



# Member Initiated Taskforces and Projects Final Report

## the sunlight pump – the solar water pump for smallholders

### Lead

The sunlight pump project is implemented by ennos ag which consists of a team of established experts in the field of technical research, vocational training and marketing to the BOP. Karin Jeanneret is BPW Member and CEO of ennos ag.

### Short overview

The company ennos ag develops and distributes the sunlight pump, a portable solar water pump for irrigation and domestic water supply in developing countries. The technology combines income, productivity and labor-saving benefits and will be made accessible in several countries through the establishment of a supply chain and payment options.

For more information, please read the attached report and visit our website [www.ennos.ch](http://www.ennos.ch)

### Short description of the goal of the project

**The problem:** 2,7 billion people live on less than 2 US\$ income per day. There are around 510 million farmers worldwide. The majority of them are smallholders cultivating less than 1 hectare of land.

**The situation of smallholder farmers:** most smallholders still rely on traditional low productive agricultural practices and on rainfall. They don't have access to modern irrigation technologies due to a lack of knowledge and financial means. So, there is a high risk of crop failure. Many of them continue to irrigate small plots by hand – a physical burden that often falls on women and children. The farmers need to increase their income to come out of poverty. This must be done by high value and off-season cash crop production. Irrigation is essential to cultivate additional crops outside of rainy season.

**The solution:** a solar water pump which covers the water needs of farmers and communities. The advantage of a solar water pump is that there are no operation and almost no maintenance costs. And the solar panel which is needed to run the pump can additionally be used to charge batteries to get light in the evening.

For further technical specifications and applications, visit our website.

Within the next five years, ennos wants to scale-up the production and marketing capacity. The vision of ennos is to supply a high-quality product and make it accessible and affordable for BOP clients. Beyond that, ennos wants to offer extensive support and after sales services to the customers to guarantee a productive use of the technology for many years. To reach this goal, BPW International can be a very important player, in the sense to connect the company with potential partners in different African countries.



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### Continent / country / region

In following region/countries, the sunlight pump has already been tested:

Asia: India, Bangladesh

Africa: Kenya, Burkina Faso, Uganda

Latin America: Honduras, Nicaragua, El Salvador

### Current status of project

With Jain Irrigation Systems Ltd. in Jalgaon, India, ennos has found a reliable partner for manufacturing the sunlight pump and for the distribution in India. End of April 2017 the first batch of pumps will be ready to dispatch. In Kenya, Uganda, Burkina Faso, Nicaragua and Honduras ennos is about to build up a distribution chain. The training to technicians to guarantee further services to the end-consumer has already been done in Honduras and Nicaragua. During 2<sup>nd</sup> half of March 2017, the same will be done in Kenya, Uganda and in Burkina Faso.

### Goals for the next period

It is very important for ennos to have in each target country reliable partners for distribution and regarding financial mechanism. The network of BPW International could assist ennos to evaluate such reliable partners. Especially regarding financial mechanism as micro-credits, pay-as-you-go ennos is still looking for good partners.

### A few words about our company

The Swiss-based company ennos ag is a spin-off of Berne University of Applied Sciences in Biel/Bienne. The purpose of ennos is to further develop the sunlight pump and new innovations in the same product family, to produce those renewable technologies and make them accessible to BOP clients in developing countries through the establishment of a last mile distribution.

Merzligen, 27<sup>th</sup> of February 2017

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