



### Tizzano Val Parma (PR) - ITALY Landslide - 11/04/2013 Delineation Map - Detail 03 **RESTRICTED USE**

Production date: 19/04/2013



#### Cartographic Information

1:9000 Full color ISO A1, medium resolution (200 dpi)  
 0 0.175 0.35 0.7 km  
 Map Coordinate System: WGS 1984 UTM Zone 32N  
 Graticule: WGS 84 geographical coordinates

- Legend**
- Crisis Information**
    - Landslide (16/04/2013)
  - General Information**
    - Area of Interest
    - Populated Place
  - Hydrology**
    - River
    - Stream
    - Canal
  - Physiography**
    - Contour Lines and Elevation (m)

- Settlements**
  - Cemetery
  - Educational
  - Industrial
  - Religious
  - Residential
- Transportation**
  - Secondary Road
  - Local Road

Consequences within the Detail Area of Interest on 16/04/2013	
Potentially Affected Population	< 10 inhabitants
Landslide affected area	5.6 ha

#### Map Information

Following the extraordinary heavy rains of the last weeks in the Emilia-Romagna region, several landslides occurred. The landslides are spread throughout the region. A synthetic description of the situation is the following:  
 - 1400 landslide events till now; more are likely to occur;  
 - 60 people evacuated;  
 - 100-150 municipalities affected, spread over 11.000 km<sup>2</sup>  
 The worst affected areas include the municipalities of Capriglio, Signatico and Boschetto, close to Tizzano Val Parma (Parma).  
 The users of the map are Civil Protection authorities involved in field operations. The purpose of the map product is the support of emergency response activities.

**Data Sources**  
 Inset maps based on: Administrative boundaries (JRC 2013, GISCO 2010, © EuroGeographics), Hydrology (CCME 2007 © JRC), Transportation (Natural Earth, 2012), Settlements (OpenStreetMap, 2013), Ikonos-2 © by GeoEye (acquired on 16/04/2013 9:52 GMT, GSD 1.6 m, 0% cloud coverage, 51.6° off-nadir angle).  
 Base vector layers based on Regione Emilia-Romagna datasets (settlements, http://dati.emilia-romagna.it, approx. 1:5.000, extracted on 15/04/2013), OpenStreetMap and Geonames (approx. 1:10.000, extracted on 15/04/2013), refined by ITHACA.  
 Population estimates based on LandsScan 2010 © UT BATTELLE, LLC.  
 Elevation data: EU-DEM (25 m posting).  
 All Data sources are complete and with no gaps.

**Dissemination/Publication**  
 RESTRICTED USE.  
 Delivery formats are GeoTIFF, GeoPDF, GeoJPEG and vectors (shapelle and KML formats).

**Framework**  
 The products elaborated in the framework of current mapping in rush mode activation are realized to the best of our ability, within a very short time frame during a crisis, optimizing the available data and information. All geographic information has limitations due to scale, resolution, date and interpretation of the original data sources. The products are compliant with GIO-EMS RUSH Product Portfolio specifications.

**Map Production**  
 The present map shows the delineation of the landslide affecting the area of Tizzano Val Parma (Parma), derived by means of visual interpretation of post-event Ikonos-2 image © by GeoEye (acquired on 16/04/2013 9:52 GMT, GSD 1.6 m, 0% cloud coverage, 51.6° off-nadir angle). The basic topographic features are derived from public datasets, refined by means of visual interpretation of pre-event aerial orthomages © 2013 courtesy of AGEA (acquired in 2010, GSD 0.5 m, 0% cloud coverage).  
 Post-event satellite imagery has been radiometrically enhanced, ortho-projected with RPC approach (using EU-DEM elevation data) and coregistered to the pre-event aerial imagery. The estimated geometric accuracy of this product is 5 m CE90 or better, from native positional accuracy of the background aerial orthomage.  
 The estimated thematic accuracy of this product is 60% or better, as it is based on visual interpretation of recognizable items on very high resolution optical imagery acquired with a 51.6° off-nadir angle.  
 Map produced on 19/04/2013 by ITHACA under contract 257219 with the European Commission. All products are © of the European Commission.  
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