"Gargantuan task": Why India's renewable push will be hard

By Anupam Nath & Aniruddha Ghosal The Associated Press

AGAON, India — Plans to build a sprawling solar park on land cultivated for generations by indigenous farmers in India's Himalayan foothills erupted in violent clashes with police last year after their crops were bulldozed for the development.

Most men from the farming village of a few hundred in Assam state were out looking for work on December 29. One of the few people who remained was Champa Timungpi, who says she was beaten by police and kicked in the stomach when she tried to protest.

Pregnant at the time, the 25-year-old was rushed to a hospital for her injuries. "I came back home at night, and I miscarried," said Timungpi, who lodged a complaint with police.

The lush green village in Nagaon district — still largely unconnected to the grid and home to families who earn less than \$2 a day — is now framed by blue solar panels, barbed wire, and armed guards.

Solar developer Azure Power, listed on the New York Stock Exchange, said in an e-mail that the company legally bought 91 acres in the village from "recorded landowners" and it's "incorrect and erroneous" to say the land was forcibly taken.

The company's position is strongly disputed by Timungpi and others in the Mikir Bamuni village who say their rights as tenants and established farmers were ignored. Local officials and police didn't respond to requests for comment.

However it plays out in a district court, the dispute not only speaks to India's often-tangled land ownership rules rooted in its colonial era. It also illustrates the complexity and immensity of the challenges facing the country of nearly 1.4 billion people in meeting its renewable power goals for the next decade.

Over the next 20 years, India's demand for electricity will grow more than anywhere else in the world. Unlike most countries, India still has to develop and lift millions like Timungpi from poverty, and it will need to build a power system the size of the European Union's.

How India meets its energy and economic needs will have an outsized impact on the world's climate goals. The country is a major contributor of greenhouse gasses



Prime Minister Narendra Modi said at last year's United Nations climate talks that India would increase its capacity of non-fossil fuels electricity to 500 gigawatts by 2030 — from the 104 gigawatts at the start of this year.

To meet its goals, India must add four times the amount of power the average nuclear plant produces — every month until 2030.

These short-term energy targets won't do much to limit global warming to 34.7° Fahrenheit — the level beyond which scientists warn of catastrophic climate impacts, scientists at last year's United Nations climate conference had warned.

But for India, it'll still be a "gargantuan task," requiring investments between \$20 billion and \$26.8 billion, while only \$10 billion is available, a parliamentary committee said last month.

Some obstacles to renewables — such as the need to build electricity storage for when the sun isn't shining or wind isn't blowing — are global challenges. Others are more specific to India — such as the question of who owns land in poor communities that bear the least responsibility for the climate crisis and the need to realign power systems that have relied on coal for centuries.

While there's no clear roadmap yet for India's renewable energy push, experts cite a federal report last year that said an optimal mix would be getting more than half the country's power from the sun and wind by 2030.

But big solar and wind facilities are sparking conflicts with local communities. This is partly because land ownership is from the burning of coal and other fossil fuzzy at many project sites. For example, some communities have used land for centuries to farm or graze cattle without legal rights over it.

As governments and companies focused on transitioning away from fossil fuels, such conflicts were "collaterals" that had to be managed, Kanchi Kohli, an environmental researcher at the Indian think tank Centre for Policy Research.

Mandatory environmental assessments were waived for solar and wind projects to make them more viable. But environmental issues still have arisen.

For instance, India's Supreme Court in April 2021 ordered that transmission lines for solar energy be put underground after environmentalists reported the lines were killing critically endangered great Indian bustards. Nine months later, the federal government said burying the lines to safeguard the birds would be too costly and would impede green energy development. The court is hearing the matter again.

India could reduce its dependence on large solar parks by building solar panels on roofs in cities.

The country's initial rooftop goals were small, but in 2015 it set a target of 40 gigawatts of rooftop solar, enough to power 28 million homes. Customers were allowed to send electricity back to the grid - and the sector grew.

In December 2020, the federal government changed rules restricting large industries and businesses from sending electricity back to the grid. These commercial groups are among the highest paying customers for India's perennially cashstrapped power distribution companies, which lost over \$5 billion in 2020.

With industries sending electricity back

RENEWABLE ROADBLOCKS. A Karbi tribal woman, whose agriculture land had been transferred to build a solar power plant, grazes her cow near the plant in Mikir Bamuni village, Nagaon district, northeastern Assam state, India. Protests have been simmering among several poor families belonging to India's indigenous communities who contest the sale of 91 acres of land to New Delhi-based green energy producer Azure Power Global Limited. The dispute underscores not just India's often fuzzy land ownership rules complicated by colonial-era land classifications, but also the immensity of the challenges facing India in its renewable goals in the next decade. (AP Photo) Anupam Nath)

to the grid in the evening when demand and power tariffs are highest, distribution companies were losing their customers said Vibhuti Garg, an energy economist at the Institute for Energy Economics and Financial Analysis.

"They were losing money," Garg said. The installation cost makes rooftop solar too expensive for most homeowners. That was the case for Siddhant Keshav, 30, a New Delhi entrepreneur, who wanted to put solar panels on his home. "It just didn't make sense," he said.

Homes comprised less than 17% of India's rooftop solar in June 2021, according to a report by Bridge to India, a renewable energy consulting firm. And India has only managed to achieve 4% of its 2022 rooftop solar target.

Wind could become another important element in India's clean energy portfolio. But the most "attractive, juicy, windy sites" have small turbines using old technology, said Gagan Sidhu, the director of energy finance at think tank Council on Energy, Environment, and Water.

By retiring old wind turbines built before 2002, India could unlock a capacity of 1.5 gigawatts, according to a 2017 study by Indo-Germany Energy Forum, the consulting firm Idam Infra, and India's renewable energy ministry. But experts said it's unclear who would do the retrofitting and pay the bill.

With a coastline of over 4,670 miles (about 7,500 kilometers), India could potentially build enough offshore wind farms to provide roughly a third of the country's 2021 electricity capacity by 2050, according to an assessment led by the Global Wind Energy Council.

But these are very expensive to build and the first such project, a wind farm proposed for the Arabian Sea in 2018, has yet to get underway.

> Ghosal reported from New Delhi. AP journalist Chonchui Ngashangva in New Delhi contributed to this report.

Philippine vote campaign starts amid violence, virus fears

By Jim Gomez and Aaron Favila

The Associated Press

ANILA, The Philippines — Candidates for Philippine congressional seats and thousands Lof smaller races started campaigning in late March with police watching closely due to past violence and to enforce a pandemic ban on handshakes, hugging, and tightly packed crowds that are a hallmark of the country's often circus-like campaigns.

Campaigning for the presidency and other high-profile races began in February. Nearly 66 million Filipinos in the country and more than 1.6 million abroad have registered to vote in the May 9 elections for more than 18,000 local government and congressional posts.

Social media has become a key battleground for votes after two years of lockdowns and home quarantine restrictions in a Southeast Asian country that was hit hard by coronavirus outbreaks. The last alarming spike occurred in January before easing with an intensified vaccination campaign. Many fear election disinformation could worsen in a country regarded as one of the world's top internet users.

In the capital of Manila, a mayoral candidate launched her candidacy by waving and dancing from a pickup truck

Wondering when our next issue is published? Sign up for e-alerts at <news@asianreporter.com>!

blared her campaign jingle as crowds cheered from the sidewalks and snapped photos with their cellphones. Her regions with weak law enforcement and a proliferation of mascot waved to the crowd from another truck in a scene unlicensed firearms and private armies. shown live on Facebook.

In suburban Marikina city, a mayoral candidate walked from house to house under the intense summer heat and talked to residents as followers trailed him, including one who banged a snare drum to draw attention. In Quezon city, also in the Manila metropolis, red and white confetti rained down on a stage, as the mayor, who is seeking re-election, and her allies held and raised each other's hands in a show of unity. She later approached supporters, some of whom grabbed her hands.

Such fiesta-like scenes were replicated in most of the

Some candidates openly flouted elections coronavirus regulations, campaigning in public without the required face coverings while also shaking hands and huddling close to supporters seeking selfies.

Elections commissioner George Garcia warned candidates not to violate coronavirus restrictions. "While we have eased restrictions, it doesn't mean there can be super-spreader events," he said in a news conference.

With limited staff, the commission has struggled to enforce its campaign regulations, such as putting campaign posters in unauthorized areas. "Don't waste your posters in public places. They will just be taken down," Garcia said.

A more serious concern has been elections violence.

that weaved through a crowded public market area and Local elections have been marred in the past by bloody feuds and accusations of cheating, especially in rural

> Last December, motorcycle-riding gunmen killed a town mayor and wounded another in a brazen attack in southern Zamboanga city, where they alighted after travelling by speedboat from a nearby island. The attackers escaped. The victims reportedly were planning to run for re-election in the May elections and investigators said at the time that they were checking if it was linked to political rivalry.

> In 2009, heavily armed men deployed by the family of southern Maguindanao province's then-governor massacred 58 people, including journalists, in an open attack on a convoy of a rival political clan that shocked the

> Outgoing President Rodrigo Duterte has repeatedly warned he would deploy the military if candidates resort to violence and fraud.

> "Nobody wants trouble, nobody wants cheating," he said in a speech in September in the south Mindanao region, where many elections security hotspots have been identified by the police.

> "The military is the guardian of our country and I could call them anytime to see to it that people are protected and election's freely, orderly exercised," said Duterte, who has long been condemned himself for the thousands of killings of mostly petty suspects in his bloody crackdown against illegal drugs.