

GOOD PRACTICES ON ENERGY ACCESS IN SOUTH ASIA



By

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INFORSE-South ASIA
International Network for Sustainable Energy

Theme

GREEN ENERGY FOR GREEN ECONOMY

“SIDE EVENT ORGANISED AT RIO+20

ON JUNE 19, 2012

Jointly Organised by

HELIO INTERNATIONAL AND INFORSE

RIO DE JANEIRO, BRAZIL

Sustainable Energy Solutions for Sustainable Development in South Asia

- ❖ • Energy efficient fuel wood Stoves (EEFWS) and/Improved Cook Stoves (ICS) for efficient utilization of biomass as fuel
- ❖ • Biomass Briquettes as fuel for cooking
- ❖ • Hay box or “Retained-heat” Cooking
- ❖ • Biogas plants for cooking, lighting and off-grid village level power generation
- ❖ • Solar cooking
- ❖ • Solar drying of vegetable, fruits and herbs
- ❖ • Low cost solar water heating
- ❖ • Low cost solar space heating & cooling for human and animals
- ❖ • SPV with LED’s Lights (Efficient and long-life)
- ❖ • Solar Photovoltaic for home and community lighting
- ❖ • Solar water pasteurization/Water purification units/system
- ❖ • Solar Greenhouse (SGH) for growing off season vegetables

**Five Examples for promoting
Green Economy and Poverty
reduction through Sustainable
Energy by members of
INFORSE South Asia (INSA)**

- 1). ANAGI stove-Commercialization by IDEA in Sri Lanka
- 2). Solar Photo Voltaic implementation using Micro Credit by Grameen Shakti in Bangladesh
- 3).Promotion and implementation of Improved Water Mill by CRT in Nepal
- 4). Implementation of household biogas plant using Carbon Credit by INSEDA in India
- 5). Promotion of sustainable energy based eco-village development in Himalayan Sub-Region of Uttarakhand state India, jointly by WAFD and INSEDA

ANAGI Improved Cook Stove-
Commercialization by IDEA
in Sri Lanka

ANAGI Improved Cook Stove (ICS) promotion and commercialization in Sri Lanka



Fabrication of ANAGI improved stoves in Potters village in Sri Lanka



Different stage of fabrication of ANAGI Stove at one of the families in the Potters' village



INFORSE Southern Voices project national meeting in Potters Village in May 2012



Promotion and Implementation
of Solar Photo Voltaic
through Micro Credit by
Grameen Shakti in
Bangladesh

Solar PV home power system for lighting and mobile charging in Bangladesh



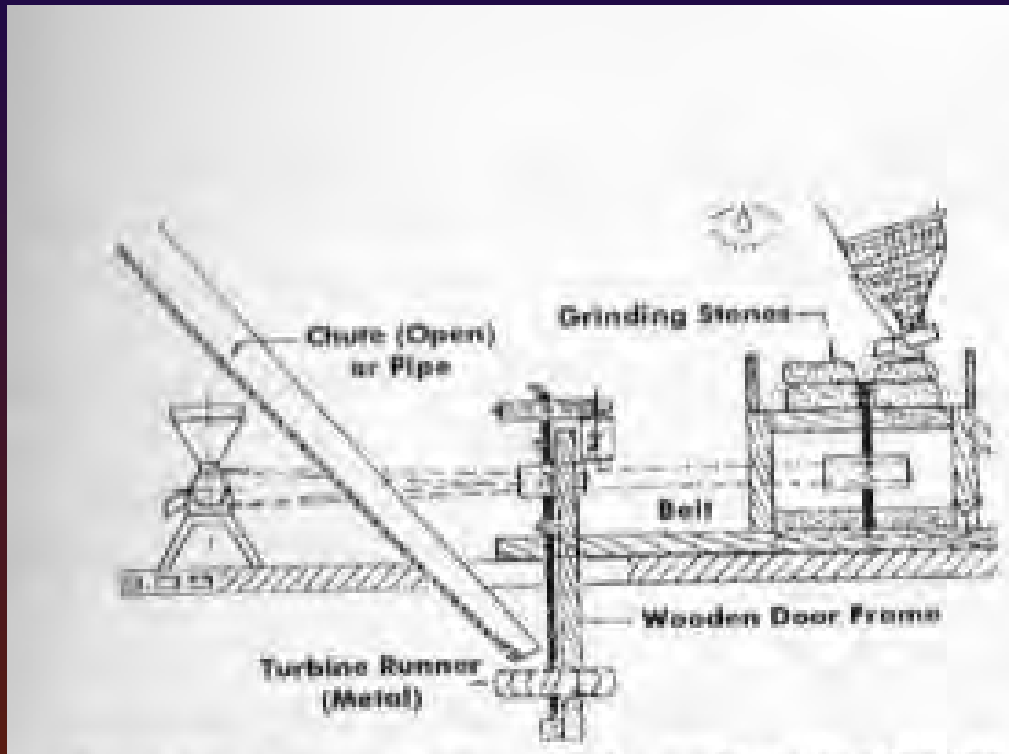
Solar PV Home Lighting System in an Indian village

Operates two lights and one DC fan or black and white TV

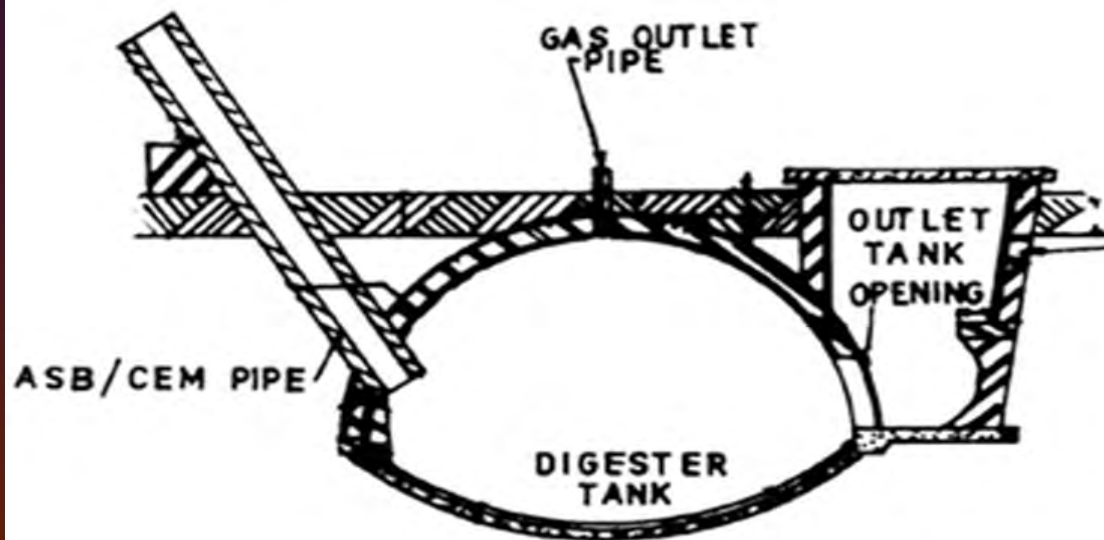
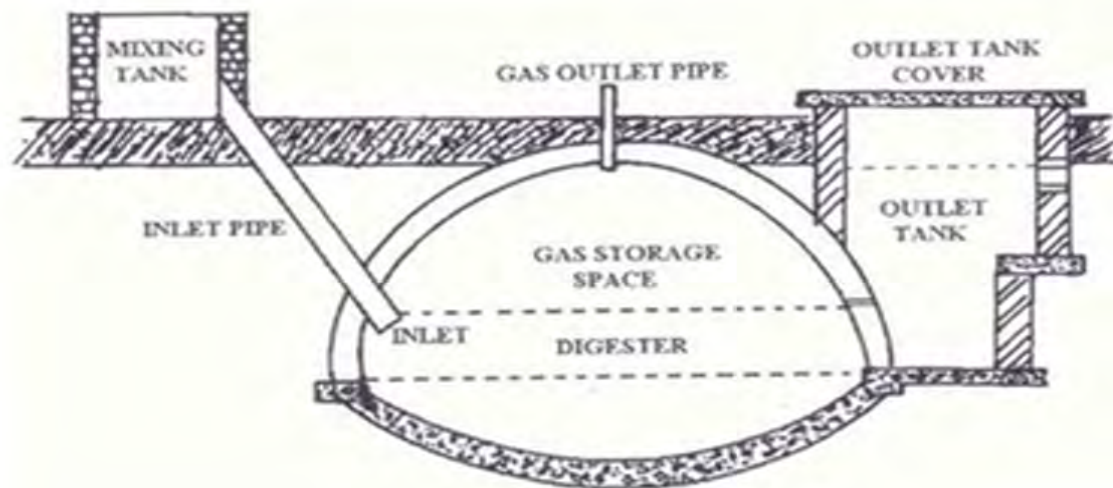


Promotion and implementation of Improved Water Mill by CRT in Nepal

Improved Water Mill for Multiple Applications (Operation for Grinding on the right) in Nepal



Implementation of household
biogas plant using Carbon
Credit under the Gold
Standard VER project by
INSEDA in India



UTILIZATION OF BOVINE DUNG IN RURAL INDIA AT PRESENT

Recycling of dung through biogas plant

(Better and most efficient method for processing & utilization of dung)

Recycling of dung through biogas plant for getting twin benefits:

(1) Clean and convenient fuel and **(2) Enriched organic manure**



RECYCLING DUNG FROM DOMESTIC FARM ANIMALS THROUGH BIOGAS PLANT GIVES:

(Biogas as clean & convenient energy and enriched Organic Manure)

Domestic cooking fuel

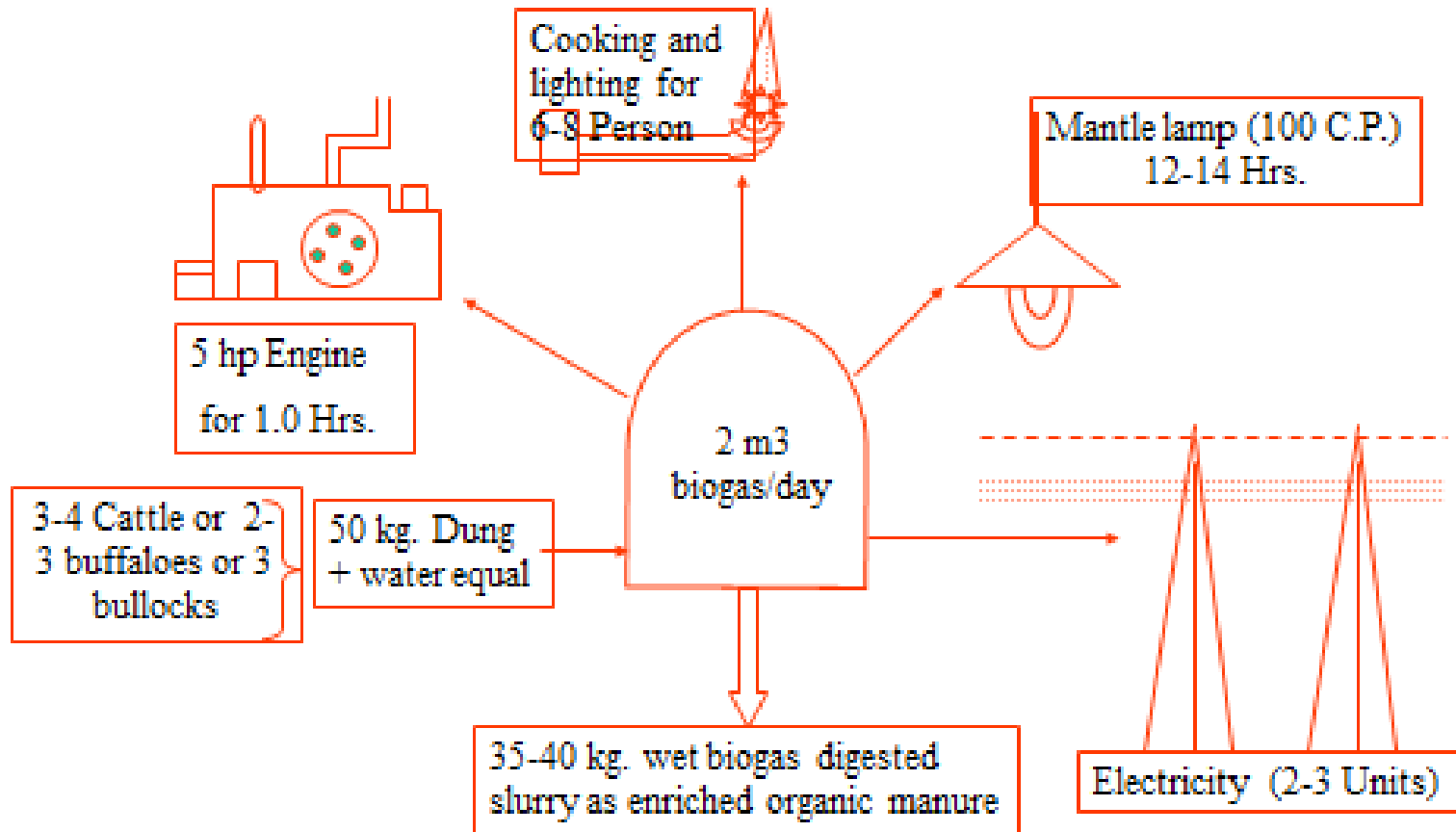
(60% efficient fuel using appropriate burner)



Organic manure for eco-farming

(improves soil health while giving good yield)





POSSIBLE APPLICATIONS OF BIOGAS AND BG PLANT DIGESTED EFFLUENT (SLURRY)

SOCIO-ECONOMIC IMPACT & LOCAL EMPLOYMENT GENERATION IN RURAL INDIA

Generation of local rural employment by building/ constructing fixed dome household BGP

• One 2 M³ fixed dome BGP, generates employment in rural areas as follows:

Skilled person (Masons)	22 man days
$\frac{35}{17}$ Semi-skilled person	11 man days
• $\frac{35}{17}$ Un-skilled person	10 man days

• 20 million fixed dome (2 M³ capacity) BGP, would generate employment as follows:

Skilled (Masons)	440 million man days
Semi-skilled	220 million man days
Un-skilled	200 million man days

Carbon Credit Biogas Project of INSEDA under the Gold Standard

- ❖ Project initiated by INSEDA in in 2007-2008
- ❖ Collection of data on biogas built by INSEDA members/partners, using standard form and creating database
- ❖ Out of information of over 8,000 BGP collected/pre-surveyed, shortlisted over 4,000 plants built from June 2006 up to Dec 2008 for consideration under Gold Standard VER project
- ❖ Over 2,000 of INSEDA members/partners from 12 districts of Kerala state; and
- ❖ Over 2,000 BGPs of INSEDA members/partners from 5 districts in MP state

Major Process involved in Project Development and Registration by the GSF

- ❖ About 20 steps were involved since initiation of project in 2007 till the project was registered by the Gold Standard Foundation (GSF) in September 2011
- ❖ Development of Project Design Document (PDD) and Passport and submitted to the GSF for pre-feasibility assessment in February 2009
- ❖ Received positive response from GSF in Sept 2009
- ❖ Process of validation was started by DOE accredited by UNFCCC with the visit to project sites in two states -Kerala & MP in May 2010
- ❖ Validator's report was submitted to GSF in June 2011
- ❖ GSF registered INSEDA project in September 2011
- ❖ INSEDA is currently going through the process of verification which could take another month before the issuance of VER by the Gold Standard Foundation (GSF)

Promotion of sustainable energy
based eco-village development
in Himalayan Sub-Region of
Uttarakhand state India, jointly
by WAFD and INSEDA

Sustainable eco-village development (SEVD) project in four villages in Himalayan sub region of India

(Villages located in Rani Chauri area (New Tehri District) at
a height ranging from 5,500 to 6,500ft)



Promotion of organic farming through local women in one of the eco-villages in Rani Chauri Area of Uttarakhand state



Construction and filling of Grameen Bandhu Plant and Solar Cooker demonstration to village women



Training of women in the fabrication of Grameen Bandhu plant using bamboo strips



Fabrication of Roof Water harvesting structure by village women using bamboo in Rani Chauri



Solar Cooker and Simple household Solar dryer for demonstration in cooking and drying vegetables, fruits and herbs to women in Eco-villages in Rani Chauri



Training of rural youth on assembly of Solar PV Lantern





Household solar passive heated Poultry shed proposed in the project area



Let us promote Sustainable Energy (SE) for environment protection, Livelihood, Happy Family, Food for All, and for Brighter Future of our Children



Sustainable Energy for Better Future for All





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Thank You

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