

# A REALITY CHECK ON INDIA'S RENEWABLE ENERGY CAPACITY

Relevant for: Geography | Topic: Distribution of Key Natural Resources - Energy Resources of the World

A new solar power plant, opened by Prime Minister Narendra Modi and French President Emmanuel Macron, is seen in Mirzapur on March 12, 2018. | Photo Credit: [AFP](#)

Addressing the plenary session of the World Environment Day celebrations on June 5, 2018, Prime Minister Narendra Modi stated, “We are engaged in a massive push towards renewable energy generation. We have targeted [the] generation of 175 GW of solar and wind energy by 2022. We are already the fifth-largest producer of solar energy in the world. Not only this, we are also the sixth largest producer of renewable energy.” Along with Emmanuel Macron, the President of France, Mr. Modi also won the Champions of the Earth Award last year.

True, the expansion of renewable energy capacity in India is a step in the right direction. There are benefits not only from an environmental perspective but also in terms of generating more employment opportunities. However, the question is whether the government has put forth enough efforts to take advantage of the extremely favourable cost conditions on renewable energy, especially solar photovoltaics and onshore winds. The costs of electricity generation from these sources have declined at a rapid pace over the years and generating power from these renewables now costs more or less the same as fossil fuels.

Taking advantage of these lower costs, other developing economies like China and Brazil have performed much better than India in renewable energy generation. According to the International Renewable Energy Agency, these countries currently rank the first and third respectively in terms of production of renewable energy.

China is way ahead of India in its expansion. Over the 2014-17 period, China's addition to its renewable energy capacity (207.2 GW) was nearly six times India's (33.3 GW). Over the same period, China increased its installed capacity in solar energy by 105.5 GW, while India increased its capacity by only 14.3 GW — a mere one-seventh of the former. Advanced economies like the U.S. and Japan installed almost twice the amount of solar capacity over this period compared to India.

Despite the reduction in costs due to global technological advancement in the field of renewable energy, India has been unable to reap these benefits to their full extent. Further, the recent imposition of safeguard duty on imported solar photovoltaic cells, and the ongoing depreciation of the Indian rupee vis-à-vis the U.S. dollar, have only lessened some of these cost advantages. If the government is concerned enough about the deteriorating environment, there is an immediate need to spend more on the research and development of these renewable energy sources.

One of the primary objectives for advocating the use of renewable energy sources is to limit, and finally eliminate, the use of fossil fuels, especially coal. But, according to Reuters, India's annual coal demand rose by 9.1% to nearly one billion tonnes during the year ending March 2019. Coal features among the top five imports of India, with total imports rising from 166.9 million tonnes in 2013-14 to 235.24 million tonnes in 2018-19.

Coal is the dirtiest fuel — the carbon emissions from coal are almost double the emissions from natural gas, and also much higher than those from petroleum. A study by the Centre for Science

and Environment, New Delhi, shows that Indian coal-fired thermal power plants are considered the most inefficient and polluting in the world. More than 75% of these plants don't comply with governmental regulations. With the passage of the Coal Mines (Special Provision) Act, 2015 and the Mines and Minerals (Development and Regulation) Amendment Act, 2015, the expansion of domestic coal usage for power-generation has only worsened the existing problems of pollution.

A report published by the Centre for Financial Accountability in June 2018 showed that out of a total lending of 83,680 crore for 72 energy projects, 12 coal-fired power plants with a combined capacity of 17 GW obtained loans of 60,767 crore. The 60 renewable energy projects, with a combined capacity of 4.5 GW, were able to mobilise only 22,913 crore. The report also added that eight out of the top 10 lenders to these coal-fired power plants were public sector banks. Most of these coal-fired plants have been around for sometime, while the renewable plants are predominantly new and need more financial assistance. This apparent favouring of coal-fired plants is highly problematic; if the use of coal continues to expand, then even with an expansion of renewable energy sources, the increasing emission levels cannot be controlled.

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