



Technological innovation
to facilitate access
to energy for the poorest

CAMBODIA

- 16 millions of inhabitants
- 146th country out of 189 at the HDI*
- 35 % of the population is poor according to the multidimensional poverty index (MPI)
- 36% of the rural population has access to electricity

*Human Development Index
Source : <http://hdr.undp.org/en/countries/profiles>



SDG GOALS*



*Sustainable Development Goals

BACKGROUND



A vital need for electricity

In rural areas, 64% of Cambodian households are not connected to the electricity grid and use kerosene lamps or old car batteries. They are inexpensive to buy but are very expensive to use, are a source of fire and emit noxious fumes. They are far from providing the necessary conditions to work and study to lift people out of poverty. Solar micro-grids can be an excellent alternative as they provide uninterrupted access to sustainable, safe and economical electricity!

MISSION



Quality solar equipment

Entrepreneurs du Monde created the social enterprise Pteah Baitong in 2015 to provide quality solar lighting kits to the most vulnerable families in rural areas. Since 2018, in some villages, Pteah Baitong has also been setting up solar micro-grids that provide cheap and reliable energy with enough power to develop income-generating activities. The team also distributes equipment for productive use (e.g. egg or cricket incubator, rice cooker, refrigerator).

METHODOLOGY



A local distribution network

In two of the rural areas most affected by energy poverty (Kampong Speu and Svay Rieng), Pteah Baitong has recruited and trained vendor-installers of solar and micro-grid kits. They rely on the comprehensive approach that Pteah Baitong created and adapted to the challenges of isolated rural areas: brand, communication tools, sales events, high-quality installation and maintenance. These vendors are proud to bring equipment with a strong social impact to their community!

SUPPORT



Structuring and consolidating

Entrepreneurs du Monde supports the structuring and development of Pteah Baitong on all levels: legal, operational and financial. Eventually, Pteah Baitong will be a viable and sustainable local social enterprise, supported by a 100% Cambodian team. While they are still looking for the best economic model to adopt, the prospects offered by the development of solar micro-grids coupled with productive uses of energy are a source of hope!



ANG KHUTHEA
Our mini solar array is changing our lives!

I had to stop going to school at the end of primary school, to my great disappointment and that of my teacher; I was his best pupil.

But today I am proud: my business is doing very well!

Before, I was using a small individual solar kit that generated little electricity and I had to change its battery every year.

Pteah Baitong connected us to a mini solar grid and it's changing our lives!

First, on a personal level because our living conditions have improved and we feel safe.

And also on a professional level because it powers a television and a refrigerator!

This attracts customers and they buy my iced drinks! With this refrigerator alone, I make a profit of \$125 a month!



100%

OF THE BENEFICIARIES
LIVE IN RURAL AREAS

FOCUS

PRODUCTIVE USES OF ENERGY

Impact of the availability of energy in abundance.

Families connected to solar micro-grids have access to electricity at all times. Thanks to a nominal output of 1.2 kw, they can now power all their everyday equipment and even several pieces of equipment used for production.



This is a major advance compared to previous uses (lighting, sometimes television) allowed by a limited supply of energy, drawn from a connection to an old car battery. The first tests were carried out by families with a rice cooker and a refrigerator. In both cases, they demonstrate an improvement in their living conditions: women spend less time cooking and the food is well preserved, which reduces costs and health risks.



Deployment and fast tracking in 2020

Pteah Baitong will therefore offer energy-saving electrical appliances that increase the efficiency of household economic activities: a large-capacity refrigerator for beverage vendors, a water pump to irrigate fields, and egg and cricket incubators! The programme will provide training in the use of this equipment and will monitor its impact on the economic activities of the beneficiary families.



KEY FIGURES

	No of products sold	No of families equipped	No of new indirect beneficiaries	Turnover (€)	Nb of employees as of 31/12	Savings made by the families (€)
2018	660	528	2,649	33,000	10	71,305
2019	544	435	2,073	63,767	12	49,350
Objectives 2020	1,000	800	4,000	125,000	22	n.c

HIGHLIGHTS



Development of solar micro-grids

After the successful pilot project in Kbal Damrei, Pteah Baitong has extended its solar micro-grids to two remote villages. A total of 140 families are equipped today and in the satisfaction survey conducted a few months after the installation of the mini-grid, 87% of them report an improvement in their living conditions and their safety.



Innovative and very social partnership

The team has launched a partnership with the NGO "Toutes À l'École", which offers a high level of schooling and comprehensive care to the poorest girls. The families of these students live in hard conditions and without electricity. Vendors-installers have been recruited within these families and trained to install more than 100 solar kits in their village! These modern kits replace kerosene lamps and candles, provide a phone charging outlet, and generate savings of 6\$ per month, which represents up to 2 days of work for some of them!

OUTLOOK



6 new villages powered

While the extension of the solar micro-grids in 2019 has been limited by the supplier's delay in delivering the final version of the technology, Pteah Baitong will be able to extend its micro-grids to 6 new villages by March 2020 and thus power 240 new homes.



Electricity for the agricultural sector

After launching the sale of solar egg incubators, in partnership with the Department of Agriculture and specialized NGOs, Pteah Baitong will continue its efforts in 2020 to develop economic initiatives in villages powered by micro-grids. The team will market solar pumps, cricket incubators and solar refrigerators.

PARTNERS



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ON THE WEB

> www.entrepreneursdumonde.org
> PTEAH BAITONG
> Testimonies

MORE DATA