ICPSR – elements of a data management plan

This mapping project is intended to visual a number of important pieces of information relevant to global carbon emissions and the impact that the Paris Climate Accords have had on emissions reduction. It is intended to answer for the public the following questions: What is the per capita intensity of carbon emissions in different parts of the world (at smallest administrative unit possible – state/province or even county)? What types of emissions pledges were made at the conclusion of the Conferences of the Parties by each nation-state? How do the actual changes in emissions since the adoption of the Paris Agreement (December 12th, 2015) compare to the commitments made by each nation-state?

Use dmptool.org?

Things to keep track of when going about the project:

- What data is needed?

a.) Paris Climate Accord national emissions reduction plans/commitments.

b.) Historical (2015 and possibly before) co2 equivalent.

c.) Most recently available emissions statistics for each country.

d.) Shapefiles for national borders and smallest administrative unit for which climate data can be obtained.

- Where do I expect to find the data?

United Nations? COP data? NOAA? National environmental agencies (supplemental)?

Found data at Globalcarbonatlas.org through 2016. Why doesn’t UN, World Bank, etc. have such recent data? What sources are used by this site and are they authoritative/trustworthy? Is this data co2 emissions or co2 equivalents for total emissions?

- What types of files do I expect to be dealing with?

CSV? JSON? For emissions data.

Global Shapefile (What projection?) for national/administrative borders.

- What are the rights associated with the various sources used?

- What metadata schema would you like to use?

- Where will the data be stored/backed up? How many copies?

Github? Open Science Framework? Google Drive? Dropbox?

- Look at Open Science Framework to backup data/project?

- What roles do team members play in carrying the project forward?

It me do work.

- Who is the potential audience of this information?

- How long should the data be held for? How will it be archived/preserved?

- What naming convention will you use for files?

Issues:

- What emissions metrics should be used? Should metrics used in climate commitments be taken or is there a better, more accurate representation of emissions?

- Are self-reported emissions from nation-states accurate? Does China (or other countries) underreport or misrepresent in some way their emissions?

- How to represent complexity of different commitments (e.g. percentage reduction from historical baseline, percentage increase from current emissions in case of developing country, population-based emissions cut-off, etc.)

- What type projection/GCS to use for output maps. Probably use equal area, so country size accurately can be related in a visual sense to emissions. [Hammer?, Mollweide?, Goode Homolosine?, Cahill?, Dymaxion?]

- Emissions data with or without LULUCF (land use)?

Maps:

1. Type of commitment made (% reduction, %increase, etc.)
2. Emissions per capita (at signing of accords? Or over course of COP meetings?)
3. Emissions change in each year since accords were signed.
4. Global per capita co2 emissions by smallest possible administrative unit.