


Technology data sheet: Improved cook stove

Type of project: (tick off the type)	PV	Solar Thermal	Biomass to Energy	
			X	
Project name:	PAEK IMPROVED STOVE PROJECT			
Location of the plant:	PAEK, Xiengkhuang Province			
Year of Implementation:	2007			
Operator: (Name and address)	Lao Women's Union and Science of Paek District, Technology and Environment Office, Xiengkhuang Province			
Planner: (Name and address)	Technology Research Institute, Vientiane, Lao PDR			
Detailed description of the installation: (technology, function, benefit for users, etc. max 150 words)	<p>Introduction of improved wood burning stoves used for cooking in areas where there is a shortage of wood fuels by involving the local population in the target villages/area and starting local production and sales (on a commercial basis) of the improved stoves</p> <p>An improved version of the traditional wood fuel stoves was developed in the eighties in Thailand and the technology was subsequently transferred to Cambodia as well as Laos (Vientiane only).</p> <p>Technically, The Improved Stove has a fixed number (many more than the traditional stove) of air holes in the grate which improves combustion, standard sized pot rests, measuring from 1 cm to 2 cm based on the stove size, higher fuel efficiency compared to the traditional stove¹, burns better and faster, and has lower emissions, much lower pot rests for maximum heat transfer to the cooking pot, a metal bucket which covers completely the ceramic part and has a robust handle which facilitates moving the stove around and consequently the lifetime of the improved stove is longer (1-2 years versus 6 months in average for the traditional version).</p> <p>An improved cook stove has produced and sale locally by trained stove producer. The stove cost around 2.2-2.8 US\$.</p>			
Generated Energy service: (tick off the energy type)	electricity	heat	gas	light
		XXXXXXX		
Power output of installation: (kW _{el} , m ³ biogas, kW _{th} , etc.)	2-3 kW _{th} per stove			
Financing (tick off the financing type)	private investment	loan	donation	grant
				XXXXXXXXX
Investment costs in US\$	Total project costs are 17,880 Euro for the introduction of 3,000 improved stoves			
Maintenance costs in US\$				
Savings:	Fuel wood savings of about 35-50%			

¹ This – higher efficiency - as well as the next improvements – time saving and lower emissions - still need to be verified under Lao PDR conditions

Energy sale income in US\$:		
Comments:	The project is in the initial stages of implementation but the enthusiasm of the users (housewives) is high as they see the benefits of the improved stoves in terms of reduced fuel wood use which in turn reduces the time needed to collect fuel wood or reduces the costs in cases where fuel wood is bought.	
Pictures and grafics		
 <p data-bbox="188 869 411 902">Traditional stove</p>	 <p data-bbox="758 896 965 929">Improved stove</p>	
	 <p data-bbox="758 1339 1177 1373">Traditional stoves in the kitchen</p>	