Advancing the State of Open Data and its use for DRM in the Balkan

Photo by Alexandr Bormotin on Unsplash

Open Data for Resilience Initiative

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GFDRR
Global Facility for Disaster Reduction and Recovery

www.opendri.org

OpenDRI brings the philosophies and practices of the global open data movement to the challenges of reducing vulnerability and building resilience to natural hazards and the impacts of climate change across the globe.

SHARING DATA

COLLECTING DATA

USING DATA

OpenDRI principles

Disaster risk data should be:

1. Open by default

2. Accessible, Licensed, & Documented

3. Co-created

4. Locally Owned

5. Communicated in ways that meet needs of diverse users

Open Data projects in the disaster risk space should be designed to:

6. Engage user communities

7. Develop Strong Institutional Partnerships

8. Prioritize Open Source

9. Set clear, long-term goals

www.thinkhazard.org

Enter location (e.g. Indonesia or Bali)

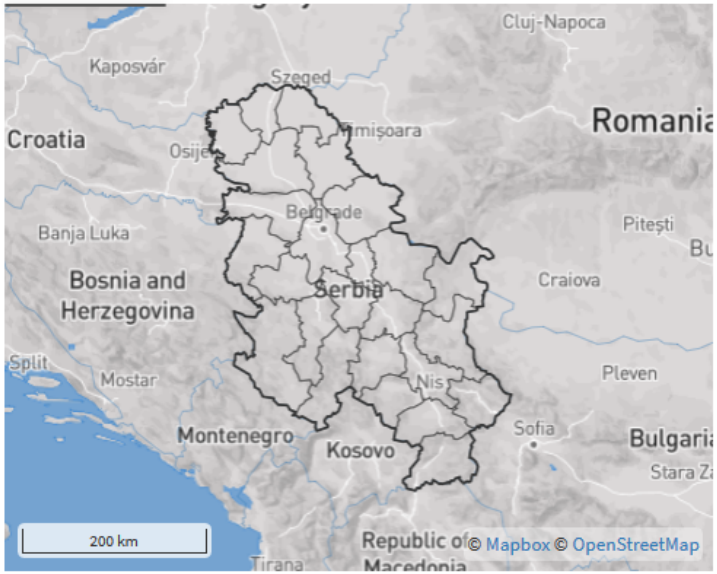
User feedback Data Map About FAQ English

Serbia

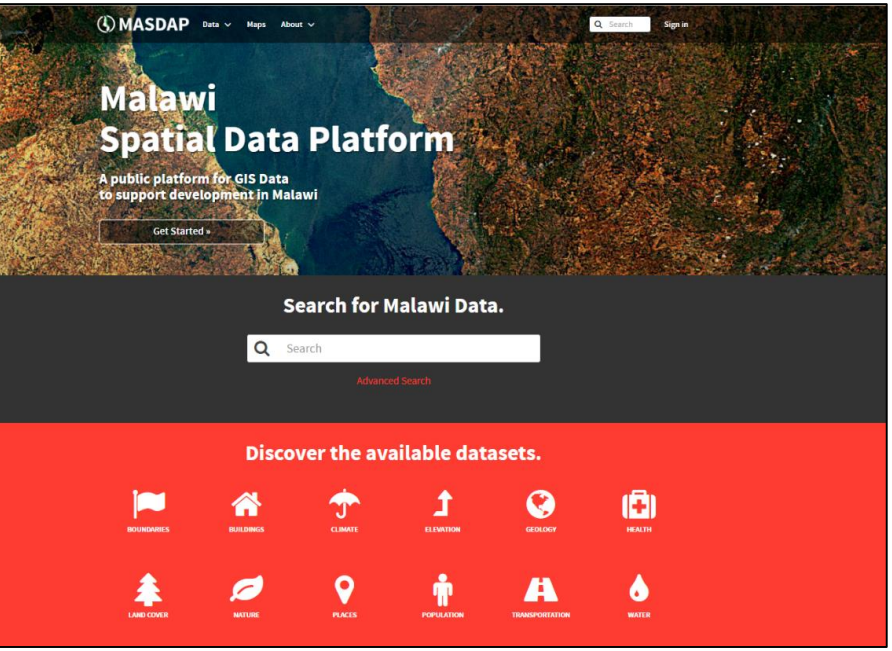
Download PDF

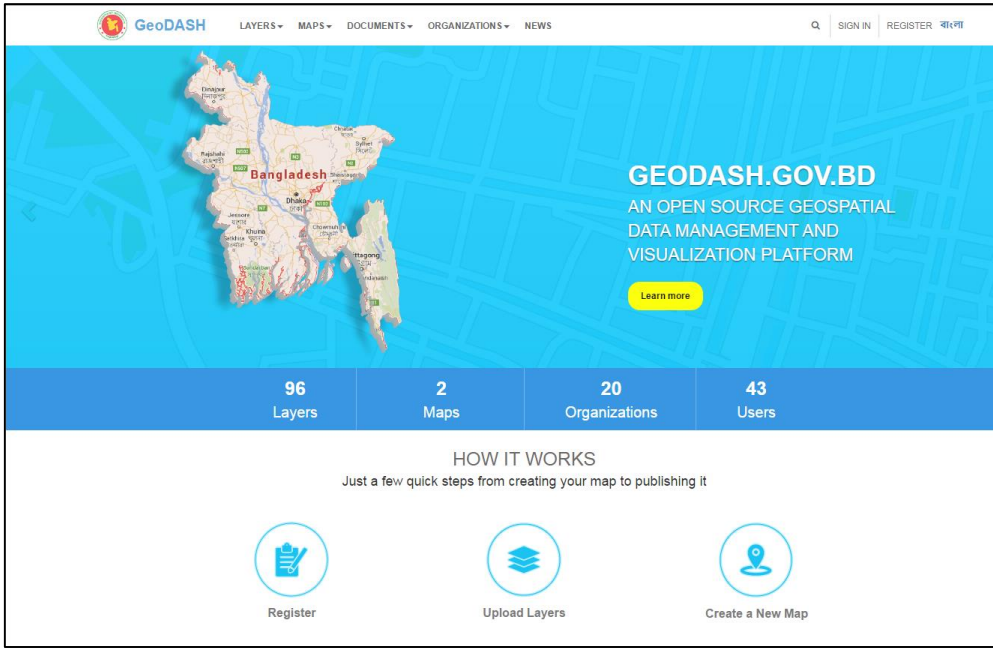
Serbia

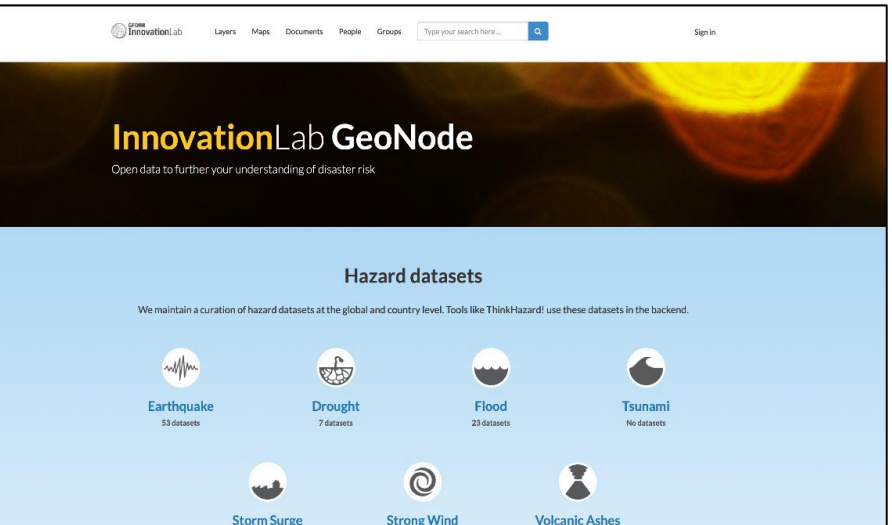
	HAZARD LEVEL
River flood	High
Urban flood	High
Wildfire	High
Earthquake	Medium
Water scarcity	Medium
Extreme heat	Medium
Coastal flood	Very low
Landslide	Very low

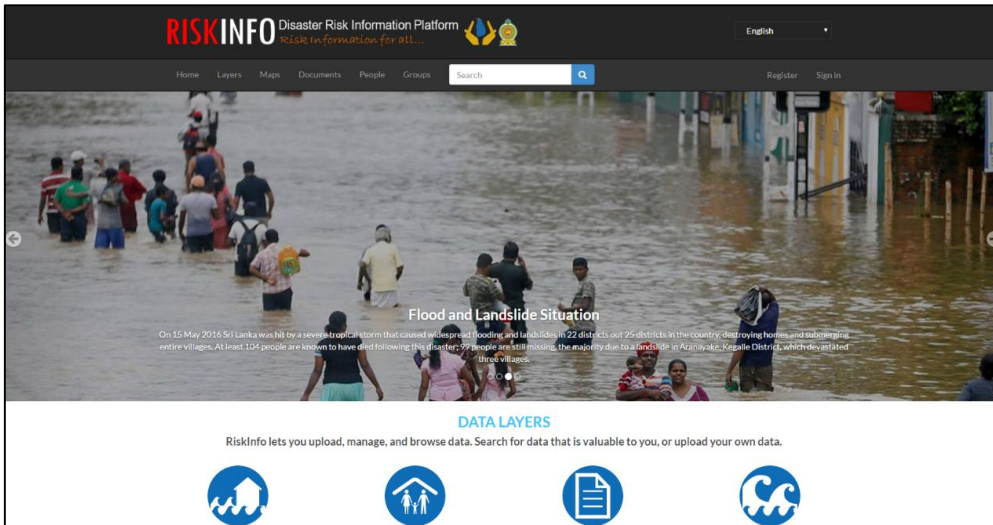


www.geonode.org

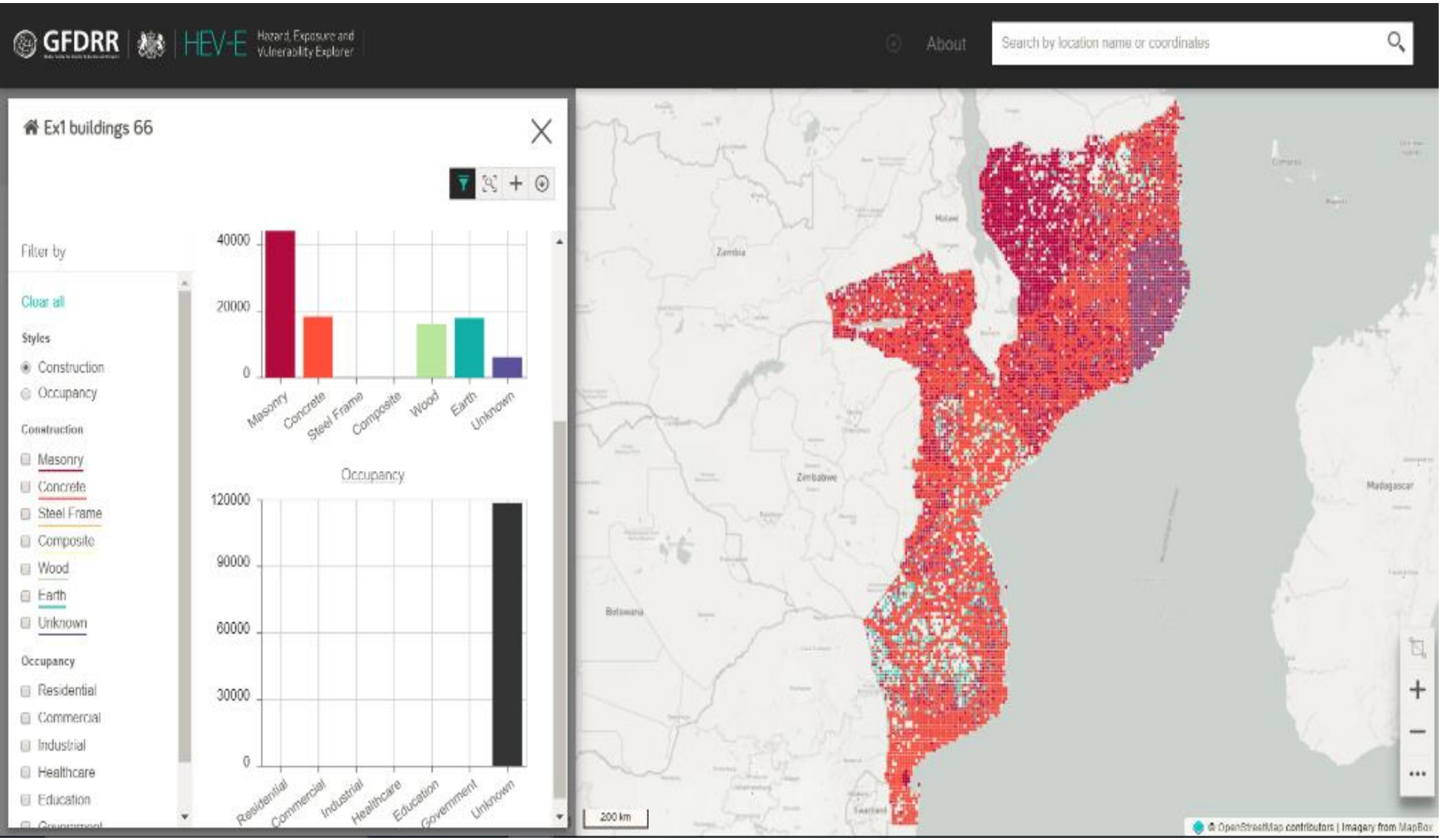




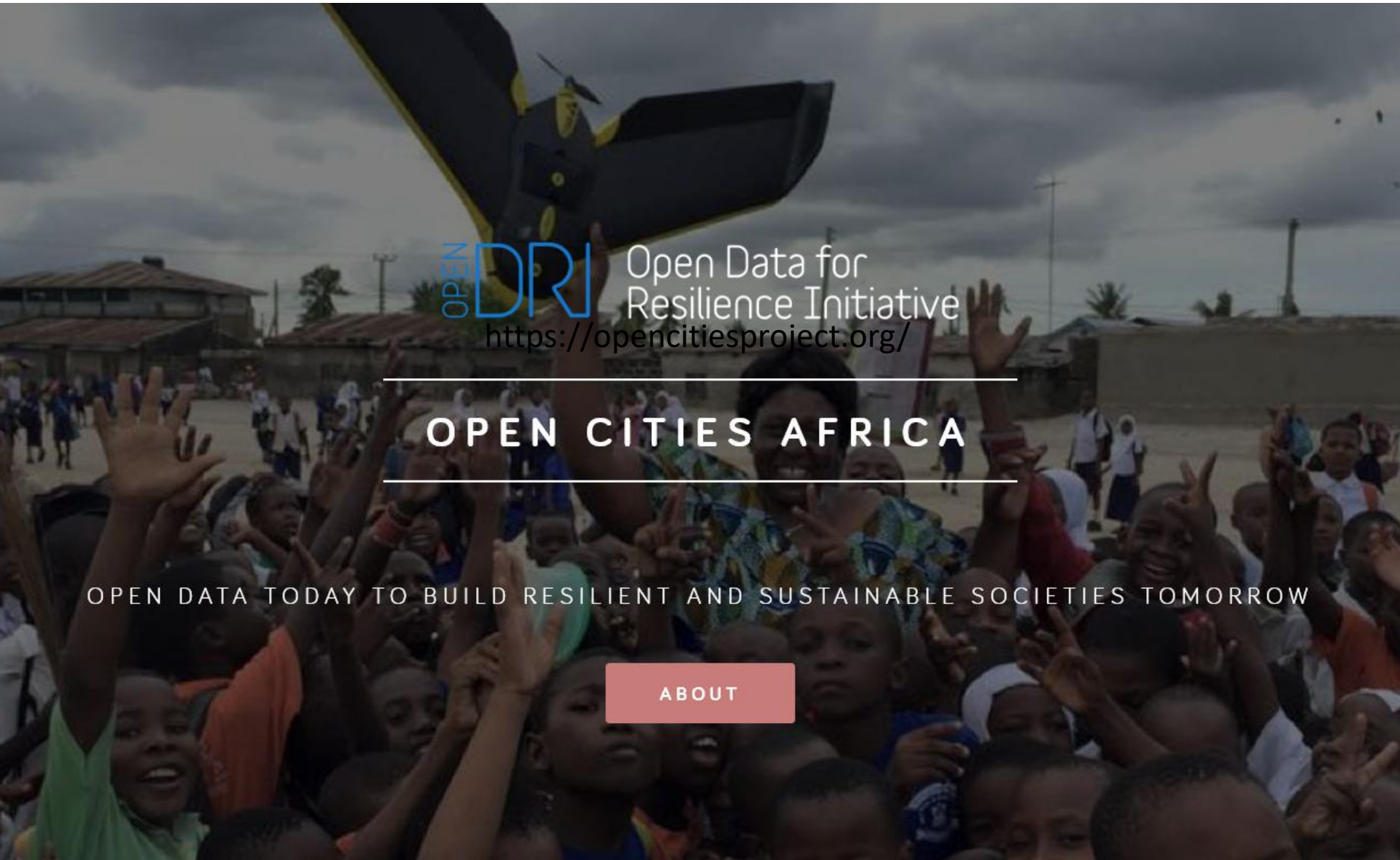




www.assess-risk.info



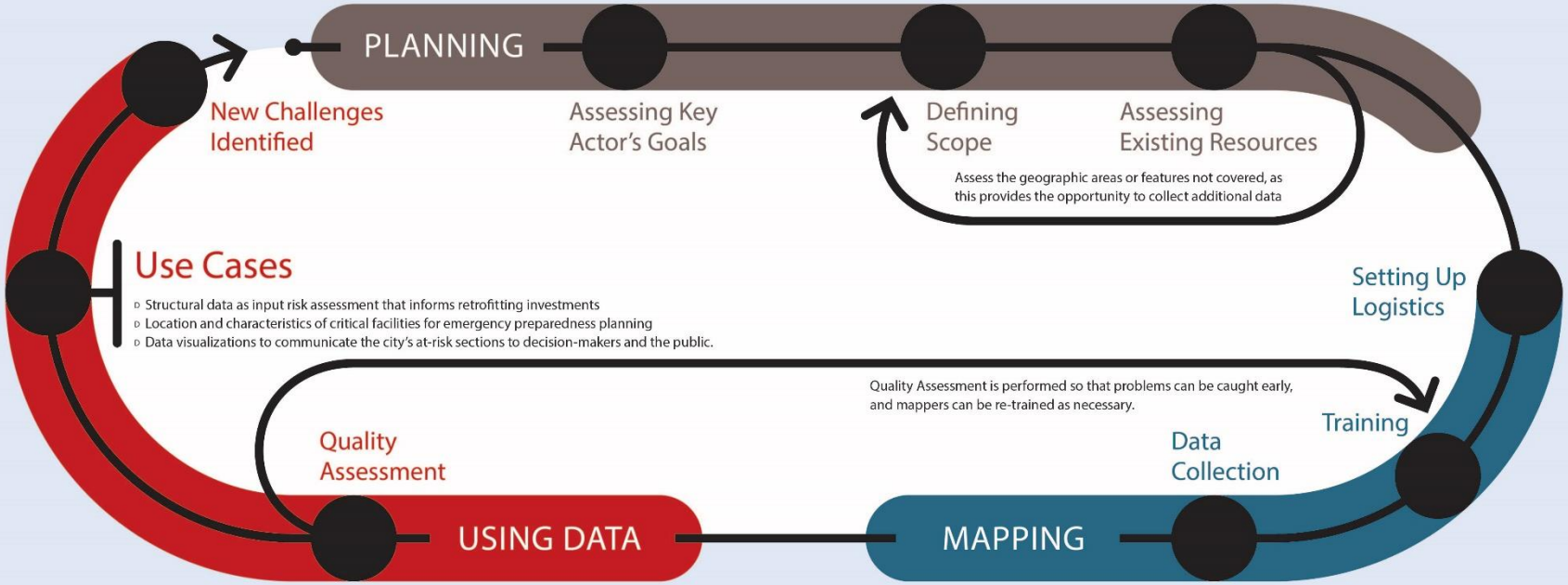
opencitiesproject.org



opencitiesproject.org

Open Cities Process Diagram

Designing and executing Open Cities projects is a complex task that involves a great deal of coordination with partners, technical and scientific work, team and volunteer coordination and management, and logistical work. While the format of this book necessarily presents these steps as linear, in practice this tasks are ongoing, iterative, and happening in parallel.



Building the Ecosystem

Each part of an Open Cities project offers opportunities for involving new participants, demonstrating the value of open data, and supporting the growth of the networks organizations and individuals who can continue to update the data or champion the work after the project itself is complete. Finding ways to build the ecosystem of data contributors and users involved in an Open Cities project is key to long-term sustainability and impact.

We are data workers

Open Data for Resilience Needs Assessment for Serbia

Draft version, October 31, 2016

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Hazard / Exposure / Base	Datasets	Name / Title	Agency owning the data (name, contact person, phone, email)	Agency maintaining the data (name, contact person, phone, email)	Spatial Coverage (national, name of particular islands, districts, etc.)	Highest Resolution Available	Spatial representation type (vector, raster, tabular data) if applicable	Format of the dataset (inclu "hard copy")
Hazard								
	Existing Hazard Zones							
	Maps or GIS shapefile that identify flood prone areas for given return periods, and severity information (e.g. flood depth)	Floods Prone Zone Return Period 100 and 1000 years	Water Directorate and Public Water Management Companies		only partial coverage, the rest will be developed under the IPA project			
	Meteorological Data							
	Historical rainfall data	Rainfall trends in Serbia from 1961 to 2009	Laboratory for development of the open source geospatial technologies, Department of Geodesy and Geoinformatics of the Faculty of Civil Engineering, University of Belgrade	Laboratory for development of the open source geospatial technologies, Department of Geodesy and Geoinformatics of the Faculty of Civil Engineering, University of Belgrade, kili@grf.bg.ac.rs	Serbia		Shapefile	XML
	Stream flow data							
	Historical streamflow data							
	Location of stream gauging stations	Distribution of stations on regional stations and on the basins of major rivers	Republic Hydrometeorological Service of Serbia	Republic Hydrometeorological Service of Serbia	National	No geocoordinate published	Descriptive - Distance from the river mouth (km)	HTML presentation pages
	Water levels				National	-	-	HTML presentation pages
	Topography							
	Watershed boundaries	Watershed_bigger	Republic Hydrometeorological Service of Serbia, published by Republic Geodetic Authority	Republic Hydrometeorological Service of Serbia	National	-	Vector	ESRI shapefile
Flood								

Index.opendri.org

A joint effort by:

Open Data for Resilience Initiative

Supported by:

GFDRR

Submit a dataset | Explore locations | Documentation | About | Get the data

Information on this website is crowdsourced. Results can be incomplete and should always be read carrefully as well as sources checked.

Which data?

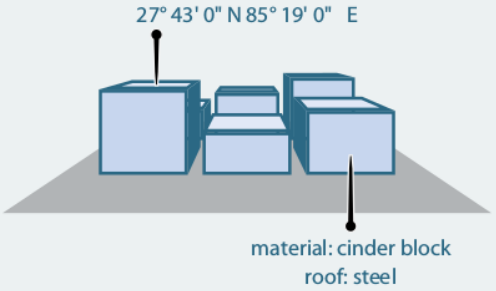
The Components for Assessing Risk

HAZARD

The likelihood, probability, or chance of a potentially destructive phenomenon.

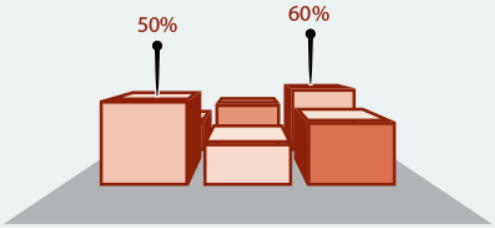
EXPOSURE

The location, attributes, and values of assets that are important to communities.



VULNERABILITY

The likelihood that assets will be damaged or destroyed when exposed to a hazard event.

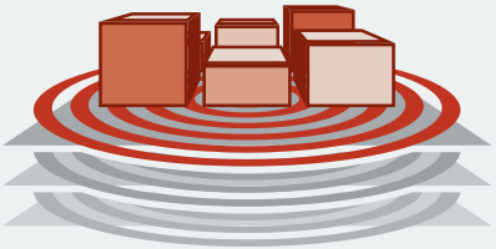


IMPACT

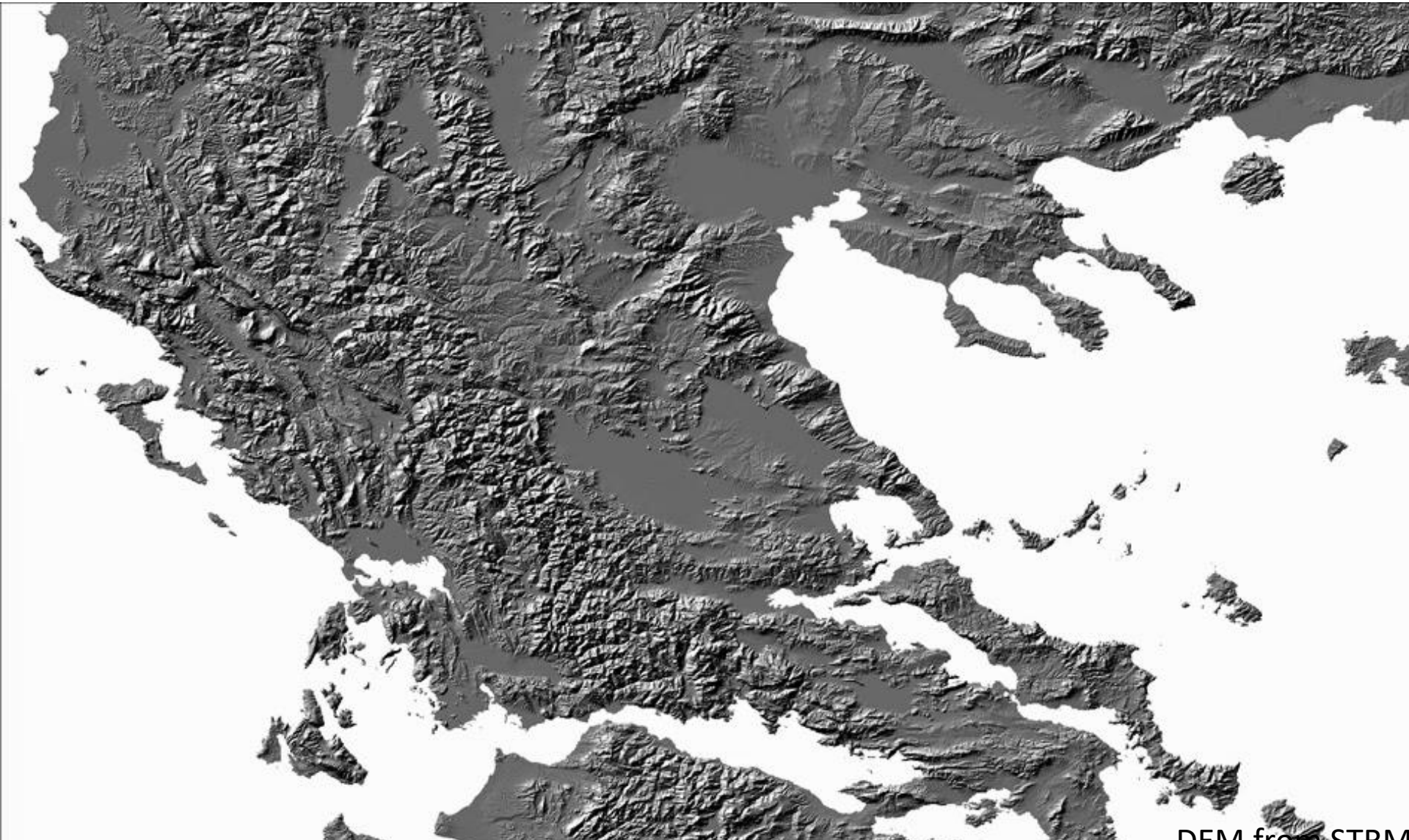
For use in preparedness, an evaluation of what might happen to people and assets from a single event.

RISK

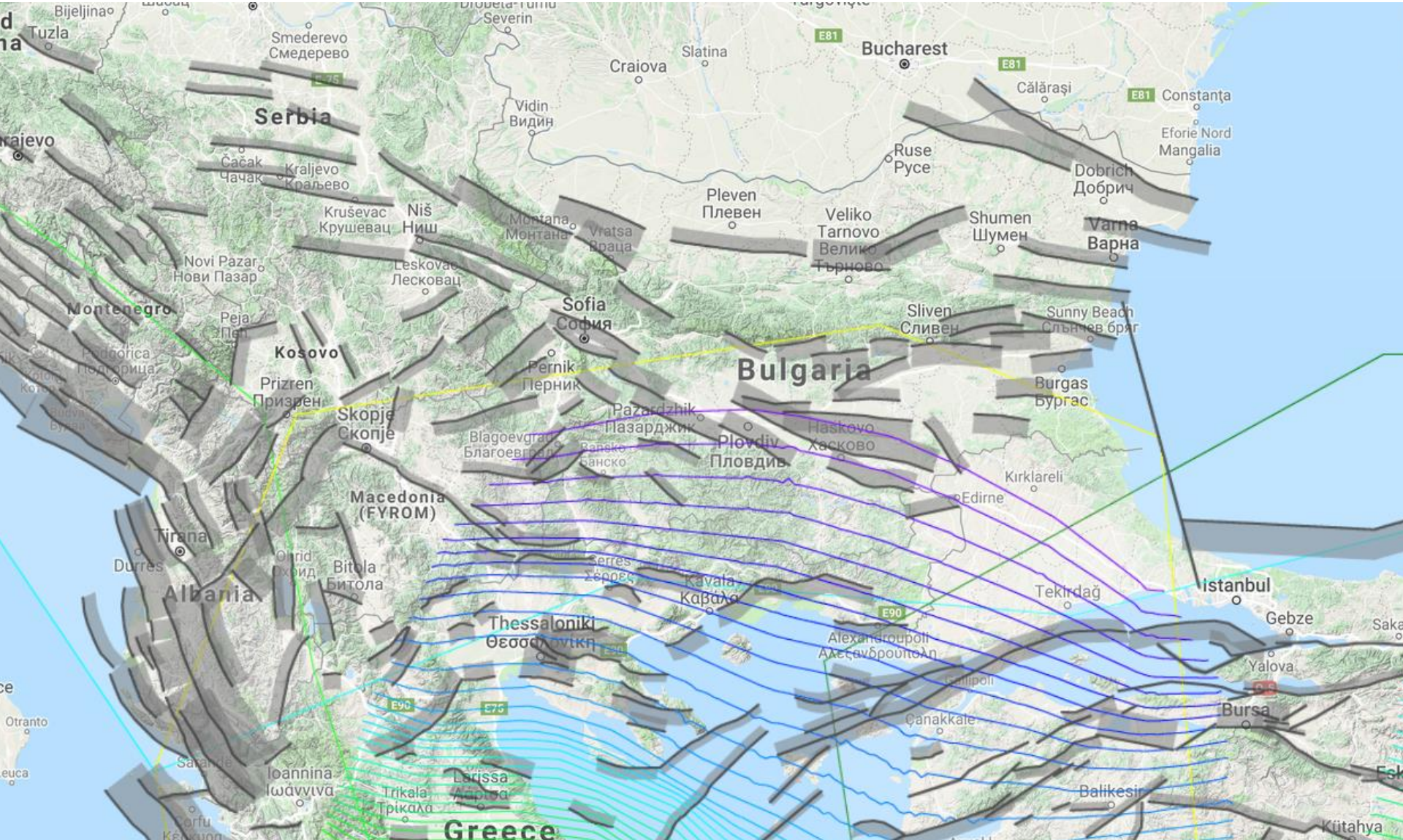
Is the composite of the imacts of **ALL** potential events (100s or 1,000s of models).



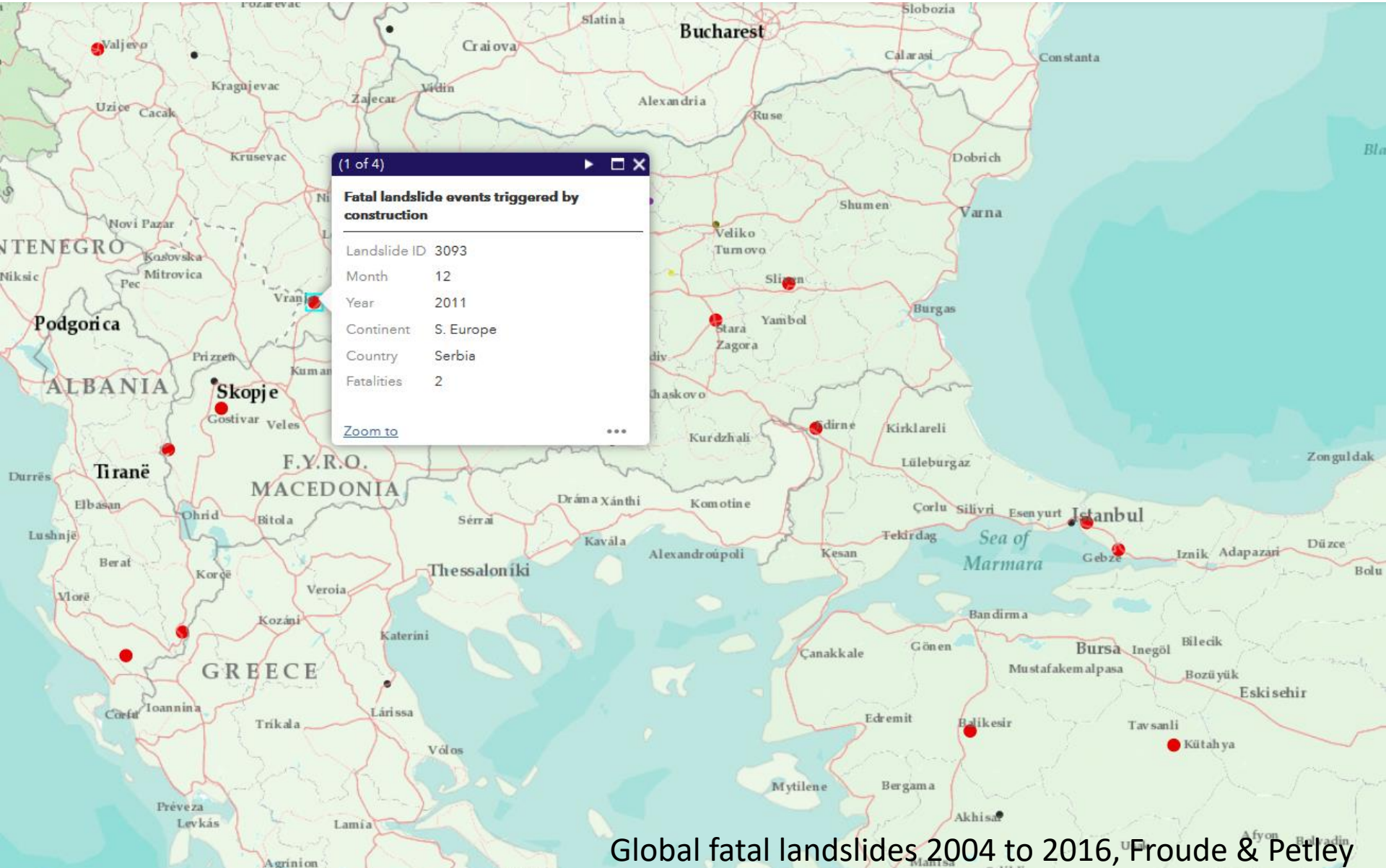
Digital Elevation Model



Hazard specific data

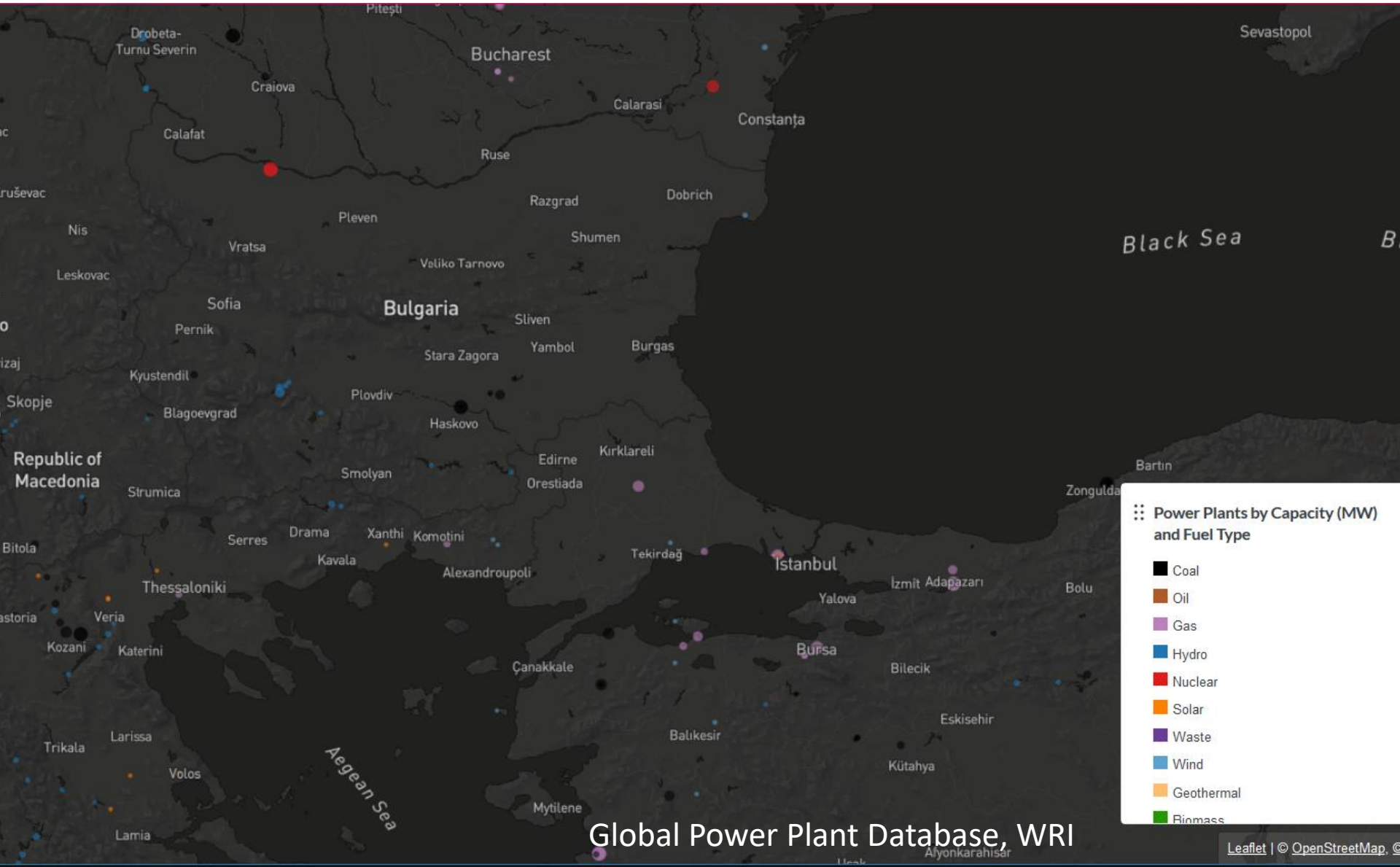


Past hazard events



Global fatal landslides 2004 to 2016, Froude & Petley

Critical infrastructures

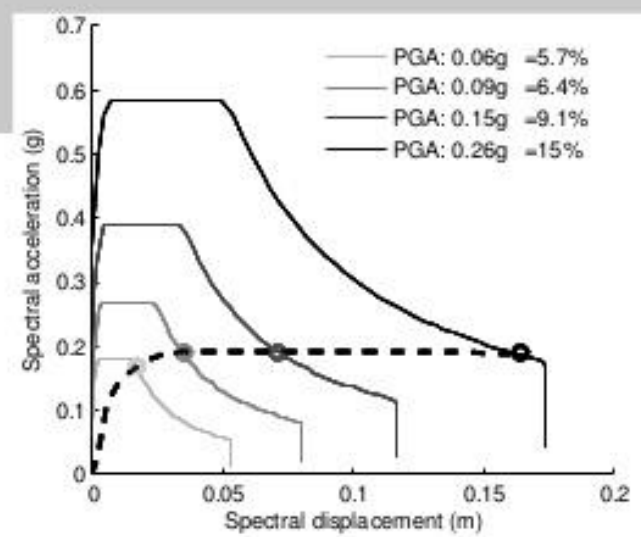


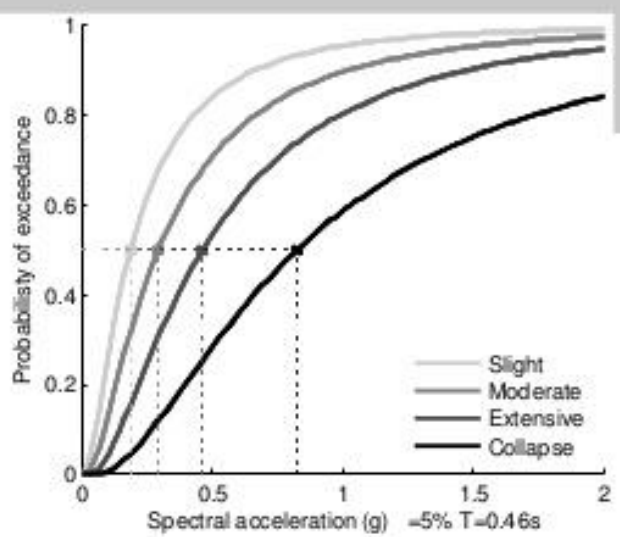
Global Power Plant Database, WRI

Vulnerability curves

Development of a new fragility/vulnerability model

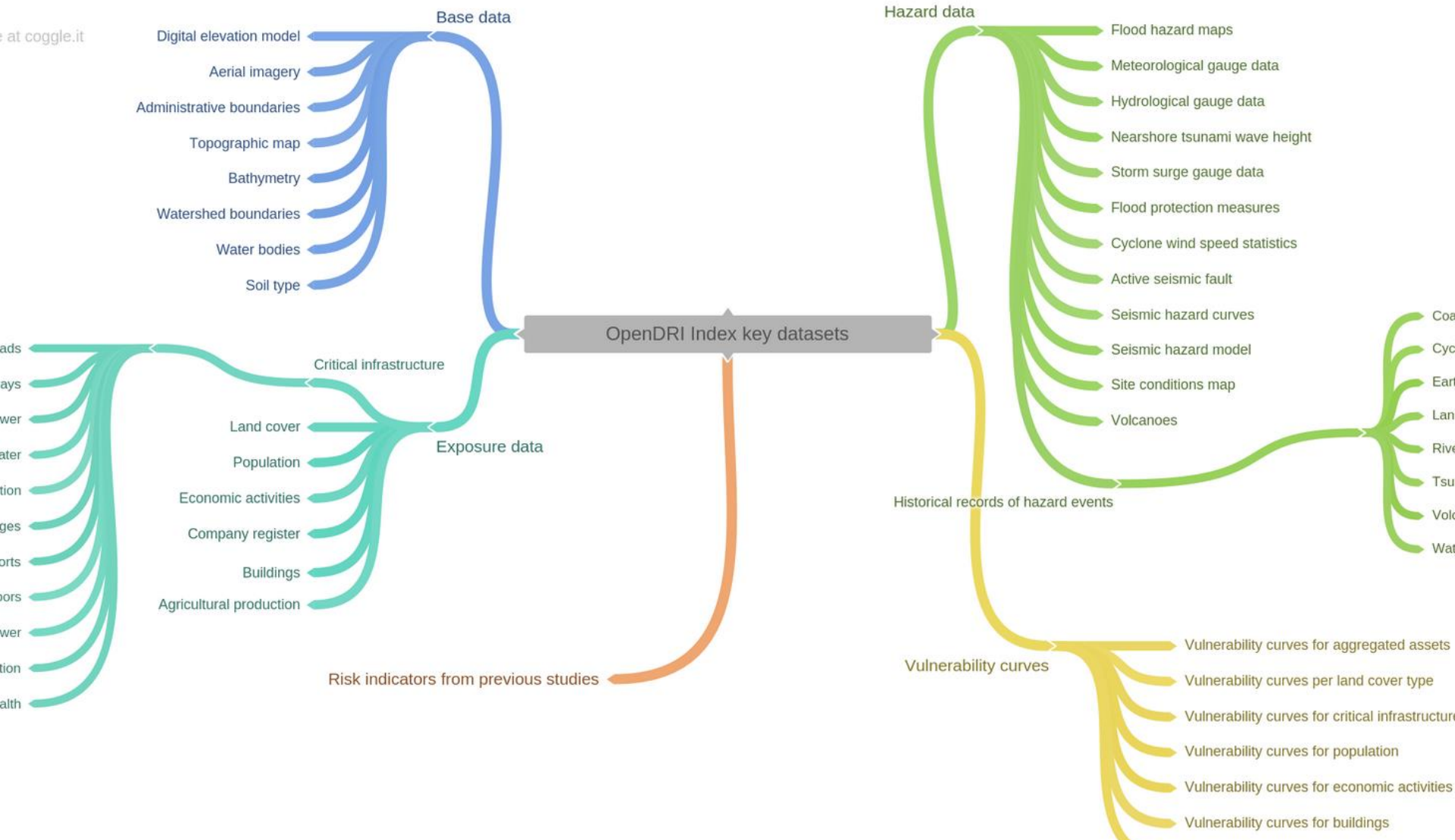
- For masonry typologies, a simpler methodology was employed





Capacity curves from the work of Carvalho et al. 2002 were combined with the capacity Spectrum method (Freeman, 2002) to derive sets of fragility curves

36 key datasets



What is open data?

*"Open means **anyone** can **freely access, use, modify, and share** for **any purpose**"*

opendefinition.org

A dataset available online, free of charge, without restriction on re-use, in an open machine readable format, together with its metadata, is open.

What is NOT open data?

- *A paper document*
- *A PDF file*
- *Data under paywall*
- *Data available on request only*
- *Data only restricted to academia*
- *Data available through web service*
- *Google Map*
- *And so on …*