

Stories of Impact

A series highlighting achievements in disaster risk management initiatives

Enhancing Seismic Preparedness in Istanbul



RESULTS & ACHIEVEMENTS

- 1,086 public buildings have been retrofitted or reconstructed, including schools that serve more than 1.1 million students and teachers, and hospitals and clinics that serve about 8.7 million patients annually.
- 662,000 people were trained in disaster preparedness and an estimated 5.5 million citizens reached via social and public media through the Public Awareness and Neighborhood Community Volunteers program.
- In the course of the project, 3,630 civil engineers throughout the country were trained in the seismic retrofitting code.
- The back-up Disaster Management Center is operational and Istanbul Governorship's new main Disaster Management Center at Hasdal has been completed.

REGION: EUROPE AND CENTRAL ASIA

COUNTRY: TURKEY

FOCUS AREA: DISASTER RISK REDUCTION

Located on the vulnerable North Anatolian Fault, Istanbul is highly prone to earthquakes. The city's high population and commercial and industrial density mean that frequent earthquakes can cause significant economic losses, damage, and human suffering.

To protect the city from this risk, in 2005, the Governorship of Istanbul, with support from the World Bank and the Global Facility for Disaster Reduction and Recovery (GFDRR), launched a comprehensive program to help the city prepare for and respond to earthquakes.

Context

In 1999, the 7.1 magnitude Marmara earthquake shook northwest Turkey, killing more than 17,000 people and causing \$5 billion in damage. The earthquake significantly damaged Istanbul's infrastructure. A major economic center and home to 15 million people, Istanbul is vulnerable to earthquakes that can have devastating consequences on the economy as well as human lives.

To reduce damage from disasters like Marmara, the Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP) was conceived in 2005 to enhance preparedness, strengthen critical infrastructure, and improve institutional and technical capacity for disaster risk management and emergency response.

Approach

GFDRR provided technical and advisory support to the \$1.2 billion ISMEP project, which includes \$550 million in World Bank financing. To reduce seismic risk, the project pioneered an innovative approach that combined: risk reduction investments such as the reconstruction of public buildings; broader programs including public awareness campaigns; and investments that strengthen disaster response. Project activities focused on:

- Enhancing emergency preparedness including updating emergency communication and information systems and technology, a "Safe Life" public awareness campaign communications strategy and workshops for individuals and corporations, as well as a state-of-the-art disaster management center that serves as a control center for emergency response.
- Retrofitting or reconstruction of priority public buildings (schools, hospitals, dormitories, administrative and social service buildings) to reduce seismic risk.
- Supporting the enforcement of building codes to ensure that they comply with seismic-resistant design standards.

LESSONS LEARNED

Setting up a strong, highly knowledgeable local team is key to successful implementation.

Projects have greater chances of success when they are implemented by local authorities, engineers, and managers with experience working on earthquake reconstruction projects, and who have extensive knowledge about city and national regulations. The ISMEP program established a Project Coordination Unit as an independent team of experienced local experts to fulfill financial and technical requirements for the project.

Increasing public awareness is critical to build public support for upgrading schools.

While schools are being retrofitted, students will be required to temporarily relocate to other schools, which is unpopular with some parents and students. To gain public support for the retrofitting of schools, seminars and trainings were prepared for students, parents, teachers, and administrative staff to inform them of the benefits of the changes once schools are upgraded.

Next Steps

Building on the lessons learned from ISMEP, the Government of Turkey plans to continue to expand the disaster risk management agenda to other high-risk areas of the country. In this context, the Government will develop a National Disaster Risk Management Program (NDRMP) which will serve as a multi-stakeholder platform providing guidance to a wide range of institutions for preparing risk reduction projects. The program will facilitate funding from a wide range of sources, including the national budget, international financing institutions, and the private sector. The lead agency for this program will be the Disaster and Emergency Management Presidency (AFAD).

"The ISMEP project's holistic approach addresses many aspects of disaster management, including softer elements such as public awareness. Through this project, we have made great progress in Istanbul that would have been otherwise difficult.

— Gökay Atilla Bostan, Istanbul AFAD Director

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*All figures in US Dollars