



Tsunami impact and risk assessment for Istanbul

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The well-documented earthquake threat to the city of Istanbul, a significant center of trade and industry and with its almost 12 million inhabitants, is a major concern. The probability of having a large destructive earthquake in the Marmara Sea estimated to be 60% within the next 30 years is probably the highest hazard level in the entire Europe. In this study, assessment of the tsunami impact on the coastal zones of Istanbul in particular and on the shores of the Marmara Sea in general has been carried out in the occurrence of a $M > 7.0$ event on the Main Marmara Fault. Particular attention has been paid to the populated areas and industrial and critical facilities. Plausible tsunami scenarios developed by Yalçın et al (2007) have been used as the underlying assumption in developing risk maps. A unified GIS based inventory of assets along the shores of Istanbul has been prepared and is being prepared for Marmara Sea shores for the identification and classification of the elements at risk. Tsunami impact and risk maps along the coasts of Istanbul metropolitan area and around the Marmara Sea are being prepared. This study is part of the EU-supported project TRANSFER