

India’s energy future is looking green, report says

By Sibi Arasu
The Associated Press

BENGALURU, India — India’s renewables sector is booming, with the country projected to add 35 to 40 gigawatts of renewable energy annually until 2030, enough to power up to 30 million more homes each year, according to a recent report.

The Institute for Energy Economics and Financial Analysis (IEEFA) estimated that India, the third largest energy-consuming country in the world, will reach 405 gigawatts of renewable energy capacity by 2030. It’s expected to surpass the government’s target of producing 50% of its electricity from non-fossil fuel sources by the end of the decade.

The Indian government’s own projections estimate the country will produce even more renewable energy — 500 gigawatts — in the same time frame. Currently, fossil fuels account for 59% of India’s installed energy capacity, but are expected to make up just 31.6% of the energy mix by 2030.

“While there were disruptions to India’s clean energy journey because of the war in Europe among other reasons, India has big plans,” said Vibhuti Garg, co-author of the report and senior energy specialist at IEEFA. “India is energy hungry and this hunger will only increase with our



GOING GREEN. People ride their motorcycles past a windmill farm in Anantapur district, Andhra Pradesh, India. India’s renewables sector is booming, with the country projected to add 35 to 40 gigawatts of renewable energy annually until 2030, enough to power up to 30 million more homes each year, according to a recent report. (AP Photo/Rafiq Maqbool)

economic and population growth.”

She added that the low cost of renewables as well as the need for cleaner energy sources to curb climate change have driven the growth of the sector in the country, which is the world’s third largest renewable energy market.

No other country’s energy needs are expected to balloon as much as India’s in the coming years, as living standards improve and its 1.3 billion population grows.

The report, which analyzed data from various green energy corporations and publicly funded energy companies, also found that 151 gigawatts of renewable energy will be added by private clean energy companies alone. Adani Green

Energy, a private company, will account for the largest single addition, going from 5.8 gigawatts to 45 gigawatts of renewable energy production.

Although the country has made significant strides in clean energy, experts say there is still room for improvement.

India’s “ambitious renewable energy policies” haven’t yet halted the country’s coal pipeline, said Nandini Das, a climate and energy economist at the Berlin-based think tank, Climate Analytics.

She added that there should be a “scheduled retirement plan of the existing coal capacities to give a clear signal that we are moving towards clean energy” and the current subsidies for fossil fuels in

India should be reformed.

But shutting down coal and moving towards greener energy needs financing. Recent estimates say India will require around \$223 billion of investment to meet its 2030 energy goals.

Long-time observers of India’s clean energy transition point out rooftop solar energy is also lacking: the country has just 7.5 gigawatts of rooftop solar installed of a planned 40 gigawatts by the end of the year.

“The challenge is that different states have different rooftop solar policies. We don’t have a holistic national policy for this segment,” said Aditya Lolla of the London-based environmental think tank, Ember.

Lolla added that other renewable energy projects also need to be ramped up.

“We really need to increase the build rates. This year we are installing an average of 1.7 gigawatts every month and we need to be hitting 3.7 gigawatts,” he said. “We can do many things to ramp up but that is the foremost thing that needs to happen and this needs to happen very soon.”

Sparkling fish, murky methods: the global aquarium trade

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Fishermen crush the blue or white pellets into a bottle filled with water. The diluted cyanide forms a poisonous mixture fishermen squirt onto coral reefs, where fish usually hide in crevices. The fish become temporarily stunned, allowing fishermen to easily pick or scoop them from the coral.

Many die in transit, weakened by the cyanide — which means even more fish need to be captured to meet demand. The chemicals damage the living coral and make it more difficult for new coral to grow.

Lax enforcement

Cyanide fishing has been banned in countries such as Indonesia and the Philippines but enforcement of the law remains difficult, and experts say the practice continues.

Part of the problem is geography, Reksodihardjo-Lilley explains. In the vast archipelago of Indonesia, there are about 34,000 miles of coastline across some 17,500 islands. That makes monitoring the first step of the tropical fish supply chain a task so gargantuan it is all but ignored.

“We have been working at the national level, trying to push national government to give attention to ornamental fish in Indonesia, but it’s fallen on deaf ears,” she said.

Indonesian officials counter that laws do exist that require exporters to meet quality, sustainability, traceability, and animal welfare conditions. “We will arrest anyone who implements destructive fishing. There are punishments for it,” said Machmud, an official at Indonesia’s marine affairs and fisheries ministry, who uses only one name.

“No real record-keeping”

Another obstacle to monitoring and regulating of the trade is the quick pace that the fish can move from one location to another, making it difficult to trace their

origins.

At a fish export warehouse in Denpasar, thousands of fish a day can be delivered to the big industrial-style facility located off a main road in Bali’s largest city. Trucks and motorbikes arrive with white Styrofoam coolers crammed with plastic bags of fish from around the archipelago. The fish are swiftly unpacked, sorted into tanks or new plastic bags, and given fresh sea water. Carcasses of ones that died in transit are tossed into a basket or onto the pavement, then later thrown in the trash.

Some fish will remain in small rectangular tanks in the warehouse for weeks, while others are shipped out quickly in plastic bags in cardboard boxes, fulfilling orders from the U.S., Europe, and elsewhere. According to data provided to The Associated Press by Indonesian government officials, the U.S. was the largest importer of saltwater aquarium fish from the country.

Once the fish make the plane ride halfway around the world from Indonesia to the U.S., they’re checked by the Fish and Wildlife Service, which cross-references the shipment with customs declaration forms.

But that’s designed to ensure no protected fish, such as the endangered Banggai Cardinal, are being imported. The process cannot determine if the fish were caught legally.

A U.S. law known as the Lacey Act bans trafficking in fish, wildlife, or plants that were illegally taken, possessed, transported, or sold — according to the laws in the country of origin or sale. That means that any fish caught using cyanide in a country where it’s prohibited would be illegal to import or sell in the U.S.

But that helps little when it’s impossible to tell how the fish was caught. For example, no test exists to provide

accurate results on whether a fish has been caught with cyanide, said Rhyne, the Roger Williams marine biology expert.

“The reality is that the Lacey Act isn’t used often because generally there’s no real record-keeping or way to enforce it,” said Rhyne.

Local response

In the absence of rigorous national enforcement, conservation groups and local fishermen have long been working to reduce cyanide fishing in places like Les, a well-known saltwater aquarium fishing town tucked between the mountains and ocean in northern Bali.

Partiana started catching fish — using cyanide — shortly after elementary school, when his parents could no longer afford to pay for his education. Every catch would help provide a few dollars of income for his family.

But over the years Partiana began to notice the reef was changing. “I saw the reef dying, turning black,” he said. “You could see there were less fish.”

He became part of a group of local fishermen who were taught by a local conservation organization how to use nets, care for the reef, and patrol the area to guard against cyanide use. He later became a lead trainer for the organization, and has trained more than 200 fellow aquarium fishermen across Indonesia in the use of less harmful techniques.

Reksodihardjo-Lilley says it is this type of local education and training that should be expanded to reduce harmful fishing. “People can see that they’re directly benefitting from the reefs being in good health.”

For Partiana, now the father of two children, it’s not just for his benefit. “I hope that (healthier) coral reefs will make it possible for the next generation of children and grandchildren under me.” He wants them to be able to “see what coral looks like and that there can be ornamental fish in the sea.”

A world away in Rhode Island, Siravo, the fish enthusiast, shares Partiana’s hopes for a less destructive saltwater aquarium industry.

“I don’t want fish that are not collected sustainably,” he says. “Because I won’t be able to get fish tomorrow if I buy (unsustainably caught fish) today.”

Associated Press video journalist Kathy Young reported from New York. Marshall Ritzel contributed to this report from Rhode Island. Edna Tarigan contributed from Jakarta.

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