



CASE STUDY 17: SRI LANKA – RENEWABLE ENERGY

Barriers	Lack of financing
Instrument	Aggregation
Application	Development of standard project agreements for small hydro plants and standard conditions for on-lending of project loans to developers
Amount	n/a

PROJECT BACKGROUND AND OBJECTIVES

Rates of access to electricity are very low in rural areas of Sri Lanka, averaging at around 35% of households. The RERED project provides support for solar PV investments with the aim of expanding the market and achieving commercial viability. RERED is funded by World Bank and GEF.

The Sri Lanka Renewable Energy Program is a World Bank and Global Environmental Facility (GEF) assisted program through two investment projects, the Energy Services Delivery (ESD) project from 1997 till 2002 and the on-going Renewable Energy for Rural Economic Development (RERED) project.

The principal objective of the program is promoting the provision by the private sector, NGOs and cooperatives of grid-connected and off-grid energy services using environmentally sustainable renewable energy technologies. The program supports the provision of electricity and socioeconomic improvements in rural areas through:

- solar PV, hydro, wind and biomass renewable energy technologies;
- credit financing through private participating credit institutions;
- grant mechanisms for off-grid systems;
- technical assistance for income generation and social service delivery improvements based on villages' access to electricity; and

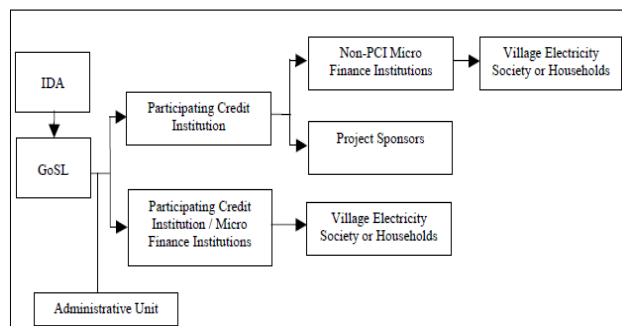
- technical assistance to promote energy efficiency, development of carbon trading mechanisms and integration of renewables into government policy, provincial council development strategies and sector reform initiatives.

INSTRUMENTS USED

GEF made available co-financing grant funds for off-grid sub-project developers who have signed a sub-loan agreement with a PCI. The grant funds are used to co-finance the initial cost of equipment installed through the program and are available to sub-loan beneficiaries. The co-financing grants are released on a reimbursement basis, after the installation of the off-grid system, and are on a reducing basis. Portions of this grant is also used to provide technical advisory services to assist off-grid project developers with their business plans, project promotion and preparation, compliance with technical standards and consumer protections.

For the stand-alone SHS, the program provides consumer credit delivery mechanism, in which the program encourages micro-finance institutions (MFIs) involvements. MFIs are more suitable to provide consumer credit to rural communities. Initially, the program turned to MFIs to access term loans from PCIs in order to provide the necessary consumer credit. However, this created another layer of credit delivery process and increased the interest rates. Therefore, the program was modified to allow MFIs to apply to become PCIs, and hence will be able to provide consumer credit to SHS vendors or developers, or even end-users.

The GEF fund was utilized in several different disbursement channels, as shown in the flow of funds diagram below.



INSTITUTIONAL ARRANGEMENTS

Private investors or developers are eligible to apply for funding under the program by submitting a private investment proposal. Proposals are evaluated for credit worthiness by the Participating Credit Institution (PCI) which lend to qualifying projects on a medium- or long-term basis. The PCI can then apply to RERED to re-finance up to 80% of the sub-loan.

Under the credit facility of the program, the Government of Sri Lanka on-lends the proceeds to eligible Participating Credit Institutions (PCIs), which in turn on-lend these proceeds, along with complementary financing from their own resources, to eligible sub-borrowers. These may include commercial banks, project developers, equipment vendors, community electricity cooperatives and end-users.

OUTCOMES

At the start of the program, there were only 1 mini hydro developer, 2-3 fledgling solar dealers and 1-2 village hydro developers. By the end of 2004, there were over 40 mini hydro companies backed by about 20 active developers, 10 registered solar companies, 22 registered village hydro developers and 12 village hydro equipment suppliers.

The availability of long term financing term contributed to the significant increase in mini hydro installed capacity from about 1MW in 1997 to nearly 70MW in 2004 through 30 sub-projects. A further 38 projects with a total capacity of 39MW has been approved by PCIs

and at various stages of completion. The cost of development has decreased through the experience, enabling more project developments.

Through the co-financing grants, the program has supported the installation of 810kW village hydro systems serving around 3,800 households. A total of 79 systems were implemented at the end of 2004, with a further 38 projects being approved and at various stages of completion.

The SHS industry has grown significantly since the start of the program, from only 2-3 small operations selling 20-30 SHS per month in 1998, to 11 companies and 125 rural outlets with an annual sale of around 1,500 SHS per month at the end of 2004. The graph below illustrates the increase in sales of SHS.

Several factors contributed to the success of this program:

- Significant technical assistance was provided throughout the program, right from the start. This includes advice to the Government on policies that would enable and promote renewable energy projects, capacity building for project developers, MFIs and PCIs, vendors and in rural communities, advice on technical specifications of the technologies, and on business planning and development for project developers.
- The technology and new systems were introduced through market principles. The structure of the subsidies and grants also allows the market to adjust. This ensures the sustainability of the industry even after the program is completed.

The program allows some flexibility in project design to allow different approaches and changes as and when required. This allows the program to be tailored to suit the local context, needs and capabilities.

