



# Growing market for the sunlight pump, a highly efficient surface solar water pump

## ennos Switzerland

ennos is a spin-off company of University of Applied Sciences in Biel (Switzerland)

The sunlight pump, a surface solar water pump, was designed by ennos specifically for smallholder farmers needs

We are in the market since 2016

We have partners in > 20 countries

4000+ sunlight pumps sold



ennos ag | a sustainable solution to cover the water needs of farmers and communities

# From the lab to the fields

In Switzerland, development of the sunlight pump models (surface solar water pumps). Manufactured by Jain Irrigation Systems in India. Intellectual property belongs to ennos.

Requirements from the field: portable, robust, low maintenance, repairable, wide range.



# Climate change pushes the path to smart farming



Flooding as irrigation methods are outdated, wasting water and money. Farmers are becoming aware of the benefits of drip systems.

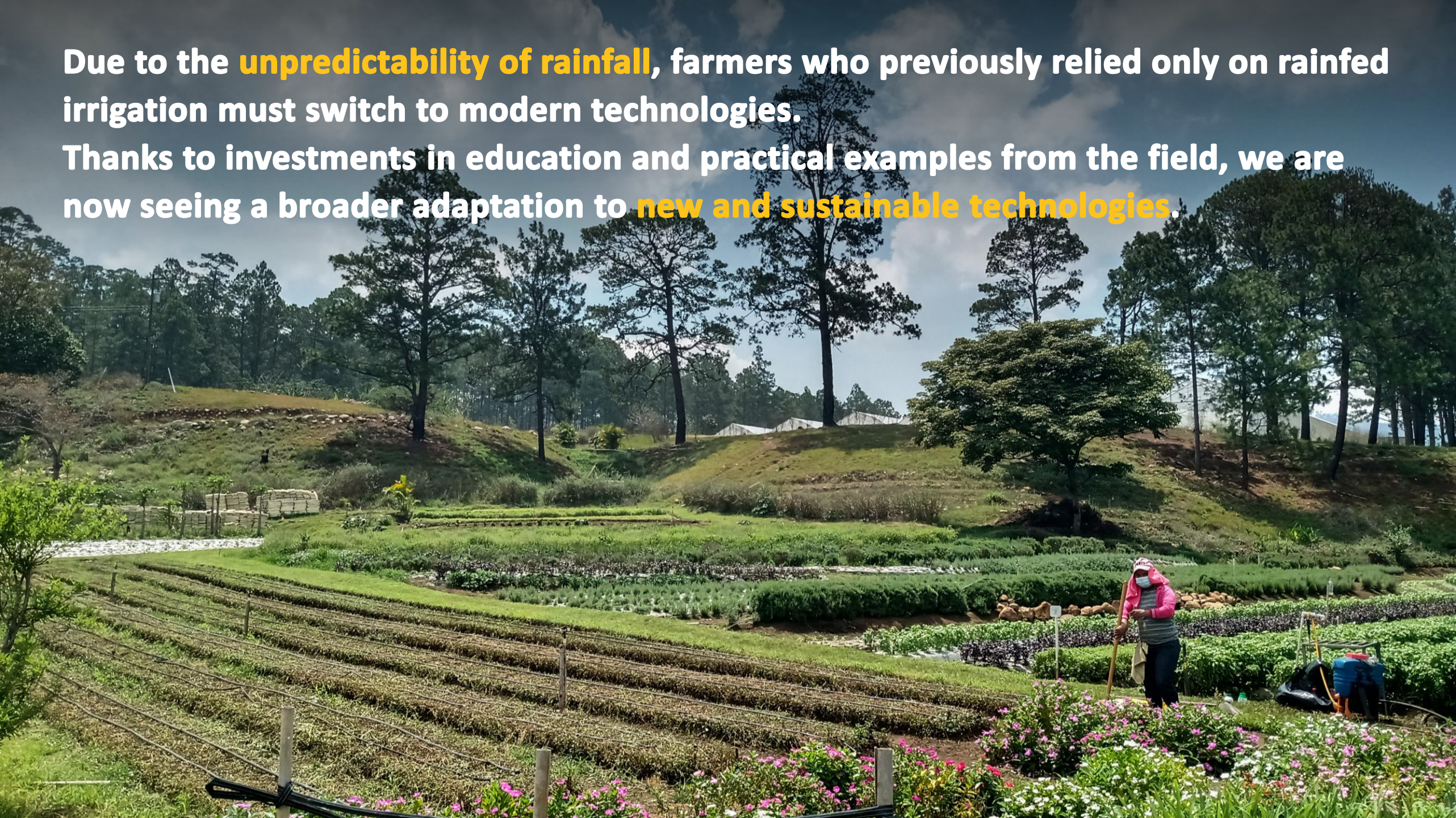
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Diesel pumps are being replaced by solar pumps.

Due to the **unpredictability of rainfall**, farmers who previously relied only on rainfed irrigation must switch to modern technologies.

Thanks to investments in education and practical examples from the field, we are now seeing a broader adaptation to **new and sustainable technologies**.



After the initial investment, there are **zero** operational costs and only very low maintenance for the use of the **sunlight pump**.

Cost savings compared to conventional pumps for the use of gasoline, electricity of **≈ 200 \$ per crop season** - for 4 seasons per year (tomatoes, onions) you can save up to \$ 800 per year.

Break-even can be reached within **≈ 1 year**



# Smart innovation from Aptech Africa, Uganda

## PAY-N-PUMP

PA-N-PUMP offers pay-as-you-go water services to small-scale farmers which can be activated through mobile money whenever it is needed.

The system is delivered and installed at no cost to the farmer and full maintenance is provided.

## Increased income

With this system, you can increase your income by up to 200%, which has a positive impact on your daily life, e.g. for payments such as school fees and medical expenses.

The system created technical jobs as well as agricultural support jobs (weeding, harvesting).



Source: Aptech Africa

**Farmers benefit from the extra agriculture support which helps them to know which crops to grow, when to irrigate, and how much to irrigate**

# Smart collaboration: Epicenter Africa and iFarm360, Kenya

## Solar Irrigation Financing Kenya



iFarm360 supports farmers from seed to sale with a loan program with appropriate payback options depending on the harvest model.



Epicenter Africa is offering the technology with technical support for installation and maintenance.



# Combine yield increase with environmental improvement



Eco Tech Mali reports:  
Farmer increased their income by 60% after receiving agri-cultural advice and appropriate equipment.



EUCORD Rwanda reports: a 62.5% yield increase from 4 to 6.5 ton/ha of maize production and preventing drought stress by using the sunlight pump.



Pyflor Honduras uses since 2017 instead of Diesel pumps the sunlight pump to circulate water with fertilizer in hydroponic irrigation systems and saves more than 1000\$ per year on operation costs.



Mrs Gathoni Mwenja on her farm in Nairobi using the sunlight pump since 2020 for her 30 dairy cattle and additionally for drip irrigation of her vegetable plot.

# 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.



