

Ukraine war darkens climate change targets

The conflict will further slow down India's progress in meeting key goals

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As Prime Minister Narendra Modi prepares to attend the 27th session of the Conference of the Parties (COP27) to the UN Framework Convention on Climate Change, the latest edition of the world's most prestigious climate gathering, in Egypt from November 6 to 18, there is a growing chasm between the government's renewable ambitions and the air you breathe. Some of that can be attributed to the effects of the Russia-Ukraine conflict — which previous COP editions could not factor into climate mitigation plans. The rest has to do with spotty policies that are often contradictory to what India has set out to achieve.

Though India has made substantial progress in deploying solar and wind installations, the country's capital and other key north Indian cities are among the most climate-stressed areas in the world. The cities of Delhi and Kolkata topped the latest State of Global Air Report's list on air quality with specific reference to cancer-causing PM2.5 pollutants. Another study by Lancet attributed 1.6 million deaths in India in 2019 to air pollution, by far the worst globally.

New Delhi routinely describes such data as biased, politically motivated or the result of incorrect methodologies. But turning a blind eye to the problem does not take away the fact that India is the third biggest polluter after China and the US. To be sure, on a per capita basis, it emits a tenth of what many Western nations do but with thermal power accounting for over 70 per cent of generation, per capita emissions are rising.

The Ukraine war has skewed all plans even further. "Everything that has been conceptualised during the last COP meetings has not taken into account the effects of the Russia-Ukraine war," said Sunil Sinha, senior director, India Ratings and Research. "The geopolitical situation we are in now has changed the overall scenario significantly, whereby to meet immediate needs we have to get back to fossil fuels while targets in near to medium term may go for a toss." The next five to seven years will be challenging as there will be deviation from targets, he added.

Last November, Modi announced five climate mitigating goals, dubbed "panchamrit" (five nectars in Hindu mythology): achieve 500 GW non-fossil energy capacity by



GREEN GAUGE

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2030; 50 per cent of energy requirements from renewable energy by 2030; reduction of projected carbon emissions by one billion tonnes from now to 2030; reduction of the carbon intensity of the economy by 45 per cent by 2030, over 2005 levels; and achieving net zero emissions by 2070.

As we approach COP27, two years after the Glasgow climate summit, India is far from meeting its short-term targets, let alone getting to net zero by 2070, the most distant measure among the main polluting nations. India averages 15 Gw in solar additions annually, half of what is required, an industry official said. The record on renewable generation is worse. Excluding hydro, wind and solar accounted for a little over 13 per cent of generation in August compared to over 70 per cent for thermal generators led by coal-fired facilities, according to data by the Central Electricity Authority of India. Coal power generation is the largest contributor to carbon emissions. Carbon dioxide emissions form 76 per cent or around two billion tonnes of India's overall greenhouse gas (GHG) emissions of 2.7 billion tonnes, most of it from the use of coal, according to ratings agency ICRA, a Moody's affiliate.

The principal problems are the lack of a clear road map, policy measures by New Delhi and cooperation from state governments to implement emission

mitigating measures, industry officials said. Climate targets are at a further disadvantage on account of the focus on "Aatmanirbharta" — a policy for domestic manufacturing that incorporates high tariff and non-tariff barriers on imports, which acts as a detriment to increasing the share of electric vehicles (EVs) and renewables in the near term because most of the components for these industries are imported.

"While India's per capita energy consumption is expected to surge multi-fold, it has committed to reducing GHG emissions and to a net zero carbon emission target. This, we believe, is a daunting task, and would need massive policy interventions to ensure investments across renewable energy, carbon capture, energy efficiency and electric vehicles for it to remain profitable enough to sustain well beyond 2030," ICRA said.

Though India has a very good track record in combating climate change compared to other countries, said R R Rashmi, a climate expert at TERI, the challenge lies in achieving 50 per cent generation from renewables by 2030, which requires large investments, a clean energy-focused grid and technologies for storing electricity. India may need around \$400 billion in the next eight years if it has to meet its renewables targets, according to calculations based on data by Rashmi, a former bureaucrat in

the environment ministry. "The country will need to double renewables capacity to one terawatt or build massive storage capacity to meet 50 per cent of its generation via renewables," he said.

Going by current capacity additions, even a 400-GW target looks distant. India is expected to add only 13-15 GW of solar capacity, the backbone of Delhi's renewables strategy, every year because of constraints in procuring equipment, a small-scale solar developer said. But India will need to add around 35 GW every year to meet its 2030 solar targets from around 57 GW installed capacity now. Rising costs of photovoltaic cells and difficulties in procuring them is a challenge for developers, said Brajesh Singh, president, Arthur D Little India. "It's like asking a 5-year-old to run a marathon." Capital and clear policies are needed to accelerate local manufacturing, he added.

India, along with China, forced a change to the COP26 agreement to reduce a commitment towards cutting emissions from burning coal. It also abstained from agreeing to reduce emissions of methane, a potent GHG and the biggest source of emissions in India after transport and power. Agriculture and livestock are key emitters of methane, politically fraught subjects in India. New Delhi may be under pressure to revisit these issues next month.

The country's plans to create a carbon sink of 2.5-3 billion tonnes by 2030 by planting trees are also trailing targets. Indian officials claim a 5 per cent increase in forest cover between 2001 and 2019 but Global Forest Watch (GFW) estimates India lost 18 per cent of its primary forests and 5 per cent of tree cover during the period. GFW covers vegetation taller than 5 metres; India's official figures are based on tree density and can include shrubs and small plants. Uttar Pradesh, India's most populous state, planted three million plants in the last two years but they don't contribute to forest cover now, said Singh. The question, he pointed out, is what are you measuring today?

A recent commitment to a voluntary carbon credit market may help accelerate the transition. "What's impressive about India's climate action is that it appears to understand the importance of incentivising business to embrace a more sustainable economy," said Mathew Carr, a London-based climate expert and founder of CarZee, a carbon advisory.

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