



SOLAR FINANCE CAPACITY BUILDING INITIATIVE (SFCBI)

FINAL REPORT

ASSOCIATE AWARD No. LAG-A-00-00-00030-00 UNDER
LWA AGREEMENT No. LAG-A-00-99-00037-00

SUBMITTED TO:

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)
BUREAU FOR ECONOMIC GROWTH, AGRICULTURE AND TRADE
OFFICE OF ENERGY & INFORMATION TECHNOLOGY

DECEMBER 6, 2002

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INTRODUCTION

This is the final report of the Solar Finance Capacity Building Initiative (SFCBI) project under Associate Award No. LAG-A-00-00-00030-00, LWA Agreement No. LAG-A-00-99-00037-00 signed with the U.S. Agency for International Development (USAID). It covers the full period of the Cooperative Agreement from September 23, 2000 through November 30, 2002 (as extended), and includes the following components:

- (a) A summary of the program's accomplishments or failings using the implementation plan submitted earlier to USAID for measuring performance;
- (b) An overall description of the activities under the program during the period of the Cooperative Agreement and a description of the methods of work used;
- (c) Comments and recommendations regarding unfinished work and or program/continuation and direction; and
- (d) A fiscal report that describes in detail how the Cooperative Agreement funds (and any matching) were used.

The SFCBI project was a USAID initiative designed to follow the work begun during a previously funded USAID project implemented by the International Institute for Energy Conservation (IIEC). In 1999, USAID issued an RFA for Increased Use of Renewable Energy Resources Program (RFA No. USAID/G/ENV/EET 99-01). Winrock International and the International Institute for Energy Conservation (IIEC) were two of the recipients of resulting Leader with Associates Cooperative Agreements. The Winrock Cooperative Agreement involved country-specific activities in about 10 USAID-assisted countries, and broader cross cutting activities in the areas of policy, institutional strengthening, business mobilization, and financing facilitation. The IIEC award involved support to build financing mechanisms for enhanced use of solar energy in India and potentially other developing countries.

Under the IIEC award progress was made in increasing awareness and support for improving capacity in India on renewable energy financing, and contributing to USAID results indicators. However, the IIEC award was terminated at their request. In September 2000, Winrock International was awarded an Associate Award agreement with a budget amount of \$753,645 to continue the SFCBI project, which assisted with measurably reducing the constraints on and increasing the capacity for financing of renewable energy markets in India.

Quarterly progress reports were produced for this project focusing on progress and accomplishments made during the reporting period. All of the quarterly reports produced under this Cooperative Agreement have been previously provided to the USAID Project Officer and therefore are not included as part of this final report. Copies of these reports are on file and can be obtained by making a request to the Project Manager for this Cooperative Agreement (currently Dr. Venkat Ramana, December 2002).

EXECUTIVE SUMMARY

- The Solar Finance Capacity Building Initiative (SFCBI), a USAID-supported program in India was implemented by Winrock International during 2000-02. The principal goal of the Initiative was to work with financial sector and other stakeholders to ‘mainstream’ solar financing so that the commercialization of technology could be accelerated.
- The program covered working with a cross section of stake holders and partners: *Developing financing mechanisms; Developing solar energy markets and projects; Training lending personnel; Strengthening NGOs and their role in solar energy markets; Communication and outreach; Policy support.*
- SFCBI examined the feasibility of setting up a Solar Bank Fund in India. The effort indicated that while the concept is relevant for the sector, presently there are too many strong barriers, which require time to be addressed. Efforts would have to continue beyond SFCBI to realize the concept of Solar Bank.
- SFCBI assisted 4-5 budding entrepreneurs with developing business plans, through a special fund (SPEED), to set up solar businesses. This activity is expected to leverage significant resources into this sector in the coming years.
- SFCBI conducted a highly successful capacity building program in which more than 1,000 officers of commercial banks and micro finance institutions were trained in lending for solar energy devices. This also included training of trainers, to sustain the activity beyond SFCBI.
- Following this training, the lending portfolio by the trained officers went up by 565%, which is a healthy indicator of the success of this activity.
- SFCBI worked with an NGO/MFI called SHARE in Andhra Pradesh to strengthen its presence in solar energy sector. Based on the training and exposure received under SFCBI, SHARE is poised to increase its solar business in a significant way and is expected to create a business of \$2.4 million in the next five years.
- SFCBI implemented a strong outreach effort through roundtable meetings in different parts of the country, web-based financial newsletter and printed handouts and brochures. The website created under SFCBI would continue to provide information on all aspects of financing for solar energy.
- In the policy arena, SFCBI worked closely with the Ministry of Non-conventional Energy Sources, Ministry of Power and state-level energy development agencies, and involved them in different components of the project.
- Overall, bringing the commercial banking sector into solar energy promotion through SFCBI is considered a significant initiative in mainstreaming the technology in the country.
- The accomplishments of SFCBI are now sought to be replicated in other countries under support from USAID and other donors. Winrock International is attempting replication activities in Brazil, Nepal, Nigeria and South Africa.

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1. OVERVIEW

It is estimated that just about one-third of the 140 million rural households in India have access to grid electricity. Further, nearly 80,000 villages in India are still not connected, and about 18,000 of them are unlikely to be connected ever. These figures indicate a significant market for solar energy in India. However, although a few government and quasi-government financial institutions offer a limited menu of credit packages for solar projects in rural India, there are no investment instruments with the depth and breadth necessary to support the scale-up of solar in rural areas. While it is widely acknowledged that this lack of breadth and depth of financing instruments is a major constraint on the growth of solar markets, it is equally true that the lack of good solar projects is a major impediment to the development of financing mechanisms.

The objective of the Solar Finance Capacity Building Initiative (SFCBI) was to measurably reduce the constraints on, and increase the capacity for, financing of solar energy markets in India while at the same time helping local entrepreneurs in the for-profit and not-for profit sectors to build sound portfolios of renewable energy projects for investment. The team's aim was to cause positive things to happen and achieve measurable results in the limited period of two years as a contribution to the expansion of solar energy market in rural India. The task of increasing the use of solar energy in developing countries like India is a long-term task -- it will go on for decades as the economy grows and energy use increases. The team's goal was to contribute to that path by implementing programs that would continue into the future, and not one-off demonstration projects. Following were the major players:

Winrock International (WI) is a nonprofit organization based in Morrilton, Arkansas that works with people in the United States and around the world to increase economic opportunity, sustain natural resources, and protect the environment. Winrock's Clean Energy Group (CEG) assists public and private sector institutions in designing solutions to reduce policy, financial, institutional market and technological risks associated with introducing and implementing clean energy. WI's CEG was the technical lead on SFCBI. In implementing this initiative, Winrock International partnered with five other organizations:

Winrock International - India (WII) is an independent not-for-profit organization based in New Delhi, and is an affiliate of Winrock International. WII has provided extensive financial and technical assistance to promote energy enterprises in the solar energy arena, including provision of working capital, cost-shares, conditional debt, and finance for start-up infrastructure development. In the process, WII has developed an extensive network of clients in public and private sector financial institutions and non-banking financial companies (NBFCs) along with key contacts with entrepreneurs in the Renewable energy (RE) community in India. WII provided guidance on the enterprise assistance (Task 2), training (Task 3), and NGO strengthening tasks.

Solar International Management, Inc. (SIM) is a Delaware corporation established to develop investment vehicles to finance solar energy projects throughout the world. As one of the architects of the SFCBI, SIM assisted WI and WII in key strategy and management issues as well as taking the technical lead on designing, structuring, and executing the SolarBank Fund (Task 1).

Institute for Sustainable Power (ISP) is a non-profit organization based in Colorado with expertise in designing and implementing renewable energy training programs. ISP provided technical support for the training component of SFCBI.

Insights In Action (IIA), a consulting firm based in Maryland, works to strengthen NGO participation in the widespread use and financing of renewable energy. IIA provided technical inputs into the NGO strengthening activities of SFCBI.

Solar Electric Light Fund (SELF) - SELF is a Solar Home System (SHS) project implementer with extensive experience in PV projects in India. SELF identified potential linkages to promote project and market opportunities in India, which are in a position to tap into and benefit from new financing mechanisms and channels established under the SFCBI.

SFCBI Coordinator: Rahul Arora is an independent consultant with expertise in providing technical assistance on solar home system components and linkages among country solar industry partners. Mr. Arora provided guidance on the full implementation and coordination of activities and tasks under the SFCBI program.

The SFCBI team's expertise in and comprehensive knowledge of the policy, finance, institutional, capacity building, and technological variables contributed to this effort towards developing solar energy projects in India. The team's technical support combined with in-country capabilities and relationships with organizations that have long-term strengths in serving the end users' needs through the market was a key component of the program.

2. PROGRAM DESCRIPTION AND DELIVERABLES

The program was based on the premise that sustainability is achieved when a critical mass of activity has been achieved and when qualified local people are employed on a permanent basis to execute the activities in the market place.

The challenge of developing sustainable markets for solar energy technology has been well documented, involving the development of viable technology; reducing costs and improving economic competitiveness; building industrial, distribution and service capacities; building financing capacities and availability; establishing institutional rules; and resolving public policy issues. The SFCBI team addressed the financing issues as the centerpiece of our work, for which six tasks were proposed

Task 1 - *Developing financing mechanisms* (supply of financing)

Task 2 - *Developing solar energy markets and projects* (demand for financing)

Task 3 - *Training lending personnel* (capacity for financing)

Task 4 - *Strengthening NGOs and their role in solar energy markets* (pathway for financing)

Task 5 - *Communication and outreach* (desire for financing)

Task 6 – *Policy support* (viability of financing)

Task 1 Developing Financing Mechanisms

Technical Lead: SIM

Description: The prime objective of this task was to execute the steps necessary to develop the SolarBank Fund. This component was built on SIM's work to design and structure the SolarBank Fund under the previous cooperative agreement between USAID and IIEC (please see *Annex One A* for details of activities executed under the agreement with IIEC).

The development of financing mechanisms required four phases of work: i.) developing the plan and recruiting resources; ii.) organizing the team and raising the funds; iii.) putting the new mechanism into operation and proving its effectiveness; and, iv.) raising additional increments of capital and proving sustainability. The team applied the funding from USAID to the Phase 1 pre-organizational development work to establish the basic capacity for financing. To this end, the bulk of the USAID funded work occurred in year one.

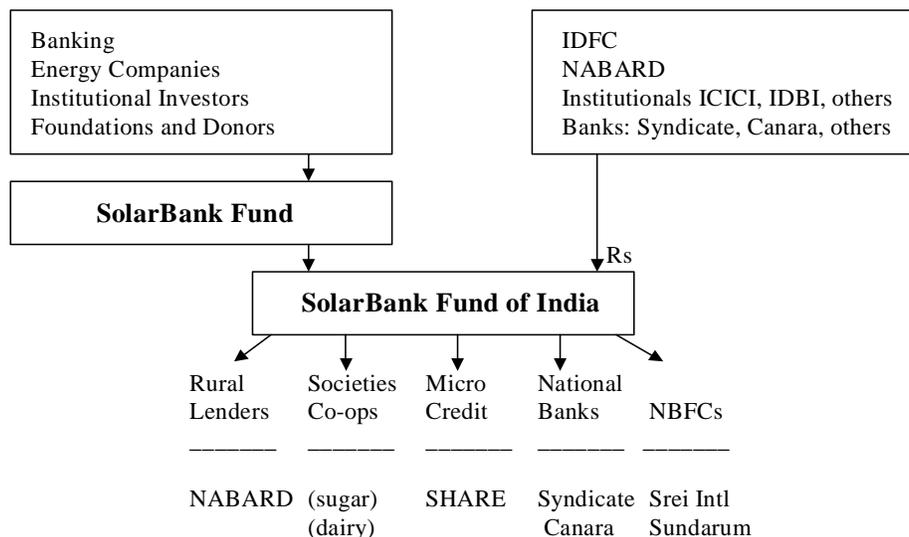
Following a competitive procurement process, SFCBI contracted Arthur Andersen to develop a plan and structure for the execution of the SBF in India. Arthur Andersen completed the initial phase of the planning exercise and presented their findings to the SFCBI team and the SBF Steering Committee in New Delhi on 18th of April 2001. Specifically they:

- i.) identified alternative structures for undertaking the proposed fund based operations in India based on parameters laid down by SFCBI;
- ii.) summarized the mechanics of the alternative structures, including role of various entities in the structure;
- iii.) identified the laws/ regulations relevant to the alternative options and the constraints imposed therein on the activities of SBF;
- iv.) outlined the approvals required, from Central Government and Government agencies for establishing SBF of India under the alternative structures;
- v.) identified approvals required from regulatory bodies for establishing SBF of India under the alternative structures;

- vi.) highlighted the procedure and time frame for implementation of the alternative structures and;
- vii.) performed comparative analysis of alternative structuring options and suggesting a structure that best meets the requirements of SBF, given its business objectives.

After discussions were held during the Steering Committee meeting, Arthur Andersen explored the option of structuring the SBF as a Non Banking Financial Corporation (NBFC) in greater detail and presented their findings to the SFCBI team. The team weighed the pros and cons of the NBFC option and decided to pursue another structure, shown schematically below.

SolarBank Fund



SolarBank International Fund (SIF): Investment vehicle for institutional investors, corporations, and foundations, established in Dollars and Euros.

SolarBank Fund of India (SBF/India): Fund established in India, funded about 40% by SIF, and about 60% by Indian investors in Rupees. The SolarBank Team held conversations with a number of financial institutions in India, such as IDFC, in pursuit of the identification of a strategic partner and fund manager.

Use of funds: SBF/India would structure capital transactions suiting the needs of the many retail lenders in India.

Key Results: SIM pursued the formation of a SolarBank Fund of India (SBF-I), with an objective of establishing such a fund coincident with the SFCBI program. However, it proved not to be feasible to establish the Fund within the three-year initial period of the SFCBI program:

On the positive side, the concept of a SolarBank fund was widely promoted around India, there was enthusiastic acceptance among the PV community and mild acceptance among the financial community, and there exists a prospective institutional partner.

Work on SBF-I continued through the period of the project, including a reassessment of its feasibility, looking at all findings to date. Generally, the reassessment led to conclusions that had more concerns than positives, including the pull-out of western power generation and financing interests from India, the shift of public sector attention to preparation for Johannesburg, and a general financial turn-away from renewables following the peak of such interest in 2000-2001.

Nonetheless, efforts continued in two directions: i) discussions of a relationship with Infrastructure Development Finance Corporation (IDFC) on identifying alternative financing schemes, and providing the recommendations to structure such a program; ii) submission of a summary proposal to the senior management of one New York bank, with initially positive indications of interest. IDFC investigated the current available financial schemes, forecasting financial viability of these schemes and making recommendations on appropriate interventions necessary in the development of innovative financing mechanisms to facilitate retail financing of solar lighting systems at the consumer level and discussions with several major US-based banking corporations. A detailed report from IDFC can be found in Annex One E.

On the negative side, the IPP and US/European power finance communities have exited India during the period of the work, leaving little or no interest in putting funds into India's solar market. In addition, it was found to be quite complicated and perhaps expensive to establish an in-country fund. Further, the uneven record of solar financing in developing countries at that juncture, and the general down-turn of the economy have undermined attempts to establish the fund during the project period.

Thus, while the balance of the surrounding issues was primarily negative at the end of the three-year period, with most of the influencing factors being in no way under the control of the SolarBank initiative, the positive feedback received from key stakeholders gives room to optimism that the concept would be viable in the future under more favorable conditions. Therefore, SIM will maintain some development of a SolarBank fund and continue to pursue funding and partners that will support its development.

Task 2 Developing Solar Markets and Projects

Technical Lead: SFCBI Coordinator and WII

Description: It is widely acknowledged that while the lack of financing is a major constraint on the growth of solar markets, it is equally true that the lack of robust projects is a major impediment to the development of financing mechanisms.

Further studies to document the lack of good projects and the difficulties of developing good projects in developing countries would not solve the problem. Only hands-on development work applied after careful study of the situation would cause good projects to take shape. This task involved two subtasks in further identifying and developing viable solar projects in India. It included market awareness, project identification and development and industry partner identification.

Technical Assistance to Solar Energy Enterprises – WII and SFCBI Coordinator identified a portfolio of target solar energy investment opportunities in previous work. In years one and two the team worked with the entrepreneurs to advance the financing potential for each opportunity.

Small Grants – In FY02, small grants totaling \$4000 were made to organizations interested in venturing into solar (out of a proposed total of \$6000). The SFCBI team advertised, requesting for proposals, in

“REPSOVISION” and in Indian newspapers, after developing qualifying criteria to help screen investment opportunities, as well as setting up an investment committee to review proposals and make decisions on grants.

I-CARE: While in India, SIM developed the concept for an 800 MW India Clean and Renewable Energy (ICARE) project consisting of 720 MW of gas-fired combined cycle bulk power generation and 80 MW of renewable energy including 16 MW of solar PV, for the state of Karnataka. Two consultants were contracted to conduct a scoping study. The basic objective of this exercise was to identify broad parameters for the establishment of a commercially viable power project(s) that integrates fossil-fuel-fired plus renewable energy (i.e. bundled / hybrid) technology in India in the coming years.

SFCBI team expects that the work under *Technical Assistance* and *Small Grants* with the enterprises interested in developing solar energy projects would eventually result in 100,000 new SHS units and 2000 new solar water pumping units completed or under development in India.

Key Results: SFCBI offered the business planning grants to those organizations that were not active in the solar lighting industry, but who wanted to enter into the market in near-term, thereby bringing in new players and supporting innovative ideas for building commercially viable solar businesses. The grants were designed to help entrepreneurs overcome the initial barriers often faced when developing new lines of business.

SFCBI administered the business planning grants under the umbrella of the Solar Projects and EntErprises Development (SPEED) Fund. WII invited entrepreneurs interested in developing new commercially-viable solar energy projects to submit brief 2-3 page concept notes containing information on prospective projects, including, but not limited to, a brief description, details on the promoter and any partner organizations, and expected contribution from the promoter. The SPEED Fund Investment Committee, consisting of Dr. Venkata Ramana (WI), Mr. Mike Eckhart (SIM), and Ms. Ayesha Grewal (WII) screened the concept notes received and reviewed by Mr. Rahul Arora (SFCBI Coordinator), and selected a set of projects for award of grants. The Investment Committee approved five grants (described below) in the \$1,000 to \$1,500 range.

Aurore Projects and Services (Aurore)

Grant Amount: \$1,000

Sun Min and Aurore worked together to demonstrate the viability of solar light business in the vendor applications niche by using the SPEED fund to buy down the risk associated with the venture to the entrepreneur. The proposal involved offering a solar alternative to the snack and curio vendors and the fishermen in Chennai to displace the current lighting options - pressurized kerosene lamps, LPG lamps, and battery charging. The initial estimates indicated that it might be possible to spread the costs associated with providing the solar lighting option to a daily value, which would be comparable with the avoided cost of the conventional lighting option. Aurore utilized the Grant for the development of a viable business strategy, including an in-depth analysis of financing for the company as well as for its potential customers.

Status: Completed

Bharathiya Vikas Trust (BVT)

Grant Amount: \$1,500

Bharathiya Vikas Trust (BVT) used the SPEED Grant to prepare a business and financing plan for a proposed SELCO Business Associate program to provide sales and distribution outlets for solar lighting products in Karnataka. The proposal involved offering solar alternatives for lighting to vendors and households in rural parts of Karnataka. The initial estimates indicated that potential customers have limited or no access to electricity, and it might be possible to provide access to them through solar lighting technologies. BVT utilized the Grant for the development of a viable business strategy, including an in-depth analysis of financing for the company as well as for its potential customers.

Status: Completed

Provident Trust (Provident)

Grant Amount: \$1,000

Provident is working in the state of Tamil Nadu in South India on various aspects of tribal self-determination and appropriate development, including energy, health, agriculture, education, culture, traditional rights, and right to information. Provident had requested IT Power India (ITPI), a leading renewable energy engineering consultancy based in South India to extend technical support to a solar electrification plan. Provident submitted a proposal for a grant towards a project designed to demonstrate the financial and business viability of solar electrification as an energy service in a tribal village in the Attur and Salem mountain ranges of the Eastern Ghats in Tamil Nadu. The Project was catalyzed by Provident but managed by a tribal village Self Help Group. The main aim of the project was to extend the 'fee-for-service' concept in solar electrification from other geo-political regions to rural India.

Status: Provident had not submitted the finance/business plan as of October 31, 2002.

Madhya Pradesh Gramin Vikas Mandal (MPGVM)

Grant Amount: \$1,500

MPGVM used the funds sanctioned under the SFCBI SPEED Grant Program to prepare a business and financing plan for a project aimed at supplying solar lanterns and SHSs to vendors and households in and around Bhopal. The proposal involved offering a solar alternative to vendors and households to displace the current lighting options - kerosene lamps, LPG lamps, battery charging, and grid powered inverters. Initial estimates indicated that it would be possible to spread the costs associated with providing the solar lighting option to a daily value, comparable to the avoided cost of the conventional lighting option. MPGVM utilized the Grant for development of a viable business strategy, including an in-depth analysis of financing for the company as well as for its potential customers.

Status: Completed

Polyene Film Industries (PFI)

Grant Amount: \$1,000

PFI is based in Chennai with a branch office at Hyderabad, and has experience in the field of solar photovoltaic (PV) pumping. However PFI had little experience with solar home systems (SHS), and wanted to develop a viable business strategy to accelerate the use of SHS in commercial use applications using the network of Aadarsha Mahila Samaikya (AMS), an NGO in the district of Mahabubnagar of Andhra Pradesh. WII provided PFI with a Grant to assist in the development of this business strategy. PFI was to utilize the Grant for the development of a viable business strategy, including an in-depth analysis of financing for the company as well as for its potential customers.

Status: PFI could not avail the grant, as the company was unable to obtain the FCRA (Foreign Currency Regulation Act) clearance, a Government of India pre-requisite for extending grants from foreign funds.

Task 3 Training Lending Personnel

Technical Lead: WII, technical guidance from the Institute for Sustainable Power (ISP)

Description: In the capacity building arena, SFCBI implemented an education and training program on issues relevant to financing solar energy projects for lenders and other financial professionals. These were one-half to two-day short courses and seminars on the technologies, economics, and financing issues pertinent to solar energy. This training was different than training technicians, who would go out and make installations based on the training. With financial professionals, the task was to get them up the learning curve on solar energy to the point that they would begin asking right questions and have a context for

understanding the answers they receive. The goal was to make lenders more comfortable with solar technologies and more confident in their own abilities to assess financing opportunities.

Key Results: One of the core elements of the SFCBI was this training program designed to train 1,000 financiers in the methodologies for lending for SHSs. In order to achieve this target, the SFCBI team developed a three-phase program:

- 1) The *Pilot Phase*, which was designed to make branch managers familiar with PV systems, confident in their abilities to assess related financing situations, and enable them to evaluate related financing opportunities. At the same, this phase gave the team an opportunity to test the training module and materials, and amend and improve them based upon the feedback received from participants in this phase;
- 2) The *Train the Trainer Phase*, which was designed to ensure the ongoing sustainability of the SFCBI Bankers' Training Program by transferring sufficient knowledge to the Faculty of Banks' Staff Training Colleges thereby enabling them to continually offer courses that teach branch manager level officials within their bank the skills necessary to analyze and process loans for solar home systems (SHSs); and
- 3) The *Operational Phase*, which was designed to implement the revised Branch Managers' Training Program, and expand its geographical reach.

WII was the lead in the execution of the SFCBI Bankers' Training Program, and received technical and managerial assistance from other partners. The core training team partnered with Syndicate Bank, a nationalized bank, and Bharathiya Vikas Trust (BVT), an NGO in Karnataka, in designing the training strategy and courses, preparing course materials, and in organizing and executing the Training Program. Each training course included a familiarization module designed to introduce finance professionals to the technical and economic aspects of SHS, a finance module that instructed the bankers in the methods of lending for SHS, and case study module that detailed actual structures and presented experiences. Detailed results are in the Accomplishment Section below.

Task 4 *Strengthening the NGOs and their role in solar energy markets*

Technical Lead: *WII with technical assistance from Insights in Action (IIA)*

Description: Building the experience and expertise of grassroots constituency based NGOs in consumer lending for solar energy is an effective way of promoting the use of solar technologies. In fact, NGOs may be the only avenue through which to promote the use of solar technologies to some isolated low-income populations. NGOs are trusted sources of information for large numbers of potential consumers because they have pre-existing relationships with them. NGOs also have outreach mechanisms already in place that extend to remote rural areas. As a result, they can often bridge the gap between potential consumers and financial institutions that might otherwise not consider such lending opportunities.

Therefore, activities under this task were designed to assist one non-profit institution in strengthening existing credit programs for the specific purpose of promoting consumer access to solar energy financing. The team's hypothesis in this component was that there was a large and heretofore barely tapped demand for solar applications and that financing was seldom available for people who could not afford to buy systems outright but were capable of paying in installments.

The SFCBI team identified a well-managed and programmatically effective NGO in the form of SHARE (Society for Helping and Awakening Rural poor through Education) that has a dynamic relationship with a growing constituency and a mission related reason for undertaking new commitments associated with solar

financing. The team provided SHARE with necessary technical assistance to facilitate the expansion of their current lending operations to include access to financing for solar. The targeted results were to increase end-user access to solar energy loans through SHARE's current client base and to increase the number of NGO-based lending programs specifically dedicated to solar energy. The results are related in that they address the reality that lenders need the following incentives and supports before they can and will serve this market: i) cost-effective ways to provide small loans to non-traditional customers, and ii) familiarity and comfort with solar products and their consumer applications. NGOs are uniquely suited to ensure that solar lending programs address specific local development problems and generate new development opportunities.

SFCBI assisted SHARE in strengthening their existing micro-credit programs for the specific purpose of promoting consumer access to solar energy financing. SHARE, registered as an NGO under the Public Societies Act 1350 in 1989, is based in Hyderabad. The organization's mission is to mobilize resources in order to provide financial and support services to poor women all over the state of Andhra Pradesh for viable productive income generation enterprises that enable them to reduce their poverty.

SHARE has continued to innovate and adapt its financial services, learning from a range of existing models and methodologies. The organization offers several types of loans: general, seasonal, housing, sanitary and family. It also offers other products, through a network of 36 branches in 592 villages. This equates to 69,716 savers, 54,860 of whom are active borrowers. All of SHARE's clients are women, and their repayment rate is 100%. The products that are offered are based on clients' needs and are designed in consultation with clients. The repayment period varies for each loan product and is based on the repayment capability of the client.

Key Results: In order to help SHARE develop the technical capability and know-how necessary to structure and execute the integration of a credit mechanism to support clients for financing SHS, WII provided the NGO with a three-element assistance package under SFCBI to implement a pilot project designed to enable the institution to include loans for solar into its existing portfolio. The three elements were financial assistance, technical expertise, and expansion-related.

Financial Assistance: SFCBI covered up to 50% of the salary of an officer at SHARE to work exclusively on incorporating lending for solar PV into its existing micro-credit program. In addition, SHARE was provided with a grant to help defray the upfront costs of executing this program.

Technical Expertise: SFCBI provided SHARE with technical expertise to help develop the program, and offered technical assistance in areas ranging from development of system design and specifications, to development of the bid specifications for the procurement of systems for the solar program.

Study Tour to Sri Lanka: SFCBI, in partnership with Sarvodaya Economic Enterprise Development Services (Guarantee) Limited (SEEDS, a Sri Lankan microfinance institution with a successful lending program for solar) organized a Study Tour to Sri Lanka designed to help SHARE develop the technical capability and know-how necessary to structure and execute the integration of a credit mechanism to finance the purchase of solar lighting products. The Tour consisted of meetings structured to introduce the participating SHARE officials to solar photovoltaic technology, and the structural, design and implementation issues surrounding the financing of the same to rural clientele. On the Study Tour, SHARE staff had the opportunity to examine SEEDS' micro-credit program that makes financing available to clients for solar. SEEDS, briefed the members of the SHARE delegation on the technical, economic, and social aspects of financing solar through micro-credit. SEEDS also facilitated meetings and seminars so that members of the SHARE delegation had the opportunity to speak with each of the parties involved in the transactions that make up the operation benefiting from the lessons learned under a working program. These meetings and seminars included an overview of the solar industry in Sri Lanka, a discussion of the operational aspects of lending for solar, discussions with solar suppliers, and field trips to see solar installations and interact with end users.

Technology Training: The SHARE team attended two training programs on “Effective Lending for Solar” organized and conducted under SFCBI. While these sessions were targeted at building the capacity of Branch Manager level bankers in lending for solar, they provided a medium for the SHARE team to learn about the technological aspects of solar lighting.

Introduction to Reputed Solar Manufacturers and Suppliers: The SFCBI team introduced SHARE to solar photovoltaic manufacturers, suppliers, and distributors to assist them in establishing supply chain linkages. In addition, the SFCBI team has reviewed the technical specifications and pricing details with the SHARE team. The SFCBI team also designed a series of tests to gauge the quality of the products offered.

Feasibility Studies: The SFCBI team worked with SHRE in designing feasibility studies conducted to identify suitable locations for the execution of the pilot lending program. SHARE conducted these studies in four branches, and was executing the pilot program in three of the four areas.

Expansion Related: The SFCBI team assisted SHARE in defining a financial structure and business plan for the growth of the program that could then be taken to institutions for financing.

SHARE is now in the expansion phase of the solar program. The awareness programs would be conducted in other locations where feasibility studies indicated strong demand for solar lighting products. Towards this end, the SFCBI team assisted SHARE in designing a revolving fund that would be used to make loans to members for solar lighting products with a one-year tenure. The loan repayments made by members would be placed in a fund and used to finance the purchase of solar lighting products by other members and clients.

SHARE approached WII for a loan of \$50,000 under the Accelerating Renewable Energy Commercialization in India (ARECOMM) project towards the establishment of this fund. The loan was approved and SHARE would augment this fund with approximately \$190,000 of its own resources. The fund will be used through March 2007, over which period SHARE anticipates to finance the purchase of 11,100 lanterns, 250 solar home systems of 37 Wp capacity, and 720 solar home systems of 12 Wp capacity by creating the revolving fund in support of these loans.

SHARE initiated its lending program for lanterns in late August 2002. In spite of the price hurdle and the lack of end-users’ familiarity with solar technology, SHARE has sold fourteen lanterns in a month’s time; three in Kanuru, six in Kurnool, and five in Parvatipuram, all in Andhra Pradesh.

Task 5 *Communications and Outreach*

Technical Lead: *SFCBI Coordinator, SIM, WI, and WII*

Description - There are three elements in the SFCBI team's communication and outreach strategy:

Quarterly roundtable meetings: Quarterly meetings were held in various cities, consisting of a luncheon and networking opportunity. Luncheons are common format for financial professionals to learn about new subjects, increase their comfort with an industry and build their network of contacts among people who share similar interests. Lenders, investors, lawyers, accountants, investment bankers, consultants and other professionals who were interested in financing solar energy projects attended these meetings. The meetings also provided a forum for promoting the training courses. The participants or sponsors co-sponsored the cost of the lunches, while project funds were used to cover the cost of planning the meetings, maintaining a database of names, mailing notices, making arrangements, hosting the meetings and otherwise managing the process.

Key Results: Details on various meetings held are referenced in Annex 2 under Communications and Outreach

Advertising and promotion: The SFCBI team orchestrated an advertising and promotion campaign intended to get the right number of people who were interested in solar energy financing to the appropriate meetings and disseminated information on the training programs through press releases which were translated into various local dialects and circulated to the media.

Key Results: One of the highlights under this task was the SFCBI Conference. WII, in partnership with Winrock International, organized a two-day conference on Capacity Building for Solar Financing in India. The conference was held on September 9th and 10th, 2002 at the India Habitat Center in New Delhi. Sixty-two (62) persons representing 44 different institutions attended the conference.

The conference wrapped up the three-year program and focused on what the team had achieved and learned about solar energy financing, especially as it applies in the banking and microfinance sectors. It brought together representatives from governments, solar manufacturers and suppliers, banks, non-banking finance companies, microfinance institutions, NGOs working in the solar industry, and other key stakeholders to explore linkages between solar energy and finance, as well as discuss alternative approaches to implementation.

Press Kits, media advisories and full press coverage on the training programs and the two-day agenda for the conference, participant list, and copies of all presentations made at the sessions are detailed in Annex Two under Communications and Outreach

Financing newsletter: The SFCBI team assembled information on the financing of all solar technologies through an internet based distribution process.

Key Results: Website for the SFCBI project outlining program details and showcasing results is operational on the Internet; www.sfcbi.com

Task 6 *Policy Support*

Technical Lead: Winrock International

Description: The members of the SFCBI team have extensive experience in policy analysis, design, and structuring and would be available to assist the USAID/India Mission with technical assistance work as called upon to do so within the constraints of the SFCBI budget.

Key Result: The SFCBI team was not called upon to perform any policy related tasks throughout the term of the project. However, through regular professional contact with key officials in MNES, IREDA and other agencies, and ensuring the participation of key policy makers in various events organized under the project, SFCBI has had a positive impact on policy in India.

3. PROGRAM ACCOMPLISHMENTS

The activities of SFCBI were designed to strengthen and broaden the institutional capacity for financing of solar energy enterprises in India as well as mobilize existing and new business entities to develop renewable energy projects and leverage investment in such enterprises. The initial projected results of these activities under the USAID metrics are specified below. As previously discussed and disclosed to the Project technical officer, due to the long lead times associated with financing solar energy projects and strengthening existing or establishing new financial intermediaries the results specified in the “financial commitments” and “mobilizing business” metrics may take several years beyond the end of two year agreement period to realize the overall targets.

The SFCBI team estimated that during the agreement period and the years immediately following it, results from the activities would include:

Increased financial commitment

Anticipated result **US\$35 million leveraged** for solar energy projects as a result of the institutional mechanisms established under the Initiative.

Through the SFCBI intervention with SHARE, a loan of \$50,000 under the Accelerating Renewable Energy Commercialization in India (ARECOMM) project will be awarded to SHARE towards the establishment a revolving credit fund. SHARE will augment this fund with approximately \$190,000 of its own resources. Using these resources, SHARE expects to do a total business worth \$2.4 million in the next 5 years. Further, the public sector banking institutions, the primary target for capacity building under SFCBI, would be actively involved in lending in solar energy sector under the government’s remote village electrification program, which has a target of 18,000 villages. This would translate to over 500,000 solar systems approximately valued at \$25-50 million.

Training members of the Indian financial community

Anticipated result **1,000 financiers trained** in issues relevant to financing solar energy projects **in India** as a result of the institutional mechanisms established under the Initiative.

While the SFCBI team had committed to train 1,000 financiers in lending for solar, the team exceeded the target within the stipulated timeframe and budget, and trained 1068 financiers -- 428 in Phase One, 151 in Phase Two, and 489 in Phase Three. A synopsis summary of the training programs can be found in Annex One B.

Mobilization of business entities

Anticipated result **100,000 new SHS units and 2000 new solar water pumping units completed or under development in India** as a result of the institutional mechanisms established under the Initiative.

In addition to the leveraging to be done by the recipients of the project, SHARE, PFI, BVT, etc. who are committed to expand their solar energy portfolios, the banking sector involvement is expected to increase considerably in this sector in the next decade. WII conducted a survey covering approximately 40% of the bankers trained in phase I of the SFCBI Bankers’ Training Program. The data collected suggests that loans for solar lighting increased by over 565% after the bankers attended the SFCBI training sessions. Further, there was also an increase of approximately 115% in loans made for solar hot water systems

Strengthening of a host country NGO

Anticipated result

One NGO in India operating credit programs for the specific purpose of promoting consumer access to solar energy financing

SHARE initiated its lending program for lanterns towards the end of August 2002. In spite of the price hurdle and the lack of end-users' familiarity with solar technology, SHARE has had a promising entry in this field with selling fourteen lanterns within a month. They will continue to expand their lending portfolio for solar energy financing through the revolving credit fund they are establishing as stated above. They expect to do a business of \$2.4 million in the next 5 years.

Policy and regulatory changes

Anticipated result

To be determined based on the needs of USAID/India

Though the SFCBI team has not been called upon to perform any policy related tasks, regular meetings with key officials in MNES, IREDA and other agencies, as well as capacity building and information dissemination on solar energy technology and financing through our activities in this program has had a positive impact on policy in India.

4. LESSONS LEARNED AND RECOMMENDATIONS

SFCBI has been able to generate considerable interest among the financial community in India regarding the potential of solar energy. While it is understood that many barriers are still to be addressed before solar energy could become a viable energy alternative, this initiative has shown that creating access to financing would go a long way in expanding the market for solar energy. The key lessons accumulated during the course of this project are summarized below:

- Lack of capital is not a major constraint in the Indian financial sector. However, there are serious risk perceptions within the banking community regarding the viability and sustainability of the solar energy technology. General lack of awareness, uneven track record of the sector in the past, mixed policy signals with respect to cash subsidies, etc. are some of the factors that have prevented the commercial banks from active participation in this sector. The capacity building and communication activities under SFCBI have helped address this issue to some extent.
- An active interface is necessary among the key stakeholders involved on the ground to create businesses on the ground (bankers, entrepreneurs, equipment suppliers, NGOs, local officials, etc.). A public-private partnership approach needs to be promoted to create awareness, build local capacity, and facilitate project development. The success achieved by the partnership approach adopted under SFCBI is a good illustration.
- There is a role for market facilitation organizations (MFOs) to accelerate the commercialization process. Banks, though they may be interested in financing the sector, will not have the wherewithal to undertake market facilitation in the form of networking, partner-matching, information dissemination, market research, user education, business-deal identification and facilitation, technical assistance, etc. Therefore, attracting NGOs like SHARE, which enjoy credibility and trust among the consumers, into taking up the role of MFO is critical for the solar energy sector.
- Attention needs to be given to entrepreneurial development in the solar energy sector, especially in the rural areas. SPEED Fund under SFCBI is a good example of how this could be done. There are no readily available solar entrepreneurs in the rural areas, and it is necessary to provide incubation assistance for enterprise development. Some of the international donor assistance should focus on this component.
- While creating access to financing is critical, it is equally important to develop financial mechanisms to suit the ground level conditions in order for the access to be converted to real program. Financial engineering, with the involvement of local banks and MFIs, will be an important activity in promoting solar energy technology.
- Solar energy technologies are still in early stages of commercialization in India, and commercial banks and MFIs need to come into the sector in a big way if commercialization is to accelerate. The SFCBI program, while significant, is still small compared to the magnitude of potential. Therefore, it is necessary to scale up this effort to extend to hitherto uncovered parts of the country, and to financial institutions other than those covered under SFCBI.

ANNEX ONE: A. PROGRAM OVERVIEW UNDER IIEC

PROGRESS IN FY00 UNDER IIEC (PREPARED BY SIM)

This section presents the summary of the activities of the Solar Finance Consortium (SFC) India program implemented during the period October 1, 1999 – July 26, 2000. SFC was the precursor to the SFCBI and was conducted under a previous Cooperative Agreement with the International Institute for Energy Conservation, (IIEC). Due to a variety of circumstances, IIEC determined that it could not fulfill its duties under the agreement and elected to request termination, which was granted by USAID as of July 26, 2000. The program had, however, progressed well during the initial year of funding, under the direction of SIM. Please find below a brief description of the activities carried-out under the SFC India program prepared by SIM.

Management

SIM acted as Program Manager and the various other team members made technical contributions, performing through subcontracts. A country manager was retained in New Delhi and Mr. M.D. Prabhu, retired from Canara Bank, was retained as Honorary Banking Consultant in Bangalore. Program management meetings were held monthly.

Chronology

Major activities and milestones during FY 2000 were as follows:

- 28th September, 1999 - Signed cooperative agreement between USAID and IIEC for the SFC program.
- 29th November - 10th December, 1999 - First SFC mission to India.
- 19th January, 2000 - AURO Consult retained by IIEC as SFC India Country Manager.
- 13th February - 1st March, 2000 - Second SFC mission to India.
- April, 2000 - Released request for Expression of Interest (EoI) for the institutional feasibility study for SolarBank fund of India.
- 30th April - 16th May, 2000 - Third SFC Mission to India.
- 11th July, 2000 - IIEC requests termination of CA.
- 26th July, 2000 - USAID issues termination of CA.
- 24th August, 2000 - SIM meets with Director USAID global.
- 23rd September, 2000 - USAID reinstates funding for SFCBI program through associates award to Winrock International as prime recipient.

Task Activities

Progress was made in planning each of the key tasks under the SFC Program. Feedback during the program confirmed widespread interest and enthusiasm about having the program implemented in India. Three steering committee meetings were organized during this period:

- First on 4th December, 1999 at TATA BP Solar India factory in Bangalore;
- Second on 25th Feb., 2000 at Dr. BSK Naidu's (REC) office in Delhi, and;
- Third on 11th May, 2000 at TAJ Residency in Bangalore.

➤ **Development of financing mechanisms:**

- Terms of Reference (TOR) for carrying-out SolarBank Fund of India Institutional feasibility study was drafted, discussed and circulated for comments among the steering committee members.
- After incorporating all the necessary recommendations the TOR was forwarded to eight organizations viz Winrock International India, TATA Energy Research Institute (TERI), CRISIL(Credit Rating Information Services of India Ltd.), Arthur Anderson, Price Waterhouse Coopers, KPMG, Titus & Co-Ernst & Young and ITPI-Deloitte, Haskins and Sells, inviting EoI (Expressions of Interest).
- Six organizations namely Deloitte, Haskins and Sells-ITPI, Titus & Co-Ernst & Young, Arthur Anderson, KPMG, Winrock International India and Price Waterhouse Coopers submitted EoIs in carrying-out the study.
- Meetings and detailed discussions were held with all the above six firms who expressed interest in carrying-out the study and their EoI's were also circulated to the steering committee members, for their advice.
- The results were presented to the steering committee, which after examination of the EoIs, developed a short-list, recommending proposals to be invited from four firms viz KPMG, ITPI-Deloitte's, Haskins and Sells, Price Waterhouse Coopers and Arthur Andersen.
- The final RFP letter requesting proposals from the four selected firms was drafted and sent-out indicating acceptable procedure and deadline for submission of technical proposal as well as price bid.
- All the above four firms responded with proposals as per procedure indicated/requested.
- Preliminary round of discussions were held for the establishment of the administration of the SolarBank Fund of India with BASIX- an internationally backed micro-credit NGO based in Hyderabad.

➤ **Market and project development:**

- While in India, SIM developed the concept for the 800-megawatt India Clean and Renewable Energy (ICARE) project consisting of 720 MW of gas-fired combined cycle bulk power generation and 80 MW of renewable energy including 16 MW of solar PV, for the state of Karnataka.
- Additionally, there was certain progress on advancing of commercially viable financeable entity options/concepts for large number of solar PV water pumping projects in Southern India with Polyene Film Industries (PFI). A PFI customer was visited and discussions were held with Mr. Geethakrishnan, former Union Finance Secretary now on board of PFI.
- Discussions were held with TATA BP Solar, Shell Renewables India and SELCO about prospective financing of their projects.
- Separately, it was decided during the period that SELF's prospective trip to India during January-February 2000 should be deferred until the second year, and that the SFC program would cover the cost of SELF's initial exploratory trip, while SELF will be required to raise funds for subsequent trips.

➤ **Training:**

- SFC was committed to implement an education and training program in renewables for 1000 lenders and other financial professionals in India. These will be ½ -day to 2-day short courses on the technologies, economics, and

financing issues pertinent to solar energy and other renewables. The Institute of Sustainable Power (ISP) took the lead for SFC's training program.

- ISP began to assemble information about similar training and certification programs and drafted agenda for discussion on the training programs. The training program will be one of the priority tasks in the approaching year.
- Working sessions with Mr. MD Prabhu, who had joined SFC as Hon. Banking Consultant were conducted. It was agreed to retain Mr. Prabhu for the development of lender training manual, ISP will prepare training program plan and PV familiarization package to be developed at SFC India office.
- Mr. MD Prabhu had expressed in writing for requirement of a home PC/computer with internet and UPS facility along-with secretariat support and suitable mechanism was to-be worked-out.
- There were initial round of discussions with Canara Bank Staff Training College, Banking Institute of Rural Development (BIRD), NABARD for including SFC training module into their regular training program.
- Discussions were also held with IT Power India Ltd., exploring cooperation with PVMTI program and execution of training at AUROVILLE in Pondicherry.
- NPTI-National Power Training Institute was visited, discussions were held with their Executive Director and NPTI also subsequently submitted a proposal to implement four regional workshops for organizing SFC training program for conventional power plant/SEB professionals. Dr. Naidu also organized meeting with Jt. Secretary, Ministry of Power, Govt. of India.
 - CIRE was visited and discussions were held with its Director about co-sponsoring a PV finance training module in their training of cooperative utility managers.
 - SIM initiated dialogue with Shell Foundation for financial support for development of training component. Discussions were also held with Corvo DL Blair, the implementing agency of Shell Foundation for continuing support to Sunergy 2000, financing the future series of workshops. SFC India also participated in the SUNERGY 2000 program, Chennai.

➤ **NGOs:**

- SFC is committed to undertake activities designed to strengthen one existing non-profit institution in India, for the purpose of promoting consumer access to renewable energy financing. Insights in Action (IIA) took the lead for SFC's NGO program.
- First round of discussions were held with All India Womens' Conference (AIWC) in Delhi, BASIX in Hyderabad and CTD in Bangalore.
- Second round of discussions were held with CTD-NGO Resource Center, Deccan Development Society, Center for Environmental Concerns, SHARE, Ramakrishna Mission, Jan Parishad, Winrock International India, and TERI. IIA made recommendations for supporting SHARE as it was found to possess all the necessary qualifications in-line with SFC objectives.

➤ **Communications programs:**

- SFC India implemented two quarterly roundtable luncheon meetings in New Delhi and Bangalore, the details of which are included in Annex 1& Annex 2.
- Planning was done to hold the next quarterly roundtable luncheon meeting in Hyderabad.

- It was planned to bring-out SFC India one-page newsletter, along-with photographs of the roundtable luncheons executed.

➤ **Policy support:**

- SFC is committed to assist the USAID Mission in policy analysis when called upon to do so. There were no policy tasks during the period covered by this report.

ANNEX ONE: B. DETAILED TRAINING PROGRAM RESULTS

One of the core elements of the SFCBI was this training program designed to train 1,000 financiers in the methodologies for lending for SHSs. In order to achieve this target, the SFCBI team developed a three-phase program as outlined below: Pilot Phase; Train the Trainer Phase; Operational Phase

PILOT PHASE: The SFCBI team worked together with Syndicate Bank and BVT to execute the first set of ten courses in the SFCBI Training Program. These first ten courses were designed to serve as a pilot for the Initiative, while at the same time were targeted at providing Branch Manager level bankers in the states of Karnataka and Kerala with the information they need to evaluate and process a request for a loan for a SHS. The training courses in the pilot phase offered an opportunity for the SFCBI team and the participants to learn from each other by exchanging and refining ideas of both content and approach. The following table is a summary of the ten sessions conducted during the Pilot Phase.

**Summary of SFCBI Training Programs Conducted During
the Pilot Phase**

Location	Date	Number of Participants
Udupi, Karnataka	June 9th - 10th	47
Mangalore, Karnataka	July 7th - 8th	52
Kundapura, Karnataka	July 21st - 22nd	36
Puttur, Karnataka	July 28th - 29th	39
Kumta, Karnataka	Aug. 4th - 5th	51
Kasaragod, Kerala	Aug. 11th - 12th	42
Kannur, Kerala	Aug. 18th - 19th	42
Udupi, Karnataka	Aug. 25th and 26th	30
Sirsi, Marnataka	Sept. 1st - 2nd	42
Kanhangad, Kerala	Sept. 15th - 16th	47
Total		428

TRAIN THE TRAINER PHASE: To ensure the ongoing sustainability of the SFCBI Branch Managers’ training sessions, the team designed and executed five “Train-the-Trainer” (TTT) sessions; one each in Manipal, New Delhi, Hyderabad, Kolkata, and Bangalore. These sessions were designed to build the capacity of faculty at banks’ Staff Training Colleges (STCs) to teach the course on lending for SHS, thereby enabling them to continually offer courses beyond the SFCBI project period. The SFCBI team developed the course structure and Instructor’s Manual for this program. The Instructors’ Manual has been revised several times based on the feedback received from participants, and is currently in its third version. The SFCBI team has trained 151 bankers representing 39 different financial institutions as part of the second phase of the SFCBI Bankers’ Training program. The following table summarizes the five sessions conducted during the TTT Phase.

**Summary of SFCBI Training Programs Conducted During the
Train the Trainer Phase**

Location	Date	Number of Participants
Manipal, Karnataka	March 4 & 5, 2002	33
New Delhi	March 27, 2002	30
Hyderabad, Andhra Pradesh	April 8, 2002	32
Kolkata, West Bengal	May 15, 2002	29
Bangalore, Karnataka	August 10, 2002	27
Total		151

OPERATIONAL PHASE: The objective of the third phase was to implement the refined version of the Branch Managers' Training sessions, and to extend the geographic reach of the program to include areas in Andhra Pradesh. The SFCBI team conducted nine training sessions in this phase, which was attended by a total of 489 Branch Managers. The following table is a summary of the nine sessions conducted during the Operational Phase.

**Summary of SFCBI Training Programs Conducted During the
Operational Phase**

Location	Date	Number of Participants
Anantpur, Andhra Pradesh	August 12th, 2002	61
Kurnool, Andhra Pradesh	August 13th, 2002	43
Ongole, Andhra Pradesh	August 16th, 2002	44
Mysore, Karnataka	September 1, 2002	51
Bellary, Karnataka	September 5, 2002	70
Bijapur, Karnataka	September 6, 2002	52
Belgaum, Karnataka	September 21, 2002	62
Hubli, Karnataka	September 22, 2002	54
Udupi, Karnataka	September 29, 2002	52
Total		489

ANNEX ONE: C. INCREASED LOAN DISBURSEMENTS FOR SOLAR HOME SYSTEMS

WII conducted a survey of approximately 40% of the bankers trained in phase I of the SFCBI Bankers' Training Program. The data collected suggests that loans for solar lighting increased by over 565% after the bankers attended the SFCBI training sessions. Further, there was also an increase of approximately 115% in loans made for solar hot water systems. The following table is a summary of 170 Branch Managers surveyed by the SFCBI team. These Branch Managers represent a sample of those that participated in the Pilot Phase of the Training Program.

**Summary of Feedback from Branch Manager Level Bankers Trained
in the Pilot Phase**

	<u>Numbers</u>	<u>Pre- Training</u>	<u>Post- Training</u>	<u>Percentage Change</u>
Number of Financiers Trained	428	n/a	n/a	n/a
Number of Financiers Surveyed	170	n/a	n/a	n/a
Number of SPV Systems Financed	n/a	51	340	566.67%
Number of Solar Thermal Systems Financed	n/a	247	531	114.98%
Bankers That Provided at least one Solar Loan	n/a	58	114	96.55%
Bankers That Provided at least one Solar Loan (as a percent of total surveyed)	n/a	34.12%	67.06%	96.55%
Average Loan Size (SPV)	n/a	n/a	15,352	n/a
Average Loan Size (Solar Thermal)	n/a	n/a	17,785	n/a

ANNEX ONE: D. THE NGO STRENGTHENING COMPONENT

The Solar Finance Capacity Building Initiative (SFCBI) team executed activities designed to assist one non-profit institution in strengthening existing credit programs for the specific purpose of promoting consumer access to financing the purchase of SHSs. The team worked with the Society for Helping and Awakening Rural Poor Through Education (SHARE), a registered NGO under the Public Societies Act, and that works to mobilize resources, provide financial and support services to poor women in Andhra Pradesh, and provides financing towards productive income generation activities, and enable rural poor to obtain credit. The team provided SHARE with a three-element assistance package under the SFCBI project to assist SHARE in implementing a pilot project designed to enable the institution to include loans for solar into its existing portfolio. The three elements were financial assistance, technical expertise, and expansion-related.

Financial Assistance: SFCBI covered up to 50% of the salary of an officer at SHARE to work exclusively on incorporating lending for solar PV into its existing micro-credit program. In addition, SHARE was provided with a grant to help defray the upfront costs of executing this program.

Technical Expertise: The SFCBI team provided SHARE with technical expertise to help develop the program, and offered technical assistance in areas ranging from development of system design and specifications, to development of the bid specifications for the procurement of systems for the solar program.

Study Tour to Sri Lanka: The SFCBI team, in partnership with Sarvodaya Economic Enterprise Development Services (Guarantee) Limited (SEEDS, a Sri Lankan microfinance institution with a successful lending program for solar) conducted a Study Tour to Sri Lanka designed to help SHARE develop the technical capability and know-how necessary to structure and execute the integration of a credit mechanism to finance the purchase of solar lighting products. The Tour consisted of meetings structured to introduce the participating SHARE officials to solar photovoltaic technology, and the structural, design and implementation issues surrounding the financing of the same to rural clientele. On the Study Tour, SHARE staff had the opportunity to examine SEEDS' micro-credit program that makes financing available to clients for solar. SEEDS, briefed the members of the SHARE delegation on the technical, economic, and social aspects of financing solar through micro-credit. SEEDS also facilitated meetings and seminars so that members of the SHARE delegation had the opportunity to speak with each of the parties involved in the transactions that make up the operation benefiting from the lessons learned under a working program. These meetings and seminars included an overview of the solar industry in Sri Lanka, a discussion of the operational aspects of lending for solar, discussions with solar suppliers, and field trips to see solar installations and interact with end users.

Technology Training: The SHARE team attended two training programs on "Effective Lending for Solar" organized and conducted by the SFCBI team. While these sessions were targeted at building the capacity of Branch Manager level bankers in lending for solar, the sessions provided a medium for the SHARE team to learn about the technological aspects of solar lighting.

Introduction to Reputed Solar Manufacturers and Suppliers: The SFCBI team introduced SHARE to solar photovoltaic manufacturers, suppliers, and distributors to assist them in establishing supply chain linkages. In addition, the SFCBI team has reviewed the technical specifications and pricing details with the SHARE team. The SFCBI team also designed a series of tests to gauge the quality of the products offered.

Feasibility Studies: The SFCBI team worked with the SHARE team in designing feasibility studies conducted to identify suitable locations for the execution of the pilot lending program. SHARE conducted these studies in four branches, and is currently executing the pilot program in three of the four areas.

Expansion Related: The SFCBI team assisted SHARE in defining a financial structure and business plan for the growth of the program that can then be taken to institutions for financing.

SHARE is now in the expansion phase of the solar program. The awareness programs will be conducted in other locations where feasibility studies indicate a strong demand for solar lighting products. Towards this end, the SFCBI team assisted SHARE in the designing of a revolving fund that would be used to make loans to members for solar lighting products with a one-year tenure. The loan repayments made by members will be placed in a fund and will be used to finance the purchase of solar lighting products by other members and clients.

SHARE approached WII a loan of \$50,000 under the Accelerating Renewable Energy Commercialization in India (ARECOMM) project towards the establishment of this fund. The loan was approved by the ARECOMM Investment Committee in September 2002. SHARE will augment this fund with approximately \$190,000 of its own resources. The fund will be used through March 2007, over which period SHARE anticipates to finance the purchase of 11,100 lanterns 250 37Wp solar home systems, and 720 12Wp solar home systems by creating the revolving fund in support of these loans.

SHARE initiated its lending program for lanterns towards the end of August 2002, and sold fourteen lanterns as of the end of September 2002; three in Kanuru, six in Kurnool, and five in Parvatipuram.

ANNEX ONE: E. IDFC REPORT ON DEVELOPMENT OF INNOVATIVE FINANCING MECHANISMS TO FACILITATE RETAIL FINANCING OF SOLAR PHOTOVOLTAICS (PVs) AT THE CONSUMER LEVEL IN INDIA

1 INTRODUCTION

End-user affordability has posed one of the primary stumbling blocks to the development of the SPV market in India, in spite of government subsidies, which for the most part have been ineffective owing to misappropriation and poor implementation.

The need for financing coupled with innovative financing instruments that can help rural consumers to obtain infrastructure services, especially SPVs through the private marketplace is evident and financial institutions and other intermediaries can play an important role in enabling this. In this respect, IDFC has been examining financing facilities and instruments to facilitate retail financing of SPVs at the consumer level in India, the details of which are elaborated upon in this note.

2 ACTIVITIES UNDERTAKEN SO FAR

2.1 Background Research and Important Lessons Learned

The establishment of a financing facility requires a thorough understanding of the barriers faced by large scale financial institutions and rural banks in supporting SPV financing. IDFC has examined various approaches to SPV financing implemented in the country and has also undertaken an analysis of the SPV market based on secondary information. This analysis of the state of the SPV market reveals that financing, in particular, for consumers of SPVs in India has been stymied primarily by lack of access to credit. Given this state of affairs IDFC saw the opportunity to transform the SPV market by playing a catalyzing role in facilitating credit to a section of rural consumers in south India for solar home lighting systems (SHS). The scheme will entail borrowing from the International Finance Corporation (IFC) Photovoltaic Market Transition Initiative (PVMTI) and placing this amount as fixed deposits with select Regional Rural Banks (RRBs) and rural branches of nationalized banks. This is undertaken so as to incentivize these banks to provide consumer finance to rural consumers wishing to purchase SHS provided by SELCO Solar Light Pvt. Ltd. (SELCO), an Indian solar energy service company and SHS provider.

The background research conducted and interactions with various stakeholders highlighted the following valuable lessons to be kept in mind while developing SPV markets in India in the future.

- First, it is imperative that lines of credit be made available to provide an impetus to SPV financing so that rural consumers in particular may benefit from the use of this technology. The existing state of affairs is such that very few banks are prepared to finance rural consumers in the absence of a subsidy or some other form of incentive. However, schemes contingent on subsidies have not proved viable in the past and in India, especially are open to exploitation on account of low levels of transparency and misappropriation.
- Second, the banking system in the India, especially in rural areas needs to be made aware of the acute need for consumer financing in the country and also the benefits associated with banks providing credit. The experience of SELCO has been that once rural banks are convinced of the applicability of the schemes they are very interested in being a part of the scheme. At the same time rural banks need to be strengthened institutionally and need to develop systems and banking practices that are transparent. In this regard, IDFC has also applied to PVMTI for a grant as part of the proposal. The grant will be directed towards strengthening bank systems and facilitating greater transparency and accountability.

- Third, financial institutions need to be made aware of the important role they can play in catalyzing funds for consumer financing in rural areas of the country. In this regard, IDFC's intention is to employ a part of the grant to devise training schemes for banks and financial institutions in SPV financing.
- Fourth, the effectiveness of a scheme of this nature depends in large part on the effectiveness of a Managing Agent whose responsibility is to ensure the effective use of funds as fixed deposits and the working of the scheme. In this regard careful selection of the Managing Agent is very important.
- Fifth, working on the scheme has demonstrated that internal and external capacity building needs to be undertaken especially given the specialized nature of SPV financing programs so as to effectively administer the program and to develop models for replication.
- Last, a possibility that is worth exploring in the future, especially given the clean energy nature and potential of SPVs, is to employ an audit agent to estimate the carbon savings generated as a result of the use of SPVs. These may be packaged for sale as a future stream of income under some appropriate trading mechanism.

2.2 Submission of PVMTI Proposal

Based on the above knowledge and understanding, IDFC has submitted a proposal to the PVMTI for Rs. 7.5 crore (approximately US\$ 1.5 million) at 0%. IDFC's intention is to place this money as fixed deposits with select Nationalized Banks and Regional Rural Banks. The fixed deposits serve as an incentive to these banks to facilitate credit financing of SHS to rural and low-end consumers. The provider of these SHS is SELCO India, who has successfully implemented this scheme in other parts of the country, and sold nearly 10,000 systems in this manner.

SELCO in turn will be responsible for providing the selected banks with consumers requiring credit. The banks will then evaluate the credit worthiness of the consumers to make sure they meet the banks stipulated credit guidelines. IDFC intends monitoring the scheme to ensure transparency and effectiveness by means of a Managing Agent selected for this purpose. The Managing Agent will perform quarterly and half yearly audits to ensure that the scheme is being implemented effectively and will also provide IDFC with details on the leverage (SHS financed to fixed deposits) achieved by the banks so that if necessary the fixed deposits may be redeployed to be put to more optimal use.

2.3 Preliminary Risks Assessment and their Mitigation

In terms of risks, the primary risk faced by IDFC is that of the risk of default on the fixed deposits. This in some manner is considerably mitigated as deposits of Nationalized banks and Regional Rural Banks are secured under a sovereign guarantee by the Centre.

Further, IDFC, in order to ensure SELCO's commitment through the life of this initiative has included a provision in the agreement that provides for a part of the fixed deposit to be made by SELCO.

For SELCO, the primary risk is that of demand from consumers for SHS. This is expected to be more than assured given the tacit policy of certain south Indian state governments to not expand the electricity grid to poorly populated areas and also given lack of access to a reliable source of power in rural and peri-urban areas.

For the select Nationalized Banks and Regional Rural Banks involved with this scheme the most important risk is that of financing credit worthy consumers. This is mitigated by the fact that it is SELCO's responsibility to provide these banks with credit worthy consumers. SELCO conducts a credit assessment of its consumers to ensure that they will meet the banks credit requirements. SELCO provides a product

guarantee to its consumers, which in most cases covers the entire loan period. This provides the banks with an added sense of security. Further in the case of default by the consumers the SHS may be appropriated by the bank.

The PVMTI scheme terminates in 2007 and the average leverage of the number of SHS financed to fixed deposits over the life of this project is expected to be 5.

2.4 *Identification of a Managing Agent*

IDFC has been in discussions with various organizations regarding selection of the Managing Agent for the facility. These preliminary discussions have focused on the scope of work of the Managing Agent. Based on the scope of work discussed, IDFC has asked two organizations to submit a technical and financial proposal. The Managing Agent will monitor the financing process independently. His responsibilities will be to:

- Ensure that the money is placed only with the pre-approved banks and rural financial institutions;
- Coordinate with SELCO and place deposits with the participating banks; review their performance on the basis of reports from SELCO and make changes and redeploy funds if necessary;
- Maintain records co-relating the flow of financing with the placement of fixed deposits;
- Report to IDFC on a periodic basis.

Given the structure of the deal, a considerable part of its success depends on the importance of a credible agency to manage the deal.

3 The Way Forward

IDFC proposes to undertake the following activities in the coming months to build the internal and external capacity to effectively administer the program as well as be able to develop models for replication.

- Hold consultations with potential financial institutions to develop a better understanding of the barriers faced by them in SPV financing. This is proposed to be done through either a workshop or individual interviews. The proposed facility and its mechanisms would also be discussed with these partners.
- Develop an outline of the facility and its structure and discuss this internally with the concerned persons from legal, risk and operations.
- Hold consultations with suitable partners on the facility structure and its mechanisms and fine tune the implementation strategy
- Design and work through a test run of the facility with additional capital, if necessary, from Winrock International.

These activities would be undertaken based on the progress of the PVMTI proposal that has been submitted so as to ensure that the work being carried out by IDFC has scope for implementation. Some of the above tasks may however be initiated depending on other donor/bilateral interest in the schemes.

4 *Benefits of the Intervention*

IDFC expects that this intervention on its behalf will provide SELCO's operations with the impetus necessary to expand into all four states in south India. The freeing up of SELCO's working capital which was being utilized till the intervention to operate the scheme described above will permit SELCO to expand its network and set up more Solar Service Centers which serve as the primary marketing and service block in SELCO's SHS development efforts.

IDFC expects the anticipated roll out planned by SELCO and the scale up of fixed deposits by SELCO to permit the scheme to be self-sustaining once the PVMTI scheme has ended.

The expectation is that once this project has proved successful SELCO (with IDFC assistance) will be able to replicate this scheme in other areas of south India with the scale up necessary to impact the SHS market and thus provide a viable and cost-effective energy alternative for rural areas.

ANNEX TWO: C. COMMUNICATIONS AND OUTREACH

See also - hard copies

SFCBI CONFERENCE OVERVIEW

Winrock International India (WII), in partnership with Winrock International (WI) organized a two-day conference on Capacity Building for Solar Financing in India. The conference was held on September 9th and 10th, 2002 at the India Habitat Center in New Delhi.

The conference wrapped up the three-year United States Agency for International Development (USAID) sponsored Solar Finance Capacity Building Initiative (SFCBI), and focused on what the team had achieved and learned about solar energy financing, especially as it applies in the banking and microfinance sectors. It brought together representatives from governments, solar manufacturers and suppliers, banks, non-banking finance companies, microfinance institutions, NGOs working in the solar industry, and other key stakeholders to explore linkages between solar energy and finance, as well as discuss alternative approaches to implementation.

Dr. Shyamala Abeyratne, President, WII welcomed the participants, and referred to the large potential market for solar photovoltaics in India. She also commented on the high up-front cost of the systems, and thus the need for financing to bridge the demand-supply gap in the market.

Dr. Venkata Ramana, Managing Director, Clean Energy Group, WI gave the participants an overview of SFCBI. He concluded by acknowledging that while this was a relatively small initiative in “mainstreaming” solar energy institutional financing, yet the results were significant, and could be implemented in other parts on India, in other countries, as well as expanded to include other technologies.

Mr. Richard Edwards, Director, Office of Environment, Energy & Enterprise, USAID made the Keynote address. He referred to WSSD’s clear endorsement of renewable energy and the link between energy and development. Mr. Edwards spoke of USAID’s previous involvement in promoting solar technologies in India, and continuing support of the solar financing industry in the form of the upcoming Solar Finance Capacity Building Alliance.

Mr. Anil Razdan, Joint Secretary, Ministry of Power, Government of India inaugurated the conference. He spoke of the increasing need for energy, and the role of solar technologies in meeting the growing demand.

The first session of the day focused on the need for financing for solar in India. Mr. Jaya Kumar Advisor, Business Development, Tata BP Solar India Ltd. spoke about historical developments and the current condition of the solar market in India from a supplier’s perspective.

Mr. Ajay Narayanan, Vice-President, Infrastructure Development Finance Company presented the institutional perspective on financing for solar in India. He identified the four key barriers as relating to technology, management, financing, and policy, and offered potential mitigation strategies.

Mr. R. K. Abrol, General Manager, Syndicate Bank spoke of his banks’ role in promoting solar technologies. He noted that nationalized banks and regional rural banks could be instrumental in unlocking the market by providing financing for these technologies through their excellent network of branches in rural areas.

Mr. Mike Eckhart, Solar International Management acknowledged the role of financiers in the solar market in India, and spoke of the need to build financiers’ capacity to lend for solar.

The second session of the day focused on Financing of Solar through Banks, and focused on the SFCBI Bankers’ Training Program.

Mr. K. M. Udupa, Executive Trustee, Bharathiya Vikas Trust and retired Syndicate Bank executive referred to the limited ability of subsidies to move the solar market in India. He also referred to the importance of banks in popularizing new technologies, and suggested that this can be extended to solar photovoltaics as well.

Dr. E. V. R. Sastry, Advisor, Solar Photovoltaics, Ministry of Non-conventional Energy Sources spoke of the Ministry's achievements in the field, and outlined the targets for the Tenth Five-Year Plan and the financial schemes to be instituted in support of these targets.

Mr. Mike Eckhart, Solar International Management presented on behalf of Mr. Mark Fitzgerald, Institute for Sustainable Power, as he was unable to attend the conference. He stated that solar-specific training can assist bankers by providing awareness of and confidence in the technology and its applications, give a basic introduction to market potential and barriers, create awareness of what is similar to other lending products and what is different about solar, and provide tools that are familiar from use in lending for other products.

Mr. Jeevandhar Kumar, Chief Manager, Syndicate Bank spoke of the Bank's perspective on the SFCBI Bankers' Training Program. Not only did he refer to solar financing as a new avenue of business for banks, but further stated that solar can be financed like any other consumer durable.

Mr. Thomas, General Manager - Projects, SELCO Solar Light Pvt. Ltd. spoke of SELCO's experience with and perspective on financing of solar PV through banks. He mentioned that banks were ideally positioned to bridge the demand-supply gap as they had an excellent rural reach, had policies based on reality, good rural orientation, were faster at implementing policies, And were "at the door-step of the rural households".

Mr. Rahul Arora, SFCBI Coordinator gave an overview of the SFCBI Banker's Training program. He mentioned that the SFCBI team attempted to achieve the Initiative's objective of "reducing the constraints on and increasing the capacity of bankers to make loans for solar PV in India" by implementing a three-phased approach. Further, in addition to training Branch Manager Level Bankers, the team also conducted "Train the Trainer" sessions to ensure the ongoing sustainability of the training program beyond the SFCBI project period.

Ms. Ayesha Grewal, Program Officer (Finance), WII presented the results of the SFCBI Training Program. The team had trained 925 bankers till date, including 774 branch managers and 151 faculty members of Banks' Staff Training Colleges. Further, initial feedback collected from 107 branch managers that had been trained in the first phase of the program suggested that there was a 641.86% increase in lending for solar PV after the bankers attended the training session.

The first session on the second day focused on financing for solar through microfinance institutions MFIs. Mr. N. V. Ramana, Senior Vice President, Strategic Initiatives, BASIX spoke on MFI's ability to finance the purchase of solar products, and the need for capacity building in the sector. He said that as MFIs had extensive manpower presence in rural areas, outreach amongst poor people, frequent visits and door-step service to customers, linkages to community based organizations, and enforced a strict repayment culture, they were well situated in lending for solar PV. However, the referred to the need to build capacity of MFIs at both the organizational as well as field level to enable them to include loans for solar into their existing portfolio.

Mr. Pavankumar Siddhi, Managing Director, Sungrace Energy Solutions (P) Ltd. made a presentation on linkages between solar suppliers and MFIs. He said that the product should be made available on affordable installments with sales and service should provided at the door step in order to create a conducive environment for the promotion of solar lighting. He stressed the importance of the availability of a cost

effective network to penetrate rural markets, and suggested that MFIs were ideally positioned to undertake solar lending activities.

Ms. Ayesha Grewal, Program Officer (Finance), WII gave an overview of the SFCBI MFI Capacity Building Program that was conducted in partnership with the Society for Helping and Awakening Rural poor through Education (SHARE), a MFI based in Hyderabad with extensive reach in rural parts of Andhra Pradesh. In addition to providing financial assistance to defray initial project costs, Ms. Grewal said that the SFCBI team provided SHARE with tailored technical assistance and training in strengthening its existing credit programs for the specific purpose of promoting consumer access to solar energy financing, there by promoting productive uses of solar PV.

Mr. Udaia Kumar, Managing Director, SHARE Microfin Ltd. presented SHARE's experience with the SFCBI MFI Capacity Building Program and related achievements. He stated that SHARE's motivation to undertake the solar lighting program stemmed from the fact that SHARE's micro entrepreneurial clients having trading businesses had been facing problems with regard to inadequate power leading to low productivity and profitability. By providing loans for solar lighting, SHARE could help its clients use solar energy where there is inadequate power supply and power failures to carry on their businesses in a sustainable manner. Mr. Kumar further said that financing the rural people for purchase of solar lighting products was needed as they cannot bear the high initial investment at one time.

The second session for the day focused on the Donors' perspective on solar financing. Mr. John Smith-Sreen, Deputy Director, Office of Environment, Energy & Enterprise, USAID stated that USAID would support improved access to clean energy and water in selected states, and that financing solar energy activities will remain part of the USAID portfolio in the new strategy period, and will include initiatives such as the Solar Finance Capacity Building Alliance. In addition, USAID will also focus on power sector reform, energy market development, comprehensive analysis of energy strategies, sustainable energy development through appropriate technologies, and global climate change.

Dr. Bhaskar Natrajan, Senior Program Officer, India-Canada Environment Facility spoke on the Canadian International Development Agency's (CIDA) perspective on financing for solar. He stated that while innovation in technology was an important criterion for funding potential projects, innovation in delivery was preferred. Further, when determining the merit of a project, CIDA looked at possible impact on policies, the project's impact on poverty, and its sustainability.

Ms. Usha Rao, Program Analyst, Global Environment Facility, United Nations Development Program (UNDP) said that based on UNDP's experience in the sector, viable business models must be demonstrated to sustain market development, and that delivery/business model development evolution and testing require time and flexibility. Further, Ms. Rao said that consumer credit could effectively be provided by micro-finance organizations with close ties to local communities.

In her concluding comments at the end of the two-day conference, Ms. Ayesha Grewal, Program Officer (Finance) WII reiterated the importance of financial institutions (the banks, the MFIs, and the non-banking finance companies) in improving access to electricity through solar technologies, especially in rural areas. She also referred to the role of the central and state governments, suppliers, non-government organizations, and donors.

62 individuals representing 44 different institutions attended the conference. The two-day agenda, participant list, and copies of all presentations made at the session are attached.

SFBBI HANDOUTS

Project: **Solar Finance Capacity Building Initiative (SFCBI)**
Country: India
Funding: USAID/G/ENV/EET, USAID India



Increasing the Capacity for Financing Solar Home Systems (SHSs)

Background



The **Solar Finance Capacity Building Initiative (SFCBI)** is designed to measurably reduce the constraints on, and increase the capacity for, financing of solar energy markets in India while at the same time helping local entrepreneurs in the for-profit and not-for profit sectors build sound portfolios of solar energy projects for investment. Under Winrock's leadership, six organizations are working together to execute the Initiative: Winrock International, Winrock International India, Solar International Management, Institute for Sustainable Power, Insights In Action, and the Solar Electric Light Fund. The SFCBI team offers expertise in and a comprehensive knowledge of the policy, finance, institutional, capacity building, and technological variables necessary to execute successful solar energy projects in India, combined with in-country capabilities and relationships with organizations that have long-term strengths in serving the end users' needs through the market.

Project Activities

The SFCBI team is executing activities in four thematic areas to address the finance-related challenges to developing a sustainable market for solar in India.

TRAINING LENDING PERSONNEL - The SFCBI team is executing an education and training program on issues relevant to financing solar home systems (SHS) for lenders and other financial professionals. These are two-day short courses on the technology, economic, and financing issues

pertinent to SHS. This is different than training technicians, who are expected to go out and make installations. With financial professionals, the task is to get them up the learning curve to the point that they begin asking the right questions and have a context for understanding the answers they receive. The goal is to make lenders more comfortable with solar technologies and more confident in their own abilities to assess financing situations.

With the assistance of Bharathiya Vikas Trust and Syndicate Bank, the SFCBI team executed ten training courses in four months, training over 400 branch manager level bankers. These ten courses represent the first phase of the training program. In the second phase of the training program, the SFCBI course for branch manager level bankers, developed by the team and refined in the first phase, is being formally integrated into the curriculum of the staff training colleges at a number of banks with extensive reach into rural areas in India.

TRENGTHENING MICRO-CREDIT ORGANIZATIONS AND THEIR ROLE IN SOLAR ENERGY MARKETS -

Helping and Awakening Rural poor through Education (SHARE) in strengthening their existing micro-credit programs for the specific purpose of promoting consumer access to solar energy financing. The work with SHARE is structured to serve as a pilot, and will help in delineating how to work with micro-credit organizations throughout India enabling them to include loans for solar PV in their portfolio.

DEVELOPING FINANCING MECHANISMS -

DEVELOPING SOLAR MARKETS AND PROJECTS -



expanding into new markets and/or areas of business.



Only hands-on development work applied after careful study of the situation, will cause good projects to take shape. To this end, the SFCBI team is providing targeted technical assistance services and business planning grants to assist entrepreneurs to develop viable solar projects in India and to advance the financing potential for each opportunity. The business planning grants are targeted towards organizations that are presently not active in solar but desirous of entering solar business in the near-term. In this way, the program will have greater impact in developing solar markets and projects in the country by bringing-in new players and supporting innovative ideas for building commercially viable solar businesses. The technical assistance services are targeted at assisting existing solar energy firms in strengthening existing operations and

SFCBI ASSISTS THE SOCIETY FOR HELPING AND AWAKENING RURAL POOR THROUGH EDUCATION (SHARE)

The Solar Finance Capacity Building Initiative (SFCBI) is designed to measurably reduce the constraints on, and increase the capacity for, financing of solar home systems (SHS) in India, while at the same time helping local entrepreneurs build sound portfolios of solar energy projects for investment. SFCBI is supported by the U.S. Agency for International Development through an award to Winrock International (WI).



STRENGTHENING MICRO-CREDIT ORGANIZATIONS AND THEIR ROLE IN SOLAR ENERGY MARKETS – The SFCBI team has undertaken activities designed to assist the Society for Helping and Awakening Rural poor through Education (SHARE) in strengthening their existing micro-credit programs for the specific purpose of promoting consumer access to solar energy financing.

SHARE, registered as an NGO under the Public Societies Act 1350 in 1989, is based in Hyderabad, India. The organization's mission is to mobilize resources in order to provide financial and support services to poor women all over the state of Andhra Pradesh for viable productive income generation enterprises that enable them to reduce

their poverty.

SHARE has continued to innovate and adapt its financial services, learning from a range of existing models and methodologies. The organization offers several types of loans: general, seasonal, housing, sanitary and family. It also offers other products, through a network of 36 branches in 592 villages. This equates to 69,716 savers, 54,860 of whom are active borrowers. All of SHARE's clients are women, and their repayment rate is 100%. The products that are offered are based on clients' needs and are designed in consultation with clients. The repayment period varies for each loan product and is based on the repayment capability of the client.

The SFCBI work with SHARE is structured to serve as a pilot, and will help in delineating how to work with micro-credit organizations throughout India enabling them to include loans for solar PV in their portfolio. Winrock International India (WII) is one of the partner organizations assisting WI in the implementation of various components of SFCBI in India, and has lead responsibility under the Initiative for the coordination of activities designed to assist non-profit institutions in strengthening existing credit programs for the purpose of promoting consumer access to solar energy financing. Given SHARE's remarkable track record in providing micro-credit financing to clients in rural Andhra Pradesh and their strong interest in integrating a solar a credit program designed to promote consumer access to financing for SHS, WII has selected to provide SHARE with a set of technical assistance services and a grant to assist them in developing a credit mechanism for the specific purpose of promoting consumer access to solar energy financing.

In order to help SHARE develop the technical capability and know-how necessary to structure and execute the integration of a credit mechanism to support clients for financing SHS, WII is providing the NGO with a four-element assistance package. First, WII has organized a Study Tour to Sri Lanka to introduce SHARE officers to a highly successful NGO executing a micro-credit operation that integrates financing for clients interested in securing SHSs. Second, WII worked with SHARE employees to work exclusively on incorporating lending for SHSs into its existing micro-credit program. A grant was provided to conduct awareness programs among SHARE's clients, cover travel costs, and other costs incurred during the marketing of the technologies. Third, WII will provide technical assistance to help SHARE in areas ranging from development of system design, to development of the bid specifications required for procurement of SHS systems in conjunction with their lending program. Fourth, WII will work together SHARE in defining a financial structure and business plan for the growth of the program that can then be taken to international investment institutions for financing.



ANNEX THREE: C. FINANCIAL REPORT

See hard copy.