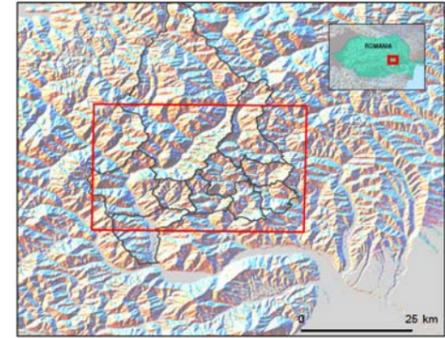


Landslide inventory map Buzau county / Romania

Overview maps



Legend

- Population**
 - Settlement
 - Local Administrative Unit Boundary
- Hydrology**
 - River
- Elevation**
 - Normal Contourline
 - Index Contourline
 - Mapped Area
- Infrastructure / Transport**
 - Road
- Landslides**
 - Recent landslide body
 - Recent landslide scarp
 - Interpreted landslide: active
 - Interpreted landslide: dormant body
 - Interpreted landslide: dormant scarp
 - Interpreted landslide: old body
 - Interpreted landslide: old scarp
 - Interferometry point with evidence of movement

Interpretation

This map displays the recent historical landslides combined with a dataset of image-interpreted landslides for a part of Buzau County, Romania. Also the most relevant points from a radar interferometry study are shown, with the highest measured velocity that correlate with the landslide inventory. The following methodological steps have been followed:

- (1) Import of the data in the ILWIS Version 3.4 software;
- (2) Resampling of the digital color aerial ortho-photographs to a cell size of 2m.;
- (3) Linear interpolation of the contour lines to a DEM cell size of 2m.;
- (4) Creation of anaglyph visualization in the 'stereopair from DTM' program module of ILWIS.;
- (5) Visual stereo interpretation (using anaglyph 3-D visualization) and digitization of terrain boundaries of the scarp and body of landslides at approx. scale 1: 8,000;
- (6) Differentiation of interpreted units into Distinct and Indistinct based on their stereo visibility.
- (7) Terrain characteristics used:
 - a.) slope steepness, slope form and slope length;
 - b.) relative terrain position of the landslide elements, such as upper erosional scarp zone and lower depositional body;
 - c.) detailed slope characteristics of the scarp such as for instance curved crown and concave lower slopes; and for the longitudinal body the more convex slopes;
 - d.) break of slope between the scarp zone and landslide body;
 - e.) vegetation anomalies.
- (8) Landslide activity was interpreted based on image characteristics and field reconnaissance.
- (9) Inventory of recent landslides was compiled based on records from Buzau County Inspectorate for Emergency Situations, with identification of locations on Google Earth images.
- (10) Radar interferometry was carried out using TerraSar-X data for a 1 year period using SBAS method.

Cartographic Information

Local projection: Romania - Double-Stereographic
Datum: D. Pulkovo 1942



Data Sources

- (1) Digital color aerial ortho-photographs: cell size 0.5m. Year 2005
- (2) Topographic contour lines: interval 20 m from Military Topographic Directorate (DTM).
- (3) Roads, streams and built-up areas with topographical names from DTM.
- (4) Recent landslide inventory was compiled from records of Buzau County Inspectorate for Emergency Situations.
- (5) Radar results from TerraSar-X

Framework

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This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 312461 (Increasing Resilience through Earth Observation - IncREO - www.increeo.eu). The IncREO project is coordinated by Airbus Defence & Space (Spot Image S.A.).

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