

<b>Type of project:</b> (tick off the type)	PV	Solar Thermal	Biomass to Energy	
			X	
<b>Project name:</b>	National Biodigester Program (NBP)			
<b>Location of the plant:</b>	6 provinces through out Cambodia (Kandal, Kompong Speu, Takeo, Prey Veng, Svay Rieng and Kompong Cham)			
<b>Year of Implementation:</b>	2005			
<b>Operator:</b> (Name and address)	End user (House hold member)			
<b>Planner:</b> (Name and address)	Expert from Department DAHP of Ministry of Agriculture and from SNV of the Netherland			
<b>Detailed description of the installation:</b> (technology, function, benefit for users, etc. max 150 words)	<p>The National Biodigester Program is a joint intervention between Ministry of Agriculture of Cambodia and the SNV of the Netherlands. The objective of the program is to disseminate the technology of the biogas plant to the rural household and make it commercially available in some selected provinces.</p> <p>The Deenbandhu fixed dome of India has been adopted and modified to suit the local condition of Cambodia. Input materials are cattle dung, pig or chicken dung. The volume of the plant varies depends on the animal waste available and the income of the rural household.</p> <p>Biogas is a secured and reliable energy source for rural household in Cambodia. By using biogas plant, people in rural area can save time for fuel wood collection. They can save money by buying charcoal for cooking or gasoline for lighting. Furthermore, the waste of biogas plant can be used as nutrient for plantation.</p>			
<b>Generated Energy service:</b> (tick off the energy type)	electricity	Heat	gas	Light
		X		X
<b>Power output of installation:</b> (kWel, m <sup>3</sup> biogas, kW th, etc.)	Depend on the volume of the biogas plant - 4 m <sup>3</sup> : 3.5-4 h for biogas stove and 8-10 h of biogas lamp - 6 m <sup>3</sup> : 5.5-6 h for biogas stove and 12-15 h of biogas lamp - 8 m <sup>3</sup> : 7.5-8 h for biogas stove and 16-20 h of biogas lamp			
<b>Financing</b> (tick off the financing type)	private investment	Loan	Donation	Grant
	X		X	
<b>Investment costs in US\$</b>	Depend on the volume of the plant. 4m <sup>3</sup> 320 \$US, 6m <sup>3</sup> 375 \$US, 8m <sup>3</sup> 430 \$US, 10m <sup>3</sup> 490 \$US, 15m <sup>3</sup> 755 \$US			
<b>Maintanance costs in US\$</b>	Regular expense on the replacement of the lamp (0.1 \$US per lamp)			
<b>Savings:</b>	- 1 to 2 hours time saving used for fuel wood collection - 0.4 to 0.7 \$US saved by saving money for fuel wood, charcoal, gasoline or battery charging			
<b>Energy sale income in US\$:</b>	No			
<b>Comments:</b>	The project has been proved to operate very successfully in the			

selected provinces during the early stage of the first phase of the project (2005-2009). Each household received 100 \$US from the program for any volume of the plant. The program aim to produce 17500 plants by the end of phase 1 of the project.

**Pictures and grafics**

