EOSC 114 Fall 2024: Class Map Part 4: Map of All Natural Disasters We Studied This Term

*Student ID:*_____

A map of all natural disasters that you and your peers were interested in and did research on during the Fall 2024 term.

INSTRUCTIONS:

1. **View and explore our Class Map** from this link: https://www.google.com/maps/d/viewer?mid=1b6Qys12Zg4HsVzewtqrYLVjX0_mB64I
2. **Review the questions on this worksheet** and find the answers in the Class Map.
3. **Complete this Worksheet** with your findings.
4. **Submit your data online (in Canvas)** by writing the *Class Map Part 4: Map of All Natural Disasters We Studied*

☐ Across Canada and the United States, which general type of disaster that was reported by class was most wide spread (i.e. occurring over a widest area, East to West, North to South)?

- Earthquakes
- Impacts
- Landslides
- Storms
- Volcanoes
- Waves

☐ Which country surprisingly seems to have no disasters as reported by the Class?
(Hint: if there are only a few, check to ensure they are correctly placed. If they are wrongly placed, they don't count as a disaster in that country.)

- Colombia
- Egypt
- Russia
- Ukraine
- Vietnam

☐ Zoom the map so that you can see Bangladesh in the top left and Papua New Guinea in the bottom right. Compare the majority of markers for wave disasters to those of storm disasters.

- The locations of these two disasters suggests their causes have no relationship to each other.
- The locations of these two disasters suggests there is some relationship between their causes but not everywhere in this region.
- The locations of these two disasters suggests they have causes that are related to each other.

☐ Consider the markers in the central Asian countries of Tajikistan, Kyrgyzstan and far western China (not Tibet). Which of the following is TRUE about these place markers?

- All are related to disasters that occur in mountainous regions.
- All markers are about events that occurred in very sparsely populated places.
- At least one has the wrong sign and/or magnitude for both its latitude and longitude.
- At least one has the wrong sign and/or magnitude for its latitude.
- At least one has the wrong sign and/or magnitude for its longitude.

☐ Zoom the map so that you can see Taiwan in the bottom right, Macao in the bottom, Chongqing in the top left and Shanghai in the top right. How many of your peers in this class actually experienced a Storm disaster?

- 1-15
- 20-50
- about 100
- None

☐ In our own small part of the world - Metro Vancouver (see boundaries below), which is the most common type of "disaster" submitted by our class?
[Note:
1) not all of the events listed may be technically considered as "disasters"
2) always check to ensure that markers are correctly placed. If they are wrongly placed, they don't count as a disaster in that location.]

- Earthquakes
- Impacts
- Landslides
- Storms
- Volcanoes
- Waves

☐ Compare the pattern of earthquakes and earthquake types identified in North and South America. Which of these statements is TRUE?
[Note: There may be more than 1 correct answer. Select ALL correct answers for full marks. There is a penalty for selecting an incorrect answer].

- Most quakes in North and South America are on the same edge (North, South, East or West) of the continent.
- The pattern indicates that the tectonic setting is a bit more complicated in North America compared to South America.
- The pattern indicates that the tectonic setting is a bit more complicated in South America compared to North America.
- The pattern indicates the tectonic setting is the same for entire of North and South America.

☐ In the island of Hispaniola, shared by the countries of Haiti and the Dominican Republic, which disaster is most reported on?
(Look carefully by zooming in - some markers may be very close to each other.)

- Earthquakes and Waves
- Landslides and Storms
- Mass Extinctions/Impacts from Space
- Storms and Earthquakes
- Volcanoes and Mass Extinctions/Impacts from Space
- Waves and Tsunami

☐ In the boundary region between Tibet, Nepal and Bhutan and countries to the south: Afghanistan, Pakistan, India and Bangladesh, compare the majority of markers for earthquakes to those of landslides. How would you characterize the relationship between these two disasters in this region?

- The locations of these two disasters suggests their causes have no relationship to each other.
- The locations of these two disasters suggests there is some relationship between their causes but not everywhere in this region.
- The locations of these two disasters suggests they have causes that are related to each other.

☐ What was the given latitude of an event identified to have occurred the closest to the South Pole?
Note: Make sure the markers are correctly placed!
(Use numbers only with 1 decimal point, e.g.: Whitehorse, Yukon Territory is at 60.7 latitude; the McMurdo Station, a US Research station in Antarctica is at -77.8 latitude.)

☐ 8 submissions were made about the Hope Slide, but not all agreed on what type of event it was! To determine how it should be classified correctly, review these 8 submissions to answer the following.
(You may also review your notes and maybe do a little research if necessary):

- How did the material primarily move? It flowed / slid / fell (select one)
- The stuff that moved was primarily _____. rocks, soils and debris / water, mud and debris / rocks (select one)
- The material mainly moved _____. rapidly / slowly (select one)
- Therefore, this event is best described as a _____. (select one):
  a soil/earth landslide, slump or slip
  debris flow or mudslide
  rockfall
  some other type of landslide event

☐ According to our map, which of the following disasters does Iceland experience the MOST?

- Earthquakes and Waves
- Landslides and Storms
- Mass Extinctions/Impacts from Space
- Storms and Earthquakes
- Volcanoes and Mass Extinctions/Impacts from Space
- Waves and Tsunami

☐ Across Canada and the United States, compare the majority of markers for earthquakes to those of volcanoes. How would you characterize the relationship between these two disasters in this region?

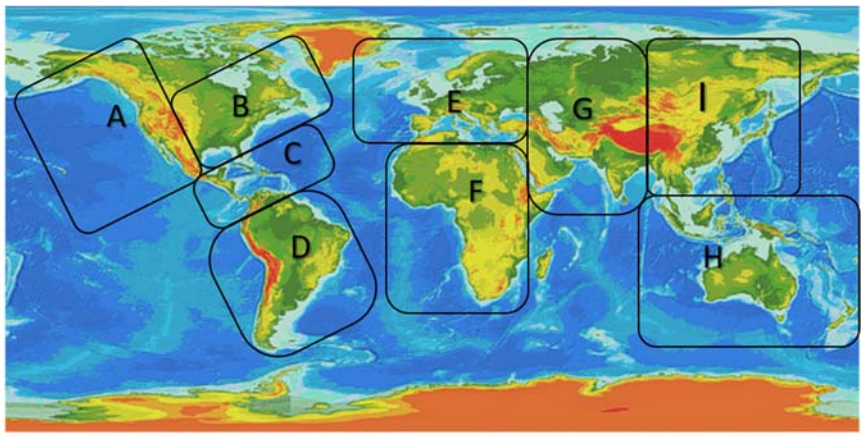
- The locations of these two disasters suggests their causes have no relationship to each other.
- The locations of these two disasters suggests there is some relationship between their causes but not everywhere in this region.
- The locations of these two disasters suggests they have causes that are related to each other.

☐ Across Italy, which general type of disaster was NOT reported?

- Earthquakes and Landslides
- Landslides and Volcanoes
- Mass Extinctions and Impacts from Space
- Volcanoes and Storms
- Waves and Earthquakes

☐ The largest number of submissions are found in which region(s) of this map?

- A and B
- A and I
- A, B and I
- All regions have about the same number of submissions.
- B, C and D
- E, F and G
- F
- I and H



http://woodshole.er.usgs.gov/openfile/of2005-1001/data/basemaps/srtm30plus/srtm30plus-world_pctshade.htm

☐ Of all the general disaster types reported by our class, which "experience" category was reported the most?

- Family Member(s) Experienced It
- Friend/Acquaintance Experienced It
- I Do Not Know Anyone who Experienced It
- I Experienced It
- Someone I Know Experienced It

☐ Consider the markers in the Scandinavian countries (broadly) including Denmark, Norway, Sweden, Finland and Iceland and the ocean/sea between them. Which of the following is TRUE about these place markers?
(Hint: Always check to ensure that markers are correctly placed. If they are wrongly placed, they don't count as a disaster in that location.)

- All are related to disasters that occurred in mountainous regions.
- All markers are about disasters that occurred in heavily populated places.
- At least one disaster has the wrong sign and/or magnitude for its latitude.
- At least three disasters have the wrong sign and/or magnitude for both its latitude and longitude.
- At least two disasters have the wrong sign and/or magnitude for its longitude.

☐ Across the African continent, which TWO general types of disasters were LEAST reported on?
(Hint: Always check to ensure that markers are correctly placed. If they are wrongly placed, they don't count as a disaster in that location.)

- Earthquakes and Extinctions/Impacts
- Landslides and Extinctions/Impacts
- Storms and Landslides
- Storms and Waves
- Volcanoes and Landslides
- Waves and Earthquake

☐ Which of the world's oceans/seas was(were) NOT mentioned/reported on for any of the disaster types we studied? The disaster must have occurred IN THE OCEAN/SEA, not ON LAND.
[Note: There may be more than 1 correct answer. Select ALL correct answers for full marks. There is a penalty for selecting an incorrect answer].

- Arabian Sea
- Arctic Ocean
- Indian Ocean
- Mediterranean Sea
- North Atlantic
- North Pacific
- South Atlantic
- South Pacific

☐ Zoom the map so that you can see the entire of China in the north and west, Indonesia in the south, and Japan to the east. Which of the following storm disasters were reported on the most?

- hazardous hail event
- hurricane, typhoon or cyclone
- lightning event
- no hail/lightning thunderstorm
- other storm related hazard
- tornado

☐ Across Australia and New Zealand, which general type of disaster was most commonly reported?
(Hint: Always check to ensure that markers are correctly placed. If they are wrongly placed, they don't count as a disaster in that location.)

- Earthquakes
- Impacts
- Landslides
- Storms
- Volcanoes
- Waves

☐ Several reports of volcano-related disasters in the Mediterranean region were submitted. Which of the following volcano types is the most common among those reported?
(Hint: Always check to ensure that markers are correctly placed. If they are wrongly placed, they don't count as a disaster in that location.)

- Caldera
- Cinder Cone
- Dome
- Shield Volcano
- Stratovolcano

☐ Based on our class map, which continent/land mass seems to be the LEAST seismically active?

- Africa
- Asia (east of the Caspian Sea)
- Australia
- North America
- South America
- Europe (west of the Caspian Sea)

☐ Which of the following do you think is a good reason why this "least seismically active" region has so few/no events identified on this map?

- Earthquakes can not be (or simply are not) detected in that region.
- Events in that region are likely to be rather poorly- or under-reported.
- It is a rather under-populated region compared to others.
- There are no plate boundaries near or within the continent.
- There may be few students in our class section who come from (or are interested in) that region.

☐ Consider all of Japan. Which of pair of disasters appear to be most strongly associated, based on locations of markers in our map?

- Earthquake and Storm disasters
- Earthquake and Volcano disasters
- Earthquake and Wave disasters
- Landslide and Extinctions/Impacts from space disasters
- Volcano and Landslide disasters
- Volcano and Wave disasters

☐ Your choice for the previous question is based on what you see on the map. Is this conclusion consistent with what you already know about whether these two disaster types can be associated with each other?

- There is no relationship between these two disasters, and the map does appear to consistent with this.
- There is no relationship between these two disasters, but the map appears to suggest there is one.
- There is sometimes a relationship between these two disasters, and yes, the map demonstrates this relationship.
- There is sometimes a relationship between these two disasters, but no, this map does not demonstrate this relationship.

☐ After exploring the global map produced by you and your peers, name one map submission that grabbed your attention. What was most interesting about this natural disaster?
NOTE: Your choice can be of any natural disaster but not any that you submitted.

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