

NBP Biodigester Local Stakeholder Consultation Workshop

Consultation on the biodigester programme and its impacts for the renewal of the carbon crediting period

Non-technical summary

The National Biodigester Programme

NBP is a national programme of the Ministry of Agriculture, Forestry and Fisheries, granting financial support from Dutch, Germany, Czech Government, EU and Sweden via CCCA, Korea via CCC, Polarstern Gmh and carbon finance. Within 12 years from March 2006- Jan 2018, NBP has constructed over 26,500 biodigesters in 16 provinces, namely, Kampong Cham, Kandal, Svay Rieng, Takeo, Kampong Speu, Kampong Chhnang, Kampot, Kep, Preah Sihanouk, Prey Veng, Siem Reap, Pursat, Battambang, Tboung Khmum, Phnom Penh and Kampong Thom.

Programme objectives

NBP's overall objective is to establish a permanent domestic biodigester sector on a market driven approach for a sustainable energy in Cambodia. The objectives of the National Biodigester Programme contributing to its overall objective in the third carbon crediting period are:

1. To increase the number of family sized, quality biodigesters with the total 10,000 biodigesters in the period 2019-2026 in selected provinces
2. To ensure the continued operation of all biodigesters installed under the biodigester programme;
3. To maximise the benefits of the operated biodigesters, in particular the optimum use of digester effluent;
4. Technical and promotional capacity development of the stakeholders within the NBP for wide scale deployment of biodigester technology in Cambodia. This objective will particularly focus on the development of a capable and viable private sector responsible for marketing, construction and after-sales service of biodigesters.

Target group and benefits

NBP targets farmers that have at least 15 kg/day cow, buffalo or pig manure available for biodigester feeding. In a biodigester manure is partly converted into a clean renewable cooking fuel and lighting fuel, biogas, and the remainder is a potent and safe organic fertilizer (bio-slurry). Regular surveys among the biodigester users have shown that the users highly appreciate the benefits of biodigesters: the availability of gas makes their cooking and lighting easier; the household members don't need to spend their time or/ and money on the collecting firewood; women and children aren't exposed to harmful smoke from burning firewood; and farmers receive a valuable and effective fertilizer which enables them to increase crop yields. The total technical potential for domestic biodigesters, with a minimum feeding of 15 kg/day is estimated to be over 500,000 households.

Applied Technology

The biodigester is a modified fixed dome Indian Deenbandhu digester and is named the 'farmer's friend' model. Depending on energy need, cattle owned by the users, water availability and preferences of the future owner the fixed dome biodigester can have a volume between 2 and 15 m³, see the next table:

Table 1: Technical specifications of the biodigester models

Plant size	2 m³	3 m³	4 m³	6 m³	8 m³	10 m³	15 m³
Estimated cost (USD)	350	420	520	580	750	850	1150
Subsidy	150	150	150	150	0	0	0
Dung requirements (kg/day)	15-20	20-30	20-40	40-60	60-80	80-100	100-150

