



POVERTY

PROJECT WORK

Business Analytics

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Introduction

“Poverty is a state / condition in which a person or community lacks the financial resources and requirements for a minimum standard of living. Poverty implies that the income level from employment is too low that basic human needs stay unmet.” ("Poverty," 2020)

Global Poverty

As of 2015, an estimated 736 million people lived in extreme poverty, which the World Bank defines as surviving on less than \$1.90 per day.

Of the total, roughly half lived in just five countries ("Poverty," 2020):

- India
- Nigeria
- Democratic Republic of Congo
- Ethiopia
- Bangladesh

Factors Affecting Poverty

Poverty is a difficult cycle to break and often passes from one generation to the next.

Major factors that poverty hinders include:

- access to good schools
- healthcare
- electricity, safe water,

These critical services are determined by socioeconomic status, gender, ethnicity, and geography.

Heightened poverty is likely to cause increased tensions in society, as inequality increases.

These issues often lead to rising crime rates in communities affected by poverty.

Special Considerations

The United Nations and the World Bank are major advocates in eradicating or reducing world poverty. The World Bank has an ambitious target of reducing poverty to less than 3% of the global population by 2030 (The World Bank. ("Poverty," 2020):

Few of the measurable plans to eliminate poverty include the below details: ("Ending extreme poverty," 2016). Providing access to clean drinking water by Installing wells^[1]_[SEP]

- Educating people how to be self sufficient
- Constructing shelter for the poor
- Building schools for disadvantaged communities
- Building medical clinics and hospitals to provide access to better health care services

Problem Statement

Poverty is a very sensitive topic that is impacting a vast majority of people's quality. This report via statistical analysis focus to determine below information:

- Factors causing poverty.
- Top 10 poverty affected regions/countries.
- Total percentage of world living in poverty.
- Effect of poverty on younger generation and hazards/risks involved.
- Alarming trends related to poverty.
- Determine effect of inequalities among countries on global poverty.
- Effect of natural calamities on rate of poverty over the last two decades
- How does Poverty Affect Development for instance education, health, economy?

Goals

A better understanding and developing strategies help to improve the poverty issue. Therefore, we need to measure and analyze several data and consider connections to each other. Thereby it is important to have an overall geographical view about the situation globally. Determining key indicators helps us to see the outcomes and reasons for poverty. In addition, we must identify affected groups, focus on children, who are significantly impacted by poverty. This topic needs special attention by connecting different data together to build geographical, economic social and political conclusions.

Methods / Datasets

There are four datasets used for the analysis the details are described as below:

Dataset #1:

Source: World Bank Data

Information provided:

- Regions: Latin America, South Asia etc.
- Income Group: Low, High, Lower Middle
- Data Indicators:
 - Annualized Growth Rate
 - Poverty Gap at different values
 - Poverty Headcount
 - Multidimensional Poverty Headcount
 - Gini index

Dataset #2

Data source: UNICEF Child Poverty Data

Indicators:

- Percentage proportion of population without basic drinking water
- Death of children at various age groups below poverty line
- Multidimensional Poverty Headcount

Dataset #3

- Multidimensional Poverty Index
- Data source: United Nation
- Indicators:
 - Multidimensional Poverty Index
 - Population in multidimensional poverty
 - Intensity of Deprivation %
 - Population living below income poverty line (%)
 - National poverty line

- Contribution of deprivation in dimension to overall multidimensional poverty^[1]
 - Health
 - Education
 - Standard of Living

Dataset #4

- Climate Risk Index
- Data source: data. world
- Indicators:
 - Ranking of affected countries
 - Effects on Fatalities

Theoretical Foundation

Annualized Growth Rate

The annual average rate of change of population size, for a given country, territory, or geographic area, during a specified period. It expresses the ratio between the annual increase in the population size and the total population for that year. (refer WHO)

For the analysis related to poverty this report will detail Annualized growth rate for:

- Total population percentage
- Bottom 40% population

Climate Risk Index

Analysis of affect natural calamities (storms, floods, droughts etc.) on countries worldwide.

Income share held by lowest 10%

Percentage share of income or consumption is the share that accrues to subgroups of population indicated by deciles or quintiles. (World Bank, 2018)

Gini index

The Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution.

A Gini index of zero represents perfect equality and 100, perfect inequality. (OECD reference)

GNI per capita

“The Gross National Income, GNI, (...) measures the total domestic and foreign value added claimed by residents at a given period, usually a year, expressed in international dollars using purchasing power parity rates. (...) GNI provides an aggregate measure of income. An international dollar is defined as the currency unit that has the same purchasing power over GNI as the US dollar in the United States.

Multidimensional poverty Headcount Ratio

This is the formal name for the “incidence” of poverty, i.e. the proportion of people (within a given population) who experience multiple deprivations. (oxford poverty and human development initiatives reference) For analysis purpose below indicators will be investigated:

- Multidimensional poverty Headcount ratio total population
- Multidimensional poverty Headcount ratio ages 0-17
- Multidimensional poverty Headcount ratio for Female population
- Multidimensional poverty Headcount ratio for male population

Multidimensional Poverty Index (MPI)

The global Multidimensional Poverty Index (MPI) is a measure internationally used for acute multidimensional poverty covering over 100 developing countries. It complements traditional monetary poverty measures by capturing the acute deprivations in health, education, and living standards that a person faces simultaneously.

Poverty Gap

The poverty gap is the ratio by which the mean income of the poor falls below the poverty line. The poverty gap helps refine the poverty rate by providing an indication of the poverty level in a country. This indicator is measured for the total population, as well as for people aged 18-65 years and people over 65. OECD (2021) The report will analyze:

- Poverty Gap at \$1.90/day
- Poverty Gap at \$5.5/day
- Poverty Gap at \$3.20/day

Poverty Headcount ratios

Poverty headcount ratio at \$1.90 a day is the percentage of the population living on less than \$1.90 a day at 2011 international prices. As a result of revisions in PPP (purchasing power parity) exchange rates, poverty rates for individual countries cannot be compared with poverty rates reported in earlier editions. (reference world Bank Data bank) Report will consider poverty headcount ratios at \$ 3.20/day and \$ 5.5/day as well.

Intensity of Deprivation Percentage

Average percentage of deprivation experienced by people in multidimensional poverty is measured as the intensity of deprivation. (United Nations Development Programme)

Population living below income poverty line (%)

The indicator Proportion of population below the international poverty line is defined as the percentage of the population living on less than \$1.90 a day at 2011 international prices. The 'international poverty line' is currently set at \$1.90 a day at 2011 international prices. (WHO)

Purchasing Parity Power (PPP)

“Purchasing power parities (PPPs) are the rates of currency conversion that try to equalize the purchasing power of different currencies, by eliminating the differences in price levels between countries. The basket of goods and services priced is a sample of all those that are part of final expenditures: final consumption of households and government, fixed capital formation, and net exports. This indicator is measured in terms of national currency per US dollar.” (“Purchasing power parities (PPP),” n.d.)

Data Processing

To analyze and identify information, we had to firstly set up objectives as above. According to the planning, we collected data from different sources (e.g. Journal Articles and Databases) and structured them. Data Analytics (“a set of computer-enabled analytics methods, processes and discipline of extracting and transforming raw data into meaningful insight, new discovery and knowledge that helps make more effective decisions” - H. Koç), enabled us to have insights, which were essential to understand. Hence, descriptive analytics, for instance, helps to have insights of what has happened and shows causes within poverty, while “predictive analytics” evaluates the future progress of countries affected by poverty. The third component, “prescriptive analytics” is useful to make future recommendations and implications based on historical data to improve the problem of poverty. We used ordinal - qualitative data, as well as quantitative – continuous ones. We used the CRISP data mining process to plan, model, evaluate and understand this project. The overall poverty topic through journal articles enabled an understanding for the datasets we have used. Afterward, it was important to prepare and structure the given data to finally fulfill the modelling process by creating visualizations via Tableau, based on our problem statement and goals. By analyzing and evaluating the results the understanding was more strengthened and we gained time to finally being able to make implications and recommendations. In addition to that we took attention on the correlation of several data and tried joining different variables to get maximum relevant information.

Analysis

Firstly, it is very crucial to have a global view on poverty. Almost one half of the people affected by poverty live in Sub-Saharan Africa: Nigeria, the Democratic Republic of Congo, Tanzania, Ethiopia and Madagascar. The darker the colors in Figure 1, the poorer the countries are. To have a deeper insight of the global situation we generated a more detailed world map (Figure 2) separated in order between “High income, Upper middle income, Lower middle income and Low income”.

The World Bank itself for instance, classifies economies for analytical purposes into these for income groups based on GNI per capita. “The income classification is based on a measure of national income per person, or GNI per capita, calculated using the Atlas method. In 1978, the first World Development Report introduced groupings of "low income" and "middle income" countries using a threshold of \$250 per capita income as threshold between the groups. In the 1983 WDR, the "middle income group" was split into "lower middle" and "upper middle" groups, and in 1989 a "high income" country definition was introduced.” For the current 2021 fiscal year, low-income economies are

defined as those with a GNI per capita, calculated using the World Bank Atlas method, of \$1,035 or less in 2019; lower middle-income economies are those with a GNI per capita between \$1,036 and \$4,045; upper middle-income economies are those with a GNI per capita between \$4,046 and \$12,535; high-income economies are those with a GNI per capita of \$12,536 or more.” (“World Bank Country and Lending Groups,” n.d.) High income spreads among North America, Europe, Australia, New Zealand and some parts of Asia and South America. Furthermore, Upper middle income reaches major parts of Asian countries, South -and Middle American Countries and partly countries in Africa. Lower middle-income groups are defined in mostly in African and Asian countries while Low-income groups again consist of in major African countries.

As we focus on poor countries, we took a deeper insight on Low-income groups, for which we generated a pie chart (Figure 3) with all the 29 affected countries as Ethiopia, Burkina Faso, Chad or Haiti to achieve comprehensive results.

As it is evident that there are massive inequalities between higher and lower income groups globally. But it is significant to understand the correlation between the poverty gap within a region and the poverty headcount. It gives a tentative measure of population suffering under a particular poverty gap category for instance at \$1.90, 3.20, 5.50/day. The more the difference between the poverty gap and it's headcount the more is the impact of poverty in that particular region. To make the analysis even more comparable and critical we can run it along the Gini index as a third parameter. As Gini index defines to which extent income among individuals or households within an economy deviates from a perfectly equal distribution. The higher the gap between Gini index and poverty gap the higher is the inequality within the society and more poverty is prevalent in that region. For instance (figure 4) using data sets#1 (sourced from World bank), depicts poverty statistics and inequality in Ethiopia, which is ranked high amongst poverty affected countries. As per the data analysis Gini index of Ethiopia in the year 2015 is 35%, which is a red flag as it is approaching near to a benchmark of 40%. Poverty gap at \$1.90/day for Ethiopia is 9.4 in 2015. However, the poverty Headcount at \$1.90/day is 32.60. For the sake of analyzing inequality, taking Germany as an example, the poverty headcount ratio at \$1.90/day is almost zero.

Index values show countries that are least developed. Particularly, we analyzed these in Africa to build a focus and understand the countries situations with three country examples. Niger had the highest birth rate in the world with a birth rate of 7 children per woman in 2017. It becomes very challenging for this country to feed and educate families considering it's literacy rate of children under five of 42.2 percent. The family planning programs are developed all through Niger, nevertheless, the number of married women who benefit from contraceptives and family planning methods is only 11 percent. This low rate mostly comes from a lack of information about

contraceptives methods. Since agriculture represents 36.5 percent of its GDP, Niger is very exposed to climate changes and calamities. During the last twenty years, Niger had to face three major droughts which left the country with a famine job shortage situation. This instability directly affects the purchasing power. Military instability is also a cause of poverty in this country. Current example is the militant Islamist group Boko Haram which impose a constant guerrilla since 2015. More than 115,000 people have already been displaced in addition to the psychological impact on the population making it even harder to stabilize the economy.

South Sudans' situation since its independence in 2011 resulted in worse conflicts. However, events flooding in some areas, locust infestation, pandemic and a decrease in oil prices boosted existing critical problems which contribute in destroying livelihoods of people. nutritional unsafety is a massive problem, where around 7.5 Million people needed protection and humanitarian support. Many people were displaced as a result and had to flee to bordering countries, whereas women and children are most affected. South Sudan is among some of the most oil-dependent countries in the world, where 90% of its revenue is generated from oil, and more than 30% of its GDP. In 2014, Its GDP per capita was US\$1,111 and decreased more than US\$200 after three years. Beyond the oil industry, the country's subsistence is concentrated in agriculture, which is not very productive and without payment, and in the work of livestock herders. South Sudan's economy is sensitive, especially to the effects of climate conditions, oil prices and conflicts. "About 82% of the population in South Sudan is poor according to the most recent estimates, based on the \$1.90 2011 purchasing power parity (PPP) poverty line." ("South Sudan Overview," 2020)

Throughout Mali the lack of educational infrastructure in the country has led to poverty. And as poverty deepens, education levels continue to decrease. The school enrollment rate is 67% and the adult literacy rate 38.7%, ("Poverty in Mali," 2017) it is one of the lowest in the world, compared to the world average of 86%. The level of education should be higher according to these statistics, which means that facilities need to be improved and the level of education should be better. As well Niger, Mali is facing conflicts which increase the poverty problem. As the problem continues, Malians are fleeing to neighboring countries in search of asylum. Yet these families continue to live in poverty as food shortages persist. When they leave the country, they do not earn enough money to provide their families with what they need. ("Poverty in Mali," 2017)

Poverty effects also the development of countries in terms of health, education and the standard of living. Figure 6 demonstrates these factors and their influences based on nutrition and child mortality for the first-dimension health; the second-dimension education consist of indicators of years of schooling and school attendance as well as lastly, Standard of Living with indicators, cooking fuel,

sanitation, drinking water, electricity, housing and assets within bar charts. Therefore, we cleaned the dataset “Multidimensional Poverty Index” and focused on these three dimensions mentioned above. Thereby, we selected the Top 10 of the most affected countries in Africa. These are ascending of the highest index value Niger with 0.6. Followed by South Sudan, Chad, Burkina Faso, Ethiopia, Central African Republic, Mali, Madagascar, Mozambique and Burundi. All of these countries show different percentages of affection of indicators. For instance, Mali is the most affected country in terms of education with around 42% of the total population and the Central African Republic the last with around 26%. “(...) more than two million children aged between 5 to 17 still do not go to school, and over half of Mali’s young people aged 15 to 24 are not literate. (...) Among children that do attend school, the absence of qualified teachers, text books and low-quality school environment all adversely affect learning outcomes: the vast majority of students in fifth grade in Mali are not able to master basic mathematics and reading skills.” (“Education,” 2018) Nevertheless, we analyzed that indeed Central African Republic has its most deficits in health which is by around 28% due to among others child malnutrition with 38% under age of 5. The population of Ethiopia is suffering the most from Standard of living. “In Ethiopia, 60 to 80 percent of communicable diseases are attributed to limited access to safe water and inadequate sanitation and hygiene services. In addition, an estimated 50 percent of the consequences of undernutrition are caused by environmental factors that include poor hygiene and lack of access to water supply and sanitation (...)” (“Water, sanitation and hygiene (WASH),” 2018).

Extreme weather affects developing countries a lot. With the help of the “Climate Risk Index” we can define and evaluate countries that are the most affected by these natural calamities. These are among other tornados, floods, fires, droughts, earthquakes, hurricanes, tsunamis etc. The lower the index scores are, the higher the risk is. Figure 7 shows the individual climate risk index and the fatalities among these countries via two bar charts. Also, here, we have chosen the Top 10 most affected countries: Mozambique, Dominica, Malawi, India, Vanuatu, Myanmar, The Bahamas, Ghana, Madagascar and Chile. As the result show, Mozambique is the country with the lowest index and with less fatalities of 1,25 per 100,000. In comparison to that, Dominica is the second riskiest country with 43,66 fatalities per 100,000. After research we could find out that this result of hurricanes happened in the past, an investment crisis etc. These fatalities are based on starvation, die with thirst, diseases etc. Even a country is riskier in terms of the defined index, it does not affect higher fatalities according to the actual happenings in these countries.

These natural calamities have strong effects on the economy, that’s why two tree maps are generated, where most effected countries are depicted firstly, by total losses in million US\$ PPP (Figure 8) and secondly, losses per unit GDP in % (Figure 9). In result, countries as India (40.007), the United States

(27.123) and China (36.273) show the biggest losses. If we look deeper into the losses per unit GDP in % we can see that Dominica (77,37), Vanuatu (40,65) and Micronesia (12,58) have the most affects. “In terms of economic impact, the most severe storm ever, calculated on a per capita basis, hit Dominica in 2017, causing damage equivalent to 280% of the island’s GDP (...)“ (“For heavily indebted small islands, resilience-building is the best antidote,” 2021) “The Pacific islands are also subject to different types of natural disasters—storms, floods, earthquakes, and droughts. Storms and floods occur more frequently in the Southern Pacific (e.g. (...) Vanuatu) (...) (Lee et al., 2018, p. 7).

Critical reflections and Deductions

- Poverty is a great enemy of human happiness, but there are some shocking facts associated with it too. On the surface it is assumed that poverty affects the lifestyle and inhibits growth of society. However, as per the research it is evident that water scarcity hits the poor the hardest. Today, 1.42 billion people – including 450 million children – live in areas of high or extremely high-water vulnerability (UNICEF, 2021). Every day, more than 800 children under age 5 die from diarrhea attributed to poor water and sanitation. 90% of all-natural disasters are water related (united nations). As per the analysis based on Dataset 2 sourced from UNICEF for year 2017 (Figure 10), in Ethiopia 22% of the total population is living without basic water drinking services. In Nigeria conditions are even worse where the poverty headcount at \$1.90/day is 51 , the percentage of population without basic drinking water services is 41.80%. Water crisis is crucial for the world and can be taxing for the poorer demographic regions.
- Children are more likely to live in poverty than adults. They are also more vulnerable to its effects. Children who grow up impoverished often lack the food, sanitation, shelter, health care and education even they need to strive for their lives. Across the globe, approximately 1 billion children are multidimensionally poor, which implies they lack necessities, nutrition or clean water. About 150 million additional children have been plunged into multidimensional poverty due to COVID-19. (UNICEF,2021). As per analysis represented in (Figure 11) 2019 statistics reported the average number of deaths of children age (1-4 years) in Ethiopia is 32,049, which was 101,953 back in 1999. However, around 30,800 children die at the age of (5-14 years) in 2019. These facts are distressing since children are the future of any civilization/nation, hence poverty is eradicating cultural diversity globally.

Conclusions and Recommendations

Poverty is the worst form of silence, it hinders economic growth and paralyzes a country's infrastructure. The World Social Summit identified poverty eradication as an ethical, social, political and economic imperative of mankind and called on governments to address the root causes of poverty, provide for basic needs for all and ensure that the poor have access to productive resources, including credit, education and training. But it requires a lot of effort to transform promises into performance. Below measures can help make poorer countries self-sufficient in the long term and can improve the overall economy.

1. Trade Liberalization

Trade liberalization is the removal or reduction of restrictions or barriers on the free exchange of goods between nations (investopedia,2021). Trade liberalization can help remove or reduce barriers to trade among countries, such as tariffs and quotas. Having fewer barriers to trade reduces the cost of goods sold in importing countries. It can help less poorer countries like the Philippines, Mongolia, Uzbekistan, India and other Asian-Pacific region countries to take a step towards self-sufficiency and fight against poverty. It will help in below categories:

Price and availability of goods

Prices will be lower, and goods will be available as per demand and it can reduce inflation and can make the economic cycle smoother.

Employment

Trade liberalization can open new ventures and business will grow that implies prospective job opening and make the economy strong in the longer run.

Revenue Expansion

Being self-sufficient and utilizing a country's own available resources can help increase local revenue. This also creates incentives for investment long-run economic growth.

Trade liberalization has restrictions and can work wonders to improve the conditions of relatively lesser poor countries.

2. Funding under Various Reforms / Programs

For the extremely poor countries funding and reforms administered by various authorities are significant to ramp up their living standards by providing essential for a healthy normal living. These programs include:

1. *Organization for Economic Cooperation & Development*

The main purpose of the OECD is to improve the global economy and promote world trade (OECD). It provides an outlet for the governments of different countries to work together to find solutions to common problems related to economic growth. OECD have launched Official development assistance (ODA) to help fund raising poor countries. The largest donors, by volume, were the United States, the United Kingdom, Germany, France and Japan. Denmark, Luxembourg, the Netherlands, Norway and Sweden continued to exceed the United Nations' ODA target of 0.7% of Gross National Income.

2. *The United Nations*

The United Nations have set a broad network to develop a system to alleviate problems related to poverty worldwide. One of the proactive campaign is the United Nations Development Programme (UNDP) that works in nearly 170 countries and territories, helping to eradicate poverty, reduce inequalities and build resilience so countries can sustain progress. As the UN's development agency, UNDP plays a critical role in helping countries achieve the Sustainable Development Goals. (United Nations, 2021).

3. *International Fund for Agriculture development (IFAD)*

IFAD invests in rural people with agriculture as a backbone of the economy.

IFAD works in areas where poverty and hunger are most prominent like Asia and the Pacific, East and southern Africa, Latin America and Caribbean countries. Various projects and programs are started and successfully run by IFAD some of them include:

- Agri-Business capital (ABC) fund
- China-IFAD South-South and Triangular Cooperation Facility.

Whole solely in India IFAD runs 32 projects which have a cost of US\$ 3,725.65 million and US\$ 1,226.97 million are funded by IFAD. IFAD also works with tribal communities, typically located in the most remote, underdeveloped areas of the country. Projects have helped them better their livelihoods by improving their natural resource management, access to land, agricultural production and vocational skills. (IFAD, 2021)

By collective efforts worldwide poverty can be knocked out of the globe but it needs transparency and clear-cut priority.

It's rightly said, *"Poverty is not an accident. Like slavery and apartheid, it is man-made and can be removed by the actions of human beings."* - Nelson Mandela

Appendix

Figure 1: World Map

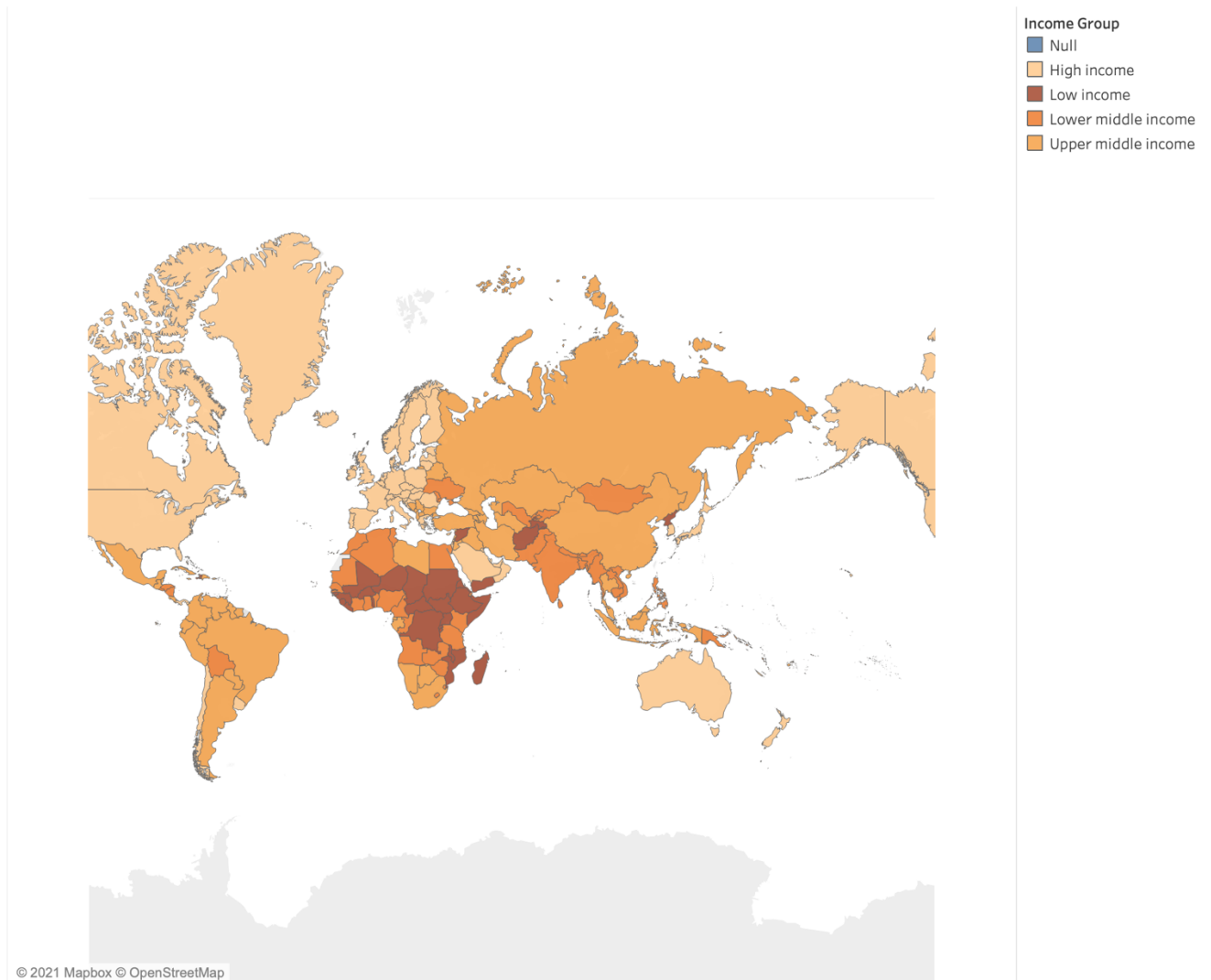


Figure 2: Income Groups

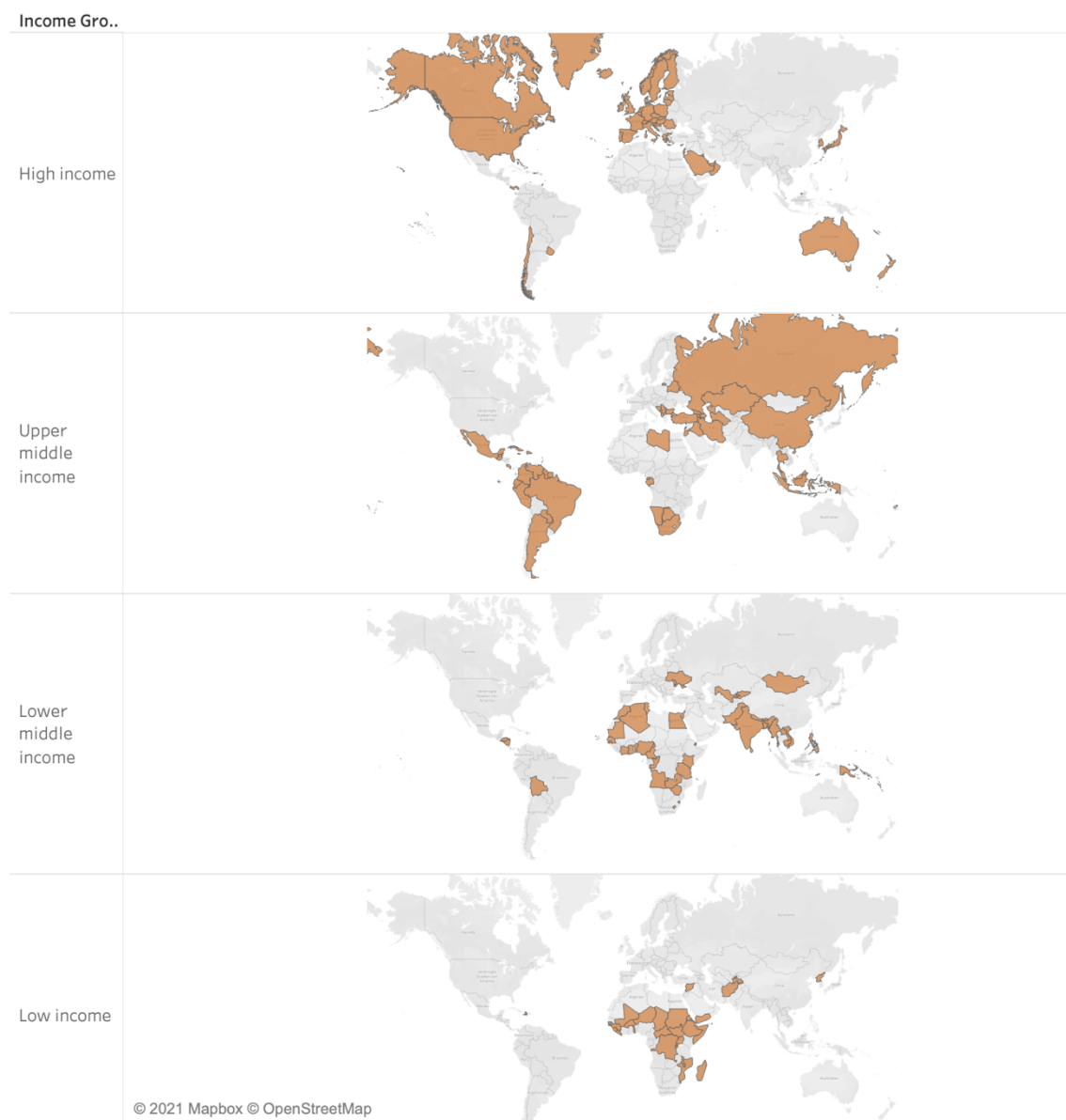


Figure 3: Low income countries

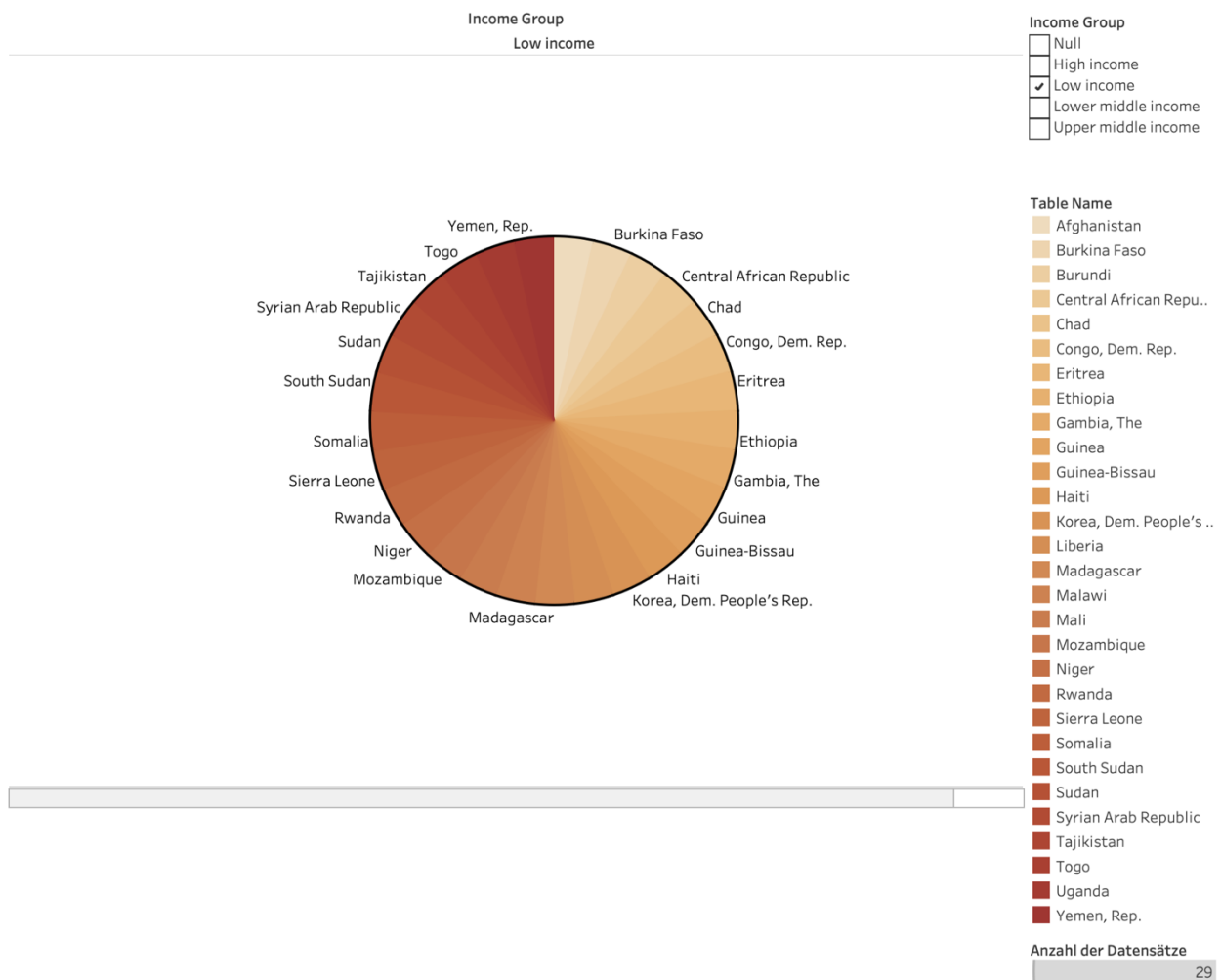


Figure 4: Parameters & comparison

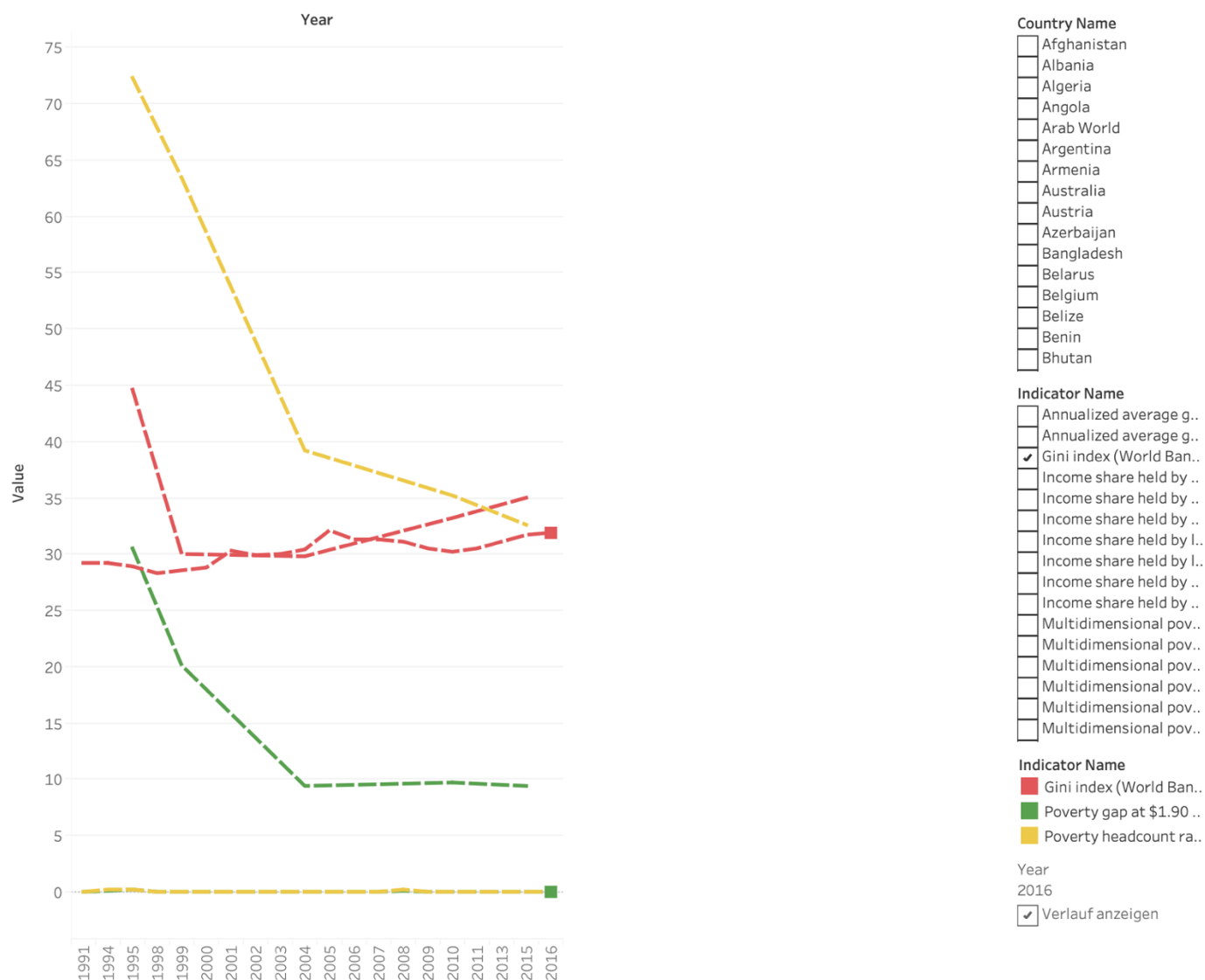


Figure 5: Focus on Africa – Top 10



Figure 6: Effect on development

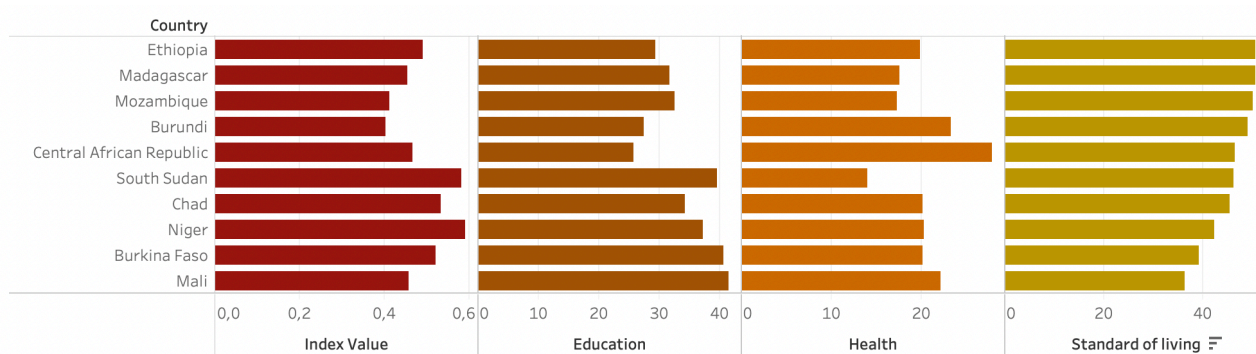
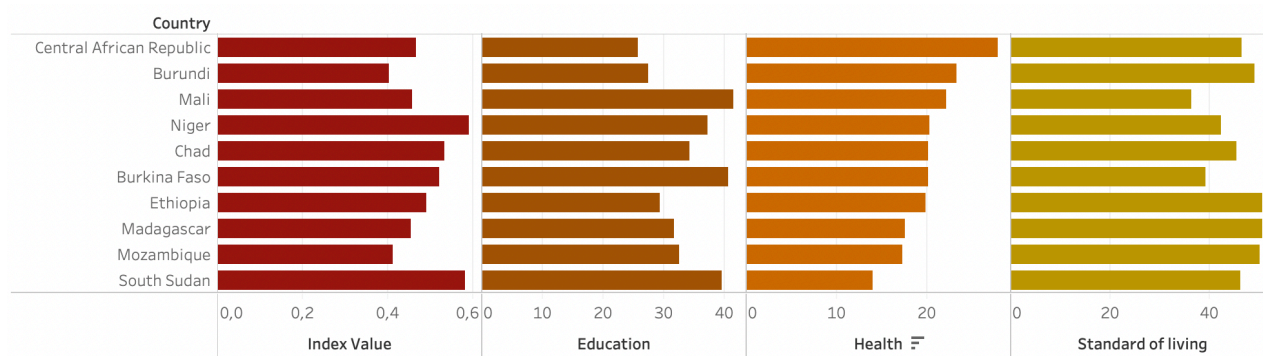
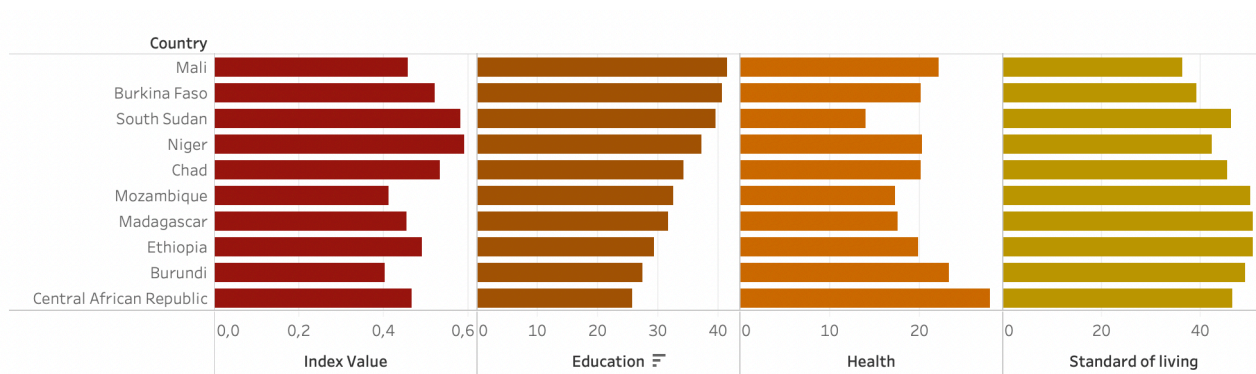
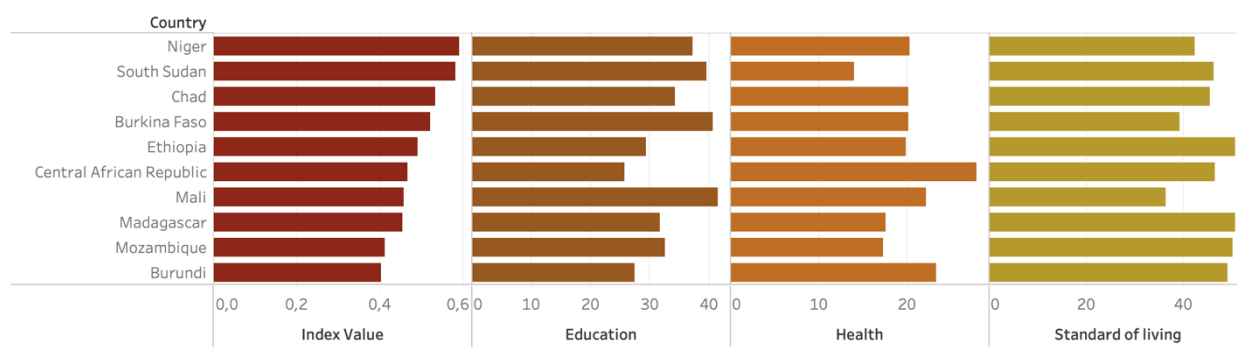


Figure 7: Geographic – Climate Risk Index

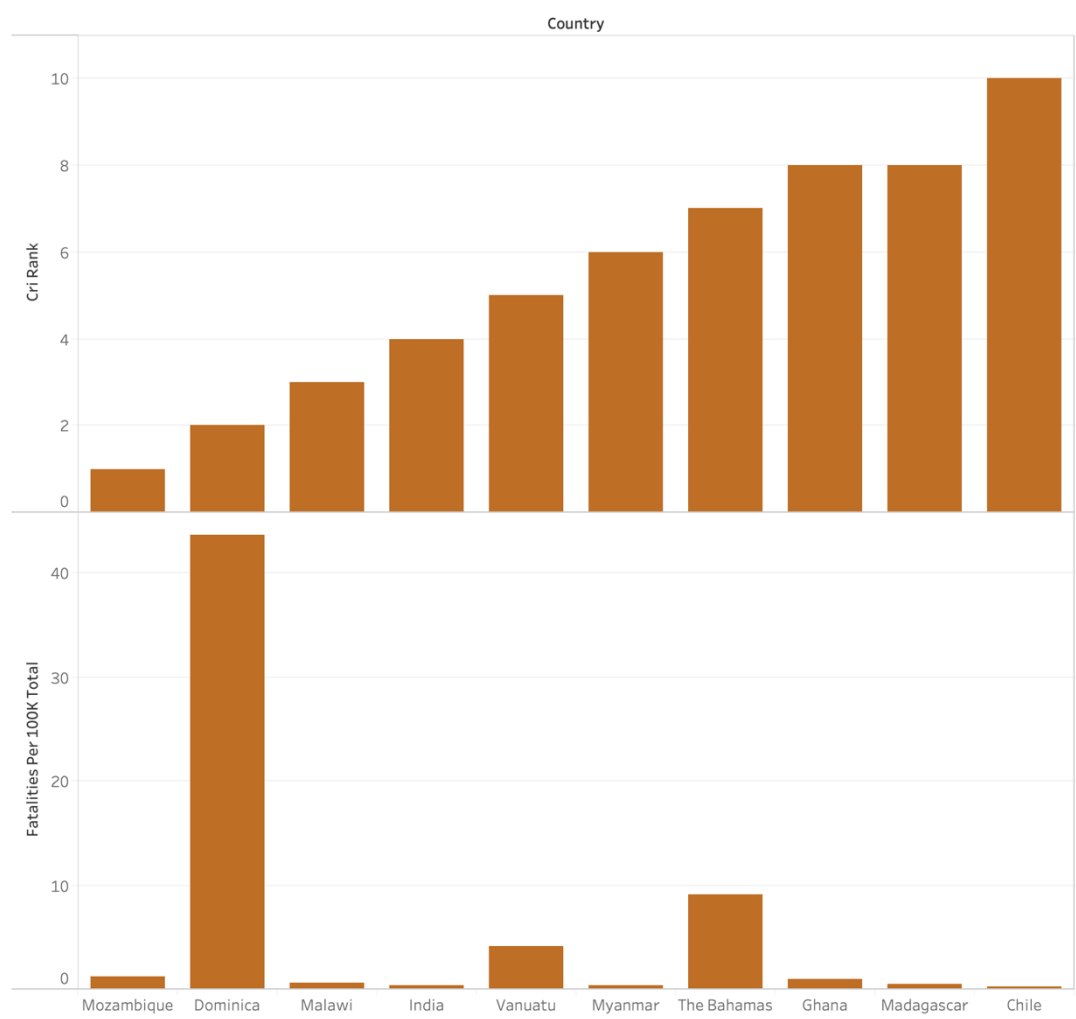


Figure 8: Effect of natural calamities on Economy / PPP Losses in \$USD million

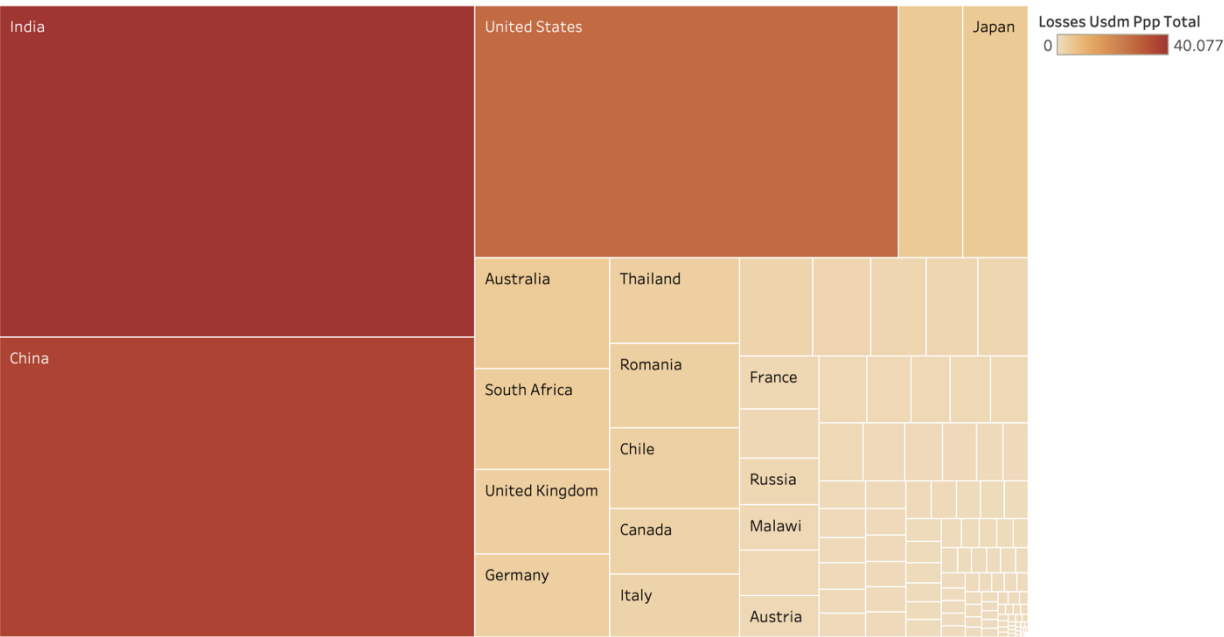


Figure 9: Effect of natural calamities on Economy / Loss GDP %

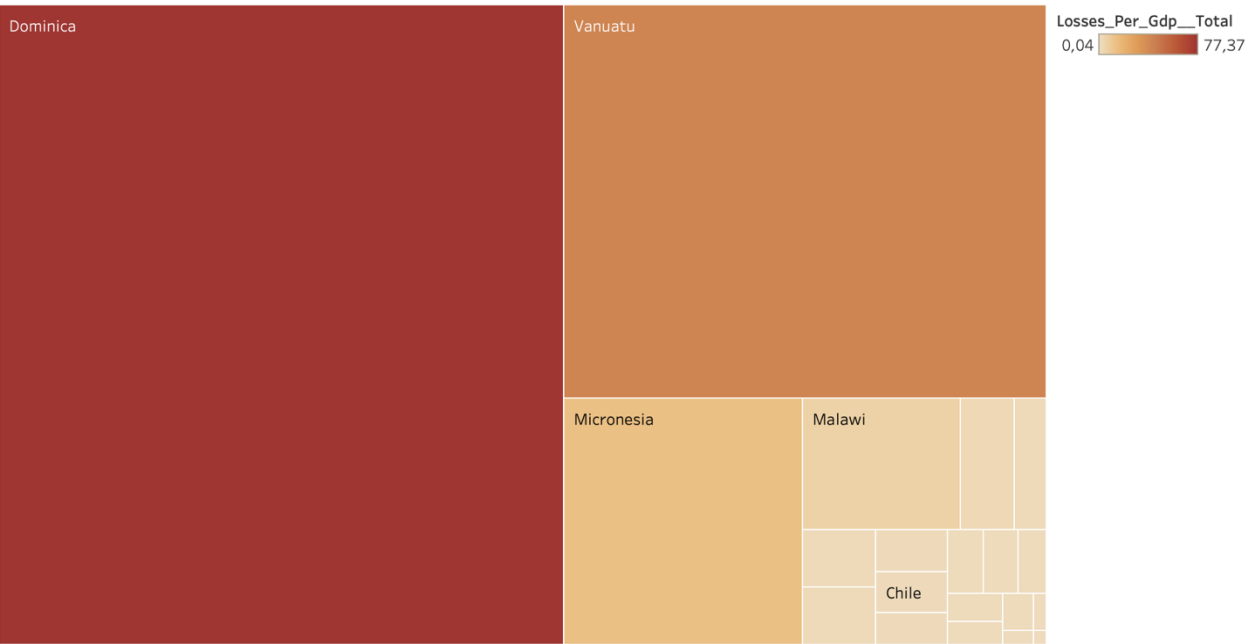


Figure 10: Water scarcity

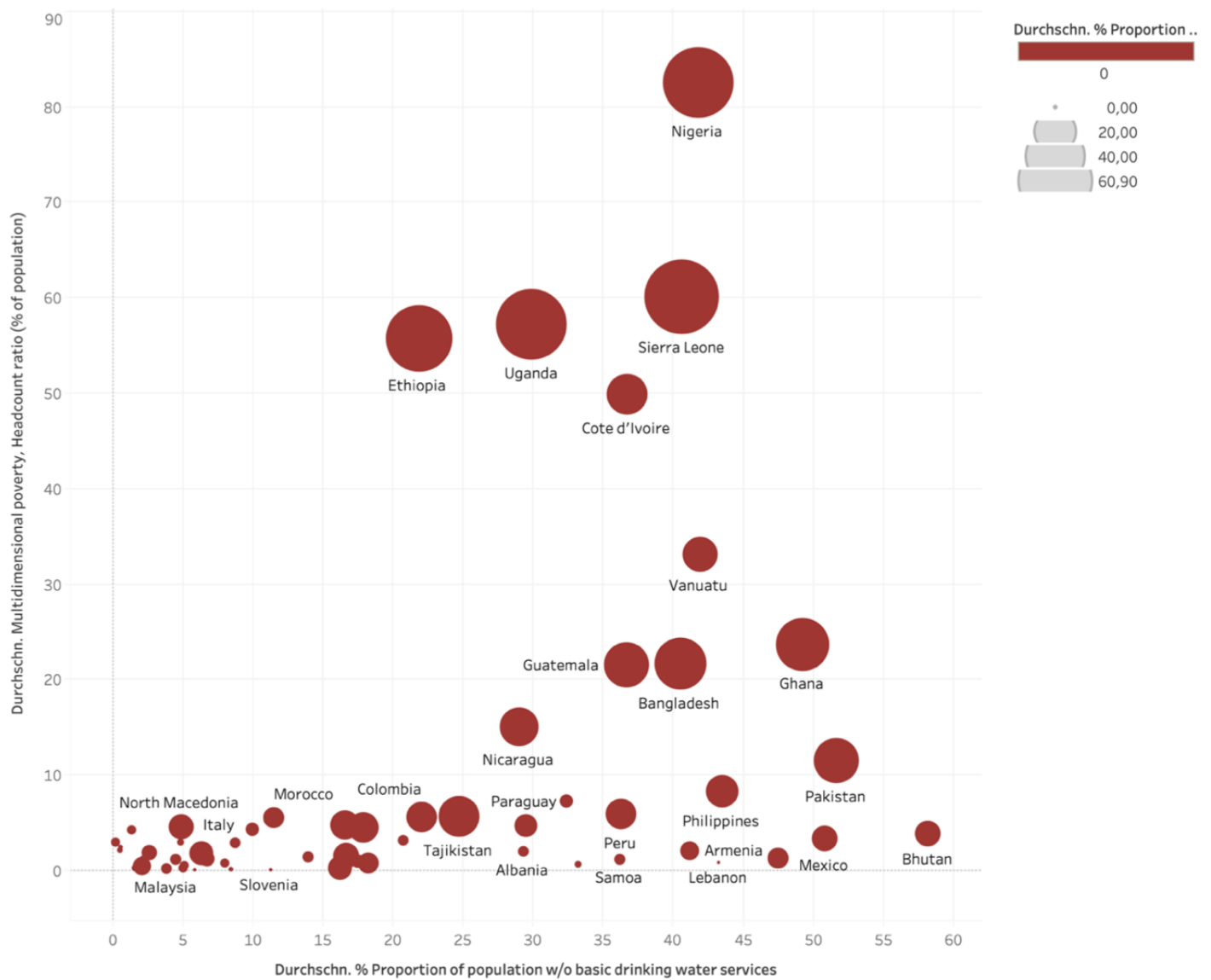
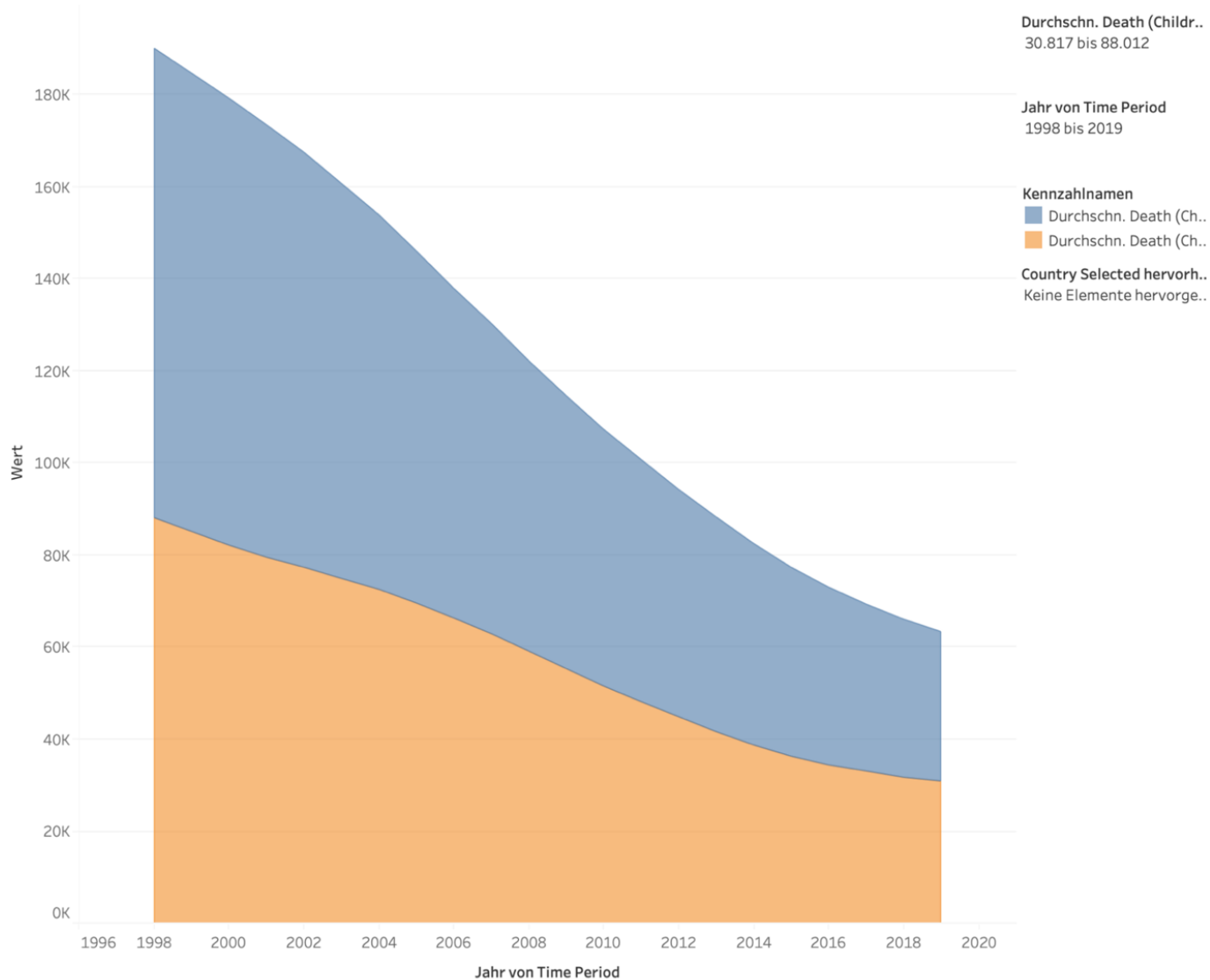


Figure 11: Poverty vs. Young Deaths



References

Central African Republic | Human Development Indicators. (n.d.). Human Development Reports | United Nations Development Programme. <https://hdr.undp.org/en/countries/profiles/CAF>

Causes of Poverty in Niger. (2017, September 13). The Borgen Project. <https://borgenproject.org/causes-of-poverty-in-niger/>

Child poverty. (n.d.). UNICEF. <https://www.unicef.org/social-policy/child-poverty#:~:text=Children%20are%20more%20likely%20to%20live%20in%20poverty%20than%20adults.&text=Across%20the%20world%2C%20about%201,poverty%20due%20to%20COVID%2D19>

Climate Risk Index. (2019, May 5). data.world. <https://data.world/gpsdd/e1dcef1d-b9ca-4c22-8b78-f7b6703d2274>

Country Dominican Republic. (n.d.). World Bank Climate Change Knowledge Portal. <https://climateknowledgeportal.worldbank.org/country/dominican-republic>

DataBank. (n.d.). The World Bank. <https://databank.worldbank.org/metadataglossary/gender-statistics/series/SI.POV.DDAY#:~:text=Poverty%20headcount%20ratio%20at%20%241.90%20a%20day%20is%20the%20percentage,rates%20reported%20in%20earlier%20editions>

Education. (2018). UNICEF. <https://www.unicef.org/mali/en/education>

Ending extreme poverty. (2016, June 8). World Bank. <https://www.worldbank.org/en/news/feature/2016/06/08/ending-extreme-poverty>

Ethiopia Overview. (2021, March 18). World Bank. <https://www.worldbank.org/en/country/ethiopia/overview>

FOCUS Online. (2020, March 26). *Leben wir auf Kosten Der Armen? Was wir tun können, um die Welt fairer zu machen.* https://www.focus.de/perspektiven/gesellschaft-gestalten/globale-ungleichheit-leben-wir-auf-kosten-der-dritten-welt-was-jeder-wissen-sollte_id_10922099.html

For heavily indebted small islands, resilience-building is the best antidote. (2021, January 7). UNCTAD. <https://unctad.org/news/heavily-indebted-small-islands-resilience-building-best-antidote>

Gini index definition. (2006, February 16). OECD Statistics. <https://stats.oecd.org/glossary/detail.asp?ID=4842>

Global Climate Risk Index. (n.d.). Germanwatch. <https://germanwatch.org/en/crisis>

Human Development Reports. (2020). United Nations Development Programme. <https://hdr.undp.org/en/indicators/137506>

Indicator metadata registry list. (n.d.). WHO | World Health Organization. <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/1144>

Indicator metadata registry details. (n.d.). WHO | World Health Organization. <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/1120>

Intensity of deprivation. (n.d.). *Human Development Reports* | United Nations Development Programme. <https://hdr.undp.org/en/content/intensity-deprivation>

Lee, D., Zhang, H., & Nguyen, C. (2018). *The economic impact of natural disasters in Pacific island countries: Adaptation and preparedness.* IMF Working Papers, 18(108), 1. <https://doi.org/10.5089/9781484353288.001>

Multidimensional Poverty Index. (2019). UNdata. <https://data.un.org/DocumentData.aspx?q=poverty&id=421>

Niger Overview. (2020, April 17). World Bank. <https://www.worldbank.org/en/country/niger/overview>

OECD (2021), *Poverty gap (indicator)*. doi: 10.1787/349eb41b-en
UN System. (n.d.). United Nations. <https://www.un.org/en/about-us/un-system#:~:text=The%20United%20Nations%20Development%20Programme,so%20countries%20can%20sustain%20progress>

OECD. (n.d.). Corporate Finance Institute.

<https://corporatefinanceinstitute.com/resources/knowledge/economics/oecd/>

Ophi. (n.d.). OPHI | Oxford Poverty & Human Development Initiative.

<https://ophi.org.uk/multidimensional-poverty-index/>

Poverty and inequality. (n.d.). The World Bank. <https://datatopics.worldbank.org/world-development-indicators/themes/poverty-and-inequality.html>

Poverty in Mali. (2017, January 30). The Borgen Project. <https://borgenproject.org/poverty-in-mali/>

Poverty. (2020, September 4). Investopedia. <https://www.investopedia.com/terms/p/poverty.asp>

Poverty. (2020, October 7). World Bank. <https://www.worldbank.org/en/topic/poverty/overview>

Proportion of population below the international poverty line (%). WHO | World Health Organization. <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/4744>

Purchasing power parities (PPP). (n.d.). OECD. <https://data.oecd.org/conversion/purchasing-power-parities-ppp.htm>

Roser, & Ortiz-Ospina. (2019). Global Extreme Poverty. Our World in Data.

<https://ourworldindata.org/extreme-poverty>

South Sudan Overview. (2020, October 13). World Bank.

<https://www.worldbank.org/en/country/southsudan/overview>

The 2020 Global Multidimensional Poverty Index (MPI). (n.d.). Human Development Reports | United Nations Development Programme. <https://hdr.undp.org/en/2020-MPI>

The Multidimensional Poverty Index (MPI): Some key terms defined. (n.d.). Oxford Poverty & Human Development Initiative (OPHI). <https://www.ophi.org.uk/wp-content/uploads/MPI-Glossary-of-key-terms1.pdf>

Trade Liberalization. (2021, March 24). Investopedia. <https://www.investopedia.com/terms/t/trade-liberalization.asp>

Water, sanitation and hygiene (WASH). (2018). UNICEF. <https://www.unicef.org/ethiopia/water-sanitation-and-hygiene-wash>

Water Scarcity. (n.d.). UN-Water. <https://www.unwater.org/water-facts/scarcity/>

World Bank Country and Lending Groups. (n.d.). Datahelpdesk World Bank. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>