This project delves into creating a one-stop shop to understand and interpret data regarding United Nations Sustainable Development Goals. There are a lots of issues in the world and we are trying to help people understand the main issues that are growing and pertinent statistics about those issues. We used data from the world bank and used python to compile and visualize our results regarding our selected SDGs.

Our technical approach for the project involved writing a python script to get the data for one SDG, create a simple dashboard using streamlit, and schedule the python script to run regularly and update the data automatically in the dashboard - shell script in unix - run a python script every week. Here are some details

HUNGER: Jay Morris

SDG #2 concerns zero hunger. The dashboard gathers data from World Bank Data using python package Pandas data reader. The data incorporates the biggest indicator of hunger: undernourishment, as well as others such as mortality rate of children under 5, prevalence of underweight children under 5, and each country’s food production.

The countries I chose were 5 very wealthy countries with nearly nonexistent issues regarding food supply: Austria, Sweden, France, Denmark, and Switzerland. The bottom 5 countries are rated some of the 5 highest countries when it comes to undernourishment: Somalia, Yemen, Central African Republic, Democratic Republic of Congo, and Chad.

Looking at the statistics, we see overwhelmingly undernourishment extremely high for these African countries while is is across the bar nearly nonexistent in developed countries in Europe.

This same realization can be found in Mortality rate of children under 5. Of course, several factors can play into the mortality rate of young children such as access to medical supplies and water. But a major reason why these maladies can occur is because of a lack of food or quality food in their diets, so there is a high correlation between these differing factors.

Even though the statistic may not be as good, the % children under 5 that are underweight tells us information about the difficulty in achieving data. It is easy to find the mortality rate because this information is much more widely available than finding which children are underweight. You would need to survey every child in these countries or use very good estimation as well as use an established definition for what weight is underweight. Thus, this is why we only have two data points for Chad and Central African Republic for the year in 2019.

The last indicator used is food production, which can be a good measurement of whether a country can feed its citizens. It may also be misleading because there may be propserous countries that import their food. Thus, we see little difference between developed countries and developing countries when it comes to food supply. This drives the message that even a country producing enough food supply still may not be able to feed itself and shows how much global supply chains are relied upon to feed the world.

SGD Relvant Info: Natural Disasters

Pierce Gruidl

Source:<https://www.preventionweb.net/sustainable-development-and-drr/sdgs-targets-related-disaster-risk>

Natural Disasters can have large impacts on many of the SDG set out by the United Nations. Ten of the seventeen development goals are affected by the destruction of property, loss of resources, and injury these threats pose. Using the Global Disaster Alert and Coordiantion System (GDACS), we were able to pull the most recent location, date, and time for the most destructive natural disasters to serve as a snapshot for recently affected areas. These events tend to leave communities vulnerable and reak the most havoc on less fortunate communities.

As mentioned earlier many of the SGD Goals outlined by the UN are heavily jeopardized by the wake of these disasters so let’s outline some of the goals most affected.

Goal 1: End poverty in all its forms everywhere

Impoverished areas tend to be those most affected in the aftermath of natural disasters where poor communites have less resources to spend or rebuilding their communities and supplying food for their families.

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Many places where the food source rely’s on farm land can be affected heavily from the results of Natural Disasters. Esecially floods and droughts can have major impact and slow economic progress in underdeveloped regions.

Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable

Obvious the main affects of natural disasters on communities are the living spaces. Especially in unstable regions where natural disasters can occur often it is hard to afford the infrastructure needed in order to maintain public resources while under the threat of natural disasters.

QUALITY EDUCATION:

Pratikshya Prasai

SDG #4 is about quality education. I also got my data from the World Bank Data website using Pandas Data reader. I extracted the data from 5 poorest countries in the world to compare with the 5 richest countries in the world since it is likely that quality of education relies heavily on the financial status of the countries.

Besides that, there are secondary indicators such as secondary school enrollment and the gender equality rating plays a major role in determining the quality of education. Therefore, I plotted the graph between the 10 given countries for literacy rate of the youth, secondary school enrollment and gender equality rating to compare and see how each category is related to the SDG considering the financial status of each country.