

Good Practice 5

Biogas Toilets

Biogas toilets are another simple option for excreta (faeces and urine) management. When combined with good greywater management (see ‘Good Practice 6’) they form a sustainable sanitation system. Households have pour-flush toilets (see ‘Good Practice 4’) which discharge into a small, typically a 1-m³, anaerobic digester from which the biogas is collected and used for cooking and/or other domestic purposes (e.g., lighting). To increase biogas yields animal excreta are also often added to the digester. At intervals of 1-2 years the digester is desludged and the sludge so removed is either buried on site or used to fertilize a small garden plot. This sanitation system is especially suitable for use in small towns and large villages.

There are many such biogas toilets, especially in the Far East. In small towns in Vietnam many households have 3-4 pigs and both the pig and human excreta are discharged into a ~1-m³ anaerobic digester, and the resulting biogas is used for cooking, as shown in Figures 1-4.



1. Lane in a small town near Hanoi, Vietnam (notice partially covered drain at left used for both greywater and stormwater)



2. View inside the household compound, showing the pour-flush toilet and the area where pigs are kept



3. Household anaerobic digester for biogas generation and collection



4. Biogas used for cooking