

“Biogas credit financing under the National Domestic Biogas and Manure Programme in Bangladesh”

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An overview of IDCOL

- IDCOL is a Government-owned financial institution mandated to promote private sector financing in infrastructure and renewable energy sector.
- It provides long-term financing to private sector infrastructure projects and RE Projects.
- Supported and funded by multiple development partners i.e. World Bank, KfW, GIZ, SNV, ADB, IDB, GPOBA and others.

Renewable energy initiatives

- Programmes
 - Solar Home System Programme
 - **National Domestic Biogas and Manure Programme**
- Projects
 - Biomass gasification based power plant
 - Poultry based power plant
 - Solar based micro grid
 - Solar Irrigation pump

National Domestic Biogas and Manure Programme (NDBMP)

- The program is being implemented by 38 POs with financial assistance from SNV, Netherlands Development Organisation and KfW, German Financial Cooperation.
- IDCOL provides grants and technical assistance to its POs & also refines loan extended to the customers.
- About 19,600 biogas plants have been constructed till Oct 2011 under the project, with a target of 37,269 domestic sized biogas plants by 2012.

Domestic biogas financing model

NDBMP (IDCOL/SNV/ KfW Programme)

Cost of an average size plant	USD467	2.4 m3 is the average size plant
Subsidy	USD120	BDT 9,000 per plant
Remaining after subsidy	USD347	
Household's contribution	USD52	15% of the plant cost
Remaining arranged by Micro-credit loan from MFIs	USD295	<ul style="list-style-type: none">• At 10% - 14% flat interest rate• Usual loan tenor of two years• Average collection efficiency of MFIs is about 89%
IDCOL refinances 80% of the MFI loan	USD236	<ul style="list-style-type: none">• At 6% diminishing interest rate• Loan tenor of seven years• One-year grace period

Contribution towards sector commercialization

- Popular and acceptable technology
- Pool of dedicated partner organizations
- Stimulating biogas users to harness all the benefits of the biogas plants
- Trained and motivated workforce in the sector
- **Availability of credit facility makes the business commercially viable**
 - ✓ reduces upfront investment requirement
 - ✓ POs are able to handle increased investment demand
 - ✓ profitable business with added income from micro-credit operation and economy of scale
 - ✓ **profitability of POs in the biogas business can lead to**
 - increased motivation
 - reduced subsidy requirement
 - sustainable growth

Financing of domestic biogas plants: Challenges

- Cost of a biogas plant has almost doubled since 2004, resulting in higher upfront equity contribution of plant owners and lower affordability
- Credit is available for a maximum of two years resulting in high monthly installment
- No direct subsidy for MFIs is available from the programme
- Smaller MFIs do not have the necessary fund to invest 20% of the credit from their own resources
- Larger MFIs have better investment opportunities in other similar programmes in terms of softer credit terms and economy of scale
- Due to collateral free nature, micro credit is risky
- Interest rate is quite high compare to commercial bank rate
- MFIs may become bankrupt if collection efficiency is not healthy

Financing of domestic biogas plants:

Possible mitigations and the way forward

Subsidy

- Subsidy as a fixed percentage of the plant cost revised at periodic intervals instead of a fixed subsidy amount may encourage more households
- A phased-out subsidy scheme for the MFIs until the MFIs gain necessary institutional capacity to run the program on a sustainable basis may be helpful

Credit

- Incentive in terms of lowering the investment requirement from MFI's, offering working capital loan and/or providing softer refinancing terms
- Flexibility needs to be created for plant owners by providing them with a 1 -5 year loan
- Attracting larger MFIs with wider network and strong micro-credit background
- Effective monitoring of the credit management by POs

Carbon Fund

- A 'Sustainable Energy Fund' may be created using carbon revenue, which may work as a revolving fund to provide working capital and/or other financial support to MFIs
- Carbon fund can be a sustainable source of funding that will enable to continue the programme even when donor grant and concessional credit resources would dry up