IDA credit has been achieved. The project is on track to achieve the end target for the AF.			
<b>► Number of kindergartens that receive high-efficiency particulate (HEPA) filters (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1,500.00	1,500.00	950.00



Date	15-May-2015	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			
<b>► Number of public buildings in ger area benefited from energy efficiency and retrofitting work (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	12.00	12.00	12.00
Date	15-May-2015	17-Jun-2019	17-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			
<b>► Number of households benefited from energy efficiency demonstration work and retrofitted their detached houses (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	474.00	481.00	970.00
Date	15-May-2015	16-Jun-2020	22-Jan-2021	31-Dec-2021
Comments:	The target for this intermediate indicator for the original IDA credit is 200, and thus has been achieved. The project is on track to achieve the end target for the AF.			
<b>► Number of HOBs replaced by non-coal heating appliances (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	1.00	1.00
Date	15-May-2015	16-Jun-2020	22-Jan-2021	31-Dec-2021
Comments:	This is a new indicator under the AF to measure the number of HOBs replaced with cleaner alternatives.			
<b>► Number of complementary activities piloted at selected service center (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	3.00
Date	14-Jun-2019	16-Jun-2020	22-Jan-2021	31-Dec-2021
Comments:	This is a new indicator under the AF to measure the number of complementary activities piloted at select service center.			
<b>► Number of female trained on clean heating options and air quality monitoring and analysis (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	100.00



Date	14-Jun-2019	16-Jun-2020	22-Jan-2021	31-Dec-2021
Comments:	This is a new indicator under the AF to measure the number of female trained on clean heating options and air quality monitoring and analysis.			

**B. Central Ulaanbaatar Particulate Matter Mitigation**

► City greening preparatory study prepared (Text, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	Not started	Final report submitted	Final report submitted	Final report submitted
Date	31-Dec-2011	06-Oct-2016	06-Oct-2016	31-Dec-2015
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

► City greening pilot implemented (Text, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	Not started	Pilot implemented	Pilot implemented	Pilot implemented
Date	31-Dec-2011	11-Jan-2016	11-Jan-2016	31-Dec-2015
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

► Power plant emissions control feasibility study prepared (Text, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	Not started	Final report submitted	Final report submitted	Final report submitted
Date	31-Dec-2011	03-Dec-2015	03-Dec-2015	31-Dec-2015
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

► Housing policy study prepared (Text, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	Not started	final report submitted	final report submitted	Final report submitted
Date	31-Dec-2011	03-Dec-2015	03-Dec-2015	31-Dec-2015
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

► District heating preparatory study prepared (Text, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
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Value	Not started	Final report submitted	Final report submitted	Final report submitted
Date	31-Dec-2011	03-Dec-2015	03-Dec-2015	31-Dec-2015

### C. Project Management, Monitoring and Evaluation

#### ► Monitoring and analysis equipment supplied (cumulative number of bid packages) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	9.00	9.00	3.00
Date	31-Dec-2011	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

#### ► Effective project management and reporting established (No. of project progress reports per year) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	2.00	2.00	2.00
Date	31-Dec-2011	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

#### ► Persons trained in air quality monitoring, analysis and management (cumulative number) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	56.00	56.00	15.00
Date	31-Dec-2011	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

#### ► Quarterly reports on coordination activities prepared by the municipality (No. of reports annually) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	4.00	4.00	4.00
Date	31-Dec-2011	14-Jun-2019	14-Jun-2019	31-Dec-2016
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

#### ► Consultants for supporting coordination hired (cumulative number) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
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Value	0.00	2.00	2.00	2.00
Date	03-Apr-2012	14-Jun-2019	14-Jun-2019	31-Dec-2016
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			
<b>► Communications plan for collecting air quality program information across donors and agencies, satisfactory to the PMU, is prepared by the municipality (No. annual plans) (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	3.00	3.00	1.00
Date	31-Dec-2011	14-Jun-2019	14-Jun-2019	30-Jun-2019
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			
<b>► Share of communications targets (e.g., meetings with agencies and donors, information collected) in approved communications plan achieved by the municipality (% share of target) (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	100.00	100.00	100.00
Date	31-Dec-2011	31-Dec-2016	31-Dec-2016	31-Dec-2016
Comments:	The target for this intermediate indicator has been achieved under the original IDA credit.			

#### D. Electricity for Heating in Targeted Ger Area

**► Additional capacity of clean heating appliances provided to targeted households under Component D (Megawatt, Custom)**

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	25.00
Date	14-Jun-2019	16-Jun-2020	22-Jan-2021	31-Dec-2021
Comments:	This is a new intermediate indicator of the AF.			
<b>► Estimated GHG emission reduction under Component D (Tones/year, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	150.00	22,615.00
Date	14-Jun-2019	16-Jun-2020	22-Jan-2021	31-Dec-2021
Comments:	This is a new intermediate indicator of the AF.			

#### Performance-Based Conditions





**Data on Financial Performance**

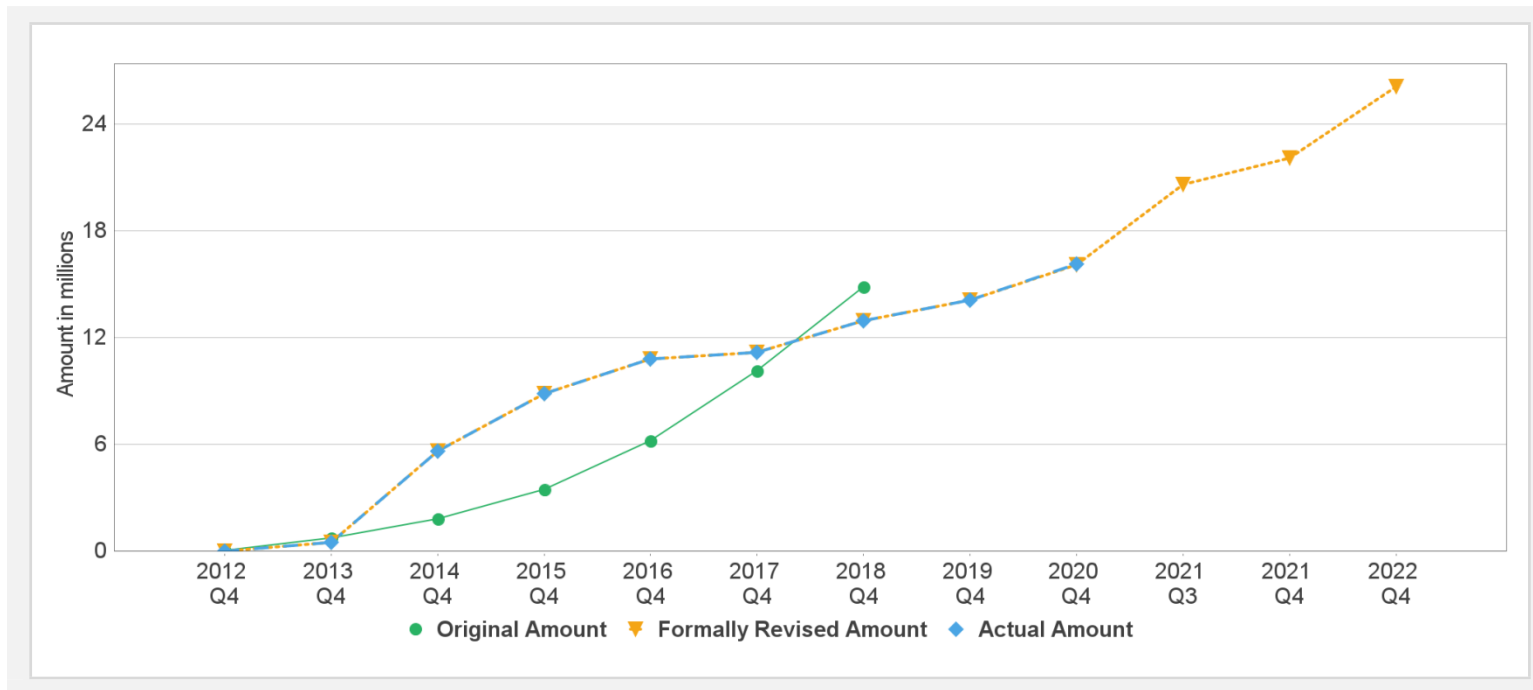
**Disbursements (by loan)**

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P122320	IDA-50390	Closed	USD	15.00	14.91	0.09	14.13	0.00	100%
P122320	IDA-64930	Effective	USD	12.00	12.00	0.00	2.00	10.40	16%

**Key Dates (by loan)**

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P122320	IDA-50390	Closed	03-Apr-2012	04-Apr-2012	18-Dec-2012	30-Jun-2017	31-Dec-2019
P122320	IDA-64930	Effective	30-Sep-2019	13-Dec-2019	27-Apr-2020	31-Dec-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
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### **Restructuring History**

Level 1 Approved on 10-Nov-2014 ,Level 2 Approved on 14-Jun-2017 ,Level 2 Approved on 15-Jun-2018 ,Level 2 Approved on 26-Jun-2019

### **Related Project(s)**

P167421-Additional Financing to Ulaanbaatar Clean Air Project

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