BIOGAS IN NEPAL
BRIEF INTRODUCTION

Tirtha Raj Aryal
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.
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.
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.
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.
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)

LEGEND:

- LPD
- Construction Figures overall
  - 0
  - 1 - 500
  - 501 - 2500
  - 2501 - 5000
  - 5001 - 10000
  - 10001 - 15000
  - 15001 - 20000

Summary:

- Total Technical Potential: 1,623,366
- Total Construction: 204,497
- Progress: 19.98%

Total Market Potential: 504,291

Over 260,000 Household Biogas Plants in Nepal
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