



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 07-Dec-2020 | Report No: PIDC30932

**BASIC INFORMATION****A. Basic Project Data**

Country Turkey	Project ID P175894	Parent Project ID (if any)	Project Name Seismic Resilience and Energy Efficiency in Public Buildings Project (P175894)
Region EUROPE AND CENTRAL ASIA	Estimated Appraisal Date Apr 05, 2021	Estimated Board Date Sep 16, 2021	Practice Area (Lead) Urban, Resilience and Land
Financing Instrument Investment Project Financing	Borrower(s) Republic of Turkey	Implementing Agency Ministry of Environment and Urbanization, General Directorate of Construction Works	

Proposed Development Objective(s)

The proposed Project Development Objective (PDO) is to enhance the seismic safety and resilience, and to improve the energy efficiency performance, of central government buildings in Turkey

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	200.00
Total Financing	200.00
of which IBRD/IDA	200.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	200.00
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Environmental and Social Risk Classification

Concept Review Decision



Moderate

Track I-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

Turkey is a large, upper-middle-income country with a strong record of inclusive growth, but recent shocks are risking the economic and social gains made since the early 2000s. Turkey 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) in 2007-2009, rapid growth continued but was increasingly associated with stagnant productivity, a rising current account deficit and growing foreign exchange-denominated debt stock.

Economic vulnerabilities that had accumulated over the past 4 years came to a head in mid-2018. Policy stimulus in the aftermath of the 2016 failed coup attempt led to economic overheating which came at a cost of double-digit inflation and a large current account deficit. A hardening of external economic conditions in mid-2018, together with tense international relations, led to a collapse in the Lira. This triggered a downturn in the Turkish economy as spending fell, inflation spiked, and the corporate sector struggled under an elevated debt burden. Turkey experienced three quarters of negative growth from late 2018 to mid-2019, close to one million jobs were lost, and unemployment rose from 10 percent in January 2018 to 13.8 percent by January 2020. GDP per capita has fallen to US\$9,000, from a high of US\$12,500 in 2013, while poverty reduction progress stalled in 2018.

An emergent economic recovery starting late 2019 has been undermined by the COVID-19 pandemic. Over the course of late 2018 and 2019, the country's economy went through significant adjustments. Current account imbalances declined sharply, 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, and GDP growth was projected to accelerate to 3 percent in 2020. However, with the onset of the COVID-19 pandemic, the outlook for 2020 has deteriorated considerably.

The COVID-19 health crisis quickly turned into a deep economic shock. The economy faced combined shocks of lower demand, activity restrictions, and supply chain disruption due to the pandemic. This caused a contraction of GDP by 9.9 percent (yoy) in 2020Q2, the most in over a decade. On the demand side, external trade and finance collapsed as the global economy pulled down its shutters. Private consumption and investment contracted significantly along with collapse in domestic demand. On the supply side, declining demand and containment measures led to business shutdowns and loss of cashflow and interruptions to domestic and international trade disrupted supply chains and production. The services sector was also not spared from contraction with closure of hospitality businesses, declining demand for transport, and others. The combination of all this negatively impacted the labor market. More than 2.5 million people left the labor market and employment contracted by 6.5 percent in May 2020 compared to the end of 2019.

The policy response helped to cushion the blow for businesses and households but exacerbated the vulnerabilities in



the economy. The Central Bank raised liquidity and lowered interest rates to well below the prevailing inflation rate. The banking regulator introduced flexibilities that enabled public banks to extend credit to some of the most affected parts of the economy. On the fiscal side, the authorities provided support to households by extending social assistance, and to businesses mostly through tax reliefs. Short term work allowance and unpaid leave support have been provided to prevent massive layoffs and employment losses. However, the monetary policy response exacerbated the existing vulnerabilities with renewed pressures on the current account, consumer prices and the currency. Efforts on exchange rate stabilization in a time of massive capital flight led to a sharp fall in reserves net of short-term drains. The economy is expected to rebound in the second half of the year, but GDP is still projected to contract by 1.8 percent in 2020, led by the massive deterioration in the current account, lower consumption on the demand side, and declines in both services and manufacturing output. The pace of recovery beyond 2021 will depend on the duration of the pandemic, the availability and distribution of a vaccine and restoration of international trade and investment flows.

Sectoral and Institutional Context

Long term sustainable growth in Turkey requires a reduction in the physical, social and economic shocks associated with geophysical and climate disasters with a commensurate reduction in greenhouse gas (GHG) emissions and energy intensity. Buildings with the greatest vulnerability to disasters are typically energy inefficient, as these buildings pre-date modern building codes, which is the case for a vast number of public and private sector buildings in Turkey. As such there are significant time and cost efficiencies that can be generated by integrating structural strengthening and energy efficiency improvements. This has been tested in various Bank projects in Turkey and the Europe and Central Asia region, wherein energy efficiency projects will include some structural improvements of buildings, especially in roofs, or in seismic reduction projects that include energy efficiency measures alongside strengthening measures. However, there is an urgent need to demonstrate the value of integrating resilience and energy efficiency at scale in the buildings across Turkey and the broader ECA region.

Energy efficiency is critical for Turkey to sustain its economic growth while meeting its commitments for climate change and environmental sustainability. Turkey's energy intensity (that is its energy use per unit of GDP, or 0.12 toe/2010 US\$1,000 of GDP in 2016) was slightly higher than that of OECD countries (0.11) and EU countries (0.07 to 0.10) and compares favorably with many of its neighboring countries in Eastern Europe and the Balkans. However, as energy use per capita in Turkey rises (from its current 1.5 toe per capita compared with 4.2 in OECD countries), its energy intensity is expected to grow. This high intensity negatively impacts energy security—Turkey's energy imports have increased in recent years, from US\$37.2 billion in 2017 to about US\$43.0 billion in 2018, and it accounts for almost 19 percent of the country's total imports. It also has a negative impact on the environment, with the energy sector accounting for 72.2 percent of the country's GHG emissions in 2017.

The government has recognized the importance of energy efficiency (EE) as evidenced by its inclusion in various policy documents. These include the Energy Efficiency Law (2007), Secondary legislation on Energy Performance of Buildings (2009), Electricity Market and Security of Supply Strategy (2009), the National Climate Change Strategy (NCCS, 2010-2020), the National Climate Change Action Plan (NCCAP, 2011-2023), the Energy Efficiency Strategy (2012) and the successive Energy Efficiency Action Plan (2016). The National Energy Efficiency Strategy of 2012 calls for a 10 percent reduction in energy intensity across all sectors, and the National Energy Efficiency Action Plan (NEEAP), approved in January 2018, calls for US\$11 billion investment in energy saving measures to reduce consumption by 23.9 million tons equivalent petroleum (14 percent) by 2023. In 2016, the Ministry of Energy and Natural Resources (MENR) commissioned a study to assess the potential for energy efficiency¹ in public buildings. This study estimated that there are about 175,280 public buildings in operation across the country. At least 5% (or more than 8,500 buildings) are likely to be central government or affiliated,

¹ Under the World Bank-GEF Small and Medium Enterprise Energy Efficiency Project.



requiring US\$1.8 billion of investment approximately to increase the energy efficiency.

Exposure and vulnerability to natural hazards, including earthquakes, landslides, and floods also threaten sustainable development in Turkey. Among these disasters, earthquakes have claimed the highest number of lives and caused the greatest economic loss, with 76 earthquakes since 1900 resulting in approximately 90,000 fatalities, a total affected population of 7 million, and direct losses exceeding US\$25 billion². About half the casualties were due to two earthquakes on the North Anatolian Fault in 1939 and 1999. In the 1999 Marmara earthquakes, which affected 10 cities³ in the Marmara Region of Turkey where almost 35 percent of the Turkey's GNP was produced, the death toll was over 18,000 with a direct economic impact estimated at US\$5 billion (2.5 percent of GNP). Although less catastrophic, floods and landslides are frequent events in Turkey and result in localized losses. Observed and anticipated climate change impacts, such as more intense precipitation, extreme heat and rising sea level, are expected to lead to increasing risks to natural disasters, including more frequent and intense flooding in low-lying areas of river deltas and coastal cities and other extreme weather events⁴.

The most recent major earthquake (magnitude 6.9) occurred on October 30, 2020 in the Aegean Sea and severely impacted the region of Izmir, which is the third largest urban area and economic hub in Turkey. A rapid damage assessment conducted by the World Bank⁵ estimated a preliminary economic loss exceeding US\$900 million (or equivalent of 0.12% of the Turkish 2019 GDP), from direct damage associated with the event. The City of Izmir suffered disproportionately from this event, with 17 multi-story buildings collapsed, 500 to 1,000 buildings damaged beyond repair, and 116 fatalities. More than 5,000 buildings suffered light structural damage and damage to non-structural features, and the impact on critical infrastructure is still being assessed. Moreover, moderate to heavy damage for 36 public buildings and 32 schools is reported. Strong amplification of ground shaking due to local geological conditions, as well as poor code compliance, and poor construction quality for these buildings (many of which were constructed in 1990s), are strong contributing factors to the level of damage⁶. Buildings constructed after 2000, according to the code, performed well in this earthquake.

Turkey has enacted regulatory and institutional reforms to reduce seismic risk, often in response to major disaster events. Over time, these revisions have resulted in a strong regulatory framework for seismic resilient design and construction of buildings and infrastructure and improved supervision and enforcement of the regulations. The most recent probabilistic seismic hazard map of Turkey was finalized in 2016 under the leadership of AFAD⁷ who also revised the standing earthquake code in 2016⁸. Endorsed by the decision of the Cabinet of Ministers (dated January 1, 2019), this seismic hazard map of Turkey provides a consistent and official measure of the seismic hazard across the country and will facilitate mainstreaming of seismic risk reduction investments. However, despite these advances, Turkey has millions of buildings that were constructed prior to 2000 when the modern seismic codes were introduced in Turkey. Under the Disaster Risk Management in Schools Project (P157683) and broader government safer school program, the seismic risk in primary and secondary schools will be addressed over the coming decade.

In parallel to regulatory and policy enhancements, Turkey has been taken key steps to improve the energy efficiency

² Erdik, M. (2013), Earthquake Risk in Turkey, Science Mag, Vol. 341, Issue 6147, pp. 724-725, DOI: 10.1126/science.1238945

³ Kocaeli, Sakarya, Yalova, Istanbul, Bursa, Bolu, Eskisehir, Duzce, Karabuk, and Zonguldak.

⁴ IFC & EBRD, (2013), Pilot Climate Change Adaptation Market Study: Turkey

⁵ M 6.9 Aegean Sea Earthquake – Impact on Turkey: Global Rapid Damage Estimation (GRADE) Report

⁶ Erdik, M., Demircioğlu, M. B., Cüneyt, T., 2020, Forensic analysis reveals the causes of building damage in Izmir in the Oct 30 Aegean Sea earthquake, Temblor, <http://doi.org/10.32858/temblor.139>

⁷ Disaster and Emergency Management Presidency

⁸ The objective of the revised code is to establish minimum structural performance and design standards for public and private building stock which is in full or in part exposed to seismic risk and which are considered to be rebuilt, retrofitted, renovated and/or expanded.



and seismic safety and resilience of public buildings. The government highlighted energy efficiency as a key component of its energy security strategy in its 10th and 11th Development Plans and the Ministry of Environment and Urbanization (MoEU) was mandated in the 11th Development Plan to take key actions to reduce seismic risk in public buildings. In line with this ambition, MoEU and the Bank launched the Turkey Energy Efficiency in Public Buildings (EEPBP) Project (P162762) in 2019. This Project aims to reduce energy use in central government buildings and inform the development of sustainable financing mechanisms to support a scaled-up, national program for energy efficiency in public buildings. In order to demonstrate the potential energy savings and potential payback of energy efficiency, all buildings under this Project must be assessed as structurally and seismically safe⁹ to be eligible for investment. Buildings found to have structural deficiencies are not eligible for financing under the EEPBP. In parallel, the MoEU initiated the development of an inventory of public buildings (Public Structures Inventory System, KAYES) to identify seismically vulnerable buildings that need strengthening¹⁰. The MoEU anticipates conducting field investigations between 2020 and 2023 to populate the KAYES database, and to use this information to develop a national prioritized program of structural strengthening in public buildings.

While the EEPBP is expected to improve the energy efficiency of more than 600 public buildings, assessments have revealed at least 481 central government buildings constructed prior to 2000 that have been identified as requiring seismic retrofitting or reconstruction that cannot benefit from EEPBP. These government buildings include 320 education facilities, 100 hospitals and 61 essential administrative buildings. Moreover, through the new data collected under the KAYES Project, many critical more buildings are being identified as requiring both energy efficiency and seismic strengthening. These buildings may also require other functional improvements to reduce building fire risk, improve universal access etc.

The proposed Seismic Resilience and Energy Efficiency in Public Buildings Project (SREEPBP) will promote a strategic national approach to increasing energy efficiency and seismic performance in public buildings through an integrated approach which can be scaled towards addressing challenges in the rest of the building vast stock in Turkey. Such an approach is expected to yield the following benefits: (i) reduction in total construction cost through shared labor¹¹ and complementary concurrent investments; (ii) sustainability of energy efficiency improvements through the building lifetime and payback period by ensuring investment in earthquake resistant buildings¹²; (iii) functional upgrades such as autonomous energy (e.g. solar panels), which are crucial to ensure energy supply and continuity of service in the aftermath of an earthquake where energy service can be disrupted for days or weeks; (iv) upgrade to roofs associated with energy efficiency which can increase the performance of building during an earthquake (e.g. minimizing damage to non-structural elements) and in storm events; (v) assessing the full economic case for building improvement versus demolishing and rebuilding; and (vi) minimizing disruption to building occupants and government services. Approaches developed under the operation would be shared with other line ministries, municipalities, etc. to build awareness and expertise in such

⁹ A building was considered structurally and seismically safe in the EEPBP project (P162762), if: (a) the construction permit for the building was issued in or after January 2000; or (b) for buildings whose construction permit was issued before January 2000, the building is officially assessed by a civil engineer (registered with the Turkish Chamber of Civil Engineers) as structurally and seismically safe, and such assessment has been accepted by MoEU (recognizing that should a building be assessed as not structurally and seismically sound, the related structural works to address such deficiencies may be added to a Subproject only if the total cost of the renovations have a payback period of under 12 years.

¹⁰ The system is being developed in collaboration with the Hacettepe University, Gazi University and Middle East Technical University. The database supports the identification of public buildings at seismic risk by collecting data on the building age, structural system, use, requirements for further structural analysis for potential retrofitting etc.

¹¹ The World Bank analysis “Reducing earthquake risk in large panel multifamily buildings” in Bulgaria (P164887) indicated that over 50 percent of the cost for the energy efficiency improvements relates to labor. Such a cost can be shared and further optimized if integrated with seismic strengthening.

¹² The on-going EEPBP project in Turkey (P162762) will target a minimum energy savings of 20%, with a maximum simple payback period of 12 years. Considering the high frequency of damaging earthquakes in Turkey (1 event every 1.5 years on average), seismic events are likely to occur during that period, even more so during the lifecycle of the buildings. Therefore, adequate seismic performance of structures is crucial to justify the long-term return on investment for energy efficiency works



efforts, and used to help develop capabilities among market actors (energy auditors, technical designers and architects, construction firms, etc.) on the benefits of these dual objectives during renovations.

The benefits, which are expected to be gained from applying the combined approach on increasing energy efficiency and seismic performance of the public buildings, are well established in Turkey and internationally. For example, one of the main lessons learnt from the “Seismic Risk Mitigation Project in Istanbul” Project (ISMEP, P078359) was that functional and energy efficiency upgrades improved the quality of the learning environment in the schools, and health service delivery in the hospitals. Performing these upgrades in conjunction with seismic retrofitting was vital to build support among beneficiaries and stakeholders for the risk reduction intervention. Moreover, in the current COVID-19 pandemic the safety of hospitals has been tested, with hospitals in Croatia and Turkey damaged in 2020 earthquakes and with a November 2020 building fire in a COVID-19 ward in a hospital in Romania highlighting the need for investments in fire safety.

Relationship to CPF

The proposed SREBPB project is aligned with the World Bank Country Partnership Framework (CPF)¹³ for Turkey for the FY18-21 period and with the objectives of Turkey’s 11th Development Plan (2019–2023). The CPF sets out the overall objective of supporting Turkey in achieving more sustainable and inclusive development by focusing on growth, inclusion, and sustainability dimensions. The proposed Project contributes to Focus Area 3: Sustainability, with significant contributions to Objectives 8 and 9, and some contribution to Objectives 6 and 7. Objective 8 focuses on the improved sustainability and resilience of cities, and this Project will improve the seismic and broader disaster resilience of key public buildings. These investments contribute to life safety, continuity of critical public services, and provide a demonstration of resilient public buildings. Through deepening energy efficiency investments in Public Buildings, this Project substantially contributes to Objective 9: Increased Sustainability of Infrastructure Assets and Natural Capital. Under Objective 7: Improved reliability of energy supply and generation of green energy, the Project will provide support to renewable (such as solar) energy initiatives. The Project also contributes to decrease energy consumption which supports Turkish energy independence. The support to education and health buildings under the Project also contributes to Objective 6 around the strengthened performance of the education and health sectors.

C. Proposed Development Objective(s)

The proposed Project Development Objective (PDO) is to enhance the seismic safety and resilience, and to improve the energy efficiency performance, of central government buildings in Turkey

Key Results (From PCN)

- a) Number of people benefiting from public buildings made resilient to seismic and disaster risks;
- b) Projected lifetime energy savings from energy efficiency (EE) investments in central government buildings; and
- c) Percentage of project beneficiaries reporting an improvement in building safety and comfort level (disaggregated by gender)

Other intermediate indicators could include: associated CO2 emissions reductions as a result of the energy savings;

¹³ Report number 110906, July 28, 2017



number of buildings renovated for seismic and disaster safety and EE; budgetary savings from EE investments; number of staff trained on EE/disaster resilience (MoEU, line ministries, design/construction firms, disaggregated by gender); increase in the availability of structural vulnerability assessments of public buildings; development of long-term and prioritized investment plans to reduce seismic risk in public etc.

D. Concept Description

The Project will be supported by a US\$200 million IBRD Investment Project Financing (IPF) loan, with US\$3-5 million in-kind contribution from MoEU. The Project would support improvements in seismic and disaster resilience and energy efficiency of central government and central government affiliated buildings through retrofitting and renovation or demolition and reconstruction. It is anticipated that the Project will support interventions in education buildings (pre-primary and tertiary)¹⁴, dormitories, hospitals and public administrative buildings. Buildings will be identified through the Energy Efficiency in Public Buildings Project (P162762) and the national database (KAYES) of public buildings, which can then be prioritized based on seismic risk and energy efficiency needs.

The Project is expected to include three components: (i) investments in central government buildings for seismic strengthening and improvement of EE; (ii) project implementation support and TA; and (iii) Contingent Emergency Response Component (CERC).

Component 1. Investments in central government buildings for seismic strengthening and improvement of EE

Under this component, MoEU would support the renovation of central government and central-government affiliated buildings (i.e., public buildings under central line ministries, such education facilities, dormitories and hospitals). The number of beneficiaries protected from earthquakes and other disaster events would be maximized by implementing appropriate, cost-effective structural retrofitting, energy efficiency improvements and as necessary other functional improvements. In cases where it is deemed economically unviable to retrofit and renovate a building, the Project could finance the demolition and reconstruction of new buildings¹⁵. It is expected that subprojects will generate demonstrable energy cost savings and life safety benefits and will provide a basis for a scaled up national program aimed at seismic and disaster resilience and energy efficiency in Turkish public buildings.

It is expected that this Project will support intervention in approximately 150 public buildings¹⁶. The identification and prioritization of buildings for inclusion in the Project would be based on buildings assessed under the EEPB Project and on data the Turkish KAYES database, which covers more than 100,000 public buildings. Some economies of scale are expected to be achieved through focusing on campuses or sites with multiple buildings, such as hospitals, universities and vocational schools. The procedures for identifying, prioritizing, and selecting the buildings (including eligibility criteria) as well as the definition of eligible investments will be developed through preparation and described in the Operations Manual (OM). Based on international best practice, a robust and objective prioritization is expected to be based on level of seismic hazard, building structural characteristics (construction year, number of stories, structural system), number of occupants/building users, service provision of the building¹⁷, and the criticality of building operation during a disaster¹⁸.

¹⁴ Through a parallel Project – Disaster risk Management in Schools (P157683), the Bank is supporting disaster resilience and energy efficiency interventions in primary and secondary schools under the Ministry of National Education.

¹⁵ These new buildings may be constructed on the same site, or at an alternative location. In the case of buildings such as hospitals it may be more efficient and less disruptive to construct a new hospital on a new site and then demolish the old building, rather than temporarily relocating patients and medical services during construction.

¹⁶ Depending the types of structural strengthening required, floor area space, and the types of buildings the total number of buildings could range from 50-250. A higher number of hospitals included in the Project is expected to result in fewer buildings as these buildings are typically very expensive to retrofit/renovate and in many cases its more efficient to demolish and rebuild.

¹⁷ For example, the number of citizens served by a hospital or administrative service.

¹⁸ The criticality of a building may be related to its function in emergency response, such as the emergency department of a hospital or buildings that



The prioritization method will be applied to a longlist of buildings during preparation to develop necessary results indicators and to support economic analysis. Moreover, based on this analysis, an indicative subproject pipeline of 50 buildings is expected to be identified for Year 1.

This component will finance energy and structural audits, technical design and supervision consultancies and civil works contractors. Depending on the outcomes of the design services, recommendations to improve structural safety may include improvement of soil conditions and the building foundation, local or global strengthening solutions¹⁹. Strengthening of roof components may also be needed to improve energy efficiency and would also increase resilience to storm and strong wind. The Project would seek to ensure minimum energy performance of renovated buildings (i.e., Turkish Class C energy performance certificates or higher) and a minimum energy savings which would be specified and agreed in the Project Operations Manual. Architectural, mechanical, electrical renovations and some renewable energy systems (e.g., rooftop solar panels, geothermal heat pumps, solar water heaters) would also be included, subject to their economic viability.

Component 2. Implementation support and technical assistance

This Component supports two objectives: a) development of the foundations for long-term investment in seismic and disaster resilience in public buildings and increased energy efficiency; b) Project implementation support by the PIU.

Foundations for Long Term Investment in Public Buildings. It is estimated that there are around 175,000 public buildings in Turkey, of which at least 5% are central government or affiliated buildings. While this Project supports intervention in a modest approximately 150 public buildings, it is expected to generate significant learning and support for the Government to support scaling up of investment for the other ~8,000 central government buildings. Under this subcomponent, the following activities are envisaged: i) establishment of an advisory board of national experts to provide technical advice to the PIU; ii) preparation of guides or design templates to support scaled approaches; iii) development of case studies to document investment costs, measures implemented, and lessons learned; iv) support for updating regulations related to building renovations; v) comprehensive training program for building renovations for design/construction firms; and vi) data collection and investment planning through expansion of the KAYES system.

Project implementation support by the PIU. This will finance project management and implementation support activities, including, *inter alia*, engineering, architectural, Occupational Health and Safety (OHS) and other necessary technical expertise; sub-project supervision; monitoring and evaluation of the Project; communication with Project beneficiaries etc. It would also finance requirements related to the Bank's fiduciary policies and guidelines, Project audits, as well as the implementation of environmental and social framework.

Component 3. Contingent Emergency Response Component. This zero-value component would support emergency recovery and reconstruction efforts under an agreed action plan of activities designed as a mechanism to implement the government's response to an emergency. This provisional component would allow rapid reallocation of the IBRD financing under streamlined procurement and disbursement procedures, to cover emergency response costs (such as contracting emergency works, procurement of goods and services) following an adverse natural event. The contingent emergency component would be triggered by an official government declaration of an emergency, in accordance with the country's laws and policies. The types of eligible investments would be included in the Project Operations Manual and included in the ESMF.

would be designated as emergency shelters, but also whether there is redundancy in service – such as emergency care that could be provided by another disaster resilient hospital in the same area.

¹⁹ Local solutions will focus on small areas of the building, whereas global solutions are much more widespread and may require temporary evacuation of the building. Types of strengthening solutions may include addition of shear walls, jacketing of columns and/or addition of base isolation.



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

Summary of Screening of Environmental and Social Risks and Impacts

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APPROVAL

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