



SUSTAINABLE ENERGY EUROPE
2005-2008



RENDEV

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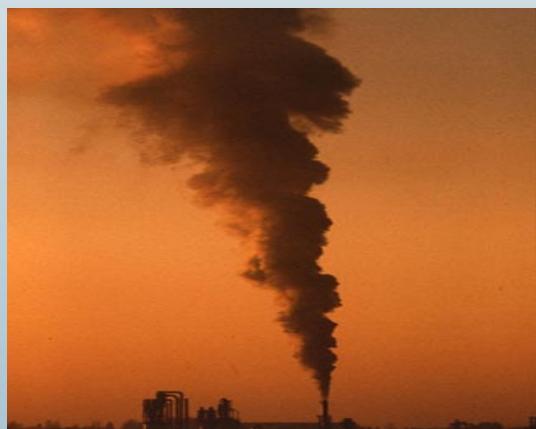
Microfinance and Access to Energy: Major Opportunities for Sustainable Development

Editorial

By Pascale Geslain

Head of the RENDEV project, PlaNet Finance

Climate change is one of the biggest challenges of the 21st century. Its consequences are threatening the lives of millions, the prospects of sustainable development for people living in developing countries and peace at the global level. Government's commitment to Ambitious Renewable Energy Targets and transferring of technologies and means from North to South are the key measures of a comprehensive approach to fight against climate change.



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As the global scientific community agrees that human activities, especially industrial and agricultural activities, are a major contributor to the current change in climate pattern, least developed countries, the very ones whose contribution to that phenomenon have so far been limited, will be the most affected by direct and indirect effects of climate change. One will easily understand that those who are already the most vulnerable, who are still struggling with their small piece of land for survival, will definitely be the one with the least opportunities to mitigate the changes in their lifestyle and thus the most at risk.

In a country such as Bangladesh, where RENDEV operated, projections forecast that at least 10% of the arable land will disappear, either being submerged by the sea or the water table becoming saline, spoiling the land. If the projections are accurate, tens of millions of farmers will have to migrate. The history is full of dramatic stories of migration of people and teaches us the stake they put on the fragile equilibrium of peace. If those displacements concern hundred of millions, international tensions will be at such high risk that major conflicts might erupt.

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RENDEV is a project sponsored by the European Commission - EACI: Executive Agency for Competitiveness and Innovation formerly known as Intelligent Energy Europe Agency and Toyota Tsusho Corporation.

RENDEV aims to create the conditions of greater access to Renewable Energies (REN) for rural populations such as : raising awareness of the population on possibility and affordability of REN technologies, capacities among stakeholders and private providers, accurate financial schemes. RENDEV especially focus on possibilities of microfinance in those fields.

In this issue:

- 3 years program review
- COOPENER program presentation
- Trainings in Bangladesh and Indonesia
- International conference in Dhaka, Bangladesh
- Testimonies and comments from the field

Coopener Program

By Maria Laguna

Project Officer, Executive Agency for Competitiveness and Innovation, created by the European Commission

All development actors are aware that access to modern and affordable energy services is a prerequisite for achieving the Millennium Development Goals, especially poverty eradication. Being part of energy access strategies, rural electrification makes it possible to deploy quality social services (e.g. in the water, health and education sectors), improving living conditions and developing income-generating

activities. Still, 1.6 billion people worldwide are deprived of electricity services.

COOPENER is part of the European Commission "Intelligent Energy - Europe" programme, and addressed the role of sustainable energy for poverty alleviation in developing countries in complement to other cooperation initiatives. It was shaped in the framework of the EU Energy Initiative for Poverty Eradication and Sustainable Development (EUEI) decided at the World Summit on Sustainable Development in September 2002 at Johannesburg... **Continuation page 3**

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This perspective is what makes climate change and poverty alleviation the two main challenges of the 21st century for the humanity as a whole. It explains the big disappointment of all the associations, organizations, individuals, and citizens concerned about the future of humanity in the results of the United Nations conference in Copenhagen, which is seen as a failure because the major powers of the world failed to commit to concrete objectives. Even though the RENDEV team and all of the stakeholders fighting to protect the environment are disappointed, the roadmap of Copenhagen must be pursued. While developed industrial countries have to shift their mode of consumption and production of energy towards energy efficiency and low GHG intensity, transfer of technologies and capacities to developing countries, especially the least developed countries is just as important.

The envelope of USD 30 billion for the 5 future years should help developing countries in shaping the policies that will lead them to achieving their plans of providing access to energy for all by 2025. As of today, 1.7 billions people still lack access to sources of modern energy.

During the three years of the RENDEV project, it has been demonstrated that successful initiatives already exist: Bangladeshi NGOs led by the Grameen Shakti have managed to provide access to solar electricity to some 350,000 people through a model combining a national program, international funding and commercial approaches at the grass-roots level. Those NGOs have successfully demonstrated that it is possible to replicate some of the approaches of Microfinance to the provision of services just as stated in the hot topic of the Bottom of the Pyramid business.

Bangladeshi IDCOL program (Infrastructure Development Company Limited) which has always been upgraded since its start in 2002 should be a source of inspiration for many other countries.

One of the major findings of this program, as well as other access to energy programs reviewed by RENDEV, is that access to energy for poorer populations is sustainable if and only if it drives additional economic opportunities. Thus, productive uses of energy should be promoted as additional revenues generated offset the cost of energy and provide additional income sources for investment in education, health and productive assets. Thus, one could see another possible major contribution of microfinance because MFIs are the ideal institution to finance productive machines using the newly available source of energy.

Another major finding has been that providing access to energy is a major economic opportunity in itself. 7,000 jobs have been created in Bangladesh in 5 years, bringing new career opportunities to the youth as employee of the solar companies or as microentrepreneurs running solar businesses of their own. Further than disseminating energy, the program has trained and dispersed electrical engineers throughout the country.

The main conclusion of the RENDEV program is that the dream of energy for all is achievable. It requires imagination, pragmatism, determination, engagement to gain the most of the possibilities of the tools that have made microfinance a success, to allow poor and remote populations, not only access to energy but to use this energy in a productive way that will change their lives: using energy to develop their income generating activities. Further, innovative products will have to be developed and promoted such as solar lanterns and new generations of cheaper solar panels to reach all the populations that have not access to energy. Successful programs like IDCOL are a good start, the beginning of one big story to be written to fight poverty.

We hope that the 3 years have brought forth synergies between the main stakeholders' actions in Indonesia and Bangladesh and would like to thank them for their engagement during the project.



All the RENDEV team wish you a Happy New Year 2010 and all the best for the development of Renewable Energy!

Pascale Geslain

Head of the RENDEV project, PlaNet Finance

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Training session in Timor
(Indonesia), Dec. 08

Budgeted with EUR 18M, COOPENER (2003-2006) has been supporting 36 projects in Sub-Saharan Africa, Latin America and Asia. Like the RENDEV project, most projects are focused specifically on rural electrification plans and capacity building of local actors. To give just a few examples of other projects, IMPROVES-RE developed an innovative planning approach which maximizes socio-economic impact of rural electrification, PROVEN promoted best practices in West and East Africa on decentralised rural electrification using renewable energies, MICROGRIDS promoted microgrids with high content of renewable energy for electrification of villages in target regions of Senegal, RESIREA develops large-scale renewable energy-based rural electrification plans in target regions of Cambodia, Laos & Vietnam, while PACEAA addresses rural electrification using electricity from agro-industries in Eastern Africa. Interested actors are invited to look into these and other project's results. COOPENER project websites are referenced in the "Intelligent Energy – Europe" project database at: http://ec.europa.eu/energy/intelligent/projects/index_en.htm.

Overall, COOPENER helped development actors to address energy policies and to strengthen local energy expertise. While funding is no longer available under COOPENER, some projects are still running while other community programmes ensure a continued support for increased access to energy services, such as the ACP-EU Energy Facility or the ENRTP programme, which both benefited from a COOPENER feedback.

I would like to take the opportunity to wish the RENDEV newsletter readers a successful new year towards deploying extended and sustainable electricity services worldwide.

Maria Laguna
Project Officer

Executive Agency for Competitiveness and Innovation, created by the European Commission



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University of Qhaka (Bangladesh), May 07



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Photovoltaic in Indonesia, Oct. 07

Links

"Intelligent Energy – Europe" (IEE)

General website: <http://ec.europa.eu/energy/intelligent/>

Project database: http://ec.europa.eu/energy/intelligent/projects/index_en.htm

ACP-EU Energy Facility:

http://ec.europa.eu/europeaid/where/acp/regional-cooperation/energy/index_en.htm

ENRTP (thematic program for the environment and sustainable management of natural resources including energy):

http://ec.europa.eu/europeaid/where/worldwide/environment/index_en.htm

RENDEV: www.rendev.org

RENDEV Chronology: 2007, 2008, 2009

2007 ... The launch of RENDEV

RENDEV started in January 2007. Field visits were organized in both countries: in January 2007 in Indonesia and May 2007 in Bangladesh and the partnerships at the national level have been set up.

2007 RENDEV activities

- Review, analysis of needs assessment analysis & Policy Review
- State of the art on and Market feasibility
- Consultative workshops

Major events of 2007

- **Cyclone Sidr devastated Bangladesh.** Mobile phones and solar systems prove their efficiency in helping the rescue of thousands
- **Al Gore and IPCC (Intergovernmental Panel on Climate Change) receive the Nobel Peace Prize:** The world realizes the global impact of climate change.

2008 ... Operational maturity for the RENDEV project and its partners

PlaNet Finance and its partners organized a comprehensive series of workshops that brought together policy makers, renewable energy specialists and Microfinance Institutions (MFIs) in order to develop new policies and approaches. The increase in cost of energy was a fantastic opportunity for renewable energy promoters to show the accuracy of small energy solutions to answer people's basic needs at a reasonable cost.

In October 2008, Ms AMBIA, a Solar Technician Entrepreneur trained by Grameen Shakti (Bangladesh), became the first winner in the environment category at the International Microfinance Awards held by PlaNet Finance.

2008 RENDEV activities

- Production of the main deliverables
- Regional's consultative workshops
- Awareness activities



Major events of 2008

- **The International Financial Crisis and Global recession** caused a considerable slowdown in export oriented economies.
- **Barrack Obama is elected president of the USA** with a voluntary renewable energy plan.
- **December : 13th conference on climate in Bali (Indonesia).** First step to sustain the roadmap of Tokyo.
- **Elections are organized in Bangladesh** after 2 years of provisional government

2009 ... The year of dissemination and communication

The RENDEV team disseminated the project's results and lessons learned globally in order to increase the role of micro-finance institutions as a mechanism for increasing access to renewable energies as well as poverty alleviation. Affordable policies linking sustainable energy and poverty reduction strategies and financial mechanisms have been proposed during the international Conference in Dhaka, Bangladesh (December 7th to 9th 2009).

2009 RENDEV activities

- **12 February 2009** RENDEV received the European Union "2009 Sustainable Energy Award", in the cooperation program category.
- **Technical and awareness training for 5,000 households** through 80 training sessions per country.
- **7 to 9 December:** Final conference in Dhaka (Bangladesh)

Major events of 2009

- **January: Creation of IRENA** International Renewable Energy Agency. As of December 2009, 138 members, amongst them Bangladesh and Indonesia and European Union have signed the Statute of the Agency. The EU is the 138th member of IRENA and the first inter-governmental organization to join the Agency.
- **July: Indonesian President Susilo Bambang Yudhoyono (known in Indonesia as 'SBY') is reelected to a second five-year term.**
- **December: United Nations Framework Convention on Climate Change in Copenhagen ends on a failure** since major powers have not agreed on the necessary measures to maintain the global warming under 2°C.



Main achievements of RENDEV in the 4 bottom lines

The RENDEV project aims to explore ways that link microfinance and access to renewable energy. The goal of the project is to contribute positively to rural development and poverty alleviation in Bangladesh and Indonesia by combining microfinance mechanisms tailored for low income people's needs with microenterprise development and increased access to solar energy. Through its activities, the project defines an institutional framework within which all stakeholders, including microfinance institutions, provincial and national governments, renewable specialist and the microentrepreneurs.

Financial issues

Initial objectives

To develop financial models and build synergies between the microfinance sector, the renewable energy sector and the microenterprises in Bangladesh and Indonesia.

Final outcome

- Identification of 40 MFIs in each country that can play a key role in the provision of solar energy related to microfinance services
- Set-up of financial models for microenterprises and rural households to reach poorest people in Bangladesh and adapt the Bangladeshi IDCOL program in Indonesia

Technical issues

Initial objectives

To promote the development of income generating activities using renewable energies identify measures that increase the involvement of small- and medium-sized enterprises in the solar energy sector.

Final outcome

- Need assessment review and Energy Policy review in each country
- Technical and material skills in renewable energy per country: Design of Installation Toolkit, Solar Operations & Maintenance (O&M) Manual, Pilot Training on design and O&M

Social issues

Initial objectives

Implementation of programs and involvement of practices inspired by microfinance approaches activities: to better inform stakeholders providing pro-poor renewable energy services.

Final outcome

- Provision of toolkits for policy makers and microfinance institutions
- 2 Series of participative workshops per country
- 200 training sessions for Solar Home Systems (SHS) users

Communication issues

Initial objectives

To raise awareness and to bring a positive impact on the quality of life in rural districts. To facilitate an exchange of ideas between microfinance and renewable energy specialists in Bangladesh and Indonesia

Final outcome

- 160 sessions
- 40,000 stakeholders sensitized
- Microfinance and policy maker toolkits
- 7 type of posters per country
- 1 International conference dissemination in Dhaka
- 1 film per country and 1 related both countries



International RENDEV conference in Dhaka : December 7th to 9th

Conference agenda

The International Conference had been organized by PlaNet Finance and its partners in December, (December 7th-9th) held in Dhaka, Bangladesh. The 3-day International Conference was set up to encourage dialogue between leaders of the international arena, raise awareness and involve the public on electricity produced from renewable energy sources (RES).

The program conference was divided as follow:

- **December 7th**: Workshop access to energy by PV technologies and microfinance mechanisms with the main practitioners and policy makers in Microfinance and energy to discuss on innovative financial mechanisms to expand access to energy by reaching poorer people.
- **December 8th** International conference gathering the main stakeholders: manufacturers, researchers, system integrators, energy agencies, international organizations NGOs and major Microfinance institutions. The conference aims to propose opportunities for Sustainable Development and major Innovative Financial Mechanisms to make renewable energies affordable for the poor.
- **December 9th** Field visit in 2 districts (Mawna and Singair) with international practitioners and policy makers to explore the success stories of microfinance and energy, in particular Grameen Shakti and IDCOL program.



Conference Testimonies

Extract of the testimony of Ms AMBIA Solar Technician Entrepreneurs trained by Grameen Shakti and the 2008 International prize-winning micro-entrepreneur held by PlaNet Finance



"It was like a dream for me to be at the Conference at Sheraton Hotel. Nobody from my family or my village has ever had any opportunity to attend such an International Conference before... This was my great privilege to be with many dignified persons and I could speak in front of them. When I returned my village my family especially my son and my husband and my villagers are very excited."

"I have been encouraged a lot with this opportunity and it has increased my zeal to work hard with solar and other renewable energy technologies in the coming days. More women like me should get this opportunity in my country and believe that it will increase the confidence and social status of many others."

Please consult Ambia conference testimony on the RENDEV website : www.rendev.org

Extract of the Speech by Milko VAN GOOL, Counselor and Head of cooperation of the European Union, Delegation of the European Union to Bangladesh: www.delbgd.ec.europa.eu



"The European Commission attributes a high importance to the active dissemination of project activities and results to an audience beyond the project partners in order to achieve a leverage effect. This is why I want to take this opportunity to give special thanks to PlaNet Finance and its partners for organizing this event in Dhaka."

Please consult the overall speech of Dr Milko VAN GOOL testimony on the RENDEV website: www.rendev.org

Extract of the testimony of Jon RESPATI , IRES Chairman of Solar Energy Focus Group: www.meti.or.id



"Indonesian Renewable Energy Society (IRES), or nationally known as METI, has been collaborating with PlaNet Finance and YBUL in 2007 through various seminar and workshops. IRES also support RENDEV programs in finding out suitable strategies that would fit the country's social economic conditions for using Photovoltaic (PV) in rural areas. IRES, through its representative, has expressed at the conference last December in Dhaka, Bangladesh its optimism to continue to collaborate with PlaNet Finance and RENDEV in the future."

Please consult the overall METI conference contribution and testimony on the RENDEV website: www.rendev.org

On the field: Capacity building and training



© Grameen Shakti

Mawna technicians training
Bangladesh, May 98

The objective of the training program was to increase awareness about solar PV technology and introduce potential entrepreneurs to its different aspects in the villages of 43 districts in Bangladesh and 12 districts in Indonesia

During 11 months (from February to December), more than 200 training sessions have been carried out By Grameen Shakti, PSL and RahimaFrooz in Bangladesh and 40 sessions in Indonesia done by Ybul (technicians and users).



© PSL

Bhola district participants:
Bangladesh, Nov. 09

Bangladesh districts

Ashasuni	Kalapara
Bagerhat	Kalihati
Barguna	Kishorganj
Barisal	Kulaura
Bhola	Kulna
Bogra	Laxmipur
Chakaria	Matiranga
Changarchar	Mawna
Charffesion	Mongla
Chatak	Netrokona
Chilmari	Noagaon
Comilla	Paikghacha
Dacope	Patuakhali
Faridpur	Phulpur
Fatikchari	Pirojpur
Galachipa	Rajshahi
Gopalgonj	Rangamati
Homna	Sariatpur
Island of Sandwip	Satkhira
Jalkati	Singair
Jamalpur	Sunamganj
	Symnagar



Indonesian districts

Gunung Batu, Bogor, Central Java
 Hegar Mana, Banten, Central Java
 Pekondoh, Pesawaran district – Lampung province
 Tanjung Agung, Pesawaran district – Lampung
 Cipadang, Pesawaran district – Lampung province
 Cipadang, Pesawaran district – Lampung province
 Hegar Manah, Lebak district – Banten province
 Hegar Manah, Lebak district – Banten province
 Hariang, Lebak district – Banten province
 Hariang, Lebak district – Banten province
 Hariang, Lebak district – Banten province
 Oehela, East Timor , East Nusa Tenggara Province



© Ybul

Pekondoh village participants: Indonesia

Partners of the RENDEV project

PlaNet Finance has been running the RENDEV Project since January 2007 and would like to thank all its technical partners for the 3 years of the common fruitful activities. PlaNet would particularly thank European Union and Toyota Tsusho for their financial support.

About PlaNet Finance

PlaNet Finance is a leading international non-profit organization with the mission to alleviate poverty through the development of microfinance, therefore increasing the unbanked and underbanked's access to financial services.

Since its beginning in 1998, PlaNet Finance has developed into a group of organizations (PlaNet Finance Group) providing a diverse set of services. PlaNet Finance brings together over 1,000 staff.

Based in Paris, PlaNet Finance's international network holds activities in close to 80 countries around the world.

www.planetfinancegroup.org

About the RENDEV Program Partners

European partners:

Transenergie (France) is a French consulting firm specializing in renewable energies and energy efficiency.

The company develops a global offer orientated toward sustainable development goals. It operates in France, Europe and worldwide and provides technical, socio-economic, financial and institutional projects engineering
www.transenergie.eu

IT Power (UK) IT Power is one of the leading international energy consultancy specializing in sustainable development technologies and policy. Since the 1980's, the company has focused on the design, development, implementation and evaluation of renewable energy and energy efficiency projects around the world.

www.itpower.co.uk

Partners in Bangladesh:

Grameen Shakti, a branch of Pr. Yunus' Grameen Bank, aims to provide access to electricity to Bangladesh's rural populations. Grameen Shakti covers 40,000 villages and, to date, has installed 220,000 individual solar systems, 7,000 biogas systems and 35,000 efficient cooking stoves..

www.gshakti.org

PSL, is an organisation specializing in energy-related issues. PSL has conducted market and feasibility studies on behalf of the World Bank.

www.psldhaka.net

RahimaFrooz, a leader in the distribution of solar panel in Bangladesh, is currently involved in energy and microfinance projects in Bangladesh.

www.rahimafrooz.com

Partners in Indonesia

YBUL, a NGO supporting sustainable development projects in Indonesia.

www.ybul.or.id

Optima Power Indonesia, a leader in solar panel distribution in Indonesia.

optimalpowerindo.com/v1

Bina Swadaya, a main NGO in Indonesia involved in microfinance.

www.binaswadaya.org



RENDEV is a project sponsored by:



RENDEV Team:

