

Bangkok, 2-3 November 2009



By Andy Schroeter, Director, Sunlabob Renewable Energy Ltd

What is Sunlabob?



Private Energy Provider for on- /off-grid areas

- Renting out SHS for fixed monthly tariffs
- Selling KWh in villages with Village Hybrid Grids
- Selling light per hour with portable battery lamps
- Selling drinking water, purified by solar power
- Conducting energy efficiency audit



Solar Home System (SHS) Rental Scheme



**“Make electricity affordable for remote villages
through rental systems**

for individual and community use”

AC Village Hybrid Grids (VHG) for Productive Use



“We must go beyond improving living conditions with electricity towards increasing income with electricity”

Solar Water Purification



“Providing drinking water in remote off-grid areas to improve local health condition on a cost-covering basis”

Energy Efficiency



“Helping other organisations to reduce energy consumption to combat global warming”

Solar Lanterns



“Recharging Fees for Lanterns can buy Hours of Solar Light – and replace kerosene”

Staff: Capacity Building



Raising the skills base of the local workforce

- Laos: underdeveloped education system = lack of skills
 - *School completion rates:*
 - *Primary education: 15.5%*
 - *Lower secondary education: 6.1%*
 - *Higher secondary education: 5.1%*
- Company training necessary:
 - Internal
 - External
- Skills transfer from international interns

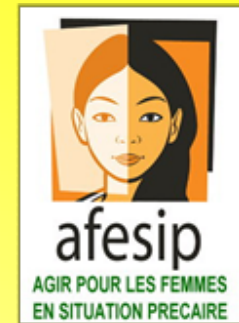


Staff: Cooperation with AFESIP Laos



Recruitment for rehabilitation

- 3 staff recruited via AFESIP Laos
- AFESIP (Agir pour les Femmes en Situation Précaire – Acting for Women in Distressing Situations):
 - French NGO
 - Combating the causes and consequences of trafficking and sexual exploitation of women and girls
- Working with Sunlabob has enabled these women to rehabilitate within a normal working environment



Developing the RE sector: Energy Audit Dept



Energy Efficiency

- 1st company in Laos to get a government licence to conduct energy audits
- working to create a national standard for energy efficiency
- several medium to large audits conducted or in progress
 - Lao-German Cooperation (35 staff)
 - International Union for the Conservation of Nature office (20 staff)
 - Vientiane College (50 staff)
 - Swiss Agency for Development and Cooperation (15 staff)
 - Beer Lap Company (700 staff)



Developing the RE sector: LIRE



Lao Institute for Renewable Energy

- created in 2006
- R&D organisation
- developing renewable energy solutions as long-term alternatives to conventional practices



Biomass & Biofuel



Waste Water & Biogas



Pico-hydropower



RE Education

CO₂ Emission Reduction: Solar Lantern Project



- Worldwide 1.6 billion people do not have access to electricity, mostly in **rural areas** of the developing world
- Rural households rely on home-made **kerosene** lamps
- Fuel-based lighting consumes **77 billion liters** of fuel annually throughout the world, equivalent to 1.3 million barrels of oil per day
- Nearly **100 kilograms** of carbon dioxide (CO₂) are emitted each year by each kerosene lamp
- Sunlabob's solar lantern project provides **cleaner, safer, better lighting**
- An integrated micro-processor provides accurate records of kerosene replacement, enabling entry onto the **carbon markets**



Community Development: Solar Lantern Project



Involvement of local communities

- Prior to intervention:
 - Consultation with villagers
- Management and operation of systems:
 - Village Energy Committee
 - Governing body
 - Platform for collective decision
 - Village Technician
 - Entrepreneur
 - Responsible for maintenance and servicing



Supply Chain: Solar Lantern Project



Responsible supply chain (Using local suppliers and waste)

- Co-operative Orthotic and Prosthetics Enterprise (COPE):

- manufacturing artificial limbs for victims of UXO (free of charge if patients cannot afford to pay)

NB: Laos is the most heavily bombed country in the history of warfare!

- scrap polypropylene used for lantern cover

- Local flip-flop factory

- manufacturing flip-flops
- scrap used for inside padding and feet of the lantern



.....Carbon emission



- Continue with up-scaling the Sunlabob lantern approach worldwide
- Developing the RE sector and supporting the policy-making process
- Promoting Energy Efficiency
- Involvement of local communities

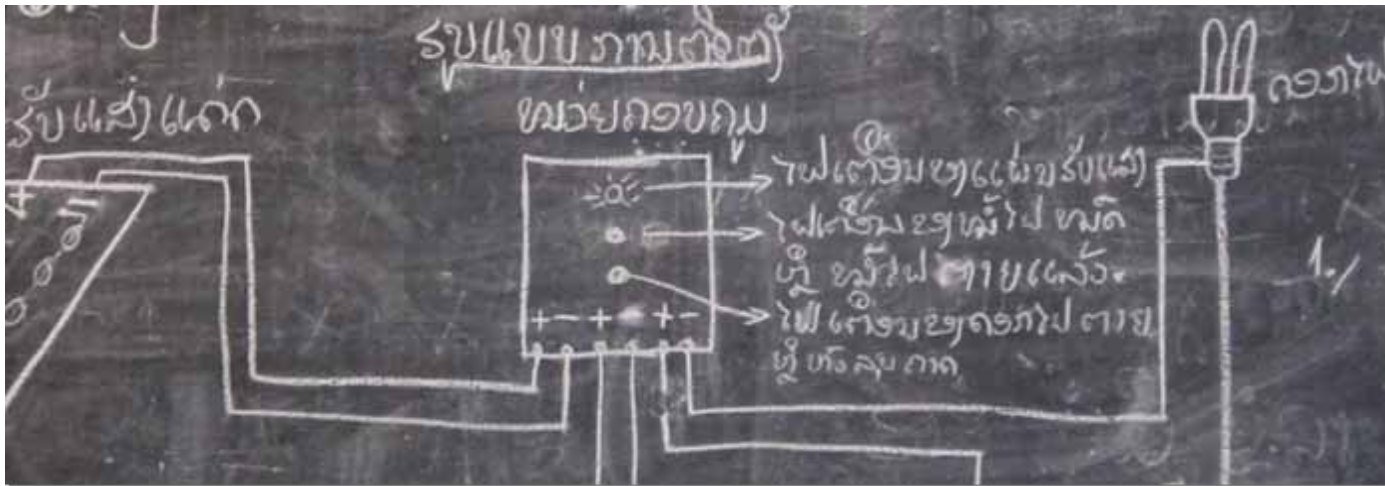
- Rehabilitation of vulnerable women
- Raising the skills base of the local workforce
- Responsible supply chain

- Simplyfy the procedure of Carbon Emission certification,
- Easier access to carbon funds for project fianancing.

OECD-ESCAP Conference on Corporate Responsibility

“Why Responsible Business Conduct Matters”

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Thank you for your attention!