



Seismic Resilience and Energy Efficiency in Public Buildings Project (P175894)

EUROPE AND CENTRAL ASIA | Turkiye | IBRD/IDA | Investment Project Financing (IPF) | FY 2021 | Seq No: 7 | Archived on 24-Apr-2024 | ISR00194

Implementing Agencies: Ministry of Environment, Urbanization and Climate Change, General Directorate of Construction Affair

1. OBJECTIVE

1.1 Development Objective

Original Development Objective (Approved as part of Approval package on 09-Jun-2021)

The proposed Project Development Objective (PDO) is to improve the disaster resilience and reduce energy use in selected Central Government Buildings, and to strengthen the policy framework and institutional capacity to develop, finance and implement resilient and sustainable public buildings in Turkiye.

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

No

2. COMPONENTS

Name

Investments in Central Government Buildings for structural strengthening and energy efficiency improvement:(Cost 255,000,000.00)

Advanced technical assistance and capacity building:(Cost 5,000,000.00)

Project Management:(Cost 5,000,000.00)

3. OVERALL RATINGS

Name	Previous	Current
Progress towards achievement of PDO	● Satisfactory	● Satisfactory
Overall Implementation Progress (IP)	● Moderately Satisfactory	● Moderately Satisfactory
Overall ESS Performance	---	● Satisfactory
Overall Risk Rating	● Moderate	● Moderate



4. KEY ISSUES & STATUS

4.1 Implementation Status and Key Decisions

Project progress is rated as Moderately Satisfactory. The Project was approved by the Bank’s Board on June 9, 2021 and declared Effective on November 10, 2021. The Project has advanced in the preparation of designs for eligible buildings confirmed to be energy inefficient and under seismic risk. Moreover, several university buildings damaged in the 2023 earthquakes are now included under the Project. Retrofitting works have commenced at Bogazici University Kilyos campus and works are expected to be initiated on remaining sites by the end of 2024.

5. SYSTEMATIC OPERATIONS RISK-RATING TOOL

Risk Category	Rating at Approval Approval Package - 09 Jun 2021	Last Approved Rating ISR Seq. 06 - 31 Oct 2023	Proposed Rating
Political and Governance	● Moderate	● Moderate	● Moderate
Macroeconomic	● Moderate	● Moderate	● Moderate
Sector Strategies and Policies	● Moderate	● Moderate	● Moderate
Technical Design of Project or Program	● Moderate	● Moderate	● Moderate
Institutional Capacity for Implementation and Sustainability	● Moderate	● Moderate	● Moderate
Fiduciary	● Moderate	● Moderate	● Moderate
Environment and Social	● Moderate	● Moderate	● Moderate
Stakeholders	● Moderate	● Moderate	● Moderate
Overall	● Moderate	● Moderate	● Moderate



6. RESULTS

6.1 PDO Indicators by PDO Outcomes

Beneficiaries benefitting from disaster resilient Central Government Buildings								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
Number of beneficiaries (building occupants) benefitting from disaster resilient Central Government Buildings under the Project (Number)	0.00	Mar/2021	0.00	15-Apr-2024	0.00	15-Apr-2024	26,000.00	Jun/2027
	Comments on achieving targets		Measures number of occupants of Central Government Buildings who have access to disaster resilient buildings following retrofit/renovation or demolition/reconstruction under the Project. Seismic risk will be reduced from current levels which anticipate moderate to serious damage to levels prescribed in the current building code that prescribe life safety and immediate occupancy/use of the building. Buildings will also have reduced storm (wind and snow loading) risk through increased strength of roof materials (according to code), and reduction in extreme temperature risk through improved building insulation/temperature control. (An annex will be added specifying relevant codes). Occupants are defined as the number of people expected to regularly occupy a building (ie., typical number of dormitory occupants, medical professionals/administrators/patients in a hospital etc					
Projected lifetime energy savings								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
Projected energy or fuel savings (Mega Joules (MJ))	0.00	Mar/2021	0.00	07-Jun-2023			3608597923.00	Jun/2027
Projected lifetime energy savings (Mega Joules (MJ))	0.00	Mar/2021	0.00	07-Jun-2023			3608597923.00	Jun/2027
Institutional Capacity Building								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	



	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
Completion of policy and regulatory analysis, and practical recommendations for regulatory improvements, related to seismic resilience and energy efficiency (Text)	No policy and regulatory review	Mar/2021	No policy and regulatory review	07-Jun-2023			Regulatory amendments are submitted for approval to relevant Authorities	Jun/2027
	Comments on achieving targets		A policy and regulatory analysis developed by the PIU and approved by the Implementing Agency. This analysis should recommend detailed changes to building codes, standards, rulebooks and enforcement mechanisms that improved seismic resilience and energy efficiency outcomes for public and private buildings in Turkey.					
Design and preparation of a 5-year rolling investment plan for scaling up integrated investments in disaster resilient and energy efficient Central Government Buildings by MoEU (Text)	No 5-year investment plan prepared by the MoEU	Mar/2021	No 5-year investment plan prepared by the MoEU	07-Jun-2023			Directorate of Strategy Development of MoEU submits the Investment Plan to Strategy and Budget Office for consideration	Jun/2027
	Comments on achieving targets		An investment plan developed by the PIU and approved by the Implementing Agency. The investment plan will use an evidence-based approach to derive and prioritize investment needs for the integrated retrofitting/rehabilitation, and reconstruction of central government public buildings in Turkey with consideration of potential financing available year on year.					
Number Government staff and technical professionals trained in the design and implementation of building	0.00	Mar/2021	0.00	07-Jun-2023			3,500.00	Jun/2027
	Comments on achieving targets		Number of beneficiaries involved in technical trainings focusing on energy audits, technical designs, and construction supervision					



retrofitting and renovation (Number)								
Number female government staff and technical professionals trained in the design and implementation of building retrofitting and renovation (Percentage)	0.00	Mar/2021	0.00	07-Jun-2023			30.00	Jun/2027
	Comments on achieving targets		Percentage of training beneficiaries that are female					

6.2 Intermediate Results Indicators by Components

Investments in Central Government Buildings for structural strengthening and energy efficiency improvement								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
Projected lifetime CO2 emission reduction (tCO2 eq/year) (Tonnes/year) (Number)	0.00	Mar/2021	0.00	16-Apr-2024	0.00	16-Apr-2024	380,870.00	Jun/2027
	Comments on achieving targets		Works on the first buildings have now started.					
Annual energy costs savings (Amount (USD)) (Number)	0.00	Mar/2021	0.00	07-Jun-2023			5,708,024.00	Jun/2027
	Comments on achieving targets		Works on the first buildings have now started.					
Generation capacity of energy constructed or rehabilitated (Megawatt)	0.00	Mar/2021	0.00	07-Jun-2023			5.58	Jun/2027
	Comments on achieving targets		Works on the first buildings have now started.					
Renewable energy generation capacity (other than hydropower)	0.00	Mar/2021	0.00	07-Jun-2023			5.58	Jun/2027



constructed under the project (Megawatt)								
Buildings renovated to certified Energy Performance Class of at least C (Number)	0.00	Mar/2021	0.00	07-Jun-2023			143.00	Jun/2027
	Comments on achieving targets		Works on the first buildings have started.					
Buildings reconstructed to achieve certified Energy Performance Class of at least B (Number)	0.00	Mar/2021	0.00	07-Jun-2023			10.00	Jun/2027
	Comments on achieving targets		The first building to be reconstructed has been selected with designs nearly completed - will achieve class A.					
Gross Floor Area of buildings renovated or reconstructed to meet current building code and energy efficiency standards (Number (Thousand))	0.00	Mar/2021	0.00	07-Jun-2023			779.42	Jun/2027
	Comments on achieving targets		This indicator will measure the total floor area of buildings renovated or reconstructed under the project that meet the country's current building code and energy efficiency standards					
Buildings demolished and reconstructed to be disaster resilient and energy efficient (Number)	0.00	Mar/2021	0.00	07-Jun-2023			10.00	Jun/2027
	Comments on achieving targets		Number of new buildings (buildings demolished and rebuilt under the Project)					
Buildings structurally strengthened and renovated to be disaster and climate resilient and energy efficient (Number)	0.00	Mar/2021	0.00	16-Apr-2024	0.00	16-Apr-2024	133.00	Jun/2027
	Comments on achieving targets		Number of retrofitted buildings					
Beneficiaries in areas serviced by disaster and climate resilient and energy efficient public buildings (Number)	0.00	Mar/2021	0.00	07-Jun-2023			6,470,000.00	Jun/2027
	Comments on achieving targets		The indicator will measure the number of people served by public buildings that have been retrofitted/reconstructed buildings under this Project, such as the population served by a hospital renovated under this Project					
Increase in the number of	1.00	Mar/2021	34.00	07-Jun-2023			20.00	Jun/2027



women in energy audits, structural assessments, and design/construction supervision firms contracted under the Project who are key staff (Percentage)	Comments on achieving targets		This indicator will measure the number of women participating in the implementation of the project via appointed firms					
Advanced technical assistance and capacity building								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
Preliminary investment plan prepared and consulted (Yes/No)	No	Mar/2021	No	15-Apr-2024	No	15-Apr-2024	Yes	Jun/2027
	Comments on achieving targets		This indicator will measure the progress in developing the 10 year investment plan to be completed by the PIU.					
The KAYES and KABEV databases have been integrated to develop a comprehensive, countrywide EE and Seismic assessment tool (Yes/No)	No	Mar/2021	No	07-Jun-2023			Yes	Jun/2027
	Comments on achieving targets		This indicator will measure improvements in the KAYES database and pairing with KABEV database to develop a comprehensive, countrywide EE and Seismic assessment tool (a combined database that records essential data for public buildings)					
Structural renovation and energy efficiency good practices, case studies, guides and model designs developed and disseminated (Number)	0.00	Mar/2021	0.00	07-Jun-2023			12.00	Jun/2027
	Comments on achieving targets		This indicator will measure the number of analytical studies/reports completed. Case study topics could cover (inter alia): engineering designs and cost estimates based on a range of innovative retrofit / reconstruction solutions for high-priority critical public facilities; multi-criteria decision-making approaches for risk reduction measures (retrofit, reconstruction, other); guidelines, enforcement and regulatory standards governing the assessment and retrofit design of existing public buildings which may be included in the Turkish' building regulatory framework.					
Completion of building	No	Mar/2021	No	07-Jun-2023			Yes	Jun/2027

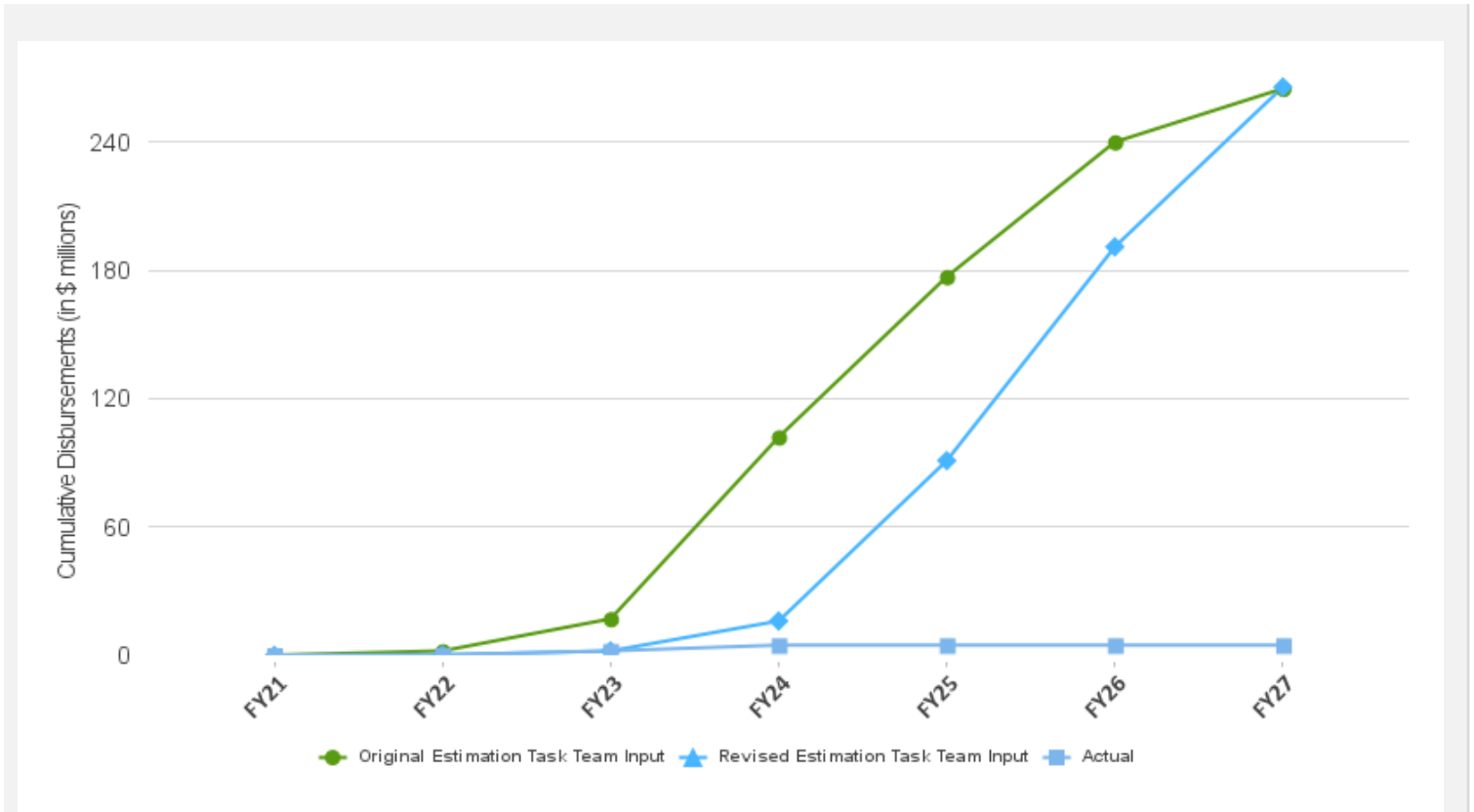


regulations review for renovation and upgrading of public buildings (Yes/No)	Comments on achieving targets		Completion of building regulations audit					
Project Management								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
Satisfaction with the renovation processes, including consultations, and results (Percentage)	0.00	Mar/2021	0.00	07-Jun-2023			90.00	Jun/2027
	Comments on achieving targets		Baseline surveys were collected.					
Satisfaction with the renovation processes, including consultations, and results (female) (Percentage)	0.00	Mar/2021	0.00	07-Jun-2023			90.00	Jun/2027
	Comments on achieving targets		Baseline surveys were collected.					
Stakeholders grievances that are addressed and closed (Percentage)	0.00	Mar/2021	100.00	07-Jun-2023			100.00	Jun/2027
	Comments on achieving targets		Percentage of stakeholders whose grievances are addressed and closed					
Grievances raised by women stakeholders that are addressed and closed (Percentage) (Percentage)	0.00	Mar/2021	100.00	07-Jun-2023			100.00	Jun/2027
	Comments on achieving targets		Percentage of women stakeholders whose grievances are addressed and closed					



7. DATA ON FINANCIAL PERFORMANCE

7.1 Cumulative Disbursements



7.2 Disbursements (by loan)

Loan/Credit/TF	Status	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
IBRD-92610	Effective	265.00	265.00	0.00	4.54	259.91	1.71%
TF-B6770	Effective	0.75	0.75	0.00	0.16	0.59	21.33%

7.3 Key Dates (by loan)

Loan/Credit/TF	Status	Approval	Signing	Effectiveness	Orig. Closing	Rev. Closing
IBRD-92610	Effective	09-Jun-2021	07-Sep-2021	10-Nov-2021	30-Jun-2027	30-Jun-2027



TF-B6770	Effective	16-May-2022	16-May-2022	22-Jun-2022	30-Nov-2024	30-Nov-2024
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8. KEY DATES

Key Events	Planned	Actual
Approval	09-Jun-2021	09-Jun-2021
Effectiveness	10-Nov-2021	10-Nov-2021
Mid-Term Review No. 01	23-Sep-2024	
Operation Closing/Cancellation	30-Jun-2027	

9. RESTRUCTURING HISTORY

10. ASSOCIATED OPERATION(S)

There are no associated operations