GRUNDFOS

PURE WATER

SOLAR OPERATED REVERSE OSMOSIS WATER PLANT

Implemented By

Project Report 2024

Rev 00

BANGLADESH SCENARIO

The Struggle for Access to Pure Drinking Water

Over 13 million people in the coastal regions of Bangladesh are trapped in an escalating crisis of safe drinking water. In particular, the Shyamnagar Upazila in Satkhira district faces an alarming situation. Here, the arsenic and total dissolved solids (TDS) levels in available water sources have reached dangerously high limits.

Women and children suffer most, battling frequent waterborne diseases while walking long distances every day just to collect a few liters of drinkable water. Families struggle to secure even the most basic necessity for survival — safe, clean water. The situation is dire, posing severe risks to public health and the overall well-being of the community.

By harnessing advanced technologies, expert collaboration, and strategic planning, Projects for Humanity (P4H), in partnership with Grundfos — world's largest pump manufacturer strives to make a lasting, tangible difference in the lives of those suffering from water scarcity in Bangladesh. This initiative aimed to directly combat the acute water crisis in Shyamnagar by establishing a Solar-Powered Reverse Osmosis Water Treatment Plant — a project designed to ensure that clean, safe drinking water is no longer a distant dream for the people of this vulnerable coastal region.

Image: Undark

What We Did

We established two Solar Operated Water Treatment Plants at Datina khali and Ghumantoli in Shyamnagar, Satkhira. We are harnessing renewable solar energy to tackle the water crisis in this locality. The plant runs entirely on renewable solar energy, ensuring both environmental sustainability and operational reliability in this remote, disaster-prone region. Running by state-of-the-art Reverse Osmosis (RO) technology, this plant will provide safe and potable drinking water for the local community with no adverse environmental impacts,.

- Clean Drinking Water
- Solar Powered
- Awareness
- Reduced Health Risk
- Employment

BENEFITS

- **12000+** liters of water/day.
- **3000+** individuals will be benefited daily.
- These people will be served over a period of **10 years**, by **43 million+** liters of pure water.

WHY WE DID

The people of coastal Shyamnagar have endured years of hardship, with limited access to clean drinking water. High salinity levels, arsenic contamination, and poor infrastructure made it nearly impossible for families to secure safe water for drinking, cooking, and sanitation.

Many suffered from skin diseases, waterborne infections, and high child malnutrition rates. The existing water crisis severely affected health, education, and livelihoods.
We firmly believe that access to clean water is a basic human right, and with this project — supported by Grundfos' funding, technology, and expertise — we aimed to transform lives by making pure water accessible at their doorsteps.

- **Completely Solar Operated**
- **Sustainable Water Supply**
- **Environment Friendly**
- **Thunder & Surge Protection**
- **Advanced Reverse Osmosis (RO) Technology**

HOW WE DID

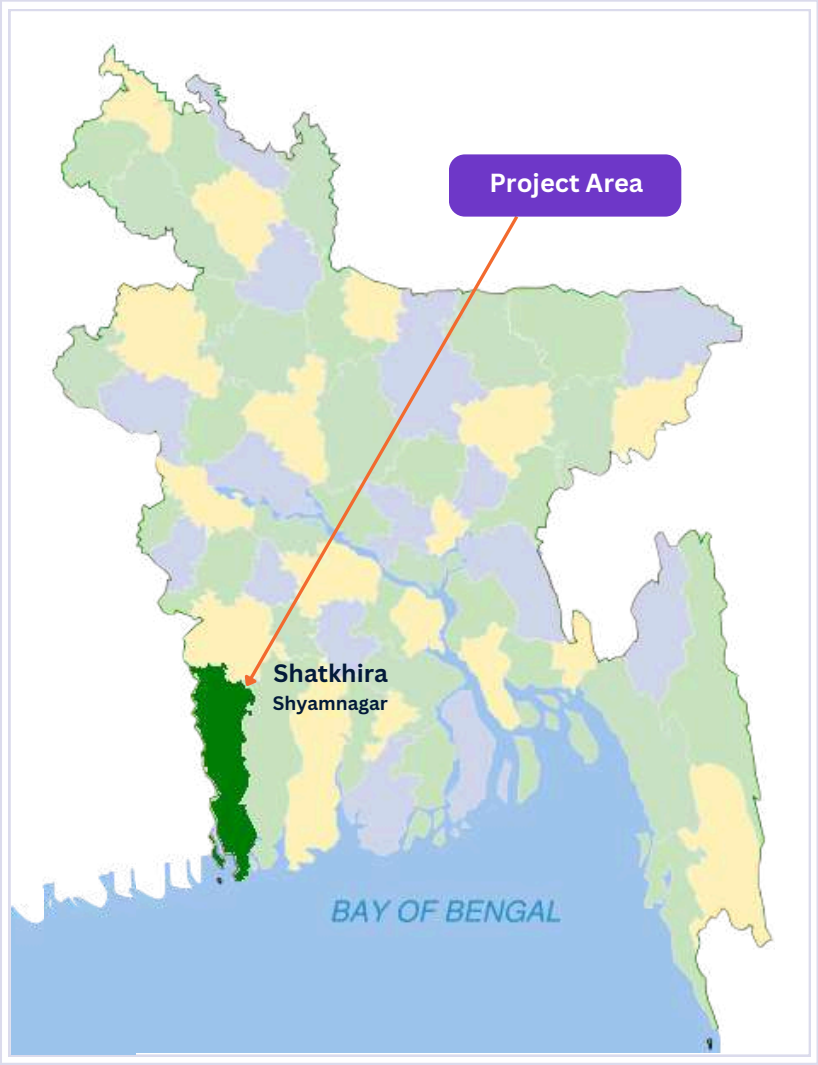
The project is designed in an innovative way. Completely powered by renewable solar energy, the plants offer a sustainable, eco-friendly solution that aligns with the United Nations' Sustainable Development Goals (SDGs). We operate these plants through generous donations and strategic partnerships with corporate and local government organizations.

WHEN WE DID

From June 1, 2024 to February 25, 2025, these life-changing projects moved from vision to reality- bringing safe, pure drinking water to the people of Shyamnagar.

WHERE WE DID

This project was implemented in two of the most water-stressed areas of coastal Bangladesh. We are proud to share that two Solar Operated Reverse Osmosis Water Plants were successfully established at Datina Khali and Ghuman Tali under Shyamnagar Upazila in Satkhira District. These locations were carefully chosen due to their acute drinking water crisis and the severe health risks faced by the local people.



AT A GLANCE
PURE WATER PROJECT

"Wellness in Every Drop: Pure Water, Easy Life." Safe Water is now Just Steps Away!

"Pouring smiles: Elders embrace hassle-free clean water access."

Transforming nature's gift into a lifeline. The evolution of water treatment plant, where every frame tells a tale of progress, purification, and a sustainable future in the making.

IMPACT STORY

Salt Was in My Water—And in My Wounds

My name is Imdadul Haque. I live in Datina Khali, a remote village on the edge of the Sundarbans in Shyamnagar, Satkhira—where every day is a quiet battle with nature.
Our groundwater is harsh—contaminated with salt and pollutants. For six long months, I suffered from painful skin allergies and relentless itching. I visited several doctors and took many tests, hoping for a cure. But nothing worked. Finally, one doctor pointed to the real cause: the water I drank every day was damaging my body from the inside out.

After 4 Months Drinking Pure Water From Our Plant

Around this time, hope arrived. Grundfos in partnership with Projects for Humanity, installed a solar-powered reverse osmosis water plant in our village. None of us could have imagined how much clean water could transform our lives.

I began drinking from the new plant—and slowly, my body began to heal. Within weeks, the rashes faded. Within months, the itching stopped. Today, I am healthy again. But it's not just me. Nearly 300 families in Datina Khali now collect pure, safe drinking water every day. It has restored our health, our dignity, and our peace of mind.

We are deeply grateful to Grundfos and Projects for Humanity. Because of their compassion and innovation, our village is no longer just surviving—we are healing, thriving, and hopeful again.

Imdadul Haque
Pure Water Beneficiary

IMPACT STORY

Marjina Lost Her Unborn Baby to Salty Water—Now Her Village Drinks Life

In the remote village of Nildumur in Shyamnagar, Satkhira, salty water has long been a silent torment. For forty-year-old Marjina Akter, that daily struggle turned into tragedy. Eighteen months ago, she became pregnant—her family filled with hope and joy. But in the eighth month, Marjina lost the baby. She still remembers the lifeless face of her child. "I can't forget it," she says, eyes full of pain. Doctors told her the cause: years of drinking brackish water had led to high salt absorption in her body, endangering her pregnancy. The loss left not just physical pain, but a wound deep in her soul.

Tragically, Marjina's story wasn't unique. Many women in Nildumur have faced similar heartbreaks, turning what seemed like a personal tragedy into a public health crisis rooted in unsafe water. Her only prayer was simple: "If only we had clean water to drink…" That prayer was answered when Grundfos, through Projects for Humanity, brought a transformative solution—a solar-powered reverse osmosis plant that now provides clean, desalinated water to the entire community. "This water feels like boundless mercy,"

Marjina says. Chronic stomach issues and skin problems have started to fade. Families are feeling healthier. Life is beginning to bloom again.
More than just health, clean water has restored dignity, safety, and peace of mind. Marjina prays no mother ever suffers what she did. "I hope no one loses their unborn child like me."
Every day, villagers come to fill their jugs with clean water. With each drop, there's silent gratitude—for life, for healing, and for those who made this possible.

Marjina Begum
Pure Water Beneficiary

THANKS A LOT

GrundfosTeam and all our dedicated partners and volunteers for believing in us, and standing beside the people of Shyamnagar.

> With your support 3000 individuals getting Pure Drinking water Daily.

POUL DUE JENSEN / GRUNDFOS FOUNDATION

4P PROJECTS FOR HUMANITY

GRUNDFOS

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