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Report No: PAD4282

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF EUR 330.5 MILLION
(US\$ 338.53 MILLION EQUIVALENT)

TO THE

REPUBLIC OF TÜRKİYE

AND

A PROPOSED LOAN

IN THE AMOUNT OF EUR 169.5 MILLION
(US\$ 173.62 MILLION EQUIVALENT)

TO THE

İLLER BANKASI ANONİM ŞİRKETİ
WITH A GUARANTEE FROM THE REPUBLIC OF TÜRKİYE

FOR A

CLIMATE AND DISASTER RESILIENT CITIES PROJECT

September 2, 2022

Urban, Disaster Risk Management, Resilience and Land Global Practice
Europe and Central Asia Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective July 31, 2022)

Currency Unit = Turkish Lira

TRY 17.91 = US\$ 1

US\$ 0.06 = TRY 1

EUR 0.98 = US\$ 1

US\$ 1.02 = EUR 1

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

AFAD	Disaster and Emergency Management Authority	IFI	International Financial Institution
AFD	French Development Agency	IFR	Interim Un-audited Financial Report
AIIB	Asian Infrastructure Investment Bank	IFRS	International Financial Reporting Standards
ARAAD	Transformation of Areas under Disaster Risk	IL_BIS	ILBANK's web-based information system
BCR	Benefit-Cost Ratio	IPF	Investment Project Financing
CCB	Climate Co-Benefits	IRR	Internal Rate of Return
CERC	Contingent Emergency Response Component	ISMEP	Istanbul Seismic Risk Mitigation and Emergency Preparedness Project
CPF	Country Partnership Framework	JICA	Japan International Cooperation Agency
CRI	Core Results Indicator	LMP	Labor Management Procedures
DFIL	Disbursement and Financial Information Letter	M&E	Monitoring and Evaluation
ECA	Europe and Central Asia	MHH	Male-headed households
EDGE	Excellence in Design for Greater Efficiencies	MoEUCC	Ministry of Environment, Urbanization and Climate Change
EHSG	Environmental, Health, and Safety Guidelines	MoTF	Ministry of Treasury and Finance
EIA	Environmental Impact Assessment	MSP	Municipal Services Project
EIB	European Investment Bank	MTR	Mid Term Review
ERR	Economic Rate of Return	NDC	Nationally Determined Contribution
ESCP	Environmental and Social Commitment Plan	NDP	National Development Plan
ESF	Environmental and Social Framework	NPV	Net Present Value
ESMF	Environmental and Social Management Framework	OECD	Organization for Economic Cooperation and Development
ESMS	Environmental and Social Management System	OHS	Occupational Health and Safety
ESS	Environmental and Social Standard	PAP	Project-affected people
EU	European Union	PDO	Project Development Objective
FHH	Female-headed households	PIU	Project Implementation Unit
FI	Financial Intermediary	PMU	Project Management Unit
FIF	Financial Intermediary Financing	POM	Project Operations Manual
FM	Financial Management	PP	Procurement Plan
FRIT	Facility for Refugees in Türkiye	PPSD	Procurement Strategy for Development
FX	Foreign Exchange	RF	Resettlement Framework
GDIUTS	General Directorate of Infrastructure and Urban Transformation Services	SBP	Strategy and Budget Presidency
GDP	Gross Domestic Product	SCP	Sustainable Cities Series of Projects
GFDRR	Global Facility for Disaster Risk Reduction and Recovery	SDD	Strategy Development Directorate
GHG	Greenhouse Gas	SEP	Stakeholder Engagement Plan
GIIP	Good International Industry Practice	SILC	Statistics on Income and Living Conditions
GoT	Government of Türkiye	SOE	Statement of Expenditures
GRS	Grievance Redress Service	STEM	Science, Technology, Engineering and

			Mathematics
IBRD	International Bank for Reconstruction and Development	STEP	Systematic Tracking of Exchanges in Procurement
ICR	Implementation Completion and Results Report	TOKI	Housing Development Administration
IEG	Independent Evaluation Group	USA	United States of America
IFC	International Finance Corporation		



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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Turkiye	Climate and Disaster Resilient Cities Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P173025	Investment Project Financing	High

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input checked="" type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
27-Sep-2022	31-Oct-2028

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The Project Development Objectives are to increase access to seismic and climate resilient housing, municipal infrastructure and services in Project provinces in Türkiye, and to respond promptly and effectively in the event of an Eligible Crisis or Emergency.



Components

Component Name	Cost (US\$, millions)
Component 1: Institutional Strengthening to Enable Conditions for Urban Resilience	6.15
Component 2: Expanding Access to Resilient Housing	324.70
Component 3: Investments in Climate and Disaster Resilient Municipal Infrastructure	171.06
Component 4: Project Management, Monitoring, and Evaluation	10.24
Component 5: Contingent Emergency Response Component	0.00

Organizations

Borrower: Iller Bankasi Anonim Sirketi
 Republic of Türkiye

Implementing Agency: Local Authorities
 Ministry of Environment, Urbanization, and Climate Change

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	512.15
Total Financing	512.15
of which IBRD/IDA	512.15
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	512.15
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Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2023	2024	2025	2026	2027	2028	2029
Annual	5.00	90.00	100.00	110.00	100.00	100.00	7.15



Cumulative	5.00	95.00	195.00	305.00	405.00	505.00	512.15
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INSTITUTIONAL DATA

Practice Area (Lead)

Urban, Resilience and Land

Contributing Practice Areas

Finance, Competitiveness and Innovation, Poverty and Equity

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Moderate
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Substantial
5. Institutional Capacity for Implementation and Sustainability	● Moderate
6. Fiduciary	● Substantial
7. Environment and Social	● High
8. Stakeholders	● Substantial
9. Other	
10. Overall	● Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[] Yes [✓] No



Does the project require any waivers of Bank policies?

[] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Relevant

NOTE: For further information regarding the World Bank’s due diligence assessment of the Project’s potential environmental and social risks and impacts, please refer to the Project’s Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

Loan Agreement for the Republic of Türkiye (LA for Loan A), Schedule 2, Section I.A.1(c): The Borrower, through MoEUCC, shall maintain, throughout Project implementation, a Project Management Unit (PMU) within MoEUCC’s General Directorate of Infrastructure and Urban Transformation Services with functions and responsibilities acceptable to the Bank, for the implementation of the Project, with the involvement of the local authorities of the Project Provinces.

Sections and Description



LA for Loan A, Schedule 2, Section I.A.2: No later than sixty (60) days after the Effective Date, in furtherance of Section I.A.1(c), the Borrower (through MoEUCC), shall hire or assign qualified personnel, with terms of reference acceptable to the Bank, for the following positions within the PMU:

(a) located within the MoEUCC's office in Ankara: (i) one financial management specialist; (ii) one procurement specialist; (iii) one environmental specialist; (iv) one occupational health and safety specialist; (v) one social specialist (focusing on resettlement/relocation related matters); (vi) one stakeholder-community engagement specialist; and (vii) one monitoring and evaluation specialist; and

(b) located within each of MoEUCC's provincial directorate offices in the relevant Project Provinces (Izmir, Manisa, Tekirdag, Kahramanmaras, the Istanbul European side, and the Istanbul Asian side) to support the monitoring of environmental and social risks: (i) one environmental specialist; and (ii) one social-community engagement specialist.

Sections and Description

LA for Loan A, Schedule 2, Section I.A.3: No later than sixty (60) days after the Effective Date, the Borrower, through MoEUCC, shall procure and operationalize a financial management system for the financial management of the Project.

Sections and Description

LA for Loan A, Schedule 2, Section I.A.4: For the purposes of Part 2 of the Project, the Borrower, through MoEUCC, shall: (a) select commercial banks, acceptable to the Bank, to serve as fiduciary agents in administering the Resilient Housing Sub-loans to Resilient Housing Sub-borrowers; (b) maintain, throughout Project implementation, an integrated information system between MoEUCC and the commercial banks serving as MoEUCC's fiduciary agents for Part 2 of the Project; (c) enter into protocols (i.e., legally binding contractual agreements) with each selected commercial bank to ensure the commercial bank's satisfactory application of the requirements of the Project on behalf of MoEUCC; and (d) through the Borrower's Rental Subsidies Program, provide rental subsidies to (i) owners and tenants of Resilient Housing Subprojects to temporarily relocate during building retrofitting or reconstruction, and (ii) tenants displaced by Resilient Housing Subprojects, who choose not to return to the same building, to permanently relocate.

Sections and Description

LA for Loan A, Schedule 2, Section I.B. The Borrower, through MoEUCC, shall maintain, throughout Project implementation, a Project Operational Manual (POM), in substance and manner acceptable to the Bank, to carry out the Borrower's Respective Parts of the Project.

Sections and Description

LA for Loan A, Schedule 2, Section I.C. For the purposes of carrying out Part 1 of the Project, the Borrower, through MoEUCC, shall select Project Provinces based on the criteria specified in the Agreement, and for the purposes of carrying out Part 2 of the Project, the Project Provinces shall be the specific provinces of Istanbul, Izmir, Kahramanmaras, Manisa, and Tekirdag, based on the same criteria.

Sections and Description

LA for Loan A, Schedule 2, Section I.D. In carrying out Part 2 of the Project, the Borrower, through MoEUCC, shall ensure that all Resilient Housing Subprojects and Resilient Housing Sub-borrowers meet the eligibility requirements set forth in this Agreement and further detailed in the POM, and that each Resilient Housing Subproject is



appraised, selected and prioritized in accordance with standards and procedures acceptable to the Bank, as detailed in the POM, and that each Sub-loan is extended under a Resilient Housing Sub-loan Agreement with each Resilient Housing Sub-borrower on terms and conditions set forth in the POM.

Sections and Description

LA for Loan A, Schedule 2, Section I.E: The Borrower, through MoEUCC, shall ensure that the Borrower's Respective Parts of the Project are carried out in accordance with the Environmental and Social Standards, and the Environmental and Social Commitment Plan (ESCP), in a manner acceptable to the Bank.

Sections and Description

LA for Loan A, Schedule 2, Section I.G.1: The Borrower, through MoEUCC, shall prepare and furnish to the Bank not later than September 30 of each year during the implementation of the Project, a proposed Annual Work Plan and Budget.

Sections and Description

Loan Agreement for ILBANK (LA for Loan B), Schedule 2, Section I.A.1: The Borrower shall maintain, throughout Project implementation, a Project Management Unit (PMU) within its International Relations Department, with staffing, functions, budgetary resources and authority necessary and appropriate for the satisfactory implementation of the Project.

Sections and Description

LA for Loan B, Schedule 2, Section I.A.2: No later than sixty (60) days of the Effective Date, in furtherance of Section I.A.1(b), the Borrower shall hire or assign qualified personnel, with terms of reference acceptable to the Bank, for the following positions within the PMU: (a) one procurement specialist; (b) one urban resilience/disaster risk management expert; and (c) one monitoring and evaluation expert.

Sections and Description

LA for Loan B, Schedule 2, Section I.A.3: For the implementation of Part 3 of the Project, the Borrower shall ensure, or cause to ensure, that:
(a) each Municipal Sub-borrower receiving a Municipal Sub-loan under this Project establishes no later than thirty (30) days following the effectiveness of the first Municipal Sub-loan Agreement to that respective Municipal Sub-borrower, and thereafter maintains throughout the period of Project implementation, a Project Implementation Unit (PIU) for the implementation of the relevant Municipal Subproject's activities financed by this Project; and
(b) the PIUs, established and maintained by the Municipal Sub-borrowers, have functions and responsibilities acceptable to the Bank for the implementation of the respective Subproject activities, including, inter alia, carrying out the administrative, procurement, environmental and social requirements, disbursement, financial management, and monitoring, evaluation and reporting requirements in accordance with the terms of this Agreement and further detailed in the Project Operations Manual.

Sections and Description

LA for Loan B, Schedule 2, Section I.B: The Borrower shall maintain, throughout Project implementation, a Project Operational Manual ("POM"), in substance and manner acceptable to the Bank, to carry out the Borrower's Respective Parts of the Project.



Sections and Description

LA for Loan B, Schedule 2, Section I.C: In carrying out Part 3 of the Project, the Borrower shall ensure that all Municipal Sub-loans to Municipal Sub-borrowers shall be appraised, selected and prioritized in accordance with standards, criteria, and procedures acceptable to the Bank, and obtain a written agreement with each Municipal Sub-borrower that sets forth the terms and conditions for the Municipal Sub-loan, acceptable to the Bank.

Sections and Description

LA for Loan B, Schedule 2, Section I.D.: The Borrower shall ensure that the Borrower's Respective Parts of the Project are carried out in accordance with the Environmental and Social Standards, and the Environmental and Social Commitment Plan (ESCP), in a manner acceptable to the Bank.

Sections and Description

ESCP for Loan B, ESS9, 9.1: The Borrower shall prepare, adopt, and maintain an environmental and social management system (ESMS), which is to be established 60 days after the Loan Effective Date.

Sections and Description

LA for Loan B, Schedule 2, Section I.E.1(a): The Borrower shall prepare and furnish to the Bank not later than December 15 of each year during the implementation of the Project, a proposed Annual Work Plan and Budget containing: (i) all activities to be carried out under the Project during the following year; and (ii) a proposed financing plan for expenditures required for such activities, setting forth the proposed amounts and sources of financing.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	<p>LA for Loan A, Section 4.01:</p> <p>(a) The Borrower, through MoEUCC, shall have prepared and adopted the Project Operations Manual, including a financial management manual, in form and substance satisfactory to the Bank.</p> <p>(b) The Borrower, through MoEUCC, shall have adopted and disclosed a final Environmental and Social Management Framework, in form and substance satisfactory to the Bank.</p> <p>(c) The Borrower, through MoEUCC, shall have adopted and disclosed a final Labor Management Procedures, in form and substance satisfactory to the Bank.</p> <p>(d) The Borrower, through MoEUCC, shall have adopted and disclosed a final Resettlement Framework, in form and substance satisfactory to the Bank.</p>



		<p>(e) The Borrower, through MoEUCC, shall have adopted and disclosed a final Stakeholder Engagement Plan, in form and substance satisfactory to the Bank.</p> <p>(f) The Borrower, through MoEUCC, shall have established and operationalized a grievance mechanism for the Project, in form and substance satisfactory to the Bank.</p>
Type Effectiveness	Financing source IBRD/IDA	<p>Description</p> <p>LA for Loan B, Section 4.01:</p> <p>(a) The Borrower shall have established the Project Management Unit, with terms of reference and qualified staffing, satisfactory to the Bank, including specifically: (i) one environmental specialist; (ii) one social specialist; and (iii) one occupational health and safety specialist.</p> <p>(b) The Borrower shall have prepared and adopted the Project Operations Manual, in form and substance satisfactory to the Bank</p> <p>(c) The Borrower shall have adopted and disclosed a final Environmental and Social Management Framework for the Project, in form and substance satisfactory to the Bank</p> <p>(d) The Borrower shall have established and operationalized a grievance mechanism for the Project, in form and substance satisfactory to the Bank</p>
Type Disbursement	Financing source IBRD/IDA	<p>Description</p> <p>LA for Loan A, Schedule 2, Section III, B.1(b). No withdrawal shall be made under Category (2) until the Borrower, through MoEUCC, has:</p> <p>(i) finalized and incorporated into the financial management manual a dedicated financial management annex for the implementation of Part 2 of the Project;</p> <p>(ii) established and operationalized the integrated information technology system between MoEUCC and the commercial banks serving as MoEUCC’s fiduciary agents for Part 2 of the Project; and</p> <p>(iii) signed an agreement, in form and substance acceptable to the Bank, with at least one commercial bank that is acceptable to the Bank.</p>
Type Disbursement	Financing source IBRD/IDA	<p>Description</p> <p>LA for Loan A, Schedule 2, Section III, B.1.(c): No withdrawal shall be made for Emergency Expenditures under Category (3), unless and until all of the following conditions have been met in respect of said expenditures:</p>



		<p>(i) (A) the Borrower has determined that an Eligible Crisis or Emergency has occurred, and has furnished to the World Bank a request to withdraw Loan amounts under Category (3), and (B) the World Bank has agreed with such determination, accepted said request and notified the Borrower thereof; and</p> <p>(ii) the Borrower, through MoEUCC, has adopted the CERC Manual and Emergency Action Plan, in form and substance acceptable to the World Bank.</p>
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I. STRATEGIC CONTEXT

A. Country Context

- Türkiye enjoyed high growth rates between 2002-17 that supported poverty reduction, but recent shocks are risking the economic and social gains made since the early 2000s.** Türkiye achieved rapid economic and social development in the 2000s, with poverty incidence more than halving and real Gross Domestic Product (GDP) increasing by 50 percent by 2008. Since the Global Financial Crisis (GFC), rapid growth continued but was increasingly associated with stagnant productivity, a rising current account deficit and growing foreign exchange-denominated debt stock. Policies to stimulate the economy after the failed coup led to economic overheating in 2017, double-digit inflation, and a large current account deficit. The cumulative effects of these and other economic vulnerabilities came to a head in mid-2018, with the tightening of global economic conditions combined with challenges in international relations. These events triggered a significant depreciation of the Turkish lira and turmoil in the Turkish economy. Spending fell, inflation accelerated, and the corporate sector's debt increased. Türkiye experienced three quarters of negative growth from late 2018 to mid-2019, coupled with sizable job losses. GDP per capita fell to US\$9,793, from a high of US\$12,582 in 2013, while poverty reduction progress stalled in 2018.
- An emergent economic recovery starting late 2019 was undermined by the COVID-19 pandemic, but the swift policy led to sharp rebound in the economy.** Over the course of late 2018 and 2019, the economy went through significant adjustments. Current account imbalances declined significantly, banks and corporates reduced their exposure to foreign currency debt, private sector credit growth resumed, and demand had started to recover. By the end of 2019, economic activity was rebounding with strong growth in the fourth quarter but disrupted by the onset of the COVID-19 pandemic in early 2020. The COVID-19 health crisis quickly turned into a deep economic turmoil all around the world and Türkiye experienced a sharp contraction in GDP (10.4 percent, year-on year) in 2020 Q2. The government responded swiftly to COVID-19 with a large economic stimulus program, summed up 14 percent of GDP, focused on opening credit channels and loosening monetary policy and other regulatory measures as well as direct support. The stimulus generated a significant increase in economic activity in late 2020 that more than offset the decline recorded earlier in the year. This policy response led Türkiye's economy to be one of the few countries with positive growth in 2020. However, the policy frameworks that ensured a strong economic rebound during the pandemic also heightened macroeconomic risks, including rising inflation, currency depreciation, corporate and banking sector vulnerabilities and decline in reserve buffers.
- Türkiye's economic performance has been a tale of two economies—overall solid performance of the real economy, matched by volatility in macro-financial conditions in 2021.** A favorable base effect, an easing of restrictions permitted by accelerated vaccinations, and supportive external and domestic demand led to double digit GDP growth in 2021 with the economy and employment surpassing pre-pandemic levels. The monetary easing cycle since September 2021 had adversely affected macro-financial conditions, the Lira depreciated significantly and inflation accelerated to its fastest rate since August 2018, external pressures mounted, and corporate and financial sector vulnerabilities grew.
- The 2022 growth projection for Türkiye reflects a slowing momentum with downside risks, coming off a high GDP base and macro financial turbulence in 2021.** The Turkish economy grew by 11 percent in 2021 and is expected to grow by 2.3 percent in 2022, 3.2 percent in 2023 and 4 percent in 2024. Net exports are expected to drive big bulk of the growth in 2022, offsetting the drag in domestic demand from weak investment and high inflation. Risks are recently heightened due to rising domestic and macroeconomic challenges, heightened global liquidity tightening



prospects, and rising supply chain constraints. Going forward, efforts to enhance policy credibility and macro stability coupled with reforms focused on labor, product, and financial markets as well as on strengthening institutional capacity are needed to ensure sustainability of growth and employment generation in the medium term.

5. **Türkiye's development path is also threatened by significant climate and disaster risks; achieving long-term sustainable growth will require reducing vulnerabilities to seismic and climate-related hazards.** With about 70 percent of Türkiye's population living in first- and second-degree seismic risk zones, earthquakes pose a significant risk to lives, livelihoods, infrastructure, and other assets, and can disrupt the Turkish economy. A single 200-year earthquake around Istanbul, which concentrates approximately 15 million inhabitants, produces 27.5 percent of Türkiye's GDP, and collects 40 percent of the country's taxes as its largest city, could push 500,000 people into poverty.¹ In addition, many settlements are increasingly exposed to flooding and extreme weather events. In 2019 alone, 935 extreme events occurred, caused mainly by heavy rains/floods, windstorms, snow and hail.² Climate-related disasters have been striking with greater frequency and intensity over the last two decades. Going forward, climate models predict this trend to continue with increasing anomalies in precipitation patterns with more frequent extreme rain and flooding, as well as protracted drought and wildfires, and sea-level rise. Long-term average annual losses due to natural disasters in Türkiye are estimated at US\$711 million per year for earthquakes and US\$843.4 million for floods. Together, these hazards could result in up to US\$1.6 billion in losses per year.³

6. **The country has an opportunity to move rapidly to a more resilient, green, and inclusive growth path as its economy recovers from COVID-19.** The pandemic has generated a profound awareness of the links between climate change, fragile ecosystems, economic growth, and human health. As pressures intensify to support post-pandemic economic growth, recovery, and jobs, Türkiye has an opportunity to build back better, prioritizing strategies that can reduce its vulnerability to disasters and climate change and avoid the depletion of its natural resources. By incentivizing a green and resilient recovery, Türkiye can retain its competitive advantage as global markets—including the EU, Türkiye's main trading partner—move to decarbonize. However, this transition to a resilient and climate-proof future will require significant investments at all levels of government and in the private sector, including households, in the short term, which will be challenging in a context of recurring macro-financial volatility.

B. Sectoral and Institutional Context

7. **Achieving long-term sustainable growth in Türkiye requires a reduction in the physical, social, and economic impacts associated with geophysical and climate change-induced disasters.** Since 1990, earthquakes have caused the greatest human and economic losses, largely due to damage and collapse of buildings (see Box 1). Seventy-six earthquakes have resulted in approximately 20,000 fatalities, over 4.4 million people affected, and direct losses exceeding US\$25 billion.⁴ The 1999 Marmara earthquake alone claimed 18,000 lives and caused damage to over 319,000 housing units,⁵ while about 16,000 housing units were damaged beyond repair in the 1992 Erzincan and 1998 Adana earthquakes.⁶ In October 2020, an earthquake of 6.9 magnitude struck near Izmir province, causing 117 deaths, damaging 506 buildings beyond repair, and resulting in estimated economic losses exceeding US\$900 million (or

¹ World Bank, 2021. Overlooked. Examining the impact of disasters and climate shocks on poverty in the Europe and Central Asia region.

² 2019 was recorded as the year with the highest number of hydrometeorological disasters and floods occurred between 1944-2019. Turkish State Meteorological service (2020). State of the Climate in Türkiye in 2019 (<https://www.mgm.gov.tr/FILES/genel/kitaplar/2019MeteorolojikAfetlerDegerlendirmesi.pdf>)

³ World Bank, 2020. Turkey, Understanding Disaster and Climate Impacts on the Poorest and Most Vulnerable.

⁴ EM-DAT, CRED / UC Louvain, Brussels, Belgium – www.emdat.be

⁵ General Directorate of Disaster Affairs, Minister of Public Works and Settlement (2008)

⁶ <https://www.haberler.com/adana-14-yil-onceki-depremden-ders-almadi-3736093-haberi>, https://www.spo.org.tr/resimler/ekler/1b4a64be663682e_ek.pdf



equivalent to 0.12 percent of the 2019 GDP); residential units constituted over 70 percent of economic losses.⁷ Although they are less catastrophic, floods, storms, and landslides are frequent events in Türkiye and cause localized losses. The annual average population affected by flooding in Türkiye is about 600,000 and the annual average affected GDP is about US\$5 billion.⁸

Box 1: Historical Impacts of Earthquakes in Türkiye

Türkiye is among the countries most affected by earthquakes due to its tectonic, seismic, and topographic conditions. Its population and economy are highly exposed and vulnerable to earthquakes. The impacts of disasters have been on a rising trend due to continued urbanization and population growth. Earthquakes in particular are among the deadliest and the most damaging disasters in Türkiye; below are key data of recent earthquakes.

Earthquakes	Loss of Life and Damage
1966 Varto Earthquake	2,396 people dead; Around 20,007 buildings damaged
1970- Gediz Earthquake	1,086 people dead; Around 19,291 buildings damaged
1975 Lice Earthquake	2,385 people dead; Around 8,149 buildings damaged
1983 Erzurum Earthquake	1,155 people dead; Around 3,241 buildings damaged
1992 Erzincan Earthquake	653 people dead; Around 8,057 buildings damaged
1995 Dinar Earthquake	94 people dead; Around 14,156 buildings damaged
1998 Adana Ceyhan Earthquake	145 people dead; Around 31,463 buildings damaged
1999 Marmara Earthquakes	18,000 people dead; 90,593 buildings and 319,000 housing units damaged ¹
2003 Bingöl Earthquake	177 people dead and around 500 people injured Around 7,800 buildings damaged, and 6,000 housing units damaged ¹
2011- Van Earthquakes	644 people dead and 1,966 people injured ¹
2020-Elazığ Earthquake	41 people dead and 1,466 people injured; Around 1,965 buildings damaged ¹
2020- Aegean Earthquake (Izmir)	117 people dead; Around 506 buildings damaged

8. **Observed and anticipated climate change impacts, such as more intense precipitation, drought, extreme heat, and rising sea levels, are expected to increase the frequency and severity of disasters and put pressure on energy consumption, especially in urban areas.** The main climate-related hazards in Türkiye are flooding in coastal cities and low-lying river deltas and extreme weather events, such as storms, snow, and hail. In 2021, floods resulted in at least 81 deaths, 228 injured, about 2,500 evacuees, and at least 454 significantly damaged buildings⁹. For coastal cities, flooding will not only be an increasing threat to human life, but economic losses are projected to increase as well. A conservative projection of a 20 cm sea level rise, with no adaptation measures taken, would increase the mean annual disaster losses for Istanbul from US\$13 million to US\$327 million, a 40 cm increase to US\$1.746 billion. In Izmir, the losses would increase from US\$7 million to US\$314 million and US\$997 million, respectively.¹⁰ In addition, Türkiye’s coastal and marine ecosystems are increasingly threatened by climate change and anthropogenic stressors—as evidenced by the Marmara Sea mucilage outbreak in 2021. Warming seas, acidification, extreme storms threaten Türkiye’s physical, biological, and socioeconomic assets in marine and coastal areas, in turn putting at risk local livelihoods and key economic sectors such as tourism, fisheries, and logistics. Türkiye has also seen an increase in coastal pollution in recent years, which may be further exacerbated by rising temperatures. As a result of rising temperatures and extreme variability in rainfall and increased heatwaves, flooding, drought and wildfires are likely to become more frequent with implications for public and private assets as well as energy consumption for cooling in cities, especially in Türkiye’s western and coastal areas. In the context of climate change, improving municipal infrastructure with climate and disaster resilient measures (e.g. improved water systems with reduced

⁷ World Bank/GFDRR, 2000. Magnitude 6.9 Aegean Sea Earthquake – Impact on Turkey: Global Rapid Damage Estimation (GRADE) Report.

⁸ <https://www.gfdrr.org/sites/default/files/Turkey.pdf>. (2015)

⁹ <https://www.afad.gov.tr/duyurular>. (2021)

¹⁰ Hallegatte, S., Green, C., Nicholls, R. J., Corfee-Morlot, J. (2013), Future flood losses in major coastal cities. Nature climate change, 3(9), 802-806.



non-revenue water; upgraded storm water systems with less flood risk), incorporating energy efficiency and renewable energy measures into retrofitting of existing buildings or construction of new buildings will be important for reducing pressure on power grids, the urban heat island effect, greenhouse gas (GHG) emissions, coastal and marine ecosystems, as well as improving affordability of municipal services, human health and resilience, including to climate-related heat and cold shocks.

9. **Cities play a significant role for Türkiye’s overall development, but their high exposure to seismic and climate-related hazards paired with inadequate infrastructure and services can reduce the positive impacts of urbanization and economic gains.** About 76 percent of Türkiye’s population lives in urban areas.¹¹ A large share of Türkiye’s GDP is concentrated in its biggest metropolitan areas, such as Istanbul and Izmir. Population growth is putting pressure on the capacity of municipalities to provide adequate infrastructure and services and increasing the concentration of people and assets in cities vulnerable to disasters. Insufficient consideration of seismic and climate risks in spatial planning, investment prioritization, and construction activities increases exposure and impacts of these hazards. In addition, municipalities are at the forefront of managing 3.75 million Syrian refugees in Türkiye, which poses additional challenges for service delivery and strains municipal capacity to implement urban resilience measures.¹² In a global sense, refugees are also among the most vulnerable members of society and likely to be more adversely impacted by disasters.

10. **Türkiye has enacted important regulatory and institutional reforms to reduce the impacts of seismic and climate-related hazards in urban areas with a focus on enhancing the resilience of the built environment.** The Government’s efforts have resulted in a strong regulatory framework for resilient design and construction of buildings and infrastructure, as well as improved supervision and enforcement of the construction code. A major revision of the construction code in 2000 introduced structural requirements for seismic resilience, integrated construction considerations for snow and wind loading, and prohibited construction of public buildings in flood zones.¹³ Energy efficiency standards were also increased over the last decades and new buildings are now required to meet at a minimum Class C energy performance. Moreover, the enactment of the *Law on the Transformation of Areas under Natural Disaster Risk* (Law 6306) in 2012 was an important milestone to accelerate efforts to increase resilience of the urban built environment. This law provides opportunities for a systematic approach to integrate resilience into urban planning and management and to enhance the resilience of critical infrastructure and housing to earthquakes and climate change impacts. The Ministry of Environment, Urbanization, and Climate Change (MoEUCC), the Housing Development Administration (TOKI), İller Bankası A.S. (İLBANK), municipalities and public and private enterprises associated with local authorities are the primary authorities responsible for planning and financing of investments in resilient infrastructure and buildings.

11. **MoEUCC has formulated approaches to support municipalities to develop their own urban transformation¹⁴ strategies, per the national policy.** In 2018, MoEUCC introduced Urban Transformation Strategy Guidelines for municipalities that include the following elements: (i) City-wide risk assessments; (ii) Priority areas for urban transformation; (iii) Investments in resilience; (iv) Stakeholder engagement; (v) Feasibility studies; and (vi) Financing mechanisms. These guidelines require a thorough analysis of the urban transformation needs within each

¹¹ World development indicators. Washington, D.C.: The World Bank.

¹² <https://www.goc.gov.tr/gecici-koruma5638>

¹³ There have been ten revisions to the building code since 1940, with the major revision in 2000 following the devastating 1999 Marmara earthquake. The latest revision to the seismic code, the Earthquake Regulation, was published in the Official Gazette in March 2018 and came into force in January 2019 (known as TBEC-2018), replacing the 2007 code.

¹⁴ In Türkiye, the term urban transformation is used to broadly refer to interventions that increase the resilience of the urban built environment to seismic and climate-related hazards in line with Law 6306. In the PAD, the terms urban transformation and urban resilience are therefore used interchangeably.



municipality to allow for an assessment and prioritization of multi-hazard risks at the city level. In September 2019, MoEUCC launched a 5-year Urban Transformation Action Plan to operationalize these guidelines, which prioritizes the transformation of housing¹⁵, public buildings, and urban areas prone to earthquake, flood and/or landslide risks.

12. **However, the Government faces several challenges in the implementation of its regulatory framework supporting seismic and climate-resilient urban transformation.** Key challenges include (i) the need for greater affordability of retrofitting or demolishing and reconstructing risk-prone housing to meet resilient and energy efficient standards, and (ii) leveraging available resources and mobilizing finance for municipalities to increase investments in resilient urban infrastructure.

Affordability of resilient and energy-efficient transformation of risky housing

13. **Most of the Turkish housing stock was built prior to the introduction of modern seismic building codes in 2000.** The stock is therefore highly prone to natural hazard impacts and requires urgent strengthening to enhance its resilience to seismic and climate change-induced disasters. Most fatalities from earthquakes are attributed to the structural failure of residential buildings constructed prior to 2001. Generally, these buildings are not structurally resilient with a higher probability of serious damage or collapse due to earthquakes or extreme weather events such as flooding, landslides, or snow or wind load. Such buildings are referred to as “risky” – meaning they have finished their economic life or are otherwise determined to be prone to collapse or significant damage due to natural hazards. Approximately 6.7 million residential buildings across the country are estimated to require seismic retrofitting or reconstruction¹⁶ (referred to as “transformation” in Türkiye) at an estimated cost of US\$465 billion; however, only 4 percent of these buildings are currently being transformed. MoEUCC plans to address this challenge with the primary objective of saving lives by facilitating the transformation of 300,000 housing units per year over the next 20 years. Since 2012, the government has supported the transformation of 1.7 million housing units.¹⁷

14. **While the need for transformation of risky housing is high in Türkiye’s cities, existing funding mechanisms do not meet the massive financing required, nor are they affordable for owners of units in risky buildings to the extent necessary to catalyze action.** Existing funding mechanisms for structured urban transformation projects are small scale and ad-hoc in nature. There is limited guidance available to municipalities regarding financing options for urban transformation that engage the private sector. Households who need to finance the transformation of their housing are discouraged by the high upfront costs of retrofitting or reconstruction, which are even higher when improved energy efficiency measures are integrated. Considering this financial burden, as of 2021, relatively few property owners had requested that the risk of their housing unit be formally assessed by a licensed evaluator, which is required to: (i) initiate the transformation process, (ii) confirm whether the unit may be retrofitted or needs to be fully reconstructed, and (iii) enable households to access available financial assistance under Law 6306 (see Annex 4 for details). In general, urban transformation is most common for households who can afford these costs, whose housing is in areas attractive to developers, and/or who are able to increase the floor area ratio to offset construction costs tend to initiate the process and successfully complete transformation of their housing.

15. **Despite the Government’s financial assistance to property owners, many middle- and lower-income owners cannot yet afford retrofitting or reconstruction of their risky housing units.** MoEUCC provides financial support to

¹⁵ Urban transformation programs target residential buildings and mixed-use buildings (small shops are usually located on the ground floor of predominantly residential buildings).

¹⁶ In urban transformation programs, the term “reconstruction” refers to the preventative demolition and in-situ reconstruction of risky residential/mixed-use buildings as opposed to reconstruction of buildings already collapsed or damaged in the context of post-disaster recovery.

¹⁷ <https://webdosya.csb.gov.tr/db/strateji/haberler/2022.butcesunusu-20211111124215.pdf>



owners of risky housing and commercial units for retrofitting or reconstruction in the form of either an interest rate buy-down for a loan from a commercial bank or rental support for a period of up to 18 months (see Annex 4 for more details). Owners of risky housing or commercial units cannot currently receive both types of support but must choose one of the options. People living in housing units without formal property rights or ambiguous land tenure are also eligible for subsidies provided by MoEUCC. However, affordability analysis (Table 1) shows that currently only households in the top income quintile can afford mortgage loans for resilient housing transformation with the existing interest rate buy-down. Given this affordability gap and the fact that beneficiaries can only benefit from one subsidy under the government’s current program, most beneficiaries choose the rental subsidy, which provides short-term financial support rather than applying for loans to transform their risky housing; this is because market interest rates remain generally high despite the interest support provided, thus the transformation target of risky buildings cannot be met.

Table 1: Affordability analysis of MoEUCC’s existing interest rate buy-down subsidy for urban transformation (TL = Turkish Lira)

HH Income Quintiles	Monthly HH Income 2020 (TL)	Maximum affordable loan amounts* (TL)		Estimated construction costs for transformation**	Estimated financing gap for transformation (TL)	
		Market rate @ 18% 10 years	Subsidized (buy-down) rate @ 14% 10 years		with affordable loan @18% 10 years	With affordable loan @14% 10 years
1 (20th %)	5,537	153,646	178,304	317,000	-163,354	-138,696
2 (40th %)	8,399	233,073	270,479	408,000	-174,927	-137,521
3 (60th %)	9,861	273,629	317,544	408,000	-134,371	-90,456
4 (80th %)	12,026	333,716	387,274	499,000	-165,284	-111,726
5 (100th %)	21,794	604,780	701,842	499,000	105,780***	202,842***

*Based on the assumption that households could allocate up to 50 percent of their monthly income for monthly mortgage payments, considering the median of 30 percent average implied by household consumption trend data and 70 percent according to the government’s assessment.
 **Based on sample housing construction cost data advised by MoEUCC as of May 2022, assuming house unit size of 70 m² for the 1st quintile, 90 m² for the second and the third quintiles, and 120 m² for the fourth and the fifth quintiles.
 *** This quintile is the only group that can afford a loan under the government’s existing interest rate buy-down program.
 Source: Team’s own calculation using SILC 2020 household income (adjusted for 2022) and 2019 household consumption trend data of TurkStat.

16. **The Housing Development Administration (TOKI) is the governmental housing provider in Türkiye with the primary focus to produce new mass housing projects for middle to low-income groups that cannot obtain housing in the open market.** TOKI also has a program on upgrading informal settlements and supports MoEUCC in conducting larger scale urban transformation projects in risky areas. However, TOKI does not support the retrofitting or reconstruction of existing individual risky buildings. Thus, there is a gap in accessibility to and availability of financing mechanisms/programs that support the transformation of individual risky residential buildings for middle to lower income groups.

17. **Given the climate change context in Türkiye, there is also a need for further strengthening incentives and practices to integrate energy efficiency and improved water resource management into building design.** The building sector in Türkiye was responsible for about 11 percent of total emissions in 2019 and is less energy efficient than the EU average. The government’s urban transformation program is an opportunity to provide multiple benefits by incentivizing the integration of water and energy efficiency measures in building design in addition to structural strengthening, which would contribute to climate change mitigation as well as reduce costs for residents. Examples



include the use of more efficient plumbing and water-saving devices as well as rainwater harvesting and grey water systems and adequate thermal insulation to ensure comfort of building occupants in more extreme temperatures without a commensurate increase in energy consumption. Incorporating energy efficiency in the residential building stock is also a critical factor in reaching Türkiye's climate commitments under the Paris Agreement and is a priority for the government under its 2007 Energy Efficiency Law (Law No. 5627).

Importance of investment in climate and disaster resilient urban infrastructure

18. **Given Türkiye's high exposure to seismic and climate hazards, the vulnerability of critical urban infrastructure needs to be reduced to future-proof its cities.** While hazards are typically perceived in terms of acute shocks (i.e., one-off or short-term events), they are often compounded by chronic stresses (e.g., aging infrastructure). Accordingly, infrastructure in Türkiye's cities faces many interlinked and cascading risks from both climate change and natural hazards. Investments in increasing the resilience of infrastructure not only ensure continuous service provision to citizens but can have numerous co-benefits that strengthen the resilience of the communities and spaces around the infrastructure. As such, climate and disaster resilience of urban infrastructure would safeguard development progress achieved in Türkiye over the past decades and underpin its path for resilient socioeconomic development in the future – in line with Türkiye's national strategic plans and international agendas, such as the Sustainable Development Goals and the Paris Climate Agreement.

19. **However, municipalities in Türkiye have limited data and capacity to systematically incorporate climate and disaster risk considerations in urban planning and investment planning processes.** Building resilience and energy efficiency into infrastructure and assets should be addressed at the time of the investment decision and based on adequate hazard and exposure data to inform the decision-making process. Higher vulnerability to climate change and natural hazards usually comes with higher and unsustainable maintenance, recovery, and post-disaster reconstruction costs. This includes the direct costs arising from large-scale disaster events, but also recurrent stresses on infrastructure systems, which typically lead to service disruptions that have financial, environmental, and social costs.¹⁸ In the face of mounting climate and disaster risks, it is crucial to continuously increase the availability of adequate and actionable data on exposure and vulnerabilities of Türkiye's cities to multiple hazards and build the capacity of municipalities to apply guidelines and methodologies to screen/prioritize, prepare, and implement infrastructure investments to increase resilience.

20. **Turkish municipalities also lack access to finance for resilient infrastructure investments, which are often not commercially viable.** Local authorities in Türkiye accounted for only 10 percent of total public expenditures in 2016, which is well below the average of 19 percent among Organization for Economic Cooperation and Development (OECD) unitary countries.¹⁹ Despite having a well-developed financial sector, Türkiye's commercial market for municipal financing remains limited; a high proportion of municipal debt stock is locked into short-term maturities that are not amenable to financing infrastructure investments. ILBANK, an incorporated, non-deposit-taking development and investment bank established in June 1933, is the government's municipal lending vehicle and is considered a financial intermediary (FI) for using international finance. ILBANK has two core functions: (i) to support infrastructure development at the sub-national level through technical assistance, grants, and loans; and (ii) to transfer central tax revenues to the local authorities.²⁰

¹⁸ According to the global analysis in the 2018 World Bank Lifelines Report, unreliable power and water supply and transport disruptions already cost the economy 2.2 percentage of GDP per year.

¹⁹ Among local authorities, municipalities (including metropolitan municipalities) represent the lion's share of expenditures.

²⁰ Further details about ILBANK and the summary of the FI assessment are provided in Annex 5.



21. **Building on the successes of improving municipal service provision as well as the environmental, economic, financial, and social sustainability of Turkish cities under the long-standing Bank-financed Sustainable Cities Series of Projects (SCP), ILBANK is looking to mobilize finance for green and resilient urban infrastructure investments.** ILBANK's Strategy Plan 2019-2023 defines themes, objectives, and targets to support climate change adaptation and resilience to natural hazards in Turkish municipalities. Under one of the four themes of this strategy, ILBANK seeks to provide financing and technical support for 'Planned Urbanization, Environmentally Friendly Cities, and Smart City Development'. ILBANK is also taking proactive measures to integrate climate and natural hazard considerations into investment planning, has been involved in conducting city-wide climate and disaster risk assessments in a first set of municipalities, and has developed a guidebook to integrate climate and disaster risks into their project cycle. Under the ongoing SCP, ILBANK scaled up its external financing to demand-driven municipal infrastructure investments with expanded sectoral coverage going beyond water and wastewater investments and started to pilot disaster and climate resilience in its portfolio. The proposed Project will be the first of its kind in ILBANK's portfolio to support municipalities to enhance systematically their climate and disaster resilience.

C. Relevance to Higher Level Objectives

22. **The proposed Climate and Disaster Resilient Cities Project is aligned with the World Bank Group (WBG) Country Partnership Framework (CPF) for Türkiye for FY18–FY21 (Report No. 110906-TR, August 29, 2017), which was extended to cover the FY22–23 period through the Performance and Learning Review (Report No. 142353-TR, March 13, 2020).** The CPF sets out the overall objective of supporting Türkiye in achieving more sustainable and inclusive development by focusing on growth, inclusion, and sustainability dimensions. The Project will contribute to meeting CPF Objective 8 - Improved Sustainability and Resilience of Cities - under CPF Focus Area 3: Sustainability. Under CPF Objective 8, this Project will underpin the Government of Türkiye's (GoT) strong commitment to strengthening institutions at municipal level and building capacity in cities to reduce the impacts of natural disasters on people and assets and to scaling up its actions to address climate change, for which it has requested WBG and international support. The Project is also part of the broader World Bank and IFC program in Türkiye that strengthens the capacity of municipal-led institutions to identify bankable projects and secure international resources, both private and public.

23. **Building disaster and climate resilience in cities will also contribute to the Bank's twin goals of ending extreme poverty and promoting shared prosperity as well as the WBG Climate Change Action Plan 2021-2025 "Supporting Green, Resilient, and Inclusive Development".** Globally, the impact of disasters is equivalent to US\$520 billion losses in annual consumption and pushes some 26 million people into poverty each year. Activities contributing to resilience are thus directly linked to sustainable development and to avoiding vulnerable people from being trapped in cycles of poverty. Likewise, efforts to improve climate resilience in cities contribute to the WBG's commitments to support and scale up climate action and increase the climate-related share of development financing. In line with the WBG's Europe and Central Asia Climate Roadmap 2021-2025, the Project will support: (i) climate adaptation through investments in resilient infrastructure and mainstreaming disaster and climate risk considerations into urban transformation, and (ii) climate mitigation by incentivizing higher energy efficiency standards during the retrofitting or reconstruction of risky housing, which can also help reduce the need for and cost of energy for households.

24. **The Project will contribute to goals set out in Türkiye's National Development Plan (NDP) and its climate adaptation and mitigation targets per its commitment under the Paris Climate Agreement.** The 2019-2023 NDP lists "Livable cities and sustainable environment" as one of its objectives, including urban transformation, housing, urban



infrastructure, and disaster risk management. This Project is designed in line with the targets and objectives under these five areas. It also contributes to the achievement of the Integrated Urban Development Strategy and Action Plan (2013-2023) that promotes the development of integrated and effective participatory mechanisms for urban transformation projects. Türkiye's Climate Change Action Plan (2011-2023) identifies several actions aimed at increasing national preparedness and capacity to reduce and/or adapt to adverse impacts of climate change. As Türkiye has accelerated its efforts in the fight against climate change with its pledge of net zero emissions by 2053 after ratifying the Paris Agreement on October 6, 2021, the Project is aligned with Türkiye's *Nationally Determined Contribution* (NDC) to the Paris Agreement that aims to reduce GHG emissions up to 21 percent by 2030 compared to the business-as-usual scenario.

25. **The proposed Project also addresses the core principles of sustainability in the “scaling up selectively for impact” articulated in the WBG COVID-19 Crisis Response Approach Paper** - contributing to Pillar 4 “strengthening policies, institutions and investments for resilient, inclusive and sustainable post COVID-19 recovery by Rebuilding Better”:

- *Investing in sustainability and climate change mitigation and adaptation.* Building disaster and climate resilience in buildings and infrastructure (as well as increased energy efficiency) contributes to sustained development and reduces the physical, fiscal, and social shocks of disasters.
- *Investing in resilient municipal infrastructure.* During the COVID-19 pandemic, many critical services have been disrupted and infrastructure damaged due to disaster and emergency events. These events have highlighted the need for urgent investments in greater disaster and climate resilience.
- *Increasing employment and economic activity.* The Project is expected to generate activity in the construction and engineering sectors in Türkiye, which can drive increased employment in a range of low- to high-skilled jobs.

II. PROJECT DESCRIPTION

A. Project Development Objective

26. **PDO Statement.** The Project Development Objectives (PDO) are to increase access to seismic and climate resilient housing, municipal infrastructure and services in Project provinces in Türkiye and to respond promptly and effectively in the event of an Eligible Crisis or Emergency.

27. **PDO Level Indicators.** The following key indicators will be used to track progress towards the PDO:

- a. People accessing housing retrofitted or rebuilt in accordance with climate and disaster-resilient standards (Number), of which women (Percentage)
- b. People in urban areas provided with access to climate and/or disaster resilient municipal infrastructure and services (Number), of which women (Percentage)
- c. Cities with improved livability, sustainability, and/or management (Number, CRI)

B. Project Components

28. **The proposed Climate and Disaster Resilient Cities Project aims to support the government in tackling the challenges related to climate and disaster resilient housing and infrastructure interventions, focusing on urban**



areas in the provinces²¹ of Istanbul, Izmir, Kahramanmaras, Manisa, and Tekirdag. These provinces were selected as all are highly vulnerable to the impacts of natural hazards and climate change such as flooding, drought, and heat waves; and, most importantly, all are in high seismic risk zones (see the map in Annex 7). In addition, all of them have: (i) high numbers of risky housing units that require transformation; and (ii) multiple risk-prone areas that require urgent investment in resilient infrastructure. They were also selected to represent different typologies of cities, as they have varying population sizes, migrant/refugee populations, distinct levels of socio-economic development and capacity and are geographically dispersed across Türkiye.

29. **The Project will support the GoT to develop and establish an innovative approach for urban resilience with climate change and disaster risks and energy efficiency considerations that can be scaled up over time with various sources of financing.** The major building blocks of this multi-pronged approach include: (i) development of a new financing mechanism supporting households in retrofitting or reconstructing their risky housing²² to increase resilience to seismic and climate hazards, which helps address current bottlenecks related to affordability and expand access to finance for resilient reconstruction or retrofitting, (ii) a methodology to mainstream climate and disaster risk considerations into prioritization and design of urban infrastructure investments, and (iii) approaches for enhanced citizen engagement in urban transformation. The Project is expected to demonstrate in selected provinces how this approach can put the government's urban transformation policies into practice comprehensively.

30. **In this regard, the Project includes five components as described below:** (i) Institutional strengthening to enable conditions for urban resilience; (ii) Expanding access to resilient housing; (iii) Investments in climate and disaster resilient municipal infrastructure; (iv) Project management, monitoring and evaluation; and (v) Contingent emergency response component. Components 2 and 3 are designed to benefit Istanbul, Izmir, Manisa, Kahramanmaras, and Tekirdag. These provinces represent a large segment of the population and include two of the largest cities in the country (Istanbul and Izmir). In parallel, Component 1 will provide technical assistance at the national and local levels for key urban transformation policies and programs. This Component is expected to have spillover effects in other provinces, which will help scale up the approaches and mechanisms initiated under the Project and will play an important role in building capacity at the national and local levels, focusing on supporting local authorities in Project provinces and other provinces vulnerable to disaster risks based on demand. A detailed description of the Project components is included in Annex 1.

Component 1: Institutional strengthening to enable conditions for urban resilience (EUR 6 million)

31. Component 1 will provide technical assistance to MoEUCC and local authorities in Project provinces and other provinces vulnerable to disaster risks, to strengthen their capacity to develop, implement, and monitor green and resilient urban transformation programs. It will finance consultant and non-consulting services, training, and goods for, inter alia: (i) the preparation of municipal urban transformation strategies for municipalities vulnerable to climate and disaster hazards, jointly with local authorities, including city-wide climate and disaster risk assessments to inform spatial plans and investment prioritization, definition of financing modalities, implementation plans, and citizen engagement strategies for green and resilient urban transformation; (ii) the improvement of systems and procedures for managing, monitoring, and evaluating urban transformation programs with the involvement of relevant stakeholders at national and local levels, including spatial hazard and climate risk datasets; (iii) the preparation and

²¹ The Metropolitan Municipality Law 6360 extended the boundaries of all metropolitan municipalities to the provincial limit, i.e., provinces and metropolitan municipalities cover the same geographical area. Project provinces and Project metropolitan municipalities may be used interchangeably in this document to refer to the same geographical area.

²² Housing is used to refer to full residential buildings or mixed-use buildings with some commercial/business units mainly located on the ground floor.



execution of targeted capacity building programs (including training, knowledge exchange study tours, etc.) for MoEUCC and local authorities on relevant topics such as conducting disaster and climate risk assessments, integration of energy efficiency measures into resilient housing design, and use of green and nature-based solutions to mitigate climate and disaster risks in the urban environment; and (iv) the strengthening of MoEUCC's capacity to provide technical support to owners interested in applying for the resilient housing sub-loans provided under Component 2 during all stages of the loan application and subsequent housing retrofitting or reconstruction process, especially on technical and legal matters with particular attention paid to lower-income and female-headed households, and to carry out technical verification and inspections during housing reconstruction or retrofitting.

Component 2: Expanding access to resilient housing (EUR 317 million)

32. Component 2 will provide demand-side support for resilient housing in the Project provinces by financing sub-loans (in Turkish lira) at below-market conditions for eligible owners to retrofit or reconstruct their housing or commercial units in risky residential or mixed-use buildings to meet resilient building code²³ and energy efficiency standards. The objective of this new financial product is to address the issue of limited affordability and access to finance for a specific niche market segment that is not served through the existing mortgage market (i.e., owners of risky housing units who cannot afford seismic retrofitting or reconstruction of their property) with the aim to save lives. As such, it is not intended to be rolled out to a wider market segment nor to become an integral part of the mortgage industry in Türkiye. In addition, World Bank financing will not be made available directly or for the direct construction of buildings. The sub-loans funded by IBRD under this Component will be channeled through participating commercial banks²⁴ and will be paired with the government's existing rental subsidies program (which will continue to be financed by MoEUCC with their own funds) to support families to relocate temporarily during the retrofitting or reconstruction process.²⁵

33. *Eligibility and targeting:* Owners of housing or commercial units²⁶ in residential or mixed-use buildings located in urban areas of the Project provinces that are assessed as "risky" according to the provisions of Law 6306²⁷ will be eligible to apply for the sub-loans financed under this component.²⁸ This includes owners of units in multi-family buildings (who are expected to be the majority) as well as owners of single-family houses. Owners of risky housing units are eligible to apply for the sub-loans regardless of their income level pursuant to creditworthiness checks; however, financial terms will be differentiated to provide incentives and ensure affordability of the sub-loans for the vulnerable groups. In particular, middle to lower-income households (those whose household income are below a certain threshold, e.g., 4th or 3rd income quintile), those that only own one unit, and households that are female-

²³ Resilient under this Project will refer to a building complying with the structural requirements provided under the Earthquake Regulation that has been updated and entered into force on January 1, 2019.

²⁴ Commercial banks (public and private) will be selected by MoEUCC based on expressions of interest and according to criteria acceptable to the Bank outlined in the Project Operations Manual (POM), including adequate financial standing, and compliance with the prudential norms of the Banking Regulatory and Supervision Agency.

²⁵ In cases where owners rent out their risky housing units, tenants would receive a rental subsidy to temporarily (or permanently for tenants who choose not to return to the retrofitted or reconstructed property) relocate during building retrofitting or reconstruction.

²⁶ This will be mostly housing but may include a small number of commercial units in mixed-use buildings.

²⁷ For the purposes of Type-III buildings (buildings assessed as risky and already demolished before sub-loan application), the cut-off date for the designation as "risky" is October 1, 2020.

²⁸ As per Law 6306, urban transformation of risky residential buildings is a voluntary process initiated with risk detection assessments of individual buildings at the request of owners of units in buildings, except for cases where buildings are deemed at risk of imminent collapse. Any owner of a single-family home or of a unit in a multi-family building can request a building risk assessment, which is conducted by a licensed evaluator and includes opportunities for objection. The assessment results may recommend either retrofitting or reconstruction. Once a building is officially designated as risky in the property register, agreement of at least 2/3 of the owners on the reconstruction is required by law; those owners who choose not to participate may be bought out by the other owners or sell their property at market rates. After this process is complete, owners may apply for a loan under the Project. Technical and legal support will be provided for owners to apply for sub-loans and manage contracts with developers under Component 1.



headed or include persons with disabilities, deceased military/public servants, or retirees/elderly will be eligible for more favorable loan terms. A multidimensional vulnerability analysis using Statistics on Income and Living Conditions (SILC) 2019 cross-sectional data showed that in general, households in these target categories are relatively more vulnerable compared to the regional averages in the Project provinces. In addition, within the scope of the Regulation on Energy Performance for Buildings, more favorable loan terms will be provided for upgrading to a higher energy efficiency standard (Class A or B Energy Performance Certificates) than required by the 2019 building code (Class C Energy Performance Certificate) to incentivize climate change mitigation and help reduce household energy bills. Communications and outreach activities, which will be financed under Component 4 to make potential beneficiaries in the Project provinces aware of and elicit demand for the new sub-loans, will have a particular focus on more vulnerable groups, including lower income and female-headed households, and highlight the benefits of resilient housing retrofitting and reconstruction including energy efficiency measures. MoEUCC's Project Operations Manual (POM) will detail the methodology for the targeting of beneficiaries, including communication and outreach activities provided under Component 4, the use of differentiated loan terms, and targeted technical support to be provided under Component 1 to ensure that middle to lower income households and female headed households benefit from the sub-loans provided under this component. MoEUCC will also conduct annual assessments to review the performance of the new resilient housing loan mechanism supported under this component, including demand and targeting, effectiveness of communication and support provided to owners, the quality of housing construction, and environmental and social aspects, in order to identify and timely implement any necessary adjustments and course-corrections during project implementation, as needed.

34. *Loan terms:* A fixed, below-market interest rate (not tied to IBRD terms), determined based on affordability criteria, will be charged for the sub-loans. There will be further (cumulative) interest rate deductions for eligible owners falling in the categories listed above and for upgrading to higher energy efficiency standards. The interest rates, maximum loan maturity, and maximum principal amounts will be agreed between MoEUCC and the participating commercial banks considering affordability while at the same time ensuring that payment capacity of households is leveraged. All such loan terms shall be reasonable and acceptable to the Bank and will be specified in the POM, in addition to eligibility criteria and the application forms.

35. *Eligible expenditures:* The loan proceeds can only be used for civil works required for the seismic and climate-resilient retrofitting or reconstruction²⁹ of risky housing units, including energy efficiency measures. MoEUCC will continue to finance existing rental subsidies with their own funds. Additional details on the implementation of this component are available in Annexes 1 and 2.

Component 3: Investments in climate and disaster resilient municipal infrastructure (EUR 167 million)

36. Component 3 will support ILBANK to on-lend loans (in Euro) with longer maturities and lower interest rates than the comparable domestic market to eligible utilities of Project metropolitan municipalities to undertake infrastructure investments that increase resilience against the impacts of climate-related and/or other disaster hazards. ILBANK will be the Financial Intermediary (FI) for this Component, and the utilities of Project metropolitan municipalities will be sub-borrowers. ILBANK will ensure the financial viability and creditworthiness of the sub-borrowers per standard practice. The Component will finance works, goods, non-consulting and consultant services for: (i) demand-driven resilient and green municipal infrastructure investments in Project provinces, and (ii) technical

²⁹ Seismic resistance, as defined under this Project, refers to a building complying with the structural requirements per the 2019 building code.



assistance to sub-borrowers to strengthen management and implementation support (e.g., procurement, environmental and social management) for climate and disaster resilient municipal sub-projects.

37. *Sub-project eligibility and prioritization.* Sub-projects eligible for financing under this Component include the construction or rehabilitation of, inter alia: (i) stormwater, drainage, and flood management systems, and (ii) water and wastewater systems and treatment plants. Additionally, subprojects will need to fulfill the following eligibility criteria: (i) contribute to improvements in climate and disaster resilience in the Project provinces based on existing risk assessment studies³⁰ and/or historical disaster records; (ii) be aligned with existing municipal plans and policy documents (such as city development plans, climate action plans, disaster risk reduction plans, etc.); (iii) be complementary to other investments of the municipal sub-borrower being financed in the Project provinces; (iv) be demand and needs driven; (v) be technically feasible; (vi) economically and financially viable; (vii) demonstrate substantial readiness; and (viii) be in compliance with, and can be designed and implemented in a manner in compliance with the Bank's fiduciary requirements and the Bank's Environmental and Social Standards. Any municipal investment with high environmental or social risks will not be eligible for financing. Prioritization among eligible sub-projects, which are identified for an individual municipal sub-borrower, will consider their contribution to climate mitigation and/or adaptation, adoption of targeted approaches to strengthen resilience, and degree of readiness for implementation. The prioritization approach for subprojects will be elaborated in the POM prepared by ILBANK, including an equal indicative allocation for each sub-borrower (utilities of Project metropolitan municipalities) that will be confirmed based on a creditworthiness assessment for each sub-borrower conducted by ILBANK as well as indicative demand expressed by each sub-borrower. The creditworthiness assessments and prudent financing allocations are expected to help manage the foreign exchange risks associated with the loans at the municipal level.

38. *Technical assistance to sub-borrowers.* Technical assistance will focus on subproject management and implementation support, including subproject design, procurement, contract management, construction supervision, environmental and social management, monitoring and evaluation, as well as outreach and citizen engagement by the municipal sub-borrowers.

Component 4a and b: Project Management, Monitoring, and Evaluation (EUR 2.5 million ILBANK and EUR 7.5 million MoEUCC)

39. Component 4 will have two sub-components that finance consultant and non-consulting services, goods, training, and operating costs as required by ILBANK and MoEUCC to implement the project per Bank policies and guidelines, including but not limited to monitoring and evaluation, reporting, procurement, financial management, and disbursement, environmental and social management, grievance redress mechanisms, as well as communication and outreach activities especially for Component 2 to ensure potential beneficiaries, in particular women and lower-income households, are aware of the resilient housing program and its benefits. This Component will also support MoEUCC's annual assessments of how the new mechanism to support resilient housing retrofitting or reconstruction under Component 2 is performing to identify adjustments and course-correction during implementation as needed.

Component 5: Contingent Emergency Response Component, CERC (EUR 0 million)

40. This Component is included in accordance with OP/BP 10.00 (Investment Project Financing), paragraphs 12 and 13, for contingent emergency response through the provision of immediate response to an Eligible Crisis or Emergency, as needed. It will allow the GoT to respond promptly and effectively to an eligible emergency or crisis,

³⁰ City-wide risk assessments were completed for Kahramanmaraş, Tekirdağ, and Manisa as part of technical assistance provided by the Bank. Some seismic risk assessment and risk reduction planning studies are also available for Izmir and Istanbul.



that is a natural or human-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact by requesting a rapid reallocation of project funds. An Operations Manual for this Component will be prepared by MoEUCC.

C. Project Beneficiaries

41. The direct beneficiaries of the Project will be: (i) property owners receiving the resilient housing sub-loans and people who will reside or work in risky residential and mixed-use buildings in urban settlements of the five Project provinces that will be transformed with support from the Project; and (ii) people who will have access to continuous service provision due to more climate and disaster-resilient municipal infrastructure in the urban settlements of the five Project provinces. Other beneficiaries will include staff of MoEUCC, ILBANK, local authorities of Project provinces and other provinces, as well as utilities of Project metropolitan municipalities that would benefit from the technical assistance and capacity building activities financed under Components 1 and 3.

D. Project Cost and Financing

42. The total project costs are estimated at EUR 500 million, which will be supported by EUR 500 million IBRD Investment Project Financing (IPF). The costs and financing per component are presented in the table below.

Table 2: Total Project Cost and Financing by Component in EUR, millions

Project Components	Project Costs and IBRD Financing
Component 1: Institutional strengthening to enable conditions for urban resilience (MoEUCC)	6
Component 2: Expanding access to resilient housing (MoEUCC)	317
Component 3: Investments in climate and disaster resilient municipal Infrastructure (ILBANK)	167
Component 4: Project Management, monitoring and evaluation	10
(4a) For Component 1, 2, and 5 (MoEUCC)	7.5
(4b) For Component 3 (ILBANK)	2.5
Component 5: Contingent Emergency Response Component	0
Total	500

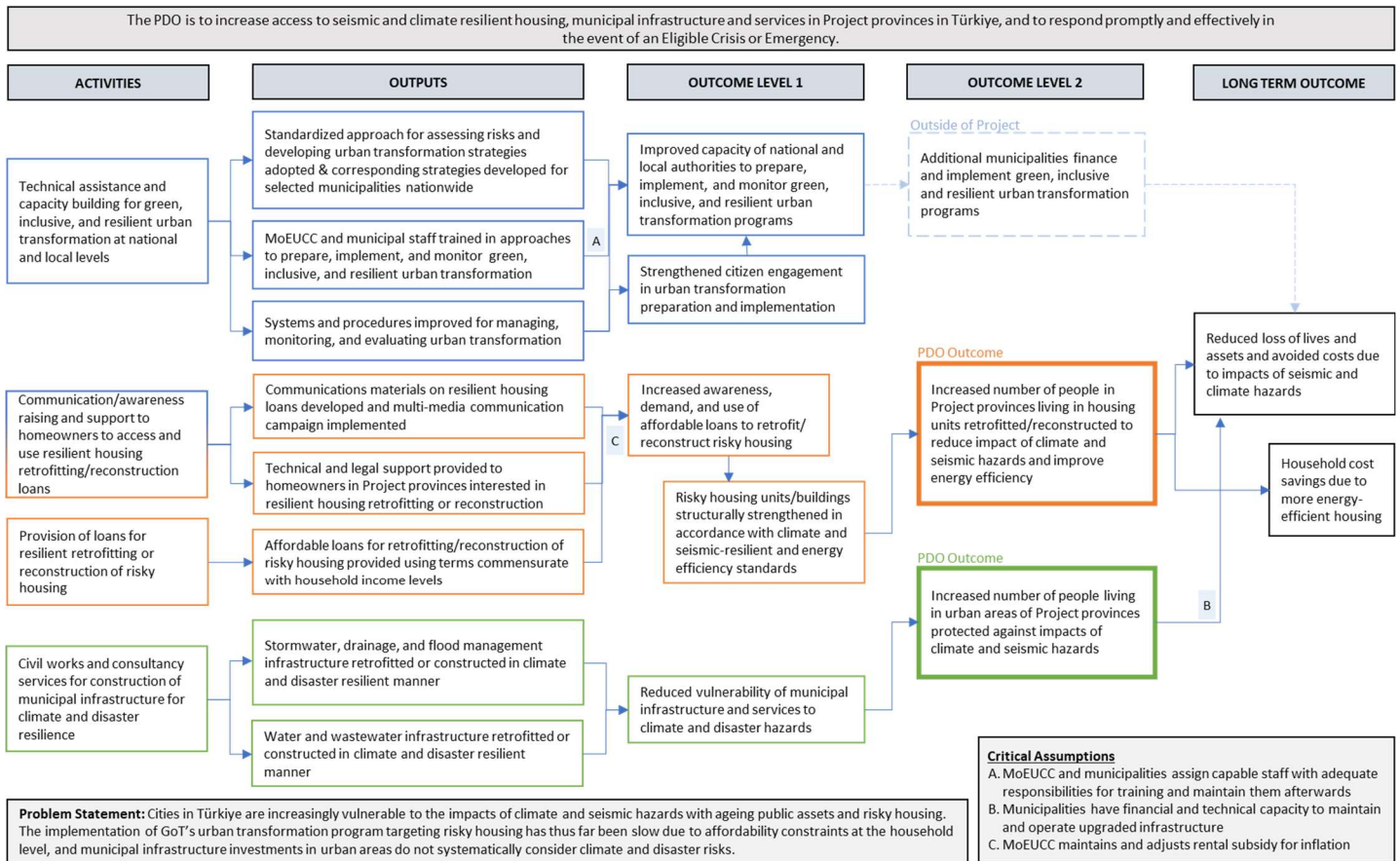
E. Results Chain

43. Project activities will support the GoT to achieve its targets of increasing resilience of the existing housing stock and municipal infrastructure in Project provinces against seismic and climate hazards. The Project is designed around three groups of interventions that together will ultimately result in reduced vulnerabilities in urban settlements in Project provinces through: (i) establishing a scalable and sustainable approach to prepare, finance, and implement climate and disaster resilient housing and infrastructure interventions in urban settlements in an inclusive manner and



building the associated capacity at the national and local levels; (ii) increasing the climate and disaster resilience of municipal infrastructure; and (iii) expanding access and increased affordability to resilient and energy-efficient housing. The activities are expected to strengthen financial and technical capacities for urban transformation at the national and local levels, enhance citizen engagement, increase the affordability of resilient, energy efficient housing for households residing in risky buildings, especially middle- and lower income families, and reduce vulnerability of municipal infrastructure. In the long run, these outcomes will help reduce the loss of lives and assets as well as future costs for reconstruction due to seismic and climate-related disasters and climate change in cities.

Theory of Change



F. Rationale for Bank Involvement and Role of Partners

44. **The Bank is a leading partner in the thematic areas of disaster risk management, climate change, and urban development in Türkiye and globally.** Examples include post-disaster recovery and reconstruction programs (e.g., the Erzincan Earthquake Rehabilitation and Reconstruction Project, Marmara Earthquake Emergency Reconstruction Project), disaster risk reduction programs (e.g., the Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP), Disaster Risk Management in Schools Project, and the Seismic Resilience and Energy Efficiency Project), and municipal infrastructure investment programs implemented by ILBANK (the Municipal Services and Sustainable Cities Series of Projects). Regarding technical assistance programs, the Bank has been providing support to ILBANK, MoEUCC, and the metropolitan municipalities of Tekirdag, Manisa, and Kahramanmaraş to increase their



capacity to collect, assess, and use climate and disaster risk data for infrastructure investment planning at the city level and to develop guidelines for mainstreaming climate and disaster risk considerations into municipal investments. In addition, support has been provided to: (i) identify areas in need of urban transformation based on robust analysis and potential private sector participation; (ii) review and enhance the existing tools for social assessment and engagement of various stakeholders, including citizens; (iii) provide guidance and training on financial models that could be applied for urban transformation, and (iv) develop screening tools for infrastructure investments that consider climate and disaster resilience³¹ with resources from the Global Facility for Disaster Reduction and Recovery (GFDRR), including the Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries and the City Resilience Program. The Bank has also played an important role in the preparation and finalization of the Climate Change Memorandum of Understanding signed in October 2021 between the GoT and six development partners, including the Bank. Its focus is on low emission and climate-resilient development to reach international commitments under the Paris Agreement, including urban transformation, green and net-zero buildings, flood management, and resilient urban infrastructure. Finally, the Bank has extensive experience in supporting affordable and resilient housing programs as well as targeting lower-income beneficiaries globally. The Bank has provided over US\$3 billion to client countries across the globe for housing finance projects between FY05-FY15, providing support to improve targeting, affordability, and resilience of housing to natural hazards and climate change. The Bank is thus well-placed to support the GoT in its efforts to bring together aspects of disaster risk management, climate adaptation and mitigation, and urban development to increase resilience in Türkiye's cities.

45. **The convening power of the Bank and its ability to support “proof of concept” approaches to other development partners have proven to be critical in scaling up and leveraging additional financing for well performing development programs.** Given the magnitude of the urban transformation challenge in Türkiye, the overall investment needs are much larger than existing government resources. The Bank has had initial discussions with other development partners, including the Asian Infrastructure Investment Bank (AIIB) and the European Investment Bank (EIB), about this Project and potential co-financing opportunities using a common institutional framework and Project design. In addition, the World Bank regularly engages with other development partners, such as Japan International Cooperation Agency (JICA), EU, and the French Development Agency (AFD), that are also supporting the GoT on enhancing various elements of climate adaptation and mitigation as well as urban resilience in Türkiye. The IFC also has been working with private sector entities on infrastructure development in Izmir and Istanbul.

46. **The World Bank and IFC coordinate closely on World Bank Group support to maximize finance for the development of sustainable and resilient cities in Türkiye in line with the cascade approach.** IFC has typically worked with large metropolitan municipalities with the capacity to borrow without treasury guarantee, including Istanbul and Izmir, whereas the Bank has worked with ILBANK to provide financing to smaller municipalities that do not have access to commercial finance. Izmir is a key IFC client with a range of investments supported by IFC over the last decade and has recently finalized an investment project with the Izmir Water and Wastewater Administration to strengthen resilience of water and wastewater infrastructure, rehabilitate water supply networks, and finance urgent priority investments in stormwater and sewage networks. In Istanbul, IFC is currently supporting the construction of a mass transit system. In addition, the IFC “Excellence in Design for Greater Efficiencies” (EDGE) green building certification

³¹ Technical assistance programs include Support to Building Urban Resilience in Turkey (P168356); Building Resilience in Turkey (P153694); Urban Resilience (P169922); Building Institutional Capacity for Risk Informed Decision Making and Urban Resilience in Turkey (P170103); as well as Bank-Executed Trust Fund grants specifically for the preparation of the proposed project. These technical assistance activities were implemented with support from the Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries (financed by the Government of Japan), the Multi Donor Trust Fund, and the City Resilience Program, which are all managed by the Global Facility for Disaster Reduction and Recovery (GFDRR).



system has included certification of four buildings in Türkiye.³² For this Project, IFC and the World Bank will closely collaborate on the proposed urban resilience investments in Istanbul and Izmir to align and leverage financing in the spirit of the cascade approach, in the event any investments are proposed that would be more suitable for private financing/IFC support. Going beyond this Project, IFC and World Bank will continue to explore ways of improving joint work under the cascade to maximize financing for urban infrastructure in Turkish cities.

G. Lessons Learned and Reflected in Project Design

47. **Project design reflects lessons learned from previous and ongoing Bank-financed investment operations in Türkiye, including those implemented by ILBANK, and globally (including e.g., Poland, Mexico, and India), as well as from the ongoing urban resilience technical assistance program.** Key lessons are summarized below:

- (a) **Building adequate institutional capacity is critical for early success and long-term sustainability.** Experience from previous and ongoing operations in Türkiye shows the need to invest in capacity building to ensure sustainability of the Project's investments and uptake/positive spill-over effects of approaches supported under the Project. The Project design therefore includes technical assistance activities to support the development of frameworks and tools that can facilitate the implementation of urban transformation projects in additional municipalities in subsequent phases. It also includes financing for specialized consultants at MoEUCC and ILBANK to strengthen their capacity for project implementation.
- (b) **Sequencing and scalability in project design are essential to achieving the sustainability and effectiveness of intended project outcomes.** For housing financing especially, as noted in the World Bank's Independent Evaluation Group's (IEG) report (2016) on successful practices for housing finance, adequate sequencing and timely interventions, along with supporting technical assistance, are essential for sustainability and scalability. The Project therefore has adopted an approach that combines support to progressively strengthen the enabling environment for increasing urban resilience in Türkiye with investments that are expected to provide proof-of-concept of how the government's urban transformation policies can be put into practice comprehensively in selected provinces. The approach developed and tested under the Project could then be scaled up to other municipalities over time with additional sources of financing. In addition, the MoEUCC plans to set up a revolving fund for resilient housing finance to enable the provision of additional affordable loans to additional eligible owners of risky housing or commercial units beyond the project implementation period.
- (c) **Developing a comprehensive, programmatic approach has led to achieving large scale impact to attract additional financing from IFIs.** In the case of the ISMEP project, the design focused on strengthening key public buildings against seismic risks, institutional development, capacity building, broad public risk awareness raising about seismic risk, and community engagement. A successful track record during implementation helped leverage additional financing from various IFIs to ensure adequate financing available to cover all investment needs. In addition, the involvement of project beneficiaries in the planning and implementation of the retrofitting/reconstruction works, and well-designed public awareness programs fostered greater ownership and sustainability among residents.
- (d) **Adequate targeting, outreach, monitoring and evaluation, as well as providing technical support to households are key for interventions aiming to reach middle- and lower income groups.** IEG's report on successful practices for housing finance stresses the importance of targeting based on a country-specific needs assessment for

³² Buildings include the MINT E-5 residential building, the MINT Caglayan residence, the Greenox Residence and Dr. Lutfi Kirdar Kartal Training and Research Hospital (public hospital) <https://www.edgebuildings.com/project-studies/>



affordable housing finance interventions, along with adequate measures for monitoring results. The report also highlights the need to gradually move housing financing down-market to middle- and lower-income households rather than targeting lower-income groups in initial phases. In addition, programs incentivizing energy efficiency upgrades in homes (e.g., Poland's Clean Air Priority Program) have shown the importance of differentiated financial and complementary operational support as well as targeted outreach campaigns to reach lower income households, and of improving monitoring to facilitate adaptive management during implementation. Project design therefore includes differentiated (more favorable) loan terms for middle to lower income groups, in addition to general eligibility criteria for owners to participate in urban transformation programs. It also includes support to strengthen MoEUCC's capacity to provide technical support to owners of housing or commercial units in risky residential or mixed-use buildings and improve its existing monitoring system for urban transformation, specifically targeting housing.

- (e) **Citizen and stakeholder engagement is vital to the success of urban resilience programs.** Results from other projects have shown that sustainability, especially for housing retrofitting or reconstruction, is contingent on active citizen engagement and participation throughout the process. The Government's *Urban Transformation Strategy Guidelines* builds on lessons learned regarding the importance of engaging citizens in the design and implementation of urban resilience programs, especially regarding the upgrading of housing, which was not always the case under past programs. In line with the GoT's intention to ensure a more participatory approach in its urban transformation program, the Project would include platforms for citizen engagement at all critical points during project planning and implementation with the objective of empowering people to be decision makers in the improvement or reconstruction of their homes and ensuring inclusive planning and execution of activities.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

48. **The Project will have two Loan Agreements with different Borrowers and implementing agencies.** A Loan Agreement for Components 1, 2, 4a, and 5 will be signed between the World Bank and the Ministry of Treasury and Finance (MoTF) with MoEUCC as implementing agency. Another Loan Agreement will be signed between the World Bank and ILBANK as the implementing FI for Components 3 and 4b. Legal arrangements for Components 3 and 4b will also include a Guarantee Agreement between the MoTF and the World Bank, a Guarantee Protocol between the MoTF and ILBANK, as well as sub-loan agreements between ILBANK and sub-borrowers (utilities of the metropolitan municipalities of Istanbul, Izmir, Manisa, Kahramanmaras, and Tekirdag) that will be the implementing agencies for sub-projects under Component 3.

Institutional and Implementation Arrangements for Components 1, 2, 4a, and 5 – MoEUCC

49. **The responsibility for overall implementation of Components 1, 2, 4a, and 5 will lie with MoEUCC's General Directorate of Infrastructure and Urban Transformation Services (GDIUTS),** in close coordination with MoTF, the Strategy and Budget Presidency (SBP), participating commercial banks, and local authorities of the Project provinces. While MoEUCC has some experience in implementing projects financed by the World Bank (Türkiye Energy Efficiency in Public Buildings-P162762, and Seismic Resilience and Energy Efficiency in Public Buildings Project-P175894) and other IFIs, GDIUTS has not previously worked with the World Bank or other IFIs and will need to establish an adequately staffed Project Management Unit (PMU). The PMU will be responsible for overall management and coordination of Components 1, 2, 4a, and 5, including: (i) communication with stakeholders and citizen engagement for the Project, (ii) ensuring that Project funds are used to finance eligible expenditures in accordance with the applicable policies and procedures



stipulated in the Loan Agreement and with targeting criteria, terms and conditions for resilient housing sub-loans as set forth in the POM (as described in paragraph 52 below) including overseeing of all procurement under Component 2, (iii) procurement for the institutional strengthening and technical assistance activities under Component 1; (iv) procurement for the project management activities under Component 4a; and (v) compliance with the Environmental and Social Framework (ESF); and (v) Project monitoring and reporting.

50. **The GDIUTS PMU will be led by a Project Director and will be composed of dedicated staff for the Project.** PMU staff will include existing GDIUTS technical staff (e.g., urban planners, civil/structural engineers, urban transformation specialists, financial experts) assigned to the Project and additional specialists with terms of reference and qualifications (including prior experience in Bank-financed projects) acceptable to the Bank who will need to be mobilized within 60 days of the Loan Effective Date, including at least: (i) one financial management specialist, one procurement specialist, one environmental specialist, one occupational health and safety (OHS) specialist, one social specialist (focusing on resettlement/relocation aspects), one stakeholder/community engagement specialist, and one monitoring and evaluation (M&E) specialist located in the central MoEUCC office in Ankara; and (ii) one environmental specialist and one social/community engagement specialist each for the provinces of Izmir, Manisa, Tekirdag, Kahramanmaras, as well as Istanbul European side and Istanbul Asian side, who will be located in the Ministry's respective provincial directorates as part of the PMU to support the monitoring of ESF risks. In addition, MoEUCC's staffing plan may require additional staff or compliance specialists to undertake the verification of documents under Component 2 as well as technical consultants during the lifespan of the Project, depending on need.

51. **For the implementation of Component 2, GDIUTS will sign protocols³³ with selected commercial banks to serve as loan servicing agencies on behalf of MoEUCC with roles and responsibilities acceptable to the World Bank.** The IBRD funds for the sub-loans under Component 2 will be channeled through commercial banks, which will serve as fiduciary agents administering the funds on behalf of the Ministry. The credit risk for the sub-loan amounts provided to beneficiaries under this Component will be held by the MoEUCC. Given that the credit risk for these sub-loans will sit with the MoEUCC and the funds will only be passed through commercial banks, the banks will not be FIs for this component. MoEUCC will sign protocols with selected banks which will detail the commercial banks' roles and responsibilities as fiduciary agents acting on behalf of the Ministry and as agreed with the World Bank. Fees that may be charged by the selected commercial banks for services rendered will be paid by MoEUCC with their own funds. The commercial banks, acting on behalf of MoEUCC, will sign loan agreements with beneficiaries who choose to apply and qualify for a loan, upon approval by MoEUCC of the portfolio, to extend the sub-loans and to obtain the beneficiaries' commitment to use the financing and to carry out the works in accordance with the requirements of the Project. The commercial banks will establish a first-degree lien in the name of MoEUCC with unrestricted rights to benefit from the retrofitted/reconstructed property until beneficiaries will have repaid their loan in full. MoEUCC will need to sign a protocol in form and substance acceptable to the World Bank with at least one commercial bank acceptable to the World Bank prior to any disbursement under Component 2. Component 2 will be demand-driven with calls for loan applications issued in Project provinces on a periodic basis, given available funding envelopes for each call as determined by MoEUCC. The Ministry will establish a revolving fund with repayments returning to its account to continue providing loans to additional beneficiaries for the same purpose (retrofitting or reconstruction of risky housing units) as repayments accrue for at least one additional financing cycle. The Ministry will prepare several contractual documents for the Project, including: (i) a draft protocol to be signed between the Ministry and participating commercial banks, (ii) a draft loan agreement to be signed between the banks and beneficiaries, and (iii) minimum required contract conditions, contractual clauses and/or annexes for the contracts to be signed between beneficiaries and the contractors

³³ Protocols in Türkiye are legal documents commonly used by the government.



covering additional commitments reflecting the World Bank's requirements. MoEUCC, as the lender, will have the ability to exercise the rights under the sub-loan agreements with the beneficiaries to ensure that the housing reconstruction/retrofit will be carried out in accordance with Bank policies.

52. **Project Operations Manual (POM).** MoEUCC shall prepare and adopt a POM for Components 1, 2, 4a and 5 in substance and form satisfactory to the Bank prior to the Loan Effective Date. The POM will set forth the organizational structures for project implementation and clear roles and duties of the involved actors (i.e., MoEUCC and its provincial directorates, local authorities, commercial banks, etc.) in accordance with Bank procedures. The POM will also cover guidelines, standard documents, procedures, and principles to be applied in activities for carrying out of the Project. It will also specify the detailed terms, and conditions for the resilient housing sub-loans to be provided under Component 2, as well as the criteria and methodology for the targeting of beneficiaries, including in particular, communication and outreach activities targeting lower income and female-headed households, differentiated loan terms, and targeted technical and legal support to owners interested in applying for the sub-loans during all stages of the process, as well as the arrangements of the annual assessments to review the performance of the new loan mechanism. Finally, the POM will include a separate annex for the CERC.

Institutional and Implementation Arrangements for Components 3 and 4b – ILBANK

53. **The implementation arrangements for Components 3 and 4b build on the existing, well-established model used under the ongoing Sustainable Cities Series of Projects (SCP).** ILBANK will be the implementing FI for Components 3 and 4b. ILBANK shall prepare and adopt a POM for Components 3 and 4b of the Project in the form and substance satisfactory to the Bank prior to the Loan Effective Date. ILBANK has demonstrated its capacity to design and implement municipal service projects with IFI financing, including through World Bank-financed operations (SCP1, SCP2 and its additional financing, Municipal Services Project (MSP) and its additional financing, and FRIT Municipal Services Improvement Project). Additional criteria for selecting ILBANK include the bank's financial soundness and quality of credit portfolio. Annex 5 provides a summary evaluation of ILBANK against the Bank's standard criteria for financial intermediary financing (FIF) listed in OP 10.00 (Investment Project Financing).

54. **The existing PMU under ILBANK's International Relations Department will be responsible for coordinating and supervising the implementation of Components 3 and 4b and for providing support to sub-borrowers.** ILBANK's PMU, which was established for the implementation of SCP, has a strong track record and experience with World Bank operations. ILBANK is committed to constantly seeking ways to expand and enhance their institutional capacity in line with their growing portfolio and has recently employed 20 new technical staff. In addition, the existing PMU will be strengthened by assigning additional specialists with terms of reference and qualifications acceptable to the Bank to support implementation of the Project, including at least an environmental specialist, a social specialist, and an OHS specialist (to be mobilized by the Loan Effective Date), as well as a procurement specialist, an urban resilience/disaster risk management expert, and a monitoring and evaluation expert (to be mobilized within 60 days of the Loan Effective Date). Additional experts may be mobilized as needed.

55. **ILBANK's International Relations Department has experienced staff in technical, procurement, environmental, social, and financial management-related policies and procedures of the Bank.** ILBANK's staff has received several ESF training courses and has experience with the Bank's previous safeguard operational procedures and the ESF. ILBANK's environment and social team consists of two technical experts—one acting as the environmental focal point and the other as the social development/land acquisition focal point. The ILBANK team has also managed the implementation of several previous operations financed by the Bank, as indicated above.



56. **Sub-borrowers (utilities of Project metropolitan municipalities) participating in Component 3 meet the sub-borrower eligibility criteria and were mutually agreed by ILBANK and the Bank.** The sub-borrowers will be responsible for sub-project investment implementation in accordance with their sub-loan agreements. They will establish Project Implementation Units (PIUs) to ensure adequate sub-project implementation; the PIUs shall be established within 30 days of signature of their sub-loan agreements. The PIUs will be staffed by municipal employees but may be supplemented by individual consultants as necessary. ILBANK will provide project implementation support to sub-borrowers through guidance and capacity building for sub-project preparation and implementation of the sub-loan agreements. Participating sub-borrowers, in coordination with the ILBANK PMU, will conduct the selection of consultants for their respective sub-projects, including preparing ESF instruments and conducting supervision activities. Sub-borrowers will be responsible for the procurement of civil works, goods, consulting and non-consulting services per their sub-loan agreements. The financial management responsibility for Component 3 will lie with ILBANK. While the sub-borrowers will be responsible for the procurement under the oversight of ILBANK, i.e., the activities will be completed and documented under the oversight of ILBANK, the payments will be executed, accounted for, and reported by ILBANK as is the case in the active WB-financed operations implemented by ILBANK.

57. **Fund flow under Components 3 and 4b will be overseen by ILBANK's International Relations Department.** The International Relations Department will also be responsible for ensuring compliance with the Bank's procurement regulations. The POM for Components 3 and 4b will guide ILBANK on the use of loan funds and reporting arrangements.

58. **Escrow account.** To secure debt service, ILBANK follows the same procedures stated in the Law on Regulating Public Finance and Debt Management (Law No. 4749). ILBANK requires municipal sub-borrowers to deposit the interest and principal repayments into an escrow account. ILBANK will monitor the funds in the escrow account to service the IBRD loan. According to the law, ILBANK is also authorized to use the tax share intercept as collateral for a sub-loan.

59. **ILBANK follows a pricing policy that is in line with its role in supporting the financing of public goods by municipalities.** The basic tenet of the product policy is in line with the mandate to offer investment loans with longer maturities and lower interest rates than the comparable domestic market. ILBANK does not account for the cost of its own capital into the lending rates. ILBANK has two lines of business providing loans to municipal sub-borrowers. First, with local currency (TL), ILBANK typically lends on 5-year to 10-year terms for various projects and facilities related municipal services that have been included in the national investment program. The longest maturity has gradually extended to 15 years, but the average maturity is still low. Equity-based lending makes the preferential interest rate possible because the cost of own capital is not factored in pricing the lending products. ILBANK offers Turkish lira loans from its equity by using the interest rate to the Central Bank base rate as reference. Second, ILBANK also provides various types of foreign exchange loans to the utilities with longer maturity such as 25-30 years including 5-7 years of grace periods with lower interest rates compared to average market rates and with better conditions than the utilities may obtain by themselves.

60. **The on-lending rates for IFI foreign currency loans (mainly euros) reflect the cost of funds with a small markup and with passing the foreign exchange risk to the sub-borrower.** The use of external funds (IFI on-lending)³⁴ has reached 14.2 percent of the loan portfolio as of end-2020. ILBANK does not grant proforma subsidized loans, because its lending rates include margins sufficient to cover the cost of operation, loan losses, and even generate intentionally moderate profit. However, more sophisticated risk-based pricing of the products would be justified in future because ILBANK's portfolio is expanding with a longer maturity creating higher risk exposure. Law No. 5779 allows ILBANK to extend short-

³⁴ IFI lenders include, in order of funding size: World Bank, JICA, EIB, Islamic Development Bank, and AFD.



term specialized loans given to municipalities in relation to their investment programs; nonetheless, ILBANK ceased to extend short-term credits in 2007 as a matter of principle, save for exceptional situations. In cases where letters of guarantee are issued for loans that municipalities obtain from financial institutions that are in default, ILBANK, in its capacity as guarantor, is responsible for making the payments whenever the beneficiary of the letter so demands. This responsibility is also the case for this Project, as ILBANK is the guarantor for the sub-borrowers. ILBANK will conduct thorough creditworthiness assessments of each municipal sub-borrower and make prudent financial allocations to minimize the municipal-level foreign exchange risks. In addition, ILBANK can consider using options for currency hedging offered by World Bank Treasury.

B. Results Monitoring and Evaluation Arrangements

61. **The Results Framework and Monitoring and Evaluation (M&E) arrangements as set out in this PAD provide the basis for monitoring implementation progress towards the PDO.** Project progress will be monitored based on completed procurements, Project disbursements, and achievement of the results indicators.

62. **Project indicators and sub-project tracking:** The PDO-level and intermediate results indicators, including annual targets, are presented in Section VII. The GDIUTS PMU and the ILBANK PMU will develop and maintain databases that include all relevant data for each sub-project required to track these indicators. For Component 3, the municipal PIUs will also be required to develop and maintain databases that include sub-project details, status of selection, status of audits and designs, and stage of civil works. The databases shall be updated on a quarterly basis. The PIUs will be required to submit biannual progress reports to their management and ILBANK. The GDIUTS PMU and ILBANK PMU will report progress towards PDO-level and intermediate results indicators to the Bank at least on a biannual basis.

63. **Periodic reporting:** In addition to implementation support missions conducted by the Bank every six months, the ILBANK and GDIUTS PMUs will be required to submit biannual progress reports to its management and the Bank for review.

64. **Mid-term review:** A Mid-Term Review (MTR) will be carried out by the Bank at the mid-point of Project implementation to assess the overall Project progress, identify critical implementation issues, and make any necessary revisions to the Project design or schedule.

C. Sustainability

65. **Institutional sustainability.** This Project will support the GoT in strengthening its institutional capacity to facilitate seismic and climate resilience of private housing, identify, prioritize, and invest in enhancing the resilience of municipal infrastructure, and develop a financing framework for urban transformation in coordination with local authorities of Project provinces. Establishing a scalable, sustainable approach to improve urban resilience through a common methodology for undertaking city level risk assessments and capacity building for urban resilience at the municipal level, as well as coordination across institutions, such as ILBANK and MoEUCC, will allow local authorities of Project provinces to participate actively in the urban transformation process under the leadership of the national government. The Project is also aligned with existing government strategies and action plans to increase disaster resilience and support climate change mitigation and adaptation. Provision of technical assistance under Component 1 is envisaged to contribute to improving the technical capacity of MoEUCC staff and local authorities of Project provinces and other provinces to mainstream climate and disaster risks into urban transformation and investments practices. It also will facilitate development of risk assessments tools and community and stakeholder engagement mechanisms to inform decision-making processes for resilience investments.



66. **Technical sustainability.** The engineering and technical designs will follow Turkish legislation for strengthening and upgrading existing buildings and for new construction. For disaster risk, the Turkish Building Earthquake Code was updated in 2019 and is considered robust by international standards. Following the completion of the works financed under the Project, the operations and maintenance costs are expected to remain minimal in the short term. Increased energy efficiency will also support climate change adaptation and sustainability, with the useful life of the buildings and municipal infrastructure extended for another 30–50 years. By integrating climate change into infrastructure design, designs that factor in increased rainfall, changes in flood, heat and drought intensity and frequency, investments financed under this Project will be more technically sustainable over the long term.

67. **Financial sustainability.** A large portion of the fiscal impacts of natural disasters on the national budget result from the significant capital expenditures required to repair and reconstruct damaged buildings and infrastructure. The Project will reduce the GoT’s contingent liabilities from such costs by proactively enhancing the resilience of public infrastructure and buildings and by providing families living risky buildings with affordable financing to upgrade their homes. Moreover, these improvements to buildings and resilient infrastructure are expected to reduce the overall operating and maintenance costs in the medium to long term. The establishment of a revolving fund under MoEUCC, which will continue to channel soft loans through commercial banks to owners of units in risky residential or mixed-use buildings, will ensure that repaid funds are relented to additional beneficiaries over time, scaling up impact.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

68. **Technical Analysis.** Public sector financing is justified, as the Project is investing in: (i) the resilient upgrading and energy efficiency of housing stock, targeting owners of units in risky buildings, especially those in middle to lower income groups or who have higher vulnerability with differentiated incentives, (ii) resilient municipal infrastructure, and (iii) in the provision of public goods that are important for local communities. The activities to reduce unsafe housing conditions are: (i) targeted specifically to a narrow group (owners of units in existing risky residential or mixed-use buildings) that is not fully served by the housing finance market nor covered by programs already offered by TOKI³⁵, and (ii) not intended to be rolled out to a wider market segment nor to become an integral part of the local mortgage market, as it is confined to a specific niche market segment with the overall goal of urban transformation and saving lives in the event of a disaster.

69. In terms of readiness for Project implementation, for Component 1, the list of technical assistance and consultancy activities to be financed during the first 18 months of implementation have been identified and preparation of the corresponding terms of reference is ongoing. For Component 2, MoEUCC has prepared a draft protocol to be signed with the commercial banks to serve as fiduciary agents. MoEUCC has also been in dialog with several commercial banks; and, at the time of Project appraisal, one bank has already confirmed their interest to participate in the implementation of the resilient housing loan program. The minimum required contractual clauses and/or annexes for the contracts to be signed between beneficiaries and the contractors covering additional commitments reflecting the World Bank’s requirements, are under preparation. For Component 3, readiness of proposed investments has been included as a screening criterion, along with alignment to ongoing initiatives/municipal investment plans and strong PMU capacity in

³⁵ MoEUCC, together with TOKI, conducts larger scale urban transformation projects in risky areas but TOKI’s urban transformation program does not support the retrofitting or reconstruction of existing individual risky buildings. MoEUCC also provides financial support to owners of units in individual risky buildings (in the form of either an interest rate buy-down or rental support, see Annex 4 for details), but these efforts do not fully meet the financing needs of owners of risky units, especially those of lower to middle-income groups.



ILBANK. ILBANK has also been working with the utilities of Project metropolitan municipalities to get their expressions of interest/sub-project proposals for Component 3. A long list of eligible sub-projects was prepared at appraisal and a first round of sub-projects is expected to be selected by Project effectiveness.

70. **Economic Analysis.** A dual approach was utilized to assess the economic efficiency for Components 2 and 3, which collectively account for more than 95 percent of Project funding. A portfolio analysis was adopted for Component 2 where data availability was less constrained than for Component 3, which was analyzed using a framework approach. More details on the analysis can be found in Annex 3.

71. **The portfolio analysis for Component 2 on expanding access to resilient housing was based on estimated investment costs of US\$324.7 million (equivalent to EUR 317 million).** The following economic parameters were taken into consideration: (a) a 25-year planning horizon; (b) a 6 percent discount rate in line with World Bank's guidance; (c) the concept of value of a statistical life (VSL), estimated at US\$1.712 million for Türkiye; (d) an annual earthquake exceedance probability for a 7-magnitude earthquake of 2 percent and a corresponding mortality rate of 6 percent; and (e) a 53 percent average rate of occupancy of residents during the day. Financial costs were converted into economic costs by deducting 28 percent from the original cost figures assuming a six-year operation.

72. **The overall cost-benefit analysis for Component 2 shows that over the 25-year planning horizon the combined economic net present value (NPV) is positive at US\$237.7 million with an economic rate of return (ERR) of 20 percent and a corresponding benefit/cost ratio (BCR) of 2.17.** These results show that Component 2 investments are economically viable and will benefit society by reducing economic losses associated with the damage to the housing units being upgraded, as well as saving energy and reducing carbon emissions. Taken in isolation, for the energy efficiency investments, the ERR is higher for the economic analysis at 24 percent, and 22 percent for the financial analysis without carbon benefits. The latter lower estimate is due to the assumed preponderance of reconstruction (90 percentage) over retrofitting (10 percent) under Component 2 and the removal of carbon benefits from the analysis, as such benefits do not represent tangible returns to the concerned administrations in the five provinces.

73. **A sensitivity analysis and a switching value analysis were carried out for the base case model involving resilience related investments to determine the impact of:** (i) deleting physical assets in the calculations, (ii) deleting lives saved in the calculations, (iii) reducing VSL, and finally, (iv) decreasing the number of lives saved (see Annex 3 - Table 3). The analysis revealed that physical assets played a minor role in impacting the efficiency parameters, while the element of lives saved dominated and determined the outcome of the analysis. The switching value analysis revealed that the number of lives saved can be reduced from 1,025 to 475 while still earning 6 percent return on the investment. Likewise, the VSL can be reduced from US\$1.712 million per person down to US\$781,000 and still yield a return of 6 percent, which represents the opportunity cost of capital assumed in this analysis.

74. **The framework analysis for Component 3 on investments in climate and disaster resilient urban infrastructure, estimated at US\$171.06 million (equivalent of EUR 167 million), shows BCRs ranging from 2.19 to 19.4.**³⁶ These results indicate a feasible investment for several reasons. First, a BCR exceeding unity suggests that the Project (Component 3 in this case) exceeds the discount rate of 6 percent. Second, a BCR greater than unity means that the NPV is positive. Third, although an ERR was not attempted, a BCR close to 2 represents an ERR in the vicinity of 20 percent.³⁷ While the

³⁶ S. Hallegatte, A Cost-Effective Solution to Reduce Disaster Losses in Developing Countries: Hydro-Meteorological Services, Early Warning, and Evacuation <https://openknowledge.worldbank.org/handle/10986/9359>

³⁷ A trial run was attempted to explore the corresponding ERR for a BCR of 1.86 under the same scenario. Using the same data, it was observed that a lower BCR of 1.54 actually matched an ERR of 21 percent.



higher end of the BCR is 19.4, it is unlikely to be achieved. Probabilistically, it can be surmised that the real BCR may lie anywhere between the lower and upper bounds, hence far exceeding efficiency implications derived from the lower bound BCR only. Hence, according to this analysis, investments considered under Component 3 are deemed economically viable.

B. Fiduciary

(i) Financial Management

75. The overall financial management (FM) risk for the Project is assessed as substantial, derived from a substantial risk for the components implemented by GDIUTS/MoEUCC and a moderate risk for the components under ILBANK. ILBANK has acceptable FM arrangements in place and will only need to make minor adaptations to its systems to integrate this Project (Components 3 and 4b) as well. GDIUTS will need to bring the FM arrangements for the Project (for Components 1, 2, 4a, and 5) to an acceptable level by project effectiveness, including, in particular, the establishment of an accounting and reporting system for the Project. Additionally for Component 2, GDIUTS will also need to establish an IT system to manage and monitor the Component activities as well as to allow for document and information flows from the participating banks for adequate monitoring and reporting before any disbursement under this component. An initial action plan has been prepared to bring the FM arrangements to an acceptable level before implementation begins. The detailed FM assessment of both MoEUCC and ILBANK as well as action plans are presented in Annex 2. The general requirements for MoEUCC and ILBANK throughout implementation will be to:

- Maintain an adequate project financial management system;
- Maintain at least two dedicated financial management staff and one financial management consultant throughout the project implementation period if needed;
- Prepare interim unaudited financial reports for the project on a quarterly basis and submit these to the Bank no later than 45 days after the end of each quarter;
- Have the project financial statements audited by the Treasury Controllers on terms of reference (TORs) acceptable to the Bank. The format of the financial statements will be attached to the Minutes of Negotiations;
- For ILBANK only: have the entity financial statements prepared in accordance with the International financial Reporting Standards audited by private auditors on an annual basis;
- Submit the annual audited statements to the Bank within six months of the end of each fiscal year; and
- Make the project audit reports publicly available.

(ii) Procurement

76. The World Bank Procurement Regulations for IPF Borrowers – November 2020 (“Procurement Regulations”) will apply to the proposed Project. The World Bank’s “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006, and revised in January 2011 and as of July 1, 2016 (Anti-Corruption Guidelines)” will also apply.

77. Draft Project Procurement Strategies for Development (PPSD) have been prepared by both ILBANK and GDIUTS pursuant to paragraphs 4.1 and 4.2 of the Procurement Regulations to determine the optimum procurement approach to deliver the right procurement result under the Project. The final versions of the PPSDs will be agreed between the Project implementing agencies and the World Bank.

78. Since the investment sub-projects under Component 3 will be for demand-driven climate and disaster resilient



municipal infrastructure in Project provinces, the procurement strategy for these investments will be prepared during project implementation and submitted to the Bank by ILBANK for its review and approval along with a procurement plan, before agreeing to financing of such investments.

79. Both GDIUTS and ILBANK will use the Bank’s Systematic Tracking of Exchanges in Procurement (STEP), an online procurement tracking tool to prepare, clear, and update their Procurement Plans and conduct all procurement transactions.

80. The procurement under Component 2 will be performed by owners of housing or commercial units in risk residential or mixed-use buildings in accordance with the well-established commercial practices as stipulated in the POM and/or agreed in the Procurement Plan of GDIUTS. The GDIUTS PMU will oversee the procurement done by the owners and report to the Bank.

81. Thresholds for World Bank review and procurement methods to be applied will be set out in the Procurement Plans. Procurements not previously reviewed by the World Bank will be subject to ex-post review on a random basis in accordance with the procedures set forth in Paragraph 4 of Annex II to the World Bank Procurement Regulations for IPF Borrowers. Considering that (i) GDIUTS will implement the first project under the Procurement Regulations and there are uncertainties in the number and size of the contracts under Component 2, and (ii) municipal sub-borrowers have limited experience in Bank procurement procedures and there are also uncertainties in the number, size and complexity of the contracts for Component 3, the Project procurement risk is identified as substantial before the implementation of mitigation measures. More details on the findings of the procurement assessment, the proposed procurement supervision arrangements, risks, and relevant mitigation measures to address them are provided in Annex 2.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social

82. **Environmental risks and impacts.** The environmental risk is rated as **Substantial** before the implementation of mitigation measures. Overall, the Project is expected to generate positive impacts by increasing disaster and climate resilience at the municipal level and incorporating energy-efficiency measures and renewable energy solutions (if feasible) in the construction of municipal infrastructure and the rehabilitation of buildings. However, the project activities are expected to have some environmental risks and adverse impacts which are mainly associated with the construction and operation of resilient housing and resilient municipal infrastructure. The potential risks and impacts associated with the above activities include air, water and soil pollution, waste (hazardous and non-hazardous), hydrological/aquatic ecosystem impacts that could be associated with certain stormwater and flood management activities in upstream and downstream locations, and occupational health and safety issues. Although the above risks and impacts could be significant, they are predictable, site-specific, and manageable. They can be prevented, minimized, or mitigated by proper assessment and application of adequate mitigation measures in line with national regulations, the Environmental, Health, and Safety general and specific Guidelines (EHSGs), and the Good International Industry Practice (GIIP) as outlined in the ESMF. Any investment with high environmental risks will be excluded from financing under the Project.



83. The substantial environmental risk rating is also due to the low capacity of MoEUCC and some of the municipal sub-borrowers in implementing the Bank's ESF. Although MoEUCC has prior experience with the Bank's former safeguards Operational Policies (OPs) through the Energy Efficiency in Public Buildings Project (P162762) and in the ESF from the Seismic Resilience and Energy Efficiency Project (P175894), a different directorate which has no previous experience will oversee implementation of the proposed Project. This Project will be the first to be implemented by the GDIUTS under the ESF. The new PMU to be established under GDIUTS will not be familiar with WB Environmental and Social Standards (ESSs) requirements. Although ILBANK has experience with many Bank-financed projects under both safeguards Ops and the ESF, the implementing municipal and utility PIUs have little or no prior experience with IBRD-financed projects and will likely not be familiar with the requirements of WB ESF and ESSs.

84. **Social risks and impacts.** The Project is rated **High** for social risks before the implementation of mitigation measures. The Project is expected to generate positive impacts by increasing the stock of available disaster and climate-resilient housing and municipal infrastructure. Potential adverse impacts include standard construction related social, labor, and community health and safety risks under Components 2 and 3, which are likely to be moderate. The high rating is due to potential adverse impacts of Component 2, which includes significant temporary and permanent physical and economic displacement while the construction and rehabilitation activities are taking place (around 10,000 households), potential exclusion of disadvantaged and vulnerable groups in housing financing and the social complexity of past Urban Transformation programs.

85. The Project will finance sub-loans to owners for retrofitting or in-situ reconstruction (which may include demolition) of risky housing under Component 2, and the retrofitting or construction of resilient municipal infrastructure under Component 3. Construction under both components present potential risks and impacts related to labor and working conditions (such as OHS risks, risks related to terms and conditions of employment, overtime risks, COVID-19 risks) and community health and safety risks (such as dust and noise around sites, road and traffic safety risks, disruption to access to services). Child labor and forced labor risks are rated as low, since both construction under both components will be done through accredited contractors. Sexual exploitation and abuse/sexual harassment (SEA/SH) risks due to project activities are also rated as low, since all construction will take place in urban areas and therefore will not introduce a new and large workforce into the communities and there is a robust legal framework for dealing with complaints and incidents. The above risks will be managed through Environmental and Social Management Frameworks (ESMF) and Labor Management Procedures (LMP), including appropriate Codes of Conduct, for both implementing agencies. The ESMF and LMP have been prepared, consulted upon, and disclosed in-country and at the World Bank's external website.

86. Construction of municipal infrastructure under Component 3 will involve temporary and permanent physical and economic displacement related to the rehabilitation of existing structures and construction of new structures. These will be managed through the Resettlement Framework (RF) prepared, consulted upon and disclosed by ILBANK. Under Component 2, owners of risky buildings who participate in the Project will be temporarily physically displaced while apartments/workspaces are rehabilitated, or buildings are demolished and reconstructed in-situ. These owners will be eligible for sub-loans to cover the incremental cost increase of the apartments they will receive in resilient, reconstructed buildings. They will also receive rental assistance (financed by MoEUCC with their own funds) while they are waiting for their apartments/workspaces to be reconstructed or retrofitted. For housing financing, there is a risk that disadvantaged and vulnerable owners will have less or disproportionate access to the resilient housing sub-loans, due to socio-economic status, financial literacy, or other factors. This risk will be managed through project design, eligibility criteria, monitoring targets and regular stakeholder engagement during project implementation. During the temporary physical displacement of building residents, in addition to standard resettlement risks for all



residents, there may be disproportionate adverse impacts on disadvantaged and vulnerable tenants, building superintendents and formal and informal businesses. MoEUCC, in collaboration with other government agencies, will provide additional social support to these groups. This is described in the RF which has been prepared, consulted upon, and disclosed by MoEUCC.

87. To manage the Project's environmental and social risks and adverse impacts, MoEUCC and ILBANK have each prepared their own ESF framework documents. These documents include: (i) ESMFs, (ii) Stakeholder Engagement Plans (SEPs), (iii) RFs, and (iv) LMPs, as well as Environmental & Social Commitment Plans (ESCPs). In addition, ILBANK, in its capacity as FI for Component 3, is in the process of developing its corporate Environmental and Social Management System (ESMS) as per the requirements of ESF. The need for adequate staffing to ensure effective management of environmental and social risks and impacts is reflected in the ESCPs for both implementing agencies. In addition, as reflected in the ESCP, MoEUCC will hire a consultancy firm to supervise the environmental and OHS issues associated with housing retrofitting/reconstruction activities under Component 2.

E. Gender, Citizen Engagement and Climate Change

Gender gap analysis, project actions and monitoring

88. This Project aims to address two gender gaps: (i) improving access of women to financial services/loans; and (ii) improving women's representation in the field of engineering.

Gap 1. Improving women's access to financial services/loans

89. **Like in many other countries, women are overrepresented among the unbanked in Türkiye and do not use financial services and loans as much as men.** In Türkiye women made up over 74 percent of the unbanked adults in 2017. Only 54 percent of women had bank accounts compared to 83 percent of men, and only 34 percent of women borrowed from a financial institution or used a credit card compared to 52 percent of men. Among women without an account in Türkiye, 72 percent mentioned as reason for not having an account that a family member already had one (compared to 52 percent of men).³⁸

90. **Facilitating women's access to loans for resilient housing under the Project, specifically for female-headed households who are unbanked or underbanked, would have a catalytic impact at many levels** – at home for her family and in the community. As of 2019, the share of female-headed households (FHHs) in the five Project provinces ranges from 20 percent in Manisa to 26.7 percent in Izmir. Data show that FHHs in these provinces are more likely to live in housing with poor conditions, which may require structural strengthening. Between 40.6 percent (Tekirdag) and 64.9 percent (Kahramanmaras) of these FHHs are homeowners and could potentially apply for the resilient housing sub-loans under Component 2.³⁹ However, there are significant differences in well-being between FHHs and male-headed households (MHHs) in the five Project provinces that could make it more difficult for FHHs to qualify for and afford loans. Notably, FHHs have considerably lower average monthly household incomes than MHHs. The largest gap is observed in Manisa where the average monthly household income for FHH stands at only 62.1 percent of the regional average compared to 109.5 percent for MHH. The smallest gap exists in Izmir where the average monthly household income for FHH is 84.1 percent of the regional average compared to 105.8 percent for MHH. Fewer FHHs are involved in economic activities than MHHs as evidenced by significant differences in household level labor force participation. For instance, the household level labor force participation among FHH in Tekirdag was only 33.1 percent

³⁸ Global Findex Database 2017 (<https://globalfindex.worldbank.org/>)

³⁹ Data on FHHs and MHHs in the Project provinces comes from the SILC 2020.



compared to 52.7 percent for MHHs in 2019. Relatedly, FHHs are more dependent on social assistance than MHHs, ranging from 40.2 percent of FHHs in Istanbul receiving social assistance (compared to 12.4 percent of MHHs) to 63.6 percent of FHHs in Manisa (compared to 14.1 percent of MHHs).

91. **The Project includes several measures to foster access to loans for resilient housing retrofitting/reconstruction among FHHs, helping to reduce the gender gap in access to financial services.** MoEUCC will grant more favorable loan terms (additional interest rate discount) for FHHs that were designed specifically to address affordability constraints of this group. Communication and outreach campaigns that will be carried out to raise awareness on the resilient housing program and its benefit will consider gender and put a particular focus on women’s access to information and financing options. In addition, the technical support that will be provided to owners interested in applying for the resilient housing sub-loans will be sensitive to the needs that the different genders express. Finally, the Project will provide technical assistance to strengthen the capacity of MoEUCC and local authorities for inclusive urban transformation more broadly, including gender.

Gap	Action	Monitoring/Indicators
Women have limited access to financial services/loans	Providing more favorable loan terms for FHHs Carry out communication and outreach campaigns focusing specifically on women’s access to information and financing options. Provide gender-sensitive technical support to interested owners and strengthen the capacity of national and local authorities for inclusive urban transformation	Number of female-headed households that apply for a resilient housing loan Percentage of female-headed household applicants that receive a resilient housing loan

Gap 2. Improving representation of women in engineering

92. **As seen in the Seismic Resilience and Energy Efficiency in Public Buildings Project (P175894), women’s representation in the engineering field in Türkiye is low.** Based on the 2017 Gender Assessment, Türkiye has one of the highest gender gaps in labor force participation among upper-middle-income countries in the Europe and Central Asia region.⁴⁰ Employment in the science, technology, engineering, and mathematics (STEM) fields is particularly relevant for advancing women’s employment and their income earning opportunities. The Türkiye Gender Assessment shows that in 2016, women employed in the electricity, gas, and air conditioning sectors earned more than their male counterparts, as women tend to work mostly in white-collar positions.⁴¹ However, 2020 data shows that women in Türkiye make up only 34 percent of the STEM workforce.⁴² At this rate, women will be left behind as digitalization and automation transform the world of work. The Covid-19 pandemic will only intensify the demands for higher STEM skills – so women and girls must seize the opportunities to enter engineering and other STEM fields. According to research made by Turkish Industry and Business Association in 2014 on gender distribution in STEM graduates working in companies in STEM fields, the rate of male graduates hired in companies working in STEM fields was higher (64 percent) as compared to women (36 percent), a finding that in part relates to a lower expressed preference of women to enter STEM related fields.⁴³

93. **To help narrow the gender gap in employment of women in technical roles in the engineering sector in Türkiye, the ILBANK PMU and the municipal PIUs will encourage design and supervision firms to include more female experts in their staff by receiving additional technical points during review.** Given the volume of design and

⁴⁰ World Bank, 2018. Turkey – Country Gender Assessment 2017 (<https://openknowledge.worldbank.org/handle/10986/35974>)

⁴¹ 2018 Women in Tech Index: <https://www.honeybot.io/women-in-tech-2018/>

⁴² ILOSTAT data: <https://ilostat.ilo.org/how-many-women-work-in-stem/>

⁴³ <https://files.eric.ed.gov/fulltext/EJ1256296.pdf>



supervision services required in this Project, there is a real opportunity to advance the professional experience of female experts and technical professionals through this Project.

Gap	Action	Monitoring
Women’s representation in the engineering field in Türkiye is low	Conduct outreach through women’s engineering associations Bidding consultancy firms that include females in at least 20 percent of key positions will receive additional points during evaluation of bids	Percentage of women in design and supervision consultancies contracted under the Project who are key staff (e.g., team leaders, professional engineers, architects)

Citizen Engagement and Inclusion

94. **The government acknowledges the importance of engaging citizens in the design and implementation of urban transformation programs and is keen to ensure a more participatory approach.** Past urban transformation initiatives did not focus specifically on social engagement and were sometimes met with resistance from residents. Learning from these experiences, the government’s new strategy emphasizes the need to actively engage all citizens, including women and vulnerable groups, in urban transformation - especially those interventions targeting retrofitting or reconstruction of housing, which typically requires families to relocate temporarily during the construction process. The strategy envisions that stakeholder engagement activities would be carried out regularly and at appropriate times to better inform the design of urban transformation programs, raise awareness about these programs, and to close the feedback loop with people living in areas targeted for upgrading. However, this new citizen engagement approach has not yet been rolled out. This is a critical step to improve uptake of the program and encourage men and women living in potentially risky buildings to request risk assessments of their homes by licensed evaluators to determine if they require retrofitting or reconstruction.

95. **MoEUCC’s provincial directorates and local authorities are important stakeholders for achieving better citizen engagement in urban transformation, but there is a need to clarify their roles, strengthen their capacity, and improve institutional coordination.** Local authorities have a key role to play in communicating with citizens about urban transformation programs, costs and benefits, available support, and the overall hazard risk profile of the city to help families prepare and plan for emergencies. In addition, MoEUCC’s provincial directorates across the country provide information on urban transformation to citizens and offer some technical support to owners of risky buildings interested in transforming their homes, but their engagement with citizens is relatively ad-hoc. As the institutional stakeholders with the best understanding of the local context and dynamics, the coordinated involvement of both local authorities and MoEUCC’s provincial directorates in citizen outreach and support will be critical to generate demand for resilient housing retrofitting or reconstruction, especially in areas most at risk. They could also provide more systematic technical assistance to owners of risky housing units, especially those in multi-family buildings, to explain the benefits of resilient transformation (including energy efficiency improvements) and help facilitate upstream agreements for transformation.

96. **To achieve the objectives of the proposed Project and ensure sustainability of the results, citizen engagement will be embedded in Project design and will build on existing citizen engagement mechanisms used by MoEUCC, ILBANK, utilities of Project metropolitan municipalities, and local authorities of Project provinces.** MoEUCC, ILBANK, utilities of the Project metropolitan municipalities, and local authorities of Project provinces will



also set up robust grievance redress mechanisms for receiving continuous feedback. The SEPs and subsequent environmental and social plans, as well as the POM will document the approaches in detail.

97. **Adequate communication and strong citizen engagement will be particularly important for successful implementation of Component 2 on resilient housing.** Given that the sub-loans will be provided to eligible beneficiaries on a demand-driven basis, it will be particularly important to provide appropriate, timely information to potential beneficiaries, including specific vulnerable groups (e.g., women, elderly), to enable them to take full advantage of the program. MoEUCC will lead this campaign; local authorities of Project provinces and commercial banks will also be expected to support citizen engagement and communications for the Project. Citizen engagement capacity building will be provided for community liaison officers in MoEUCC's provincial directorates in Project provinces to support community outreach on the benefits of upgrading housing and to collect citizen feedback via short questionnaires on perception and satisfaction towards Project activities. MoEUCC will share the results of these citizen feedback interviews with the World Bank as part of their regular environmental and social monitoring and project progress reports. In addition, MoEUCC will convene annual urban transformation roundtables in the Project provinces, either via virtual means or face-to-face depending on COVID-19 pandemic restrictions, to disseminate and discuss the results of these surveys and inform citizens which actions have been taken based on their feedback.

98. **In addition, interventions in public assets under Component 3 offer many opportunities for outreach and pro-active engagement with infrastructure/service users as well as surrounding communities.** A citizen engagement process will be established in Project provinces that builds on existing municipal systems. Community liaison officers or stakeholder engagement specialists of the municipal sub-borrowers will ask for citizen feedback via short questionnaires, online and short message service (SMS) surveys to measure perception and satisfaction towards Project activities and any benefits created from investments. A short questionnaire, documented in the ILBANK POM, would be used to collect feedback through phone interviews or through virtual means. To close the feedback loop, results of the citizen feedback interviews will be shared and reported by PIUs to ILBANK, who will share them with the World Bank as part of their regular environment and social monitoring and project progress reports, and they will be disseminated via virtual means (by PIUs).

99. **Citizen engagement actions will be measured through indicators in the results framework as well as satisfaction surveys.** Citizen Engagement will be monitored through the percentage of beneficiaries who report that the Project has established effective engagement processes, as well as the percentage of grievances addressed in accordance with stipulated service standards. Results will be disaggregated by gender, age, and vulnerability to the extent possible.

Climate change mitigation and adaptation

100. **Climate adaptation measures have been mainstreamed as part of Project design,** with details outlined in Annex 6. For municipal infrastructure upgrading, investments would be prioritized in areas and facilities designated as risk prone and requiring improvements as per the city-wide disaster and climate risk assessments where applicable. For example, construction and rehabilitation of stormwater and wastewater systems will consider the additional capacity for water flow generated by more intense rainfall events as the climate warms. These actions to improve resilience will be achieved during design and civil works. For residential buildings/units, the Project would provide greater access to affordable financing for retrofitting or reconstruction of risky buildings to improve structural strengthening such that they are resilient to earthquakes, snow and wind loading, and flood risks per the construction code.



101. **The Project is also expected to create significant climate mitigation benefits through CO₂ emissions reduction.** The Project is aligned with Türkiye's NDCs to the Paris Climate Agreement that aims to reduce up to 21 percent of GHG emissions from business-as-usual scenario by 2030, including through buildings and urban transformation.⁴⁴ Specifically, the Project aims to reduce carbon emissions in residential buildings by providing incentives to invest in: (i) energy efficiency through insulation, improved lighting, modern and efficient heating and cooling systems; and (ii) renewable energy solutions (e.g., rooftop solar).

V. GRIEVANCE REDRESS SERVICES

102. **Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS).** The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VI. KEY RISKS

103. **The overall risk of the Project is rated as Substantial,** considering the mitigation measures adopted in the Project design. Below is a summary of the residual risks rated as Substantial or High at Appraisal.

104. **Macroeconomic risks are rated as Substantial.** There are four main macroeconomic risks for the Project: (i) a potential economic slowdown with worsened macro-financial conditions could lead to income losses of the households who applied for the resilient housing sub-loans that may trigger repayment risks of the sub-loans provided; and, (ii) a negative outlook in macro-financial conditions and any further significant depreciation of the currency could raise already elevated construction costs and foreign exchange risks faced by project developers in the construction sector. The construction sector is among the most severely hit in the current situation – leverage and exposure to forex debt might affect construction companies' ability to undertake specialized housing investment; (iii) heightened supply-side constraints due to a spike in imported intermediate goods prices and as a result of heightened pricing uncertainties could lead to delays or failure in project delivery; and (iv) further currency depreciation could heighten foreign exchange risks of utilities of metropolitan municipalities, put pressure on their already stretched budget, and lead to debt service problems. This risk is partially mitigated by ILBANK's guarantee as a financial intermediary. ILBANK also has an option of using partial currency conversion swaps offered by World Bank Treasury at any time during project implementation to hedge foreign exchange risks. The macro risks should be mitigated by returning to a macro policy framework supporting macro stabilization and buffer accumulation, clearly communicated to investors, and implementation of ongoing corporate debt restructuring. The Bank will continue to conduct macro-financial analysis, maintain policy dialogue with

⁴⁴ UNFCCC (2016). Intended nationally determined contributions (INDCs).
https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Turkey%20First/The_INDC_of_TURKEY_v.15.19.30.pdf



economic agencies, and offer technical assistance as requested by the government. Thus, the residual risk remains Substantial.

105. **Technical design risks of the Project are rated as Substantial**, driven by those for Component 2. The residual risks related to the technical design of Component 3 are rated as Moderate considering that (i) the prioritization and upgrading of municipal infrastructure to enhance urban resilience is a relatively straightforward process; (ii) ILBANK and utilities of Project metropolitan municipalities that will implement Component 3 have experience in the design and implementation of these types of activities; and (iii) a significant amount of upstream work has been done to inform the selection of investments in these provinces. However, the design of Component 2, which will increase access to resilient housing for middle to lower income families by providing sub-loans through commercial banks, is more complex. The operating modality is new to MoEUCC, requires a differentiated approach for targeting families based on income levels, and depends on effective household demand. Mitigation measures include the establishment of a dedicated team within the Ministry (both in Ankara and with some ESF staff decentralized to the provincial directorates) to oversee and monitor the on-lending program through commercial banks and ensure all Bank policies are followed accordingly. In addition, a robust monitoring system for the program will be put in place and beneficiary targeting will be tested and adapted as needed, depending on Project implementation progress. Finally, the program will include targeted communication campaigns and comprehensive technical support to owners to elicit household demand for the resilient housing sub-loans. The residual risks of the Project are therefore rated as Substantial.

106. **Fiduciary risks are rated as Substantial overall**. ILBANK has solid financial management capacity and significant experience in managing Bank-financed and other IFI projects, but most municipal sub-borrowers have limited experience in Bank procurement procedures. Mitigation measures include the recruitment of experienced procurement consultants for municipal PIUs. The residual fiduciary risk for the ILBANK portion of the Project is considered moderate. In contrast, GDIUTS has no previous financial management or procurement implementation experience under Bank-financed projects, and the detailed FM arrangements and systems for the resilient housing sub-loans are yet to be established. Moreover, due to the demand-driven nature of resilient housing sub-loans under Component 2, there are uncertainties in the amount, scope, and number of the procurement activities. These risks will be mitigated by strengthening the capacity of the GDIUTS PMU in the Bank's fiduciary systems and procedures and by establishing acceptable accounting and reporting systems for project activities overall and the resilient housing loan component. The residual FM risk rating for the MoEUCC portion of the Project is considered substantial, driving the overall substantial fiduciary risk rating.

107. **Environment and Social Risks are rated as High** before the implementation of mitigation measures. The Project has notable positive environmental and social impacts, such as developing frameworks for affordable financing options for resilient housing for middle to lower-income families as well as reconstructing and/or retrofitting better quality and safer houses/apartments of vulnerable groups (mainly low-income groups in different segments of society). It will also enhance disaster and climate resilience of residential buildings and infrastructure at the municipal level, reduce carbon footprint through incentivizing the introduction of energy efficiency measures, water conservation using water-saving devices as well as rainwater harvesting and grey water reuse, among others. Resettlement activities for Component 3 are not expected to be significant. However, there are significant social risks related to Component 2, the most challenging of which is the temporary relocation of households and business owners while structures are being retrofitted or newly constructed (which MoEUCC is implementing). In addition to the temporarily displaced owners of households and businesses, many of the tenants will leave their current residences/workplaces permanently. Finally, several owners will be affected not only by physical displacement but economic displacement due to local disruptions caused by the civil works. The estimated number of temporarily and permanently displaced persons is 25,000 individuals



in the five cities, though the displacement will not take place in one discrete area or at one time but building by building in various neighborhoods at various times. Other social challenges are related to the inclusion of a potentially large number of vulnerable groups, non-land induced loss of livelihoods and/or changes in livelihood patterns due to Urban Transformation practices. Finally, the risk rating considers MoEUCC's and the municipal PIUs' lack of experience in implementing the ESSs of the ESF; ILBANK has more experience with the ESF but is still working on strengthening capacity to implement the ESF's requirements. The overall Project's social risk rating is therefore High.

108. The Project's environmental risk rating is Substantial which is attributed to the type and scale of Project activities (demolition and construction of residential or mixed-use buildings located in the project area), construction/rehabilitation of municipal infrastructure including wastewater systems and wastewater treatment plants, storm water drainage and flood management system), and their wide geographic coverage (five provinces). The risk rating also considers both MoEUCC and ILBANK PMUs' as well as the municipal PIUs' lack of prior experience in applying the ESSs set forth in the World Bank's ESF. The potential risks and impacts associated with the construction and operation of the above activities include environmental pollution from the emissions of dust, noise, bio-aerosols, odors, exhaust, and landfills gases, vibration, contaminated runoff, wastewater and sludge, pathogens and vectors, solid waste (hazardous and non-hazardous), potential ecological impacts on the nearby receptors, as well as related OHS issues. In addition, the significant construction and operation activities under Components 2 and 3 could also result in inefficient use of resources, such as raw materials, water, and energy, if not effectively managed. Although the above risks and impacts could be significant, they are predictable, site-specific, and manageable. Site-specific assessment will be conducted to identify these risks and adequate mitigation measures will be implemented in line with national regulations, the EHSs and the GIIP. Specific pollution prevention plans for hazardous and non-hazardous waste and/or sludge management will also be prepared and implemented throughout the project life span. Furthermore, any potential impacts on water quality in the nearby water bodies (lakes, rivers, etc.) from the operation of the wastewater treatment plants will be avoided/mitigated by ensuring compliance with the Turkish legislation and standards for effluent quality of treated wastewater and WBG EHSs, and the implementation of adequate effluent monitoring during the plant's operation. The Project is not expected to have significant impacts on biodiversity. Subprojects under Component 3 will be screened and assessed to identify any biodiversity and ecological impact on terrestrial and/or aquatic habitats and the mitigation measures to manage these impacts including the preparation of the Biodiversity Management Plan if needed. Activities that would result in significant biodiversity risks and impacts will be excluded based on the exclusion criteria provided in the ESMF. Although OHS risks are expected due to the major construction activities, these risks can be mitigated through specific measures to be elaborated in the province-based Environmental and Social Management Plans and included in bidding documents and the works contracts. Contractors will be required to prepare site-specific OHS management plans before the commencement of works.

109. Based on the potential environmental and social risks and impacts of the Project, the ESSs applicable to the project are ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8, ESS9, and ESS10. The Project will follow a framework approach because the specific locations of the investments are not known at this stage and will only be identified during implementation. Hence, to manage the Project's environmental and social risks and adverse impacts, MoEUCC and ILBANK have each prepared their own E&S framework documents. These documents include: (i) ESMFs, (ii) SEPs, (iii) RFs, (iv) LMPs, as well as (v) ESCPs. In addition, ILBANK, in its capacity as FI for Component 3, is in the process of developing its corporate ESMS as per the requirements of the ESF. The need for adequate staffing to ensure effective management of environmental, OHS, and social risks and impacts are reflected in the ESCPs for both implementing agencies. As also reflected in the ESCP, MoEUCC will also hire a consultancy firm to carry out the supervision of the environmental and OHS issues associated with the construction activities under Component 2.



110. **Stakeholder Risks are rated as Substantial.** The Project will benefit MoEUCC, ILBANK, utilities of Project metropolitan municipalities, local authorities of Project provinces and other provinces vulnerable to climate and disaster hazards in terms of capacity building and institutional strengthening support for urban transformation and resilience, including financing strategies and engagement with the private sector. Beneficiaries also include owners of risky housing that upgrade their housing units and residents who benefit from interventions in municipal infrastructure to reduce flooding and increase resilience to seismic hazards. For housing units, the risk of lack of uptake or defaults on sub-loans mean that both (i) the process to secure interest in participating in the program, as well as (ii) ensuring that repayment of soft and low-interest sub-loans does not create financial distress will be critical to the success of the Project. There is also a risk for tenants that rental prices in reconstructed buildings would increase following the upgrading of the housing units, and during implementation this risk will need to be carefully managed by providing vulnerable tenants with social assistance to find adequate housing if they are displaced. With a high level of oversight from the Bank team, ILBANK, MoEUCC, and participation of municipal sub-borrowers and local authorities of Project provinces with significant outreach and communication to potential and actual beneficiaries, it is expected potential issues can be managed, but given the number of actors involved and the complexity of the housing component, the rating remains Substantial.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Türkiye
Climate and Disaster Resilient Cities Project

Project Development Objectives(s)

The Project Development Objectives are to increase access to seismic and climate resilient housing, municipal infrastructure and services in Project provinces in Türkiye, and to respond promptly and effectively in the event of an Eligible Crisis or Emergency.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Increase access to seismic and climate resilient housing (MoEUCC)								
People living in housing retrofitted or reconstructed to reduce impacts of seismic and climate hazards (Number)		0.00	0.00	2,500.00	10,000.00	18,000.00	25,000.00	32,000.00
Of which women (Percentage)		0.00	0.00	50.00	50.00	50.00	50.00	50.00
Cities with improved livability, sustainability, and/or management (CRI, Number)		0.00	0.00	0.00	3.00	5.00	6.00	7.00
Increase access to climate and disaster resilient municipal infrastructure and services (ILBANK)								
People in urban areas		0.00	0.00	0.00	300,000.00	600,000.00	800,000.00	1,000,000.00



Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
provided with access to climate and/or disaster resilient municipal infrastructure and services (Number)								
Of which women (Percentage)		0.00	0.00	0.00	50.00	50.00	50.00	50.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Institutional strengthening to enable conditions for urban resilience (MoEUCC)								
Municipal Urban Transformation Strategies prepared jointly with local authorities and citizen engagement, and using standardized approach for assessing risks (Number)		0.00	0.00	0.00	2.00	2.00	3.00	5.00
MoEUCC and local authorities staff trained to increase technical and institutional capacities for design, implementation, and monitoring of urban transformation programs (Number)		0.00	0.00	100.00	200.00	300.00	400.00	500.00



Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Of which women (Percentage)		0.00	0.00	50.00	50.00	50.00	50.00	50.00
Implementation support provided to owners interested in resilient housing reconstruction/retrofitting (Yes/No)		No	Yes	Yes	Yes	Yes	Yes	Yes
Expanding access to resilient housing (MoEUCC)								
Continued provision of differentiated loan terms based on income level (Yes/No)		No	Yes	Yes	Yes	Yes	Yes	Yes
Owners of housing or commercial units in risky buildings provided with affordable loans for resilient retrofitting or reconstruction under the Project (Number)		0.00	1,250.00	3,750.00	6,250.00	10,000.00	10,000.00	10,000.00
Female-headed households that apply for a resilient housing loan (Number)		0.00	85.00	375.00	750.00	1,250.00	1,250.00	1,250.00
Of which received a resilient housing loan (Percentage)		0.00	25.00	50.00	70.00	70.00	70.00	70.00
Housing or commercial units in risky buildings structurally strengthened in accordance with climate and disaster-resilient and		0.00	0.00	750.00	3,125.00	5,625.00	8,125.00	10,000.00



Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
energy efficiency standards under the Project (Number)								
Of which with Class C Energy Performance Certificate (Number)		0.00	0.00	650.00	2,500.00	4,300.00	6,100.00	7,500.00
Of which with Class A or B Energy Performance Certificate (Number)		0.00	0.00	100.00	625.00	1,325.00	2,025.00	2,500.00
Investments in climate and seismic resilient urban infrastructure (ILBANK)								
Municipal service delivery infrastructure (water, wastewater, sewage, drainage, etc.) retrofitted or constructed (Kilometers)		0.00	0.00	0.00	150.00	610.00	1,220.00	1,530.00
Women in design and supervision consultancies contracted under the Project who are technical staff (Percentage)		0.00	0.00	5.00	10.00	15.00	20.00	20.00
Project Management (MoEUCC and ILBANK)								
Grievances addressed in accordance with the stipulated service standards (MoEUCC) (Percentage)		0.00	70.00	80.00	90.00	90.00	90.00	90.00
Beneficiaries who report that the Project has established effective engagement processes (MoEUCC) (Percentage)		0.00	0.00	50.00	70.00	90.00	90.00	90.00
Grievances addressed in accordance with the		0.00	70.00	80.00	90.00	90.00	90.00	90.00



Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
stipulated service standards (ILBANK) (Percentage)								
Beneficiaries who report that the Project has established effective engagement processes (ILBANK) (Percentage)		0.00	0.00	50.00	70.00	90.00	90.00	90.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
People living in housing retrofitted or reconstructed to reduce impacts of seismic and climate hazards	This indicator measures number of people provided with more resilient housing and commercial units with the new soft loans plus the Government's existing rental subsidy in the five Project provinces under the project. This includes all people living and/or working in the retrofitted/rebuilt buildings in addition to the owners who took out the	Annual	MoEUCC	Technical reports and progress reports	GDIUTS PMU (MoEUCC)



	loans.				
Of which women	This indicator measures the percentage of woman provided with more resilient housing under the Project.	Annual	MoEUCC	Technical reports and progress reports	GDIUTS PMU (MoEUCC)
Cities with improved livability, sustainability, and/or management		Annual	Technical reports and progress reports from MoEUCC	Technical reports and progress reports, drawing on data from technical capacity building activities, strengthened housing and infrastructure, and improved urban plans	GDIUTS PMU (MoEUCC)
People in urban areas provided with access to climate and/or disaster resilient municipal infrastructure and services	This indicator measures the population living or working in areas benefitting from climate and/or disaster resilient municipal infrastructures or facilities constructed or retrofitted under the Project	Annual	TURKSTAT, Technical reports and progress reports	Technical reports and progress reports, drawing on data from municipal infrastructure activities financed under the Project.	ILBANK PMU with municipal PIUs
Of which women	This indicator measures the percentage of women among the population living or working in areas benefitting from the resilient municipal infrastructures or facilities constructed or retrofitted	Annual	TURKSTAT, Technical reports and progress reports	Technical reports and progress reports, drawing on data from municipal infrastructure activities financed under the Project	ILBANK PMU with municipal PIUs



	under the Project.				
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Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Municipal Urban Transformation Strategies prepared jointly with local authorities and citizen engagement, and using standardized approach for assessing risks	This indicator measures the number of Municipal Urban Transformation Strategy prepared with local authorities and their citizens through a consultative process with support from the Project.	Annual	MoEUCC	Technical reports and progress reports	GDIUTS PMU (MoEUCC)
MoEUCC and local authorities staff trained to increase technical and institutional capacities for design, implementation, and monitoring of urban transformation programs	This indicator measures the number of MOEUCC and local authorities staff trained in areas and topics relevant for urban transformation, including e.g. city-wide climate and disaster risk assessments, financing options, and citizen engagements. It is expected to increase staff capacities in MOEUCC and local authorities in developing, implementing, and monitoring resilient	Annual	MoEUCC	Progress reports	GDIUTS PMU (MoECUU)



	urban transformation projects.				
Of which women	This supplemental indicator measure the participation of women among MoECUU and local authorities staff trained on areas relevant for climate and disaster-resilient urban transformation with support by the Project.	Annual	MoEUCC	Progress Reports	GDIUTS PMU (MoEUCC)
Implementation support provided to owners interested in resilient housing reconstruction/retrofitting	This indicator tracks that MoEUCC is offering technical and legal support to owners in the Project provinces who are interested in the resilient housing loan program and carries out regular quality assurance reviews on housing retrofitting/reconstruction activities. It is expected that MoEUCC will mobilize a consultancy firm to deliver these services, which could also support capacity building of MoEUCC staff in the provincial directorates.	Annual	MoEUCC	Technical reports and progress reports	GDIUTS PMU (MoEUCC)
Continued provision of differentiated loan terms based on income level	This indicator tracks that affordable loans for resilient	Annual	MoEUCC	Technical Reports and progress reports	GDIUTS PMU (MoEUCC)



	housing retrofitting or reconstruction are continued to be provided using differentiated loan terms for different household income groups under the Project.				
Owners of housing or commercial units in risky buildings provided with affordable loans for resilient retrofitting or reconstruction under the Project	This indicator measures the number of owners in the five Project provinces who receive the new soft loans for resilient retrofitting or reconstruction of their housing or commercial units, paired with the Government's existing rental subsidy, under the Project.	Biannual	MoEUCC and participating commercial banks	Technical reports and progress reports, drawing on data from number of financial supports disbursed under component 2 of the Project.	GDIUTS PMU (MoEUCC)
Female-headed households that apply for a resilient housing loan	This indicator measures the number of female headed households in Project provinces that applied for the loans for resilient retrofitting or reconstruction under the Project.	Annual	MoEUCC and participating commercial banks	Progress reports	GDIUTS PMU (MoEUCC)
Of which received a resilient housing loan					
Housing or commercial units in risky buildings structurally strengthened in accordance with climate and disaster-	This indicator measures annual progress in the number of housing or	Annual	Technical and progress reports	Data drawn from technical and progress reports that	GDIUTS PMU (MoEUCC)



resilient and energy efficiency standards under the Project	commercial units retrofitted or reconstructed with the loans provided under Component 2 of the Project.			participating commercial banks will collect and submit to MoEUCC	
Of which with Class C Energy Performance Certificate					
Of which with Class A or B Energy Performance Certificate					
Municipal service delivery infrastructure (water, wastewater, sewage, drainage, etc.) retrofitted or constructed	This indicator measures the length of storm water systems, sewage, water supply/sanitation infrastructure, etc. in kilometers in Project municipalities improved to resilient standards or constructed under the Project.	Annual	Technical and progress reports	Data drawn from technical and progress reports	ILBANK PMU with municipal PIUs
Women in design and supervision consultancies contracted under the Project who are technical staff	This indicator will measure the percentage of women participating in the implementation of the project via appointed consultancy firms for design and supervision under Component 3, who are technical staff.	Annual	Progress and/or monitoring and/or works reports	Data will be collected from appointed firms annually	ILBANK PMU and municipal PIUs
Grievances addressed in accordance with the stipulated service standards (MoEUCC)	This indicator measures the number of grievances on Component 1 and 2	Annual	Reports on grievance redress	Data drawn from reports on MoEUCC's grievance redress	GDIUTS PMU (MoEUCC)



	addressed and responded by MoEUCC in accordance with stipulated service standards.			system.	
Beneficiaries who report that the Project has established effective engagement processes (MoEUCC)	This indicator will monitor the percentage of beneficiaries who report that the Project has established effective engagement processes, e.g. citizen feedback interviews and annual roundtables. This indicator will be measured as part of the citizen feedback interviews.	Annual	Citizen feedback interviews	MoEUCC will conduct short citizen feedback surveys	GDIUTS PMU (MoEUCC)
Grievances addressed in accordance with the stipulated service standards (ILBANK)	This indicator measures the number of grievances on Component 3 addressed and responded by Ilbank and municipal sub-borrowers in accordance with stipulated service standards.	Annual	Reports on grievance redress	Data drawn from reports on ILBANK's and municipal grievance redress systems.	ILBANK PMU and municipal PIUs
Beneficiaries who report that the Project has established effective engagement processes (ILBANK)	This indicator will monitor the percentage of beneficiaries who report that the Project has established effective engagement processes, e.g. citizen feedback interviews, SMS questionnaires. This	Annual	Citizen feedback survey results	Municipal PIUs will conduct short citizen feedback surveys and report the results to ILBANK PMU	ILBANK PMU with municipal PIUs



	indicator will be measured as part of the citizen feedback interviews via online channels.				
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ANNEX 1: Detailed Component Description

COUNTRY: Türkiye Climate and Disaster Resilient Cities Project

1. **The Project includes five components as described below:** (i) Institutional strengthening to enable conditions for urban resilience; (ii) Expanding access to resilient housing; (iii) Investments in climate and disaster resilient municipal infrastructure; (iv) Project management, monitoring and evaluation; and (v) Contingent emergency response component.

Component 1: Institutional strengthening to enable conditions for urban resilience (EUR 6 million)

2. Component 1 will provide technical assistance to MoEUCC and local authorities in Project provinces and other provinces vulnerable to climate and disaster hazards, to strengthen their capacity to develop, implement, and monitor resilient, low-carbon and inclusive urban transformation programs. The activities to be financed under this component fall into three groups: (i) those supporting the preparation of urban transformation strategies for municipalities vulnerable to climate and disaster hazards, jointly with local authorities; (ii) those focusing on improving systems and procedures for managing, monitoring, and evaluating urban transformation programs with the involvement of relevant stakeholders at national and local levels; (iii) those delivering capacity building for MoEUCC and local authorities on relevant topics to improve climate and disaster resilience of Turkish cities; and (iv) those strengthening MoEUCC's capacity to support owners interested in resilient housing retrofitting or reconstruction.

3. *Municipal Urban Transformation Strategies.* The component will finance consulting services for MoEUCC to support municipalities that are vulnerable to climate and disaster hazards to prepare their urban transformation strategies as required under the national policy. These municipal strategies will be prepared in line with the requirements of MoEUCC's existing Urban Transformation Strategy Guidelines for municipalities and roll out the use of a methodology for city-wide climate and disaster risk assessments, which was piloted with support from the Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries, to inform spatial and investment plans. This methodology includes multi-criteria decision making and leverages existing and open-source datasets, including socio-economic data/demographics, land use, environmental and building datasets, infrastructure location and proximity analysis, and multi-hazard mapping (i.e., flood, landslide, earthquake, etc.). The assessment will provide the basis for risk-informed urban transformation and prioritization of resilient investment in the city, using models to visualize climate and disaster risk data in municipalities and applying scenarios to show potential differences between current and future risks. The technical support provided for the preparation of Municipal Urban Transformation Strategies will also help MoEUCC and the local authorities to assess economic, social, and environmental costs and benefits associated with implementing disaster and climate resilient urban transformation projects and identify feasible financial and legal tools/modalities that could be used for financing the implementation of the urban transformation strategies. In addition, support will be provided to develop improved approaches and strategies for citizen engagement in urban transformation as part of the strategies and their implementation plans.

4. *Improvement of National Systems and Procedures for Urban Transformation.* MoEUCC is currently updating its Transformation of Areas under Disaster Risk (ARAAD) system, which is operated by GDIUTS, to include new modules for monitoring the implementation of the new resilient housing loan program that will be financed under Component 2. Complementing these efforts, this component may finance consultancy services to further develop the ARAAD system to integrate numeric and geo-referenced/spatial hazard and climate risk datasets (e.g., those prepared as part of the



preparation of urban transformation strategies) and allow GDIUTS to monitor different urban transformation activities from the risk assessment and planning phase to the completion phase with an integrated approach.

5. *Capacity Building Activities.* The component will also finance capacity building activities (including inter alia training, seminars, study tours, knowledge exchange activities to share international good practices, etc.) for staff from relevant MOEUCC directorates, from local authorities in Project provinces and other provinces on relevant topics, including among others, conducting disaster and climate risk assessments, integration of energy efficiency measures into building design, and use of green and nature-based solutions to mitigate climate and disaster risks in the urban environment. A training needs assessment will be carried out covering various aspects of urban transformation, disaster resilience, as well as climate change mitigation and adaptation measures at the outset of Project implementation to inform the design and targeting of these activities.

6. *Technical support to owners of units in risky buildings.* Finally, the component will finance consultancy services to strengthen the capacity of MoEUCC to provide support to owners in the Project provinces interested in applying for the resilient housing sub-loans provided under Component 2 during all stages of the resilient housing retrofitting or reconstruction process, especially on technical and legal matters, and to carry out technical quality assurance of the housing reconstruction through regular inspections. The technical support provided to owners will be tailored to the needs of lower income households and will be gender sensitive.

Component 2: Expanding access to resilient housing (EUR 317 million)

7. Component 2 will provide demand-side support for resilient housing in Project provinces (Istanbul, Izmir, Kahramanmaraş, Manisa, Tekirdağ) by financing sub-loans (in Turkish lira) at below-market conditions for eligible owners to retrofit or demolish and reconstruct their housing or commercial units in risky residential or mixed-use buildings to meet resilient building code⁴⁵ and energy efficiency standards. The objective of this new financial product is to address the issue of limited affordability and access to finance for a specific niche market segment that is not served through the existing mortgage market (i.e., owners of risky units who cannot afford seismic retrofitting or reconstruction of their property) with the aim to save lives. As such, it is not intended to be rolled out to a wider market segment nor to become an integral part of the mortgage industry in Türkiye. In addition, World Bank funding will not be made available directly to finance developers or for the direct construction of buildings. The sub-loans funded by IBRD will be paired with the government's existing rental subsidies for urban transformation (which will continue to be financed by MoEUCC with their own funds) to support families to relocate temporarily during the retrofitting or reconstruction process. Renters living in housing units or running businesses in commercial units that owners decide to retrofit or reconstruct will also receive a subsidy to relocate. There are an estimated 1.4 million residential buildings in the five Project provinces that were constructed prior to the introduction of modern seismic construction codes in 2000 (thus likely to be assessed as risky) and for which the urban transformation process has not yet been started at the demand of owners.

8. *Sub-loan eligibility.* Owners of housing or commercial units in residential or mixed-use buildings located in urban areas of Project provinces that are assessed as “risky” according to the provisions of Law 6306⁴⁶ will be eligible to apply for the sub-loans financed under this component. This can include owners of housing units in multi-family buildings (which is expected to be the majority) as well as owners of single-family homes. Owners of risky housing or commercial

⁴⁵ Resilient under this Project will refer to a building complying with the structural requirements provided under the Turkish Building Earthquake Code that has been updated and entered into force on January 1, 2019.

⁴⁶ For the purposes of Type-III buildings (buildings assessed as risky and already demolished before sub-loan application), the cut-off date for the designation as “risky” is October 1, 2020.



units are eligible to apply for the sub-loans regardless of their income level pursuant to creditworthiness checks by participating commercial banks; at the same time, middle- and lower-income households that own risky housing units will be targeted with more favorable sub-loan terms and targeted outreach campaigns through appropriate channels. In addition, each eligible owner can only receive one sub-loan at below-market conditions under the program.⁴⁷ As there are multi-family residential buildings that may have some higher and lower income families living in the same building, it is important to include different income groups in the program.

9. *Sub-loan targeting.* While all owners of risky housing and commercial units are eligible to apply for sub-loans under the Project, middle to lower-income households will be targeted through more favorable sub-loan terms designed to reflect affordability for these groups. MoEUCC will screen sub-loan applications on a rolling basis to ensure geographic and socio-economic coverage, including considerations regarding gender and middle to lower income groups. Eligible owners falling into the following categories will be entitled to further interest rate discounts on the base interest rates used for sub-loans provided under the Project:

- (a) Category 1: those whose monthly household incomes fall below a certain threshold. These thresholds will be proposed by MoEUCC for each Project province and validated by the Bank, considering regional income and affordability criteria. They are expected to be around the average incomes of the 4th or 3rd quintiles. The thresholds will be updated every year according to the Consumer Price Index published by the Turkish Statistical Institute.
- (b) Category 2: those whose households have no other housing unit recorded in the land registry office except for the risky housing unit that they want to retrofit or reconstruct with the loan under the Project.
- (c) Category 3: those who are female-headed households or whose households include persons with at least 40 percent disability (or whose head of household is responsible for taking care of an individual with at least 40 percent disability), retirees/elderly, or deceased military/public servants.

10. When the characteristics of the households that fit the target categories listed above are examined from a multidimensional vulnerability perspective⁴⁸, it was observed that in general, households in target categories were worse off than their respective regional averages.⁴⁹ Household vulnerability of target groups is relatively higher compared to the rest of households in Project provinces firstly because some target groups are more likely to have income below the median household in the corresponding region.⁵⁰ This can be partially related to weaker labor market engagement of the target households, which tend to supply relatively less labor to the market and are more likely to work under lower levels of job security⁵¹. In addition, households in the target categories are more likely to live in houses in a bad condition⁵² (with some regional variations⁵³), and they have a higher tendency to receive social assistance from

⁴⁷ This means that owners of several risky housing or commercial units, who are more likely part of higher income groups, can only benefit from one sub-loan at below-market conditions to retrofit or reconstruct one risky unit. For the transformation of the other risky units, they would have the option of using the existing interest rate buy-down offered by MoEUCC for a loan at market conditions from a commercial bank.

⁴⁸ SILC 2019 cross sectional data was used in the analysis and target groups are proxied within five different categories. Category 1: households that declared they own the unit that they live in but have no additional real estate income. Category 2: households with total monthly income below given thresholds. Category 3: female-headed households. Category 4: households receiving disability assistance. Category 5: Households with retirement income.

⁴⁹ While Istanbul and Izmir provinces are NUTS2 level regions by themselves; for Tekirdag, Kahramanmaras and Manisa provinces, we used the data for the NUTS2 level regions in which they were located, which included several other provinces.

⁵⁰ Median income per capita was below the regional median for Category 2 and Category 4 households across all 5 provinces. On the other hand, median income per capita is relatively above the regional median for Category 1 and Category 3 households. In Kahramanmaras, households in all target groups (except for those with retirement income) were very close to the regional mean.

⁵¹ Household level labor force participation were lower than the regional mean across all categories and provinces while rates of informal employment (share of informally employed individuals out of those that are actively working in a household) were higher than the corresponding regional average (the only exceptions were Category 1 households in Istanbul, and Category 3 households in Izmir and Tekirdag).

⁵² Defined as "having problems such as leaking roof, broken windows, damp walls etc."

⁵³ In Istanbul and Tekirdag, corresponding rate for Category 2, Category 3 and Category 4 households were above the regional average. In Izmir, only Category 2 and Category 3 households lived in dwellings in bad condition at a rate greater than the regional average.



the government⁵⁴ compared with a typical household in the corresponding region. Communications and outreach activities to make potential beneficiaries in the Project provinces aware of and elicit demand for the new loans, with a particular focus on more vulnerable groups, including lower income and female-headed households, will be supported under Component 4.

11. *Incentives for energy efficiency.* All resilient housing retrofitting or reconstruction that will be financed with sub-loans under this component will need to ensure minimum energy performance as per Türkiye's current Regulation on Energy Performance for Buildings (i.e., Turkish Class C Energy Performance Certificate at least). MoEUCC will provide additional interest rate discounts for owners who are upgrading to a higher energy efficiency standard (Class A and B Energy Performance Certificates) than required as part of the resilient retrofitting or reconstruction in order to incentivize climate change mitigation at the household level and help reduce households' energy bills. Such additional energy efficiency measures could also increase functionality and comfort for the buildings' occupants during extreme heat and cold events – which are expected to increase with climate change, with a high diversity in impacts depending on the different climate zones in Türkiye. Communication and outreach campaigns with adequate messaging on the benefits of investing in higher energy efficiency standards for housing as part of resilient retrofitting or reconstruction will be supported under Component 4 to incentivize additional energy efficiency improvements (beyond the upgrade to Class C that is required by the latest building code).

12. *Sub-loan terms.* The base interest rate charged for the loans will be at a fixed, below-market interest rate (not tied to IBRD terms) determined based on affordability criteria. There will be further (cumulative) interest rate deductions for owners falling in the categories listed above and for upgrading to higher energy efficiency standards. The maximum principal amount, interest rate, and maturity of the loans will be proposed by MoEUCC, in coordination with participating commercial banks, considering affordability criteria, construction costs, and market conditions. All such terms shall be reasonable and acceptable to the Bank and will be specified in the POM. The loan terms in the POM may be updated periodically during project implementation according to market conditions to ensure affordability.

13. *Eligible expenditures.* The sub-loan proceeds can only be used for civil works required for the seismic and climate-resilient retrofitting or in-situ reconstruction⁵⁵ (which may include demolition) of the owner's risky unit, including energy efficiency measures. As part of the sub-loan application, owners will need to submit to the commercial banks that signed the protocol their draft contract for the planned works (which need to include minimum required contractual clauses and/or annexes for the contracts to be signed between beneficiaries and the contractors covering additional commitments reflecting the World Bank's requirements) and their draft supervision contract (using the standard contract form provided by MoEUCC). In the case of a unit in a multi-family building, the contracts will need to clearly specify the relative cost share for each owner. The typical housing retrofitting or reconstruction works will include structural strengthening to reduce seismic risk as well as increase climate change adaptation (such as strengthening of roofs to withstand wind and snow loads against extreme weather) and non-structural components including fire safety (particularly as they relate to the upgrading to new heating systems, electricity supply, rewiring) and for detection and warning. Depending on household preferences, eligible energy efficiency measures could include building envelop measures (e.g., roof/wall insulation, attics, windows, doors), heating and cooling systems (boilers, radiators, chillers, pipe insulation, heat pumps, controls), water heating, pumps/fans, lighting (inside the building and in the building

⁵⁴ Especially Category 2 and Category 3 households received social assistance income at rates higher than the corresponding regional averages. Households that received disability benefits (where this rate was 100 percent) were excluded from the comparison. In Kahramanmaraş, category 1 households also benefited from higher rates of social assistance than the regional mean.

⁵⁵ Seismic resistance, as defined under this Project, refers to a building complying with the structural requirements provided under the Turkish Building Earthquake Code that has been updated and entered into force on January 1, 2019.



perimeter), as well as passive energy measures such as optimized window-to-wall ratio, solar orientation, natural lighting, shading, passive ventilation, and other measures (e.g., efficient water fixtures).

14. This component will be demand-driven with calls for sub-loan applications issued in the Project provinces on a periodic basis, given available funding envelopes determined by MoEUCC. This approach was chosen to facilitate financial planning and execution and to allow for lessons learnt and course correction related to implementation for subsequent rounds as needed. Considering the estimated number of residential or mixed-use buildings in Project provinces that were constructed pre-2000 (thus likely to be assessed as risky) and that have not yet transformed (over 1.4 million buildings), potential demand for the sub-loans is high. However, to transform this potential into actual loan applications, MoEUCC will need to work closely with participating commercial banks and local authorities of Project provinces to develop and implement sustained communication and outreach campaigns with adequate messaging on the benefits of urban transformation and the availability of financial and technical support under the Project and using appropriate channels to reach all potential beneficiaries, including in particular more vulnerable, lower income and female-headed households. The Project will support these communication and outreach campaigns through consulting services provided under Component 4. In addition, Component 1 will finance consulting services to provide technical and legal support to owners interested in applying for the sub-loans during all stages of the contracting and contract implementation process.

15. *Revolving fund.* Repayment of the sub-loans granted to beneficiaries will be transferred by the commercial banks that signed the protocol to a revolving fund at MoEUCC. This fund would continue funding sub-loans to additional beneficiaries for the same purpose (retrofitting or reconstruction of housing or commercial units in risky buildings) over time as repayments of original sub-loan beneficiaries accrue.

Component 3: Investments in climate and disaster resilient municipal infrastructure (EUR 167 million)

16. Component 3 will support ILBANK (FI) to on-lend loans with longer maturities and lower interest rates than the comparable domestic market to eligible utilities of Project metropolitan municipalities (sub-borrowers) to undertake infrastructure investments that increase resilience against the impacts of climate-related and/or other disaster hazards (e.g., seismic). It will finance works, goods, consultants and non-consulting services for: (i) demand-driven resilient and green municipal infrastructure investments that increases resilience against the impacts of disaster and climate-related hazards in Project provinces; and (ii) technical assistance to sub-borrowers to strengthen management and implementation support (e.g., procurement, ESF) for climate and disaster resilient municipal sub-projects.

17. *Eligible sub-borrowers.* The water and wastewater management utilities of Istanbul, Izmir, Kahramanmaras, Manisa, and Tekirdag metropolitan municipalities will be eligible to be supported under Component 3.

18. *Municipal creditworthiness:* The eligible utilities have been assessed by ILBANK and the Bank and are considered to have overall adequate administrative and financial capacities to borrow from ILBANK for resilient infrastructure investments under the Project. Following the initial municipal capacity assessment, ILBANK will conduct creditworthiness assessments for each potential sub-borrower to minimize the risk of overburdening.

19. *Financing amount per municipality.* Each of the five municipal sub-borrowers will have an equal indicative financing allocation under this component (i.e., EUR 33.4 million). This indicative allocation will be confirmed considering the outcome of the creditworthiness assessment for each sub-borrower as well as indicative demand expressed by each sub-borrower; the confirmed financing allocation for each sub-borrower will be included in the POM. The prudent financing allocations based on municipal creditworthiness assessments are expected to contribute to managing the



foreign exchange risks at the municipal level. ILBANK also has an option of using partial currency conversion swaps offered by World Bank Treasury at any time during project implementation to hedge foreign exchange risks.

20. *Sub-project eligibility.* Sub-projects eligible for financing under this component would (i) contribute to improvements in climate and disaster resilience in the Project provinces based on available risk assessments⁵⁶ or similar studies and/or historical disaster records; (ii) be aligned with other existing studies and plans (such as city development plans, climate action plans, disaster risk reduction plans, etc.); and (iii) complement other investments of the municipal sub-borrower being financed in these provinces. Eligible civil works include the construction or rehabilitation of, inter alia:

- (a) Storm water, sewage systems, drainage systems, culverts, and other flood management infrastructures; and
- (b) Water and wastewater systems and treatment plants (e.g., retrofit for structural safety and rapid business recovery);

21. The following investments will be ineligible for financing under Component 3:

- Administrative services and facilities of political parties, trade unions, etc.
- Religious infrastructure facilities and services
- Investments in facilities with commercial characters (café, restaurant, etc.) or for national defense or prisons.
- Investments in reserve areas (except on a case-by-case basis as reviewed and agreed).
- Investments with high environmental and/or social risk
- Investments or housing support for areas where the process of urban transformation is already ongoing.

22. *Sub-project prioritization.* Based on initial expressions of interest from the eligible sub-borrowers, ILBANK has prepared a long list of eligible sub-projects as per the criteria above. Prioritization among eligible sub-projects, which are identified for an individual municipal sub-borrower, will be done by ILBANK in consultation with the Bank considering the following criteria: (i) potential to contribute to climate mitigation and/or adaptation; (ii) adoption of targeted approaches to building urban resilience and (iii) level of readiness for implementation (e.g., availability of feasibility studies and detailed designs). All activities to be financed will support disaster and/or climate resilience efforts; and environmental sustainability, energy efficiency, and universal access will be taken into consideration.

23. *Technical assistance to sub-borrowers:* Technical assistance will focus on subproject management and implementation support, including subproject design, procurement, contract management, construction supervision, environmental and social management, monitoring and evaluation, as well as outreach and citizen engagement by municipal sub-borrowers.

Component 4: Project Management, monitoring, and evaluation (EUR 10 million)

24. Component 4 will finance operating costs, goods, training, consultants and non-consulting services for supporting project management and implementation support activities under the Project.

25. **Subcomponent 4a: Project Management for Components 1, 2, and 5 implemented by GDIUTS (EUR 7.5 million).** This sub-component will finance project management, requirements related to the Bank's ESF, fiduciary policies, establishment of grievance redress mechanisms, communication and outreach activities (especially for Component 2 to ensure potential beneficiaries - importantly, lower-income and female-led households - are aware of the resilient housing loans), citizen engagement, M&E, related equipment and software needs, as well as reasonable operating

⁵⁶ City-wide disaster and climate risk assessments were completed for Kahramanmaraş, Tekirdag, and Manisa as part of technical assistance provided by the Bank.



costs. This will include recruitment of individual consultants in FM, procurement, environmental and social, M&E, citizen engagement, and other technical and social areas for the GDIUTS PMU as necessary. It will also finance capacity building and training on procurement, ESF, financial management, and disbursement for MoEUCC staff, if deemed necessary by MoEUCC and as agreed with the Bank. This sub-component will also support MoEUCC in conducting annual assessments to review the performance of the new resilient housing loan mechanism supported under Component 2, including demand and targeting, effectiveness of communication and technical support provided to owners, quality of housing construction, and environmental and social impact; the purpose of these assessments is to identify and timely implement adjustments and course-correction during implementation as needed.

26. **Subcomponent 4b: Project Management for Component 3 implemented by ILBANK (EUR 2.5 million).** This sub-component will finance project management, requirements related to the Bank's ESF, fiduciary policies, grievance redress mechanism, communication and outreach activities, citizen engagement, M&E, related equipment and software needs, as well as reasonable operating costs. This will include recruitment of individual consultants in procurement, environmental, social, OHS, M&E, urban resilience, and other technical areas for ILBANK's PMU as necessary. It will also finance capacity building and training for ESF, financial management, disbursement, and procurement targeting staff of ILBANK and utilities of Project metropolitan municipalities, if deemed necessary by ILBANK and as agreed with the Bank.

Component 5: Contingent Emergency Response Component (EUR 0 million)

27. This component is included in accordance with OP/BP 10.00 (Investment Project Financing), paragraphs 12 and 13, for contingent emergency response through the provision of immediate response to an Eligible Crisis or Emergency, as needed. It will allow the GoT to respond promptly and effectively to an eligible emergency or crisis, that is a natural or man-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact, by requesting a rapid reallocation of project funds. An Operations Manual for this component will be developed by MoEUCC.



ANNEX 2: Implementation Arrangements and Support Plan

COUNTRY: Türkiye

Climate and Disaster Resilient Cities Project

Institutional and Implementation Arrangement for GDIUTS/MoEUCC – Components 1, 2, 4a, 5

- 1. Legal arrangements.** The proposed legal arrangement for Components 1, 2, and 4a will include a Loan Agreement between IBRD and MoTF (on behalf of the Republic of Türkiye). The Law on Public Finance and Debt Management No.4749 (the Debt Law) describes the procedures for international borrowing in the Republic of Türkiye. The Debt Law classifies international borrowing under three categories: Allocation, On-lending, and Guarantee. The debt law authorizes MoTF to allocate foreign financed loans to general budget institutions like MoEUCC. The MoTF will assume the coordinating role for the World Bank loan and sign the loan agreement. MoEUCC's GDIUTS will assume overall responsibility for Components 1, 2, and 4a and serve as the main implementing agency.
- 2. Project Management.** While MoEUCC generally has experience in implementing projects financed by the World Bank (Seismic Resilience and Energy Efficiency in Public Buildings Project – P175894) and other IFIs, GDIUTS has not previously worked with the World Bank or other IFIs and will need to put in place an adequately staffed PMU. The GDIUTS PMU will be led by a Project Director and will be composed of dedicated staff for the Project. PMU staff will include existing GDIUTS technical staff (e.g., urban planners, civil/structural engineers, urban transformation specialists, financial experts) assigned to the project as well as additional specialists with terms of reference and qualifications (including prior experience in Bank-financed projects) acceptable to the Bank, who will need to be hired or assigned by MoEUCC within 60 days of the Loan Effective Date, including: (i) a financial management specialist, a procurement specialist, an environmental specialist, an occupational health and safety specialist, a social specialist, a stakeholder/community engagement specialist, and a monitoring and evaluation (M&E) specialist located in the central MoEUCC office in Ankara; and (ii) one environmental specialist and one social/community engagement specialist each for the provinces of Izmir, Manisa, Tekirdag, Kahramanmaras, as well as Istanbul European side and Istanbul Asian side, who will be located in MoEUCC's respective provincial directorates as part of the PMU to support the monitoring of ESF risks. In addition, the Ministry will hire a consultancy firm to supervise the environmental and OHS issues associated with the building retrofitting/reconstruction activities under Component 2. MoEUCC may also have to mobilize additional staff or compliance specialists to undertake the verification of documents and hire consultant firms to support owners in the procurement and implementation of the building construction contracts under Component 2, as well as additional consultants (in particular on ESF) for the Ministry's provincial directorates in Project provinces. In addition, MoEUCC's staffing plan may require additional short and longer-term technical consultants during the lifespan of the Project, depending on need.
- 3. PMU Responsibilities.** The PMU will be responsible for overall implementation and coordination of Components 1, 2, and 4a, including: (i) communication with stakeholders and citizen engagement for the Project, (ii) ensuring that project funds are used to finance eligible expenditures in accordance with the applicable policies and procedures stipulated in the Loan Agreement and with targeting criteria, terms and conditions for resilient housing loans as set forth in the POM, (iii) procurement for the institutional strengthening and technical assistance activities under component 1; (iv) compliance with the ESF; and (v) Project monitoring and reporting.
- 4. Annual work plan.** The GDIUTS PMU will prepare an annual work plan and budget (AWPB), based on information from commercial banks, technical assessments, and audits, and submit it to the Bank for approval no later than June 30



of each year. The AWPB will include: (i) all technical assistance activities to be carried out under the Project during the following year including the list of activities and estimated amounts; (ii) estimated financing required for loans for resilient housing under Component 2, including expected number of beneficiaries and financing schedule; and (iii) any proposed training and knowledge exchanges activities that may be required under the Project including the purpose, target group, cost, and type of training and draft Terms of Reference; and (iv) a proposed financing plan. Each annual work plan will be discussed and approved by the Bank.

5. **Implementation modality of Component 2.** Loans financed by the Project will be channeled through participating commercial banks, which will serve as fiduciary agents, with the credit risk for the sub-loan amounts provided under this Project remaining with MoEUCC. As such, participating commercial banks will serve as loan servicing agencies that will assess the creditworthiness of loan applicants, channel the loan funding to approved eligible owners, collect repayment of loans and transfer them back to MoEUCC, collect any required documentation from borrowing owners, and track overall loan portfolio implementation and report to MoEUCC. Commercial banks (public and private) will be selected by the Ministry based on expressions of interest and according to criteria acceptable to the Bank, including sound financial standing, and compliance with the prudential norms of Türkiye's Banking Regulatory and Supervision Agency. MoEUCC will need to sign a protocol in form and substance satisfactory to the World Bank with at least one commercial bank acceptable to the World Bank prior to any disbursement under Component 2. In addition to determining the technical loan eligibility and targeting criteria as well as the loan terms (in agreement with the World Bank), MoEUCC will have a supervisory role and authority to suspend disbursements to banks in case of non-compliance with the provisions of protocols to be signed between MoEUCC and participating commercial banks. Participating commercial banks will establish a first-degree lien in the name of MoEUCC with unrestricted right to benefit from the retrofitted/reconstructed property until the beneficiary has repaid their loan in full to the commercial bank. This will reduce moral hazards for loan beneficiaries and allow MoEUCC to take measures in case of non-performing loans. The protocols to be signed between MoEUCC and participating banks, detailing the roles and responsibilities of both parties, will be in form and substance acceptable to the Bank.

Financial management and disbursements for GDIUTS/MoEUCC

6. The financial management arrangements at GDIUTS for Components 1, 2, 4a, and 5 need strengthening. An action plan to bring these arrangements to an acceptable level at entry is presented at the end of this section.

7. **Country context and implementing entity.** The Public Financial Management and Control Law (PFMC) No. 5018 is the framework law that regulates all aspects of public financial management in Türkiye. MoEUCC is a general budget institution and is subject to the provisions of PFMC for budgeting, accounting, documentation and internal control processes. The PMU established under GDIUTS will have the implementation responsibility of the Project as per the relevant national laws as well as the requirements of the financing agreement. GDIUTS will also be responsible for ensuring that Component 2 design is aligned with applicable laws and regulations on the establishment and management of the urban transformation special account.

8. **Investment Program and Budgeting.** The Project will follow the national planning and budgeting procedures. Accordingly, to incur expenditures, the Project needs to be included in the Investment Program for capital investments and have sufficient budgetary allocations in the annual budget laws throughout implementation. Activities under Components 1, 2, and 4a are considered as current expenditures so they are not included in the investment program but budgeted in the general budget of the central government under foreign capital transfers.

9. The overall responsibility for budget preparation and monitoring lies with the Strategy Development Directorate (SDD) of MoEUCC. The investment budget of MoEUCC is prepared under the coordination of the SDD that is responsible



for compiling the investment proposals of the spending units and preparing the final investment budget proposal of MoEUCC as a whole. SDD then sends the proposed MoEUCC budget to the Presidency of Strategy and Budget in the third quarter of the year. Upon agreement, the institutional budget is then included in the general budget and becomes effective upon enactment of the Budget Law by the Grand National Assembly of Türkiye before the start of the new fiscal year. MoEUCC will seek a budgetary allocation corresponding to projected project expenditures for each year of implementation.

10. **Staffing.** MoEUCC's GDIUTS is responsible for assigning staff with satisfactory qualifications and experience to undertake the financial management responsibilities for the Project. GDIUTS has assigned financial management staff for the Project and will also hire at least one FM consultant to enhance the capacity. The FM team will be responsible for the financial management operations as well as processing payments under the Project. The POM to be prepared by MoEUCC will include details about the roles and responsibilities of the FM staff as well as the internal control procedures for the Project.

11. **Information systems and accounting procedures.** The MoEUCC is listed among Chart I institutions in the PFMC Law, and thus its accounting is maintained in the Integrated Public Information Management System of the MoTF in Turkish lira, in accordance with the chart of accounts predetermined by MoTF. As it is not possible to maintain the accounting in foreign currency in sufficient detail to enable detailed project reporting, the FM Unit established within GDIUTS will maintain a separate accounting system to follow up the fund flows on a cash basis in foreign currency and to generate regular project financial reports. For this purpose, the GDIUTS will acquire an off-the shelf accounting and reporting software for project purposes. As a transitional measure, the accounting and reporting will be done using Excel spreadsheets until the software is tailored for the needs of the project and becomes operational, within two months after Project Effectiveness. The Procurement Plan should include the purchase of the software and the related services. A draft version of the accounting and reporting Excel spreadsheets will be prepared by Negotiations and finalized by Effectiveness; the software should be procured and tailored within the following two months. The GDIUTS is expected to finalize the TORs for the accounting and reporting software before effectiveness to start the procurement process without delay.

12. A complementary system will be used to monitor transactions incurred under Component 2. This system will be interfaced with participating commercial banks' systems and generate the necessary information to follow up the transfers made to commercial banks as well as sub-loans provided to owners of units in risky buildings and corresponding documentation of expenditures. The financial information collected in this system will be integrated into the project accounting and reporting system of the Project mentioned above. The establishment of the IT system for Component 2 will be a disbursement condition for this component.

13. **Financial management procedures.** The POM will also include a section on FM arrangements. More detailed FM arrangements will be reflected in the Project FM manual. The FM Manual will include (i) the financial and accounting policies and procedures for the project; (ii) organization of the FM unit, functions, staffing, and relevant job descriptions with special emphasis on the segregation of duties; (iii) the flows and templates for various transactions; (iv) disbursement procedures; (v) project budgeting, planning procedures, and financial forecasting; (vi) project reporting and auditing; and (vii) a dedicated annex on Component 2 procedures and flows. A draft FM Manual will be prepared by loan negotiations, finalized by project effectiveness, and updated as necessary to reflect changes that may be required after the commencement of implementation.

14. GDIUTS will also prepare an annex on the financial management arrangements for Component 2 to be later integrated in the FM Manual. The annex would describe the systems in place for internal controls and flows,



documentation, accounting and reporting, operation of the special account, disbursements from the loan account and the FM roles and responsibilities.

15. **Internal Control and internal audit.** MoEUCC applies the internal control mechanisms set forth in the PFMC Law. Accordingly, GDIUTS will be the accountable spending unit and will utilize the project funds in line with the agreed project documents. GDIUTS will be responsible for all stages of procurement, as well the verification of the receipt of goods and services and preparation of supporting documentation for payments. GDIUTS will also be responsible for submitting the payment orders with the supporting documents to the MoEUCC's Accounting Officer (Sayman). Detailed procedures will be described in the FM Manual.

16. The "Sayman" will execute basic controls on the payment orders and will send them to the Central Bank for processing from the DA. The related TL accounting entry to the Integrated Public Financial Management system in line with national regulations will be made by the Sayman based on the approved payment order. Besides, the expenditures in the proposed project will be subject to pre-financial control as per the pre financial control directive of MoEUCC, if any. A parallel project accounting will be maintained by the GDIUTS on a cash basis in foreign currency and sufficiently detailed project financial reporting. All procedures and workflows will be described in the FM Manual.

17. MoEUCC has an Internal Audit Department responsible for auditing selected processes of the whole Ministry based on their risk analyses and annual audit plans. Thus, the Project will not use the internal audit function of MoEUCC but consult them during implementation.

18. **Contract monitoring.** The centralized accounting system in Türkiye has an integrated commitment control module following the first payment from a contract. MoEUCC will ensure that the accounting software will also follow the contracts and the monitoring for adherence to the contract ceilings as well as clauses will be followed by the procurement and financial management departments of the PMU.

19. **Funds flow for Component 1 and 4a.** There will be a designated account for the Project that will be at the Central Bank of Türkiye. All payments to the contractors, suppliers and consultants will either be made directly from the loan account (direct payments) or from the Designated Account with the authorization of the responsible personnel. Traditional disbursement methods will be utilized.

20. **Funds flow for Component 2 (Figure 1).** The Designated Account (DA) will be opened by the MoTF at the Central Bank of Türkiye and MoTF will authorize MoEUCC to be responsible for managing the DA. In addition, two special accounts (earmarked for the Project) will be established under MoEUCC's existing Urban Transformation (UT) Account at Ziraat Bank: (i) a UT disbursement account from which funds will be passed on to participating commercial banks that signed the protocol for deposit in blocked accounts for eligible right holders with signed loan agreements; and (ii) a UT collecting account into which participating commercial banks will deposit the repayments of the loans received by right-holders⁵⁷. The participating commercial banks will also establish disbursement and collecting accounts in their concentration branches to disburse and collect loans. Loan repayments from beneficiaries will be pooled in the UT Collecting Account and MoEUCC will set up a roll-over/revolving mechanism with these funds to continue providing loans to additional beneficiaries for the same purpose (reconstruction or retrofitting of risky housing units) over time as repayments accrue.

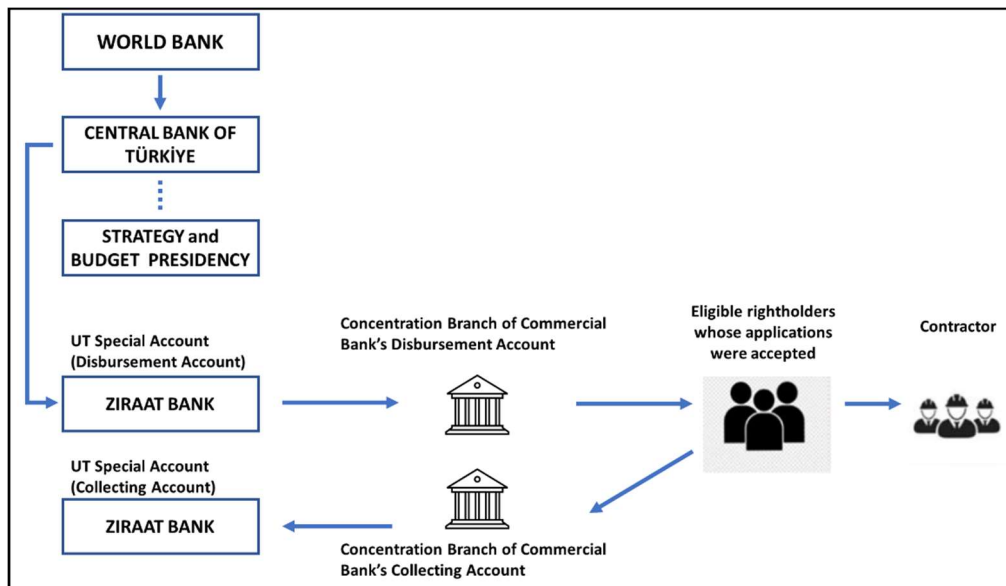
21. The PMU will make transfers from the DA to the UT disbursement account based on the approved sub-loans. The amounts will be transferred to the relevant commercial banks on the same day, which will transfer the funds to the owners' accounts and keep them blocked until supporting documentation on the construction works is provided. The DA

⁵⁷ Other banks holding public capital may be considered in the future.



will be replenished by the PMU based on documented expenditure amounts. For that purpose, the participating commercial banks will upload all necessary documents to the IT system developed for Component 2. As such, GDIUTS will have full access to all information regarding the loans provided as well as all reports and invoices documenting construction progress. GDIUTS will need to mitigate the risk of timely availability of funding in the DA by making frequent and regular project spending and disbursement projections and by regularly assessing the progress of works included in the Project. This is especially important considering that the replenishment of the DA would depend on beneficiaries/commercial banks providing supporting documents for resilient housing retrofitting/reconstruction progress. Figure 1 outlines the fund flow process for Component 2.

Figure 1. Fund Flow for Component 2



22. **Disbursement arrangements.** The Loan proceeds will be disbursed by the World Bank in line with the WB Disbursement Guidelines for Investment Project Financing (dated February 2017), and using the advance, direct payment, reimbursement, and special commitment disbursement methods. A separate DA will be opened at the Central Bank of Türkiye. Additional detailed procedures are included in the Disbursement and Financial Information Letter. Full documentation in support of SOEs will be retained by GDIUTS/MoEUCC for at least seven years after the Bank has received the audit report for the fiscal year in which the last withdrawal from the Loan Account was made. This information will be made available for review during supervision by Bank staff and for annual audits.

23. **Financial reporting.** The PMU will maintain records and will ensure appropriate accounting for the funds provided on a cash basis. The interim un-audited financial reports (IFRs) will be prepared quarterly and will be submitted to the Bank no later than 45 days after the end of the quarter through the Client Connection system of the Bank. The format and the contents of the IFRs will be agreed upon with the Bank and attached to the Minutes of Negotiation.

24. The IFRs will include the following reports at a minimum:

- Project Balance Sheet;



- Expenditure tables per activity, including explanation of significant variances between budgeted and actual figures;
- Expenditure tables per category, including explanation of significant variances between budgeted and actual figures;
- DA statement; and
- Contract management tables.

25. **Auditing.** As part of the Bank’s auditing requirements, the financial statements of the project will be subject to external auditing. The first set of audit reports will be submitted to the Bank before June 30th of the year following the calendar year in which the first disbursement from the loan has been made. The project financial statements will be audited by the Treasury Controllers in accordance with International Auditing Standards. The Treasury Controllers are the external auditors for all projects implemented by the ministries in Türkiye. The Terms of Reference for the Audit will be agreed with the MoEUCC and Treasury Controllers by negotiations. The audited project financial statements and audit reports will be publicly disclosed in a manner acceptable to the Bank. Project financial statements are due within six months of the end of each fiscal year and at the closing of the project.

26. The FM risk for MoEUCC’s GDIUTS is Substantial, and the FM arrangements need strengthening and will be considered acceptable at entry upon completion of the following action plan:

Action	Responsibility	Deadline
The required budget allocations for the Project will be made on an annual basis	GDIUTS	Per national budgeting deadlines applied to general budget institutions
A draft FM Manual and a draft dedicated FM annex for Component 2 will be prepared	GDIUTS	By Negotiations
Spreadsheets for temporary Project accounting and reporting will be prepared	GDIUTS	By Negotiations
The templates for the interim un-audited financial reports will be prepared	WB and GDIUTS	By Negotiations
Terms of Reference for the accounting software will be prepared for immediate procurement after effectiveness	GDIUTS	After loan signing
Terms of Reference for Financial Management Consultants will be prepared for immediate procurement after effectiveness	GDIUTS	After loan signing
The FM Manual will be finalized and adopted	GDIUTS	By effectiveness
Authorization procedures for disbursements will be completed	GDIUTS	After effectiveness
FM consultants recruited and the FM system procured and tailored	GDIUTS	No later than two months after effectiveness
The dedicated FM annex on Component 2 will be finalized, integrated into FM manual, and adopted	GDIUTS	Before disbursement under Component 2
An integrated system enabling Component 2 funds and document flows between MoEUCC and participating commercial banks will be established	GDIUTS	Before disbursement under Component 2



Procurement arrangements for GDIUTS/MoEUCC

27. **Applicable regulations.** The World Bank Procurement Regulations for IPF Borrowers – November 2020 (“Procurement Regulations”) will apply to the proposed Project. A General Procurement Notice (GPN) will be published on the World Bank’s external website and United Nations Development Business online immediately after Project negotiations.

28. **Anticorruption guidelines.** The Bank's ‘Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants,’ (revised as of July 01, 2016) (‘Anticorruption Guidelines’) will apply to the Project.

29. **PPSD.** The Procurement Regulations require the Borrower, through MoEUCC, to develop a PPSD. In this regard, GDIUTS has developed a PPSD for the procurement activities under the relevant components of the Project. The draft PPSD describes how procurement activities will support Project operations for the achievement of the PDO and deliver value for money. The PPSD is linked to the overall Project implementation strategy by ensuring proper sequencing of procurement activities. It provides information on institutional arrangements for procurement, roles and responsibilities, appropriate procurement methods, procurement due diligence, and other requirements. The PPSD also includes a detailed description of the procurement capacity needed by the implementing agency for carrying out procurement with specific focus on managing contract implementation, governance structure, and accountability framework. In addition, the PPSD is supported by market research, and analysis assesses market-related risks and opportunities that will affect the preferred procurement approach to market strategy.

30. The PPSD proposes that well-established procurement arrangements of private owners will be used for procurement under Component 2. The PPSD confirms that commercial procurement practices of groups of people, small firms, or individuals in Türkiye follow the general rule that they procure the least-cost goods, works, and services consistent with acceptable quality requirements. In the case of goods, the local practice is to prepare the technical specifications and solicit quotations from the local and/or international market. In the case of medium and large works, the technical specifications are usually prepared by consultant companies and bids are collected from qualified contractors. Minor works are generally tendered on a lump-sum basis by collecting bids from several local contractors. In recent years, purchasers commonly visit shopping sites on the Internet to find the optimum price for specific goods and seek availability of after-sale services from the manufacturers. When equipment and machinery are needed for expansion of existing facilities, the purchasers usually prefer proprietary goods from a single source for the sake of standardization and minimization of the operation and maintenance. The World Bank financed various credit line operations in Türkiye in which the end users were private sector firms or individuals. All such World Bank-financed credit line projects confirmed that the funds were used by the beneficiaries for the intended purposes with consideration given to economy and efficiency. Similar procurement implementations were experienced under the Türkiye Emergency Flood and Earthquake Recovery Project (P058877) and the Türkiye Marmara Earthquake Emergency Reconstruction (MEER) Project (P068368). In these projects, about 5,000 households constructed their houses in the villages by contracting contractors through their commercial practices successfully.

31. It is not possible to estimate the number of contracts and their values under Component 2 at this stage due to the demand-driven nature of procurements. The initial assessment is that the maximum size of a construction contract for a residential building may not exceed US\$1 million and there could be around 300-500 contracts implemented. The determination for the acceptability of commercial practices in line with the Bank’s Core Procurement Principles will be elaborated in the POM for GDIUTS.



32. The PPSD proposes consulting services to strengthen capacity to develop, implement, and monitor climate and seismic-resilient urban transformation programs under Component 1. Quality- and Cost-Based Selection (QCBS) method will be applied and the Selection Based on Consultants' Qualification (CQS) method for contracts below US\$300,000 equivalent may be used. Depending on the size and availability of the market, the tenders will be open to national and international markets. Under Component 4a, the PMU will be strengthened by hiring individual consultants to support implementation of the Project, including a procurement specialist, an urban development/resilience expert, an environmental specialist, a social specialist, an operational health and safety specialist, a finance expert, a monitoring and evaluation expert, and disaster risk management experts as needed. For procurements under Components 1, 4 and 5, Bank's Standard Procurement Documents (SPD) with minor modifications will be used as fit for purpose.

33. **Procurement Plan and Procurement tracking.** The Procurement Regulations require the Borrower to use the Bank's Systematic Tracking of Exchanges in Procurement (STEP) online procurement tracking tool to prepare, clear and update its procurement plans, and conduct all procurement transactions. GDIUTS will create the procurement plan through STEP prior to initiating any procurement processes. The PPSD and the underlying Procurement Plan will be updated at least annually or via supplementary notes to the PPSD as required to reflect actual Project implementation needs, i.e., adding new activities to the Procurement Plan. The Procurement Plan and their updates shall be subject to the Bank's review and approval. GDIUTS will be given STEP access in the Project portal. A list of procurement activities performed by owners under Component 2 will be recorded in a format agreed by the Bank and specified in the POM for GDIUTS; these records will be uploaded into STEP by GDIUTS at least semi-annually and the last one not later than the Project closing date. All the procurement related complaints will be recorded in the STEP complaint module by GDIUTS.

34. **Advance Procurement.** Procurement Regulations Paragraphs 5.1 and 5.2 (Advance Contracting and Retroactive Financing) permits that the Borrower may wish to proceed with the procurement process before signing the Legal Agreement. In such cases, if the eventual contracts are to be eligible for World Bank financing, the procurement procedures, including advertising, shall be consistent with Sections I, II, and III of the Procurement Regulations which cover the World Bank's Core Procurement Principles of economy, efficiency, transparency, fairness, fit-for purpose, value for money, and integrity. With this understanding, GDIUTS may initiate the selection of consultant companies and PMU consultants immediately after Project negotiations upon publication of the General Procurement Notice. It was envisaged that the proposed approach will accelerate the selection of consultant companies and will support delivery of the Project's development objectives.

35. **Regarding Component 2, the Bank's assessment of commercial practices of resilient housing retrofitting or reconstruction works by owners of units of risky buildings concluded that procurement of construction contracts is in line with the well-established commercial practices provided in the PPSD.** The owners identify their technical requirements for their buildings and then seek price quotations from qualified contractors long listed by the MoEUCC. Their primary objective is the construction of a building in accordance with the most recent earthquake code applicable in Türkiye. The long list of qualified contractors is established based on their technical and financial soundness, and this list is updated frequently. The firms who have interest and capacity can apply for being long listed without any restriction. The owners then negotiate the details of their contract with the contractors and select the contractor on a fit-for-purpose basis. When awarding a contract to the contractor, main consideration is given to receiving the best value for their money. In this process, the owners sometimes receive support from urban transformation experts in the market. In addition, owners sign a contract with supervision consultants qualified by the MoEUCC for the design review and construction supervision services. Generally, the agreement with the contractors includes not only the construction works but preparation of the detailed designs. The designs, prepared either by the owners or by the contractor through a design firm, are reviewed by a supervision consultant. The same supervision consultant supervises the stages of



construction as per their contract. Under the proposed Project, the cost of the supervision consultant will not be financed with IBRD loan proceeds as the selection process is driven by MoEUCC regulations. In case necessary arrangements are made by MoEUCC in the implementation regulations and well-established commercial practices of owners apply, then financing of the supervision consultant with IBRD loan proceeds can be an option. Component 1 of the Project will finance consulting services to support owners during the contracting stage, especially on technical and legal matters, and during contract implementation. This consultant will also inspect the ongoing and completed building construction independently and prepare quarterly reports providing details of their findings including any improvements needed and will submit to GDIUTS and the Bank to assure the delivery of value for money.

36. **Procurement risk assessment.** GDIUTS has no World Bank procurement experience. The procurement activities to be undertaken under Components 1 and 4 are similar to the activities conducted by MoEUCC under the national budget. All the procurement under these components will be conducted by GDIUTS. A PMU will be established under GDIUTS with existing technical staff, which will be supported by individual consultants to be hired under the Project. GDIUTS staff does not have sufficient experience with procurement per World Bank Procurement Regulations. A procurement specialist, dedicated to the PMU, with experience in Bank-financed projects will strengthen the procurement capacity and performance of GDIUTS in accordance with World Bank Procurement Regulations.

37. Considering that GDIUTS will implement the first project under WB Procurement Regulations and there are uncertainties in the number and size of the contracts under Component 2, the procurement risk for GDIUTS is assessed as **Substantial**. The risk rating can be lowered to “Moderate” when the agreed actions/mitigation measures below are put in place:

Identified Procurement Risks and Agreed Action Plan for GDIUTS

Action No.	Identified Risk	Mitigation Measure	Responsible Party	Time Frame
1	GDIUTS does not have experience with World Bank Procurement Regulations.	A procurement specialist will be hired by GDIUTS for their PMU. This procurement specialist will be dedicated to this Project.	GDIUTS	ToR will be prepared by GDIUTS immediately after loan negotiations. The selection will be initiated in advance and contracts will be signed within 60 days of loan effectiveness.
2	Unclear procurement procedures may create unnecessary questions from the procurement stakeholders. Lack of clarity in determining of acceptability of commercial practices under Component 2 may create confusion during implementation.	Develop a POM with a procurement section for their respective project components.	GDIUTS	Prior to loan effectiveness.



3	Value for money may not be delivered under Component 2 due to unclear contract provisions.	GDIUTS will hire a consultant firm to support owners of units in risky buildings to develop good construction contracts with the contractors on technical and legal terms. The firm will also support GDIUTS for physical verification of the building construction and appropriate reporting to the Bank.	GDIUTS	Throughout project implementation
4	In Component 2, the owners and contractors may inflate the cost of the construction artificially and the loan funds may not be used for the intended purposes.	The contracts between the owners and the contractors will include provision for their acceptance of the Bank's Anti-corruption Guidelines and Bank's audit right.	GDIUTS	Throughout project implementation
5	In Component 2, the contractors may fall in economic distress and cannot complete the buildings under the current economy conditions	The contract between the owners and the contractor will mandate the contractor to secure building completion insurance or unconditional bank guarantee or unconditional surety bond (which can be activated if the contractor fails to complete construction of the building enabling owners to complete construction with another contractor) or include another mechanism acceptable to the Bank to provide a security for the completion of building construction to the owners. This mechanism will be detailed in the POM.	GDIUTS	Throughout project implementation
6	Insufficient number of contractors eligible to undertake urban transformation	Ministry will announce the Project regularly, at least semi-annually, so that interested contractors can apply to the Ministry to be registered in the certified contractors list, as long as their capacity and capability are sufficient upon evaluation. This will also increase competition and improve options for owners.	GDIUTS	Throughout project implementation



7	The contractors may have reduced capacity due to market volatilities.	The capacity of the contractors will be confirmed before signing contracts with owners.	MoEUCC's Provincial Directorates. Contractors will submit current reference letter received from commercial banks to Provincial Directorates.	
8	Incomplete E&S assessment studies may delay commencement of the contract implementation.	All environmental and social studies will be completed before the initiation of procurement and/or signing of contracts. The minimum required contractual clauses and/or annexes for the contracts to be signed between beneficiaries and the contractors reflecting the World Bank's fiduciary, environmental, and social requirements will be provided to the owners under Component 2 to sign with contractors.	GDIUTS	Throughout project implementation
9	Misinterpretation of the Procurement Regulations and terms and conditions of the contracts may cause noncompliance and time and cost overruns in the contract implementation.	Work closely with World Bank procurement specialist.	GDIUTS	Throughout project implementation
10	The COVID-19 pandemic and the Ukraine war may impact procurement processes and supply chain.	Specific procurement arrangements to address this risk will be applied as deemed appropriate in the POM and introduction of changes in the procurement strategy.	GDIUTS	Throughout project implementation

38. **Bank review of procurement transactions.** The World Bank will review the procurement arrangements performed by implementing agencies, including contract packaging, applicable procedures, and the scheduling of the procurement processes, for their conformity with the Legal Agreement. Those procurements that did not have ex-ante due diligence by the World Bank will be subject to ex-post due diligence on a sampling basis in accordance with the procedures set forth in Paragraph 4 of the Annex II to the Procurement Regulations. A post review of procurement documents will normally be undertaken annually during World Bank supervision missions, or the World Bank may request to review any particular contract at any time. In such cases, the implementing agencies shall provide the World Bank the relevant documentation for its review.



39. **Complaint review.** The procurement complaints other than those covered under Annex III of the Procurement Regulations are to be handled by GDIUTS in accordance with the procedures agreed by the Bank and stipulated in the POM. Immediately upon receipt, the complaints will be recorded in the STEP complaint module by GDIUTS, and the PMU will not proceed with the next stage/phase of the procurement process, including with awarding a contract, without satisfactory resolution of the complaint(s). Such complaints will be addressed by GDIUTS within a reasonable time but not later than 15 business days of receipt.

40. **Operating Costs** will not be considered under procurement implementation. Such operational costs are reasonable incremental expenses directly incurred on account of the implementation, management, and monitoring of the Project by the Borrower; such costs may include, as relevant, and as the Bank may agree, the following: (a) Project audits; (b) office supplies; (c) office rental; (d) vehicle rental; (e) office and equipment maintenance and repair; (f) communications; (g) translation and interpretation; (h) travel associated with Project supervision; (i) publication fees; (j) ownership of intellectual property rights; and (k) other miscellaneous expenses directly associated with the Project and agreed between the Bank and the Borrower.

41. **Training Costs** will not be considered under procurement implementation. Such training costs are reasonable expenditures (excluding costs of goods, consulting and non-consulting services) incurred for Project-related capacity building activities, including study tours, training courses, seminars, workshops and other training activities; such costs include travel, accommodation and *per diem* costs associated with training, workshop and study tour participants and trainers, space and equipment rental, and other training related miscellaneous costs, all based on an Annual Work Plan and Budget agreed with the Bank.

Institutional and Implementation Arrangement for ILBANK PMU – Components 3 and 4b

42. **Project Management.** The ILBANK PMU was established under the International Relations Department of ILBANK for the implementation of SCP. The PMU is organized according to functions. The PMU staff is grouped into four functional units: Technical Management Unit, Contract Management Unit, Financial Management Unit and Business Development Unit. ILBANK management has appointed staff in the International Relations Department to expand its capacity. These functional units are led by unit managers and have sufficient technical and staff capacity in procurement, FM, and technical sectors particularly for water, wastewater, solid waste management and transport. When needed, ILBANK will hire consultants from Project resources to obtain technical support in areas or sectors where ILBANK has limited capacity and experience.

43. **ILBANK’s International Relations Department has experienced staff in technical, procurement, environmental, social, and FM-related procedures of the Bank.** ILBANK staff have received numerous training courses related to the ESF and have experience with the Bank’s previous safeguard operational procedures and the ESF. ILBANK’s environment and social team consists of two technical experts—one acting as the environmental focal point and the other as the social development/land acquisition focal point. The ILBANK team gained significant experience during the implementation of previous MSP, MSP-AF, SCP1, SCP2, SCP2-AF, and Municipal Services Improvement Projects (MSIP) financed by the Bank. ILBANK will hire one additional Environmental Specialist, one Social Specialist, and one OHS Specialist for implementation of this Project.

44. **The International Relations Department is supported by several specialized departments within ILBANK.** These include a Project Department responsible for control and approval of technical studies under the project, an Investment Appraisal Department responsible for evaluating the financial capacity of a municipality, an Infrastructure Implementation Department that can also provide support to review technical specifications as needed, and several other



administrative departments such as Investment Coordination, Accounting and Financial Affairs, Information and Technology (IT), and Banking Services.

45. **Project Implementation Units (PIUs).** PIUs will be established for this Project within the utilities of Project metropolitan municipalities. PIUs are expected to be staffed by civil servants and consultants hired for the Project with experts required across financial management, procurement, social, environmental and OHS specialties.

46. **Legal relationships, fund flow, and the control of funds.** Legal arrangements will include the following: (i) a Loan Agreement between ILBANK and the Bank, (ii) a Guarantee Agreement between the Republic of Türkiye and the Bank, (iii) a Guarantee Protocol between the Ministry of Treasury and Finance and ILBANK, and (iv) a sub-loan agreement between ILBANK and the municipal sub-borrowers. Fund flow under the project will be overseen by the International Relations Department of ILBANK. Within the scope of the project, the International Relations Department is also responsible for ensuring compliance with the Bank's regulations on procurement for goods, works, and services. The POM will guide ILBANK on the use of loan funds and reporting arrangements.

47. **Project implementation.** ILBANK will provide project implementation support to the municipal PIUs and carry out supervision of the sub-loan agreements, with PIUs conducting the selection of consultants for their respective subprojects. They will also be responsible for the procurement of civil works and goods and these contracts will be signed by the sub-borrower and the firm or contractor. In accordance with the sub-loan agreement, the sub-borrowers will carry out the following:

- Manage and implement the subproject in a sound technical and financial manner, including management of the procurement process, certification of payments from consultants and contractors, and construction supervision with the assistance of construction supervision consultants where required;
- Implement the ESF in a satisfactory manner, including environmental and social management activities during project preparation and implementation involving appropriate level of public consultation and information disclosure;
- Provide necessary technical and financial information, including collection and monitoring of results data, to ILBANK on time;
- Set up an escrow account in which amounts that correspond to six months of debt service will be deposited 15 days before their due date to repay ILBANK and the latter will have the right to intercept tax shares to make the repayment of the sub-borrower if the escrow account balance is insufficient.
- To assist in undertaking these responsibilities, PIUs will be set up to manage subproject implementation. The PIUs will be staffed by municipal employees. However, the PIUs may be supplemented by individual consultants, as necessary.

48. **Annual work plan.** Based on the information from prioritization, assessments and audits, the PMU and PIUs will prepare an annual work plan and budget, to be submitted at the beginning of each calendar year, which will include: (i) all activities to be carried out under the Project during the following year; (ii) other TA or training activities that may be required under the Project including the purpose, cost and type of training and draft Terms of Reference; and (iii) a proposed financing plan. Each annual work plan will be discussed and approved by the Bank.

Financial management and disbursements for ILBANK

49. ILBANK, the Borrower for Components 3 and 4b, will have the overall responsibility for the financial management of these components. ILBANK is an experienced institution with satisfactory implementation experience with WB-financed operations. The financial arrangements for Components 3 and 4b are acceptable. ILBANK will tailor its existing



financial management systems used for WB-financed operations by project effectiveness to ensure that this Project is also integrated.

50. **Country context and implementing entity.** Banks in Türkiye, including ILBANK, are subject to strict regulations and supervision by the Banking Regulation and Supervision Agency (BRSA). BRSA's regulatory and supervisory framework meets modern standards preserving the solidity of the system. Banks in Türkiye are required to prepare financial statements in compliance with the Turkish Accounting Standards, which are based on and correspond to IFRS. The BRSA also issues rules governing the external audit of bank financial statements, and only auditors approved by the BRSA may carry out such audits. The external auditor is required to report to the BRSA on the internal control and risk management systems of banks as well as being obliged to report directly to the BRSA with respect to certain issues which may threaten the going concern nature of a Bank.

51. **Staffing.** ILBANK has extensive implementation experience of WB-financed projects. The PMU established under the International Relations Department of ILBANK has a dedicated FM unit experienced in WB-financed operations. The Unit is responsible of all foreign financed projects. The unit is adequately staffed and the qualifications of the experts working in the FM unit are adequate. The PMU will be responsible for the management of the DA as well as the project accounting, reporting, and auditing. Municipal sub-borrowers will also establish their respective PIUs to ensure effective collaboration with ILBANK for the implementation of project activities in their respective areas.

52. **Information systems, accounting policies and procedures.** IL-BIS, ILBANK's main accounting system is a web-based secure application that links all departments of the institution, allowing them to execute, monitor and report using the same data source. All the regional offices are connected to the IL-BIS system. Project transactions are integrated into the IL-BIS system through the use of sub-accounts that are created under the existing chart of accounts for this purpose. The accounting entries to the system are made by the Accounting Department staff following the payment order prepared by the PMU staff. The PMU verifies the movements of the designated accounts with the accounting records through the use of a summary list as well as through the World Bank's client connection. The PMU staff keeps separate Excel spreadsheets for each loan to record all payments to and from the relevant designated account. Interim Financial Reports (IFRs) are prepared by using these excel spreadsheets and confirmed from the data generated from IL-BIS system. The Project will rely on these same systems and ILBANK will complete the necessary modifications/additions to IL-BIS by effectiveness.

53. **Internal Controls.** ILBANK has robust systems, manuals, and guidelines regulating the internal controls environment. The accounting and reporting systems at ILBANK are geared toward producing statements and information as required by Turkish laws and regulations. In addition, ILBANK also developed specific internal control procedures for the implementation of foreign-financed projects and these procedures will be clearly defined in the project financial management manual.

54. The Project will disburse through sub-loan agreements that will be made between ILBANK and the utilities of Project metropolitan municipalities. The sub-borrowers will be responsible for their own procurements under the oversight of ILBANK. However, the financial management responsibility will lie with ILBANK. As is the case in the current WB-financed operations, the financial management unit of the PMU will receive a copy of all tendering and agreement documents. The regional offices of ILBANK will provide technical support in ensuring that the sub-borrowers have conducted necessary procedures to verify the works completed. The respective PIUs in the utilities of Istanbul, Izmir, Kahramanmaraş, Manisa, and Tekirdag Metropolitan Municipalities will submit the payment requests to the PMU, and the PMU, after verifying completeness of all documentation, will prepare the payment order through its FM unit. The



payment will be transferred directly from the Designated Account of the Project to the contractors’ or suppliers’ bank account.

55. The PMU has been utilizing detailed checklists that are completed and signed by the relevant staff before processing the payments. Those checklists include financial controls on advance payments made for works in progress, financial controls on payments to individual consultants and consultancy firms, financial controls on works progress payments, and financial controls on goods purchases. These checklists with a few modifications if required will also be utilized for this Project.

56. **Internal Audit.** ILBANK has an Internal Controls Department, Risk Management Department and an Inspection Department. All three departments report directly to the Board of Directors. The Internal Controls Department has identified “standard control points” for foreign financed loans. Control points are defined for each function of ILBANK. The International Relations Department, like other departments of ILBANK, is required to complete the form monthly and provide assurance through self-declaration that all control points have been complied with. The Internal Controls Department, as a part of its normal procedures, conducts quarterly on-site review of compliance with the control points. There have not been any irregularities observed in foreign financed loans as a part of the internal control review. This Project will also be a part of regular review of internal controls department. The Risk management Department reviews loans before they are granted and through their effectiveness. The Risk management Department conducts continuous monitoring and reports to the Board on the status of IB’s loan portfolio. Loans that will be granted to sub-borrowers under this Project will also be monitored by the Risk Management Department. The Inspection Department is responsible for investigating irregularities as well as conducting regular reviews of ILBANK systems.

57. **Financial reporting.** The PMU will maintain records and will ensure appropriate accounting for the funds provided on a cash basis. The interim un-audited financial reports (IFRs) will be prepared quarterly and will be submitted to the Bank no later than 45 days after the end of the quarter through the Client Connection system of the Bank. The format and the contents of the IFRs will be agreed upon with the Bank and attached to the Minutes of Negotiation.

58. **External Audit.** Annual project financial statements for the project as well as ILBANK’s entity financial statements will be subject to independent audit by auditors that are acceptable to the Bank. ILBANK’s entity financial statements prepared in accordance with International Financial Reporting Standards (IFRS) have been audited by private sector auditors in accordance with International Auditing Standards. The entity audited financial statements had unqualified (clean) audit opinions for the last three years (2018, 2019, 2020). The external auditors of the project financial statements will be the Treasury Controllers who are the government auditors responsible for the audit of WB-financed projects implemented by government institutions. The following chart identifies the audit reports and their due dates:

Audit Report	Due Date
Entity financial statements (FI) prepared in accordance with IFRS	Within six months after the end of each calendar year and at the closing of the project
Project financial statements (PFS) including SOEs and the designated accounts	Within six months after the end of each calendar year and at the closing of the project

59. **Fund Flow and Disbursement Arrangements.** The Project will be disbursing based on the traditional disbursement techniques. ILBANK will open a Designated Account in the currency of the loan at a commercial bank that is acceptable



to World Bank. The withdrawal applications will be prepared and authorized by ILBANK PMU with two authorized signatures. The minimum application size for payments directly from the loan account for the issuance of Special Commitments, as well as the Statement of Expenditure (SOE) limits, will be described in the Disbursement and Financial Information Letter (DFIL). Full documentation in support of SOEs, including completion reports and certificates, would be retained by the ILBANK for at least seven years after the World Bank has received the audit report for the fiscal year in which the last withdrawal from the Loan Account was made. This information will be made available for review during supervision by World Bank staff and for annual audits. Disbursements for expenditures above the SOE thresholds will be made against presentation of full documentation of the expenditure

60. **FM Implementation Support.** During project implementation, the Bank will supervise the project's financial management arrangements as follows: (i) during the Bank's implementation support missions, the financial management and disbursement arrangements will be reviewed to ensure compliance with the Bank's minimum requirements; and (ii) project's quarterly interim unaudited financial reports as well as the project's annual audited financial statements and auditor's management letter will be reviewed. A Bank-accredited Financial Management (FM) Specialist, located in the WB Ankara Office, is a core member of the project team and will supervise FM aspects during formal supervision visits and in-between as required.

Procurement arrangements for ILBANK

61. **Applicable Regulations.** The World Bank Procurement Regulations for IPF Borrowers – November 2020 ("Procurement Regulations") will apply to the proposed Project. A General Procurement Notice (GPN) will be published on the World Bank's external website and United Nations Development Business online immediately after the project negotiations.

62. **Anticorruption Guidelines.** The Bank's 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants,' (revised as of July 01, 2016) ('Anticorruption Guidelines') will apply to the Project.

63. **PPSD.** The Procurement Regulations require the Borrower to develop a PPSD for the Project. In this regard ILBANK has developed a draft PPSD for the procurement activities under the relevant components of the Project. The draft PPSD describes how procurement activities will support project operations for the achievement of the PDO and deliver value for money. The PPSD is linked to the overall project implementation strategy by ensuring proper sequencing of procurement activities. It provides information on institutional arrangements for procurement, roles and responsibilities, appropriate procurement methods, procurement due diligence, and other requirements needed for carrying out procurement. The PPSD also includes a detailed description of the procurement capacity needed by the implementing agencies for carrying out procurement with specific focus on managing contract implementation, governance structure, and accountability framework. In addition, the PPSD is supported with market research, and analysis assesses market-related risks and opportunities that will affect the preferred procurement approach to market strategy. The Bank's Standard Procurement Documents (SPD) with minor modifications will be used as fit for purpose under Components 3 and 4b of the Project.

64. **Procurement Plan and procurement tracking.** Paragraph 5.9 of Procurement Regulations require the Borrower to use the Bank's Systematic Tracking of Exchanges in Procurement (STEP) online procurement tracking tool to prepare, clear and update its procurement plans, and conduct all procurement transactions. ILBANK will create the procurement plan through STEP prior to initiating any procurement. The PPSD and the underlying Procurement Plan will be updated at least annually or via supplementary notes to the PPSD as required to reflect actual project implementation needs, i.e., adding new activities to the Procurement Plan. The Procurement Plan and their updates shall be subject to the Bank's



review and approval. The investment activities approved by the Bank per the criteria specified in the POM will be identified as a procurement activity. Only ILBANK will be given STEP access in the Project portal. All the procurement related complaints will be recorded in the STEP complaint module by ILBANK. Utilities will be preparing PPSDs for their respective sub-loans under the coordination of, and support from ILBANK. ILBANK will conduct the procurement assessment of the participants, identifying the risks and mitigation measures for implementation and procurement arrangements of the sub-loans. Participating utilities will, under the coordination of and support from the ILBANK PMU, prepare and update their respective Procurement Plans and conduct all procurement transactions for the project in line with the provisions of the Loan Agreement. The Bank will review the PPSDs and agree to the Procurement Plan for each sub-loan before approval. Any updated PPSD and procurement plan will be reviewed and approved by the Bank before their implementation. ILBANK will continue to bear the overall responsibility for project implementation.

65. **Advance procurement.** Procurement Regulations Paragraphs 5.1 and 5.2 (Advance Contracting and Retroactive Financing) permits that the Borrower may wish to proceed with the procurement process before signing of the Legal Agreement. In such cases, if the eventual contracts are to be eligible for World Bank financing, the procurement procedures, including advertising, shall be consistent with Sections I, II, and III of the Procurement Regulations which cover the World Bank's Core Procurement Principles of economy, efficiency, transparency, fairness, fit-for purpose, value for money, and integrity.

66. **Procurement risk assessment.** The World Bank has conducted a procurement assessment for the project, with a focus on ILBANK in terms of: (i) procurement regulatory framework and management capability; (ii) integrity and oversight; (iii) procurement process and market readiness; and (iv) procurement complexity. The assessment concludes that: (i) applicable procurement policies and the regulatory system are designed broadly to meet Core Procurement Principles of value for money, economy, efficiency, effectiveness, integrity, transparency and fairness and accountability; (ii) ILBANK has a clear system of accountability with clearly defined responsibilities and delegation of authority on who has control of procurement decisions; (iii) there is a clear identified target market for all procurements; and (iv) ILBANK and municipalities effectively manage contracts to ensure delivery as per the contract conditions. The assessment is recorded in the Procurement Risk Assessment and Management System of the Bank.

67. ILBANK will be responsible for implementation and coordination of Component 3 through its PMU located under the International Relations Department. The PMU was originally established in 2005 for the Bank financed MSP-I project and has been continuously operational throughout MSP-II, SCP-I, SCP-II, and SCP-II additional financing and Municipal Services Improvement Project in Refugee Affected Areas projects. Hence, ILBANK PMU is experienced in Bank-financed projects and familiar with World Bank procurement procedures and contract management. However, the participating municipalities have limited experience with Bank procurement regulations, and they will conduct their own procurement. The ILBANK PMU will provide procurement support to the municipal sub-borrowers, when needed and requested. The technical requirements in the selection documents will be agreed by the ILBANK and the sub-borrowers. The sub-borrowers will conduct all the procurement activities under the Project as per World Bank procurement regulations under the oversight of the ILBANK PMU.

68. The ILBANK PMU is established with four separate units namely Contract Management Unit, Financial Management Unit, Business Development Unit and Technical Management Unit. Procurement management is the responsibility of the Contract Management Unit. Considering the heavy workload of existing PMU staff due to the ongoing Bank-financed SCP-I, SCP-II and SCP-II additional financing and MSIP projects as well as projects financed by other IFIs, a procurement specialist dedicated for this Project will be hired for the PMU who is familiar with the Bank procurement procedures. The procurement specialist will be mainly responsible for overseeing and coordinating the procurement activities within the scope of the Project and provide procurement support to the PIUs in the utilities of Project



metropolitan municipalities when needed. When needed under the Project, the PMU will also be supported by the Project Department responsible for the review and approval of feasibility studies. In addition, the Infrastructure Implementation Department will provide support to the review of technical specifications; and several other administrative departments such as Accounting and Financial Affairs, IT, and Banking Services will provide support to the PMU when needed.

69. The utilities of Project metropolitan municipalities have certain technical and procurement capacity to operate their regular services with varying staff capacity depending on the size of the city; and, they have limited experience with Bank procurement regulations. The PMU will provide procurement support to them when needed or requested by those municipalities. Each sub-borrower will hire a procurement specialist who is familiar with Bank procurement procedures for their PIU if needed. The utilities of Project metropolitan municipalities will establish dedicated Project implementation units comprised of procurement and technical experts. These experts will be involved in the selection process of the consultant companies, works contractors, good suppliers and management of concluded contracts. The utilities will hire experts experienced in the procurement and management of the contracts in Bank-financed projects unless such staff already exist.

70. Considering that municipal sub-borrowers have limited experience in Bank procurement procedures and that there are uncertainties in the number and size of the contracts for Component 3, the procurement risk for ILBANK is assessed as **Substantial** before the mitigation measures are in place for the identified risks. Each of the municipal sub-borrowers will establish PIUs under the Project and hire individual consultants experienced under World Bank Projects. The risk rating can be lowered to “Moderate” when the agreed actions below are put in place:

Identified Procurement Risks and Agreed Action Plan for ILBANK and Sub-borrowers

Action No.	Identified Risk	Mitigation Measure	Responsible Party	Time Frame
1	ILBANK is implementing multiple projects simultaneously; the procurement experts at ILBANK are overloaded and may not be able to meet the procurement deadlines. Participating municipalities have limited experience in Bank financed projects.	ILBANK PMU continuously increases its capacity through recruitment of new staff, hiring new consultants, and investing in capacity building activities. In addition to these capacity building measures, ILBANK will hire an additional qualified procurement specialist dedicated to this Project. Each participating municipality will hire a qualified procurement specialist for their PIU, preferably experienced in the Procurement Regulations in case of need.	ILBANK / Participating Municipalities	ToR will be prepared by ILBANK immediately after loan negotiations. The selection will be initiated in advance and contracts will be signed within 60 days of loan effectiveness. Within 60 days of sub-loan effectiveness for each municipality.
2	Unclear procurement procedures may create unnecessary questions from the procurement stakeholders.	Develop a POM with a procurement section for their respective project components.	ILBANK	Prior to loan effectiveness



3	Incomplete E&S assessment studies may delay commencement of the contract implementation.	All environmental and social studies will be completed before the initiation of procurements and/or signing of contracts.	ILBANK / Participating Municipalities	Throughout project implementation
4	Misinterpretation of the Procurement Regulations and terms and conditions of the contracts. It may cause noncompliance and time and cost overruns in the contract implementation.	Work closely with World Bank procurement specialist. Work closely with ILBANK procurement specialist.	ILBANK / Participating Municipalities	Throughout project implementation
5	COVID-19 pandemic and the Ukraine war may impact procurement processes and supply chain.	Specific procurement arrangements to address this risk will be applied as deemed appropriate in the POM and introduction of changes in the procurement strategy.	ILBANK / Participating Municipalities	Throughout project implementation
6	Time and cost overruns in the construction contract implementation	Define realistic contract duration. Prepare designs and BoQs to reflect site conditions, scope and phases of the contract. Conduct realistic market survey during cost estimation. Establish strong project management and supervision mechanism.	ILBANK / Participating Municipalities	Throughout project implementation At the tender document preparation stage and contract management
7	Currency exchange rate fluctuations may result in cost and time impacts to contracts Globally high inflation rates	Enable in tender documents for submitting Bid/Proposal in hard currencies even if the inclusion of contract price adjustment clauses may be included in the tenders open to national market Include price adjustment clauses in the tender documents even if the contract duration is less than 18 months	ILBANK / Participating Municipalities	At the tender document preparation stage

71. **Procurement supervision frequency.** The World Bank will review the procurement arrangements performed by the implementing agency, including contract packaging, applicable procedures, and the scheduling of the procurement processes, for their conformity with the Legal Agreement. Those procurements that did not have ex-ante due diligence by the World Bank will be subject to ex-post due diligence on a sampling basis in accordance with the procedures set forth in Paragraph 4 of the Annex II to the Procurement Regulations. A post review of the procurement documents will normally be undertaken annually during World Bank supervision missions, or the World Bank may request to review any particular contract at any time. In such cases, the PMU shall provide the World Bank the relevant documentation for its review.



72. **Complaint review.** The procurement complaints other than those covered under Annex III of the Procurement Regulations are to be handled by ILBANK in accordance with the procedures agreed by the Bank and stipulated in the POM. Immediately upon receipt, the complaints will be recorded in the STEP complaint module by ILBANK. Municipalities and utilities will not proceed with the next stage/phase of the procurement process, including with awarding a contract, without satisfactory resolution of the complaint(s). Such complaints will be addressed by ILBANK within a reasonable time but not later than 15 business days of complaint receipt.

73. **Operating Costs** will not be considered under procurement implementation. Such operational costs are reasonable incremental expenses directly incurred on account of the implementation, management, and monitoring of the Project by the Borrower; such costs may include, as relevant, and as the Bank may agree, for the following: (a) Project audits; (b) office supplies; (c) office rental; (d) vehicle rental; (e) office and equipment maintenance and repair; (f) communications; (g) translation and interpretation; (h) travel associated with Project supervision; (i) publication fees; (j) ownership of intellectual property rights; and (k) other miscellaneous expenses directly associated with the Project and agreed between the Bank and the Borrower.

74. **Training Costs** will not be considered under procurement implementation. Such training cost are reasonable expenditures (excluding costs of goods, consulting and non-consulting services) incurred for Project-related capacity building activities, including study tours, training courses, seminars, workshops and other training activities; such costs include travel, accommodation and per diem costs associated with training, workshop and study tour participants and trainers, space and equipment rental, and other training related miscellaneous costs, all based on an Annual Work Plan and Budget agreed with the Bank.

Strategy and Approach for World Bank Implementation Support to MoEUCC and ILBANK

75. Given that GDIUTS has no experience in implementing WB financed projects in the past, the World Bank would provide greater support than normal supervision and support requirements.

76. Implementation support will be provided by the Bank team, consisting of staff with relevant competencies in operations, procurement, finance, safeguards, and technical content on urban development, civil engineering, disaster risk management, seismic risk reduction and housing finance. The Bank team will undertake periodic field visits/implementation support missions at least twice a year throughout the project's implementation and the findings and recommendations of missions will be shared with GDIUTS and ILBANK and recorded in an Aide Memoire.

77. The Bank will maintain close contact with both PMUs, which will manage day-to-day implementation of the project and produce and transmit to the Bank all required data, reports, and information required to follow project implementation progress, detect deviations and problems, and identify and respond to problems and bottlenecks, including procurement transactions and FM requirements, and report to the Bank on the progress and status of project implementation and contract administration against agreed or contractual timetables and schedules. The PMUs will also report to the Bank on compliance with the triggered environmental and social safeguards policies as well as ensure that functioning grievance redressal mechanisms are in place for both GDIUTS and ILBANK and maintained throughout the project implementation period.

78. An MTR will be carried out at the mid-point of project implementation. In preparation for the MTR, an independent review of implementation progress will be carried out, including audits. Results will provide input to any potential revisions or restructuring at the time. MTR will cover, among others, review of the Results Framework, Systematic Operations Risk-Rating Tool, country ownership, stakeholder participation, FM, procurement processing, and sustainability aspects.



79. An Implementation Completion and Results Report (ICR) will be drafted by the Bank and the borrower within six months of project completion to satisfy accountability needs and provide lessons from completed operations. ICRs are tailored to enhance development effectiveness through a continuous process of self-evaluation, lesson learning and application, sharing of knowledge, and being accountable for results. The lessons learned from the ICR will improve the quality and effectiveness of similar WB operations, while borrower/stakeholder participation in the ICR process would inform design, preparation, and implementation of follow-up projects.

Implementation support plan and resource requirements

80. The following implementation support plan reflects the preliminary estimates of the skill requirements, timing, and resource requirements over the life of the project. Keeping in mind the need to maintain flexibility over project activities, the skill requirements may change over time to ensure that they continue to meet the implementation support needs of the project.

81. Implementation support will be provided in the form of direct support from the Bank team and additional consultants will provide technical assistance as needed. During the first year of the project, it is foreseen that frequent missions will take place to essential areas to support the GDIUTS and ILBANK in initiating activities. Table 1 indicates the level of input that will be needed from the Bank to provide implementation support for the proposed Project for the initial 12 months and the remainder of the project implementation period.

Table 1. Implementation Support Plan

Time	Focus	Skills Needed	Partner Role
First twelve months	<ul style="list-style-type: none"> • Support to; <ul style="list-style-type: none"> ○ the successful start of the project, ○ establishment of FM system, M&E system and grievance mechanisms in line with WB standards. ○ Launching of Component 2 activities 	All skills	<ul style="list-style-type: none"> • Task team to support smooth start up • Ensure safeguards are on track • Support PMUs • Ensure systems and processes in place to launch the on-lending program with commercial banks
12-48 months	<ul style="list-style-type: none"> • Ensure adequate implementation support for all aspects of project. • Ensure M&E measures are undertaken in accordance with planned activities. • Monitor implementation of project activities, including site visits. • Support to final evaluation and ICR. 	All skills	<ul style="list-style-type: none"> • Ensure ESF is on track • Support PMUs • Provide technical assistance

Table 2. Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leaders	56	18	International or Field-based Staff
Senior Urban Specialist	75	20	International or Field-based staff
Disaster Risk Management Specialist	75	20	International or Field-based staff
Environmental Specialist	28	7	International or Field-based staff
Social Specialist	28	Local travel as needed	Field-based staff



Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Procurement Specialist	50		Field-based staff
FM Specialist	20		Field-based staff
Technical Specialist (housing finance)	10	Local travel as needed	International and local consultants



ANNEX 3: Economic and Financial Analysis

COUNTRY: Türkiye Climate and Disaster Resilient Cities Project

A. Approach and Methodology

A dual approach was utilized to assess the economic efficiency for Components 2 and 3, which collectively account for over 95 percent of the project funding. For Component 2, portfolio-based approach was adopted that attempted to estimate the standard efficiency parameters, such as Internal Rate of Return (IRR), Financial Rate of Return, NPV, and BCR for expanding access to resilient housing. For Component 3, due to data limitations, a framework approach was employed based on methodology developed by the World Bank⁵⁸ that relies on the estimation of BCR using external coefficients in conjunction with local GDP data.

B. Project Costs

Project costs for Component 2 (expanding access to resilient housing) are estimated at US\$ 324.7million (equivalent of EUR 317 million) while Component 3 costs are estimated at US\$ 171.06 million (equivalent of EUR 167 million). The financial costs for both components amount to US\$ 495.76million (equivalent of EUR 484 million) against an economic cost of US\$ 406.26 million, where value-added tax and price contingencies have been removed.

C. Project Benefits

Two types of approaches were utilized in this cost-benefit analysis, where the principal difference was in the approach utilized toward estimation of the benefits. For the most part, Component 2 benefits consist of lives saved, property protected, and energy efficiency implications of reconstructed or retrofitted buildings. The principal benefits for Component 3 consisted of economic benefits in a larger sense (safety induced investment and economic activity), avoided human life loss and avoided damages and losses. The differences in approach were largely driven by data availability. Relatively speaking, there was more data to work with for Component 2 than for Component 3. Both types of analyses build on the widely recommended Triple Dividend of Resilience⁵⁹ approach to analysis which considers three types of benefits: (i) avoiding losses when disasters strike; (ii) stimulating economic activity as a result of reduced disaster risk; and (iii) development co-benefits, or uses, of a specific disaster risk management investment even if a disaster never materializes.

D. Cost-Benefit Analysis for Component 2 – Expanding Access to Resilient Housing

Methodology: A World Bank Policy Paper⁶⁰ identifies the key variables in a cost-benefit analysis for risk reduction efforts and states that calculation of the benefits and costs of such projects should include estimates and assumptions covering the following six elements: (i) strengthening/reconstruction costs, (ii) building reconstruction costs, (iii) the risk of a natural disaster (and of the scale of that disaster), (iv) the risk of damage if a natural disaster does occur, (v) the cost of that damage in both financial and human terms and (vi) the discount rate. This analysis follows the recommended approach while integrating the energy efficiency dimension. A short description on key parameters is provided below:

- a. Earthquake Probability. The analysis assumes earthquakes exceeding Mw = 7 have an annual exceedance

⁵⁸ S. Hallegatte, A Cost-Effective Solution to Reduce Disaster Losses in Developing Countries: Hydro-Meteorological Services, Early Warning, and Evacuation <https://openknowledge.worldbank.org/handle/10986/9359>

⁵⁹ <https://www.odi.org/publications/9599-triple-dividend-resilience-development-goals-multiple-benefits-disaster-risk-management>

⁶⁰ Charles Kenny, *Why Do People Die in Earthquakes?* The World Bank (WSP 4823)



probability of more than 2 percent for the selected hazard areas in Türkiye, which is consistent with World Bank data⁶¹ and international published literature.

- b. Project costs were used as reported in the PAD
- c. Energy Efficiency Data. Data on energy efficiency was extracted from seven energy efficiency audits in public buildings, which revealed that energy savings per annum would amount to 6.31 TOE/1,000 m², and carbon reduction would be 23.19 tons of CO₂ equivalent per 1,000 m² of gross retrofitting or construction area.
- d. Value of Lives Saved. To support analysis around actions to save lives, economists associate numerical estimate to the value of life.⁶² The VSL is widely used in World Bank-funded projects and other similar investments. The most recent VSL estimate provided by the United States of America (USA) Environmental Protection Agency is equal to about US\$10 million. The USA-based VSL estimate is then adjusted by the per capita GDP ratio in Türkiye and the USA, which results in the VSL estimate of US\$1.712 million in Türkiye.
- e. Fatality Rates. In the 1999 Marmara Earthquake 5,025 people died in Gölcük out of an estimated population of 80,000⁶³, translating into an average fatality rate of about 6 percent. However, mortality was as high as 30 percent in collapsed buildings. This Project prioritizes buildings that have the highest likelihood of sustaining serious damage or collapse in a subsequent event, which would likely have a much higher fatality rate. The analysis considers a conservative fatality rate of 6 percent.
- f. Discount Rate: The World Bank recommends that state-of-the-art economic analysis should link social discount rates to long-term growth prospects in the country and should be set at 6 percent as a general rule.

Table 1: Basic Design Parameters for Retrofits and Reconstruction

Component 2 - Basic Design Parameters for Retrofits & Reconstructions				
Description	Units	Retrofits (Strengthening)	Reconstructions	Totals
Component 2 Funding Allocation	EUR Million	317		
EUR to Dollar Exchange Rate	US\$/EUR	1.0243		
Component 2 Funding Allocation	US\$ Million	324.70		
Percent Share	Percent	10%	90.00%	100.00%
Budgetary Allocation for Construction	US\$ Million	32.47	292.23	324.70
CDRC Project Coverage per Unit Area	US\$/ m ²	149.20	373.00	N/A
Gross Floor Area to Intervene	m ²	217,629	783,466	1,001,095
Average Floor Area for Apartments	m ²	100	100	N/A
Average CDRC Project Coverage for an Apartment	US\$/Apartment	14,920	37,300	N/A
Number of Apartments Expected to be Intervened	Apartment	2,176	7,835	10,011
Number of Beneficiaries	3.2 person/apt	6,964	25,071	32,035
Additional assumptions and notes				
1. Component 2 covers the cost of detailed design, engineering, supervision and actual construction works. Excluded are temporary rental assistance or similar social support, and cost of land. All costs are inclusive of price and physical contingencies plus applicable VAT.				
2. Retrofitting CDRCP coverage per unit area is 40% of the coverage for reconstructions.				
3. Where the project coverage falls short of the full cost for retrofits or reconstructions, owners will finance the shortfall.				
4. CRRC Project coverage refers to the loan size offered to the beneficiaries through the financial intermediary.				

⁶¹ www.thinkhazard.org

⁶² Natural Hazards Unnatural Disasters, https://www.gfdrr.org/sites/gfdrr/files/publication/NHUD-Report_Full.pdf

⁶³ Safety Prioritization of School Buildings for Seismic Retrofit Using Performance Based Risk Assessment, <http://pubdocs.worldbank.org/en/950831559924776336/Safety-Prioritization-of-School-Buildings-for-Seismic-Retrofit-using-Performance-Based-Risk-Assessment-in-the-Kyrgyz-Republic-English-version.pdf>

Results and Discussion on Resilient Housing: The cost-benefit analysis for Component 2 shows that over the 25-year planning horizon the combined economic NPV is positive at US\$237.7 million with an ERR of 20 percent and a corresponding BCR of 2.17. These results show that the component interventions are economically viable and will benefit society by reducing economic losses associated with the damage to the housing units being intervened, as well as saving energy and reducing carbon emissions. For energy efficiency investments, the ERR is higher for the economic analysis at 24 percent, and 22 percent for the financial analysis, where the latter lower estimate is largely due to the preponderance of in-situ reconstruction (90 percent) over retrofitting (10 percent) in Component 2 and removal of carbon benefits in the analysis, as such benefits do not represent tangible returns to the concerned administrations.

Table 2: Summary of Cost Benefit Analysis for Component 2

Description	Economic Analysis			Financial Analysis		
	ERR (%)	E-NPV Mil US\$	BCR	FRR	F-NPV Mil US\$	BCR
Both SR and EE (with CO ₂)	20%	237.7	2.17	N/A	N/A	N/A
SR Only	19%	190.7	2.05	N/A	N/A	N/A
EE Only - With CO ₂	34%	45.3	3.31	N/A	N/A	N/A
EE Only - Without CO ₂	24%	28.7	0.88	22%	33.1	2.28

Note: SE = Seismic resilience, EE= Energy efficiency

Table 3: Sensitivity Analysis for Seismic and Climate Resilience

Scenarios Reviewed	VSL	Lives Saved	Discount Rate	EQ Annual Exceedance Probability	Planning Horizon	IRR	NPV	B/C Ratio
	US\$	person	percent	percent	years	percent	US\$ M	N/A
Base Case	1,712,000	1,025	6%	2%	25	19%	191	2.05
Case Without Building	1,712,000	1,025	6%	2%	25	18%	177	1.97
Case Without Lives Saved	1,712,000	0	6%	2%	25	-15%	(168)	0.08
Breakeven VSL	781,000	1,025	6%	2%	25	6%	0	1.00
Breakeven # of Lives Saved	1,712,000	475	6%	2%	25	6%	0	1.00

A sensitivity analysis and switching value analysis were carried out for the base case model involving seismic and climate resilience related investments to determine the impact of: (i) deleting physical assets in the calculations, (ii) deleting lives saved in the calculations, (iii) reducing VSL, and finally (iv) decreasing the number of lives saved. The analysis revealed that physical assets played a minor role in impacting the efficiency parameters, while the element of lives saved dominated and determined the outcome of the analysis. The switching value analysis revealed that the number of lives saved can be reduced from 1,025 to 475 while still earning 6 percent return on the investment. Likewise, the VSL can be reduced from US\$1.712 million per person down to US\$781,000 and still yield a return of 6 percent, which is the opportunity cost of capital assumed in this analysis.

E. Cost-Benefit Analysis for Component 3 – Investments in climate and disaster resilient municipal infrastructure

The World Bank has developed a methodology for estimating the benefit-cost ratios for Hydro-Meteorological Services, Early Warning and Evacuation Systems⁶⁴. The topic and approach seem to fit well for an analysis of the climate

⁶⁴ S. Hallegatte, A Cost-Effective Solution to Reduce Disaster Losses in Developing Countries: Hydro-Meteorological Services, Early Warning, and Evacuation



and disaster resilient investments under Component 3. The key advantage of using this framework is that it provides us with a lower and upper bound for avoidable climate-related losses, which can be mitigated through resilient investments. It is observed that an annual investment of one billion dollars would yield a minimum return US\$ 4 billion against a maximum of US\$ 35.5 billion (hence BCR of 4 to 36 as explained in the said study) involving three distinct categories of benefits: (a) reduced asset losses from disasters, (b) reduced human losses from disasters, and (c) other economic benefits. The classification of benefits is similar to the Triple Dividends Framework. It is exceedingly important to note that all the figures used (both cost and benefit) are annualized figures, hence all data were converted into an annualized basis before applying the analysis. A second important part of this exercise involves incorporating the anticipated operations and maintenance cost in the analysis as they pertain to the Project.

Project Benefits: Using the specific econometric coefficients proposed, the lower bound of Project benefits (for the three categories of benefits) was estimated at US\$ 41.74 million per annum, while the upper bound was US\$369.56 million per annum. This approach uses GDP as an anchor to quantify benefits, which amount to US\$ 245.55 billion for the five project provinces combined. One of the key assumptions is that reduced human losses (lives saved) were assumed to be equal to twice the value of avoided losses than being based on VSL as was the case with the resilient housing component.

Table 4: Avoided Asset Loss, Other Economic Benefits and Reduced Human Loss

Description	Units	Formula	Avoided Asset Losses	Other Economic Benefits	Reduced Human Losses	Totals	Comments on Operations
GDP	US\$ Million	GDP	245,554				Data
Total Potential (European Like)							
Lower bound (% of GDP)	percent	L	0.003%	0.025%			Assumption
Upper bound (% of GDP)	percent	U	0.017%	0.250%			Assumption
Calculation of Potential in US\$							
Lower Bound	US\$ Million	$A = GDP * L$	7.367	61.389			Calculation
Upper Bound	US\$ Million	$B = GDP * U$	41.744	613.885			Calculation
Assumed Ratio of Current to Potential	percent	E	50%				Assumption
Existing Benefits							
Lower bound	US\$ Million	$C = A * E$	3.68	30.69	7.37	34.38	Calculation
Upper bound	US\$ Million	$D = B * E$	20.87	306.94	41.74	327.81	Calculation
Potential Benefits from Improved Services							
Lower bound	US\$ Million	$F = A - C$	3.68	30.69	7.37	41.74	Calculation
Upper bound	US\$ Million	$G = B - D$	20.87	306.94	41.74	369.56	Calculation

Note: Reduced human losses are assumed to be twice as large as the avoided asset losses.

Source: Table reformatted and contents recalculated by WB staff using country data and Hallegatte's (op cit) method.

Supplementary Source: World Bank, Valuing Weather and Climate Change, Economic Assessment of Meteorological and Hydrological Services, where specific numerical values were extracted from Case Study 4 - pages 236-264.

<https://sustainabledevelopment.un.org/content/documents/1972Valuing%20Weather%20and%20Climate%20Change.pdf>



Calculation of Total Annualized Costs: Project costs were treated at two levels: investment and operations and maintenance, where the latter was assumed to consist of 10 percent of the accumulated investment cost over the planning horizon of 25 years. First, the Annualized Investment Cost was calculated, which represents the fixed dollar amount that would yield the NPV of the total investment package when discounted at the established discount rate. In this process, project investment costs duly converted into economic prices were spread over the six project years consistent with the projected disbursement profile, and the requisite operations and maintenance portion was then added. The next step involved estimating the annualized costs by using the Total Annualized Economic Cost (TAEC) concept in connection with the appropriate Capital Recovery Factor (CRF), which yielded US\$ 19.05 million per annum.

Table 5: Annualized Project Costs Inclusive of O&M Costs

Description	Units	Investment	Recurrent	Total
Estimated Unadjusted Economic Costs	Million US\$	133.64	295.05	428.69
Present Value of Costs at 6% OCC	Million US\$	106.78	136.75	243.53
Annualized Costs	Million US\$	8.35	10.70	19.05
Useful Life of Investment	Years	25		

Results and Discussion: Calculations show that the Component is highly likely to meet the Bank criteria for the ERR exceeding the hurdle rate of 6 percent and that the project NPV would be positive. While the higher end of the BCR is reportedly 19.40, it is unlikely to be achieved. The lower bound of the ERR is estimated at 2.19. Probabilistically, the true BCR would lie somewhere in between the upper and the lower boundaries. Hence, according to this limited analysis, the proposed investments under Component 3 appear to be a worthwhile undertaking. Although an ERR was not attempted, a BCR close to 2 is most likely representing an ERR in the vicinity of 20 percent.

Table 6: Estimated Benefit-Cost Ratios for Component 3

Type of benefits	Annual benefits (million USD)		Annualized Investment & O&M Cost (million US\$)	Benefit-Cost Ratio	
	Minimum	Maximum		Minimum	Maximum
Reduced asset losses from disasters	3.68	20.87	19.05	2.19	19.40
Reduced human losses from disasters	7.37	41.74			
Other economic benefits	30.69	307			
Total	41.74	369.56			

Annualized costs were estimated over the 25 years of planning horizon.



ANNEX 4: Overview of Urban Transformation in Türkiye

COUNTRY: Türkiye

Climate and Disaster Resilient Cities Project

1. **The MoEUCC oversees the overall Urban Transformation Program under the Law of Transformation of Areas under Natural Disaster Risk (Law 6306, Urban Transformation Law).** MoEUCC is the main institution in charge of urbanization and coordinating the climate change agenda in Türkiye. Its GDIUTS is in charge of supporting urban transformation initiatives in close coordination with TOKI and municipalities. The Government launched its Urban Transformation Program in 2012 with the objective to strengthen or replace (i.e., demolish and reconstruct) vulnerable residential buildings at high risks for earthquakes and other hazards through providing financial assistance to right holders with the enactment of the Urban Transformation Law.
2. **The Urban Transformation Law (no. 6306) and its Implementing Regulation regulate the principles for implementing urban transformation of risky buildings, risky areas, and reserve areas.** The main goal of the Law is to create healthy and safe living environments by ensuring the transformation of areas under disaster risk and the reinforcement, demolition and renewal of “risky” structures. “Risky Buildings,” are defined as structures that are inside or outside the risky area, have completed their economic life, or have a risk of collapse or severe damage, which is determined based on scientific and technical data. It should be noted that application of the owners or legal representatives for risky building identification is voluntary. The identification is made at their own expense. Within the scope of the law, the risky building detection process starts with the application of any of the building owners to the relevant licensed institution. “Risky Areas” are areas that could be subject to loss of lives or property during natural disasters due to local conditions, such as poor soil condition or inadequate structural condition of buildings. “Reserve Areas” are new settlement areas meant to absorb the displacement of people who must move from risk areas that cannot be upgraded due to their high exposure to natural hazards through the implementation of urban redevelopment in accordance with Law 6306. Risky areas are determined by the MoEUCC or municipalities and special provincial administrations. Reserve areas can be determined by MoEUCC, upon the request of TOKI or the Municipality, or independently. The proposed Project only finances the upgrading of housing and units in risky buildings and does not finance activities in risky areas or reserve areas.
3. **In accordance with the Urban Transformation Law, MoEUCC has established a Transformation Projects Special Account that collects funds from different sources to support financing of Urban Transformation Projects.** The yearly budget determined for the Transformation Projects Special Account is the ceiling for financial support to be disbursed for that year. The income sources for the Special Account are mainly as follows:
 - a) Fifty percent of environmental contribution and administrative fine revenue in the scope of Environmental Law.
 - b) Amount that corresponds to the rate determined by the President of the proceeds for the sale of land taken out of the forest under Article 2 of the Forest Law.
 - c) Fifty percent of the profit of activities performed under Article 3 of the Law on ILBANK A.S.
 - d) Ten percent of Revolving Fund Revenues of General Directorate of Land Registry and Cadaster.
 - e) Twenty five percent of Illegal Building Amnesty Revenues within scope of provisional Article 16 of Law No. 3194.
4. **Available financial assistance to households for the transformation of risky buildings includes fee exemptions, plus either an interest rate support or a rental subsidy.** All rights holders, which include anyone who directly owns land and/or a housing or commercial unit or rents such a unit in a risky building, are eligible for financial assistance. While all right holders benefit from the fee exemptions, they are only able to choose one subsidy – either interest rate support or



rental assistance. To date, most right holders have chosen rental subsidies rather than using loans for the renovation/reconstruction of their homes/workplaces, as market interest rates are generally high despite the interest support provided. In all cases, the retrofitted/remodeled units must adhere to the construction standards as defined in building codes and specified in the Turkish Building Earthquake Code.

5. **Fee exemptions.** Right-holders are exempt from any fees associated with transactions, agreements, transfers, and registries including implementations pursuant to the Law 6306 including notaries' fees, title deed fees, any fees collected by the municipalities, stamp tax, inheritance and succession tax, Banking and Insurance Transaction Tax (BITT), working capital charges and any other similar charges and fees.

6. **Interest rate subsidy.** This subsidy is provided in the form of a buy-down of the interest rate on a mortgage loan for retrofitting/reconstruction of residential or commercial units in risky buildings, i.e., the market interest rate is reduced by a specific number of basis points on loans up to a specified maximum amount. In addition, owners and tenants of units in risky buildings could also benefit from interest rate subsidy to buy a different unit in another resilient building. The buy-down subsidy is fixed for all loans and does not vary by loan amount or income level, which makes it simple to administer but does not provide the program with the flexibility to assist lower income households more than higher income households. The maximum term of loans with an interest rate subsidy is ten years for residential units and seven years for work-place units. The maximum subsidized loan amount is capped at TL 400,000 (TL 160,000 for retrofitting) or the equivalent of approximately US\$ 29,500⁶⁵ for one owner/one unit. If one owner has multiple units, the overall cap for all the subsidized loans is TL 2,000,000 or the equivalent of approximately \$147,493. The annual interest rate buy-down is currently 400 bp for housing and 300 bp for workplace units on the market interest rate. Moreover, if the retrofitted/reconstructed building achieves higher energy efficiency standards, an additional interest rate subsidy of 100bp is provided for a Class A Energy Certificate and an additional 50bp for a Class B Energy Certificate.

7. **Rental subsidy.** Owners of units in risky buildings are eligible for rent support for up to 18 months. Tenants who live in or run a business in a risky building can receive rent support in the form of a one-time payment of two months' rent. Limited real rights owners whose ownership is restricted in some way who have homes/workplaces located in a risky building can receive a one-time payment of five months' rent. Rental support has been the preferred choice of subsidy of right holders. Between November 2012 and November 2021, 440,697 right owners opted for the rental subsidy, totaling TL 4,383,198,997 (approximately US\$316,400,000). On the other hand, only 10,037 right holders have benefited from interest rate subsidies, totaling TL 165,025,013 (approximately US\$11,912,000). On average, over 96 percent of the subsidies provided by MoEUCC financed rental support. The Bank has assessed the government's rental subsidy program, which is quite generous compared to other countries (for the owners) and has identified gaps in compensation amounts for vulnerable tenants. This gap is being addressed for this Project through the MoEUCC Resettlement Framework and its entitlement matrix, including additional social support.

Urban Transformation Process for Risky Buildings

8. **The urban transformation process for risky building is usually a voluntary process that is initiated with an individual building vulnerability assessment by a licensed evaluator at the request of an owner per existing regulations under Law 6306, except for cases where buildings are deemed at risk of imminent collapse.** Any owner can request a building assessment by a licensed company or institution at any time if they are concerned about the safety of their building, but it is not mandatory. The right holders pay for this assessment from their own resources. The list of licensed institutions is shared in the Ministry's website and people can select from the list. The full process of assessment from

⁶⁵ 1 TL equals US\$ 0.074 or approximately 13,56TL per US\$ 1.00 as of February 2, 2022.



application to finalization is processed through an IT system operating in the e-government system of the Government. The building risk assessment report prepared by the licensed company/institution are submitted to the relevant MoEUCC Provincial Directorate (or the relevant Municipality in case the Ministry transfers its authority) for review. If the Provincial Directorate notes any deficiencies in the report, they return it to the licensed evaluator for necessary revisions. If the report is acceptable to the Provincial Directorate and deems the building as “risky”, this risk classification is reported to the Directorate of Land Registry within ten working days. The relevant land registry directorate puts a “risky building annotation” in the declarations section of the land registry of the property and notifies all owners of units in this building. Owners are requested to notify tenants and limited real right holders. Owners may appeal the risk designation of their building within 15 days of notification. The objection is assessed by the existing technical committee consisting of members from universities and Provincial Directorates, including four members from universities and three members from the Ministry (two civil engineers and one geology or geophysics engineer), to examine whether the risky structure identification report has been prepared in accordance with Annex-2: Principles Regarding the Detection of Risky Structures. In case of technical deficiencies in the risky building identification report, it may be sent to the licensed company or institution for necessary corrections, and after all the deficiencies in the report are corrected, the technical committee takes the final decision as to whether the building is risky or not. This final decision is notified to the objecting owner. In case the risk status of the building changes because of the final decision by the technical committee, this is also reported to the Ministry.

9. **Once a building is confirmed as risky, owners are granted a period of at least 60 days to reach agreement on how to transform their risky building.** The law requires that agreement on the reconstruction of the risky building be reached by at least two-thirds majority of the owners in proportion to their shares. If the building is not demolished after 60 days, the Municipality will make a notification granting an additional period of up to thirty days. At the end of this period, if the risky buildings are not demolished by the owners, the relevant institutions and organizations are requested not to provide electricity, water and natural gas to the risky buildings and to stop the services provided. At this point, after 90 days, municipalities have the right to forcibly evict people living in the risky building (at the cost of the owners), but this rarely happens in practice. In most cases, owners of a building that they think may be risky start negotiations with each other and with a developer well before even requesting the risky building assessment.

10. **The units/shares of opposing owners (i.e., up to 1/3 in case of demolition and reconstruction) are first offered for sale to the other owners in the building.** If other owners are not interested or there is no agreement, the Ministry is informed, and a property value assessment is done by a licensed appraiser. The second negotiation process starts internally in the building to ensure that other owners can buy these units at a price not less than the value identified by the licensed appraiser. If there is still no agreement, then these units are put up for auction and can be bought by third parties (e.g., developers) for a fair market price which cannot be lower than the value identified by the licensed appraiser. Opponents who feel they did not receive a fair price for their unit can submit complaints to the Ministry or go to the court. The developer cannot obtain a construction permit from the municipality unless opposing owners have been bought out and there is a management plan signed by all owners of a building (including share and location of unit). A construction permit is a requirement for owners to obtain a Project-financed loan.

11. **Law 6306 also allows the Ministry to support retrofitting of the risky buildings but does not include any guidance on how the agreement process between owners will be carried out.** Condominium Ownership Law (Article 19 and 20) has articles on this matter. Retrofitting of the building is initiated when 4/5 of the owners agree. Then all owners in the building must make a payment for the retrofitting as per their shares in the title deed.



ANNEX 5: Financial Intermediary Assessment for ILBANK

COUNTRY: Türkiye
Climate and Disaster Resilient Cities Project

ILBANK FI ASSESSMENT

1. **Because this Project includes FIF under Component 3, it requires an OP 10 FIF policy compliance review.** This review ensures that the Project does not contradict the World Bank Group's ongoing financial sector policy dialogue with national authorities and does not promote unsustainable practices. While state-owned development banks are often a feasible solution for addressing development needs and closing financing gaps, their setup and structure need to be tailored to the country's needs. Based on different country experiences, state-owned banks may be subject to corporate governance risk management and credit evaluation concerns.⁶⁶ However, ILBANK has demonstrated that it is a strong performing partner, these risks are not significant.

Summary of Findings and Recommendations

2. The Project complies with OP 10 FIF requirements in general, but there are important risks to mitigate:
- (a) A technical review finds that there are risks related to the financial sector (inflationary trends), foreign exchange volatility (with lending in local currency but sources of financing in hard currencies), and force majeure (natural disaster risk that would overwhelm a single municipal borrower). The final design should find transparent ways to allocate the risks to the actors in the best position to absorb them.
 - (b) A full-cost interest rate from ILBANK to participating utility should be in place, covering cost of funds, administrative expenses, minimal loan loss projections (given the built-in repayment mechanism through intercepts within intergovernmental revenue sharing system), and a minimal profit margin. As applicable, ILBANK should be encouraged to include a grace period (with interest paid but principal delayed initially) to facilitate timely repayment by the municipalities.
 - (c) Documentation of municipal borrowing and repayment would help municipalities to move to commercial sources of financing for revenue-generating investments in the future. The project should support ILBANK in setting up a repayment documentation system that creates a credit history for the participating municipalities.
 - (d) In a global sense, state-owned development banks can play an important role in addressing market gaps, they might also compete unfairly with commercial banks, crowd out private investment and mismanage public funds, according to a recent report highlighting the lessons from decades of the World Bank's experience in working with state-owned development banks in different countries.⁶⁷ During Project implementation, the task team should monitor this risk carefully and project funds should be used in line with Project activities.
3. **Macroeconomic situation.** Türkiye diverged from other countries by experiencing a very sharp economic rebound in the progression of COVID-19 with a real GDP growth of 11 percent in 2021. The expansion of the economy is set to decelerate to 2.3 percent in 2022—less than half the pace previously projected, as the drag from high inflation on private consumption more than offsets a sustained boost from net exports. The marked deterioration in the near-term outlook

⁶⁶ National Development Financial Institutions: Trends, Crisis Response Activities, and Lessons Learned

⁶⁷ National Development Financial Institutions: Trends, Crisis Response Activities, and Lessons Learned



also reflects weaker-than-expected investment owing to macroeconomic volatility and depreciation of the lira against the U.S. dollar. This combination of factors could make long-term lending unattractive to borrowers and lenders alike. Growth is then forecast to firm to only 3.2 percent in 2023, as the contribution from net exports fades and the recovery in domestic demand is held back by subdued investment.

4. **Financial sector situation.** While this Project component might not be directly affected by problems in the financial sector, financial statistics demonstrate the risks to lending in general. In order to scale up disaster risk mitigation efforts through private sector participation, the financial sector situation would be important. There has been a steep rise in provisions with the implementation of the IFRS 9 and the more cautious attitude of the banking sector due to recent fluctuations observed in the financial markets.

5. **Due diligence of retail institution (ILBANK).** The Government has named ILBANK as the sole lending institution, for on-lending project funds to qualified municipal governments for eligible projects. ILBANK is already working on Sustainable Cities Program and operates as the dominant player for lending to municipalities and local authorities. Market share pressure from commercial lenders remains limited if any due to competitive pricing coming from both ILBANK's not-for-profit business model and quasi-sovereign status. Intergovernmental institutional frameworks and municipal borrowing regulations in Türkiye define control and supervision. ILBANK is under the Ministry of Environment Urbanization and Climate Change, which plays a role in operational oversight. Public and financial sector supervision authorities oversee banking functions. A full review of ILBANK is found in project files. The due diligence review has detected only two areas in need of strengthening and the project will address them: (i) credit review and (ii) risk management policies, specifically related to timely enforcement of loan contracts.

6. **Interest rate on loans to municipalities.** ILBANK follows a pricing policy that is in line with its role in supporting the financing of public goods by municipalities. The basic tenet of the product policy is in line with the mandate to offer investment loans with longer maturities and lower interest rates than the comparable domestic market. However, ILBANK will document the costs and repayment results of the portfolio to provide information for private lenders to appreciate the potential market opportunity in the future. ILBANK typically lends on 5-year to 10-year terms for municipal services related to various projects and facilities that have been included in the national investment program. The longest maturity has gradually extended to 15 years, but the average maturity is still low. ILBANK offers Turkish lira loans are equity-funded and priced by taking market conditions in consideration.

7. **Municipality risks.** This Project covers five water utilities of Project metropolitan municipalities where ILBANK passes all currency risks to its sub-borrowers. These water utilities have their own public entity status and separate budget although they are part of the municipal sector. There is no hedging option available due to costs and administrative limitations. The substantial foreign exchange risks borne by the water utilities might create credit risk from ILBANK's perspective although these are somewhat mitigated by the long-term and amortizing repayment profile of foreign currency loans. Below is a summary of the financial profiles of the five water utilities based on data from their financial statements, publicly available reports, and third-party information:

- **Istanbul Water and Wastewater Administration (ISKI)**'s financial profile is underpinned by strong water tariff revenues drawn from a base of 6.6 million subscribers. ISKI generates a sound operating balance, which resulted in a solid operating margin of 45 percent in 2021, providing comfort both for debt service and part financing of hefty capital expenditure budget. Capital expenditure takes up an average of 40 percent of yearly total expenditure due to a large infrastructure investment portfolio. ISKI operated a budget deficit at 9 percent of total revenues, which was financed by limited level of local currency debt owed to domestic banks and public institutions; thus, the utility did not carry any foreign exchange risk as of end-2021.



- **Izmir Water and Wastewater Administration (IZSU)**'s revenue structure is mainly comprised of water tariff revenues generated from a total population of 4.5 million and approximately 2 million subscribers. The utility had a narrowed operating balance in 2021 with an operating margin of 11 percent, although it has slightly overachieved its revenue budget by 4 percent and kept its expenditure budget realization at 90 percent. Investments make up 30 percent of total expenditure and its financing requires a mix of local and foreign currency borrowing. At end-2020 IZSU foreign currency debt stood at an equivalent of EUR 57 million translated on foreign exchange rates as of that date, which presents a moderate level of foreign exchange risk and may potentially pose pressure on yearly debt service. It should be underlined that, over the last decade, IZSU has had good access to international financing both from development finance institutions and foreign private banks with medium to long-term maturities.
 - **Manisa Water and Wastewater Administration (MASKI)** was among the latest cohort of metropolitan water utilities -including its peers in Tekirdag and Kahramanmaras- to be established in 2014. It is thus serving an expanded municipal area, which was previously served by district municipalities. The utility has over 600 thousand subscribers with a significant rural characteristic given its large agricultural districts. MASKI's revenue is based on its water services along with central government tax transfers and generated an operating margin of 20 percent in 2021. Capital expenditure accounted for 35 percent of total expenditure and was partly financed by the operating balance as well as domestic debt. The utility did not have any foreign exchange debt as of end-2021.
 - **Tekirdag Water and Wastewater Administration (TESKI)** is serving 550 thousand residential subscribers in its metropolitan area with a population of 1.1 million, the utility also has an agricultural and industrial subscriber base. TESKI recorded a sound operating margin of 35 percent in 2021, comfortably covering its debt service and part of its investments. Capital expenditure accounted for 34 percent of total expenditure and the utility operated with a surplus before financing in 2021. Financial debt was sourced entirely from ILBANK and domestic banks with no foreign liabilities.
 - **Kahramanmaras Water and Wastewater Administration (KASKI)** serves approximately 450 thousand subscribers split between two central districts and nine provincial districts in the province. In 2020 the utility recorded an operating margin of 21 percent, which partly financed investments accounting for 25 percent of total expenditure. The utility had a modest foreign exchange debt stock at an equivalent of EUR 0.5 million, although it prepares to use additional foreign financing under the Municipal Services Improvement Project (P169996) under FRIT II agreement signed in 2021.
8. **M&E.** Based on this FIF assessment, intermediate indicators have been added to the project Results Framework to measure both the portfolio quality and profitability of ILBANK. Also, a team member from the Finance, Competitiveness, and Innovation Global Practice of the Bank is included in the project team, in addition to the team financial sector consultant, to provide timely technical assistance in credit line management and risk mitigation.



ANNEX 6: Anticipated Climate Change Mitigation and Adaptation Benefits of the Project

COUNTRY: Türkiye Climate and Disaster Resilient Cities Project

1. **Observed and anticipated climate change impacts, such as more intense precipitation, drought, extreme heat, and rising sea levels, are expected to increase the frequency and severity of such disasters**, including flooding in coastal cities and low-lying areas of river deltas and other extreme weather events, such as storms, hail, and tornados.⁶⁸ The 2021 floods resulted in at least 81 human deaths, 228 injured, about 2,500 evacuees and at least 454 buildings significantly damaged. Floods destroyed 6 bridges, tore down trees and cut off electricity to hundreds of villages. For coastal cities, flooding will not only be an increasing threat to human life, but economic losses are projected to increase as well. A conservative projection of a 20 cm sea level rise, with no adaptation measures taken, would increase the mean annual disaster losses for Istanbul from US\$13 million to US\$327 million, a 40 cm increase to US\$1.746 billion. In Izmir, the losses would increase from US\$7 million to US\$314 million and US\$997 million respectively.⁶⁹ At the same time, increasing water scarcity is a concern in many areas of Türkiye with periods of drought threatening urban water supplies. The severe 2021 forest fires in southern and western Türkiye resulted from severe droughts combined with the hottest heatwave in the country since 1961. The fires destroyed 126,000 hectares of forest⁷⁰ and caused nine deaths and several injuries due to smoke inhalation, with tens of thousands of people evacuated from the area.⁷¹ As a result of rising temperatures and extreme variability in rainfall and increased heatwaves, both flooding and wildfires are likely to become more frequent with implications on cities, agriculture, and tourism. Increased incidence of forest fires and decreased rainfall for hydropower, in turn, may further contribute to Greenhouse Gas (GHG) emissions in the future.

2. **Climate change projections predict a steep increase in energy consumption for cooling in Türkiye's cities, especially in western and coastal cities.** Under a moderate RCP4.5 climate model scenario, the mean temperature throughout Türkiye is projected to increase by 2°C by 2040, and up to 4°C during summer months by 2070. In spring and summer months, the greatest increase in temperature anomalies may be seen in western Türkiye, where the country's large coastal metropolitan areas are located.⁷² This will have effects on cooling needs, most of which will likely negatively impact energy consumption and contribute to GHG emissions. In urban areas, increased cooling of buildings adversely generates more exhaust heat and can perpetuate the urban heat island effect.⁷³ In the context of climate change, incorporating energy efficiency and renewable energy measures into retrofitting of existing buildings or construction of new buildings will be important for reducing pressure on power grids, the urban heat island effect, GHG emissions, as well as improving human health and resilience, including to climate change related heat and cold shocks.

3. The following table highlights how Project components are anticipated to contribute to climate change mitigation and adaptation:

⁶⁸ Republic of Turkey Ministry of Environment and Urbanization (2018), Seventh National Communication of Turkey under the UNFCCC. Ankara: Ministry of Environment and Urbanization.

⁶⁹ Hallegatte, S., Green, C., Nicholls, R. J., Corfee-Morlot, J. (2013), Future flood losses in major coastal cities. *Nature climate change*, 3(9), 802-806.

⁷⁰ European Forest Fire Information System

⁷¹ <https://www.fitchratings.com/research/international-public-finance/turkey-wildfires-push-up-spending-by-affected-municipalities-23-08-2021>

⁷² Republic of Turkey Ministry of Environment and Urbanization (2018), Seventh National Communication of Turkey under the UNFCCC. Ankara: Ministry of Environment and Urbanization.

⁷³ IEA (2018), The Future of Cooling, IEA, Paris <https://www.iea.org/reports/the-future-of-cooling>



Description of financed activities	Anticipated GHG mitigation CCBs	Anticipated Adaptation CCBs	Amount (Mio. Euro)
Component 1: Institutional strengthening to enable conditions for urban resilience (EUR 6 million)			
Technical support to strengthen capacity of MoEUCC and selected local authorities to prepare, implement, and monitor resilient, green, and inclusive urban transformation programs	Strengthening the technical capacity of participating public agencies and local authorities by (i) preparing municipal urban transformation strategies, (ii) improving systems and procedures, (iii) implementing training and knowledge sharing activities, and (iv) providing technical support to owners interested in resilient housing loans, all of which consider green measures such as enhancing energy efficiency in buildings, promoting the integration of energy efficiency measures into resilient housing design and use of green, nature-based solutions that reduce urban heat island and absorb air pollution, including GHGs.	Strengthening the technical capacity of participating public agencies and local authorities by (i) preparing municipal urban transformation strategies, (ii) improving systems and procedures, (iii) implementing training and knowledge sharing activities, and (iv) providing technical support to owners interested in resilient housing loans,, which integrate climate and disaster resilience measures such as city-wide multi-hazard mapping (i.e. flood, landslides, drought, heat) to inform spatial plans and investment prioritization, guidance to improve enforcement of the building codes to improve climate resilience, enhance use of green, nature-based solutions that enhance resilience to urban flooding and urban heat island effect and improve preparedness to future climate change induced emergencies.	6
Component 2: Expanding access to resilient housing (EUR 317 million)			
Expanding access to financing for resilient and energy-efficient residential and mixed-use buildings	Provide financial incentives and technical support to invest in higher energy efficiency measures as part of risky building retrofitting or reconstruction, such as: (i) energy-efficient insulation, improved lighting, modern and efficient heating and cooling systems; (ii) exploration of rooftop solar and other renewable energy solutions. Awareness and knowledge on sustainability and energy savings will also be increased among commercial banks and owners that provide/access loans, as well as contractors.	Provide greater access to affordable financing for retrofitting or reconstruction of risky residential buildings. Enhance climate resilient and energy efficiency design and code enforcement for retrofitted residential buildings. Residential buildings will be strengthened (roofs, walls) to withstand storm events (snow and wind loading), as well as improved to ensure functionality during extreme heat and cold events – which are expected to increase with climate change. Fire safety within buildings will also be increased.	317
Component 3: Investments in climate and disaster resilient municipal infrastructure (EUR 167 million)			
Storm water drainage/flood management	Creation of permeable and green public spaces along stormwater drainage infrastructure help absorb heat during extreme heat events, reduce the urban heat island effect and therefore energy demand for cooling.	Construction or rehabilitation of stormwater, drainage, and flood management systems in consideration of extreme weather events and flooding.	62
Water and	Improved wastewater systems and	Construction or retrofitting of resilient water and	105



sanitation systems and treatment plants	treatment plants that would contribute to GHG reductions.	wastewater systems and treatment plants. Design and engineering will consider site specific climate risks and structural strengthening for extreme weather-related events, including extreme rain, snow, wind, heat and fire.	
Component 4: Project Management, monitoring, and evaluation (Euro 10 million)			
4a: Project Management for component 1, 2 and 4 (MoEUCC)	Support climate mitigation	Support climate adaptation	7.5
4b: Project Management for component 3 (ILBANK)	Support climate mitigation	Support climate adaptation	2.5
Component 5: Contingent Emergency Response Component			
Contingent emergency response activities in case of activation	N/A	N/A	0

