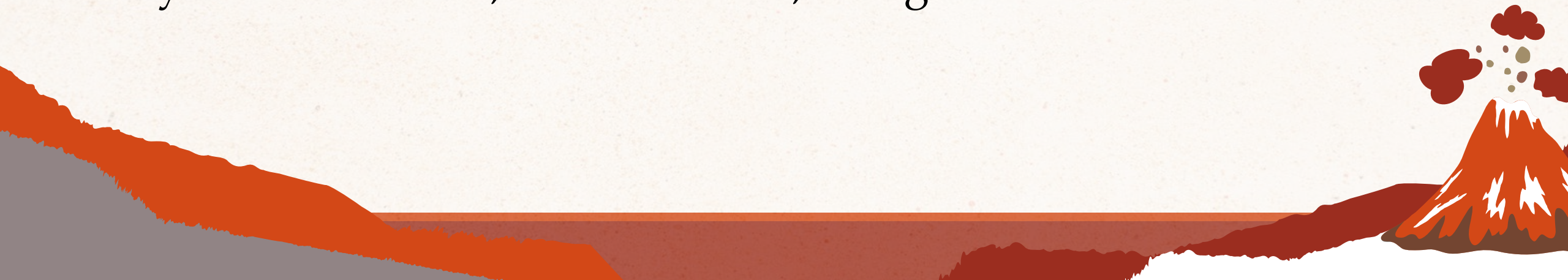
Earthquakes & Volcanoes

GEOG 101: People and Their Environment- Fall 2025

Disaster Recovery

- Disaster recovery after major earthquakes and eruptions
- Hypothesis: wealthier and prepared countries recover faster
- Geography: locations near plate boundaries and hazard zones
- Key factors: wealth, infrastructure, and government involvement

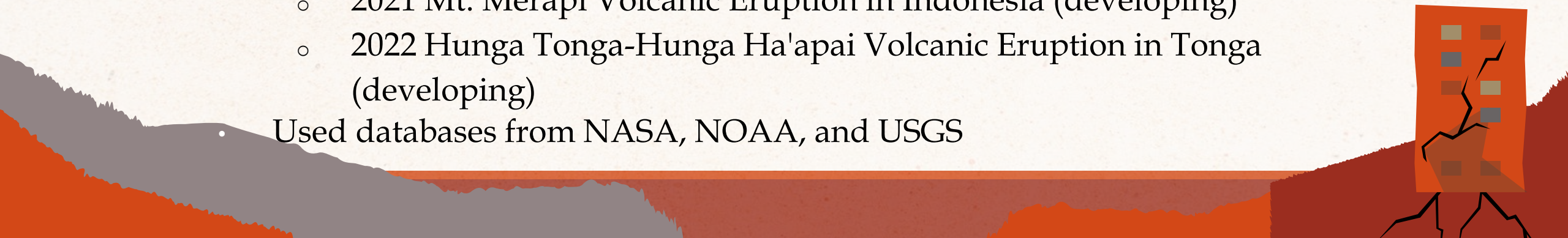


Methodology

Focus on urban, high-density areas near tectonic plates with varying levels of development:

- 2010 7.0 Haiti Earthquake in Port-au-Prince (undeveloped)
- 2023 7.8 Turkey-Syria Earthquake in Gaziantep, Adiyaman, and Antakya (developing)
- 2010 8.8 Chile Earthquake in Santiago and Concepcion (nearly developed)
- 2011 9.0 Japan Earthquake and Tsunami in Ishinomaki and Sendai (fully developed)
- 2021 Mt. Merapi Volcanic Eruption in Indonesia (developing)
- 2022 Hunga Tonga-Hunga Ha'apai Volcanic Eruption in Tonga (developing)

Used databases from NASA, NOAA, and USGS



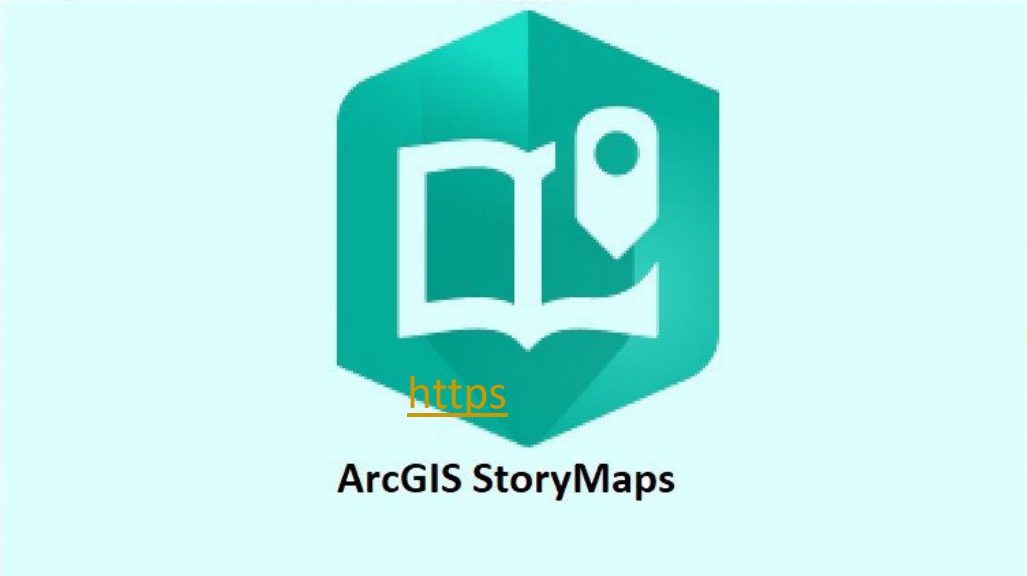
2010 7.0 HAITI EARTHQUAKE IN PORT-AU-PRINCE

2021 MT. MERAPI VOLCANIC ERUPTION IN INDONESIA

Results

Places	Deaths	GDP per Capita	Recovery speed	Development levels
Haiti	220,000	$1,300	Very Slow	Undeveloped
Turkey-Syria	50,000+	$10,000	Moderate	Developing
Chile	500	$15,000	Fast	Nearly Developed
Japan	20,000	$40,000	Very Fast	Developed
Mount Merapi	0	$11,900	Fast	Developing
Tonga	4	$4,913	Moderate	Developing

Links



- **StoryMap Link:** https://arcg.is/Cqbr13
- **GitHub:** https://github.com/austinl1905/geog-101-final-project/tree/main

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