



Ever since the hand pump was retrofitted, women save time on collecting water

Game changing hand pump retrofits in rural Zambia

NGOs and governments in Africa have recently launched initiatives to retrofit hand pumps with solar-pumping systems. In Zambia, World Vision has retrofitted 80 hand pumps so far, providing clean water access to 20,000 people. According to World Vision, Grundfos solar pumps are a game changer for the retrofitting programme.

Hand pumps can be limiting

There are millions of manually operated hand pumps across Africa, thousands of them in Zambia alone. Due to the limitations of such pumps, for both users and maintenance staff, NGOs and governments have been retrofitting them with solar solutions.

If not maintained properly, hand pumps are prone to breakage and spare parts can be hard to find locally.

Operating them can be physically difficult and they produce only a limited flow of water. This makes pumping water a time-consuming task, and those who do it, mainly women and children, may have to walk long distances to collect water.

“Retrofitting hand pumps with the solar-powered systems is a good solution to us as an organisation, because it has come at the right time and it’s a game changer to what World Vision wants to achieve in the communities where we are operating — to ensure that women are able to access water within the shortest possible time.”

Tiyezye Nyirenda

WASH Project Officer, World Vision Zambia

GRUNDFOS 

Possibility in every drop

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www.grundfos.com/campaign/safewater-content-library



According to World Vision Zambia, the Grundfos pumps are a great solution for rural water. The SQFlex pump is easy to install, maintain and operate and provides high water service levels. Allowing for multiple tap points, it can reduce queuing time, while it has virtually no maintenance needs.



World Vision, who installed over 5,000 hand pumps across rural Zambia, has initiated hand pump retrofitting projects more than three years ago.



In Zambia, the most common hand pump is a mono pump that uses galvanised iron rods, riser pipes and cast-iron cylinders. The corrosion can reduce the lifespan of components.



“It’s a game changer for our beneficiaries in the field. Most communities have not imagined a time they would see water being pumped using solar energy. Also, water being readily available for people to use is something unimaginable in the community.”

Maybin Ngambi

Technical Programme Manager, World Vision Zambia

With a hand pump, women have to physically pump the water. Because of the low water flow rate, this can lead to queuing.

Solar-powered pumps revolutionise water collection

To support World Vision’s WASH (Water, Sanitation and Hygiene) strategy, Grundfos has provided cost-effective SQFlex solar pumps, which are a suitable solution for retrofitting hand pumps.

With the SQFlex, the water is stored in a tank and is readily available for people to draw and take home. The time it takes to collect water is thus reduced to about 30 minutes per round trip.



The multi-tap solar system installation

Grundfos and World Vision are committed to ensuring that the new pumping system continues to operate efficiently into the future. Building local know-how further contributes to the sustainability of the system.

“We engage community members and we provide capacity-building to identify the most appropriate solution for maintenance to result in long-term reliable water delivery.”

Tiyeze Nyirenda

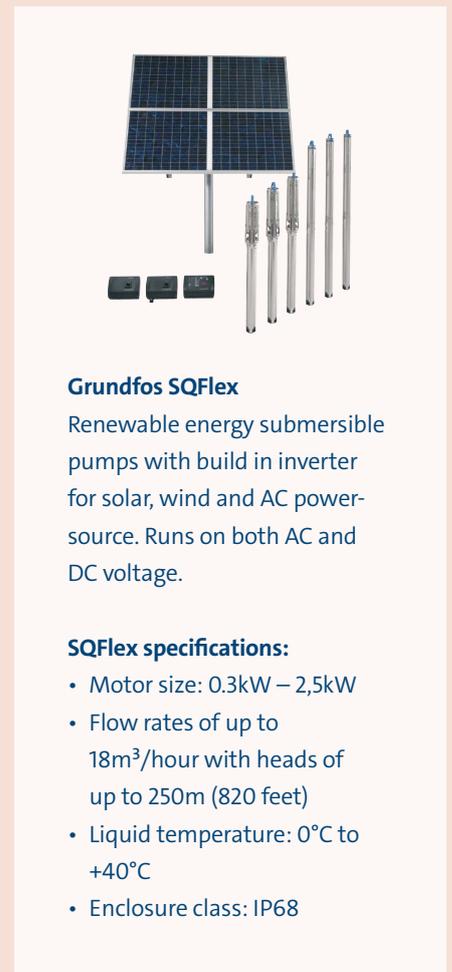
WASH Project Officer, World Vision Zambia

A better life for all

More than 20,000 people have been reached by World Vision’s initiative so far. Now that they have access to clean drinking water, their quality of life is expected to improve. The need to physically pump water has been eliminated and the time required for the task has been reduced.

World Vision’s project of retrofitting hand pumps is ongoing, facilitating access to clean water for more and more communities across Zambia. The projected year of completion is 2030.

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Grundfos SQFlex

Renewable energy submersible pumps with built-in inverter for solar, wind and AC power source. Runs on both AC and DC voltage.

SQFlex specifications:

- Motor size: 0.3kW – 2,5kW
- Flow rates of up to 18m³/hour with heads of up to 250m (820 feet)
- Liquid temperature: 0°C to +40°C
- Enclosure class: IP68