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Building a distribution network for the Sunflower Solar Pump in Kenya

The Sunflower solar-powered irrigation pump offers smallholder farmers an alternative to expensive fossil fuel pumps.
(Photo: Nick Jeffries)

This simple device has the potential to displace millions of fossil fuel irrigation pumps globally.
(Photo: Nick Jeffries)

Background

According to the UN FAO, lack of access to affordable irrigation is the number one factor keeping 400 million farmers in poverty.

The Sunflower Solar Pump is a simple renewable-powered irrigation device with the potential to displace millions of fossil fuel irrigation pumps globally. For farmers who are irrigating manually or not at all, and for small commercial farmers looking for alternatives to expensive fossil fuel pumps, it offers a compelling economic case.

Following REEEP-supported field trials in Ethiopia and extensive supply chain and manufacturing research in Asia, the product is ready for marketing on a wide scale in sub-Saharan Africa.

Kenya has 2.2 million small holders farming less than two hectares, and a further 740,000 small farms of between two and 10 hectares. Burkina Faso already has a successful distribution network built for the Volanta Hand Pump that can be used for this product.

Project purpose

To build a distribution network for the Sunflower Solar Pump in Kenya and to launch a pilot dissemination in Burkina Faso.

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Main activities and outputs

- Establish manufacturing network in India and China, conduct test runs manufacturing runs
- Conduct detailed market studies in Kenya, ask peer groups to review distribution strategies.
- Develop sales and marketing materials, and manuals for assembly, maintenance and troubleshooting
- Test out three key distribution channels: agricultural dealers, engine pump dealers and a schools-based demo programme
- Conduct 25-unit pilot followed by a 75-unit pilot across three districts with twin-track sales support and technical support programmes
- Launch nationally across Kenya with two tiers of distribution, aiming for volume availability by summer 2014 and the commencement of our
- Engage with major international NGOS for extra sales

Expected impacts

- 5,000 pumps sold by 2015, and 30,000 units sold by 2018
- Farmers substituting this pump should achieve an average net benefit of US $ 1,299 annually
- 56,000 tons of CO2 to be displaced over the project duration
- Higher income for smallholder farmers, who can irrigate and sell during the dry season
- Scalable distribution model developed which will open up other sources of finance, and ultimately be self-supporting

Project Information

Location:
Kenya and Burkina Faso

Duration:
2013–2014

Sector:
Renewable Energy

Thematic focus:
Energy and food

Total project budget:
€ 839,980

REEEP grant:
€ 149,980

REEEP donor:
United Kingdom and Norway

Co-funding:
€ 690,000 from AECF and private angel investors

Implementing partner:
Sunflower Pump Ltd.