

## PV - Community Water Supply Project in Thailand

<b>Type of project:</b> (tick off the type)	PV	Solar Thermal	Biomass to Energy	
	X			
<b>Project name:</b>	<b>COMMUNITY WATER SUPPLY PROJECT</b>			
<b>Location of the plant:</b>	Ban Nam Wa, Nam Phang Sub-District, Nan Province, Thailand			
<b>Year of Implementation:</b>	2005			
<b>Operator:</b> (Name and address)	Nam Phang Tambon Administrative Organization			
<b>Planner:</b> (Name and address)	Nan CBO Research Centre, Thailand			
<b>Detailed description of the installation:</b> (technology, function, benefit for users, etc. max 150 words)	Traditional water supply was through drawing water from the Wa River. However, due to environmental problems (erosion and use of chemicals in agriculture being washed into the river) the water was not really fit for human consumption. Through community involvement, a decision was made to get water from a nearby spring in the forest. A submersible pump set and piping was installed with a 40 cubic meter storage system built in the village. A solar PV system (14 panels - 120 Wp) was installed to power the pump. The system is operated by a village committee and technical support, if needed, is provided by the Nan CBO Research Centre as well as the Nam Phang Public Health Station.			
<b>Generated Energy service:</b> (tick off the energy type)	electricity	heat	gas	light
	X			
<b>Power output of installation:</b> (kWel, m <sup>3</sup> biogas, kW th, etc.)	1.68 kWp for the solar PV system			
<b>Financing</b> (tick off the financing type)	private investment	loan	donation	grant
	In kind			XXXXXX
<b>Investment costs in US\$</b>	Approximately 15,000 USD of which 12,774 was provided by the GEF Small Grant Program of UNDP			
<b>Maintanance costs in US\$</b>	Unknown but mainly in kind for repairs of the piping, maintaining the well, cleaning of the system, etc.			
<b>Savings:</b>	Not determined yet. However, the community is now able to produce chemical free vegetables for own use as well as for income generation. Initial experiences show a reduction in power costs for the water supply of about 40 USD per month.			
<b>Energy sale income in US\$:</b>	People pay 2 Baht per cubic meter of water used			
<b>Comments:</b>	The project has resulted in strengthening the community and the capacity of the community members to build and maintain the system. Households, the school and other community based institutions are able to use safe water and are able to build up an "emergency" fund due to savings obtained in the water supply system. The installation of the system has resulted in considerable interest from other communities and several similar systems are being installed at the moment.			
<b>Pictures and grafics</b>				



The spring in the forest



The solar PV system in the village



The water storage system in the village



Happy producers of clean and chemical free water in front of their vegetable garden.