Supplementary materials

Income weighting

We used GDP per capita in 2021 (in constant 2015 USD) from the World Bank.[1] We divided the scores by the ratio of the GDP per capita of each country to the sub-sample mean GDP per capita. A ratio of 1 means that the country in question has a GDP per capita equal to the mean of the sub-sample; <1 means we are looking at a relatively small economy; >1 at a relatively larger economy:

$$income\ weighted\ score_{country} = unweighted\ score_{country} \div \left(\frac{GDP\ pc_{country}}{mean\ GDP\ pc_{subsample}}\right)$$

Carbon accounting

We first quantified the total amount of reserves for each fossil fuel in the original unit (million barrels for oil, mboe for gas, and short ton for coal). Then, we used the approximate conversion factors from BP (2022a) to convert the units. Lastly, we multiplied the converted quantities by the emissions factors listed in Table 1 (Kühne et al. 2022).[2]

Oil	Gas	Coal
0,0003546 $GtCO_2$/mbbl	0,0016848 $GtCO_2$/bcm	0,002 $GtCO_2$/mt

Table 1 – Emission factors for oil, gas, and coal

Figures

The figures have been created with R.

LMICs

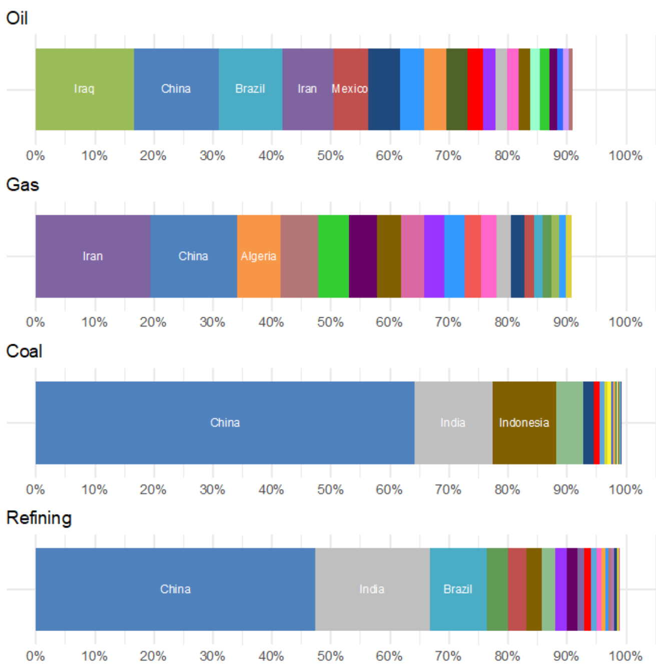


Figure 1 – Production shares by country and fossil fuel, short-term (LMICs)

[1] For Eritrea and South Sudan the most recent available data on GDP pc is from 2011 and 2015, respectively (World Bank, 2024).

[2] For coal, the emission factor averages the values of anthracite, coking coal, other bituminous coal, sub-bituminous coal, and lignite.

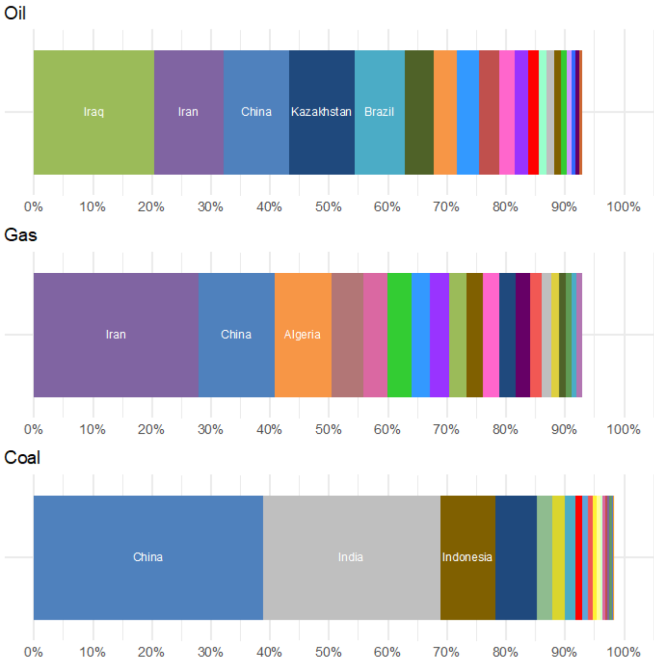


Figure 2 – 1P Reserves shares by country and fossil fuel, short-term (LMICs)

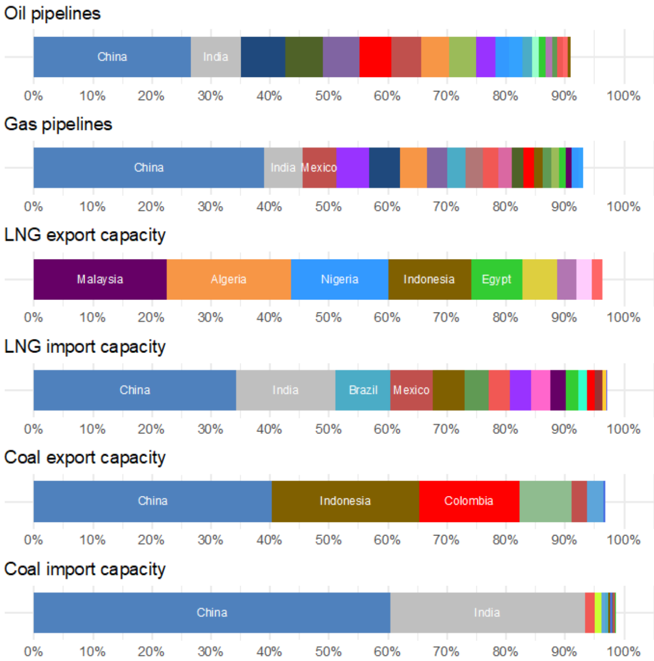


Figure 3 – Infrastructure shares by country and type of infrastructure, short-term (LMICs)

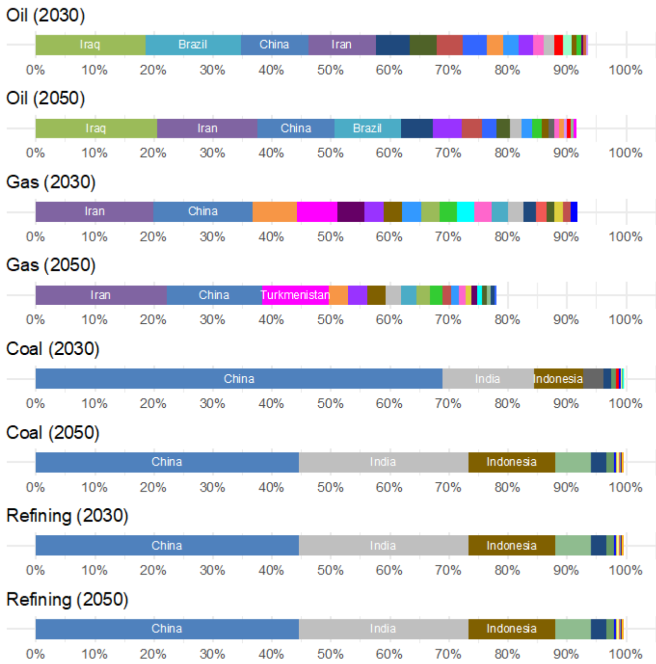


Figure 4 – Prospective production shares by country and fossil fuel (LMICs)

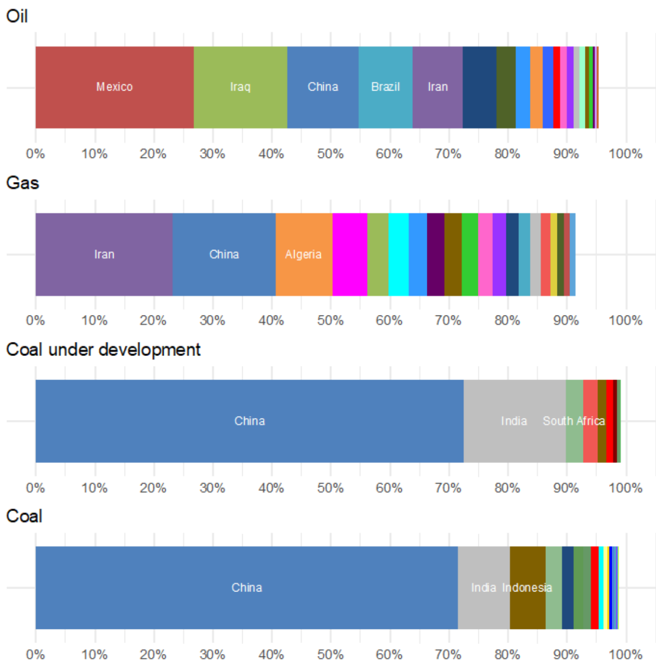


Figure 5 – 2P Reserves or 2P reserves under development shares by country and fossil fuel (LMICs)

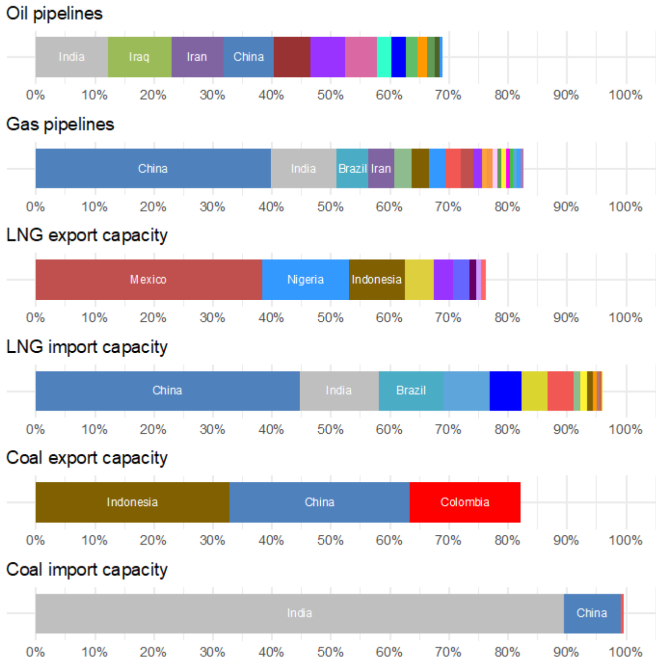


Figure 6 – Infrastructure under development shares by country and type of infrastructure (LMICs)

LDCs

The X-axis in the following charts is broken to highlight the LDCs' low shares in comparison to LMICs.

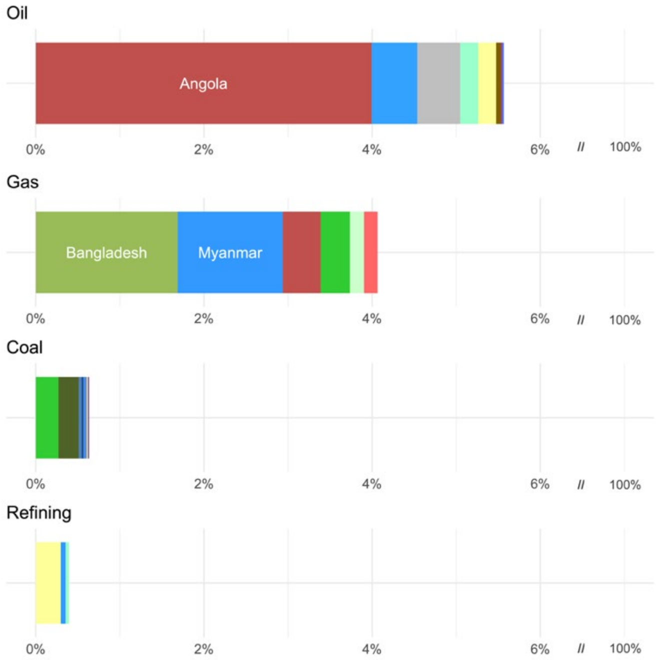


Figure 7 – Production shares by country and fossil fuel, short-term (LDCs)

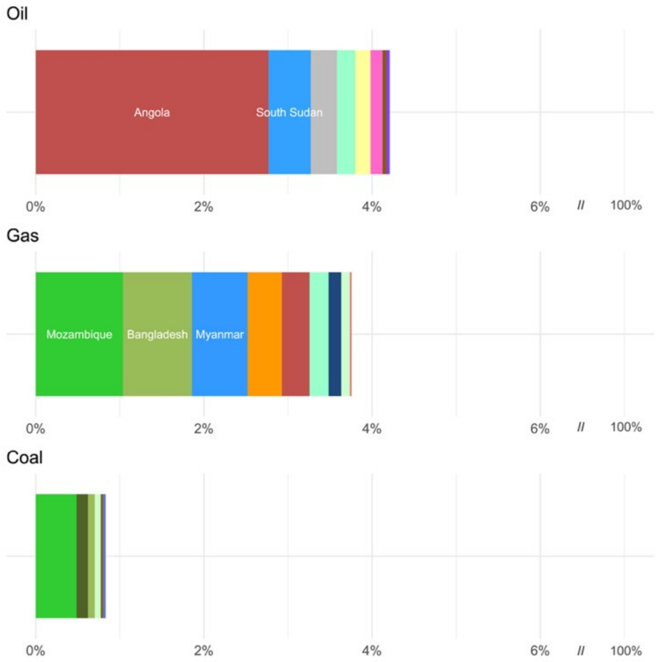


Figure 8 – 1P Reserves shares by country and fossil fuel, short-term (LDCs)

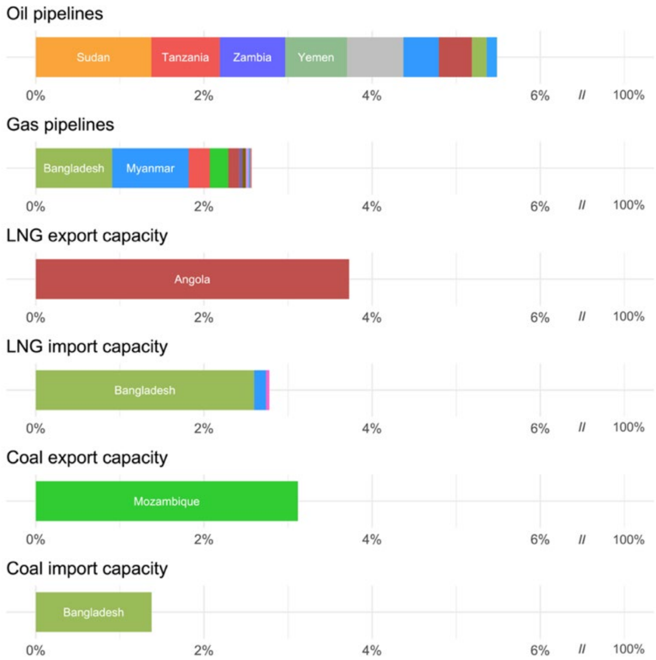


Figure 9 – Infrastructure shares by country and type of infrastructure, short-term (LDCs)

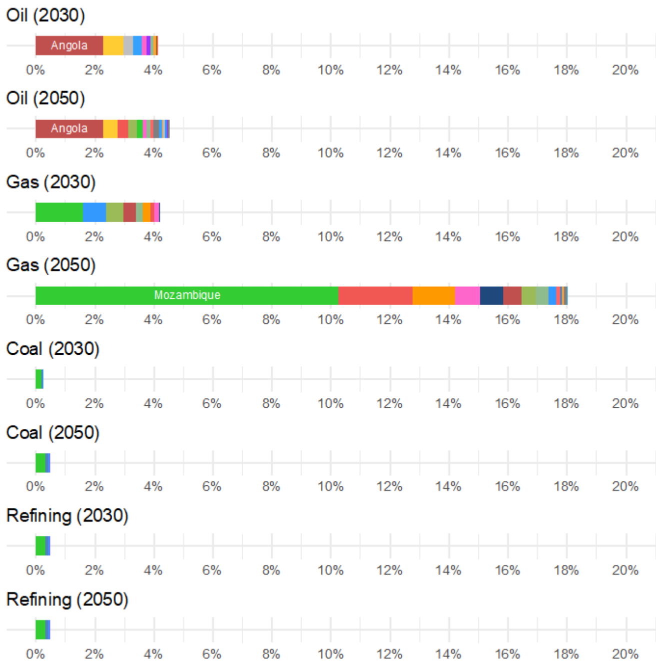


Figure 10- Prospective production shares by country and fossil fuel (LDCs)

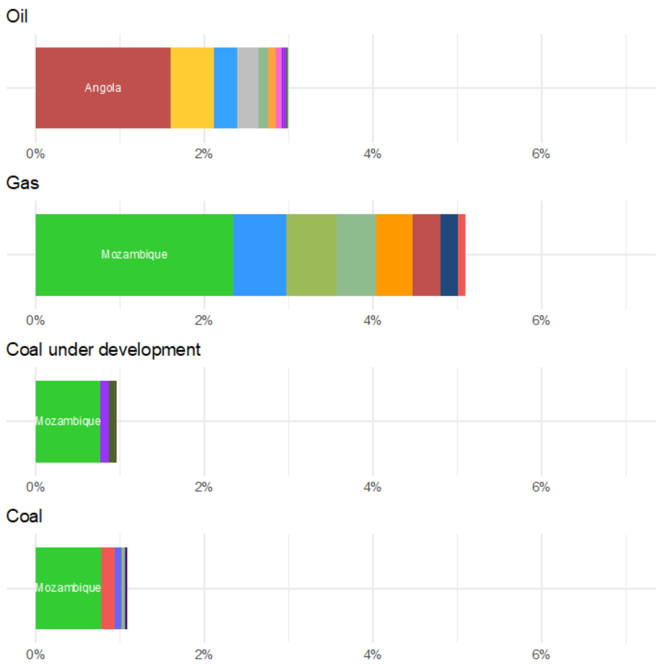


Figure 11 – 2P Reserves or 2P reserves under development shares by country and fossil fuel (LDCs)

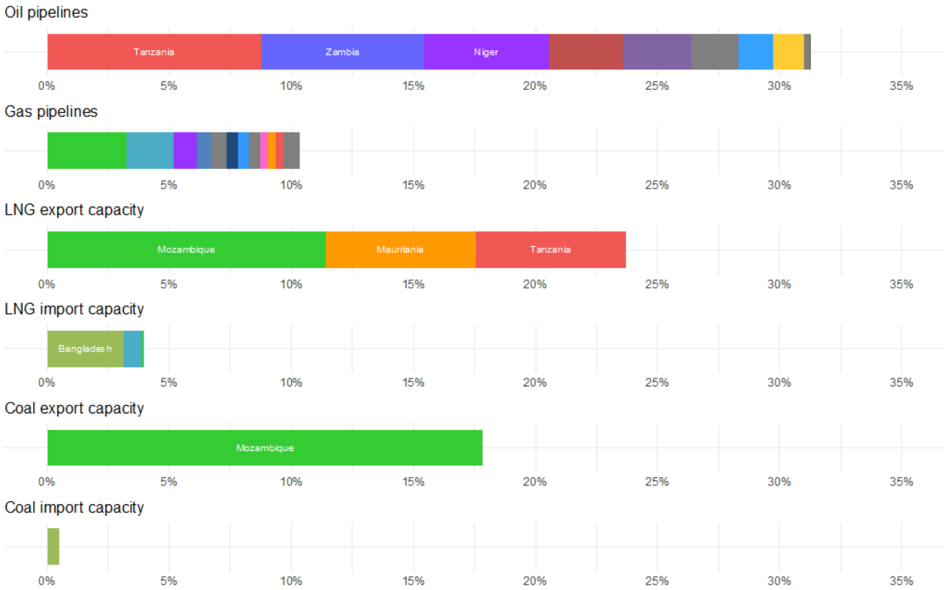
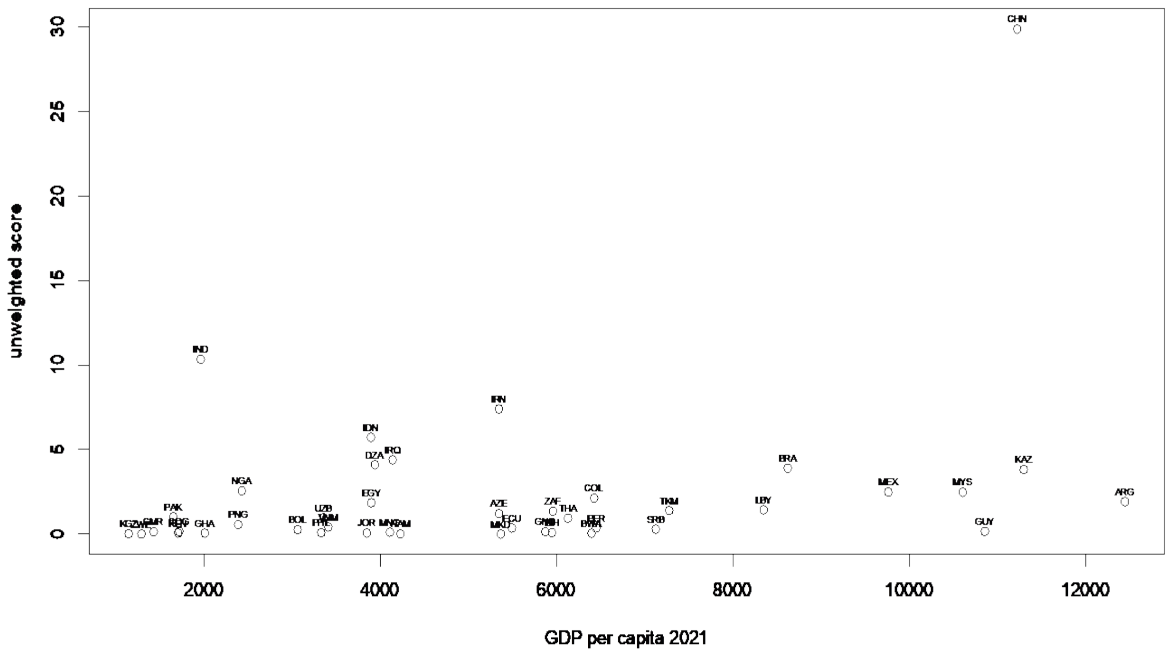


Figure 12- Infrastructure under development shares by country and type of infrastructure (LDCs)

Other plots

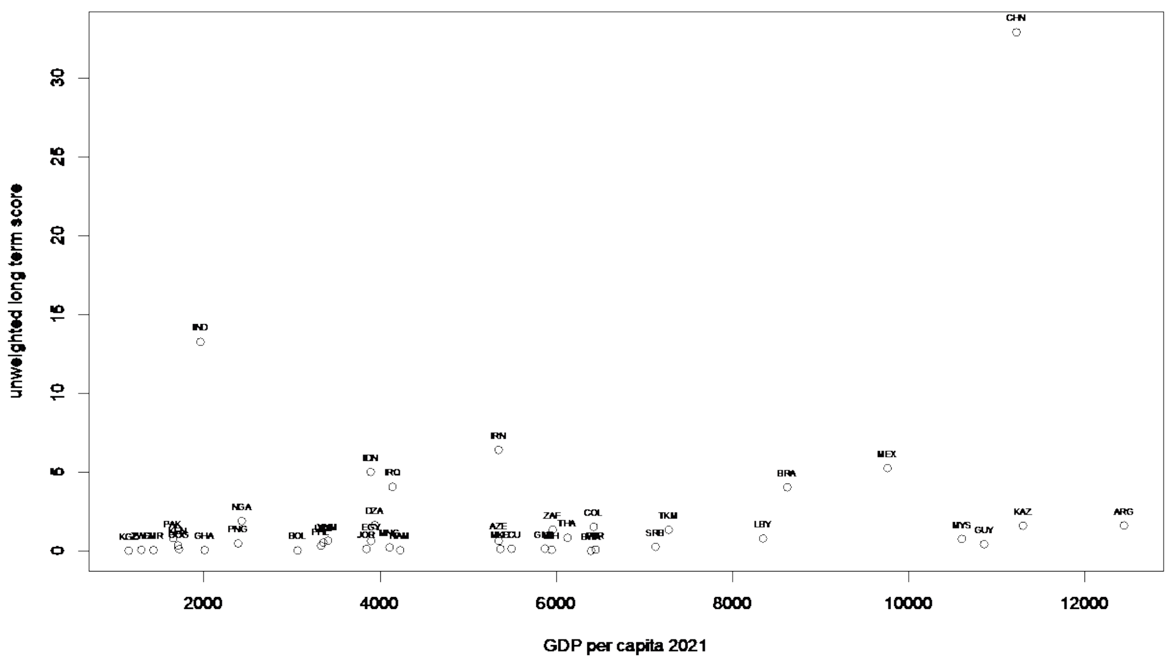
MICs: unweighted short term score vs GDP per capita

```
table1 <- read_excel(file_path, sheet = "6. additional variables", range = "AD4:AD46")
table2 <- read_excel(file_path, sheet = "3.4 LMICs analysis", range = "AA52:AA94")
table3 <- read_excel(file_path, sheet = "6. additional variables", range = "X4:X46")
x_num <- as.numeric(unlist(table2))
y_num <- as.numeric(unlist(table1))
names <- as.character(unlist(table3))
plot (x_num, y_num, xlab="GDP per capita 2021", ylab="unweighted score")
text (x=x_num, y=y_num, labels=names, pos=3, cex=0.5)
```



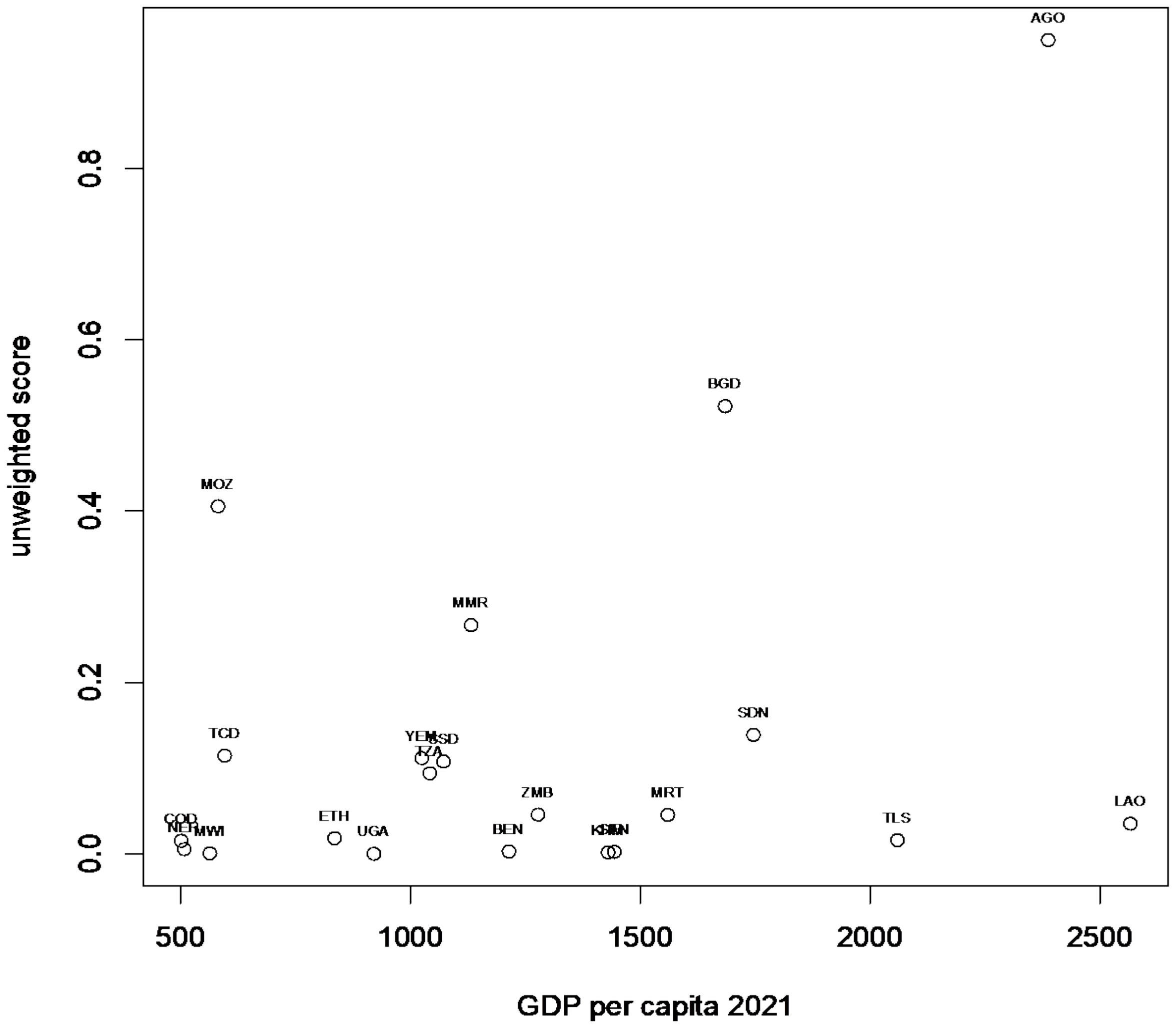
MICs: unweighted long term score vs GDP per capita

```
table2 <- read_excel(file_path, sheet = "3.4 LMICs analysis", range = "AA52:AA94")
table1 <- read_excel(file_path, sheet = "3.4 LMICs analysis", range = "Z52:Z94")
table3 <- read_excel(file_path, sheet = "6. additional variables", range = "X4:X46")
x_num <- as.numeric(unlist(table2))
y_num <- as.numeric(unlist(table1))
names <- as.character(unlist(table3))
plot (x_num, y_num, xlab="GDP per capita 2021", ylab="unweighted long term score")
text (x=x_num, y=y_num, labels=names, pos=3, cex=0.5)
```



LDCs: unweighted short term score vs GDP per capita

```
table1 <- read_excel(file_path, sheet = "6. additional variables", range = "AD51:AD72")
table2 <- read_excel(file_path, sheet = "4.3 LDCs analysis", range = "X38:X59")
table3 <- read_excel(file_path, sheet = "4.3 LDCs analysis", range = "T38:T59")
x_num <- as.numeric(unlist(table2))
y_num <- as.numeric(unlist(table1))
names <- as.character(unlist(table3))
plot (x_num, y_num, xlab="GDP per capita 2021", ylab="unweighted score")
text (x=x_num, y=y_num, labels=names, pos=3, cex=0.5)
```



LDCs: unweighted long term score vs GDP per capita

```
table1 <- read_excel(file_path, sheet = "4.3 LDCs analysis", range = "W38:W59")
table2 <- read_excel(file_path, sheet = "4.3 LDCs analysis", range = "X38:X59")
table3 <- read_excel(file_path, sheet = "4.3 LDCs analysis", range = "T38:T59")
x_num <- as.numeric(unlist(table2))
y_num <- as.numeric(unlist(table1))
names <- as.character(unlist(table3))
plot (x_num, y_num, xlab="GDP per capita 2021", ylab="unweighted long term score")
text (x=x_num, y=y_num, labels=names, pos=3, cex=0.5)
```