

Did Coronavirus Prevent an end to Poverty?

An Analysis of the Impact of Covid-19 on Poverty.

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Assignment 6

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Thank You

INTRODUCTION

- The global fight against poverty has been a long and challenging process.
- Globally, the number of people living in extreme poverty reduced from 36% in 1990 to 10% in 2015.
- In 2015, world leaders formulated Sustainable Development Goals with the aim of creating a better and more sustainable future for all.
- The first goal was an end to poverty in all forms everywhere by 2030.
- Up to 2020, there seemed to be significant progress, the global poverty rate did not increase since 1990.
- This progress has been threatened with the declaration of coronavirus (COVID-19) as a global pandemic.
- Efforts to manage the spread of the virus resulted in strict "lock down" measures globally.
- These measures are impacting lives and livelihoods.
- The economic impacts of the pandemic seemingly did not discriminate as everyone was "feeling the pinch".
- Coronavirus was viewed as the "great equalizer" as it seemed nobody was immune to the virus or the economic consequences of the measures.



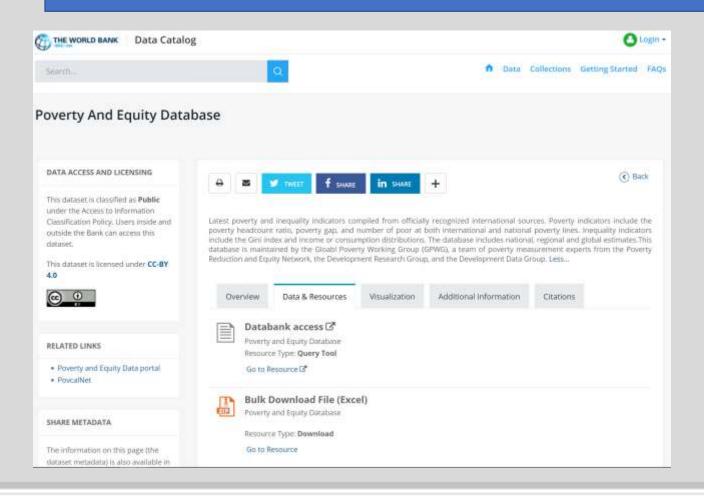
OBJECTIVES

Was the world on track to end poverty by 2030?

How is Coronavirus impacting poverty?

Will lockdown measures exacerbate inequality?

OVERVIEW OF DATASET



- The World Bank's Poverty and Equity Database.
- Data from 1974 to 2018 on various metrics used to measure poverty.
- Data is incomplete Varies by country and year

DATASET CLEANING PROCESS

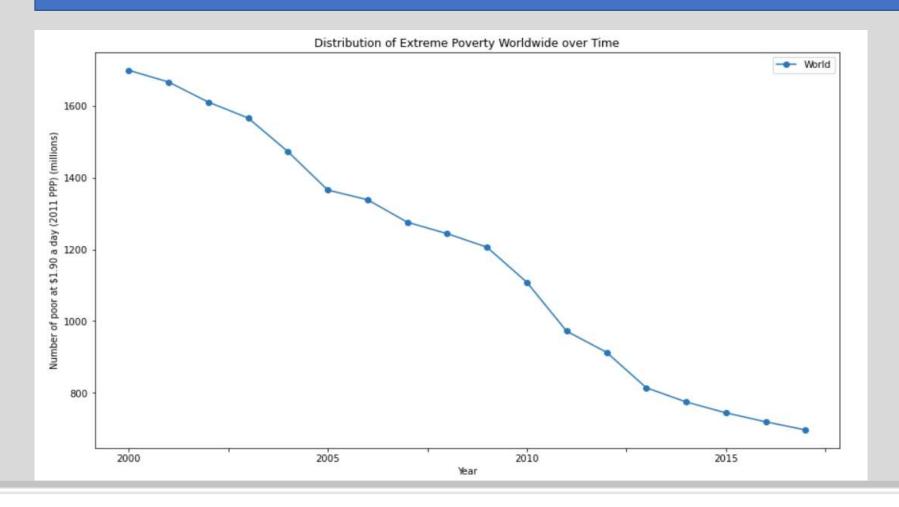
| 4 | A | | В | | C | D | E | F | G | H | 1 | 1 | K | L | M | N | 0 | p | Q | R |
|------------|--------------|-------|----------|--|------------------------------|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Country | Name | Count | try Code | Indicator Name | | Indicator Code | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| East Asi | ia & Pacific | EAS | | Annualized growth | in per capita real survey | mean ciSI.SPR.PC40.ZG | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Annualized growth | in per capita real survey | mean c:SI.SPR.PT10.ZG | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Annualized growth | in per capita real survey | mean o/SI.SPR.PT60.ZG | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Annualized growth | in per capita real survey | mean c/SI.SPR.PCAP.ZG | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Annualized growth | in per capita real survey | median SI.POV.XPND.MD.ZG | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS. | | Gini index (World I | Bank estimate) | SI.POV.GINI | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Income share held | by fourth 20% | SI.DST.04TH.20 | | | | | | | | | | | | | | |
| East Asi | ia & Pacific | EAS | | Income share held | by highest 10% | SI.DST.10TH.10 | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Income share held | by highest 20% | SI.DST.05TH.20 | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Income share held | by lowest 10% | SI.DST.FRST.10 | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Income share held | by lowest 20% | SI.DST.FRST.20 | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Income share held | by second 20% | SI.DST.02ND.20 | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Income share held | by third 20% | SI.DST.03RD.20 | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Median daily per c | apita income or consump | tion expSI.POV.XPND.MD | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Multidimensional p | poverty, Drinking water (5 | of popSI.POV.WATR.MI | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Multidimensional p | poverty, Educational attai | nment (SI.POV.ATTM.MI | | | | | | | | | | | | | | |
| East Asi | ia & Pacific | EAS | | Multidimensional p | poverty, Educational enro | lment (SI.POV.ENRL.MI | | | | | | | | | | | | | | |
| East Asi | ia & Pacific | EAS | | Multidimensional p | poverty, Electricity (% of p | opulaticSI.POV.ELEC.MI | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Multidimensional _i | poverty, Headcount ratio | % of pcSI.POV.HCRT.MI | | | | | | | | | | | | | | |
| 1 East Asi | a & Pacific | EAS | | Multidimensional (| poverty, Monetary povert | y (% of SI.POV.DDAY.MI | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Multidimensional ; | poverty, Sanitation (% of p | opulati SI.POV.SANI.MI | | | | | | | | | | | | | | |
| East Asi | a & Pacific | EAS | | Number of poor at | \$1.90 a day (2011 PPP) (r | millions SI.POV.NOP1 | | | | | | | | 1108.4 | 1096.5 | 1069.6 | 1012.4 | 969.4 | 941.9 | 897.9 |
| 4 East Asi | a & Pacific | EAS | | Number of poor at | \$3.20 a day (2011 PPP) (r | millions SI.POV.LMIC.NO | | | | | | | | 1291.2 | 1306.1 | 1318.5 | 1318 | 1320.8 | 1324.6 | 1318.2 |
| 5 East Asi | a & Pacific | EAS | | Number of poor at | \$5.50 a day (2011 PPP) (r | millions SI.POV,UMIC.NO | | | | | | | | 1341.5 | 1363.5 | 1385.2 | 1405 | 1426.2 | 1447.2 | 1467.3 |
| 6 East Asi | ia & Pacific | EAS | | Population, total | | SP.POP.TOTL | 1.42E+09 | 1.44E+09 | 1.47E+09 | 1.49E+09 | 1.51E+09 | 1.54E+09 | 1.56E+09 | 1.58E+09 | 1.61E+09 | 1.63E+09 | 1.66E+09 | 1.68E+09 | 1.71E+09 | 1.74E+09 |
| East Asi | ia & Pacific | EAS | | Poverty gap at \$1. | 90 a day (2011 PPP) (%) | SI.POV.GAPS | | | | | | | | 37.9 | 35.1 | 31.6 | 26.9 | 24.5 | 23.1 | 21.3 |
| East Asi | ia & Pacific | EAS | | Poverty gap at \$3. | 20 a day (2011 PPP) (% of | popula SI.POV.LMIC.GP | | | | | | | | 58.5 | 56.4 | 53.6 | 49.6 | 47.2 | 45.5 | 43.2 |
| East Asi | a & Pacific | EAS | | Poverty gap at \$5. | 50 a day (2011 PPP) (% of | popula SI.POV.UMIC.GP | | | | | | | | 84.4 | 80.2 | 75.1 | 68.5 | 66.9 | 65.7 | 63.9 |
| East Asi | a & Pacific | EAS | | Poverty gap at nat | ional poverty lines (%) | SI.POV.NAGP | | | | | | | | | | | | | | |
| 1 East Asi | a & Pacific | EAS | | Poverty gap at nat | ional poverty lines (%), inc | luding (SI.POV.NAGP.NC | | | | | | | | | | | | | | |
| 2 East Asi | a & Pacific | EAS | | Poverty headcount | ratio at \$1.90 a day (201 | 1 PPP) (SI.POV.DDAY | | | | | | | | 80.2 | 78 | 74.8 | 69.7 | 65.7 | 62.8 | 58.8 |
| 3 East Asi | a & Pacific | EAS | | | ratio at \$1.90 a day, age | | | | | | | | | | | | | | | |
| 4 East Asi | a & Pacific | EAS | | Part of the Publisher of the Control | | 15-64 (SI.POV.DDAY.1564 | | | | | | | | | | | | | | |

DATASET CLEANING PROCESS

| A | A | В | C | D | E | F | G | н |
|----|-----------------------|--|---------------|----------|--------------|---------|----------|----------|
| 1 | Country | Indicator | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| 2 | East Asia & Pacific | Gini index (World Bank estimate) | | | | | | |
| 3 | East Asia & Pacific | Income share held by fourth 20% | | | | | | |
| 4 | East Asia & Pacific | Income share held by highest 10% | | | | | | |
| 5 | East Asia & Pacific | Income share held by highest 20% | | | | | | |
| 6 | East Asia & Pacific | Income share held by lowest 10% | | | | | | |
| 7 | East Asia & Pacific | Income share held by lowest 20% | | | | | | |
| 8 | East Asia & Pacific | Income share held by second 20% | | | | | | |
| 9 | East Asia & Pacific | Income share held by third 20% | | | | | | |
| 10 | East Asia & Pacific | Number of poor at \$3.20 a day (2011 PPP) (millions) | 1154.7 | 1119.7 | 1046.9 | 997 | 935.9 | 845 |
| 11 | East Asia & Pacific | Number of poor at \$5.50 a day (2011 PPP) (millions) | 1538.3 | 1517.8 | 1475.1 | 1447.9 | 1411.5 | 1352.7 |
| 12 | East Asia & Pacific | Population, total | 2.05E+09 | 2.07E+09 | 2.08E+09 | 2.1E+09 | 2.12E+09 | 2.13E+09 |
| 13 | East Asia & Pacific | Poverty gap at \$1.90 a day (2011 PPP) (%) | 10.8 | 10.1 | 8.9 | 7.6 | 6.2 | 4.7 |
| 14 | East Asia & Pacific | Poverty gap at \$3.20 a day (2011 PPP) (% of population) | 27.1 | 25.7 | 23.2 | 21 | 18.7 | 15.7 |
| 15 | East Asia & Pacific | Poverty gap at \$5.50 a day (2011 PPP) (% of population) | 47.5 | 45.8 | 42.7 | 40.4 | 37.8 | 34.2 |
| 16 | East Asia & Pacific | Poverty gap at national poverty lines (%) | | | | | | |
| 17 | East Asia & Pacific | Poverty gap at national poverty lines (%), including noncomparab | le values | | | | | |
| 18 | East Asia & Pacific | Poverty headcount ratio at \$3.20 a day (2011 PPP) (% of populat | 63.6 | 61.1 | 56.6 | 53.5 | 49.8 | 44.6 |
| 19 | East Asia & Pacific | Poverty headcount ratio at \$5.50 a day (2011 PPP) (% of populat | 84.7 | 82.8 | 79.8 | 77.6 | 75.1 | 71.4 |
| 20 | East Asia & Pacific | Poverty headcount ratio at national poverty lines (% of population | n) | | | | | |
| 21 | East Asia & Pacific | Poverty headcount ratio at national poverty lines (% of population | n), including | noncompa | rable values | 8 | | |
| 22 | East Asia & Pacific | Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of populat | 34.8 | 32.8 | 29.1 | 25.9 | 22.5 | 18.4 |
| 23 | East Asia & Pacific | Number of poor at \$1.90 a day (2011 PPP) (millions) | 632.3 | 600.8 | 538.6 | 483.4 | 423.6 | 348 |
| 24 | Europe & Central Asia | Gini index (World Bank estimate) | | | | | | |
| 25 | Europe & Central Asia | Income share held by fourth 20% | | | | | | |

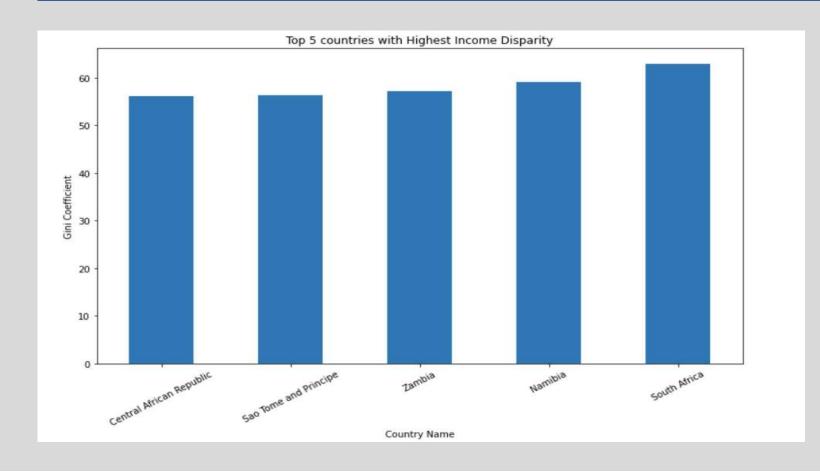
- Created a copy of the raw data
- Removed unnecessary columns
- Renamed columns
- Advanced Filter Select only the relevant indicators

Distribution of Extreme Poverty Worldwide over Time



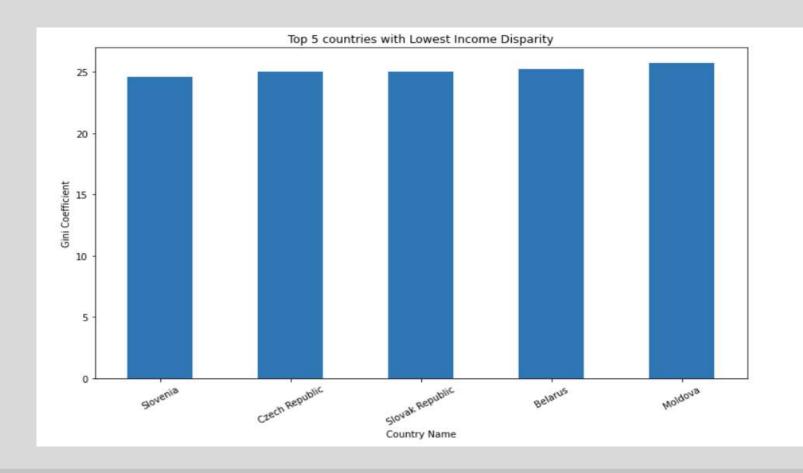
The Line Chart shows the number of people living in extreme poverty over the years. It is evident from the chart that there has been a significant drop over the years.

Top 5 Countries with Highest Income Disparity



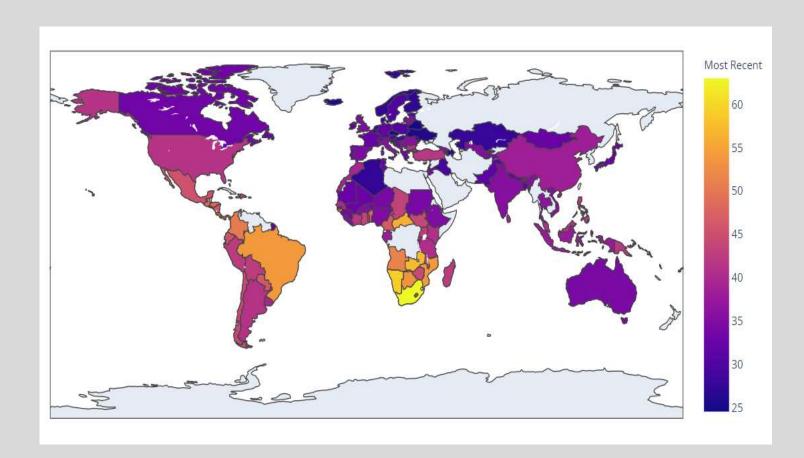
The Bar chart shows the top 5 countries that are performing poorly in terms of Gini Coefficient. This implies that there exists a large Income Gap between rich and poor in these countries. We can observe that all these countries belong to the Sub-Saharan Africa Region.

Top 5 Countries with Least Income Disparity



The Bar chart shows the Top 5 countries which have least income disparity. Most of the countries belong to the European Region.

Distribution of Gini Coefficient on a World Map



The Choropleth Chart depicts the distribution of the Gini Coefficient on a world map. It can be observed from the chart that European regions and parts of the North America shows low coefficient value, while parts of South African and South American countries show high coefficient value.

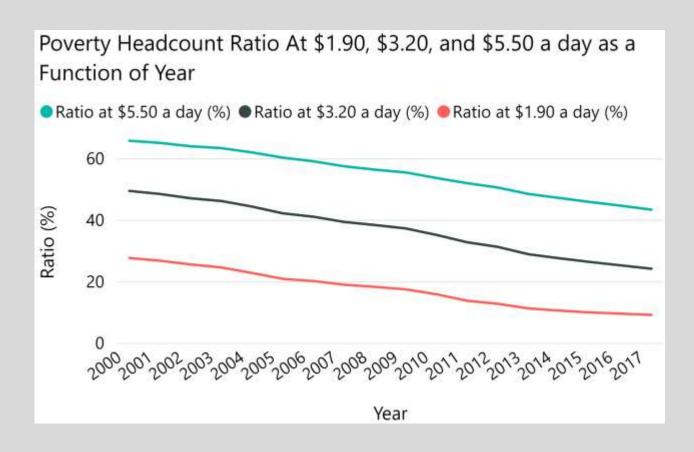
Extreme Poverty Across the World

Poverty headcount ratio at \$1.90 a day (%) in 2018 (or Most Recent data available)



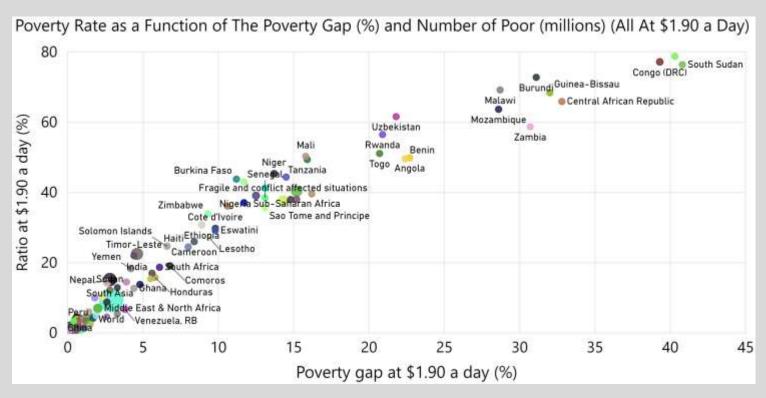
- The nations where the largest fraction of the population is living in extreme poverty are Madagascar, Congo (DRC), South Sudan, Burundi, and Malawi.
- The regions where the largest fraction of the population is living in extreme poverty are once again Sub-Saharan Africa and South Aisa.

Change in Poverty Across the World over Time



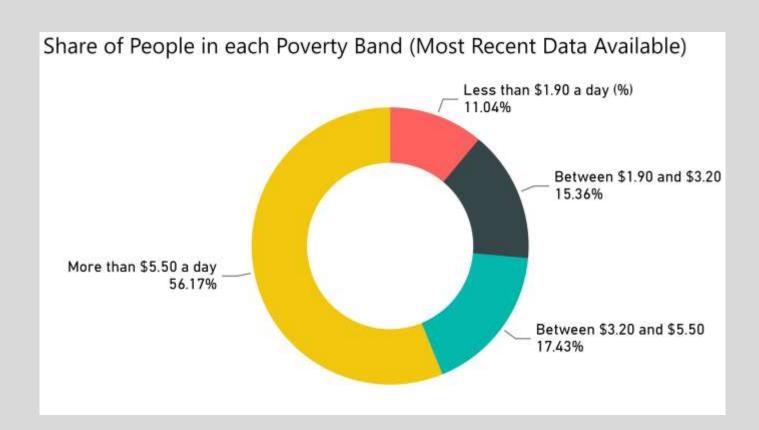
- In 2000, 27.8% of the world's population was living on less than \$1.90 a day, and therefore in extreme poverty, and 65.9% were living on less than \$5.50 a day, and 27.8
- In 2017, these figures had dropped to 9.3% and 43.5% respectively

Fraction of Population Living in Extreme Poverty as a Function of Poverty Gap



- Clear trend that as the poverty gap increases, so does the fraction of the population living in extreme poverty.
- Noticeable outliers include Madagascar, Congo (DRC), and South Sudan.

Fraction of People in Each Poverty Band



- 11% of the world's population are living in extreme poverty.
- In total, approximately 44% of the world's population is living in poverty.

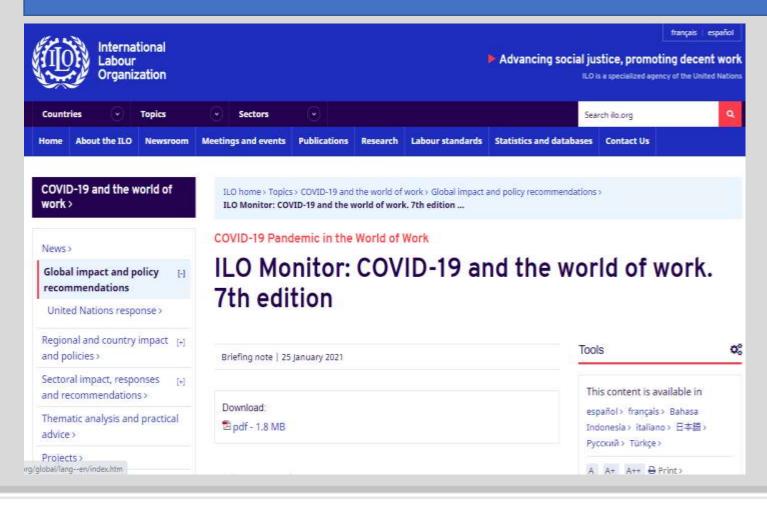
Overview of Dataset

Table 2 Global poverty estimates pre- and post-COVID-19

| | Pre-COVID | -19 | Post-COVII | D-19 | Change | | | |
|---------------------------------|-----------|--------------|------------|--------------|-----------|--------------|--|--|
| | Headcount | Million poor | Headcount | Million poor | Headcount | Million poor | | |
| \$1.90 per day | | | 1.2 | | | | | |
| East Asia and Pacific | 0.9 | 18.5 | 1.1 | 22.9 | 0.2 | 4.4 | | |
| Europe and Central Asia | 1.1 | 5.3 | 1.3 | 6.5 | 0.2 | 1.2 | | |
| Latin America and Caribbean | 4.4 | 28.3 | 4.9 | 31.8 | 0.6 | 3.6 | | |
| Middle East and North Africa | 7.3 | 29.3 | 8.5 | 34.2 | 1.2 | 4.9 | | |
| Other high Income | 0.7 | 7.4 | 0.7 | 7.5 | 0.0 | 0.1 | | |
| South Asia | 4.0 | 74.0 | 5.2 | 97.2 | 1.3 | 23.3 | | |
| Sub-Saharan Africa | 42.2 | 479.5 | 45.0 | 510.7 | 2.7 | 31.2 | | |
| World total | 8.2 | 642.3 | 9.1 | 710.8 | 0.9 | 68.6 | | |
| \$3.20 per day | | | | | | | | |
| East Asia and Pacific | 5.7 | 122.0 | 6.6 | 140.7 | 0.9 | 18.6 | | |
| Europe and Central Asia | 4.1 | 20.3 | 4.8 | 24.0 | 0.7 | 3.7 | | |
| Latin America and Caribbean | 10.3 | 66.9 | 11.6 | 75.1 | 1.3 | 8.2 | | |

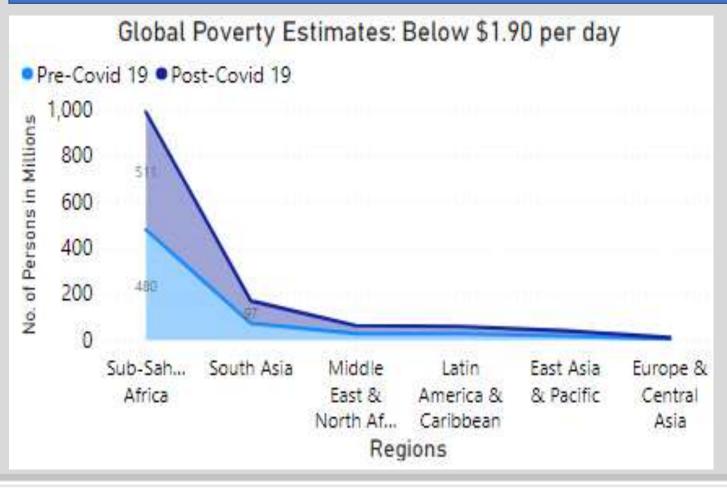
- Dataset showing the global poverty estimates pre and post the covid 19 pandemic.
- The estimated number of persons living below the poverty threshold of US\$1.90, US\$3.20 and US\$5.50 per day are stated in millions.

Overview of Dataset



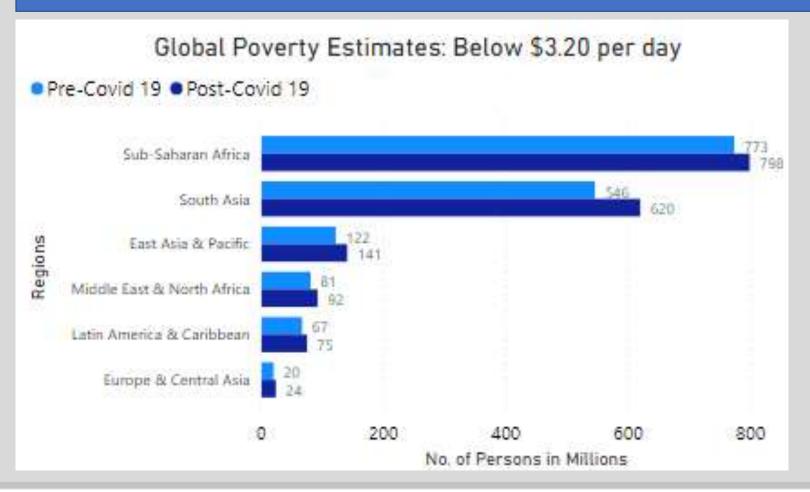
 This dataset, provided by the International Labour Organization, shows the number of hours of work lost by various income groups.

Global Poverty Estimates: Below \$1.90



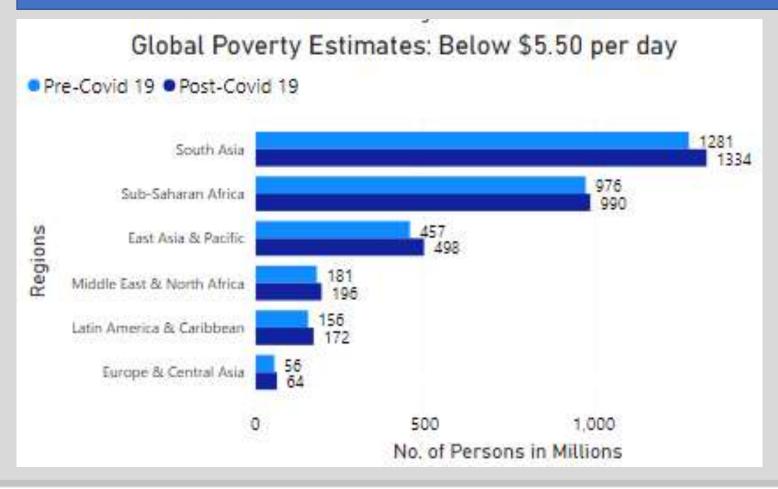
- The number of persons living below the threshold of US\$1.90 per day has increased since the covid 19 pandemic.
- This increase is most noticeable in Sub-Saharan Africa and South Asia.

Global Poverty Estimates: Below \$3.20



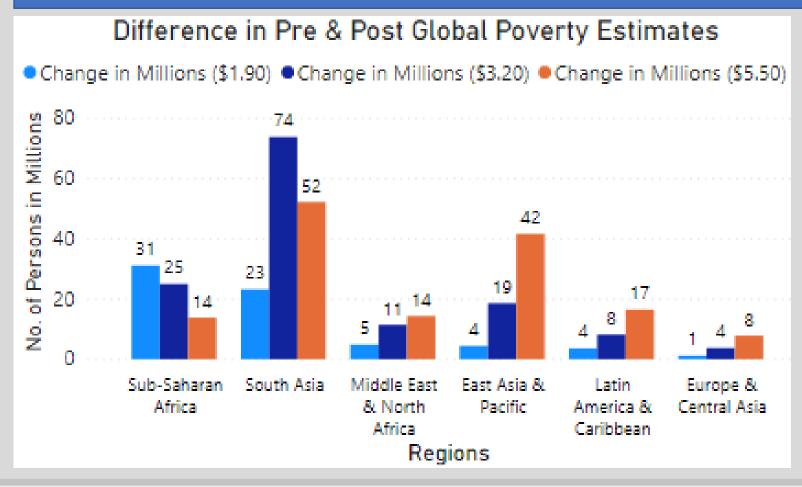
- The number of persons living below the poverty threshold of US\$3.20 per day has increased in all regions of the world.
- Sub-Saharan Africa & South Asia, which had the highest poverty estimate before covid 19, continues to have the highest estimate after covid 19.

Global Poverty Estimates: Below \$5.50



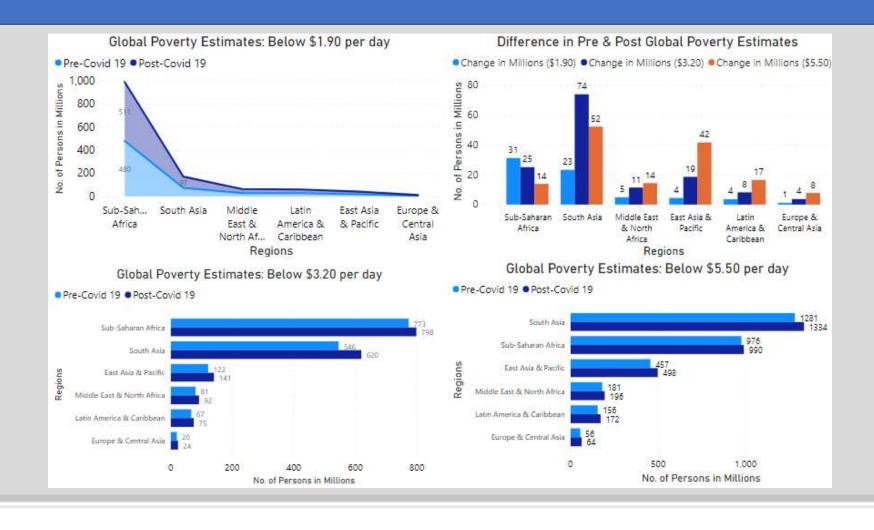
- The number of persons living below the threshold of US\$5.50 per day has increased in all regions of the world.
- East Asia & Pacific has joined the regions which has a significant number of persons living below this threshold.

Pre & Post Covid Global Poverty Estimates

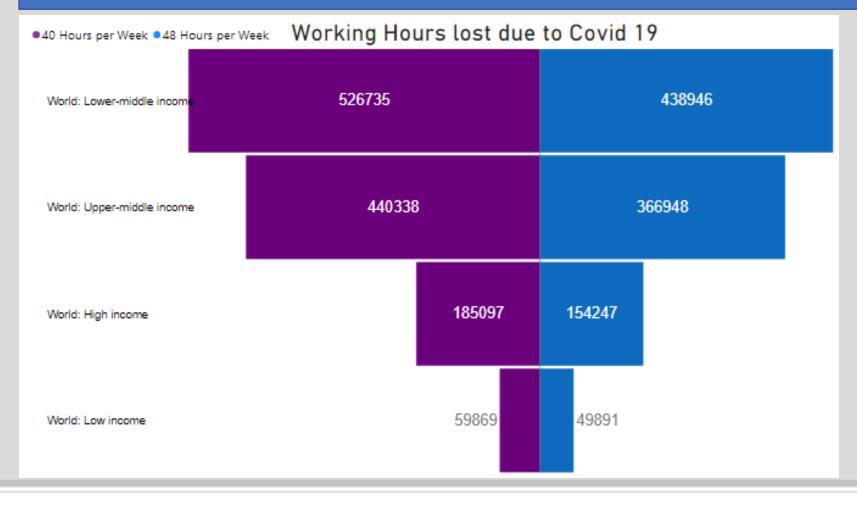


- In South Asia, an estimate of 74 million more persons now survive with less than US\$3.20 per day.
- In regions which previously had lower poverty estimates, the number of persons living below each threshold has increased.

Pre- and Post-COVID Comparison



Working Hours lost due to Covid 19



- The group which lost the greatest number of hours of work is the lower middleincome individuals.
- The upper-middle income group also shows a significant lost.
- This provides context for why there is an increase in the number of persons living below \$5.50 per day.

INSIGHTS

- Pre-Covid approximately, 11% of the world's population was living in extreme poverty and over 45% of the world's population was living in poverty.
- Between 2015 to 2018 the number of people living in extreme poverty in Middle East and North Africa increased while the global trend declined.
- Pre-Covid the top 5 countries that are performing poorly by Gini Coefficient standards are all located in Sub-Saharan Africa Region.
- Since Covid the world poverty estimates are showing a significant increase in the number of persons who now survive on less than US\$3.20 and US\$5.50 per day.
- Surprisingly, persons living on less than US\$1.90 per day have had minimal growth.
- South Asia, has been the hardest hit region, showing significant growth in overall poverty.
- Globally, the group which has lost the largest number of working hours is the lower middle-income individuals.
- The low-income group has been the least impacted by reduced working hours.

CONCLUSION

- Lock down measures implemented to curb the spread of the virus have disproportionately affected those with lower-middle income.
- The economic decline caused by the lockdown measures has been catastrophic to their financial circumstances.
- Which is illustrated by the overall increase in poverty rates since covid.
- Increase in poverty rates will also result in greater income disparity between the richest and poorest.
- Data pre-covid illustrated a decline in global poverty however, this camouflaged the reality of some regions experiencing an increase in poverty.
- The negative impact of coronavirus on reducing poverty is evident but coronavirus cannot be blamed for not achieving the first sustainable development goal, which is to eliminate poverty everywhere by 2030.

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