## Web Scraping USAID

Presentation by
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## **About my Project:**

- The web page is loaded with heavy javascripts.
- Selenium and BeautifulSoup are used to scrape the web page.
- Techniques used to avoid overloading the webpage:
  - I gave a pause of about 1 to 1.5 minutes for each page
- First, I selected the required regions and set 100 rows per page for 'Disbursements'.
- It was scraped for 1.5 hours.
- Then I scraped 'Obligations' page, which also lasted for about 1.5 hours.
- I used Shiny to develop an app.

#### **USAID – U.S. Agency for International Development**

#### Who they are:

- USAID is the lead U.S. Government agency that works to end extreme global poverty and enable resilient, democratic societies to realize their potential.
- President John. F. Kennedy created the United States
   Agency for International Development by executive
   order in 1961.

#### **Assistance to Foreign Countries**

- U.S. foreign assistance has always had the twofold purpose of furthering America's interests while improving lives in the developing world.
- USAID carries out U.S. foreign policy by promoting broad-scale human progress at the same time it expands stable, free societies, creates markets and trade partners for the United States, and fosters good will abroad.

- Spending less than 1 percent of the total federal budget, USAID works in over 100 countries to:
  - Promote broadly shared <u>economic prosperity</u>;
  - Strengthen <u>democracy and good governance</u>;
  - Protect <u>human rights</u>;
  - Improve global health,
  - Advance <u>food security and agriculture</u>;
  - Improve environmental sustainability;
  - Further <u>education</u>;
  - Help societies <u>prevent and recover from conflicts</u>; and
  - Provide <u>humanitarian assistance</u> in the wake of natural and man-made disasters.

#### SECTORS

ABOUT THE U.S. GLOBAL DEVELOPMENT LAB



AGRICULTURE AND FOOD SECURITY



DEMOCRACY, HUMAN RIGHTS AND GOVERNANCE



ECONOMIC GROWTH AND TRADE



**EDUCATION** 



**ENVIRONMENT AND** GLOBAL CLIMATE CHANGE



GENDER EQUALITY AND WOMEN'S EMPOWERMENT



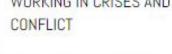
GLOBAL HEALTH

WATER AND SANITATION



WORKING IN CRISES AND







- An aid 'activity' can be a project, program, cash transfer, delivery of goods, training course, research project, debt relief operation, or a contribution to an international organization.
- An aid 'financial flow' most commonly takes the form of an obligation (a binding agreement, based on budgeted resources, which will result in outlays) or a disbursement (an amount paid by federal agencies, by cash or cash equivalent, to settle government obligations).

#### Fiscal Year:

 An accounting period of 365 days (366 in leap years), but not necessarily starting on January 1. The fiscal year of the United States Government begins on October 1 and ends on September 30 and is designated by the calendar year in which it ends for global programs.

## **Implementing Agency:**

The agency which actually obligates and disburses
the U.S. foreign assistance, either directly or via an
implementing partner entity. The implementing
agency for a foreign aid activity may or may not
differ from the appropriated (funding) agency.

## Country

This is the specific target beneficiary of U.S. foreign assistance. A 'country' listed on the Foreign Aid Explorer website is either an entity named and classified as an "Independent State" by the U.S. Department of State, or a geographic regional recipient with the suffix "Region".

- The Foreign Aid Explorer website uses the term 'region' in two different ways:
  - (1) to designate assistance to a non-country-specific recipient and
  - (2) summarize assistance by geographic area.
- On the 'Data Query' section, foreign aid benefitting multiple countries may be assigned to either a 'Region' recipient or to 'World'

- What are the non-recipient Countries?
- Why is it very important to allocate fund separately?
- What are the important activities?
- What are the top sectors?
- What are the top implementing agencies?

# U.S. AID By Region

- 1. East Asia and Oceania Region
- 2. Eastern Africa Region
- 3. Europe Region
- 4. Middle East Region
- 5. North Africa Region
- 6. South and Central Asia Region
- 7. Southern Africa Region
- 8. West Africa Region
- 9. Western Hemisphere Region

## • 2016

Region	Disbursement (in USD)	Top Sectors	Top Imp Agencies
West Africa	197 M	Agri, Basic Health, Maternal and Child Care	USAID, Defense, State
Eastern Africa	147 M	Conflict, Agri, Envi, Trade and Education	State, USAID
Europe	107 M	Emergency, Conflict, Govt. and Civil	State, Defense
South Africa	25 M	Emergency, Envi, HIV, Disaster mgt, Water supply	USAID, State
East Asia and Oceania	16 M	Govt. and Civil	State

## • 2016

Region	Disbursement (in USD)	Top Sectors	Top Imp Agencies
Middle East	6.8 M	Energy, Water, Trading	Energy
North Africa	2 M	Emergency, Govt. and Civil	State
South and Central Asia	1.8 M	Govt. and Civil, Energy, Trade	State, Energy, Commerce
Western Hemisphere	1.6 M	Govt. and Civil, Conflict and Trade	State, Homeland Security

# U.S. AID By Sector

## • 2016

Sector	Disbursement (in USD)	Top Regions
Conflict	90 M	East and West Africa
Emergency	88 M	Europe
Agriculture	68 M	West, East Africa
Basic Health	56 M	West Africa
Govt. and Civil	45 M	East Asia and Oceania, Europe, East Africa
Water supply	45 M	West, South, East Africa and Middle East
Other Multi-sector	30 M	Europe
Environment	26 M	West, East and South Africa
Trade	22 M	West Africa and all

## • 2016

Sector	Disbursement (in USD)	Top Regions
Maternal and Child care	17 M	West and East Africa
HIV	11 M	West, South and East Africa
Pot-sec Education	9 M	West, East and South Africa
Disaster management	8 M	West and South Africa
Food	8 M	East, West and South Africa
Admin	6.8 M	East and South Africa
Energy	5.4 M	Middle East, South and Central Asia and all
Business	1.3 M	Europe, Middle East

#### 2016

Sector	Disbursement (in USD)	Top Regions
Banking	500,000	West Africa
Communications	3000	West Africa

West or East Africa tops in the remaining sectors,
 which have been allocated thousands and hundred dollars.

### **Observations:**

- The Africa Regions receive fund in every sector.
- The sectors which Africa regions do not rank first are Business, Energy, Emergency and other multi-sectors.
- Major sectors have received an increased amount during 2008-2016.
- The overall highest number of transactions have been recorded in 2011 and 2015.

#### The maximum fund for

- South and Central Asia Region -allocated in Energy Sector.
- Middle East Region in Energy, Water and Trade
- Europe Region in Emergency and Business
- East Asia and Oceania in Govt. and Civil Society
- Western Hemisphere in Conflict and Trade.

### From 2001 to 2017

<ul> <li>Increasing Trend</li> <li>Agriculture</li> <li>Conflict, Peace and Security</li> <li>Decreasing Trend</li> <li>Banking (peak in 2002)</li> <li>Basic Health –peak in 2015 and then decreased.</li> <li>Conflict, Peace and 2004)</li> </ul>			
•Conflict, Peace and •Business (peak in decreased.  •Conflict, Peace and 2004)	Increasing Trend	Decreasing Trend	Oscillating
•Environmental •Govt. and Civil Society •Maternal and Child care •Other multi-sectors •Post-sec education •Trade policy •Water Supply •Food (peak in 2005) •Emergency (2005) •HIV/AIDS (2003) •Energy – peak in 2008 and 2015, dip in 2013. •Transport and storage –peak in 2012 and then decreased.	<ul> <li>Conflict, Peace and Security</li> <li>Environmental</li> <li>Govt. and Civil Society</li> <li>Maternal and Child care</li> <li>Other multi-sectors</li> <li>Post-sec education</li> <li>Trade policy</li> </ul>	<ul><li>Business (peak in 2004)</li><li>Food (peak in 2005)</li><li>Emergency (2005)</li></ul>	in 2015 and then decreased. •Energy – peak in 2008 and 2015, dip in 2013. •Transport and storage –peak in 2012

- In case of HIV/AIDS, obligations are also less –good news.
- In case of Banking, Obligations are almost always less than disbursement – good job.
- Decreasing trends are sometimes good and increasing trends are sometimes alarming.

#### **Common Activities:**

- Countering Violent Extremism Civil
- Counterterrorism Finance Civil
- International Narcotics & Law Enforcement:
   Combatting Wildlife Trafficking
- Counterterrorism Anti-Terrorism Assistance- Civil
- Department of Energy, Safeguards Engagement

#### **Highlights:**

#### **West Africa**

 Young African Leaders Initiative (YALI) Regional ~ Post-Sec Education

#### **Middle East:**

- Improving Water sanitation Project
- Madame President Project

#### **East Asia and Oceania:**

BOOST Skill Training to Advance the Careers of Engineers and Scientists in South ~ Other-multi sectors

#### **North Africa:**

Advancing Careers of Women in Science: Empowering Women in North Africa - Civil - around 2.5 M

2/14/2018 26

#### **Future Directions:**

#### Analysis of the trend to predict if

- the disbursed amount will increase/decrease during President Trump in important sectors,
- any unexpected disbursement will be done to any new sectors, like trade policy or business related sectors,
- the amount will be decreased to any existing country, for e.g., Israel.

#### **References:**

https://www.usaid.gov/

## **THANK YOU!!!**