A Generic Framework for Tsunami Evacuation Planning

Stefan Scheer (1), George Eftichidis (2), and Richard Guillande (3)

(1) European Commission - Joint Research Centre, IPSC, Ispra, Italy (stefan.scheer@jrc.it, +39 0332785813), (2) Algosystems, Athens, Greece (geftihid@algosystems.gr), (3) Geosciences Consultants sarl, Bagneux, France (rg-gsc@wanadoo.fr)

Coastal communities are vulnerable with regard to the devastating impacts tsunami waves may generate to life, lifelines, assets and economy. The risk is quantified by rather rare occurrence on one hand, and by high damage to be expected on the other hand. Hence a pure numerical calculation could easily become meaningless. Yet over-dramatizing the threat could become counter-productive taking into account social behaviour and human perception of potential risk of tsunami waves.

Local communities would therefore rather act in a “silent” way by gradually improving the level of preparedness. The goal should be to create a concept of an emergency and evacuation plan that could easily be invoked if necessary. Obviously such concepts are based on a huge variety of parameters which can be set in an individual way considering local particularities, scopes and questions of applicability. Nevertheless guidance through all these parameters and their calculations is difficult to find.

This abstract proposes a generic framework that summarizes the application of various steps to be taken, the interdependencies of these steps and the three phases of repetition due to generation, mid-term maintenance and long-term revision of such emergency and evacuation plans. The abstract represents the outcome of research work done as part of the EU-funded SCHEMA (scenarios for hazard-induced emergencies management) project.