The solar boom is rapidly transforming emerging economies

Kira Schacht October 7, 2026

Renewable electricity is cheaper than ever. While the West got rich on coal and oil, some of the world's poorest countries are banking on solar, wind and water instead.

As emerging economies and global living standards rise, is the world in for another fossil fuel boom? The data says not. Countries from Southeast Asia to Sub-Saharan Africa aren't investing in fossil fuels as the West did; they're investing in electricity powered by renewables.

When the US and Europe industrialized in the 19th and 20th centuries, they did so using fossil energy. From coal ovens, gas heating and combustion-engine cars to electricity produced in coal and gas power plants, entire societies relied on polluting fuels.

Yet while burning fossil fuels allowed industrialized countries to boom, it also caused the climate crisis that is linked to extreme weather events around the world today.

Renewable electricity is rapidly becoming the cheapest option

Many of the same countries that became economically powerful off the back of fossil fuels are now trying to transition to renewables, but centuries of legacy infrastructure hold them back.

Because a gas boiler won't run on wind power and a diesel truck cannot be solar-powered, societies looking to shift to green energy need to use more electricity and increase their share of renewables.

That is where many middle- and lower-income countries have an advantage. With less existing energy infrastructure built around fossil fuels, they are better placed for a faster rollout of renewable electricity sources.

In many instances, solar power in particular is now cheaper to produce than fossil electricity. And unlike large coal or gas plants, which take years to construct and millions in investments, solar and wind farms can be built quickly and with much less upfront cost.

At the same time, according to an analysis by renewables think tank Ember, electronic devices like refrigerators, electric stoves or air conditioners have all become much cheaper in the last decades, making electricity a more affordable option as an energy source for cooking, heating and more.

While electric cars are still a luxury item in most places, their prices are coming down too. And a UN study found that in India, Indonesia and Vietnam electric scooters and motorbikes already cost the same as petrol models. Yet a lot less to fuel.

All this means that renewable electricity is quickly becoming the best choice for the wallet — not just for the climate. And countries are taking note.

"We're seeing a leapfrog take place right across the emerging markets," said Kingsmill Bond, energy strategist at Ember. "The whole of Asia is electrifying quickly, and the whole of Europe and the United States is stagnant."

Lower-income countries are electrifying faster

In 2023, only around a quarter of global electricity was generated by renewables. But that figure is rising fast, and **almost all new capacity added these days is based on solar or wind power**.

Lower-income countries already use less fossil fuels and more renewables than higher-income ones.

And large middle-income economies are outpacing richer ones as well. In 2023, solar power alone made up at least six percent and ten percent of electricity in India and Vietnam, respectively. The global average was five percent.

Lower-income countries are electrifying without the fossil detour

This boom has meant middle- and lower-income countries are electrifying fast, consuming less energy directly from fossil fuels than richer countries. Vietnam, for instance, is already using more electricity than the US, Europe and even China, and India is following the same path.

But the potential for energy leapfrogging might be particularly high in low-income countries, especially across Sub-Saharan Africa.

Countries such as Kenya, Ethiopia and Namibia are rapidly expanding their energy infrastructure to meet the demands of a growing, young population. But rural areas in many countries **are not connected to electricity grids**.

Joel Nana, project manager at South African NGO Sustainable Energy Africa says that "even when there is access to power, it's often not reliable."

Until a few years ago, he says, people defaulted to diesel generators to meet their energy needs. That came at a cost because importing fuel is particularly expensive in many African countries, meaning energy crises and oil price fluctuations hit much harder.

Renewables for energy access and independence

These factors make solar power a solution for both energy access and independence. And it has become so cheap that Nana says it's a "no-brainer."

"Some businesses can make back their investment in just two years, so why would you want to deploy anything else?" he said. "Solar has rapidly become the de facto default technology that everyone falls back on."

And once it is set up, it is very effective. Sub-Saharan Africa is extremely well-suited to solar power. It **gets more sun than almost anywhere in the world**, and has enough space for solar farms to **cover electricity demand hundreds of times over**.

"If you add solar plus batteries, you can get cheap electricity about 90 percent of the time from the sun alone", said Kingsmill Bond.

Countries like Namibia, South Africa, Kenya and Senegal have expanded their solar capacity massively in the past few years.

In a 2026 **report for African Tech Futures Lab and Ember**, Nana analyzed import data from China and estimated that around 100,000 solar panels were installed across Africa every day in 2026, up 45 percent from just the previous year.

Similar trends are emerging all across the world. In Pakistan, for example, people have been buying solar panels from China en masse in the past few years to avoid steep electricity grid prices and frequent power outages.

Cheap energy boosts economies

Aleksi Lumijärvi, director for knowledge, policy and finance at the International Renewable Energy Association says these decisions can have a major impact on the global economy in the coming decades.

"Industrial companies will find that it will be cheaper to move production to, for example, somewhere in Sub-Saharan Africa, because they have this cheap, clean solar power plus batteries available."

Kingsmill Bond says where electricity is cheap and abundant, wealth will follow.

"You're going to have faster growth in the emerging markets, you will have fewer financial crises. It will make a material difference to people's quality of lives."

Nana says the next step for African countries is to establish policies that ensure everyone benefits from the solar boom.

"We are heading towards the most decentralized grid in the whole world within the next five years," he told DW. His mantra for governments, he says, is: "This is happening, whether you like it or not." He expects a wave of new energy regulations, many of which are now in the final stages of negotiation, to come into effect across Africa in the coming months and years.

"Countries are realizing it's in their interest to integrate this technology into national strategies, to share the benefits and to make use of this competitive advantage."

Article link w charts and graphs: https://www.dw.com/en/emerging-economies-are-embracing-solar-power-and-skipping-fossil-fuels-much-faster-than-europe-or-the-us/a-79474847