

# Project Proposal

## Visualizing US Foreign Aid: Trends, Allocation, and Impact

### **Participants:**

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## Dataset Information (What)

### **Dataset Name and URL:**

- **Datasource URL:** <https://foreignassistance.gov/data>
- **Dataset Name:** Budget Dataset
- **CSV Data Source:**  
[https://s3.amazonaws.com/files.explorer.devtechlab.com/us\\_foreign\\_budget\\_complete.csv](https://s3.amazonaws.com/files.explorer.devtechlab.com/us_foreign_budget_complete.csv)

### **Background Information:**

Foreign aid is a crucial aspect of international relations, aimed at supporting economic development, humanitarian assistance, and policy objectives. The U.S. government allocates aid through various agencies and programs, targeting different income groups, regions, and sectors. Understanding how this funding is distributed over time and across different categories is essential for policy analysis and decision-making.

## **Dataset Description:**

The dataset provides comprehensive records of U.S. foreign aid distribution across different regions, agencies, and sectors. It contains categorical, ordered, and quantitative attributes detailing financial assistance provided to various countries.

Attribute Name	Description	Type of Attribute
Fiscal Year	U.S. Government fiscal year (Oct 1 – Sep 30).	Ordered
Region Name	Geographic region of the recipient country.	Categorical
International Category Name	Broad areas of foreign assistance (e.g., Agriculture, Health, Education).	Categorical
International Sector Name	Specific sectors within categories (e.g., Health, Energy, Agriculture).	Categorical
Managing Agency Name	U.S. agency that obligates and disburses foreign assistance.	Categorical
Income Group Name	World Bank Income Group classification.	Categorical
Country Name	Beneficiary country or regional recipient.	Categorical
Transaction Type Name	Type of transaction (e.g., Obligation, Disbursement, Budget Request).	Categorical
Funding Account Name	U.S. Congress-appropriated foreign assistance accounts.	Categorical
Current Amount	Financial amount allocated in the year of disbursement (\$US).	Quantitative
Constant Amount	Inflation-adjusted financial amount (Constant \$US).	Quantitative
Activity Name	Name of the foreign assistance project or program.	Categorical
International Purpose Name	Specific purpose of the assistance (e.g., Basic Nutrition, Public Finance).	Categorical

## Tasks/Questions (Why)

The primary goal of this project is to explore trends in U.S. foreign aid distribution through data visualization.

The key research questions:

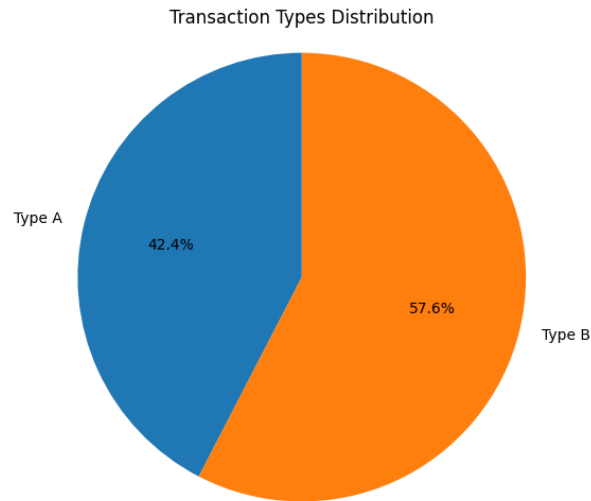
1. How has US foreign aid funding shifted over time in various regions?
2. What is the breakdown of funding by category and their respective sectors?
3. What is the breakdown of funding by category and their respective sectors?
4. How do funding agencies allocate aid across countries of varying income levels?
5. What is the composition of total funding by transaction type?

## Initial Visualization Ideas (How)

We will now explore potential visualizations to address each question.

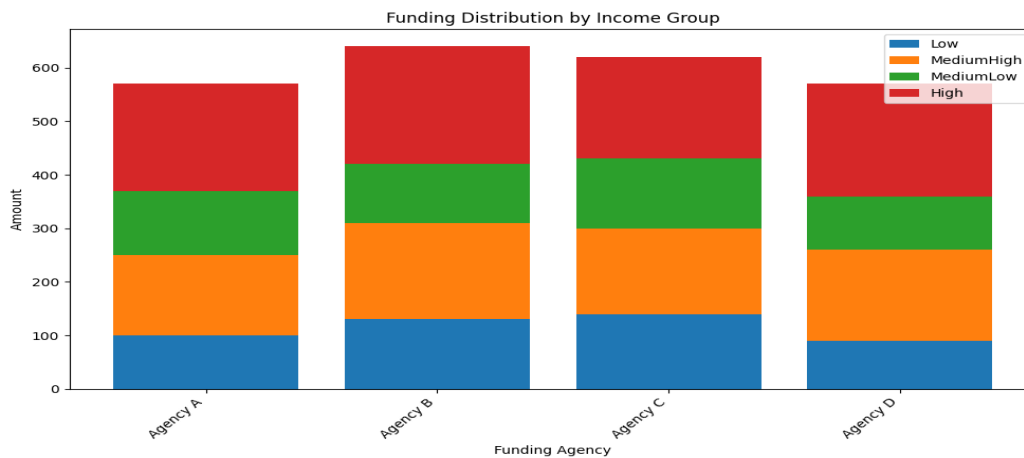
### 1. What is the composition of total funding by transaction type?

- **Visualization:** Pie Chart
- **Columns Used:** Transaction Type, Amount
- **Idea:**



### 2. How do funding agencies allocate aid across countries of varying income levels?

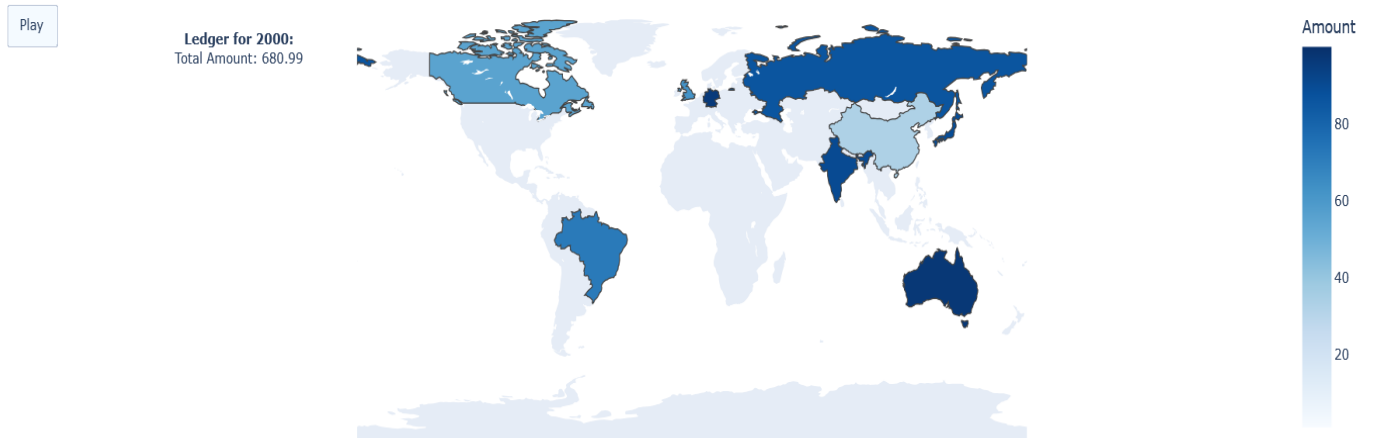
- **Visualization:** Stacked Bar Chart
- **Columns Used:** Funding Agency, Income Group, Amount
- **Idea:**



### 3. How has US foreign aid funding to individual countries changed over time?

- **Visualization:** Geospatial Map that transforms
- **Columns Used:** Countries, Year, Amount
- **Idea:**

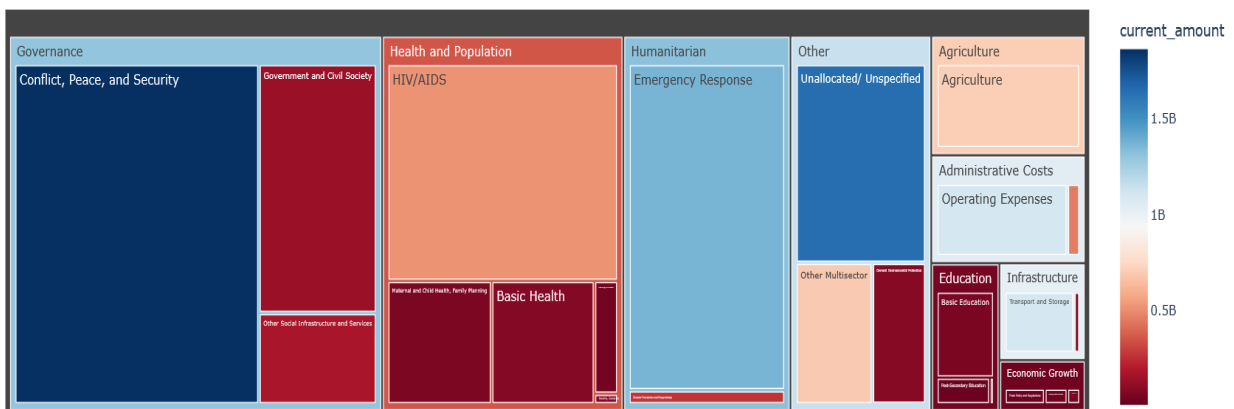
Amount Spent by Country Over Time



### 4. What is the breakdown of funding by category and their respective sectors?

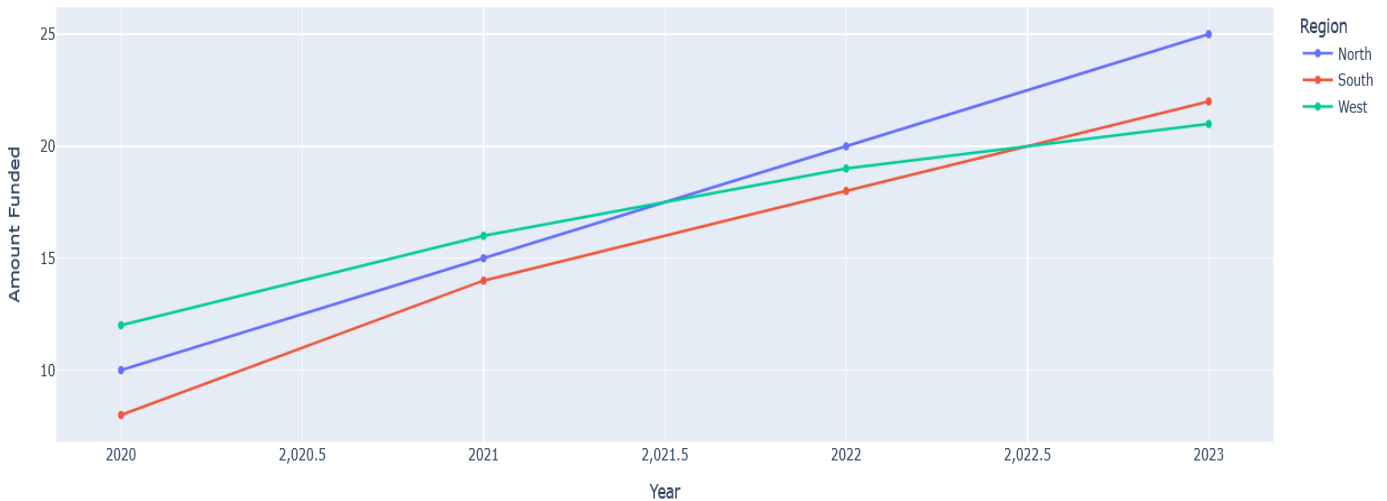
- **Visualization:** Tree Chart
- **Columns Used:** Amount, Categories, Sectors
- **Idea:**

Funding Distribution by Category and Sector



## 5. How has US foreign aid funding shifted over time in various regions?

- **Visualization:** Line Chart
- **Columns Used:** Regions, Year, Amount
- **Idea:**



### Proposed Interactivity:

#### 1. Cross-Filtering:

Selecting a region in the **Line Chart**, a country in the **Geospatial Map**, or a year via the time slider will dynamically filter all other visualizations to display data specific to that selection.

#### 2. Consistency:

All visualizations will remain synchronized, ensuring a cohesive view of the data. Selections in one chart will update the others to reflect the same context (e.g., region, country, or year).

#### 3. Geospatial Map Animation:

The map will animate over time, showing changes in funding to individual countries. Users can pause the animation to explore data for a specific year or click on a country to filter all other charts.

### **Example Workflow:**

1. **Select a Region** in the Line Chart (e.g., "Sub-Saharan Africa").
  - a. The **Tree Chart** updates to show the funding breakdown by category and sector for Sub-Saharan Africa.
  - b. The **Stacked Bar Chart** displays funding allocation by income group for Sub-Saharan Africa.
  - c. The **Pie Chart** reflects the funding composition by transaction type for Sub-Saharan Africa.
  - d. The **Geospatial Map** zooms in countries in Sub-Saharan Africa, with funding amounts visualized.
2. **Pause the Geospatial Map Animation** at a specific year (e.g., 2020).
  - e. All charts are updated to reflect data for 2020.
3. **Example videos samples for reference** - [Interactive Vizualization Video](#), [Map Animation Video](#)

While proceeding further, we might consider incorporating additional informative columns (e.g., International Purpose Name, Activity Description, or Managing Sub-agency Name) to enhance the visualizations, either as new views, filters (e.g., dropdowns), or supplementary layers for deeper insights.