

We get so focused on the problems in our own country that it's easy to lose track of what's happening globally. It turns out that while we've been mired in our own travails, India has been making remarkable progress on renewable energy.

What happens in India has tremendous significance. It is now the most populous country in the world, with 1.3 billion people - three times the population of the U.S. It's a poor country, with per capital income of about \$2000, but this year it's also the fastest growing economy in the world. Its current 7% growth rate would double its GDP in only ten years.

India is also the third-largest source of greenhouse gases in the world. After years of insisting that only developed countries should be held accountable for addressing climate change, India finally agreed to make some commitments as part of the Paris Agreement. Among other things, India agreed to increase its share of non-fossil fuel energy to 40% by 2030.

India already had the legal framework for promoting the use of renewables. Beginning with the Electricity Act 2003, Indian law has set minimum percentages of renewable energy use by distributors. A 2016 directive provided an 8% solar target for distributors by 2022. Like many renewable portfolio standards in the United States, it allows the use of Renewable Energy Certificates to meet the standard, allowing trading between areas with more solar and those with less.

India currently ranks in the top six nations in terms of wind, installed solar, and overall renewable energy. It has massively expanded its use of solar in just four years - from 21 Gigawatts (GW) in 2014 to 34 GW today, with \$42 billion in investment in renewable energy during the same period. In June 2018, the Ministry of Power raised the country's 2022 target for renewables to 21% of the power mix or 227 GW. The solar target will go up to 10.5%. The increasingly ambitious goals are driven in part by the rapid price declines for wind and solar. It looks fairly likely that India will fall short of the new goal, but still do much better than originally planned.

India is heavily dependent on coal and reducing current coal usage is a long-term project. Much of the expansion of renewables will go toward powering economic growth, not replacing current coal usage, but it should help temper the extent of future increases in coal. India's coal problem is very far from being solved and will get worse before it gets better. What's notable is that in only a few years, India has gone from foot-dragging in addressing climate change to rapid, impressive progress. That's very good news indeed.

