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CHHATTISGARH EMPOWERMENT

State's success with solar energy makes villagers aspire for more

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Not so long ago, the 300 people in this sleepy village inside Barnawapara wildlife sanctuary spent evenings in virtual darkness. Children went to bed early and women made dinner before sundown. With no electricity, they had no other option.

In 2004, the installation of a solar power station radically changed the rhythm of rural life. Vishu Sahu's two children, Shoma, 11, and Bhupendra, 10, now do their homework on the veranda, illuminated by a fluorescent light fixed high on the wall, as their mother prepares dinner in a small kitchen a few metres away.

His neighbour, Shyam Bai, wife of a forest guard, has put together her family savings to invest in a black-and-white television set, running off a solar panel she bought for Rs6,000 with government subsidy. Sahu, who runs a small shop, owns a wireless telephone too, powered by a solar battery box.

Electricity grid poles are prohibited inside India's national parks and sanctuaries,

leaving about four million people across the country in the dark. When electricity came to Mahasamund district on the Orissa border, this village and 20 others within the 224 sq. km wooded sanctuary could have no part of it.

Now the success of solar energy in Rawaan, 85 km from state capital Raipur, is being seen as one way the seven-year-old state carved out of south-eastern Madhya Pradesh can reach its goal of turning the lights on in over thousand villages located inside the state's 13 wildlife sanctuaries and national parks.

Solar power and biofuel have been considered an alternative way to modernize rural India, and Chhattisgarh leads the nation in connecting villages with electricity from the sun. Already, 853 villages in the state's wildlife sanctuaries are connected by off-grid energy, according to Shailendra Kumar Shukla, director of the Centre of Renewal Energy Development Authority. This is more than one-third of the total number of 2,500 villages across the country that have solar plants, mostly located in wildlife parks.

The remaining 403 sanctu-

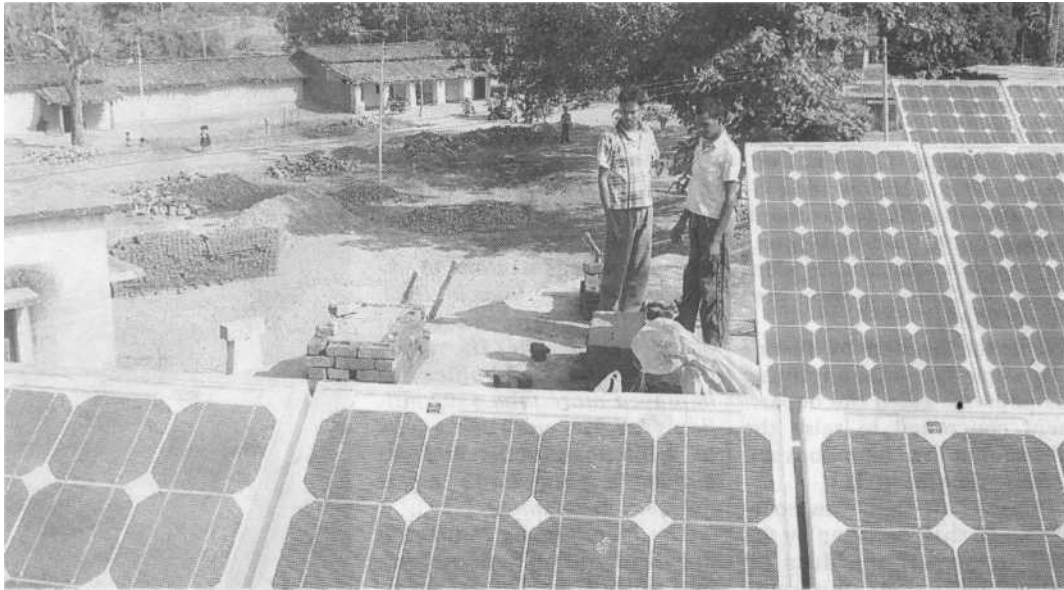
ary villages, Shukhla said, will be covered by 2009, three years before the government's target of lighting up the state's 19,746 villages, mostly through regular grid lines.

Last year, the Authority spent Rs62 crore on the electrification programme.

Each of the 56 homes at Rawaan has two lights, receiving supply between 5 and 11 in the evening and for an hour at dawn, just as villagers employed by the forest department to build roads and control forest fires leave for the day. The 4KW plant also lights 12 street lamps, which has a back-up reserve for a rainy week.

The Rs 10 charge for two lights a month, says village schoolteacher R.P. Upadhayay, is little price to pay for children's education. "The habit of revising what's taught in school did not exist. Now, at least, they are studying," he says. Upadhayay says he spent many of his 25 years offering free classes in the months of February and March just before the final term exams so that children didn't fail.

Electricity came here seven years after Kumar Pradhan left school to pursue higher stud-



Brighter side: Installed solar panels at Rawaan village inside the Barnawapara sanctuary in Chhattisgarh.

ies at a government college in Pithoragarh, 40km from here. With used tin cans, punctured bicycle valves and a kerosene-soaked thread, the first graduate of the village made his own lamps to read in the evenings.

"Earlier, the light used to fall only on the book. Now, it lights up the whole room," says the 23-year-old who works as an assistant for a rural development scheme, earning Rs2,000 a month.

Villagers say they are saving fuel costs on these home-made kerosene lamps, but as electricity arrives, aspirations for consumer goods are growing. "We still can't use a TV or a fridge," says Sahu. "It's better than a candle, but still we need to be able to use these things."

Demand is also putting a different kind of pressure on plant operator Sailesh Dayal, who is in charge of solar plants in the 21 sanctuary villages. "People have started using ordinary bulbs, because it gives more light, and are watching television without permission. This causes supply to trip sometimes," he says. Many times, he has to investigate thefts. Other times, it's hard to collect the monthly fee of Rs10.

Solar energy is generated by trapping light through flat silicon panels which are placed at an angle to suck in maximum rays. The trapped light is then stored in battery cells. Recently, a solar panel worth Rs 14,000 was stolen from the nearby village of Dhehi. "You

have to keep a watch on everything," says Dayal.

To keep up with demand, authorities are adding more solar panels to accommodate television sets. With already four in this village, residents have now stopped cycling down to Raitum, a village 12 km outside the sanctuary, to watch their favourite programmes.

But the arrival of television and the telephone fails to impress Bharat Mahindra, a forest guard, who prefers to keep his two children at his parent's house in Rikokala, 38 km away. He says education facilities here are still poor and the place remains remote. "Little has changed here. This place is still backward," he says.