Feed The Future Symposium, 1st March 2023
INNOVATION LAB FOR SMALL SCALE IRRIGATION

Contributing to agricultural led growth and improved livelihoods through small-scale irrigation

- 1 March 2023, Washington DC, Karin Jeanneret, CEO and Co-Owner, ennos ag Switzerland

ennos ag Switzerland

Spin Off Company

Based on the many years of experience of the Bern University of Applied Sciences in Biel (BFH) with solar drive systems, a highly efficient solar water pump for the needs of small farmers was developed in response to requests from India. ennos ag is a spin off company of BFH.

R&D in Switzerland / Production in India

ennos ag still works closely with the Bern University of Applied Sciences under a cooperation agreement. The production of the sunlight pump models is made in India by Jain Irrigation Systems Ltd..

Since 2016, the sunlight pumps have been distributed in Africa, Asia and Latin America by local dealers

Technology and license agreement with producer in India
ennos in the dual role of developer and seller

ennos R&D in Switzerland

Intellectual Property belongs to ennos.

Production in India by Jain Irrigation Systems.

ennos acts as a distributor according to a B2B model and can offer all of Jain's products to its own customers.

Sales to distributors with experience in solar and pump installations in Africa, Asia and Latin America.

Relationship ennos - local distributors

What we expect from the dealer

- 100% deposit with order
- Experience of solar water pump installation
- Before and after sales support
- Purchase of spare parts

What the dealer expects from us

- Stock
- Good quality
- Efficient processing
- Support for technical issues
- Warranty services

Stimulating factors for purchasing Solar Water Pumps

Increased productivity

Money savings

Water savings

Reliability

Repairability

Sustainable and environmentally friendly

Hindering factors

The initial investment is higher than the purchase of a conventional diesel pump. Financing models such as PAYG solutions are in demand.

Awareness of and access to modern technologies and their advantages.

New/unknown brand

How to bring a new technology and brand to end-users?

We notice 3 different approaches

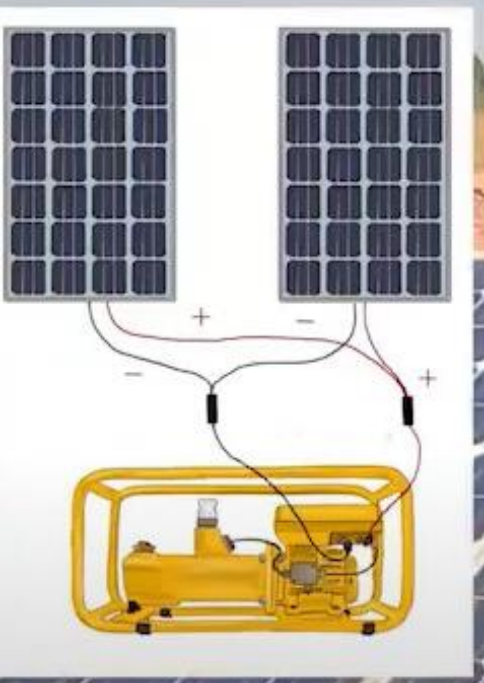
Local dealers with own initiatives and financial risks – direct sales and PAYG model

Local dealers working with NGO projects

Subsidies through government programs for solar pumps for smallholders as a trigger to scale up

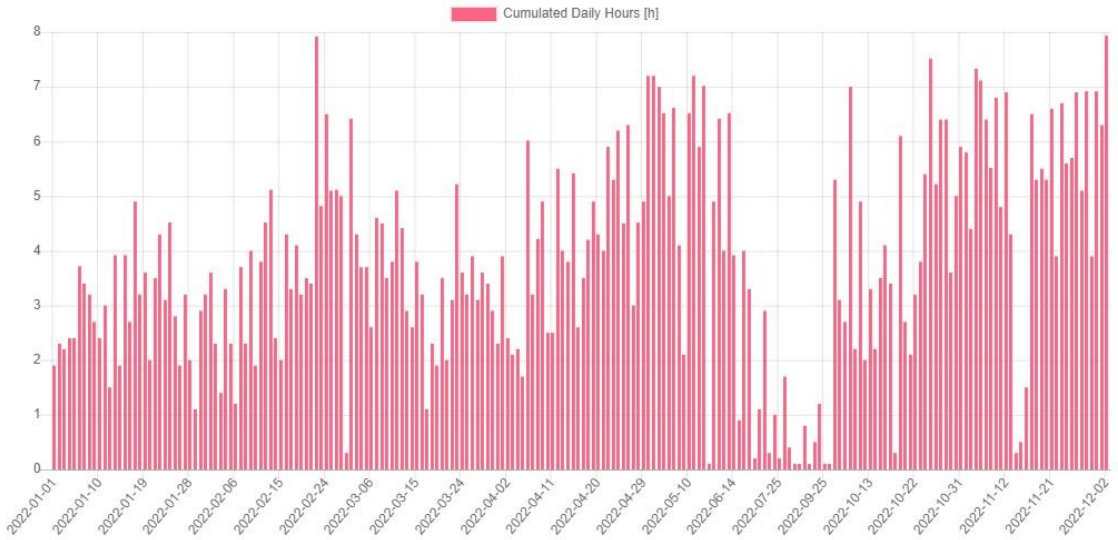
- Marketing campaign pre-funded by ILSSI for our dealer EcoTech in Mali
- No asset-based funding

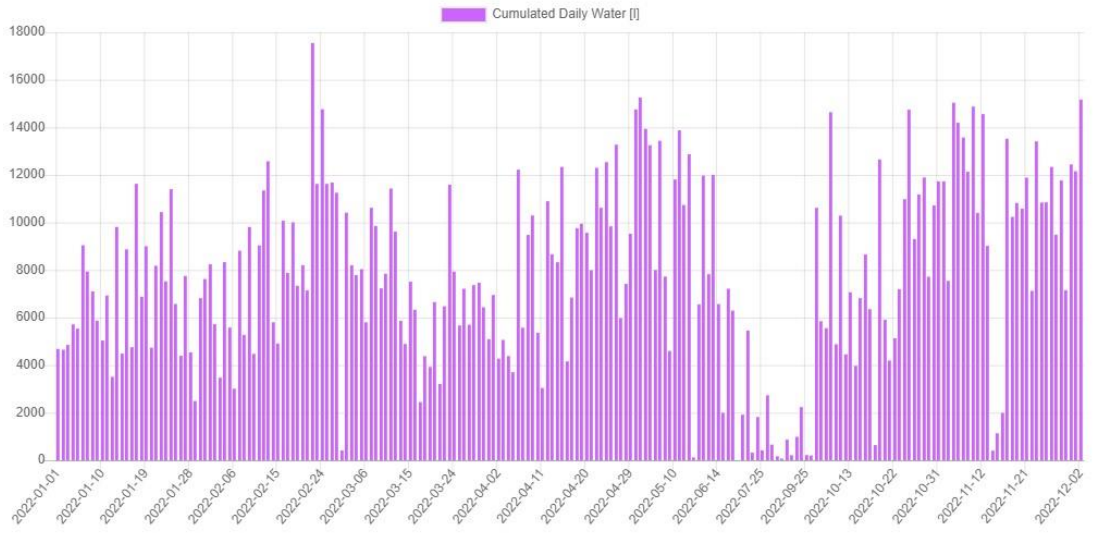
- EcoTech pushes PAYG solution for controlled payments and for remote maintenance



Example Mali: Annual use of a sunlight pump in 2022

A sunlight pump installed by EcoTech Mali, Région de Sikasso, Koutiala





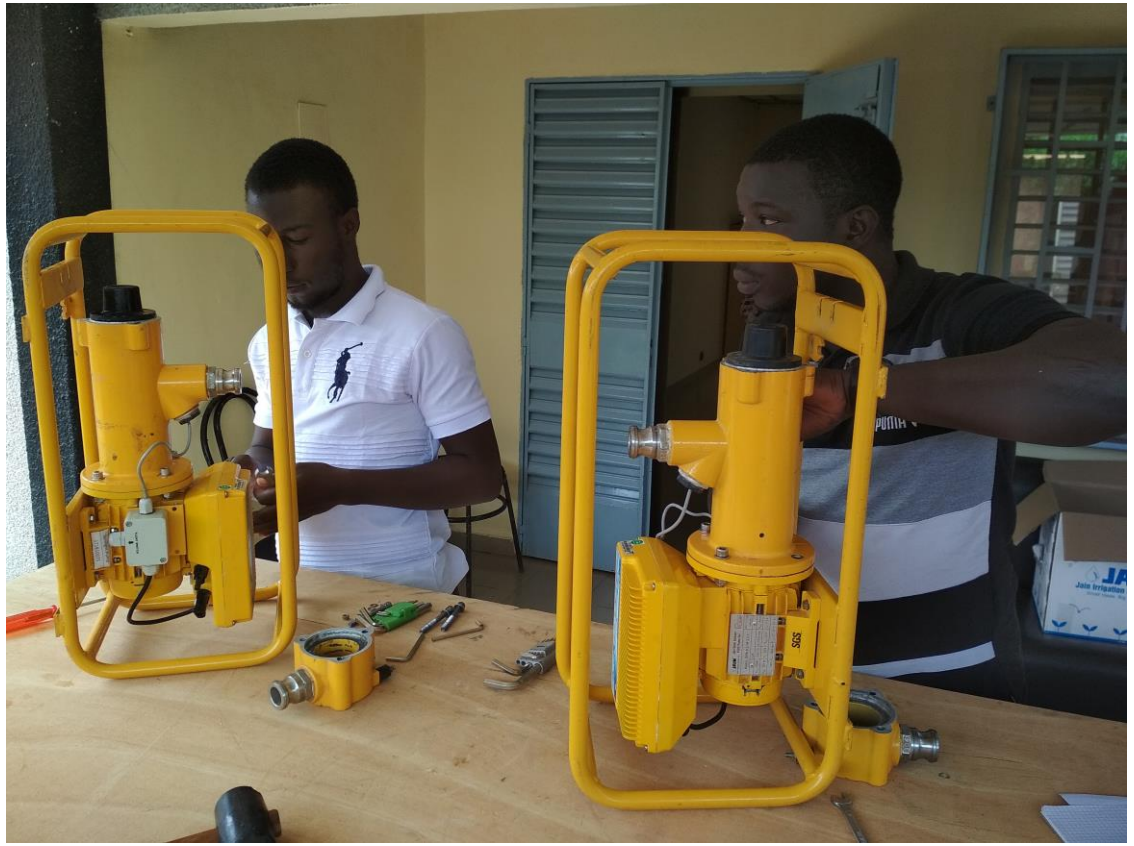
The data can be used for technical support, but also for marketing purposes. In this case, the pump could even be shared with a neighbor, since it is only used at half capacity.

Example Mali: annual economic and environmental savings

Calculation	Data from pump 240Wp PV module	Optimized use 400Wp PV module
Water produced	210 days /161'061 l/y; 7'719 l/d ; 794h/y; 3.5h/d	330 days/ 6'600'000l/y; 20'000l/d 2'310h/y; 7h/d
CO_2 saved	334 Kg	765kg
Diesel saved	121 litres	277l
Savings for diesel and maintenance	210 USD	450 USD

Part of the success story: support, repairability and training

Designed for small-holder farmers, with low maintenance and ease of repair in mind



Raising awareness through on-site and online courses for solar pump systems.

Lessons learned:

Quality of product and technical support are important for rural areas

Local partners for sustainable after sales support to be involved

Appropriate training on the latest technology to be provided

Advantageous for local dealers: pre-financing of goods at fair conditions (payback)

Non-repayable fund for marketing/service development

ennos
INNOVATIVE SWISS TECHNOLOGY

karin.jeanneret@ennos.ch | CEO ennos ag