



The NEHRP Post-Earthquake Investigations Program

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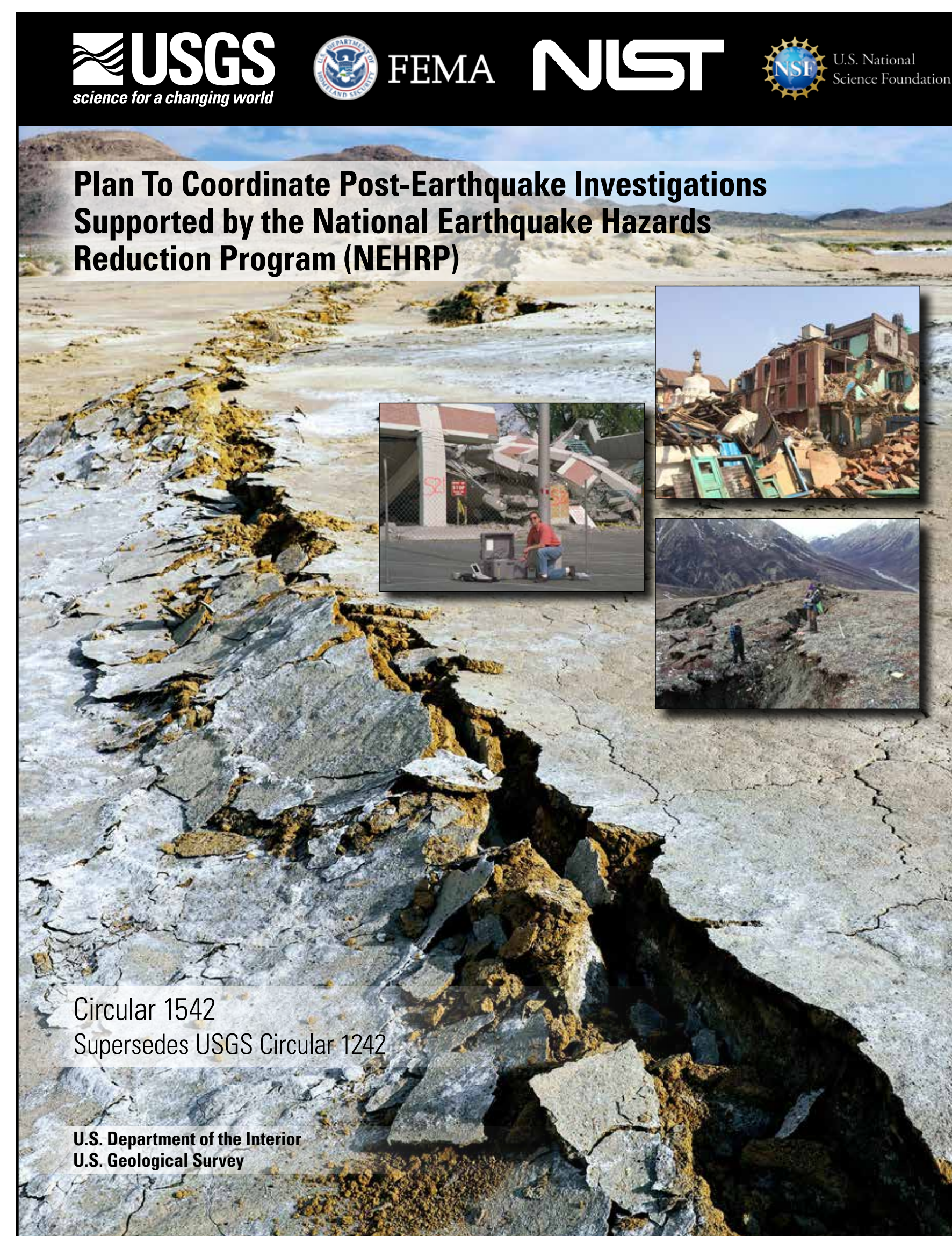
Post-earthquake Investigations Program

The four-agency National Seismic Hazard Reduction Program (NEHRP) is the U.S. government's coordinated nationwide program to reduce risks to life and property that result from earthquakes. The Earthquake Hazards Reduction Act calls for NEHRP to investigate following significant domestic and international earthquakes, to learn lessons which can be applied to reduce the loss of lives and property in future earthquakes. Investigations are to begin rapidly and results are to be disseminated widely.

The USGS is the lead agency for activating and coordinating NEHRP post-earthquake investigations, and to consider the implications of work undertaken by each of the four NEHRP Agencies (NIST, FEMA, NSF and USGS) in their respective areas of responsibility, and by various other responding agencies, organizations, and groups.

USGS Circular 1542

Provides procedures for how NEHRP agencies and their partners should interact and coordinate activities when investigating earthquakes. The plan identifies responsibilities, but does not dictate what will be done. Supersedes USGS Circular 1242 (2003).



Launching and conduct of post-earthquake investigations

When a significant earthquake occurs the NEHRP agencies evaluate event consequences and determine if full support of NEHRP is warranted. If so, NEHRP stands up an ad-hoc Earthquake Investigation Committee to launch and coordinate an initial set of activities.

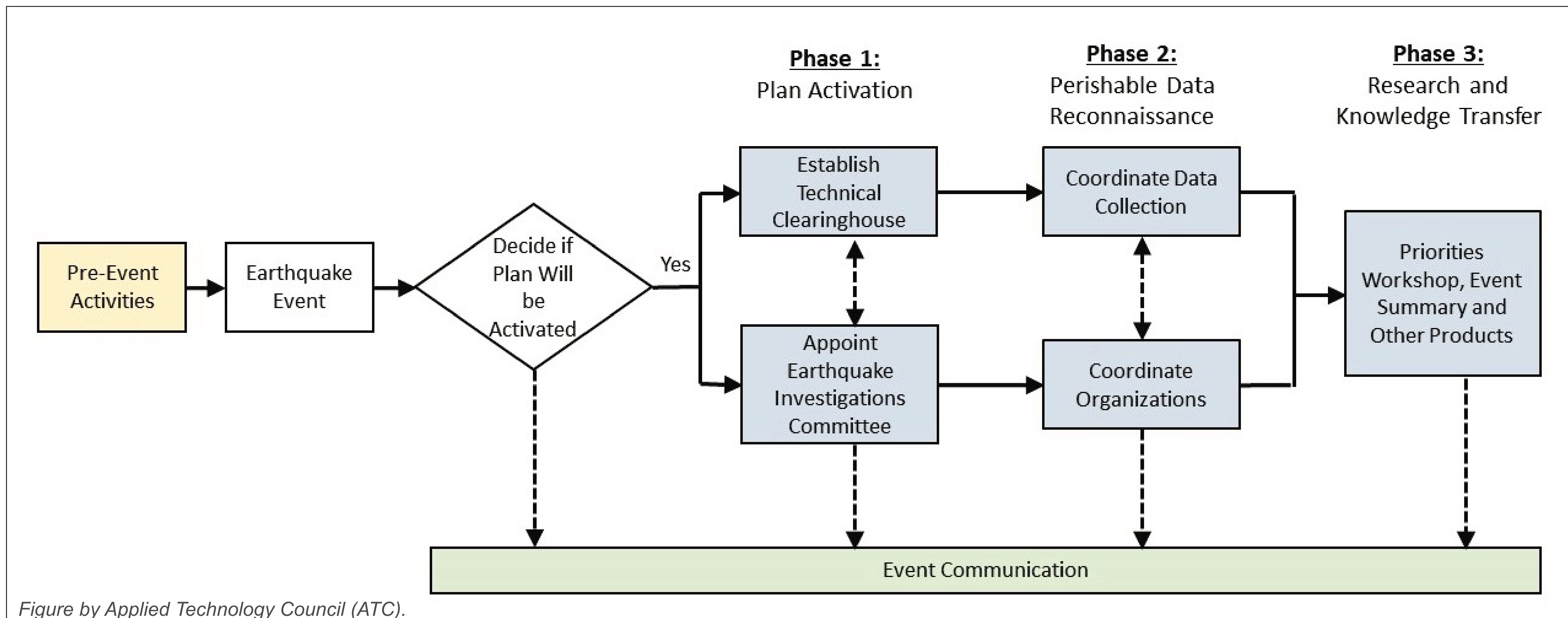


Figure by Applied Technology Council (ATC).

Phase 1: Plan Activation (minutes to days)

- NEHRP agencies launch an investigation.
- Appoint an Earthquake Investigation Committee (EIC) to coordinate investigations, facilitate planning, and transmit findings.
- Establish a Technical Clearinghouse.
- Host calls to plan initial recon activities.
- Inform researchers & stakeholders.

Phase 2: Reconnaissance (days to months)

- Identify priorities for initial data collection.
- Establish contacts with local gov't and orgs.
- Gather and share perishable geoscience, engineering, and social science data.
- Coordinate among recon teams.
- Coordinate with response & recovery efforts.
- Adhere to safe and ethical guidelines.

Phase 3: Research & knowledge transfer (months to years)

- Longer-term studies.
- Sharing of findings via stakeholder workshops, web pages, journal articles, after-action reports, event summaries, and integrative special publications.
- Archiving observations and findings.

Pre-event planning activities

Advance planning helps ensure that the Plan and potential partners are ready for post- earthquake activation. The following activities are recommended for both domestic and international earthquakes:

- Identify NEHRP's strategic goals of investigations.
- Maintain catalog of potential partner organizations.
- Plan for rapid launching of Technical Clearinghouses.
- Plan for engaging with foreign counterparts.
- Refine data-collection methods and standards.
- Exercise the plan.

Outcomes

Findings from NEHRP post-earthquake investigations should be translated quickly and effectively into practices that mitigate the effects of future earthquakes in the U.S. and worldwide.

Outcomes include:

- Improved societal preparedness,
- Enhanced emergency response and recovery,
- Better characterization of earthquake hazards,
- A safer and more resilient built environment,
- Improved land-use practices that support resilience,
- Cost-effective construction and retrofitting of structures and lifelines.

The Türkiye/Syria sequence



Photo by Emirali Kokal/500Px Plus via Getty Images.

The NEHRP agencies, with domestic and international partners, launched a broad suite of investigations & analyses following the February 6 Türkiye/Syria earthquakes.

Earthquake Investigations Committee for the Türkiye sequence:

- USGS** Mike Blanpied (chair), Gavin Hayes
- NIST** Sissy Nikolaou, Steve McCabe, Jay Harris, Siamak Sattar
- FEMA** Andrew Herseth
- NSF** Jacqueline Meszaros, Luciana Astiz
- NASA** Shanna McClain, Gerald Bawden
- USAID** Lindsay Davis, Jenny Riker
- EERI** Earthquake Engineering Research Institute Heidi Tremayne, Maggie Ortiz-Millan

Potential partner agencies and groups

There are many potential partners that participate in post-earthquake investigations.

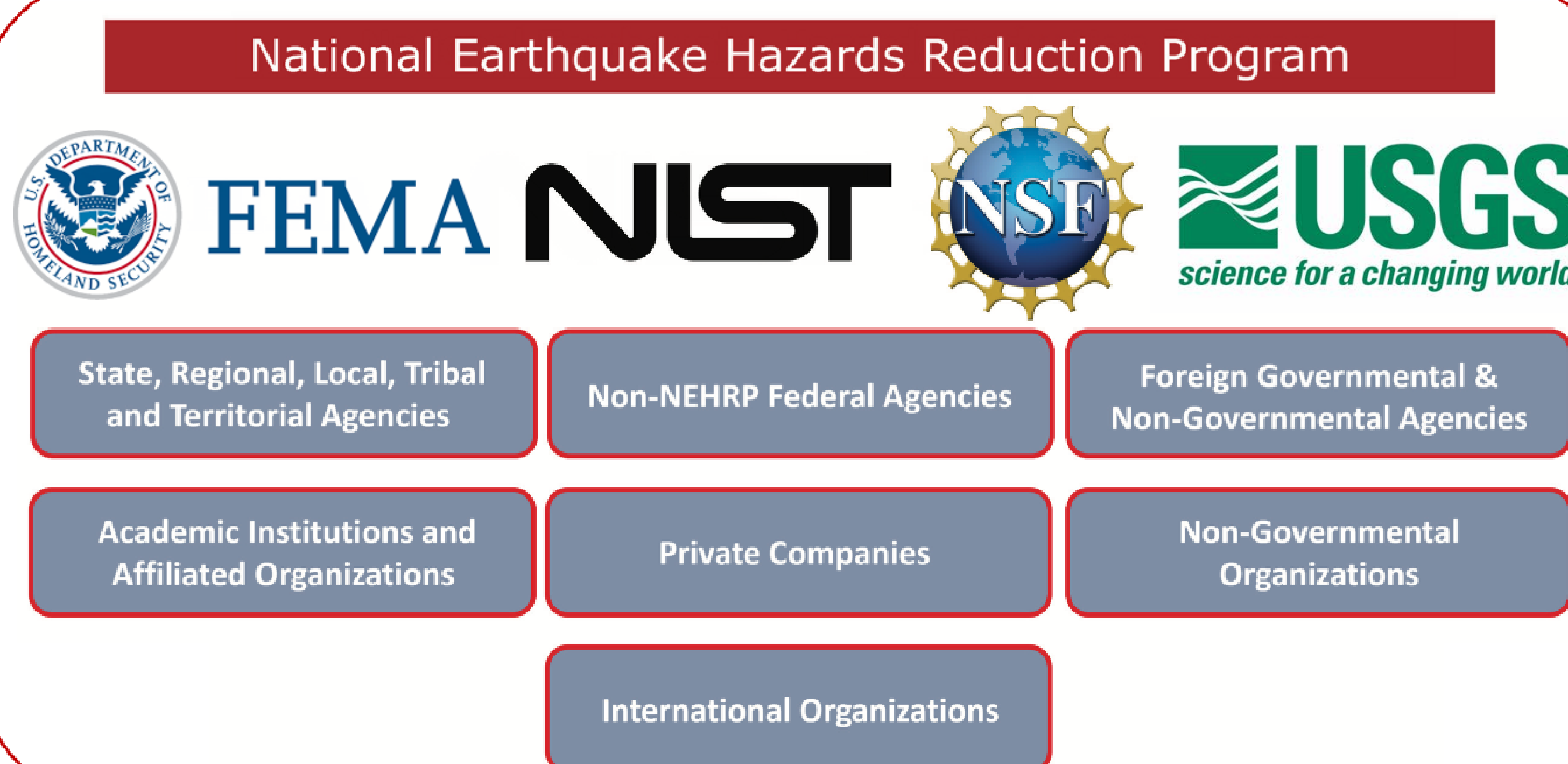


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