

Market Assessment Results for a Structured Fund for Biogas/Renewable Energy in Asia: The Case of Nepal and Bangladesh



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Outline

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The Market Assessment – Background & Objective

- KfW and ADB are considering a Structured Fund for Domestic Biogas for Asia
- Two Asian economies have been assessed i.e. **Nepal & Bangladesh**;
 - quantifying the potential demand (of financial institutions) for funding for **domestic biogas systems** and assessing the conditions that could influence loan-financing.
 - focusing on biogas opportunities – but also taking into account other renewable energy systems for context and comparative values

Approach

A team of experts from  Netherlands Development Organisation &  Frankfurt School of Finance & Management Bankakademie | HfB conducted

→ Desk studies; e.g. publications, unpublished programme results (in May 2011),

→ Interviews (in June 2011) with:

- Financial institutions; e.g. central banks, commercial banks, MFIs and cooperatives
- Governmental agencies, Biogas/RE programme entities
- Biogas/RE suppliers and end-users

Analysis of data in June 2011

Country Summaries - Energy

	Nepal	Bangladesh
Population with access to electricity	37%	40%
Average biogas plant size	6m ³	6m ³
Average cost per plant: approx	EUR500	EUR378
Average subsidy:	≈EUR127	≈ EUR100
Installations	>230,000	>15,700
CDM	Biogas has secured CDM funds	No CDM project in the biogas sector
Others	Competitive marketplace that includes biogas, micro- and pico-hydro, solar home systems, improved cook stoves and energy programmes	RE market is dominated by solar PV (though solar is not subsidized)

Country Summaries - Finance

Nepal

- In Nepal, 20% of the population have access to financial services
- Comprehensive financial services in Terai and accessible Hill regions but rural and remote populations are largely unbanked or under-banked
- Tight liquidity nationwide
- Nepal mandates banks to have a reserve fund for poverty alleviation (though energy is not covered in this lending scenario)
- Alternative Energy Promotion Centre manages the Biogas Credit Unit - which offers below market rates and does not lend fully (due to insufficient capacity and system hurdles)

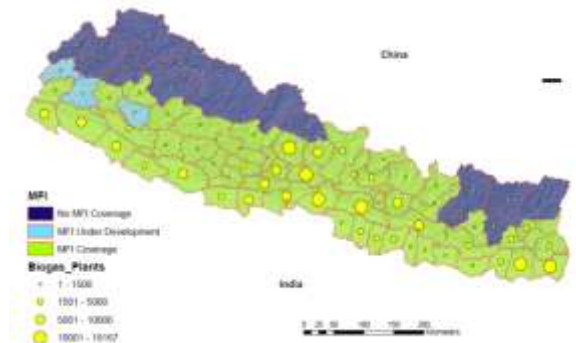
Bangladesh

- In Bangladesh, 32% of the population have access to financial services
- Geographically widely spread informal and formal financial services and extensive microfinance network
- Majority of borrowers for RE products are women
- Infrastructure Development Company Limited manages the subsidy for biogas

Country Summaries - Markets

Nepal Case

- Biogas market estimated at 1 million households.
- Biogas lending is hampered by lack of confidence between lenders, e.g. MFIs and biogas companies - lenders are concerned that biogas suppliers do not provide adequate installation follow-up (after sales services); leading to additional risks on loans



Bangladesh Case

- Biogas market estimated at 4 million households but solar installations are favoured by several market players (in May 2011 = 160.000 installations)



Market Assessment - Main Findings

Considering a 5-year (2012-2016) investment window:

Positive opportunity for RE-related commercial borrowing by MFIs in Nepal and Bangladesh

Technical realistic total installations of biogas plants (with commercial finance):

In Nepal: Year 1 & 2 = 30%; Year 3 = 40%; Year 4 & 5 = 50%

In Bangladesh: over 5 years: 80%

Based on sufficient access to finance, potential uptake over a 5-year period:

Nepal: ≈ 163.462 households

Bangladesh: ≈ 75.924 households

Identified Risks

	Nepal	Bangladesh
Risk	<p>Disconnect between suppliers and MFIs</p> <p>Limited MFI outreach to the northern regions</p> <p>Benefits of biogas plants not fully utilised (e.g. misconceptions, issues with product quality and after sales services)</p>	<p>Competitiveness of biogas with other RETs</p> <p>Benefits of biogas plants not fully utilised (issues with product quality and after sales services, slurry not yet marketed/income generating opportunities not known)</p>
Mitigation	<p>Technical assistance & training:</p> <p>Support MFI sector (e.g. technical knowledge, strengthen links with suppliers / develop a model where MFIs spin-off biogas companies (e.g. Grameen Shakti model in Bangladesh)</p> <p>Continue and innovate biogas sector development (awareness raising e.g. for end users)</p> <p>Mason training</p> <p>Regulations/standards: e.g. guaranteed after sales services</p>	<p>Ensure incentives for biogas uptake</p> <p>Monitor installations</p> <p>Technical assistance & training:</p> <p>Support for some MFIs</p> <p>Continue and innovate biogas sector development: e.g. package and promote income-generating value e.g. through slurry products / ensure women really benefit</p>

Structured Fund – Potential Fund Intermediaries

Nepal

Agriculture Development Bank Ltd

Clean Energy Development Bank Ltd

Rural Microfinance Development Centre

Bangladesh

Infrastructure Development Company

Palli Karma-Sahayak Foundation

International Network of Alternative
Financial Institutions Bangladesh

Bangladesh Bank (BB)

Thank you for your time



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