



Technological innovation to give to the poorest access to energy

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 environments, 64% of the Cambodian households are not connected to the electrical network and resort to rudimentary equipment: kerosene lamps, old car batteries... Although their purchasing price is low, their cost of use is high. They are also a source of fire and emit toxic fumes. They are therefore far from fulfilling the required work and study conditions to get out of poverty.

MISSION



Good quality solar energy equipment

In 2015, Entrepreneurs du Monde has therefore created Pteah Baitong, a good quality solar energy equipment distribution network, for lightning and phone charging. The capacity of these innovative devices caters the specific needs of the families and maximise energy efficiency. They last three times longer than rudimentary systems.

METHODOLOGY



A local distribution network

These equipments are distributed by employed salespersons coming from the rural areas that are the most affected by energy precarity. They are recruited, trained and supported to bring high-impact products to their community using a complete marketing strategy created by Pteah Baitong : well-known brand, communication tools sales events.

SUPPORT



Network structuration and consolidation

Entrepreneurs du Monde supports Pteah Baitong's structuration and development on all fronts : legal, operational and financial. The French programme manager is mentored by Asia and Caribbean Energy Programme Manager and by the Financing and Social performance teams. Eventually, Pteah Baitong will become a viable and perennial social enterprise under local law, led by a 100% Cambodian team. However, the best business model to adopt is yet to be determined.

SREY PHOUN

Light carrier !



I sell Pteah Baitong lamps. I have been properly trained and I love this job because I earn a living while helping fellow villagers: I bring them out of the dark! My customers discovered the devices thanks to the awareness sessions organized by the Pteah Baitong team and by me directly. They truly appreciate the products because they are good quality and allow them to recharge their phones. Plus Pteah Baitong provides good customer service! I intend to sell an increasing amount of lamps and to grow my business.



100%
OF THE BENEFICIARIES
LIVE IN RURAL AREAS

FOCUS

PRODUCTIVE USE OF ENERGY



The families connected to the solar micro-networks can access electricity at all times. Thanks to a rated output of 1,2 Kw, they can also plug most of their daily devices and some of production equipment. This is a progress compared to their previous use of electricity (light, sometimes television) powered by the connection to an old car battery. Initial tests have

been run in voluntary households with a rice cooker and a fridge. In both cases, the families reported an improvement of their living conditions: the women spend less time cooking and the food are well preserved, which reduces the costs and the health hazards.

From 2019, Pteah Baitong therefore wishes to start selling electrical appliances which increase the efficiency of the households' economic activities: bigger fridges for beverage vendors, water pumps to irrigate the fields, rice hullers or even cricket incubators. The programme will offer a training on how to use these appliances and will ensure the monitoring of their impact on economical activities of the beneficiaries.

The costs of electricity consumption will be widely compensated by the productivity gains from using these technologies. Pteah Baitong's revenues will also increase accordingly.



KEY FIGURES

	No of products sold	No of familles équipées	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
Objectives 2019	681	544	2,720	79,000	15	63,569

HIGHLIGHTS



Ensuring the Good Solar Initiative project's sustainability

In October 2018, the 3-year project aiming at creating a network of producers, assemblers, distributors and technicians for the solar industry, launched by the European Union and the French Development Agency, came to an end. Pteah Baitong is one of the 10 organisations approved by the programme: the team assembles, distributes, and installs the products. In the course of the 3 years, Pteah Baitong has equipped 1 796 houses – 469 last year only. It will keep this role within the now sustainable network.



Solar micro-network in Kbal Damrei

Pteah Baitong has installed a solar micro-network in the village of Kbal Damrei, in the Kampong Speu province. This autonomous network connects 59 houses, thanks to the Okra technology which distributes the energy between the houses.

Pteah Baitong owns the equipment and invoices the households monthly, according to their electricity consumption, to cover the management and maintenance costs and to replace the equipment in due course.

OUTLOOK



4 new electrified villages

The trial in Kbal Damrei was conclusive: the households are impressed by the service which offers uninterrupted electricity for a lower price than the cost battery charging and kerosene purchasing. Pteah Baitong will therefore install a mini-network in 4 other villages in the regions of Svay Rieng and Prey Veng. In each village, 50 houses will be equipped should the necessary subsidies be found to finance the purchase of the initial supplies.



Electricity for the poultry industry

In partnership with the Ministry of Agriculture and specialised NGOs, Pteah Baitong sells solar incubators to chick and chicken farmers in areas remote from the electrical grid. In rural areas, the poultry industry is weak, disorganised and unprofitable. By disseminating this technology, the volumes increase and the production cost lowers, which in turn gives to the farmers the opportunity to increase their profit and gives to the customers access to high protein food.

PARTNERS



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MORE DATA