

ISTANBUL EARTHQUAKE RISK AND MITIGATION STUDIES

O. Metin Ilkisik¹

Address: ¹Disaster Coordination Center, Istanbul Metropolitan Municipality, İstanbul, Turkey

E-mail: omilkisik@hotmail.com

ABSTRACT *As a result of the growth of the cities in number and population, which led to increase in the number and complexity of the buildings, services and infrastructure, the vulnerability in disasters has much more aggravated today than those in past.*

The city of İstanbul has been a major population center with a prominent role in commercial cultural activities for at least two millenia. Although İstanbul is a very old city of 2500-3000 years, it grew very rapidly especially after 1950s. Accordingly its population increased from 1 million (in '50s) to 12 million today. As an important social, economical and geopolitical centre, Istanbul has been the destination of the people emigrating from rural areas. This increased the need for housing and other infrastructural facilities. There are about 1,200,000 buildings in Istanbul as of 2006.

According to historical records on earthquake, 120 earthquakes in destructive scales occurred in Istanbul and its surroundings during the last 2000 years. Considering the local features of the ground of Istanbul where the buildings are situated, construction quality of the buildings, deterioration and corrosion problems related to the age of the buildings, the earthquake risk increasingly growing.

In order to assess the risks Japan International Cooperation Agency had prepared a "Study on Disaster Mitigation/prevention in Istanbul Including Seismic Microzonation". To follow up studies on the "Assessment of Earthquake Risk in Istanbul" and to find proper solutions for complex "risk mitigation" issues, the "Earthquake Master Plan for Istanbul (EMPI)" has been commissioned by Istanbul Metropolitan Municipality (IMM) to a consortium involving four leading Turkish Universities. The implementation of EMPI was done in Zeytinburnu which was determined in JICA study and EMPI as one of the risky district in Istanbul. Similar pilot projects in Fatih and Kucukcekmece Districts still on going.