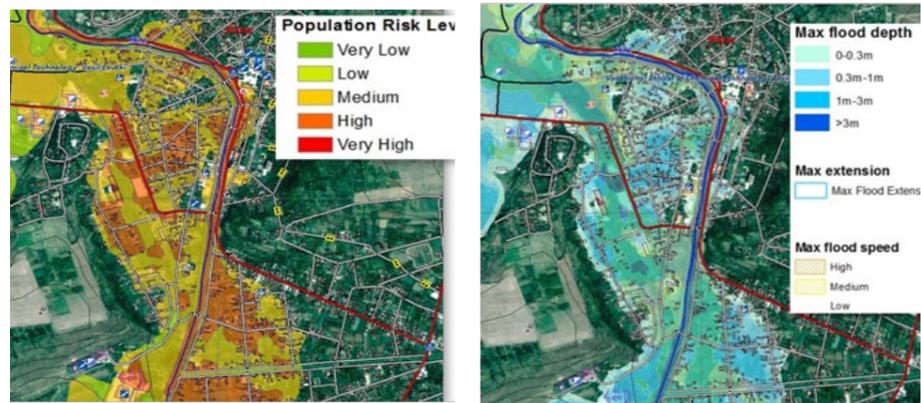


Copernicus Emergency Management Service (CEMS) - A European Union Concrete Tool to Disaster Risk Reduction in the World

Global targets, Priority for Actions 1, 2 and 4.



Application field: The Mapping component of the Emergency Management Service (CEMS) is an operational service of the European Union’s Earth Observation programme Copernicus. It provides all actors involved in the management of natural disasters, man-made emergency situations and humanitarian crises, with timely and accurate geospatial information derived from satellite remote sensing data, and complemented by available in-situ and other open data sources.

Methodology and workflow: CEMS Mapping is an on-demand service that is provided in two temporal modes, in order to support all phases of the emergency management cycle: **Rapid Mapping** and **Risk & Recovery Mapping**. It can only be activated by authorised users and is free of charge for the user. Unauthorised users can submit service requests to the Emergency Response and Coordination Centre (ERCC) in Brussels.

Key results: Risk & Recovery Mapping assists disaster managers by delivering maps and analyses in support of disaster risk reduction, preparedness, prevention, recovery and reconstruction. It focuses on the pre-disaster situation when lending support in disaster prevention and preparedness actions, and on the post-disaster situation when providing support following a disaster; such as reconstruction, planning, and progress monitoring, and as such complements the Emergency Rapid Mapping service. The types of disasters that are supported by this service range from natural hazards such as floods, fires, storms, tsunamis, volcanic eruptions, landslides, and earthquakes - to industrial accidents and humanitarian crises. Core datasets consist of satellite images and geographic information layers. In addition, a study is currently looking into the use of imagery from different aerial platforms (airplanes and/or drones - as a complement to satellite imagery).

Innovative impact: The service has a unique combination of global coverage, fully operational set-up, tailor-made requests, in addition to being free of charge. It also offers intensive detailed analysis when required.

GP-STAR Factsheet

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Application status: Fully operational service.

Area of application: Regional, National and Global Level



Background: CEMS is a core service of the European Union’s Earth Observation programme, Copernicus. It supports all phases of the disaster management cycle, by delivering warnings and risk assessments of floods and forest fires, in addition to providing geospatial information derived from satellite images on the impact of natural and man-made disasters all over the world (before, during or after a crisis). The two Mapping services of CEMS (Rapid Mapping, Risk and Recovery Mapping) have been delivering products since April 2012. The Risk & Recovery Mapping has provided, for example, information on preparedness, disaster risk assessment and risk reduction related to earthquakes in Nepal, several post-disaster assessments on flood and fire events, reconstruction and recovery monitoring in Haiti; and multi-risk assessments for the Azores Islands in Portugal. CEMS is managed by the European Commission (joint coordination between the Directorate Generals GROW, ECHO, JRC). Activation requests are all coordinated by DG ECHO’s Emergency Response Coordination Centre (ERCC) in Brussels.

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