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SUCCESS STORY

# USAID Helps Farmers Save Water and Energy

**New energy-efficient pumps save energy and increase access to water for farmers in the south Indian state of Karnataka.**

Photo: USAID/WENEXA

*A woman uses an efficient pump to save energy and water.*

Water is a scare resource in many parts of India, and the agriculture sector is one of the major consumers, responsible for 23 percent of power and 90 percent of groundwater use in the country. Farmers like Mr. Najappa, who lives in the south Indian state of Karnataka, use electric pumps to draw water from the ground to irrigate their vineyards and mulberry fields. With an electricity supply that is unreliable and erratic, but usually free or heavily subsidized, farmers generally leave their water pumps running continuously; drawing water not when they need it but when it is available.

Unfortunately, farmers end up consuming more electricity and drawing more water than is necessary. It is a vicious cycle: over-drawing water causes the groundwater to sink deeper, making access even more difficult. Farmers then require energy-intensive but inefficient pumps to reach deep underground, which, in turn, causes water tables to fall even further. With low cost electricity, there is no real incentive to conserve energy.

To address these problems, USAID's Water Energy Nexus Activity launched an innovative public-private partnership with the state utility, the Bangalore Electricity Supply Company (BESCOM) and an Energy Service Company, ENZEN Global solutions. ENZEN provided 300 new energy-efficient pumps that have the potential to save more than 40 percent of current electricity consumption. BESCOM will make payments to ENZEN on the basis of monthly energy savings.

Before distributing the new pumps, the project held a number of widely attended street plays to teach farmers about the importance of energy and water efficiently. Interested farmers received classroom training on efficient water and electricity use, improved cultivation practices, and water-saving techniques, like drip irrigation.

So far, the program has seen energy savings of 23 percent. Additional savings are expected as more farmers join the program and new interventions are introduced. As for those who already have a new pump, Mr. Najappa reflects their enthusiasm: "my life has changed and I can now buy more land with the money I saved."