

Assignment 1: Recent Disaster Trends

GEO 2152
Due Oct. 14
Weight 15%

Objectives

In class you have seen a number of graphs and tables concerning disasters over both time and space. However, many of these charts are aggregated for the entire world. The purpose of this assignment is for you to use a well-respected international database - [EM-DAT](#) to explore recent trends and to explore if the the spatial patterns are consistent with theory. This assignment will also reinforce the limitations of calculating disaster trends. You will use Excel (or your favourite spreadsheet software) to assist you with this assignment.

Tasks

1. **Open and explore** the EM-DAT spreadsheet provided.
2. **Select two countries minimum** - at least one "developed country" and one "developing country" (you can use them all if you like but this will require extra organization and/or calculation. The tradeoff is that using all countries will likely provide more interesting patterns). For example you could sum all developing and
3. **Select a disaster group** - you can use either natural, technological, both separately or combine them.
4. **OPTIONAL remove columns** you will not use. The minimum columns you will need are the **year, country, dis_group, no_killed, total_affected, total_dam**. You may choose to keep others. The rest you can delete to simplify your spreadsheet.
5. **Create new columns and generate subtotals**. The spreadsheet is already sorted by year, then by country, then by disaster group, create a new column next to each of the **no_killed, total_affected, and total_dam** columns You might want to open the example calculation and graph spreadsheet with the type of graphs I expect in your assignment. There are comments throughout that might help (click the coloured triangles in the corners of some cells). If you want to generate per capita values - particularly for the spatial comparisons, here is a [link to 2005 population data](#) by country. I provide an example of how to use this data in the [example calculation and graph spreadsheet](#).
6. **Create graphs from the data** - the [example calculation and graph spreadsheet](#) will provide some help but this is not the ONLY way you can represent the data. See questions 1 and 2 below for further guidance on what to represent.

Questions

1. What is the spatial pattern (variation by country) of **deaths, damage** and **affected** for the data you chose? (HINTS: The graphs at the deaths and damage links in the previous sentence represent one way to show country differences, but a bar graph for all years could also be created. Give all charts titles, insert them into the text of your answer, and refer to each chart by title in the answer. Provide subheadings for each answer - this is not an essay, but answers to questions using full sentences.)
2. What is the temporal (yearly) pattern of **deaths, damage, and affected** for the data you selected? (HINT: The graphs at the deaths and damage links above represent the best way to show temporal differences.)
3. Cite an academic journal or textbook (e.g.:(Smith, 2003)) on disasters/hazards to assess whether these trends correspond with past data (e.g., Are "developing" hardest hit by disasters for these particular countries. Are there differences for deaths, damage, and affected as predicted by the literature?)(HINT: you can use any recognized citation format, but I recommend [APA](#))
4. Comment on the limitations of the data.

Submit

1. Your spreadsheet of data (max 4 pages) and any graphs or tables (no max, but be reasonable) you produced to answer the questions.
2. Answers to the questions (max. 1000 words which is about 4 pages double spaced)
3. Your completed assignment electronically to turnitin.com:

course ID = **2462026**

course password: **hazards**

NOTE: *The figures will be removed from the document by Turnitin. Do not worry about this, it is the text that concerns us most.*

All of this should be presented on letter size paper and stapled. Please do NOT use any sort of folder, binder or protective cover (they are cumbersome and unnecessary).

Marking

15 marks 3 style + 12 content

style (3/15 marks)

- i. **title page** (-1)
- ii. **reference list** (-1) (yes, reference the data too)
- iii. **spelling/grammar** (-2 max) - up to two marks can be lost, the first few are free, from then on marks are lost at the TA's discretion
- iv. **formal style** (-2 max) - other formal style issues (e.g., slang, acronyms, contractions) TA's discretion
- v. **turnitin.com** (-1) - if you do not submit to turnitin, you can type up and sign a statement that you understand what plagiarism is and that you did not plagiarize your paper.

content (12/15 marks)

- i. spreadsheet and companion figures (4)
- ii. responses to questions (8)

[em-dat spreadsheet file](#): in-class example (sample, for reference)