

Case story | Navagaron solar pump stations

‘Doorstep water’ now a reality for remote Indian villages

A villager in Navargaon in a remote part of Maharashtra fetches water at her doorstep – a common occurrence in this village today after the Grundfos solar pump unit was installed. Previously the village faced acute water shortages.

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Possibility in every drop



Women in the remote Kaorchi Taluk municipality previously had to walk through the jungle at all times of the day or night to fetch water from wells.

The situation

Villagers had an acute water shortage in Kaorchi Taluk, one of the most remote municipalities in the Gadchiroli District in Maharashtra, India.

Kaorchi had a few boreholes and dug wells – but due to an unstable power supply, electric pumps were not used. Instead, local women accessed the water by hand-powered pumps or by pulling buckets of water from wells with ropes and pulleys. Furthermore, some villagers needed to walk 2 km through the jungle to the wells, with dangers of snake and scorpion bites.

“We had to bring water at all times of the day, be it day or night,” says Mrs. Kaushalya Katange, the Head of

Navargaon Village. “Bringing water in buckets during the nights was exhausting and challenging.”

The Indian government launched an initiative in 2019 to provide access to water to every household in India by 2024. The water supply scheme, called Jal Jeevan Mission (JJM), specifically aims to provide a minimum of 55 litres per day of safe, portable water 24/7 to every household.

“This is a big challenge for us,” says Mr. Amit Turkar, Executive Engineer in the public utility Maharashtra Jeevan Pradhikaran. “How do we supply water to every stakeholder, every household, via this programme?”

“This scheme proved to be a game-changer in the lives of these tribal villagers.”



Nitin Patil, Deputy Engineer at the Groundwater Survey & Development Agency, Government of Maharashtra.

The Grundfos SQFlex solar pumping station



The solution

Mr. Nitin Patil, Deputy Engineer at the Groundwater Survey & Development Agency in the Government of Maharashtra, says his department was looking at all the challenges in Kaorchi. “We decided the solution should be based on solar,” he says.

They chose a Grundfos groundwater SQFlex pump, which comes in a package with a storage tank and photovoltaic (PV) solar panels. The simple, automated system is plug and play, designed so that human interference is very low. “The pump is reliable, rigid and flexible in the sense of discharge – from 10,000 to 25,000 litres per day.”

“Doorstep water has made life much easier.”

Kaushalya Katange
Head of Navargaon Village



The outcome

“Doorstep water has made life much easier,” says Mrs. Kaushalya Katange. “After our village, many other small villages are requesting to have such a scheme.”

Mr. Nitin Patil says the feedback from the village has been very positive. “They are happy with this scheme. We are transforming together to give water to all villages of rural areas in India.”



Fresh water flows at the doorstep of a household in the village of Navargaon.

“This scheme proved to be a game-changer in the lives of these tribal villagers. Now they get water at their doorstep.”

Nitin Patil, Deputy Engineer at the Groundwater Survey & Development Agency, Government of Maharashtra.

Sources

Facts and information for this story were based on local interviews onsite in the Kaorchi Taluk in October 2022.

Topic

Off-grid solar pumping stations

Location

Gadchiroli, Maharashtra, India

Customer

Maharashtra government

Grundfos supplied:

For the solar pumping station, Grundfos supplied its SQFlex 2.5-2 groundwater pump along with a GL 419 PC controller.

For more information on sustainable, off-grid groundwater pumping solutions, [please see here.](#)

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