

## **Elaboration of products derived from geospatial data for flooding risk analysis in Romania**

**GHEORGHE STANCALIE<sup>1</sup>, VASILE CRACIUNESCU<sup>1</sup>, ARGENTINA NERTAN<sup>1</sup>, DENIS MIHAILESCU<sup>1</sup> & ION NEDELICU<sup>2</sup>**

<sup>1</sup> *National Meteorological Administration, 97, Soseaua Bucuresti-Ploiesti, sector 1, 013686 Bucharest, Romania*  
[gheorghe.stancalie@meteoromania.ro](mailto:gheorghe.stancalie@meteoromania.ro)

<sup>2</sup> *Romanian Space Agency, 21-25 Mendeleev str., 010362 sector1, Bucharest, Romania*

**Abstract** In the last years, important floods occurred in Romania, engulfing wide areas and triggering loss of life and heavy damage. The modern management of geospatial data related to river flood risk relies on the functional facilities supplied by the GIS, combined with Earth Observation information and hydrological modelling, in view of establishing a methodology, which should further allow the elaboration of products useful for flooding risk analysis, such as: updated maps of land cover/land use, thematic maps with the extent of the flooded areas and the affected zones, maps of the hazard prone areas, risk maps for several probabilities of the maximum discharge occurrence, etc. These kinds of products started to contribute to preventive consideration of flooding in land development and special planning in the flood-prone areas, and for optimizing the distribution of flood-related geo-information to end-users.

**Key words** flood; flooding risk; geospatial data; satellite; Romania