

IIT-B solar lamps to brighten up lives of 1 million rural students

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ENVIRONMENT-friendly lights will soon brighten up the households of a million school-children in rural areas of Maharashtra and Madhya Pradesh. Schoolchildren in Thane, Nashik, Ahmednagar in Maharashtra and Barwani, Jhabua, Jhar and Khargone districts in Madhya Pradesh will receive solar study lamps at subsidised rates through the 'One million Solar Urja Lamps' (SOUL) project of the Indian Institute of Technology, Bombay (IIT-B).

SOUL aims to distribute 1 million solar lamps in a year. Local NGOs will distribute the lamps in rural districts selected on the basis of the number of households using kerosene, illiteracy rate, number of schools and their student strength.

"A child cannot wait for power plants to be set up to have access to light. We have developed the technology to reach Mars, can't we guarantee a simple light to every child? We have provided the right to education, now, we need to provide a 'right'



The project will be launched next month

to clean light," said Chetan Solanki, associate professor at Department of Energy Science and Engineering, IIT-B. The project as well as the design of the solar lamps was Solanki's brainchild.

While each lamp costs Rs 500, schoolchildren will have to pay Rs 120 each. The lamps have an average battery life of two years.

According to professors, the project will help save around 36 million litres of kerosene per annum and reduce around 100 million kg carbon dioxide emis-

sion. According to the 2011 census, there are more than 23.9 per cent rural families in Maharashtra that use kerosene for lighting purposes.

"Everyone agrees that clean energy is essential, but to provide inexpensive sustainable solar power in such a large scale is a challenge. We have tried to use our expertise as well as associations to bring down the costs," said NC Narayanan, associate professor, Centre for Technology Alternatives for Rural Areas, IIT-B.

Solanki has already installed 21,000 such lamps within four months in his hometown Khargone in MP. "Before we bought the solar lamps, we had no electricity. Thanks to these solar lamps, my children have also started scoring better because they can now study at home," said Anarsingh Dawar, a Khargone resident.

In order to make the project sustainable, locals will be trained to use, assemble and repair faulty lamps. Moreover, local mobile repair and electrical shops will be empanelled and receive incentives to repair the lamps. Repairing for the first

two years would be done free of charge, said Solanki. "We realised that similar projects have failed because there was no mechanism to repair the lamps in rural areas," he said.

Students from other engineering institutes have also opted to conduct surveys, training workshops and mobilise funds for the project. Visvesvaraya National Institute of Technology, Nagpur, and Maulana Azad National Institute of Technology, Bhopal, and Mumbai University have agreed in principle, added Solanki.

The Ministry of New and Renewable Energy, state governments, philanthropic partners and the students will share the cost of SOUL. Though the Maharashtra government has promised Rs 2 crore for the project, the team is still to receive the sanction letter and funds.

The team is in talks with governments and NGOs in Rajasthan, Bihar and Tamil Nadu to implement SOUL.

CM Prithviraj Chavan will formally launch the project at IIT-B early next month.