

International Day for DRR and GEM's global hazard and risk maps

John Schneider
GEM Senior Advisor

GEM Global Earthquake Maps Release
13 October 2023

Online Event



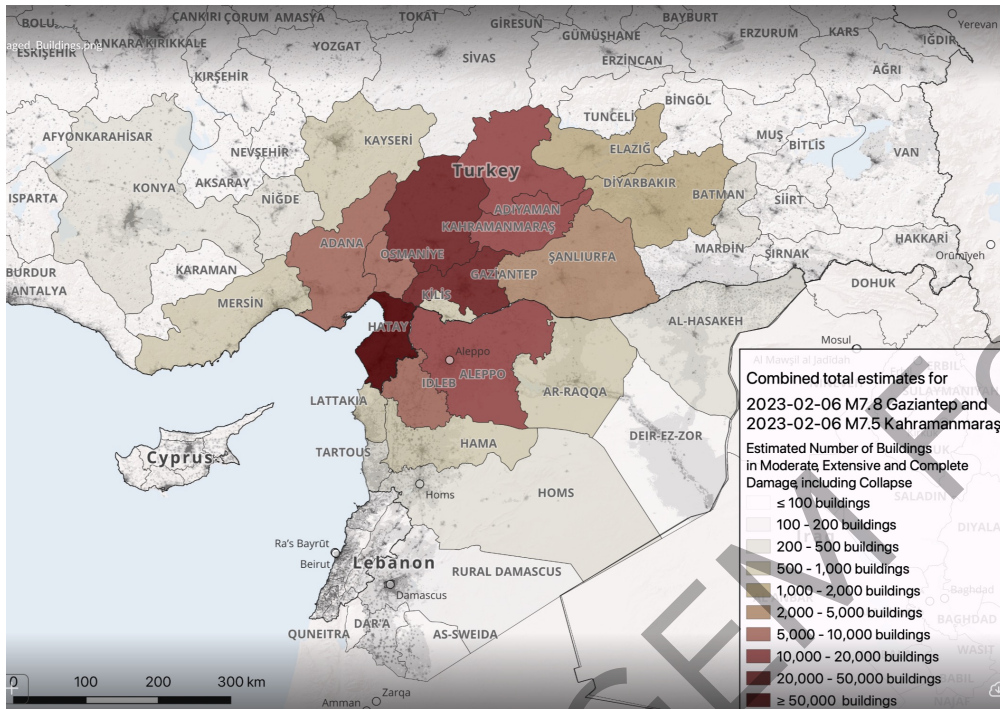
International Day for DRR and release of GEM maps

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- Release of new maps and related products in recognition of DRR Day
 - GEM's mission and principles aligned SFDRR
 - Longstanding collaboration with UNDRR
- Major earthquakes in 2023 underscore earthquake risk
- DRR Day Theme: Reciprocal relationship between disasters and inequality.
 - Countries with greatest earthquake risks tend to be poor
- Development and distribution of GEM Global Maps

Major earthquakes in 2023 underscore earthquake risk

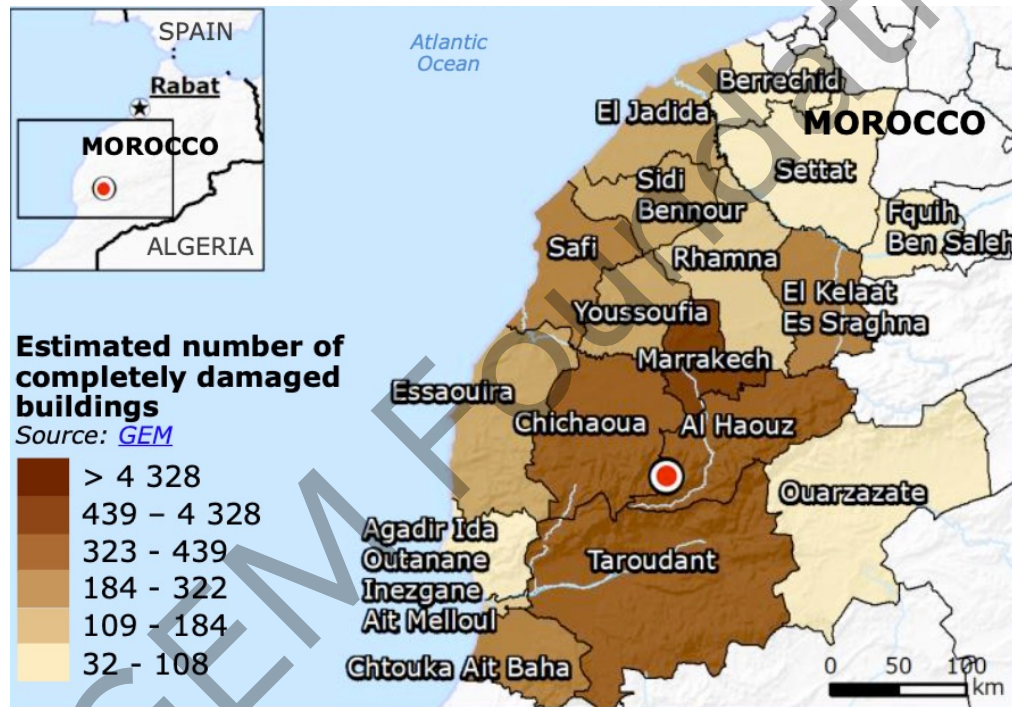
6-7 Feb, M7.8 and 7.7 Kahramanmaras, Turkey



50,000 deaths; 16M affected

Major earthquakes in 2023 underscore earthquake risk

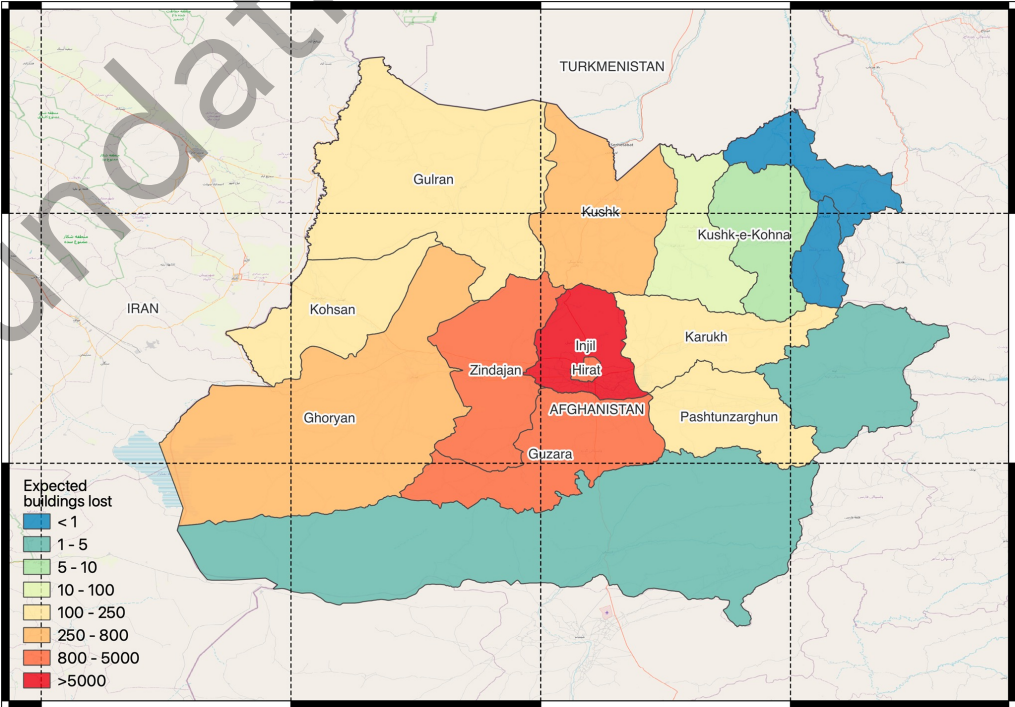
8 Sept, M6.8 Al Haouz, Morocco



>3,000 deaths, 7 M affected

Major earthquakes in 2023 underscore earthquake risk

8-12 Oct, M6.3 (3) Herat, Afghanistan



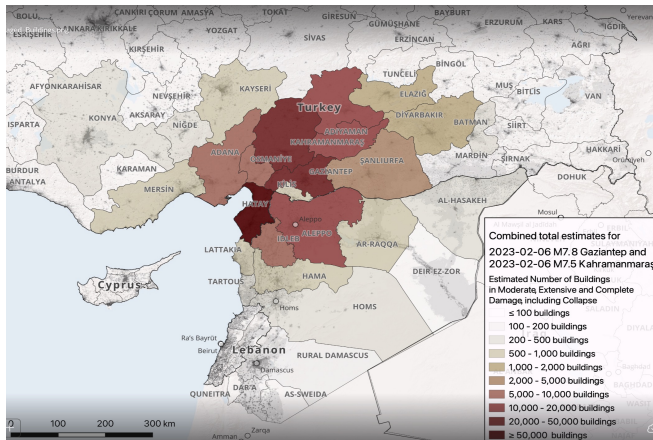
>2,500 deaths; 12 K affected

GEM FOUNDATION



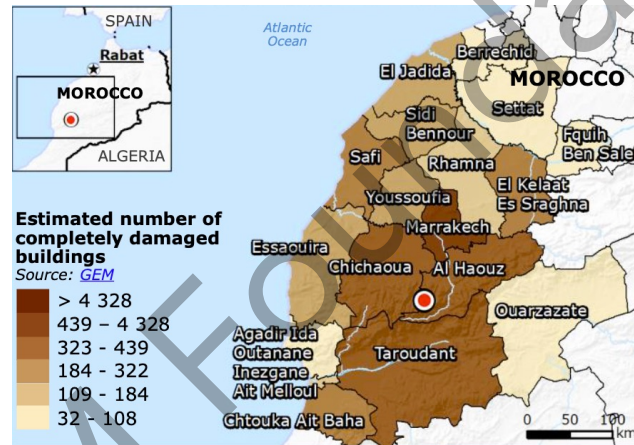
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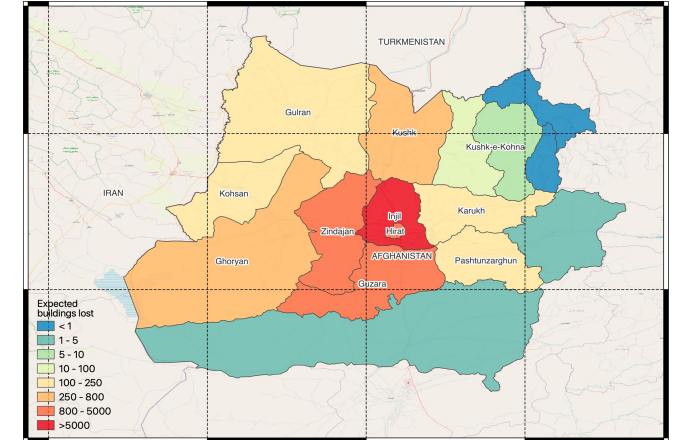
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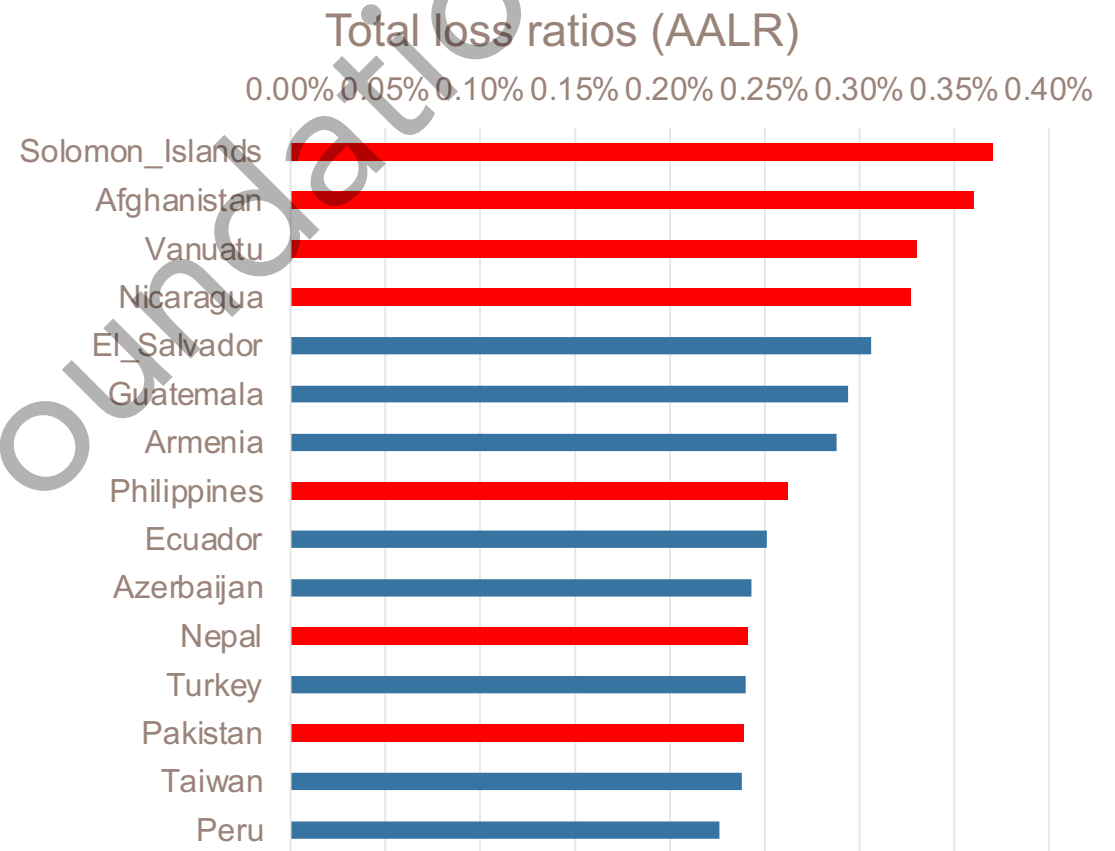
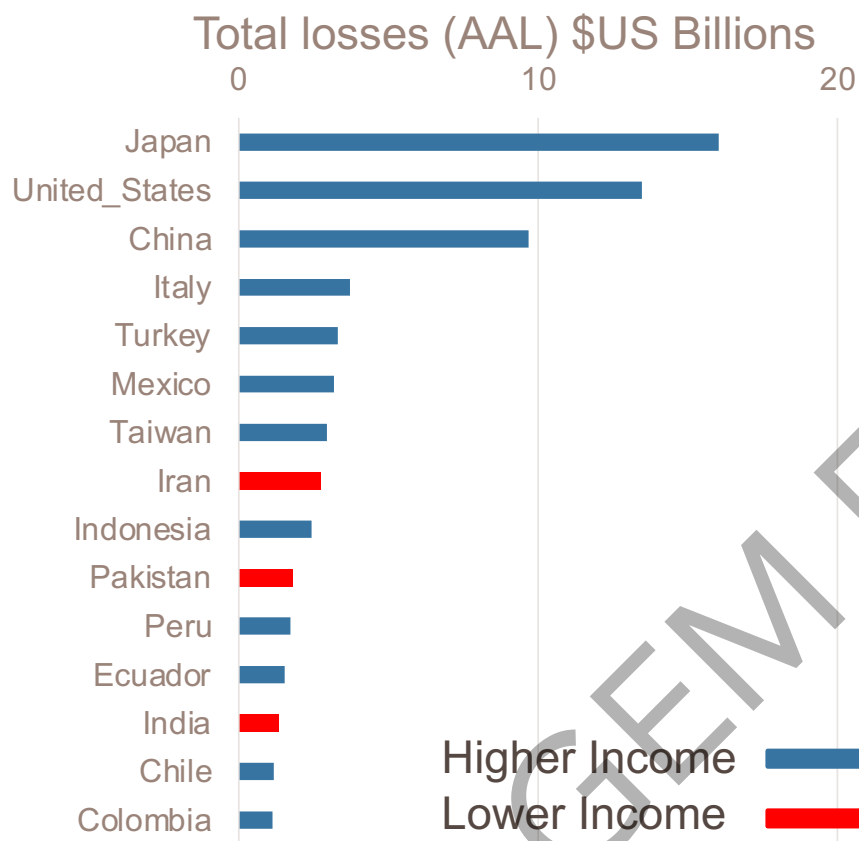
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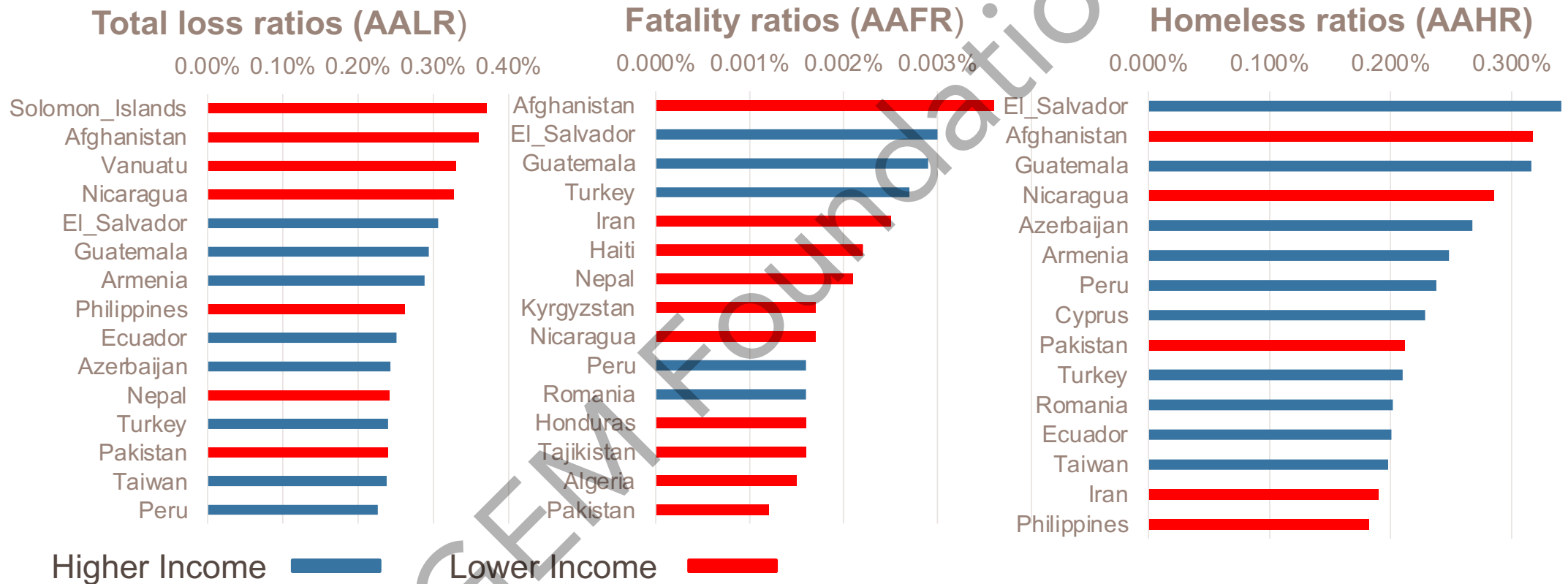
>2,500 deaths; 12 K affected

*Note: Rapid loss assessment not a 24/7 service; available only by request

Global Seismic Risk – Average Annual Loss



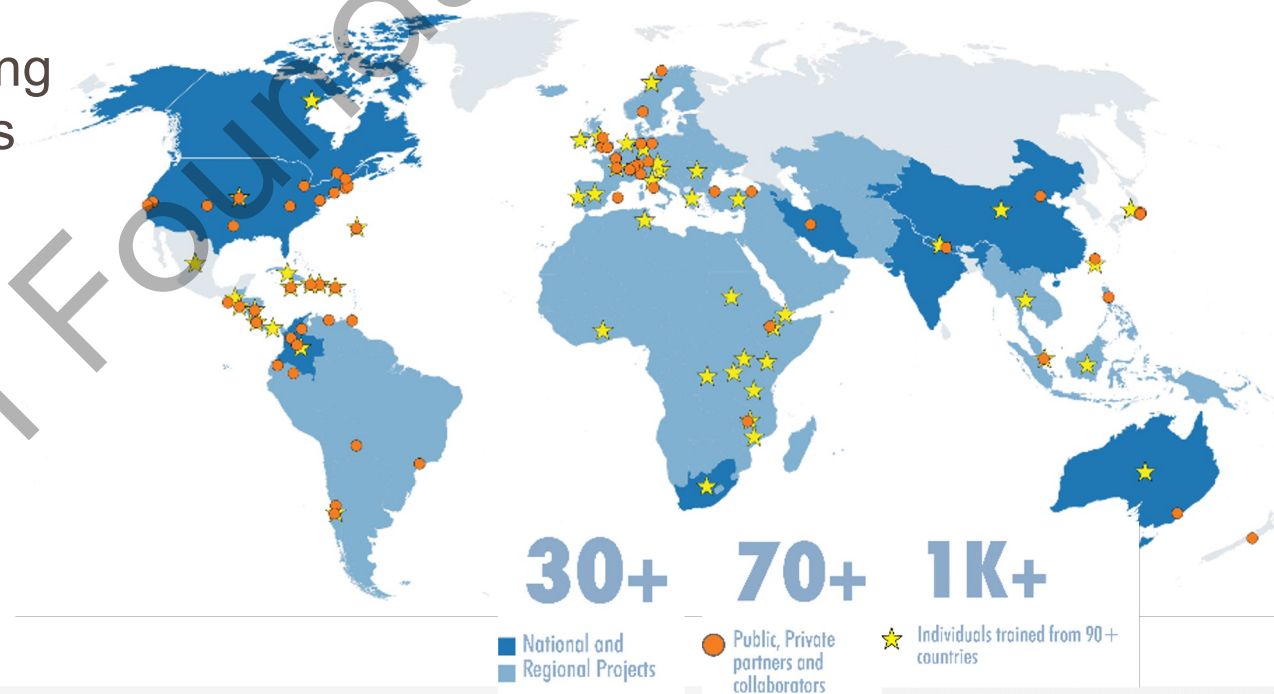
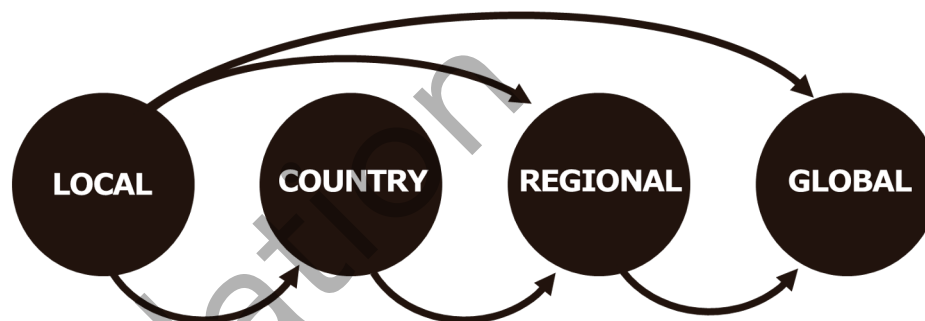
Global Seismic Risk – Average Annual Loss



Note: World Bank income classification based on income per capita in US dollars

Collaboration Framework

- Built upon collaborations and partnerships
- Multi-level approach, linking local through global actors and initiatives
- Guiding GEM Principles:
 - Collaboration
 - Credibility
 - Openness
 - Public-good



GEM 2018 Product Launch





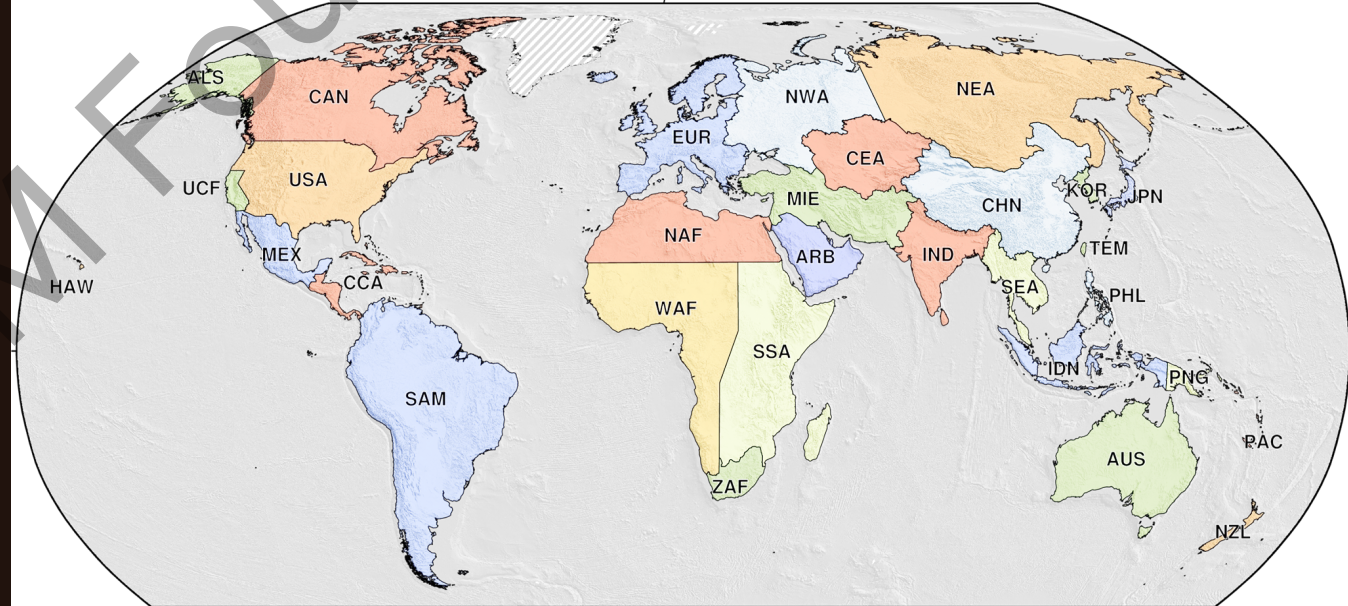
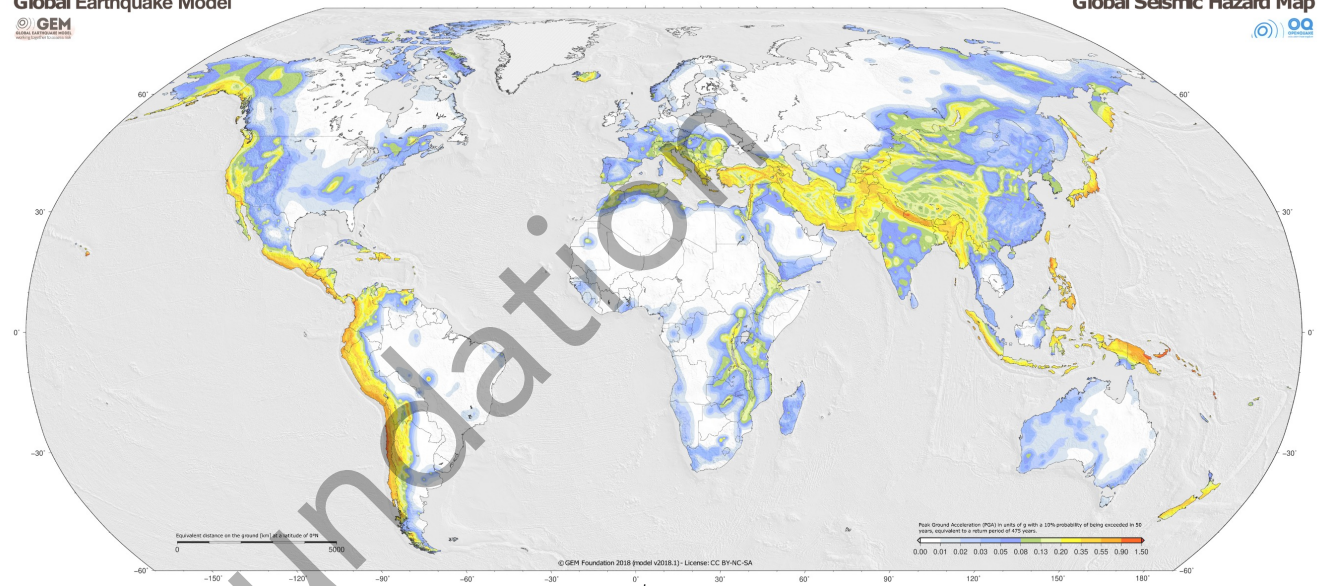
THE FRAMEWORK

GLOBAL LEVEL

GLOBAL EARTHQUAKE RELATED PRODUCTS

- Mosaic of models covering the world
- Built from local, national and regional levels
- promote best practice and appraise state-of-the-art globally
- Consistent methodology, using OQ as the standard

Global Earthquake Model





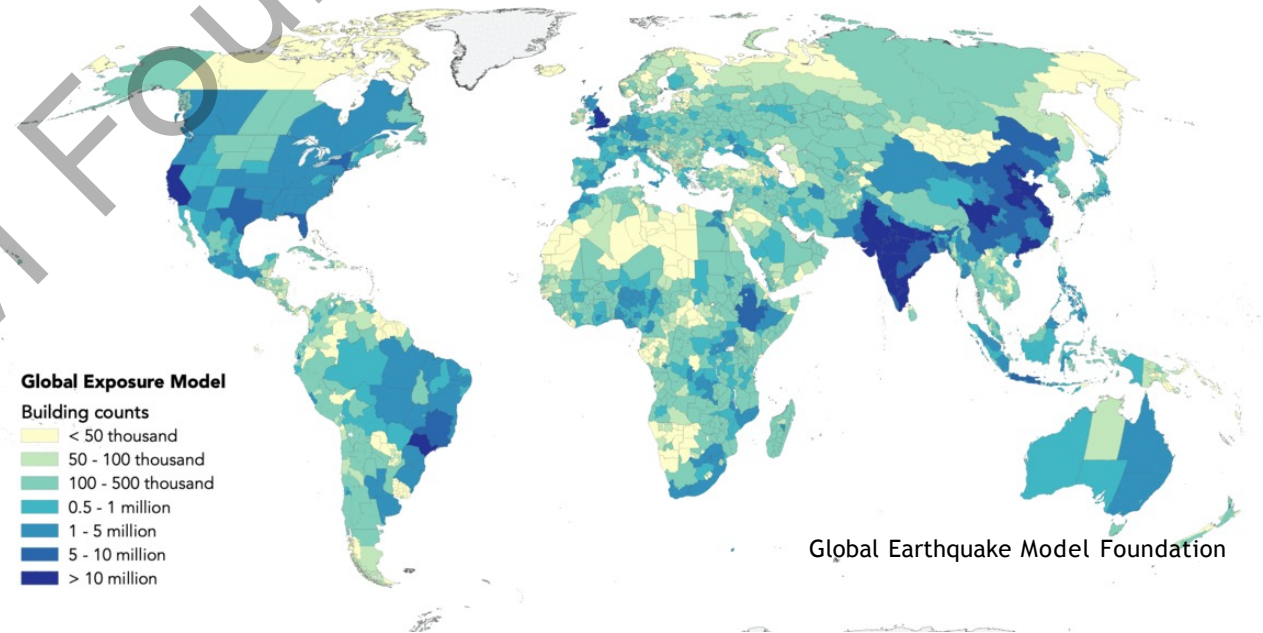
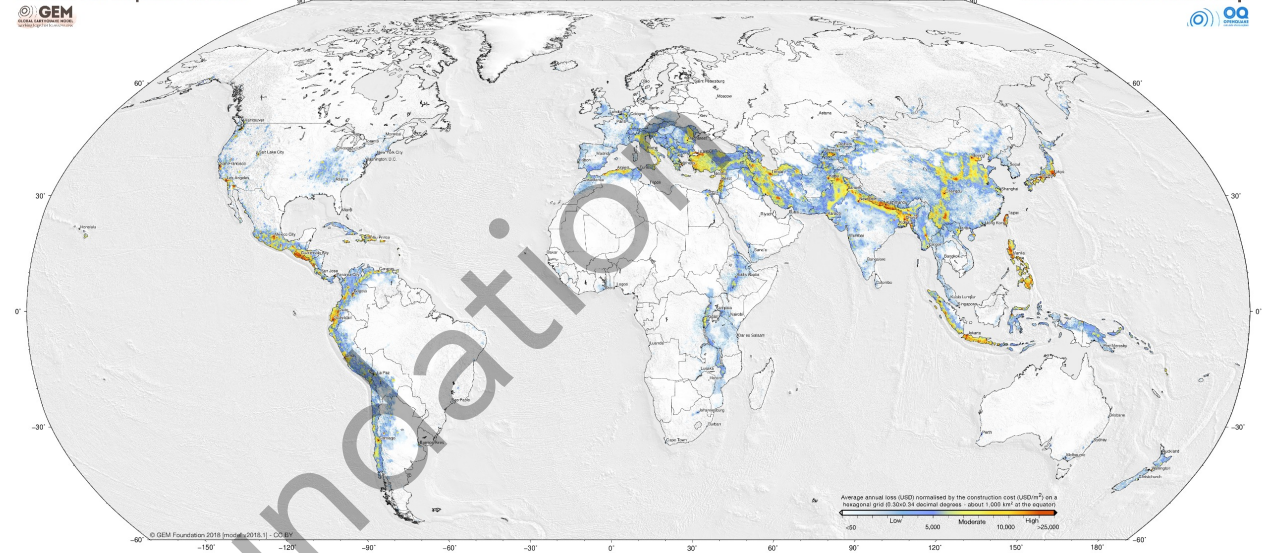
THE FRAMEWORK

GLOBAL LEVEL

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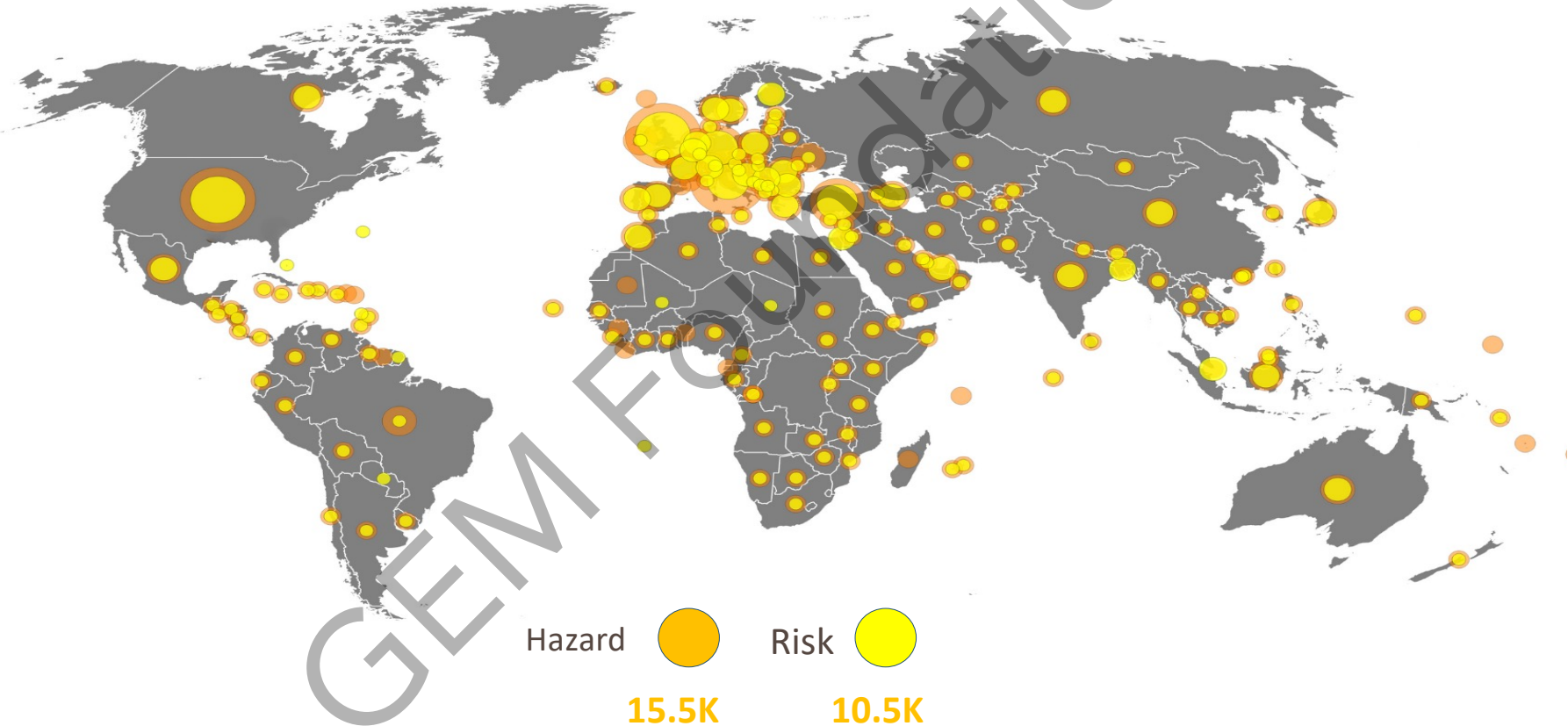
- GED4All taxonomy
- 600+ vulnerability functions
- Exposure developed from national censuses, building surveys, Open Street Map, satellite imagery, ...
- Building coverage: Residential, Commercial and Industrial

Global Earthquake Model



Global Earthquake Model Foundation

Distribution of GEM Global Maps



Thank You

GEM Foundation

Please attribute to the GEM Foundation with a link to:
<https://www.globalquakemodel.org>



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