



Developing tools and procedures for the collection and storage of flood damage data in the aftermath of flood events: the Poli-RISPOSTA project

Daniela Molinari (1), Francesco Ballio (1), Mirjana Mazuran (2), Carolina Arias (1), Guido Minucci (3), Funda Atun (3), and Danilo Ardagna (2)

(1) Politecnico di Milano, Department of Environmental and Civil Engineering, Milano, Italy, (2) Politecnico di Milano, Department of Electronics, Information and Bioengineering, Milano, Italy, (3) Politecnico di Milano, Department of Architecture and Urban Studies, Milano, Italy

According to a recent JRC report (De Groeve et al., Recording disaster losses, 2013), no measure better than loss over time can provide objective understanding of the path towards resilience. Moreover, damage data collected in the aftermath of floods supply the knowledge base on which a blend of actions can be performed, both in the short and mid time after the occurrence of a flood; among them: the identification of priorities for intervention during emergencies, the definition of compensation schemes, the understanding of damage mechanisms and of the fragilities of the flooded areas so as to improve/reform current risk mitigation strategies (also by means of improved flood damage models).

Objective “measurement” of flood losses remains inadequate to meet the above objectives. This is due to a number of reasons that include: the diversity of intent for data collection, the lack of standardization on how to collect and storage data (including the lack of agreed definitions) among responsible subjects, and last but not least a lack of legislation to support the collection process.

In such a context, the aim of this contribution is to discuss the results from the Poli-RISPOSTA (strumenti per la protezione civile a Supporto delle POPolazioni nel poST Alluvione) project, a research project founded by Politecnico di Milano which is intended to develop tools and procedures for the collection and storage of high quality, consistent and reliable flood damage data. Specific objectives of Poli-RISPOSTA are:

- Develop an operational procedure for collecting, storing and analyzing all damage data, in the aftermath of flood events. Collected data are intended to support a variety of actions, namely: loss accounting, disaster forensic, damage compensation and flood risk modelling;
 - Develop educational material and modules for training practitioners in the use of the procedure;
 - Develop enhanced IT tools to support the procedure, easing as much as possible the collection of field data, the creation of databases and the connection between the latter and different regional and municipal databases that already exist for different purposes (from cadastral data, to satellite images, etc.), the processing of collected data.
- A key principle of Poli-RISPOSTA is developing tools with the direct involvement of all interested parties so as to reach a two-fold objective: producing feasible solutions that re-organise existing practices and integrate them with new ones (whereas they are lacking) and, directly linked to the previous point, supplying the legislative context in which developed tools can be implemented.