

## Jhai Foundation and IPSTAR Link Hmong Village to the World

Nestled in a tranquil landscape and only reachable by a 3-hour boat ride, the isolated Hmong village in Phonsavan, Laos has no access to electricity or to any telecommunication infrastructure.

### The Situation

The absence of basic communication services, such as phone lines and broadband Internet, has left this remote place with no portal to the outside world and has kept the area locked in isolation. But not until recently when a non-profit organization, the Jhai Foundation, has connected the community to IPSTAR broadband satellite.

### Universal Service Obligation (USO) via IPSTAR

Through IPSTAR, the Jhai Foundation is able to provide the villagers with up-to-date weather reports, recent prices on agricultural crops and contact with their relatives living abroad. The community also makes use of the technology for online health consultations with doctors working in Vientiane – eliminating the need for ill, disabled and less fortunate villagers to travel in nearby cities for medical checkup.

In rural areas – like Phonsavan – where terrestrial infrastructure falls short, the Jhai Foundation is facing the added challenge of having no power line in place. Any Internet network requires electrical power to operate, calling for a reliable power source to avoid service interruptions. The IPSTAR solution employs a small-sized antenna and a low-power consuming user terminal – making it possible for the system to run by using solar panels, or even a generator powered by pedaling a stationary bicycle.

### Bicycles now Pedaling Power Generators for IPSTAR

Using bicycle generators or solar panels as alternative power source provide significant operating cost savings for Jhai Foundation in sustaining the project. In addition, generating electricity from these eco-friendly technologies reduces pollution and greenhouse gas emission, while delivering IPSTAR broadband Internet to any isolated area with no existing power line.

During the early stage of the project, Vorasone Dengkayaphichith, the IT specialist who manages the network, said, "The Hmong village in Phonsavan is an off-the-grid area. This job is one of the hardest IPSTAR installations because the place has no electricity, yet we made IPSTAR run from batteries".

With the successful implementation of the Hmong village project, the Jhai Foundation is now planning to implement similar networks in about 22,000 villages in India, Vietnam and other parts of Asia-Pacific.



### About Jhai Foundation

The Jhai Foundation is a non-profit organization working mainly in Laos. Since 1998, the Jhai Foundation has helped Laotians to build schools, to secure medical supplies, and to establish coffee farms and other businesses. The organization had also developed the Jhai PC, a low-energy consuming computer that can be powered by a car battery, generator or solar panels.

### About Phonsavan

Surrounded by highland hills, Phonsavan is a remote town in Laos famous for the archeological site, the Plain of Jars. The isolated town has undeveloped roads and transportation system, and has limited access to electricity and telecommunication infrastructure. Phonsavan has a population mostly made up of the ethnic group called Hmong.