Understanding Urban Seismic Risk around the World:

A comparative study of the RADIUS initiative

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Introduction

Earthquakes are infrequent, so no single city has suffered many earthquake disasters. Every city has much to gain through the sharing of their resources and experiences with earthquakes and earthquake risk management. To use the untapped potential of inter-city collaboration, the secretariat of the International Decade for Natural Disaster Reduction (IDNDR) and GeoHazards International launched in April 1998 the Understanding Urban Seismic Risk Around the World (UUSRAW) project. The UUSRAW project was implemented as part of the RADIUS initiative. The 18-month project was designed to help cities around the world compare their earthquake hazard and to share their experiences and resources in working to reduce the impact of future earthquakes.

Project objectives

The objectives of the UUSRAW project were to:

- · Provide a systematic comparison of the magnitude, causes, and ways to manage earthquake risk worldwide;
- Identify cities facing similar earthquake risk challenges and foster partnerships among them; and
- · Provide a forum in which cities can share their earthquake and earthquake risk management experiences using a systematic framework for discussion.

Project participants

The IDNDR Secretariat invited seismically active cities around the world to participate in the UUSRAW project. The city governments of 74 cities from 50 countries expressed interest in participating (see figure 1).



Figure 1: Map of the 74 cities that applied to the UUSRAW project.

City representatives

For each of the 74 cities that applied to participate in the study, a scientist served as city representative. The city representatives were the key to the project's success. Using their personal knowledge, connections and resources, they gathered the information required to develop an earthquake risk profile of their respective cities. They formed partnerships and shared comments about the process of gathering information, the proposed methodology, and the project.

Project coordinators

The project coordinators developed worksheets to gather information from the city representatives, compiled and analyzed information for each city, moderated an internet forum for city representatives and international advisors, kept participants informed of the project's status, and wrote the final report and city profiles.

International advisors

Several international advisers participated in the internet forum with the city representatives and the project coordinators. They answered questions and shared their experience and knowledge of earthquake risk.

For various reasons, only 20 of the 74 cities participated actively in all phases of the project, collecting the requested information and participating in discussions. These 20 cities represent a diverse group with respect to their size, seismicity, collateral hazard potential, structural types, economic and political situations, and social and cultural characteristics.