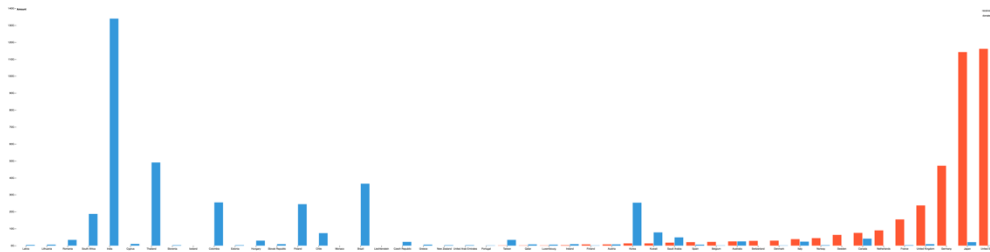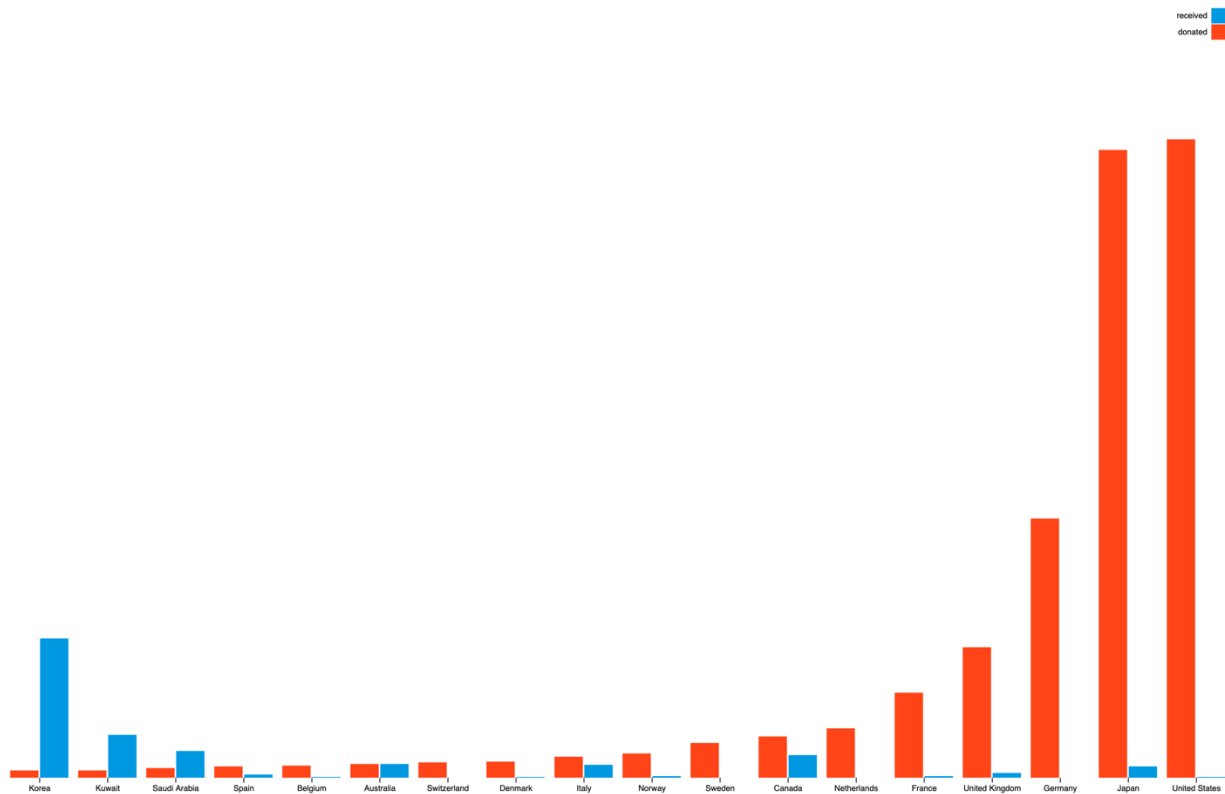# Chinmay Wyawahare

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Mini Project 1: Graph Design (Geo)

1. <u>Visualization 1:</u>

Donated and Received amount for each country

Donated and Received amount for each country
(Note: Same Visualization at 100%, Legends: 'Blue' color represents amount donated, 'Red' color represent amount recieved)

I have used grouped bar charts to visualize the donated and received amount for each of the countries using two colors: *blue* and *red* to represent received and donated amount for each of the country.

There are many countries which donate more than they receive. E.g. Belgium, Denmark, France, Germany, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States.

Some of the countries receive much more than they donate. E.g. Brazil, Chile, Colombia, Cyprus, Czech Republic, Hungary, India, Korea, Kuwait, Poland, South Africa, Taiwan, Thailand.

2. Visualization 2:

a) Do the countries that donate the most tend to cluster around specific geographical areas of the world?

- Countries in West Europe generally donate more than they receive unlike other parts of the world

b) Do the countries that receive the most tend to cluster around specific geographical areas of the world?
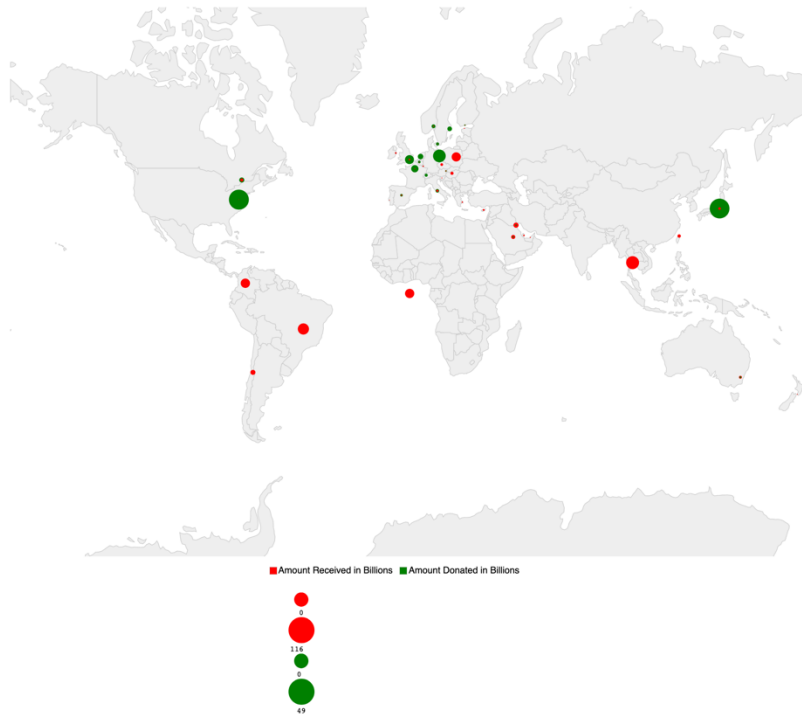
- The countries receiving the most are spread out across the world.

c) Are there neighboring countries that have radically different patterns in terms of how much they receive vs. how much they donate?

- Germany and Poland and Japan and Korea tend to show radically different patterns in terms of how much they receive vs how much they donate.

Donations and Received

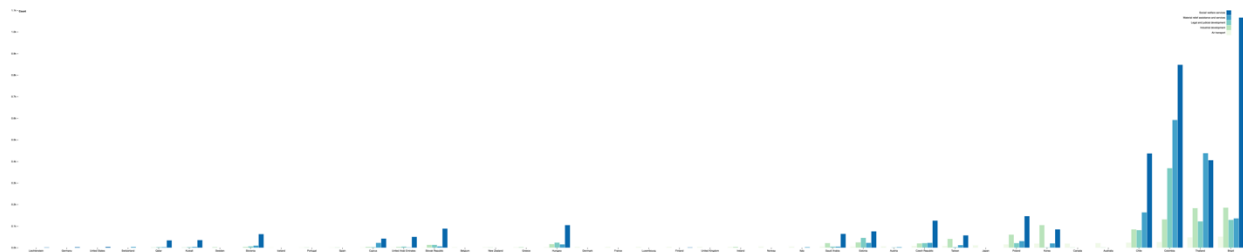Amount Received in Billions   Amount Donated in Billions
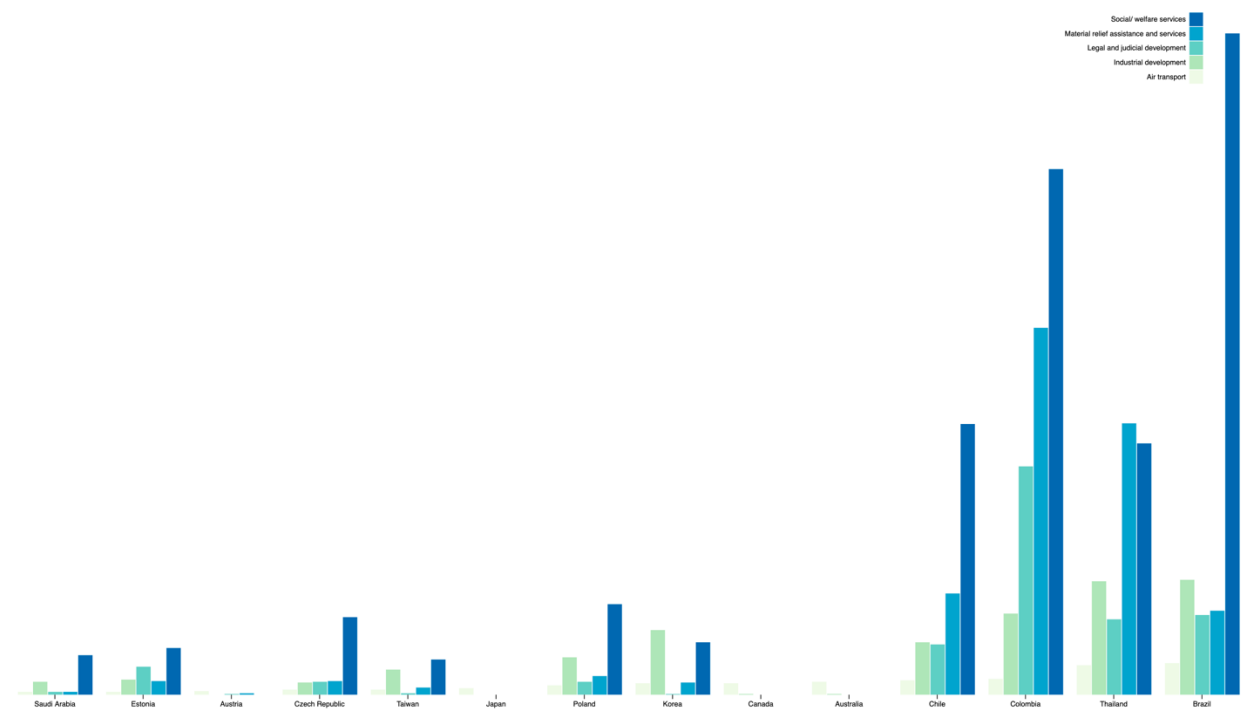
Legend:
Red – Amount received in Billions
Green – Amount received in Billions

Circles – Size of the circle represents the amount donated and amount recieved
(Small circle – lowest amount and Large circle – highest amount)

3. Visualization 3:

Top 5 most frequent purposes of disbursements

Legend:
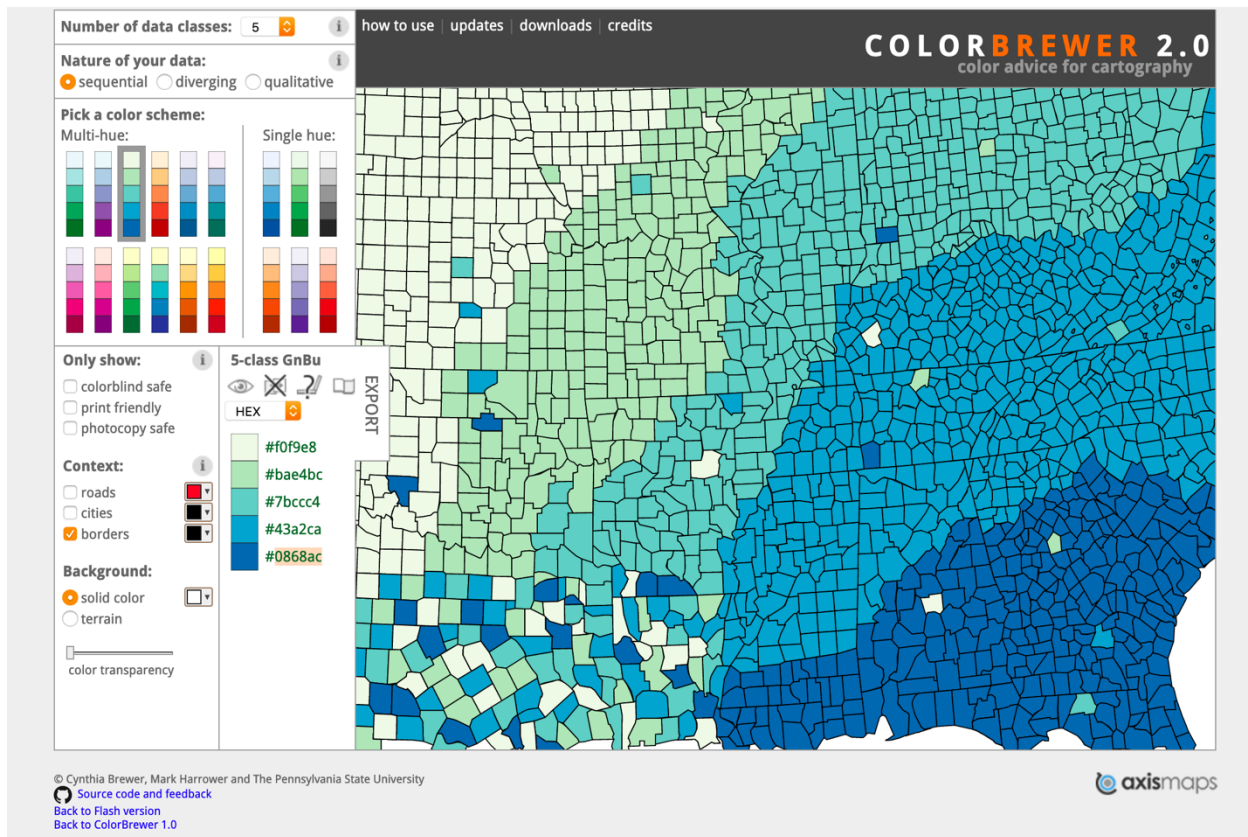#0868ac– Social welfare services
#43a2ca– Material relief assistance and services
#7bccc4– Legal and judicial development
#bae4bc– Industrial development
#f0f9e8– Air transport

I have used Grouped bar charts to visualize top 5 purposes disbursements to visualize the donations received by each country. I referred to color brewer to select a sequential color scale with multi-hue. During data-preprocessing, I have sorted the data along using the top 5 purposes of disbursment.

ColorBrewer - Sequential color scheme (Multi-hue)

a) Are there any major differences in how the top 5 most frequent purposes of disbursements distribute geographically in terms of countries that receive donations?

- The top 5 most frequent purposes of disbursement tend to distribute non-uniformly across the globe with some countries receiving more of certain type of disbursements.

b) Are there countries that tend to receive more of certain type of donations than others?

- Countries like Brazil, Chile, Columbia, Czech Republic, Estonia, Hungary, Poland, Saudi Arabia, Slovak Republic, Slovenia, Taiwan and United Arab Emirates have Social/welfare services as their most significant amount of donations received and Air transport as their least significant amount of donations received.