

SOLAR FOR IRRIGATION IN INDIA

In India, over 1,50,000 solar pumps have been deployed till date. More than 50 per cent of these pumps have been deployed in Andhra Pradesh, Chhattisgarh, Rajasthan and Uttar Pradesh.

50%

of India's net sown area remains unirrigated, in spite of 19 million electrical pumps and about 9 million diesel pumps in use

INR 135 billion

is the estimated outlay if the government pursues its subsidy-led approach of achieving its target of installing 1 million solar pumps by 2021

CEEW analysis

40%

of 1,600 farmers surveyed in Uttar Pradesh were willing to switch to solar pumps due to zero operational costs, ease of use, and saved diesel costs

CEEW analysis

This year, CEEW published three independent studies on scaling up solar-powered irrigation systems. This included a survey of 1,600 farmers in Uttar Pradesh, a comparative assessment of deployment strategies, and financing strategies for solar pumps.

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To scale-up solar pumps, the government must adopt context-specific deployment strategies, improve targeting of its subsidies, adopt a customer-centric approach, work with enterprises to bring down costs of the pumps, and focus on improving awareness about the technology.



ABHISHEK JAIN

Senior Programme Lead, CEEW

He leads the research on Energy Access at The Council.





CEEW Innovation: SP-TOOL



SP-TOOL is a free, online, map-based, interactive decision support tool that categorises India's 613 districts as per their suitability for solar pump deployment. It is aiding policymakers, financiers, entrepreneurs, and other experts make context and geography-specific deployment choices.

SOLARPUMPSTOOL by ceew

ABOUT TOOL GUIDE SOURCES CONTACT

MAP TABLE

Overall Score

Self me how this map is constructed

Take a screen grab

Click on the district to zoom in

Legend: NA, <= 25th percentile, 25 to 50th percentile, 50 to 75th percentile, > 75th percentile

POLICY / DEPLOYMENT APPROACH

Explore my own strategy

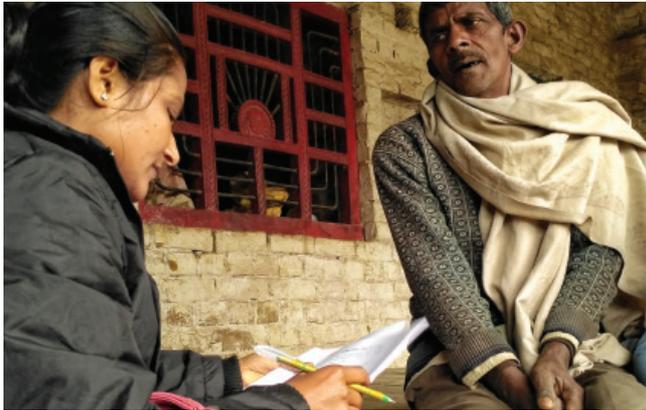
0 FILTER BY PARAMETERS

- No. of cultivators reporting use of diesel pumps
- Unirrigated net sown area (000 ha)
- Area under horticulture crops as a share of gross cropped area
- Water Availability Index
- Monthly per capita expenditure of rural agricultural households (INR)
- Crop revenue per holding (INR)
- No. of rural and semi-urban bank branches per 10,000 farmers

100 WEIGHTS OF PARAMETERS

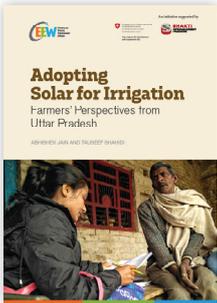
Total weight should not exceed 100.

- No. of cultivators reporting use of diesel pumps: 10
- Unirrigated net sown area (000 ha): 6
- Area under horticulture crops as a share of gross cropped area: 13



Direct interviews were conducted with 1,600 farmers to understand their perspectives on SPIS in Uttar Pradesh.

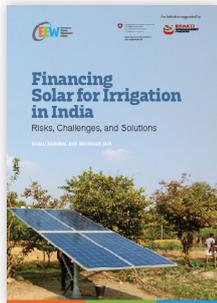
CEEW Research



Adopting Solar for Irrigation in India: Farmers' Perspectives from Uttar Pradesh

Report | Jan 2018

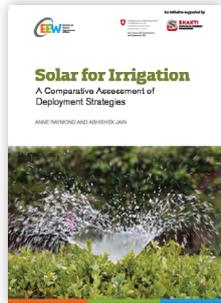
<https://bit.ly/2MOJlAb>



Financing Solar for Irrigation in India: Risks, Challenges, and Solutions

Policy Brief | Jan 2018

<https://bit.ly/2PwurMr>



Solar for Irrigation: A Comparative Assessment of Deployment Strategies

Report | Jan 2018

<https://bit.ly/2C97b1F>

Images: CEEW



Mr Amitabh Kant, CEO, NITI Aayog, Government of India, at the CEEW report launch.

I congratulate CEEW and Shakti Sustainable Energy Foundation on the release of the solar for irrigation studies. These are policy pertinent research studies and present actionable recommendations.

AMITABH KANT

CEO, NITI Aayog, delivered a keynote address at the CEEW-SDC-Shakti 'National Dialogue on Solar for Irrigation' January 2018.



The Council on Energy, Environment and Water is one of South Asia's leading not-for-profit policy research institutions. The Council uses data, integrated analysis, and strategic outreach to explain-and change-the use, reuse, and misuse of resources.

Ranked the best in South Asia with an annual operating budget of less than USD 5 million, five years in a row. Among top 100 out of 6,846 think tanks in eight categories.

Global Go To Think Tank Index, 2018



Ranked 2nd in the 'International Energy' category for its pioneering study on solar-powered healthcare.

Prospect Think Tank Awards, 2018



Ranked 2nd in India, 4th outside Europe and North America, and 20th globally out of 240 think tanks.

ICCG Climate Think Tank's standardised rankings, 2016



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