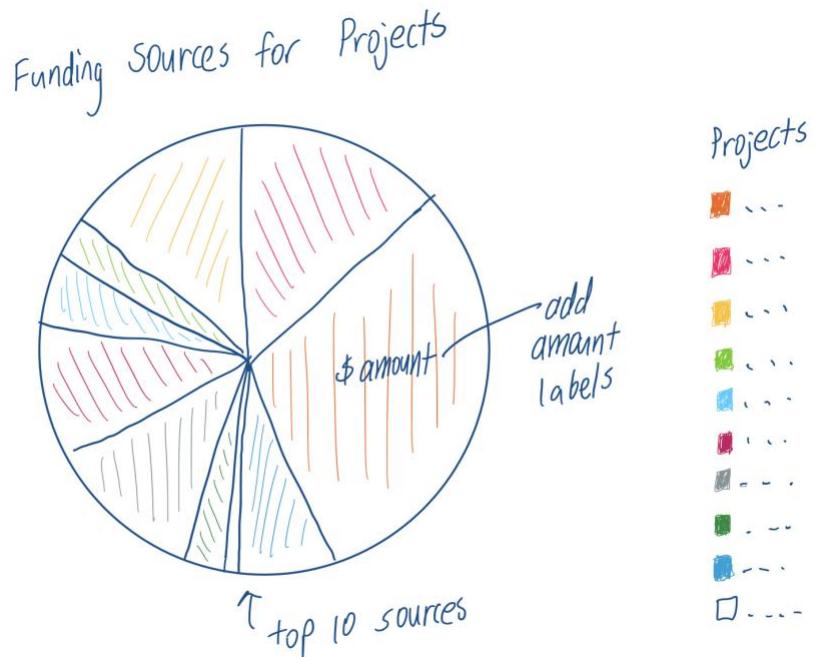
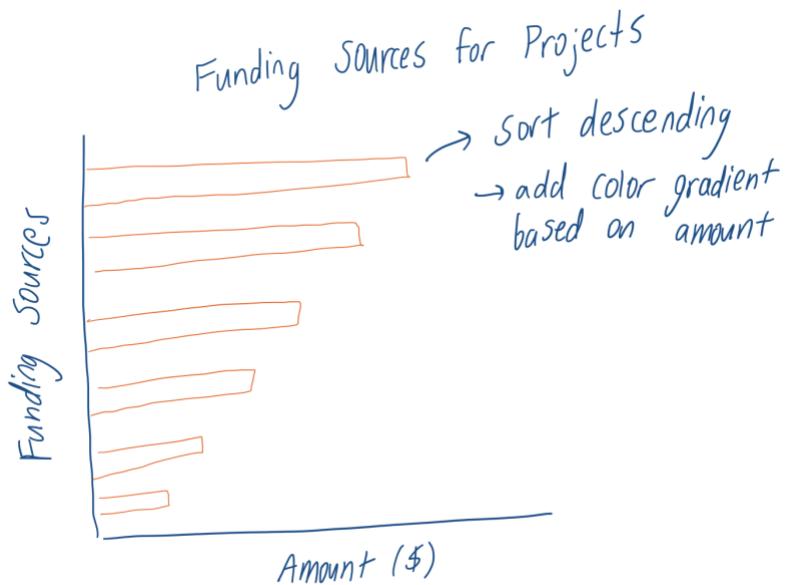


# Question 1

## Part 1

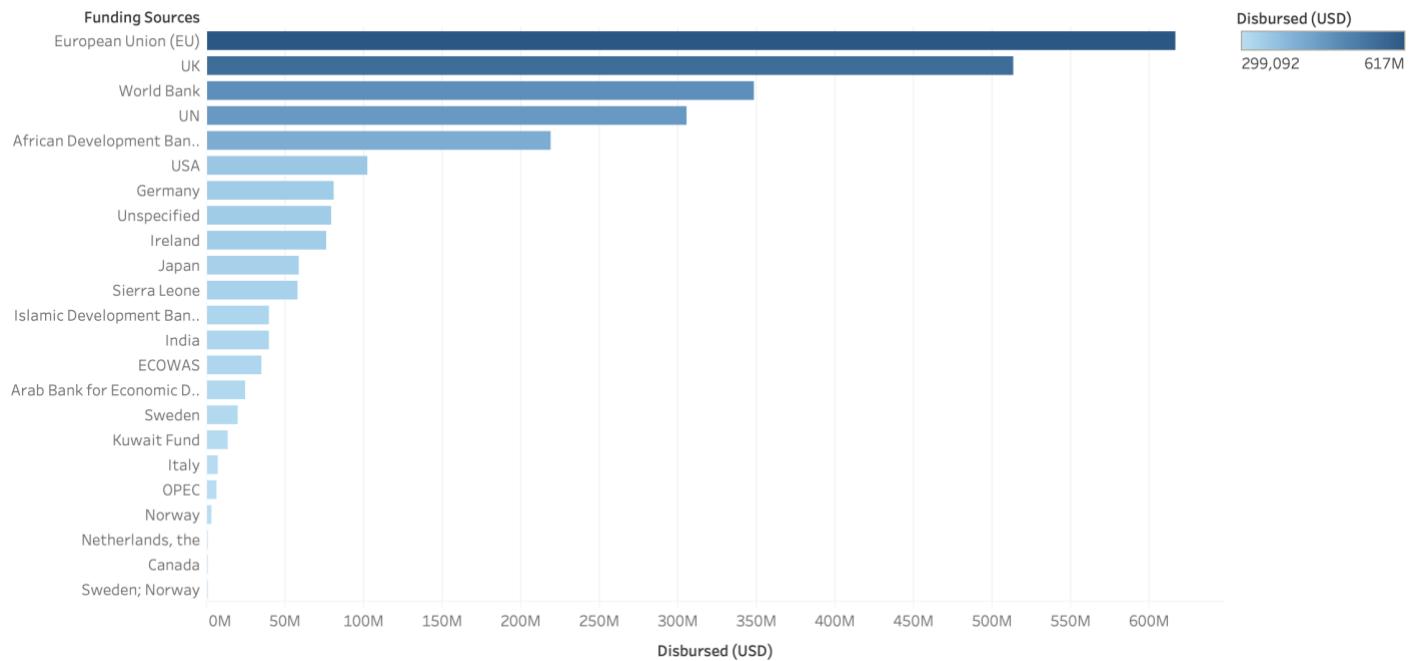
Who are the dominant funding sources of these projects?

Visualizations



## Implementation

Funding Sources for Projects



Sum of Disbursed (USD) for each Funding Sources. Color shows sum of Disbursed (USD).

## Justification

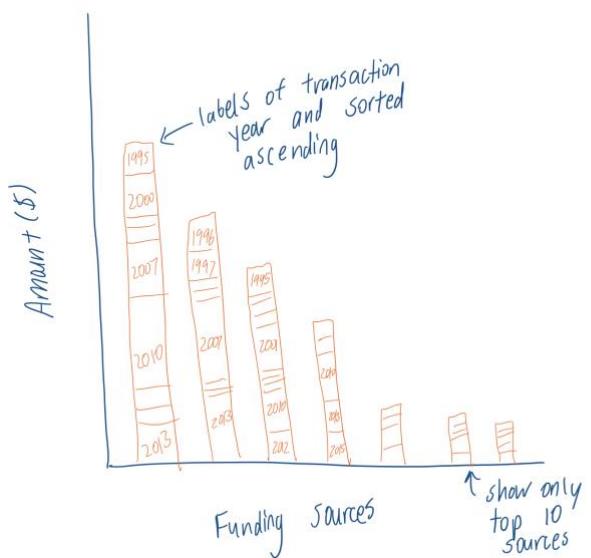
I chose to implement the horizontal bar graph as I thought it was easier to read than the pie graph. The bar graph has the amounts ordered descending with color gradated to also show the funding sources with the most disbursed money. The Funding Sources are located on the Y-axis with the amount in USD on the X-axis. This graph quickly shows the dominant funding sources at a first glance where as a pie chart you might have to guess based on the size of the slices.

## Part 2

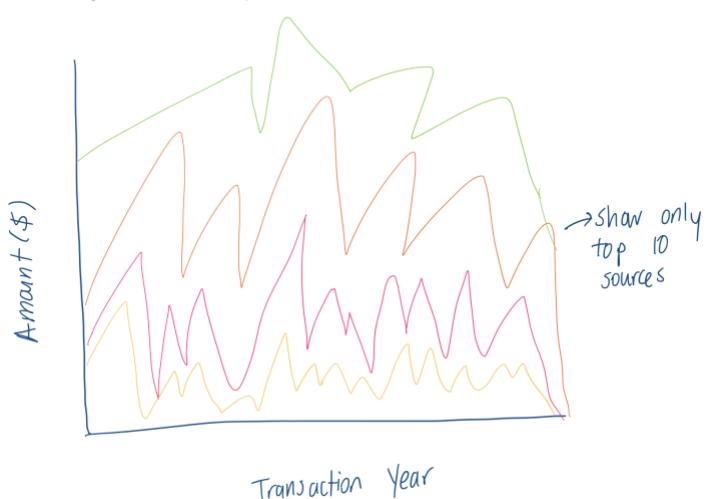
### Do the dominant funding sources change over time?

#### Visualizations

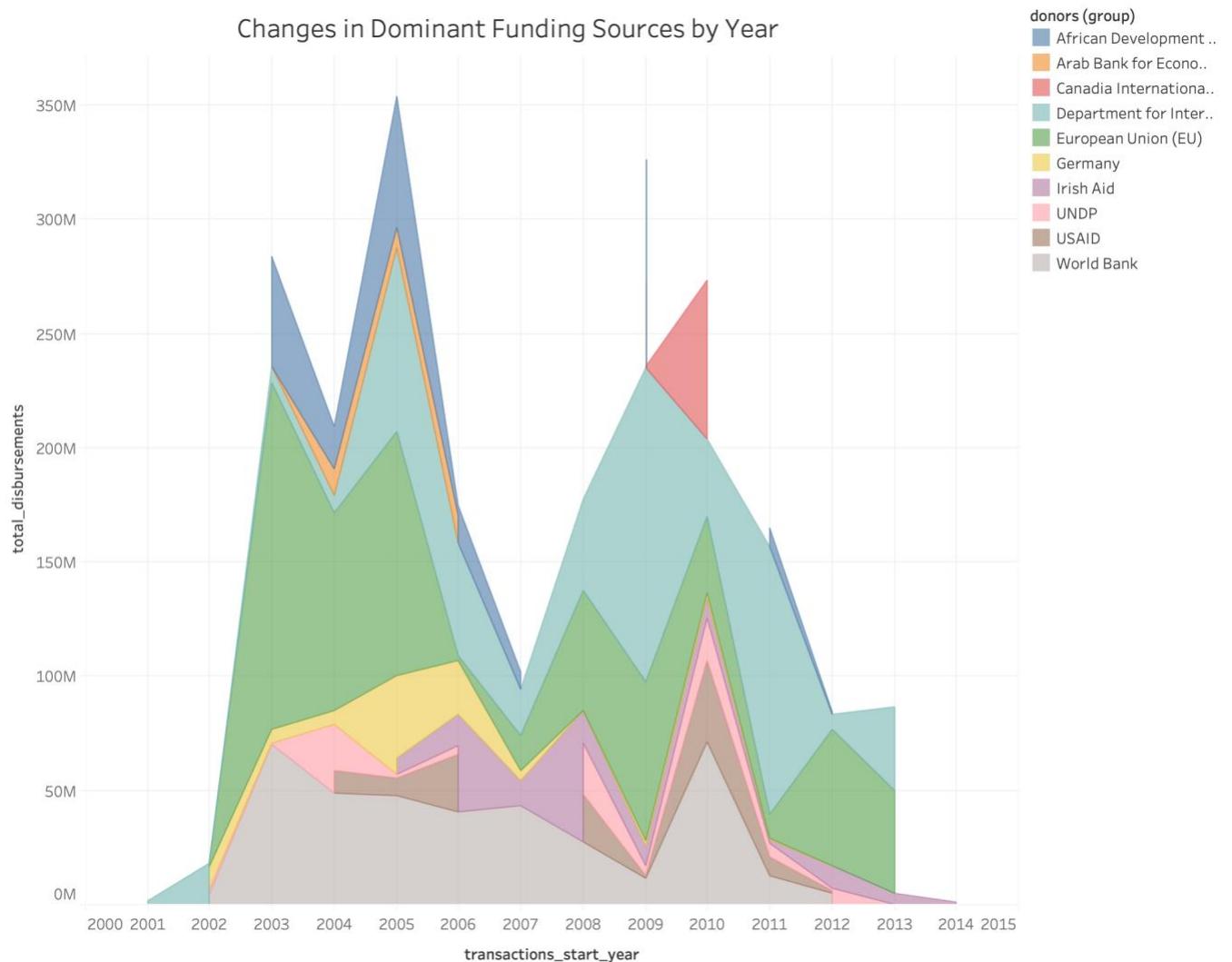
Changes in Dominant Funding Sources by Year



Changes in Funding Sources over Time



## Implementation



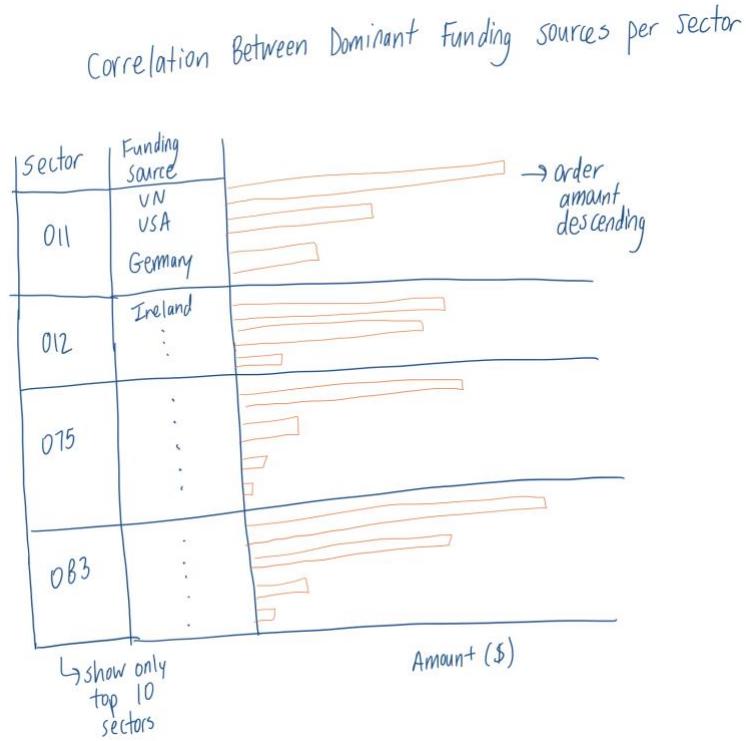
## Justification

I chose the area chart because it was quite a bit easier to read and also identify who were the top funding sources. The bar chart showed who were the dominant funding sources, but you couldn't see the changes over time clearly. The area chart was able to see the changes over time and who the dominant sources were. I also only showed the top 10 funding sources as those are the most important in answering the question.

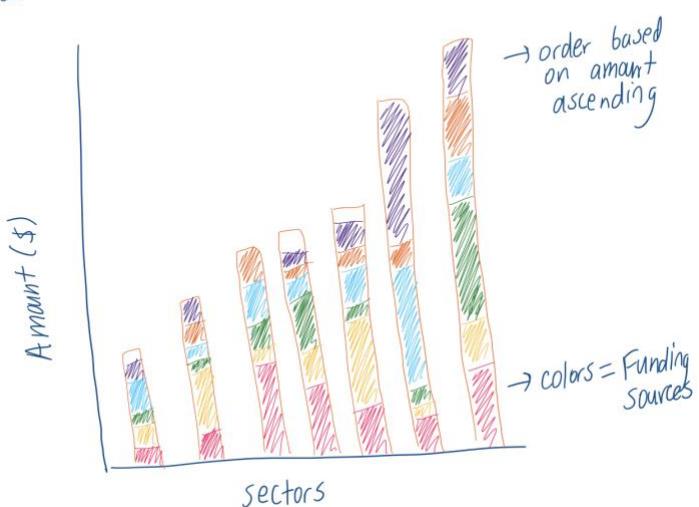
## Part 3

**What is the correlation between the sectors and the funding sources?**

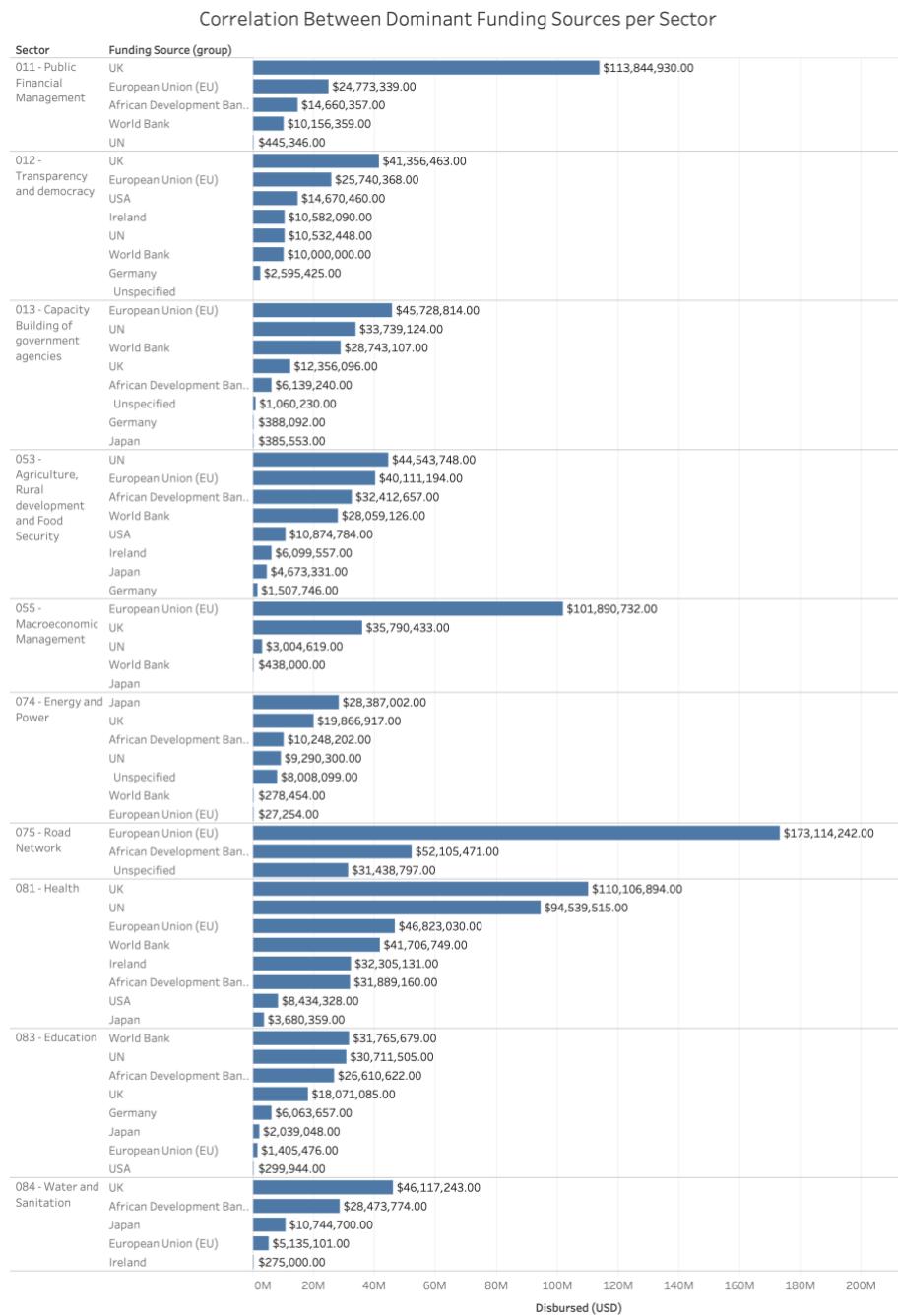
Visualizations



Correlation Between Dominant Funding Sources per Sector



## Implementation



Sum of Disbursed (USD) for each Funding Source (group) broken down by Sector. The marks are labeled by sum of Disbursed (USD). The view is filtered on Funding Source (group) and Sector. The Funding Source (group) filter keeps 10 of 22 members. The Sector filter keeps 10 of 64 members.

## Justification

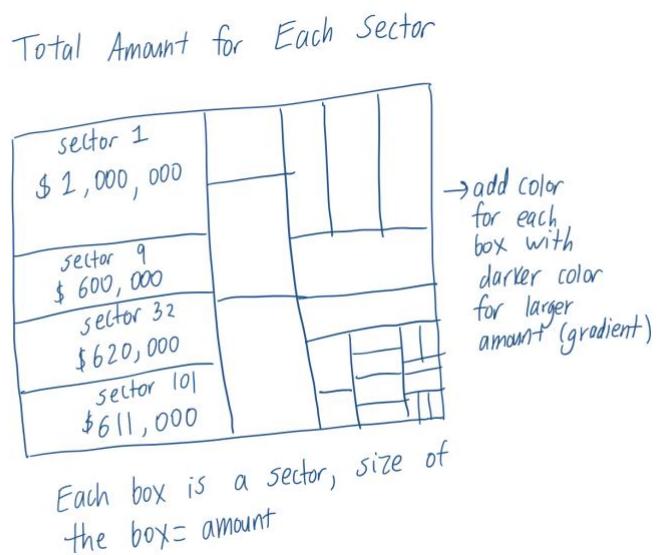
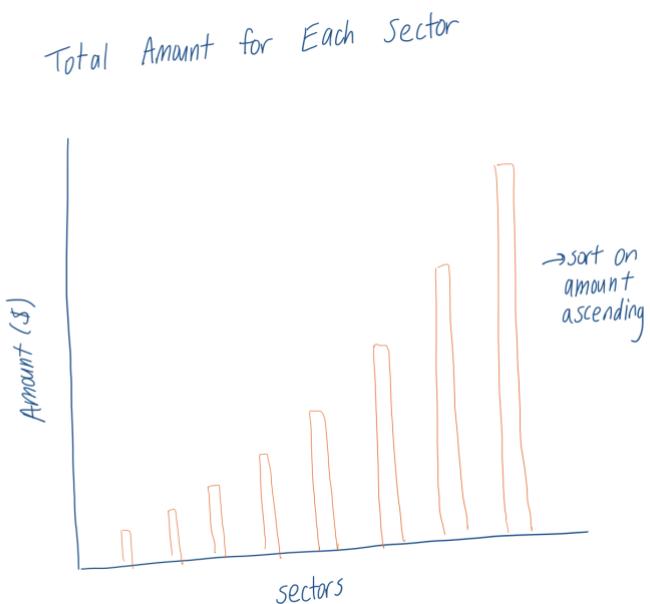
I went with horizontal bar graph as I thought it was easier to tell the actual amount of funding per sector. I also think the horizontal bar graph shows the correlation between sector and funding sources better than the stacked bar graph. The Disbursed amount in USD is broken up

by Funding Sources and then additionally by Sectors on the y-axis. Within each sector the amount is ordered descending to quickly see which are the greatest ones within each sector.

## Part 4

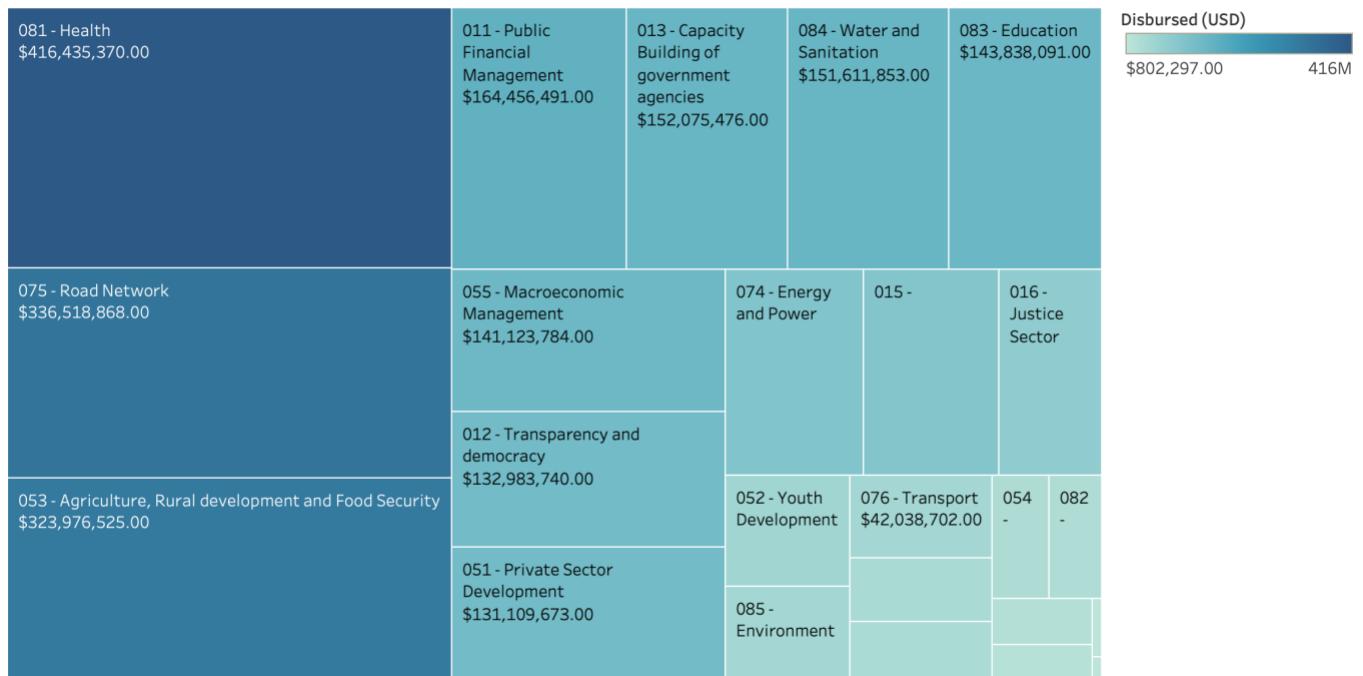
**What is the total amount for each sector of the projects?**

Visualizations



## Implementation

Total Amount for Each Sector



Sector (group) and sum of Disbursed (USD). Color shows sum of Disbursed (USD). Size shows sum of Disbursed (USD). The marks are labeled by Sector (group) and sum of Disbursed (USD).

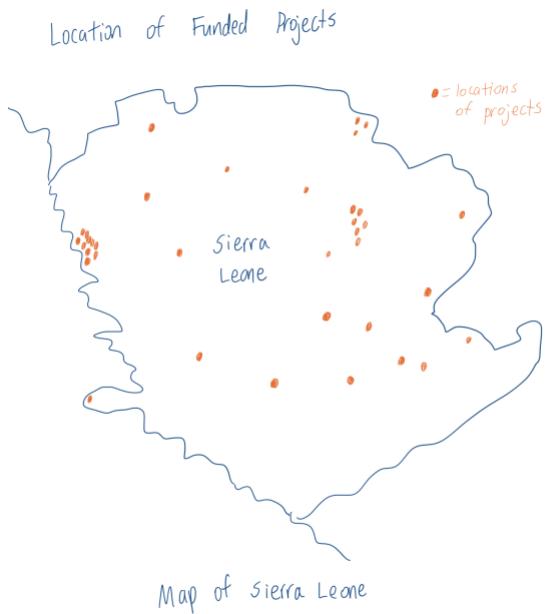
## Justification

I went with the treemap because at a first glance it is very easy to see the total amount for each sector and see which sectors are the largest. I chose a gradated color scheme to compliment the size of the boxes in being able to tell which ones are the biggest and smallest. Each box is an individual sector with the total amount for each sector written in each box.

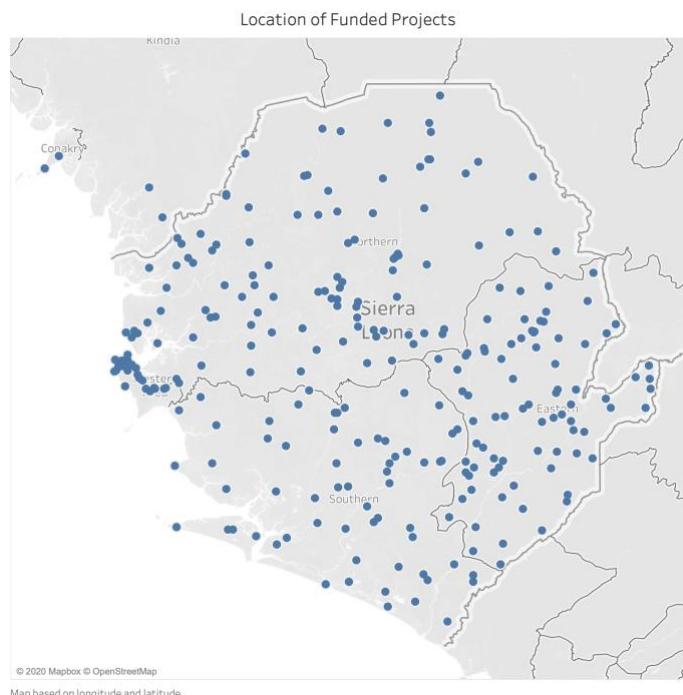
## Part 5

### Where are the funded projects geolocated?

#### Visualizations



#### Implementation



## Justification

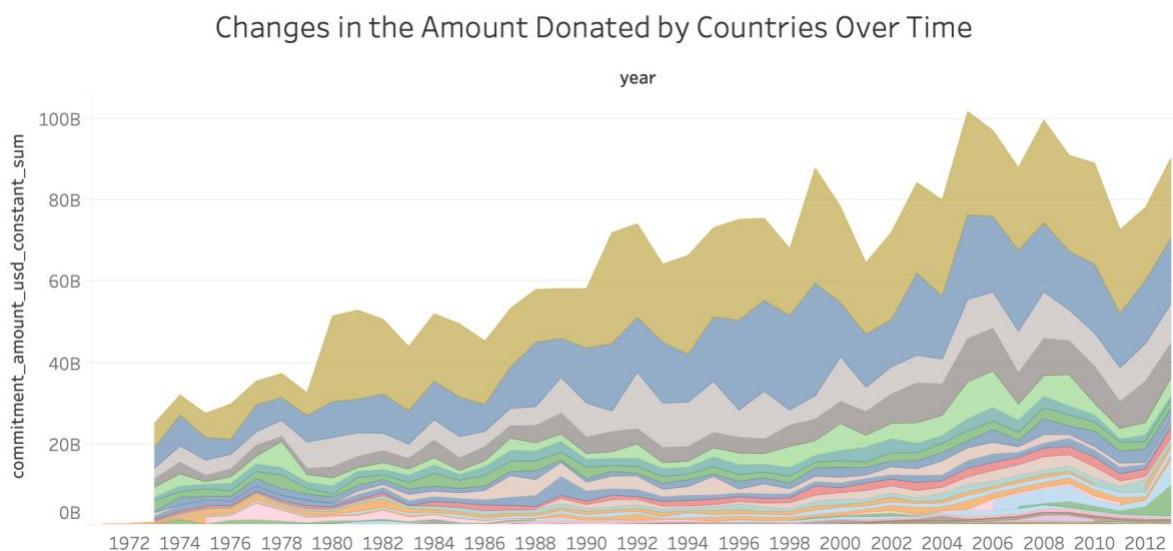
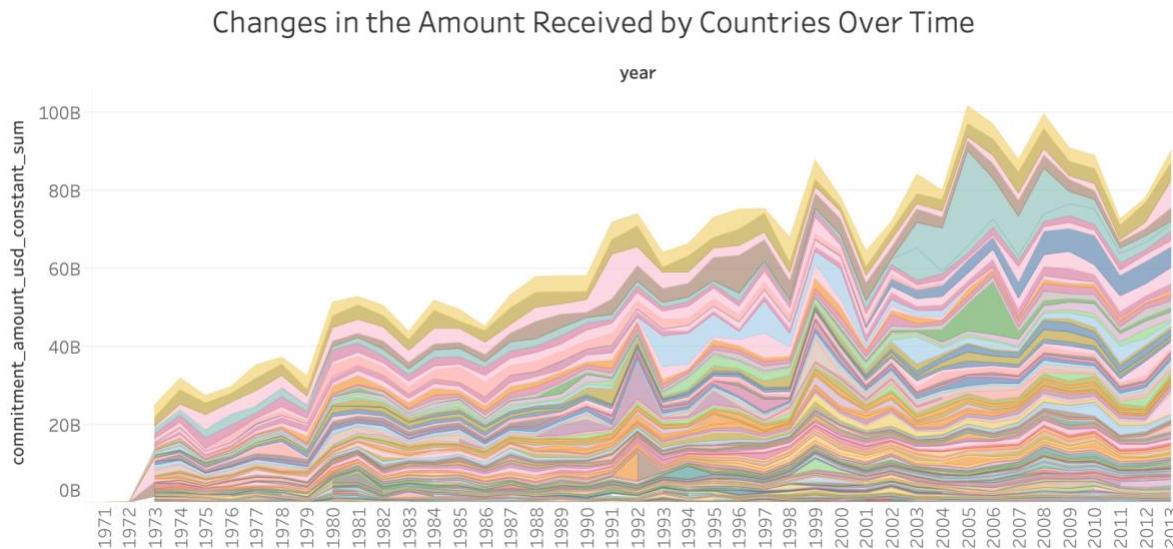
I chose to do a geographical map with blue dots representing the locations of all the funded projects. I wasn't able to come up with a second visualization as I couldn't think of another way to represent this data well. The map is of Sierra Leone where all the projects are located, and each dot represents a single funded project. You can clearly see from the map where the higher density areas are for funded projects.

# Question 3

Data was cleaned in Tableau Prep Builder by removing Financial Institutions and extraneous dates. Financial Institutes were removed as they aren't single countries donating to another country and they include institutes like ASDF and Bill Gates Foundation. Some dates were removed as there was one date of 9999 and there were also very old dates that barely included any data. The data was also grouped by each country and any same countries with different spellings of their name were grouped together. Tableau Prep Builder lets you clean, aggregate, and join the datasets and output into your chosen format. This made it really easy to then input the cleaned dataset into Tableau. The prepared data is included under Output.csv.

## Part 1

**How does the amount donated vs. amount received change over time across all countries?**



#### Recipient Countries

Indonesia	Uganda	Kuwait	Taiwan	Yugoslavia	Latvia	Liechtenstein
India	Bolivia	Dominican Rep..	Mauritius	Wallis & Futuna	Grenada	Iceland
Egypt	Senegal	Liberia	Romania	Belize	Tuvalu	Macao
China	Malaysia	Chile	Cuba	Central African ..	Cook Islands	Switzerland
Iraq	Algeria	Laos	Mayotte	Hong Kong, Chi..	St.Vincent & Gr..	French Guiana
Pakistan	Nicaragua	Mauritania	Macedonia, FYR	Tonga	Norway	Germany
Bangladesh	South Africa	Costa Rica	Iran	Guinea-Bissau	Marshall Islands	Gibraltar
Philippines	Mali	Uzbekistan	Sierra Leone	Trinidad & Toba..	Turkmenistan	St. Kitts & Nevis
Israel	Myanmar	Iran	Hungary	Chad	Global	Antigua & Barb..
Afghanistan	Serbia	Botswana	Guyana	New Caledonia	Comoros	Aruba
Viet Nam	Argentina	Syria	Togo	Trinidad & Toba..	Kiribati	United Arab Em..
Tanzania	Zimbabwe	Mongolia	Eritrea	Eritrea	Equatorial Guin..	Niue
Russia	Haiti	Burundi	Tajikistan	Tajikistan	Cyprus	Turks and Caico..
Thailand	Yemen	Albania	Djibouti	Djibouti	United Kingdom	Estonia
Turkey	Nepal	Botswana	Bulgaria	Bulgaria	Martinique	France
Mozambique	Syria	Saudi Arabia	Australia	Australia	Ireland	Tokelau
Morocco	Burkina Faso	Mongolia	Bahrain	Bahrain	Belarus	New Zealand
Nigeria	Honduras	Oman	Bhutan	Bhutan	Libya	Slovenia
Kenya	Malawi	Saudi Arabia	Croatia	Croatia	Malta	Northern Maria..
Brazil	El Salvador	Namibia	Moldova	Moldova	Guadeloupe	Belgium
Congo, Democr..	Madagascar	Gabon	Italy	Italy	Seychelles	Finland
Mexico	Somalia	Solomon Islands	Cape Verde	Singapore	Slovak Republic	Portugal
Ethiopia	Cambodia	Solomon Islands	Timor-Leste	French Polynesia	Sao Tome & Pri..	Falkland Islands
Sudan	Venezuela	Solomon Islands	South Sudan	Czech Republic	Austria	Austria
Sri Lanka	Angola	Solomon Islands	Kazakhstan	Fiji	Montserrat	Bahamas
Jordan	Rwanda	Solomon Islands	Cape Verde	Vanuatu	Qatar	Anguilla
Ghana	Guatemala	Armenia	Venezuela	Japan	Nauru	Virgin Islands (..
Papua New Gui..	Niger	Armenia	Timor-Leste	Armenia	Micronesia, Fe..	United States
Peru	Lebanon	Paraguay	South Sudan	Vanuatu	Montenegro	United States
Zambia	Bosnia-Herzeg..	Middle East, Re..	Kazakhstan	Japan	Netherlands An..	Cayman Islands
Tunisia	Congo, Republi..	Suriname	Canada	Qatar	Qatar	Soviet Union
Colombia	Ukraine	Azerbaijan	Canada	Gambia	Spain	Bermuda
Korea	Ecuador	Panama	Paraguay	Korea, Democr..	Luxembourg	Sweden
Poland	Jamaica	Kosovo	Middle East, Re..	Reunion	Reunion	St. Pierre & Mi..
Cameroon	Benin	Lesotho	Suriname	Swaziland	Palau	Brunei
Cote d'Ivoire	Guinea	Kyrgyz Republic	Azerbaijan	Lesotho	Uruguay	Serbia and Mon..

#### Donor Countries

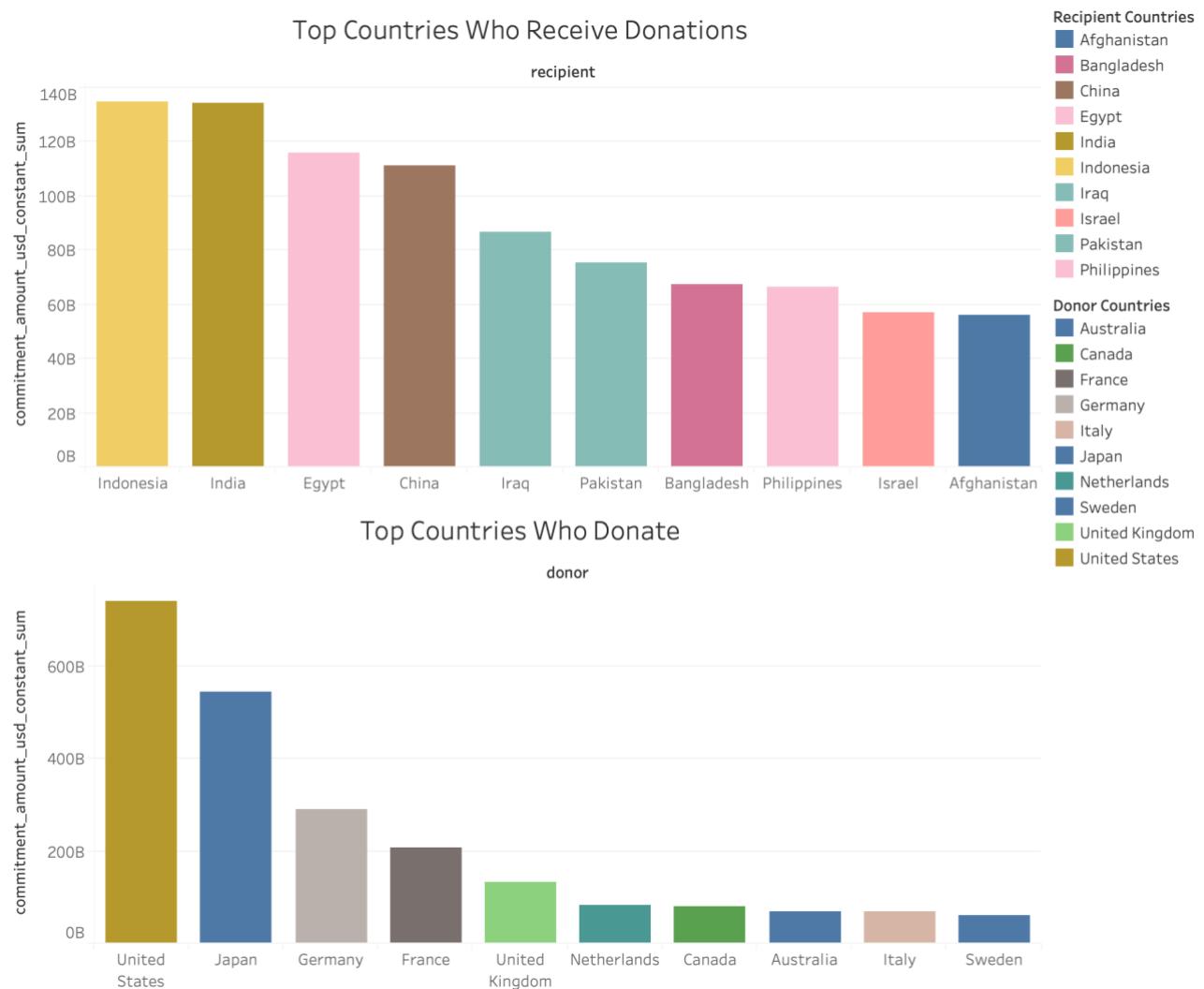
United States	Switzerland	Czech Republic	Colombia
Japan	Belgium	South Africa	Lithuania
Germany	Saudi Arabia	Brazil	Chile
France	Korea	Poland	Romania
United Kingdom	United Arab Em..	Iceland	Latvia
Netherlands	Austria	Qatar	Slovak Republic
Canada	Finland	Portugal	Liechtenstein
Australia	Portugal	Ireland	Estonia
Italy	India	India	Thailand
Sweden	New Zealand	Egypt	Hungary
Norway	Luxembourg	Greece	Cyprus
Spain	Denmark	Taiwan	Monaco
Kuwait			

**Answer:** In the last 40 years the amount received and donated by countries in total has increased by over 3 times. In 1974 there was roughly \$30 billion in amount donated and received and in 2012 that number jumped to around \$90 billion. The USA, Japan, Germany and

France have consistently been the top donating countries. Indonesia, India, Egypt, China, and Iraq have been the top receivers with Iraq receiving the most.

## Part 2

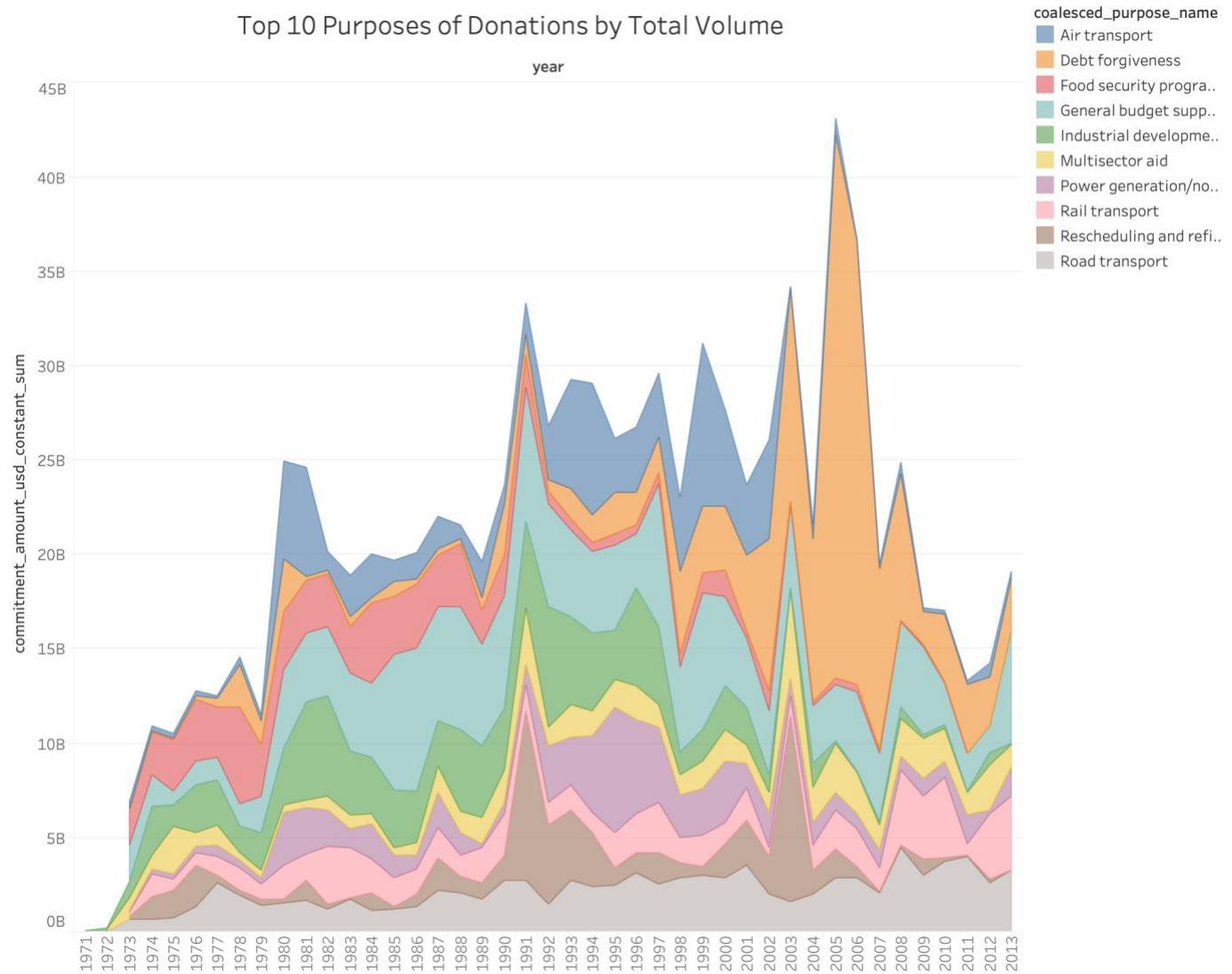
**Are there countries that mostly send or mostly receive and countries that have similar amount they receive and send?**



**Answer:** The countries that mostly send money are United States, Japan, Germany, and France. The countries that mostly receive donations are Indonesia, India, Egypt and China. There are no countries that have similar amounts they send and receive.

## Part 3

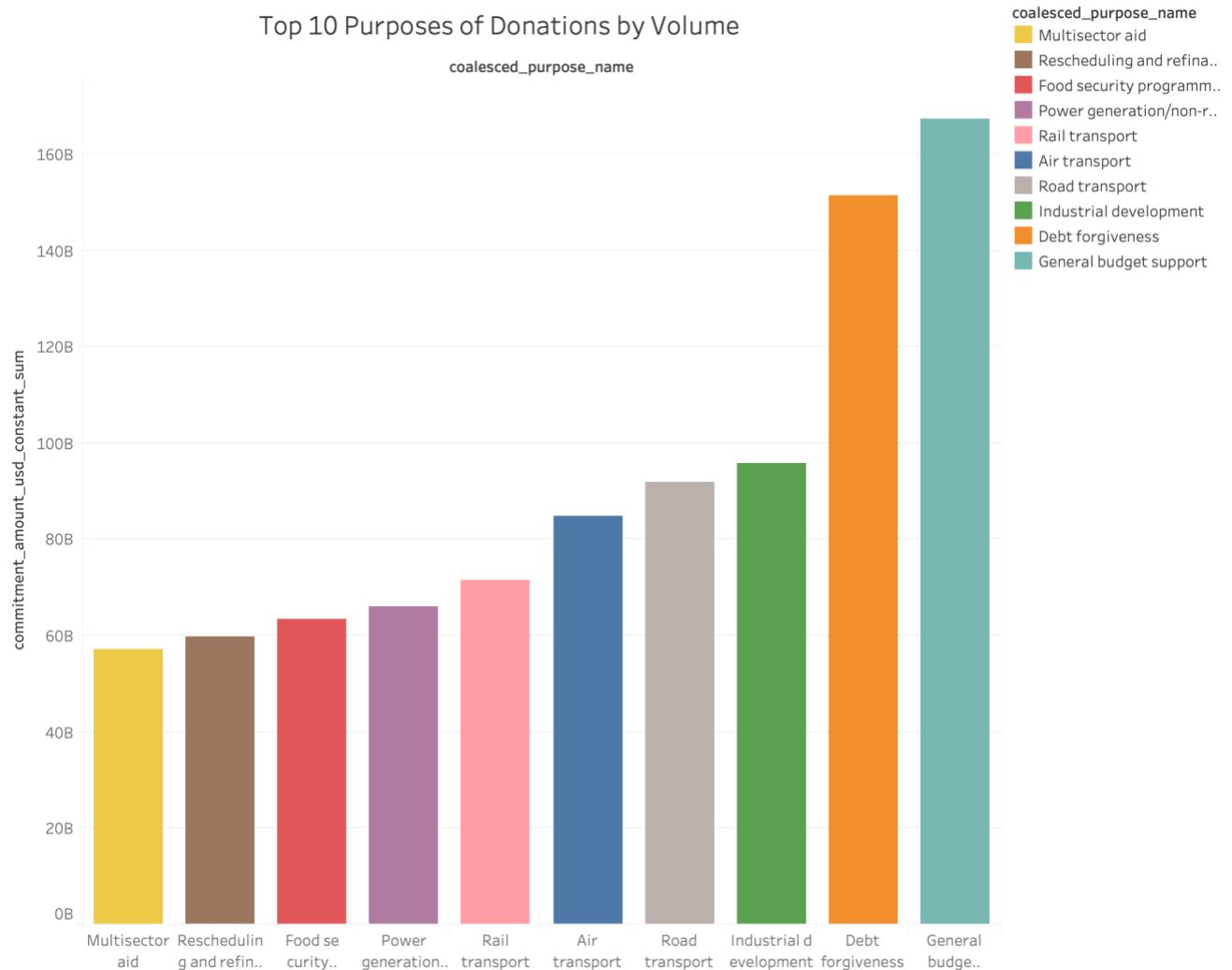
**What are the top 10 purposes of donations (in terms of total volume) and how does their volume compare over time?**



**Answer:** The top 10 purposes of donations are shown in the graph above. Debt Forgiveness (orange) increased greatly over the last 40 years. Food Security Program (red) and Air Transport (dark blue) decreased significantly over the last 40 years.

## Part 4

Are there types that have a much higher/lower volume overall among the top 10?



**Answer:** General Budget Support has the largest volume and has almost 3 times as much as Multisector Aid which is the 10<sup>th</sup> highest. Debt forgiveness also has a very high volume and then rest drop significantly by around \$50 billion.