



DATA IN CRISES

Responding to the Earthquakes in Turkey & Syria

March 3, 2023



CrisisReady |



HDSI | Harvard Data Science Institute
at Harvard Program



Direct Relief

About CrisisReady

CrisisReady is a research response platform affiliated with the Harvard Data Science Initiative (HDSI) and Direct Relief that advances data-driven decision making in emergency response contexts.

The team develops scalable expertise in *Data Readiness*, *Methods Readiness*, and *Translational Readiness* — three concepts that extend throughout CrisisReady's body of work — by providing actionable analyses that help policy makers and agencies target relief efforts during emergency events.

The Data in Crises Series

Data in Crises is a series of events that helps advance our collective understanding of the effective use of novel data in emergency and public health contexts.

The series brings together experts from academia, industry, health care, and government to share their knowledge and experience in using data to support crisis response and explore the technical, ethical, and regulatory challenges of using such data in the field.

Topics of Previous Events

- Climate migration in South Asia
- Novel data in hurricane response
- Data preparedness for disasters in Mexico
- Forecasting the needs of vulnerable populations during wildfires
- Mobility data and the Ukraine War
- And more...



[Previous Data in Crises Events](#)

The Impacts of the Earthquakes in Turkey and Syria

As of February 18, the total death toll from the earthquakes that struck Turkey earlier this month exceeds 46,000.

Key Information

- Almost **3 million people** have been displaced because of the earthquake.
- As of February 25th, AFAD reported **1.6 million people** sheltering in the affected area, 323'000 sheltering outside, and 900'000 sheltering elsewhere under their own means.
- More than **2.2 million building units** have sustained damage.
 - Given that the average occupancy is of 3 people per household, this means that over 7-8 million people lived in homes that were at least partially damaged by the earthquake.
- Local displacement models reflect massive population loss within heavily damaged cities, and population increases in areas around cities.
 - The IFRC reports that this trend reflects the life-loss and destruction in these areas, and the establishment of various shelter systems in the suburbs around impacted towns and cities.

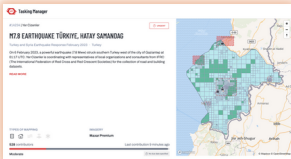
The Use of Data in Earthquake Response

There are several organizations conducting exceptional analytical work in response to the earthquakes in Turkey and Syria.

The novel data used in this work has provided real-time insights into the needs of affected communities, identifying areas where aid is most needed and facilitating collaboration and coordination among aid organizations.

Humanitarian OpenStreetMap Team

The Humanitarian OpenStreetMap Team (HOT) has been using satellite imagery and other data sources to create detailed maps of the affected areas and assess the extent of the earthquakes' damage.



HOT has also been working closely with local communities and aid organizations to identify priority areas for relief efforts. In addition, they have been using advanced technologies to automate the detection of damaged buildings and infrastructure, which has significantly accelerated the assessment process.

NeedsMap Social Cooperative

NeedsMap has played a key role in earthquake relief efforts by providing a platform for coordination and information sharing among aid organizations, local communities, and other stakeholders.

Aid organizations and local responders can use NeedsMap's platform to report on the status of relief efforts and identify areas where additional assistance is needed.

Syrian American Medical Society

The Syrian American Medical Society (SAMS) has been on the ground in Syria responding to the earthquakes since they first struck on February 6. SAMS has been working with its local healthcare partners to deliver a coordinated intervention and is contacting its numerous humanitarian stakeholders to share updates on the situation as it develops.

Additionally, SAMS has helped evacuate several hospitals to maintain the safety of patients and staff and protect them from the damage caused by the quake. The organization continues to monitor the situation closely and will continue to mobilize more aid as needed in concert with all humanitarian partners.

Direct Relief

In the aftermath of the earthquakes, Direct Relief has been working to deliver critical medical supplies and resources to affected communities, including medications, medical equipment, and other essential supplies.



Direct Relief has also been providing support to local health systems, which have been overwhelmed by an influx of patients following the earthquakes. This has included providing funding for medical personnel, equipment, and other resources.

Get In Touch



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