BIOGAS IN NEPAL

BRIEF INTRODUCTION

Tirtha Raj Aryal

PIONEERING THE TECHNOLOGY IN NEPAL(I)

- In 1955
  - B.R. Saubolle of St. Xavier's School, Godawari, Nepal Constructed 1st Experimented & Demonstrated Biogas Plant in Nepal.
- • In 1968
  - Khadi Village Industry Commission (KVIC) of India constructed 250 cft biogas system at an exhibition in Kathmandu.
- • In 1975/76 (Agriculture Year)
  - Promotion of domestic biogas (cattle dung) was initiated by Nepal govt. under DoA and 199 plants constructed in that year.

PIONEERING THE TECHNOLOGY IN NEPAL(II)

- In 1977:
  - A Biogas Company (Gobar Gas Company-GGC) was established as a joint venture among ADBN (now ADBL), UMN and Nepal Fuel Corporation.
  - ADBN provided soft loan to users at 6% interest rate for biogas construction.

- • In 1990
  - A fixed dome design (GGC 2047) was recognized as the standard design in Nepal after several research and modifications from a Chinese fixed dome design.

PIONEERING THE TECHNOLOGY IN NEPAL(III)

- In 1992
  - Biogas Support Programme (BSP) was established by SNV Nepal with funding from the Dutch Government.
- From BSP-III (1997-2003), KfW and the Government of Nepal also started funding BSP for subsidy part.

BIOGAS IN NEPAL

- In Nepal, biogas is produced mainly by cattle dung in household biogas plants and used mainly for cooking.
  - Traditionally focused on promotion of such household plants only.
  - Currently, plant sizes of 2, 4, 6 and 8 cubic meters also get subsidy.
- There are few larger size (up to 50 cubic meters) institutional biogas plants built in Nepal.
- It is also possible to have community plants (a plant for a number of households).

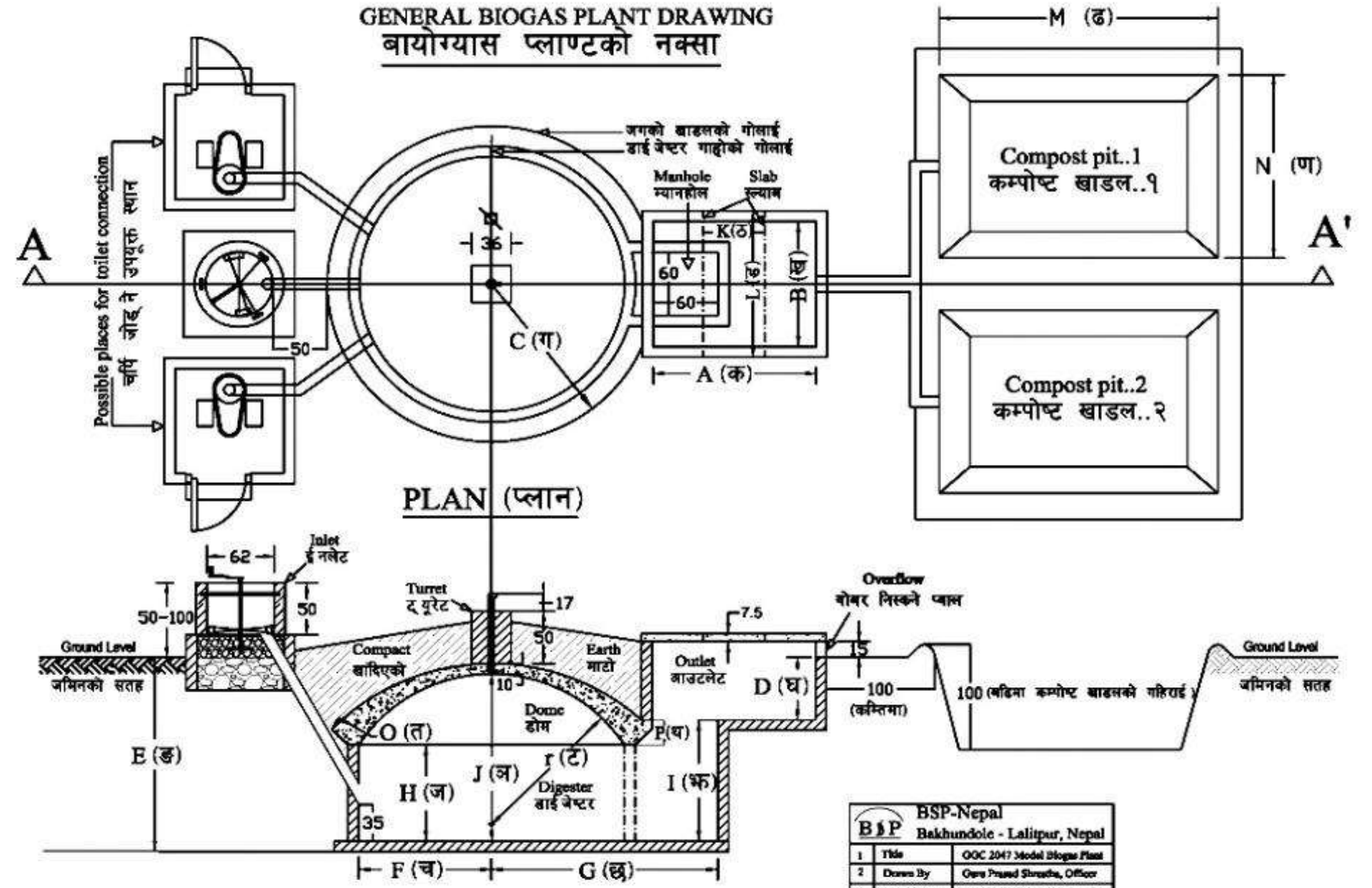
Life Without Biogas

- Deforestation
- Smoke pollution and adverse effect to health
- Costly
- Women, Children and Environment bear the burnt

Life With Biogas

- Saves Deforestation
- Clean environment
- Free source of energy
- Bio-Slurry or Bio-Compost is equally useful – high quality organic fertilizer
- Environment protection
- Brings multiple socio-economic benefits.
- Carbon trading @ US $ 4.5 per ton.

GENERAL BIOGAS PLANT DRAWING
बायोग्यास प्लाण्टको नक्सा



नोट:- सबै नाप सेन्टिमिटरमा छन्

BSP-Nepal Bakhundole - Lalitpur, Nepal		
1	Title	GGC 2047 Model Biogas Plant
2	Drawn By	Guru Prasad Shrestha, Officer
3	Checked by	Prakash Lamichhane, Manager
4	Approved by	Saroj Rai, Executive Director
5	Plate no/Date	/ June-10, 2009
6	Scale	1:

Biogas Support Programme

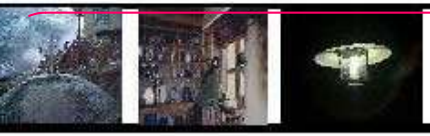
A success story of
Public Private Partnership(PPP)

District Wise Distribution of Potential and Constructed Biogas Plants

(Biogas Plants Constructed in Nepal under BSP from 1992 to Oct 31, 2009)

Summary:	
Total Technical Potential	1,023,366
Total Construction	204,497
Progress	19.98 %
Total Market Potential	504,291

Over 260,000 Household Biogas Plants in Nepal



BSP-Nepal

Production Map
Oct 31, 2009

ACHEIVEMENTS

- Installed over 2,60,899 biogas plants under BSP alone, in over 2,800 VDCs and all 75 districts.
- Around 107 Private Biogas Companies have been strengthened and Qualified or being Qualified.
- 17 Biogas appliances manufacturing workshops are developed and Pre-Qualified
- 264 micro finance institutes got wholesale loan from Alternative Energy Promotion Centre (AEPC)'s Biogas Credit Fund
- BSP-Nepal is and ISO 9001:2008 certification holder for its strong quality management, subsidy administration management and training and promotion systems.

- BSP is developed as the first Clean Development Mechanism (CDM) project in Nepal.
  Around 95% plants that have crossed guarantee period are operational.
- Around 63 to 69% plants are connected with toilet.
  About 74 to 89% biogas users use slurry in one or another form and 63% after compositing.
- Around 91% of the owners whose plants have crossed guarantee period are satisfied.
- Around 9,000 persons got direct or indirect employment due to BSP.
- Each biogas installation saves about 4.6 tones of CO2 emissions per year

Thank you