

ENERGY FOR LIFE BEST PRACTICE PROJECT

System / Location

Biogas system / Cambodia

Biogas - Farmer's Friedn Biodigester Plant by NBP Cambodia



At the COMPED training centre in Choeung Ek 2 biodigester plants were built in 2009 in the frame of the European Commission sponsored REEPRO project. The masons of the National Biodigester Programme (NBP) constructed one operating 4m³ plant and one 4m³ cross-cut demonstration underground plant; as of August 2010, NBP had already installed 8,205 biodigester plants around Cambodia. The demonstration plant is used for training purposes showing visitors and students interested in learning about the system a cross-cut view of a biodigester from inlet to outlet. The operating plant is fed daily with the manure of two cows raised at the centre. The system components include: (1) Mixing tank (2) Inlet pipe; (3) Digester tank; (4) Gas storage /dome; (5) Manhole; (6) Outlet tank (7) Gas outlet pipe. The biodigester is producing biogas that is used by a family living at COMPED training centre for cooking and lighting; the slurry is used as fertilizer for growing vegetables, fruit trees and for feeding fishes thus reducing the quantity of fertilizer and fish food to be purchased.



Planning/Installation

National Biodigester Programme
admin@nbp.org.kh
www.nbp.org.kh

Donation/Supporter

Directorate General International
Cooperation of the Dutch Ministry
of Foreign Affairs (DGIS)



Operator

COMPED

comped@comped-cam.org
www.comped-cam.org

PROJECT DATA SHEET

Year of installation	2009
Type of installation	Biogas
Type of energy produced	Gas
Geographical position	11.4888856 N 104.899567 E
Location	Cambodia, Phnom Penh, Choeung Ek
Size of installation	4 m ³ (biodigester volume)
Thermal Power of installation	300 Watt thermal
Use of energy produced	Cooking and lighting lamps
Biogas produced	1.20 m ³ biogas/day
Type of financing	Own investment
Source of financing	COMPED
Biomass system investment cost	USD 430
System costs	1.43 USD per Watt thermal
Income generated from biogas installation	0.57 USD per day saving by substituting LPG
Maintenance cost	0,01 USD per day
Fossil fuel savings	~ 207 kg LPG per year
Environmental gain	~ 605 kg CO ₂ eq./year
Number of beneficiaries	5 (1 family size system)
Presence of renewable energy country program	Yes



Biogas system