

**2015 GSA Annual Meeting in Baltimore, Maryland, USA (1-4 November 2015)**

Paper No. 86-8

Presentation Time: 10:15 AM

**NEW NATIONAL LANDSLIDE INVENTORIES OF SPAIN, CYPRUS AND ANDORRA FOR PAN-EUROPEAN LANDSLIDE SUSCEPTIBILITY ASSESSMENT**

[HERVÁS, Javier](#), Institute for Environment and Sustainability, Joint Research Centre (JRC), European Commission, Ispra (VA), 21027, Italy, [javier.hervas@jrc.ec.europa.eu](mailto:javier.hervas@jrc.ec.europa.eu)

New, reduced national landslide inventories have been created for Spain, Cyprus and Andorra for collaborative pan-European landslide susceptibility assessments at 1 km and 200 m cell size (ELSUS maps). To this end, a vast amount of available documents of various types and in various languages have been collected and analyzed, followed by the extraction and validation of landslides on natural slopes and the precise geolocation of their centroids in Google Earth, using also other publicly accessible WMS imagery and topographic maps when necessary. To cope with the heterogeneous content and quality of the information sources, a harmonized, simplified landslide classification has been implemented for the three countries, including rock falls or topples, slides, flows, and unclassified landslides. The latter include landslides of unspecified or non-standard type, as well as those occasionally reported as complex. In addition to the centroid coordinates, attributes for all the registered landslides comprise a unique identifier, territorial units, geology (lithology and system), which is essential for landslide susceptibility assessment, location accuracy, and bibliographical references. Information on temporal occurrence, state of activity and impact is only available for a small part of the landslide records in Spain and Andorra, not in Cyprus.

Statistical analysis of the landslides geographical distribution, attributes and information sources is shown per country. Deficiencies in the published documents and WMS tools used are discussed as well as how these are addressed in the inventories.

Currently, over 3500 landslides are registered in Spain's ALISSA (Abridged Landslide Inventory of Spain for synoptic Susceptibility Assessment), 400 in Cyprus inventory and 60 in that of Andorra, all in ArcGIS Geodatabase format. Although the amount of inventoried landslides is still limited, their coverage fairly reflects the spatial distribution of landslide-prone areas in these countries, which make them suitable also for small to medium scale nationwide landslide susceptibility mapping. In addition, the bibliographical references can allow to extract additional information, including landslide boundaries, for numerous landslides for engineering works and for further landslide zoning in some areas.

Session No. 86

[T56. Landslide Inventories and Time Series: Data Collection, Statistics, Geospatial Analysis, and Relationships to Other Geohazards](#)

Monday, 2 November 2015: 8:00 AM-12:00 PM

Room 307 (Baltimore Convention Center)

Geological Society of America *Abstracts with Programs*. Vol. 47, No. 7, p.249

---

© Copyright 2015 The Geological Society of America (GSA), all rights reserved. Permission is hereby granted to the author(s) of this abstract to reproduce and distribute it freely, for noncommercial purposes. Permission is hereby granted to any individual scientist to download a single copy of this electronic file and reproduce up to 20 paper copies for noncommercial purposes advancing science and education, including classroom use, providing all reproductions include the complete content shown here, including the author information. All other forms of reproduction and/or transmittal are prohibited without written permission from GSA Copyright Permissions.

---

See more of: [Landslide Inventories and Time Series: Data Collection, Statistics, Geospatial Analysis, and Relationships to Other Geohazards](#)

See more of: [Topical Session](#)

[<< Previous Abstract](#) | [Next Abstract >>](#)

---