



PROFILE SERIES HAZARD MAPPING AND RISK ASSESSMENT



Project Profile: APEC (Asia-Pacific Economic Cooperation)

More than 84 percent of the world's casualties from natural disasters occur in the Asia-Pacific region. Recent catastrophes—the 2004 Indian Ocean Tsunami, the 2008 earthquake in China's Sichuan province, the 2010 earthquake in Chile, and the 2011 earthquake and tsunami in Japan—serve as vivid reminders of the region's exposure and vulnerability.

Experts say that, in coming decades, the frequency and intensity of disasters in the Asia-Pacific region are likely to increase due to urban growth, climate change, and poor land planning policies and practices.



APEC, consisting of 21 member economies, established its Emergency Preparedness Working Group (EPWG) to play a constructive role in enabling the region to better prepare for and respond to emergencies and disasters by helping to reduce the risk of disasters and building business and community resilience. To support EPWG in disaster risk reduction activities, PDC conducted a workshop to introduce participants to key concepts of hazard mapping and risk and vulnerability assessment.

BUILDING CAPACITY FOR APEC DISASTER MANAGERS

In cooperation with the National Science and Technology Center for Disaster Reduction (NCDR), a team of PDC subject matter experts conducted a Workshop on Hazard Mapping and Risk and Vulnerability Assessment in Chinese Taipei in October 2010. More than 50 attendees from North America, South America, Oceania, Southeast Asia, and East Asia participated in the three-day workshop, which was funded through the U.S. Agency for International Development (USAID) and APEC and co-sponsored by Chinese Taipei, Vietnam, Thailand, and Peru.

The workshop's goal was to increase the capacity of APEC economies to identify hazards, assess risks, and prioritize mitigation efforts to reduce loss of life and impacts to infrastructure. Workshop participants were guided through a series of activities that included:

- Group exercises and discussion of key concepts of hazard mapping and risk assessment
- Creating community hazard profiles to describe likelihood and potential impacts
- Developing and delivering targeted risk messages
- Using Esri's ArcGIS software for geospatial analysis

Participants rated the workshop as highly useful for gaining both conceptual knowledge and practical skills. For many attendees the mapping session was their first experience using GIS software, an exposure they considered extremely valuable.



Participants at the APEC Workshop on Hazard Mapping and Risk and Vulnerability Assessment discuss ways to communicate risk information to a target audience.



Experts believe the risk of another large earthquake in Chile, an APEC member economy, remains high. This image shows a high-rise apartment building in Concepcion that collapsed as a result of a magnitude-8.8 earthquake that struck on February 27, 2010. Inset: USGS Shake Map. (Image courtesy of the U.S. Geological Survey, Walter D. Mooney, Photographer)

HOW CAN PDC HELP YOU?

PDC will listen to your needs, help identify gaps, and assist in crafting right-sized disaster management solutions.

We Offer:

- Early warning, risk assessment, and modeling and visualization solutions
- Training and strategic advisory services
- Assistance in identifying funding sources or support partners
- Online technologies to efficiently deliver services and support sustainability



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