

# THE GEM FOUNDATION: A COLLABORATIVE SOLUTION

Initiated by the OECD's Global Science Forum in 2004, and established in 2009 as a non-profit organisation, the GEM Foundation addresses a critical challenge: the lack of readily available, high-quality data and limited access to standardised, open-source information and tools for earthquake risk assessment. Backed by international public and private institutions, including academia and UN agencies, GEM offers a comprehensive approach to address this gap.

## OUR ADVANTAGE: EXPERTISE AND TRANSPARENCY

GEM stands out for its comprehensive approach to earthquake risk assessment. We offer a complete suite of high-quality methods, standards, products and services – from hazard and exposure modeling to vulnerability and risk assessment – all focused on seismic risk reduction and mitigation.

**Collaborative and Transparent:** GEM prioritises collaboration, openness, and transparency. This ensures the reliability and public benefit of our services, making us a trusted partner for earthquake risk preparedness.

### OUR PIONEERING OPEN-SOURCE TOOLS



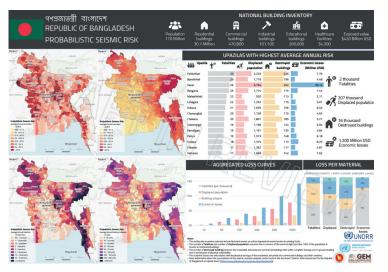
At the core of GEM's approach lies the **OpenQuake Engine**, a state-of-the-art, freely available software that underpins our global earthquake hazard and risk assessment training efforts. This commitment to capacity development and open access extends to all GEM's products and tools, readily downloadable from our website

## BECOME A PARTNER: BENEFITS OF SUPPORTING GEM

- Shape the future of global earthquake modeling
- Connect with a global network of public and private partners
- Contribute to the development of the OpenQuake engine
- Help maintain and improve GEM's public benefit resources
- Access to global databases, open-source software, and tools
- Become part of a network of leading earthquake hazard and risk scientists and modeling experts







#### For Governments:

- Improved Decision-Making: GEM supports governments to make informed decisions regarding land-use zoning, urban planning, emergency response planning, and building code development. This focus on risk reduction is particularly crucial in densely populated areas.
- Collaborative Expertise: Addressing earthquake risk assessment is a complex task. GEM promotes partnerships with national and regional scientific and research institutions, providing access to a global network of experts.

### For Humanitarian Organizations:

- Targeted Support: By identifying high-risk areas, GEM enables humanitarian organisations to concentrate their efforts on the communities most vulnerable to earthquakes. This targeted approach optimises resource allocation and maximises impact.
- Public Good Products: GEM's free and open-source tools empower humanitarian organisations to conduct their own risk assessments and tailor their interventions accordingly.

#### For Academia:

- Open Source Tools: GEM offers open data and cutting-edge open source scientific tools such as the OpenQuake Engine that can be used to advance research in earthquake hazard and risk at various scales.
- Global Collaboration: Join a global network of leading scientists and experts in earthquake hazard and risk modeling, strengthening knowledge exchange and accelerating scientific advancements.

**Top left:** Zonation workshop held in El Salvador with government agencies and emergency responders as part of the activities of the USAID BHA-supported FORCE Project. **Right:** Bangladesh probabilistic seismic risk profile developed with support from UNDRR and Bangladeshi government.

### **GET INVOLVED: JOIN US!**





GEM Secretariat with Governing Board Members, Pavia, Italy, December 2023

By supporting GEM, you become part of a global initiative shaping the future of earthquake modeling. Gain access to a global network of experts, cutting-edge tools, and the opportunity to contribute to a safer and more resilient world.





