

Microfinance and Access to Energy: Major Opportunities for Sustainable Development

The COOPENER program was launched by the European Union to contribute to sustainable development in the developing world.



Providing electricity to rural populations through Renewable Energies (REN) at an affordable cost is one of the major goal of COOPENER program.

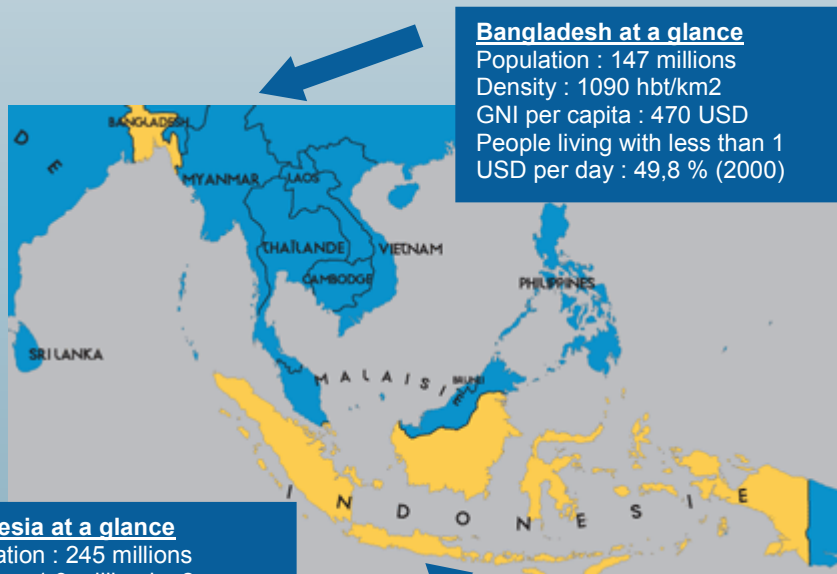
Success of Microfinance Institutions to provide financial services to the poorest and their huge knowledge of the field make them potential key partners to shift the use of REN in rural areas.

PlaNet Finance and its two energy partners - IT Power and Transenergie - are exploring the potentialities of linking Microfinance and Solar Energy.

microfinance and Solar Energy.

Bangladesh and Indonesia happen to be ideal sites for solar energy due to their geographical locations. Moreover, their Microfinance Institutions (MFIs) are among the world largest and top performing ones.

RENDEV aims at **reinforcing provision of sustainable energy services in Bangladesh and Indonesia for poverty alleviation and sustainable development.**



Energy and Millenium Development Goals

While energy is not explicitly one of the Millennium Development Goals (MDGs), energy services play a number of direct and indirect roles in achieving several of the MDGs. Among them are:

- Improving the economy by enlarging opening hours and enabling access to modern communication technologies,
- Improving quality of life by reducing the time spent by women and children on survival activities (grinding, fetching water, etc...) while permitting home study and other recreative activities,
- Improving health policies by refrigerating vaccines and medicines in every health center close to remote villages,
- Ensuring environmental sustainability by combining energy efficiency mindset and use of natural resources.

The Millenium Development Goals

The Millennium Development Goals (MDGs) are eight goals to be achieved by 2015 that respond to the world's main development challenges.

Goal 1: Eradicate extreme poverty and hunger

Goal 2: Achieve universal primary education

Goal 3: Promote gender equality and empower women

Goal 4: Reduce child mortality

Goal 5: Improve maternal health

Goal 6: Combat HIV/AIDS, malaria and other diseases

Goal 7: Ensure environmental sustainability

Goal 8: Develop a Global Partnership for Development

Energy in Bangladesh and Indonesia

Like the whole South Asia Region, Bangladesh and Indonesia are facing major electricity provision issues. The economic growth causes a sharp increase in the consumption of electricity. Needs for investment in power plants and electricity transport facilities are huge. The provision of big cities is getting more and more critical while power cuts are frequent.



Moreover, 70% of the whole population in Bangladesh, 40 % in Indonesia, do not have access at all to electricity especially in the rural area.

ENERGY FACTS	Bangladesh	Indonesia
Population without access to electricity (% of whole population)	110 million (70 %)	100 million (40 %)
Consumption per inhabitant (Europe 6900 kWh)	140 kWh	500 kWh
Solar Home System installed	150 000	10 000

What is Microfinance?

Microfinance implies the offer of financial services to poor populations, who are excluded from the banking system and do not have resources or ownership right, **in order to enable them to develop income-generating activities**. Microfinance helps poor populations increase their income, create sustainable businesses and improve living conditions of microentrepreneurs and their families.

Microfinance includes:

Financial Services: credits for income-generating activities, savings, microinsurance, money transfer, leasing, credit for housing, credit for education, credit for health

Non Financial Services: Business Development Services, or education or health and hygiene, etc...

Key figures

10, 000 microfinance institutions (MFIs) in the world,
150 million clients of microfinance in the world in 2006,
84% whom are women,
66.6 million clients of microfinance belong to the poorest of the poor,
The total outstanding portfolio estimated at **USD 30 billions in 2006**,

Microfinance in Bangladesh

The microfinance sector in Bangladesh is one of the worlds largest. Microcredit was first initiated by Grameen Bank and was developed by a team led by Professor Mohammad Yunus, Nobel Peace Prize.

Bangladeshi MFIs are best known for their pioneering, large-scale provision of microfinance services, principally tiny collateral-free loans to poor women. They are also very active on all development fields.

At present, more than 21 million people are active borrowers of MFIs, meaning that more than 40 % of all households are accessing to microcredit.



Microfinance in Indonesia

Indonesia has been one of the first countries to develop commercial microfinance in Asia, with regulated financial institutions providing the bulk of microfinance services throughout the archipelago.

Approximately 20% of Indonesia's 245 million people depend on micro and small-scale businesses to earn a living, but only 10 million out of 42 million microenterprises have access to credit from formal financial institutions.

Rural Electrification: Access to Electricity Through Renewable Energies

The cost of extending the grid is high due to the specific geographic features of Bangladesh and Indonesia.

In those conditions, implementing Off-Grid solutions supplying green electricity in all reliability, without requiring complex maintenance, on a moderate price, is a solution for providing the benefits of electrification to rural populations.

First option is isolated grid system combining solar, wind, biomass and micro-hydro power system. Those require special maintenances and an accurate organization to manage power plants, electric network and customer bills collection.

Second option dedicated for disbursed consumers are Solar Home System (SHS). SHS can offer basic electricity services of lighting and operation of small appliance as TV, radios and fans. SHS shall be owned by the household through microcredit options.

What is a SHS?

A Solar Home System – SHS includes:

- One small solar module - 40 to 100 Wp
- One tubular batterie
- A charge controler
- 3 to 5 low consumption lamps.

A typical SHS provides light for 4 to 6 hours after dust. Small equipments such as Radio or Black&White TV shall be run with SHS. SHS currently costs around 400 \$



Focus on project mission to Bangladesh, May 2007

The project team visited Bangladesh for the first time at the end of May 2007. They met most of the stakeholders from Government Institutions to companies involved in the Renewable Energy Business and were impressed by the success of the SHS project initiated by The World Bank in 2001 with the Bangladesh government. The project is implemented in partnership with 13 local Microfinance Institutions. Altogether the project has implemented more than 150 000 SHS (Solar Home Systems).

Partners of RENDEV Project

PlaNet Finance – www.planetfinance.org

PlaNet Finance is an international NGO which supports Microfinance Institutions, providing operational services which enable them to strengthen their technical capacities and financial resources.

PlaNet Finance, based in Paris (France), has developed operations in more than 60 countries and has established a worldwide network of offices.

IT Power – www.itpower.co.uk

IT Power is a British company specialized in renewable energy and sustainable development. IT Power and its overseas offices in Australia, China, India, Kenya, Mongolia and South Africa have undertaken projects ranging across delivering training, providing expert advice, conducting high-quality research and project monitoring.

Transenergie – www.transenergie.fr

Transenergie is a leading consulting firm specialized in renewable energy (RE), Energy Efficiency (EE) and Demand Side Management (DSM). Since 1992, Transenergie, based in France, has undertaken more than

Local Partners

Leading Bangladeshi and Indonesian organizations are part of the team and will ensure the success on the field.

- **Grameen Shakti** (see below) will organize workshops and trainings in Bangladesh.
- **PSL**, a Bangladeshi consultancy firm on Renewable Energies, will be the key partner for surveys.
- **Rahimafrooz**, a leading manufacturer, will help designing the system.
- **YBUL**, a NGO acting in both Energy and Microfinance will organize workshops and trainings in Indonesia.
- **Bina Swadaya**, a large Indonesian MFI will train MFI staff and microentrepreneurs.
- **Optimal Power Indonesia** will support the team on energy issues in Indonesia.



Focus on Grameen Shakti

The NGO Grameen Shakti is part of the Grameen Family founded by Pr Yunus, Nobel Peace Prize. Grameen Shakti aims to promote, develop and popularize renewable energy technologies in remote, rural areas of Bangladesh.

Grameen Shakti is using microfinance tools to enable access to energy for the poor.

Until now Grameen Shakti has installed 100, 000 SHS, and is now widely promoting biogas plants and improve stoves. Grameen Shakti has won several international awards: Energy Globe 2002, European Solar Prize 2003, USAID Best theme Award 2003, Ashden Awards 2006.

RENDEV Project Objectives

RENDEV is focusing on how to use Microfinance tools and networks to promote access to energy.

RENDEV project aims to create the conditions of a large access to renewable energies for rural population.

These conditions are:

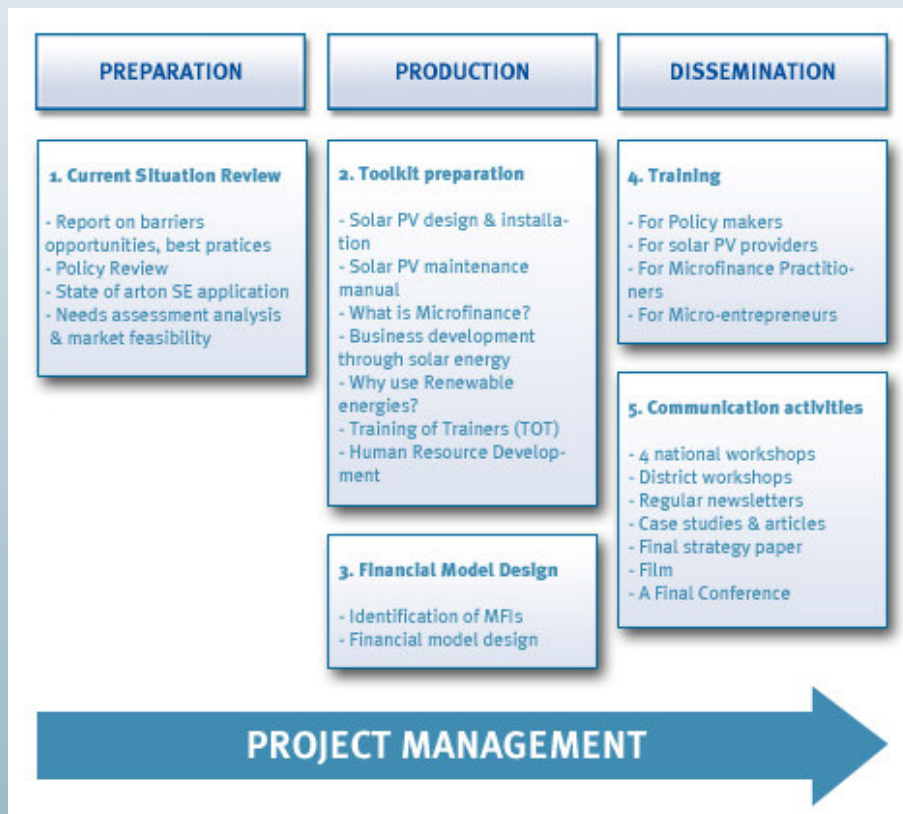
- Awareness of the population on benefits of renewable energies,
- Awareness of populations on affordability of renewable energies,
- Capacities on Renewable Energies,
- A sustainable financial model.

RENDEV will promote a network of local experts to deal with those issues, with the support of International experts.

RENDEV Activities

The project offers to disperse training and capacity building on renewable energy technologies in Bangladesh and Indonesia to strengthen local strategies and legislations, encourage sustainable economic development and alleviate poverty.

The project also sets out to increase availability and usage of a decentralized rural electrification systems through linking up simultaneously micro-finance mechanisms, solar energy technology and Small and Medium size Enterprise development.



Follow up RendeV project on the web: www.rendev.org

Suscribe to the Newsletter: contact@rendev.org

