The study area in SE Aegean Sea
The geographic area of the present study is the SE Mediterranean and more specifically the SE Aegean Sea. Under the scope of the TRANSFER project and due to its high seismic risk, the area has been chosen as the "Master Test Case" of the project and includes the Greek island of Rhodes and the Turkish coastal area of the island of Fethiye. Both areas are tourist areas with an economy that is based mainly on tourism. In the present study, inundation maps for Rhodes are computed by the authors in order to validate results. During the campaign in-situ measurements were made using high resolution GPS technology. The results of the in-situ measurements were compared with the numerical simulations. The agreement is even closer for steep slopes and can be explained considering the 0.5 - 1 m vertical accuracy of the high resolution DEM, as checked using survey monuments. The positioning of the inundation lines computed by MOST for the specific seismic scenario was verified by GPS observations during the in-situ campaign, and it has also been compared with a contour map produced using aerial imagery - derived DEM. A strong correlation of the inundation lines for the first seismic scenario with the 3 m elevation contour was observed. This was expected since the maximum runup was calculated at 3.7 m. This agreement is even closer for steep slopes and can be explained considering the 0.5 - 1 m vertical accuracy of the high resolution DEM, as checked using survey monuments. The positioning of the inundation lines and their consistency with the 3 m elevation contour was verified by GPS observations during the in-situ campaign in July 2008.

REFERENCES