

Technological innovation to facilitate access to energy for the poorest in rural areas

CAMBODIA



16.9 millions
inhabitants¹

37%
of the population is poor²

144th/189
on the HDI²

30%
of rural households has no access
to the national electricity grid²

1- United Nations Official Population Projection for Cambodia 2021

2- hdr.undp.org/en/countries/profiles

MILLENNIUM GOALS



FOR WHOM ?



A vital need for electricity for life and income generating activities

Cambodian households not connected to the electricity grid use kerosene lamps or old car batteries. These are very expensive to use, they cause fires, emit noxious fumes. And they don't provide the work and study conditions required to lift people out of poverty.

Additionally, to irrigate their crops, small farmers use highly polluting gasoline and diesel pumps, which are very constraining and expensive. Smallholder farmers typically have 1 hectare or less and pay around 35\$/month of gasoline to power an old thermic water pump.

WHAT ?



Top quality solar equipment, at last mile

In 2015, Entrepreneurs du Monde created the social business Pteah Baitong to provide the most vulnerable families in rural areas with good quality solar lighting kits. Since 2018, Pteah Baitong also has also installed solar micro-grids which produce enough green, affordable and reliable electricity for equipment needed for income generating activities.

But now, the government shows determination to electrify every village.

So, since 2022 Pteah Baitong can focus on farmers needs for irrigation : they provide them with Solar Powered Irrigation Systems (SPIS) to ease irrigation of small lands up to 1 hectare.



HOW?

A smart distribution to meet real needs

The team still maintain the micro-grids but now, mostly develop access to solar pumps and incubators all over the country, through their 6 social salesmen, partners organizations such as People in Need and also through digital marketing via Facebook.

Pteah Baitong organizes weekly awareness campaigns in remote villages, with demonstrations and tests. The solar water pumps are sold to smallholder farmers with payment facilities thanks to a pay-as-you-go system. Each farmer receives a specific training on how to handle the equipment.

WITH WHOM?

Structuring and consolidating

Entrepreneurs du Monde supports Pteah Baitong in its structuring and development on legal, operational and financial aspects. Eventually, Pteah Baitong will be a viable and sustainable local social enterprise, supported by a 100% Cambodian team.

As for now, the team counts 14 persons and aims to reach 67% self sufficiency by end of 2022.

HIGHLIGHTS 2021



A NEW MANAGING DIRECTOR

The arriving of Michael Papi, strongly experimented in solar pumps and social enterprises, is a new chance of development for Pteah Baitong who aims at reaching an ambitious social impact on small farmers (yield and revenue growth) and food security (production increase).

SOLAR EGGS INCUBATORS DISTRIBUTION

The team exceeded its sales target of 250 total solar egg incubators through the S-RET project. The project is now finished but equipped farmers will keep on growing their chicks production safely, with the precious help of their eggs incubators.



QUICKLY DEVELOPING SOLAR PUMPS INSTALLATION

Pteah Baitong is already now the 1st and only authorized distributor of Futurepump Ltd, a specialized manufacturer of SPIS, which designs and manufactures pumps in India for small farmers less than 1 hectare. This is a major milestone for Pteah Baitong, which now has an exclusive, factory-direct, solar product for distribution, thanks to a strong partnership with Futurepump, a social business with a similar social mission to Pteah Baitong.



IMPACTS



Leng Chorn, farmer

Solar pump makes our work easier and increases our yields



We are isolated here and life is hard. We work hard to feed our four children and give them the chance to finish secondary school. We grow fruit and vegetables. It takes a lot of time and energy to prepare the soil and water it. Fortunately, this year something has changed : thanks to Pteah Baitong, we were able to get a solar pump that draws water from my pond. I save a lot of time – which I can use to increase my production – and money because I no longer have to go and get petrol for a diesel pump that polluted a lot. We are really happy and relieved!



	2020	2021	2022 objectives
Equipment sold	789	843	350
New families equipped	688	786	350
New indirect beneficiaries	2,351	3,144	1,400
Savings made by the families	K€15	K€15	K€88
Employees in 31/12	14	11	11
Turnover	K€65	K€85	K€150
Operational self sufficiency	27%	10%	67%

 **786**
FAMILIES EQUIPPED

 **843**
EQUIPMENTS SOLD

OUTLOOK 2022

STRONG AND SERVICE FOR HUGE DEMAND



The future outlook for solar powered irrigation systems in Cambodia is strong and Pteah Baitong is unique positioned in the market in that it i:

- one of the only last-mile distributors of solar products in Cambodia
- exclusively focused on the 41% of total farms that are under 1 hectare in size.
- the only company willing to provide financing directly to the farmer.
- the only distributor providing a full 10-year warranty.

SALES GROWTH



By focusing on a single product (Futurepump SF2), Pteah Baitong's team has increased its competence and efficiency. It is also able to order in container-sized orders, lowering the cost of goods sold.

These 2 memorable steps will bring the sales up to 350 pumps in 2022 and 500 per year from 2023.

PARTNERS



CONTACTS



Pteah Baitong Manager

Michael Papi

michael.papi@entrepreneursdumonde.org



Head of Enregy Unit for Entrepreneurs du Monde / Asia and Haïti

Alexandre BORME

alexandre.borme@entrepreneursdumonde.org