An Interactive Web-based Application for Earthquake-triggered Ground Failure Inventories

Project Summary

Ground failure inventories are often created after major earthquakes and are a key research tool that can be used to develop, train, and test hazard models. To eliminate redundant efforts among scientists who study earthquake-triggered landslides and liquefaction, and to encourage an attitude shift toward open-access in this community, our goal is to make earthquake-triggered ground failure inventories openly available and easily accessible. To accomplish this goal, we have created a ScienceBase Community and developed an interactive web application.

Motivation

- Earthquake-triggered landslides and liquefaction contribute significantly to earthquake losses but are currently difficult to model, particularly on regional scales.
- To develop the models we need, researchers need access to many inventories of ground failures from past earthquakes.
- Numerous ground failure inventories exist, but there is no centralized repository where acquiring these datasets from their individual authors is a laborious process.
- A centralized, open, and easy-to-access repository of ground failure inventories will eliminate redundant effort and help accelerate progress towards understanding and anticipating ground failure hazard and losses.

Application Benefits

- Access complete attribute information within the web application.
- Quickly access inventories from different queries (Magnitude, dates, country, etc.)
- Allows users to change basemap to their preference
- Full-use of the web application on mobile devices
- Widgets can be configured to enhance the application without any coding necessary

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