



**The energy transition in low-income countries**

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## Climate diplomacy by the US and EU (1.5 degree and 2050 net zero targets)

To limit warming to no more than 1.5 degrees and to achieve net zero emissions by 2050, rich countries (EU and the US) have been insisting that energy project financing in poor countries be restricted only to green energy projects.

The EU and US insist that financing banks such as the World Bank and the European Investment Bank to finance only wind and solar and green hydrogen, and smart micro-grid networks.

They want to stop all financing of natural gas projects in Africa as soon as 2025—and until then only “in exceptional circumstances.”

## View of western diplomacy in developing countries (especially on fossil fuels)

Developing countries know that no rich country runs on renewables only. Apart from Iceland, no one is even close.

Rich countries' domestic policies are much different than what they are advocating for poor countries.

Norway is a good example.

With natural gas prices at record highs in Europe, Norway is making a lot of money.

In recent years, it agreed to increase natural gas exports by 2 billion cubic meters to alleviate Europe's acute energy shortage.

Its neighbors, such as Britain, are grateful for more gas supplies as winter approaches.

## Western hypocrisy

Europe and the US know the value of their own oil and gas industry.

Norway is the most fossil fuel-dependent rich country in the world. Crude oil and natural gas account for 41 percent of exports, 14 percent of gross domestic product (GDP), 14 percent of government revenues, and 6 to 7 percent of employment.

Norway has the largest hydrocarbon reserves in Europe and is the world's third largest exporter of natural gas.

It is effectively telling Africa: We'll stay rich, keep you from developing, and send some charity your way as long as you keep your emissions down.

## “Green colonialism”

The hypocrisy extends to other countries. I sometimes call this “green colonialism.”

Germany has opened a new coal mine last year, producing lignite which is the worst form of coal, the most polluting.

Germany is also building four new LNG terminals to import more natural gas. It has given itself 20 years to exit from coal.

The UK approved a new coalmine in 2021.

President Biden has set lofty targets for curbing emissions but has also called on OPEC to ramp up production to meet U.S. demand for oil.

In the days after COP26, the US auctioned the rights to extract a billion barrels of oil in the Gulf of Mexico. Similar actions were taken in the days after the Paris Treaty was signed.

## Why does this matter?

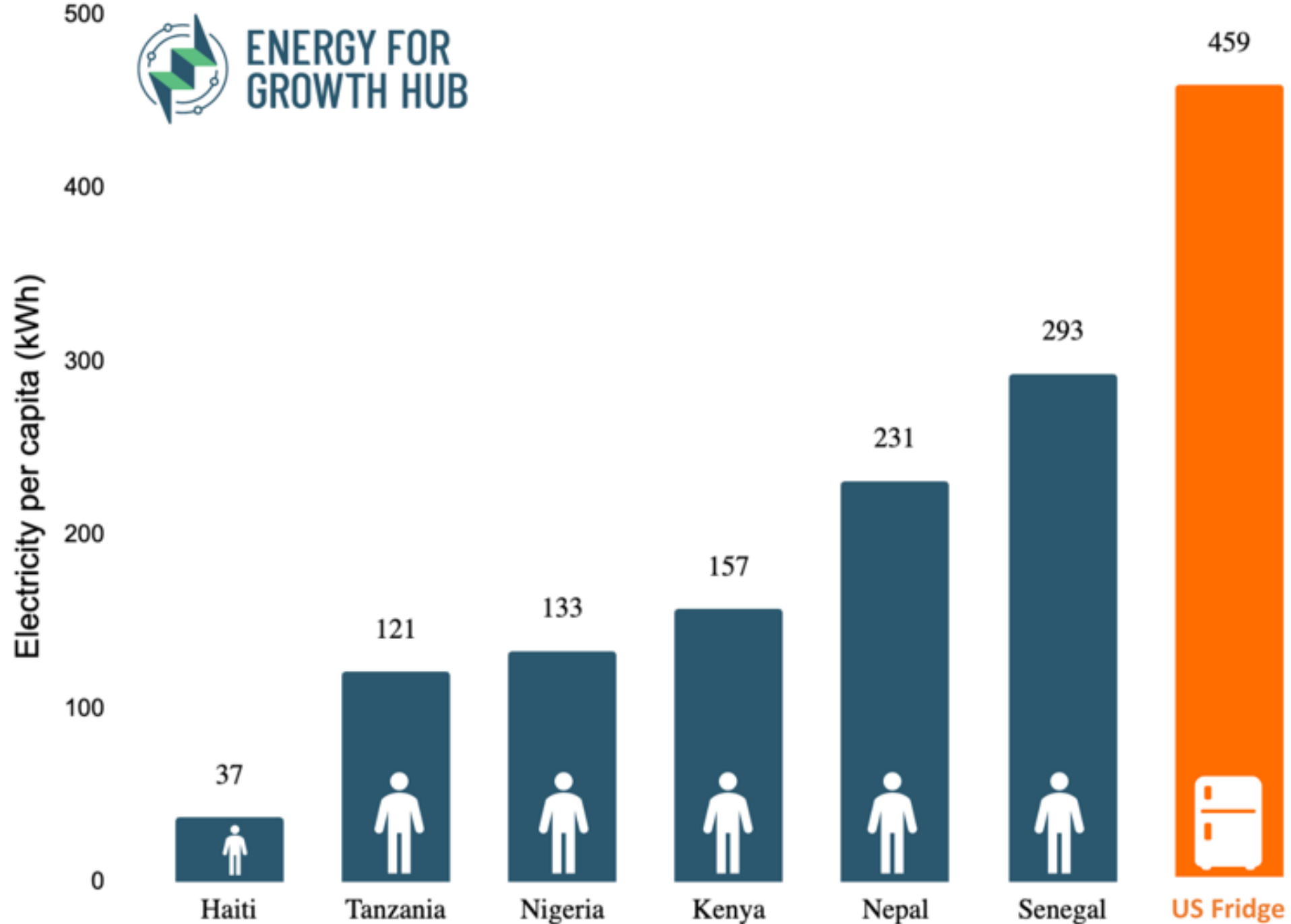
About 600 million people live without any electricity at all, almost all in Africa.

These people live in abject poverty--annual incomes are at \$2000 - \$3000 per capita, or about 20 times less than the US or European countries.

Schools, hospitals, and factories do not have electricity. Jobs are lost, lives are lost, infant mortality is high.

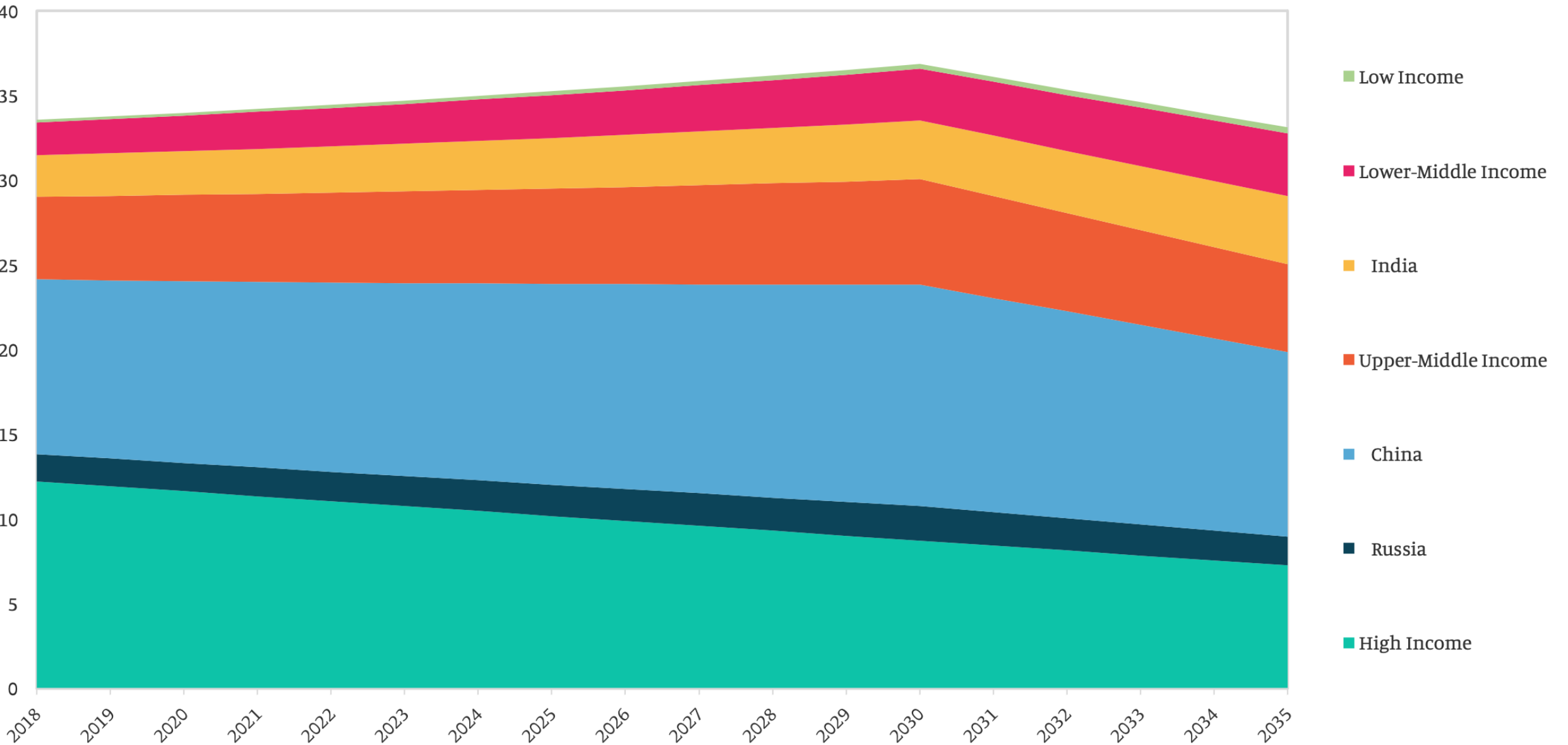
Energy is a factor: these countries cannot escape poverty without a significant increase in energy use. And some of that will have to come from fossil fuels.

Modern high-yield agriculture—which the continent needs to feed its population and offer rural youth a better future than subsistence farming—is heavily reliant on energy.



Source: IEA, data for 2019

# Projected CO2 Emissions (Gigatons)



Source: World Bank Mitchell and Baker (2020) Baker and Ramachandran (2022)



## Energy for agriculture, industry, roads and transportation

Yields right now are a tenth of those in the rich world and Africa is heavily dependent on costly imports.

Synthetic fertilizer to improve yields is most efficiently produced with natural gas.

Cement and steel are needed to build homes and factories and are critical to large-scale industrialization and the generation of thousands of jobs.

Roads and building construction are energy-intensive and fossil-intensive, as is cold storage for food and medicines.

The transportation sector remains almost entirely dependent on oil and gas.

## Poor countries need a lot more energy

Poor countries need more energy to adapt to climate change. Early warning systems, irrigation, desalination, air conditioning, resilient buildings etc.

Perhaps most importantly, fossil fuel electricity generation is still needed to balance out weather-dependent wind and solar.

No amount of solar energy or wind power—even if they could be built out quickly enough—could fuel development in the global south without backup power using fossil fuels, of which gas is the cleanest by far.

## Poor countries need a lot more energy

Poor countries need electricity for homes, schools, and factories; industrial heat for producing cement and steel; the CO<sub>2</sub> that is an essential component of synthetic fertilizer; and liquefied gas as a transportation and cooking fuel.

A ban on financing gas projects by the US and EU, with no low-cost alternatives available, would practically end support for the critical energy infrastructure necessary to support economic development and raise living standards. This is unethical and immoral.