

**ISTANBUL  
SEISMIC RISK MITIGATION  
AND EMERGENCY PREPAREDNESS (ISMEP) PROJECT**

**ENVIRONMENTAL MANAGEMENT PLAN  
(FRAMEWORK DOCUMENT)**

**EXECUTIVE SUMMARY**

**The Project.**

Building on the highly successful project initiated by the World Bank and supported by many IFIs, the proposed project will finance structural retrofitting and reconstruction of priority public buildings such as schools, hospitals, and other social facilities to improve the City of Istanbul's resilience against a potential earthquake.

This will be achieved through strengthening critical public facilities for earthquake resistance and enhancing the institutional capacity for disaster risk management and emergency preparedness.

The Project comprises 3 components as follows:

Component A (Emergency Preparedness):

(i) provision of emergency equipment such as IT and emergency communication equipment, water storage tanks, power generators, emergency vehicles, etc.; (ii) public awareness and training; and (iii) technical assistance to enhance emergency preparedness and responses.

Component B (Seismic Risk Mitigation for Public Facilities):

(i) retrofitting/reconstruction of about 100 public buildings such as schools and hospitals; and (ii) feasibility studies, detailed designs, and construction supervision.

Component C (Project Management Support):

(i) operational costs, consultancies, and IT and office equipment.

**Project-Level Grievance Redress Mechanism**

The stakeholders of retrofitting or reconstruction works for schools such as parents, teachers, students are informed about the related construction works in detail before the construction works by meetings or trainings with the social consultants and IPCU staff. By this method, IPCU is in contact with these stakeholders for their concerns or any grievances during whole construction process.

Additionally, IPCU is accessible to public via all communication channels as seen below (e-mail, telephone, fax, etc.) related with ISMEP activities.

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### **Workers Grievance Redress Mechanism (GRM))**

Consultants are required to establish a Grievance Redress Mechanism for “Worker's pecuniary claim” the workforce during construction as specified in Clause 36 of the Labor Law. Regarding to this regulation, Consultants has to announce the Contractor’s interim payment by posted on the boards and this announcement stays on the board for one month before the payment is done. Workers can also report their grievances directly to their Consultants and IPCU.

### **Project Affected Peoples Mechanism (PPM)**

The PPM has been established by the Asian Infrastructure Investment Bank (AIIB) to provide an opportunity for an independent and impartial review of submissions from Project-affected people who believe they have been or are likely to be adversely affected by AIIB’s failure to implement its ESP in situations when their concerns cannot be addressed satisfactorily through the Project-level GRM or the processes of the Bank’s Management.

For information on AIIB’s PPM, please visit: <https://www.aiib.org/en/policies-strategies/operational-policies/policyon-the-project-affected-mechanism.html>

**Table 1. MITIGATION PLAN**

Phase	Issue	Mitigating Measure	Cost	Institutional Responsibility
<b>CONSTRUCTION</b>	<p style="text-align: center;"><b>❖ Air Quality</b></p> <p><i>Dust emissions; during retrofitting or demolition activities would be minor and temporary.</i></p> <p><i>Vehicle exhaust emissions; carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>) and fugitive hydrocarbons.</i></p>	<p>Dust prevention measures and good housekeeping practices such as water spraying to prevent dust and use of curtains and screening of the construction area.</p> <p>Use of masks, work gloves and clothes by workers.</p> <p>All vehicles delivering dusty construction materials to the site or removing debris will be enclosed and covered to prevent release of dust.</p> <p>Selection and use of vehicles/engines with appropriate emission control technologies and equipment.</p> <p>Maintaining of all vehicles and equipment engines and exhaust systems in order not to breach Regulation limits set for that vehicle/equipment type and mode of operation.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item.</p>	<p>Engineer is responsible to monitor and supervise the activity.</p> <p>Contractor is responsible to execute the mitigation measure.</p> <p>Provincial Directorate of MoEU, Police Department and Istanbul Metropolitan Municipality is responsible to supervise the activity</p>

	<p>❖ <b>Noise</b></p> <p>Equipment and delivery vehicles used during retrofitting or demolition activities would generate noise. Temporary increases in noise levels along truck delivery routes would also occur.</p>	<p>To ensure the use of noise control techniques on noisy equipment such as use of machines equipped with appropriate mufflers also located appropriately</p> <p>To ensure that noise emissions from the site do not result in exceedance of Turkish threshold values. Operating times limited to normal working hours to be determined with due sensitivity to the citizens private life (such as, working on weekends near schools, hospitals, mosques, churches praying times)</p> <p>In the event of nighttime working, working hours will be discussed and agreed with the relevant authorities and after consultation with nearby communities.</p> <p>In case night operations are deemed necessary and the noise levels would be high, public will be informed 1 week in advance.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p>	<p>Engineer is responsible to monitor and supervise the activity.</p> <p>Contractor is responsible to execute the mitigation measure.</p> <p>Provincial Directorate of MoEU is responsible to supervise the activity.</p> <p>Istanbul Metropolitan Municipality is responsible to supervise the activity.</p>
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<b>CONSTRUCTION</b>	<b>❖ Transportation</b>	<p>Use of trucks with covered dumpers</p> <p>Optimal use of alternative roads to prevent disturbance to the visitors and residents.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p>	<p>Contractor is responsible to implement the measure.</p> <p>Engineer is responsible to monitor and supervise the activity.</p> <p>Transportation Department of Istanbul Metropolitan Municipality to assist and supervise the Contractor.</p>
	<b>❖ Waste Management</b>	<p>Prepare a plan for handling of Demolition Debris in accordance with the Regulation.</p> <p>Get approval of the Istanbul Metropolitan Municipality.</p> <p>Provide storage, transportation and disposal activities in accordance with the Plan.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item.</p>	<p>Engineer is responsible to monitor and supervise the activity.</p> <p>Contractor is responsible to implement the mitigation measure.</p> <p>Provincial Directorate of MoEU is responsible to monitor and supervise the activity.</p>

*Retrofitting and demolition activities are one of the largest sources of waste.*

- *Demolition Debris Handling*

	<ul style="list-style-type: none"> <li><i>Hazardous Waste Handling</i></li> </ul>	<p>Determine potential hazardous waste to be handled during retrofitting in accordance with the Regulation and in consultation with the owner/management of the Public Building.</p> <p>Prepare a plan for handling these wastes in accordance with the Regulation and in consultation with Istanbul Metropolitan Municipality.</p> <p>Provide handling, storage, transportation and disposal/destruction activities in accordance with the Plan.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item.</p>	<p>Istanbul Metropolitan Municipality is responsible to assist the Contractor, approve the plan and supervise the implementation.</p> <p>Engineer is responsible to monitor and supervise the activity.</p> <p>Contractor is responsible to implement the mitigation measure.</p>
	<ul style="list-style-type: none"> <li><i>Handling Medical Wastes</i></li> </ul> <p>Relevant for retrofitting of hospitals</p>	<p>Hospital Management will make plans regarding the collection, storage, and disposal of medical wastes, and provide the necessary training for the staff in charge.</p> <p>Hospital management will take necessary measures for continuous management of medical wastes during retrofitting activities, if hospital services are continuing.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item.</p>	<p>Hospital Management is responsible to prepare and execute the Mitigation Plan.</p> <p>Municipality is responsible for the ultimate disposal of medical wastes.</p> <p>Engineer is responsible to monitor and supervise the activity.</p>

	<ul style="list-style-type: none"> <li>• <i>Handling Asbestos Containing Material</i></li> </ul>	<p>Consult the owner/manager of the building for possible existing material containing asbestos (It is envisaged that design drawings and specification will provide input for this issue.)</p> <p>Prepare a Plan for handling the asbestos containing material in accordance with the Regulation.</p> <p>Make the necessary arrangements for ultimate disposal of asbestos containing materials in licenced hazardous waste disposal sites such as IZAYDAS.</p> <p>Execute mitigation measures during retrofitting activities in accordance with this Plan.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item.</p>	<p>Engineer is responsible to monitor and supervise the activity.</p> <p>Contractor is responsible to implement the mitigation measure.</p> <p>MoEU is responsible to approve the handling plan and supervise its implementation.</p> <p>Istanbul Metropolitan Municipality is responsible to monitor and supervise the activity.</p>
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	<p>❖ <b>Radiation Safety</b></p> <ul style="list-style-type: none"> <li>• Relevant for Retrofitting of Hospitals</li> </ul>	<p>Hospital Management in accordance with the “Accident and Emergency Plan” of the hospital will prepare a Radiation Safety Plan.</p> <p>Hospital will get approval of TAEK for this plan to be implemented during retrofitting activities.</p> <p>Execute mitigation activities in accordance with this plan.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item</p>	<p>Hospital Management is responsible to prepare and execute the Mitigation Plan.</p> <p>TAEK is responsible to direct, approve and supervise the execution of the plan.</p> <p>Engineer is responsible to monitor and supervise the activity.</p>
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	<p>❖ <b>Workers health and safety</b></p>	<p>All necessary protective equipments (hard hat, safety belt, protective clothes, gloves, glasses etc.) will be provided to the workers.</p> <p>Proper notification signs will be placed to maintain the security of the public and local people.</p> <p>The personal will be trained in “labor health and occupational safety” issues.</p> <p>The related regulations of Labor Law numbered 4857 such as “Regulation on Occupational Health and Safety”, “Regulation on Health and Safety at Construction Works” and “Regulation on Using of Personal Protective Equipments at Work Places” will be followed.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p>	<p>Engineer is responsible to monitor and supervise the activity.</p> <p>Contractor is responsible to implement the Mitigation Measure.</p>
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	<p>❖ <b>Public Safety</b></p>	<p>Entrance of public to the construction site will be prevented using warning signs &amp; lights, and barriers etc.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p>	<p>Engineer is responsible to monitor and supervise the activity.</p> <p>Contractor is responsible to implement the Mitigation Measure.</p>
	<p>❖ <b>Urban Renewal Projects with housing units more than 200.</b></p>	<p>Client (Project Implementation Unit) needs to have an EIA report to be prepared.</p> <p>Ministry of Environment and Urbanisation to approve the report.</p> <p>Contractor to implement the measures.</p>	<p>App. 50.000 US \$/EIA Report.</p>	<p>Relevant Implementation Unit to prepare (or have it prepared) an EIA report.</p> <p>MoEU is responsible to approve the report.</p> <p>Designer/contractor is responsible to implement the measures.</p> <p>Istanbul Metropolitan Municipality to supervise the implementation</p>

<b>CONSTRUCTION</b>	<b>❖ Waste Water (Point/Non Point) Handling</b>	<p>To prevent any water pollution due to construction activities contractor will provide facilities for discharge of wastewater and/or spill during construction;</p> <ul style="list-style-type: none"> <li>• Either to city sewerage system (if available) directly, or</li> <li>• Through septic tanks to be constructed in sufficient capacity, and periodically evacuated.</li> </ul> <p>Additional necessary precaution shall be taken to prevent the pollution of nearby water courses by the wastewater resulting from construction activities.</p>	<p>Specifications to be incorporated into bidding and contract document. It is not considered as a separate cost item.</p>	<p>Engineer is responsible to monitor and supervise the activity.</p> <p>Contractor is responsible to implement the mitigation measure.</p> <p>ISKI (Istanbul Metropolitan Municipality Water and Sewerage Authority) to assist and supervise the activity.</p>
	<b>❖ Cultural Heritage</b>	<p>Consider relevant legal steps.</p>	<p>No additional cost item.</p>	<p>As defined in the laws.</p> <p>IPCU to coordinate and define the status.</p> <p>Relevant institutions to select the buildings accordingly</p>

	<b>❖ Grievance Redress Mechanism</b>	<p>IPCU is accessible to public via all communication channels as seen below (e-mail, telephone, fax, etc.) related with ISMEP activities.</p> <p>Istanbul Project Coordination Unit Tel: +90 216 505 55 00 Fax: +90 (216) 225 04 85 e-mail: info@ipkb.gov.tr twitter: @ipkbgovtr Facebook: ipkb (İstanbul Proje Koordinasyon Birimi)</p>	No additional cost item.	IPCU is responsible for response and resolution of grievances.
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	<p>❖ <b>Project Affected Peoples Mechanism (PPM)</b></p>	<p>The PPM has been established by the AIIB to provide an opportunity for an independent and impartial review of submissions from Project-affected people who believe they have been or are likely to be adversely affected by AIIB's failure to implement its ESP in situations when their concerns cannot be addressed satisfactorily through the Project-level GRM or the processes of the Bank's Management.</p> <p>For information on AIIB's PPM, please visit:  <a href="https://www.aiib.org/en/policies-strategies/operational-policies/policyon-the-project-affected-mechanism.html">https://www.aiib.org/en/policies-strategies/operational-policies/policyon-the-project-affected-mechanism.html</a></p>	<p>No additional cost item.</p>	<p>AIIB is responsible for implementation of the PPM.</p>
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