# Automated Disaster Analysis & Mapping (ADAM)

Efficient management and rapid analysis of geospatial data is crucial for humanitarian agencies performing field operations on a global scale. The UN World Food Programme has developed an automated system for collecting, analysing and mapping geospatial and socio-economic data related to natural hazard events. This system is called **ADAM** (Automated Disaster Analysis and Mapping).

ADAM is performing a 24/7 research, collection, analysis and mapping of disaster-related data on a global scale, in order to reduce the time between the occurrence of an event and the time when the field-level response starts.

ADAM is immediately activated following the occurrence of an earthquake: the system creates a dashboard with a map indicating the magnitude, location and depth of the earthquake, the estimated number of people living in the affected area(s), main infrastructures and WFP's presence, and calculates the distance to the closest WFP facility. The system also provides the weather forecast over a 7-day period. ADAM represents an innovative near-real time disaster analysis tool for the humanitarian community: within a few minutes following an earthquake, the ADAM dashboard is disseminated to subscribed users.
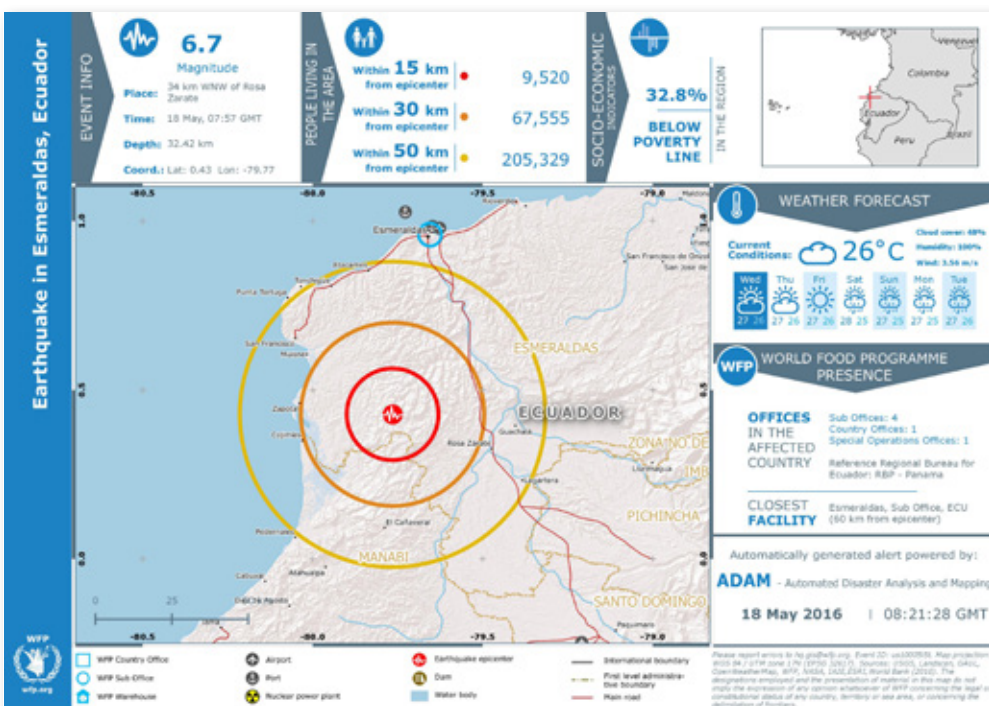
In order to minimize the costs related to the development of the project, and to ensure its long term sustainability, ADAM has been entirely developed with open-source software libraries, and all the information used in the process is coming from open-source databases.

ADAM has been further developed since its launch in early 2015 and all subscribers will receive a so-called "Shake Map", as a follow-up about 1 hour after the initial ADAM dashboard. The ADAM Shake Map provides a first estimation of possible earthquake damages, taking into consideration the geology structure and soil consistency in the affected areas. The Shake Map estimates the instrumental intensity of an earthquake using the Modified Mercalli scale with intensity classes ranging from

I (no potential shaking and damage) to X+(extreme potential shaking and very heavy potential damage), using public high-resolution analysis released by the US Geological Survey (USGS).

The Shake Map provides a first understanding of the seriousness of the situation in the affected region(s) very shortly after the event, which may be followed by further validation through the use of additional tools and field assessments.

Thanks to the combined use of ADAM Alerts and Shake Maps, WFP can assess the most relevant information related to disaster event and affected populations, and take appropriate and well-informed operational decisions in a timely manner.
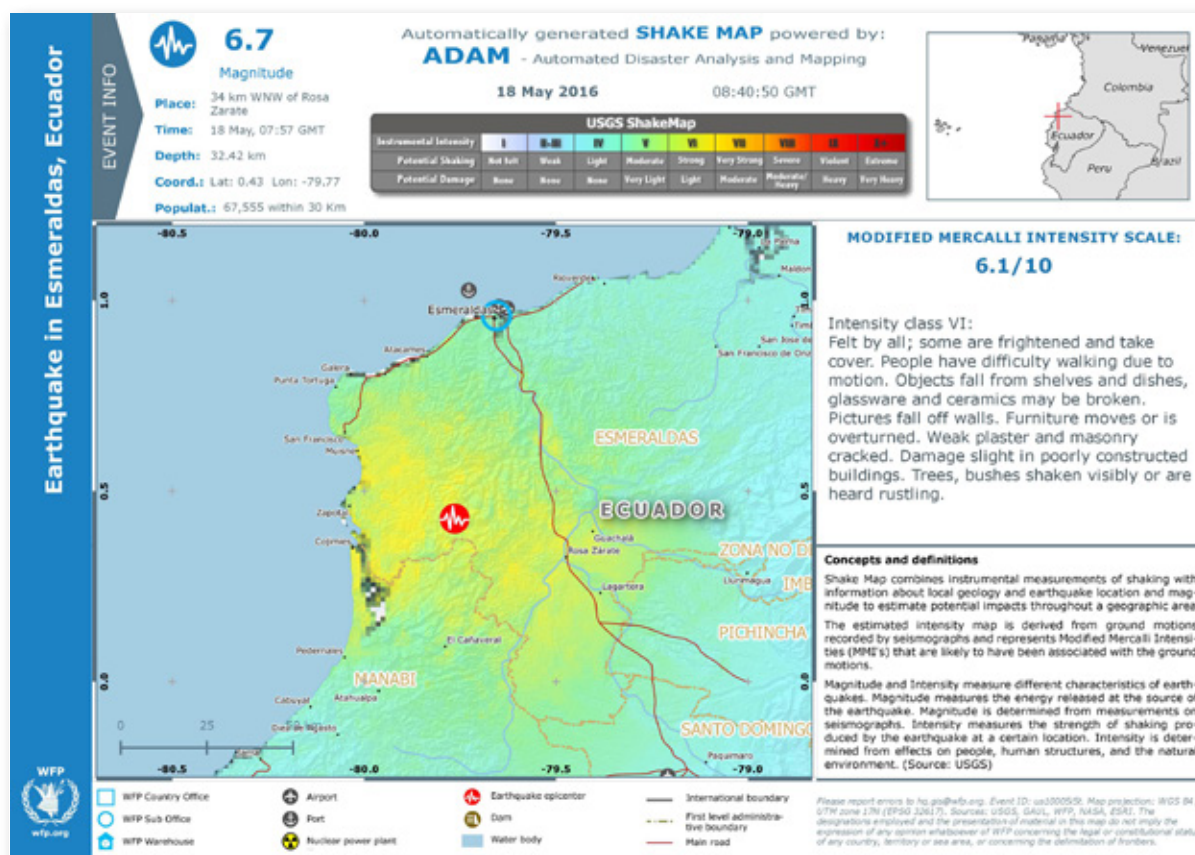
How to access ADAM updates?

Key contacts from humanitarian Agencies/Institutions can subscribe to email alerts from
http://geonode.wfp.org/adam.html

External audience can be updated by following the Twitter account @WFP_ADAM