

# Worldwide Earthquake Disaster Hubs

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# UNDERSTANDING THE PROBLEM



Turkey 2023

## AFTER • • •

Overwhelm Hospitals, Medical, Transportation

## LOGISTICS • • •

Complicate Emergency Response Efforts

## RESOURCES • • •

Lack of for NGOs like International Red Cross and Direct Relief

# The Goal

Identify 3 non-US locations for major earthquake disaster relief hubs



1

...

Define a resource hub



2

...

What is a major earthquake?



3

...

Why? Where? How?



4

...

Possible limitations and proposal

# About



Target: United Nations Office for the Coordination of Humanitarian Affairs (OCHA)

- Coordinate with Red Cross, UNICEF, Doctors without Borders, and Direct Relief

**USGS Earthquake Dataset** : 2000-2023

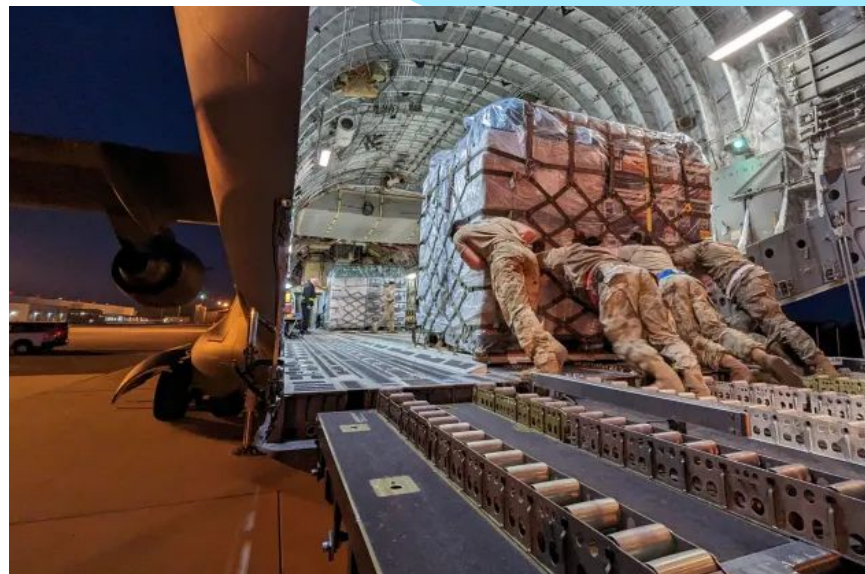
**Countries of the World Dataset**: US Govt

Limitations

- Unknown locations of any currently used resource hubs
- Omitting all non human - reviewed data points

Assumptions

- Organizations will work with local government to coordinate logistics
- Organizations involved will want to partner together



# RESOURCE HUB

Disaster relief and recovery efforts. Some of the most critical in-demand resources include:

## Medical Supplies

- Bandages, antiseptics, antibiotics, painkillers, specialized equipment, stretchers and defibrillators.

## Water + Food

- Bottled water, water purification tablets, and non-perishable food items

## Shelter

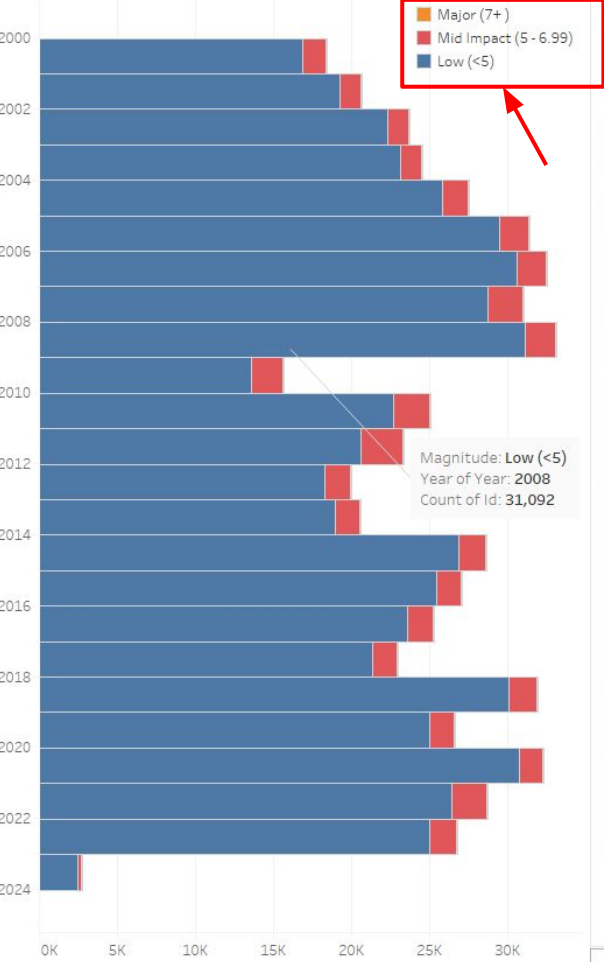
- Tents or prefabricated housing units

## Power and Fuel

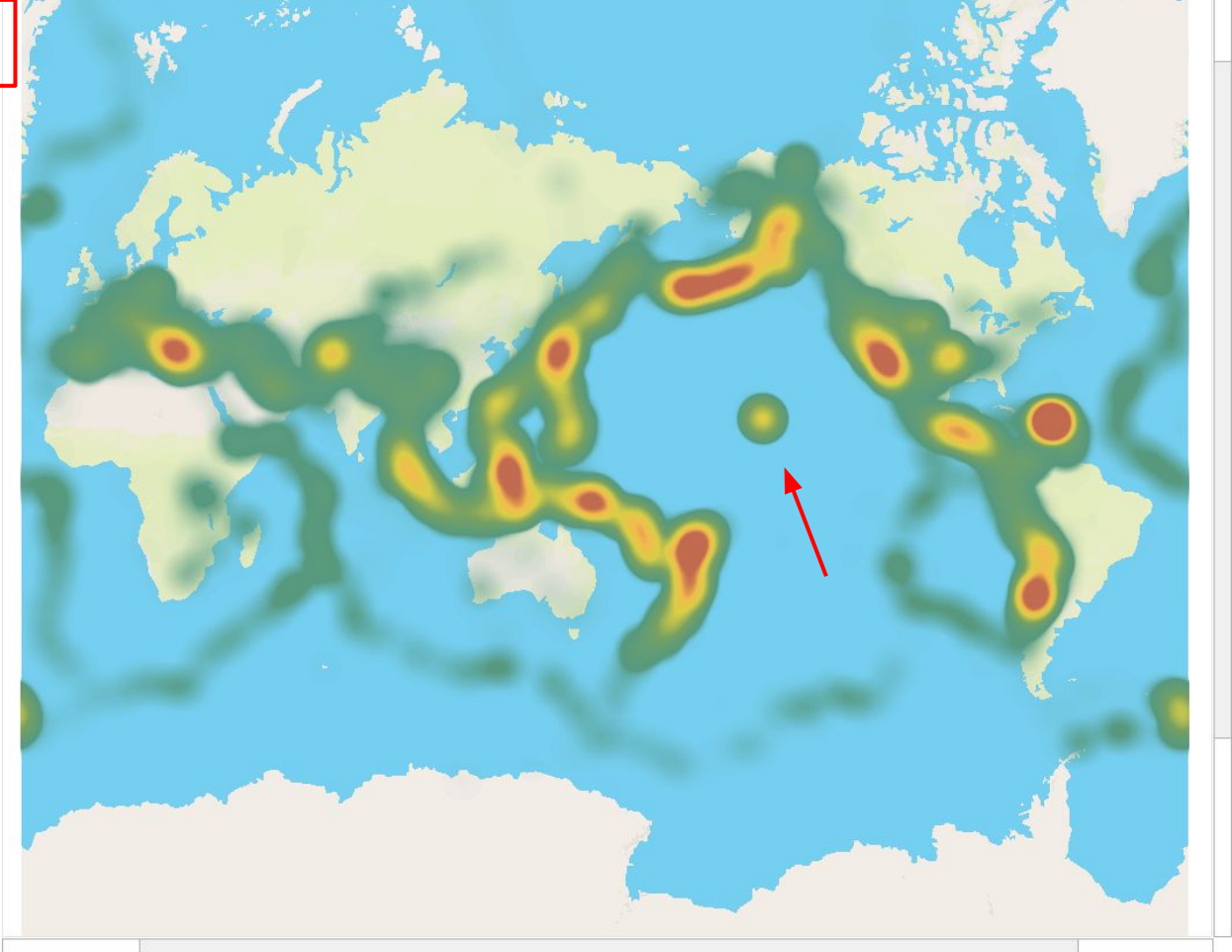
- Generators and vehicles, solar-powered lamps and chargers.

## Communications Equipment

Earthquake Numbers by Type

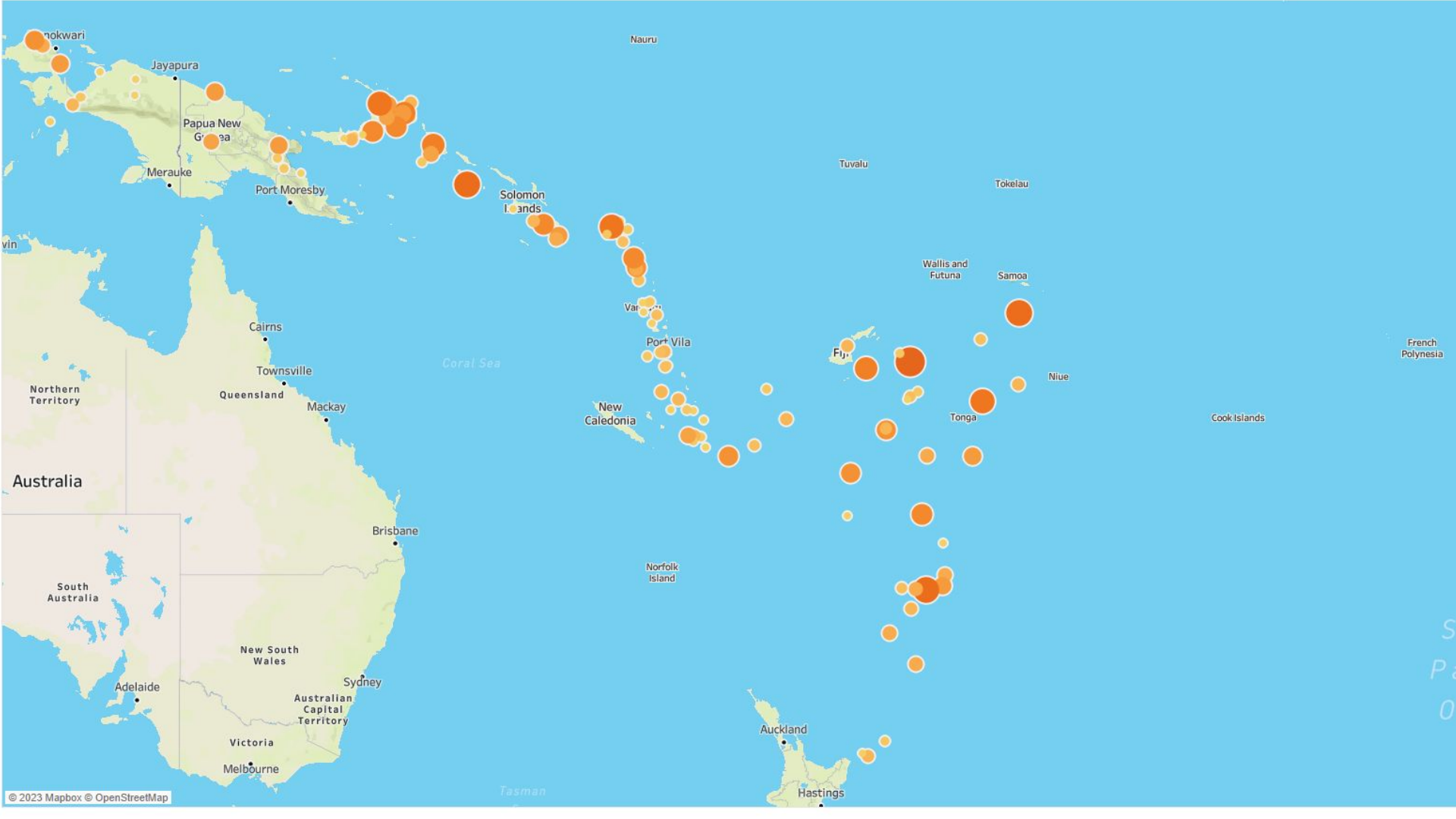


Earthquakes by Density



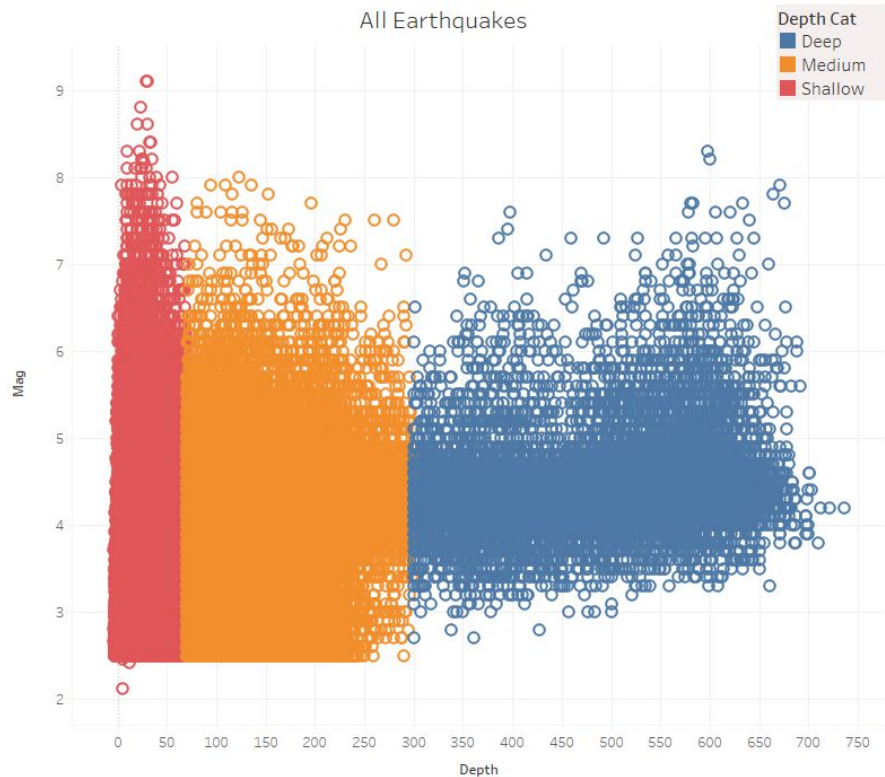




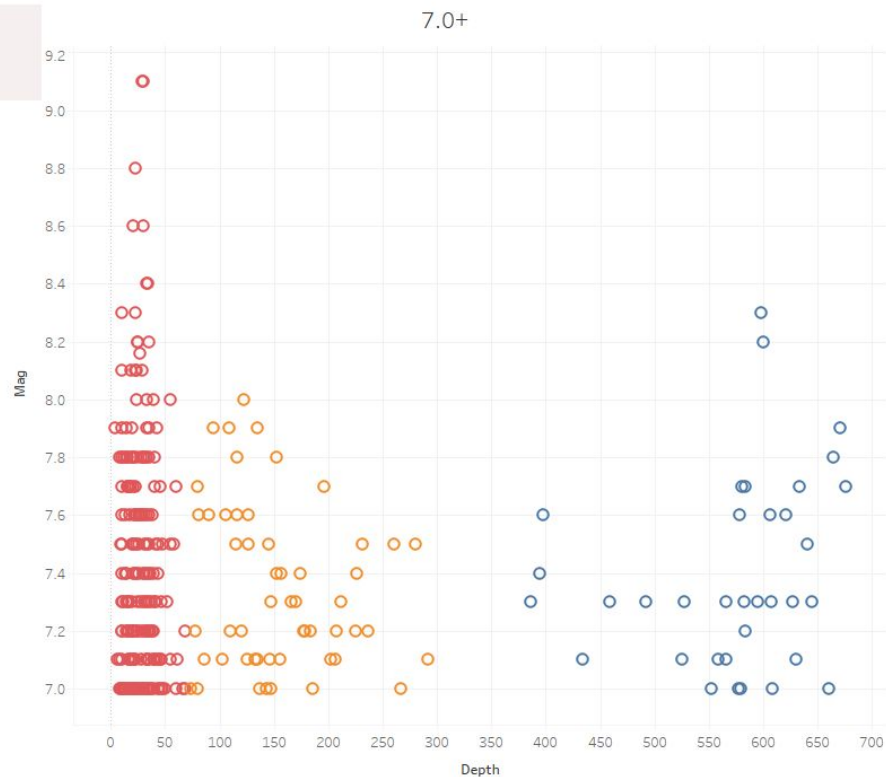




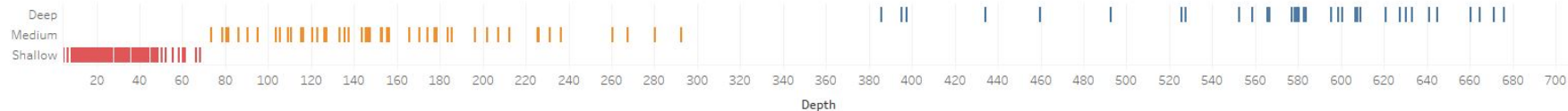
# All Earthquakes



# 7.0+



# 7.0+ Depth Distribution



# High Magnitude v Low Depth



# GDP by Country Segmented



# 2018 Sulawesi Earthquake and Tsunami



70,000 damaged  
homes

4500+ deaths

10,000 injured

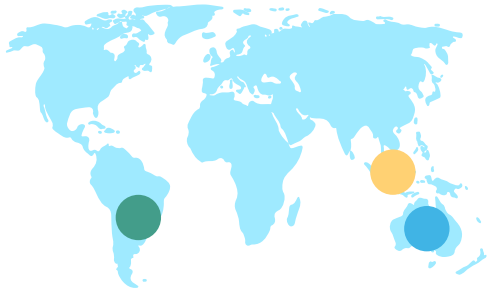
7-10 days to reach all  
disaster zones



# CONCLUSION

Australia ... Singapore ... Uruguay

## HUB Locations



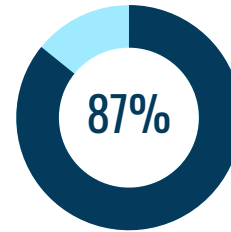
## Literacy Rates

Australia

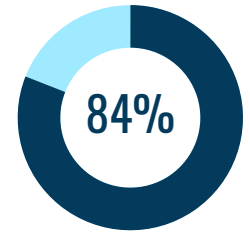
Singapore

Uruguay

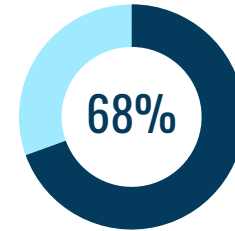
## Political Stability



AUSTRALIA



SINGAPORE



URUGUAY



...

# Thanks!

