



Annual Report Summary 1997-2003

2003

- Facilitated a carbon emission reduction credit trade for \$25,000 between EnerGreen and the Asociación Chelense, an indigenous community group formed to own and operate a 110kW micro-hydro project in Chel, Guatemala.
- Offered technical design to a grid-tie solar system to power turtle conservation stations on the Galapagos Islands.
- Equipped two clinics in Burma with PV solar systems for lighting and electricity and trained medics to install and operate the system.
- Completed extensive technical review of planned 155kW micro hydro project in Chel, Guatemala.
- Provided a Solar Pump Training to Asofenix on the technical and community development aspects of a initiating a solar water pump project.
- Purchased 170 acres of rainforest to be included in the El Bote Forest Reserve for \$4500. Designed and produced an erosion control poster for public watershed education in El Bote, La Pita and Bocay.
- Funded the fabrication and shipping of parts for the second injector at the Bocay Micro Hydro Plant in Nicaragua to serve 2000 more people.
- Completed a 10 day Micro-Hydro Development Training for 6 NGO partners in Bandung Indonesia.
- Secured full funding for the \$83,000 Saloy Micro Hydro project in Mindanao, Philippines from Greenville Foundation, Winrock International, United Nations Development Programme and EnerGreen Foundation.
- Granted ASOLPIC \$1116.00 for the purchase of a lineman's bar and 50 electric meter bases for the maintenance and expansion of the La Pita Electric system.
- Gave a grant writing workshop to ASOFENIX to give them the tools needed to be self-sufficient. We also surveyed several communities for solar water pump projects.
- Established a relationship with Fundacion Solar, visited their micro hydro project in Chel, Guatemala, and provided fund raising assistance.

2002

- Provided a Micro Hydro Pre-Feasibility Training and donated equipment to the Nicaraguan NGO, Asofenix in August 2002. The hands-on training focused on the community organizing and technical site assessment essential to initiate a micro hydro project.
- Granted the Committee of El Bote \$5,000 for the purchase of over 100 acres of land to be included in the Forest Reserve. In August 2002 we met with the committee and visited the watershed.
- Traveled to Nicaragua in March 2002 to re-affirm our commitment to the work of ATDER-BL and the community of El Bote - where we will continue to help them raise the \$50,000 needed to complete the purchase of the 1,362 acre El Bote Forest Reserve. This Forest Reserve will protect their watershed as well as play an important role as a buffer zone for the BOSAWAS, the largest intact rainforest left in Central America.
- Initiated a new relationship with another Nicaraguan NGO, Asofenix in March



2002.

- Attended the official Grand Opening event of the Long Lawen Micro Hydropower plant in Borneo in April 2002. Along with villagers, friends, members of Parliament and foreign journalists, Green Empowerment helped to celebrate the newly operational system—the first community-based renewable energy project in Malaysia.
- Sponsored and facilitated the first Energy Project Development Training in Sabah, Borneo for 12 of our NGO Global Network members, in May 2002. This training strengthened and increased the technical abilities and organizational capacity of the different NGOs. It addressed the technical skills needed to successfully implement and complete electrification projects, the planning and coordination needed to develop a sustainable project, the knowledge needed to design an integrated project (one that is both environmentally and economically viable) and the value of networking and closer connections between regional NGOs.
- Published the Spring 2002 Newsletter.
- Successfully re-designed and launched a new and updated Green Empowerment website in June 2002.

2001

- Continued the development of the Global Network.
- Made a final grant of \$5,000 for the completion of the La Pita micro hydro project.
- Assisted the village of Polocon, Mindanao Philippines with an electrical load capacitor that will extend the life of its recently completed 15 kW micro-hydro electrical system. Green Empowerment made a matching grant of \$2,000 supplementing a grant of \$2,000 by the EnerGreen Foundation to support this project.
- Made a grant of \$4,000 to support and develop the capacity of our NGO partner Yamog.
- Paid for a Yamog technical expert to attend a two-week conference in Nepal on Micro Turbine technology. Green Empowerment's Program Manager also attended this conference and made numerous contacts for the Global Network.
- Granted Yamog \$564 to do community preparatory work for the Saloy Community Micro-Hydro Project. Made a matching grant commitment of \$20,000 for this project and then provided technical and organizational support.
- Completed the Micro Hydro project at Long Lawen, Malaysia. This project serves 370 people who are struggling to protect their traditional lands from rampant logging of the rainforests. It was funded by project partners Green Empowerment and the Borneo Project. Matching grants were made from the EnerGreen Foundation, the Friends of Malaysia, the community of Long Lawen, and the Seacology Foundation. This work involved technical, organizational, and fundraising support for the community. We also developed a relationship with an NGO partner to provide ongoing technical support and made 4 visits during the year to help the community learn the necessary skills to build and manage their renewable energy system.



- Began development of a Watershed Restoration and Preservation plan with the community of El Bote, Nicaragua to insure protection of the rainforest and year-round flow of water to the community-owned hydro system. Green Empowerment made a \$5,000 grant for this project and a matching grant commitment for an additional \$5,000. Green Empowerment also is providing technical and organizational assistance and sent a watershed expert on a one-week site trip to the El Bote watershed.
- Responded to contacts from NGOs or individuals in India, China, Nepal, Guyana, Hondurans, West Papua, Sri Lanka, and other countries interested in the development of renewable energy systems at the community level.
- Expanded the technical material and reach of the Green Empowerment web site.

2000

- Development of a website www.greenempowerment.org to provide technical assistance and information internationally to community based electrification projects.
- Developed materials for use at the community level such as “Micro Hydro Technology: A Summary,” “Electrical Items Used in Your Village- How Much Power Do You Need?” and “Instructions for Measuring Flow and Head for a community Micro Hydro System.”
- Established Green Empowerment’s Technical Group of volunteer engineers, sustainable agriculture gurus, and watershed experts to respond to requests for technical assistance.
- Produced a semi-annual newsletter describing the work of Green Empowerment and its partners.
- Green Empowerment continued to fund the La Pita Project (\$1,797) and assisted with additional support for the nanoturbine project.
- Funded a feasibility study for a watershed protection project in the locale of El Bote, Nicaragua.
- Donated more computer equipment to community groups in northern Nicaragua.
- Mobilized four engineers to travel to Long Lawen to assist for two weeks as technical advisors in the construction of the community micro hydro project.
- Investigated the feasibility of a demonstration micro hydroelectric project in the Portland area, for the purpose of training volunteers.
- Established contact with and made a site visit to Yamog, a development NGO active in Mindanao, Philippines.

1999

- Green Empowerment continued to fund the EL Bote (\$22,160 grant) and La Pita Micro Hydro Projects (\$8,160) in Nicaragua.
- Continued to raise funding for the Long Lawen micro hydro project with our partner, the Borneo Project.
- Supported construction of a biomass rice dryer system in San Jose de Bocay, Nicaragua that will quadruple the income for 350 small rice producers. The system



uses rice hulls, a by-product of the newly electrified rice-hulling machine, for combustion in a boiler to produce heat for drying the rice. EnerGreen Foundation made an initial grant of \$7,000 for this project in 1997 and Green Empowerment made a matching grant of \$3,260 in the fourth quarter of 1999 to complete the project.

- Provided \$5,000 in relief for the communities that had been devastated by Hurricane Mitch in November 1998. This included helping the indigenous Mayangna village of Penas Blancas in the BOSAWAS Biosphere Reserve to reestablish their potable water system. This grant was a matching grant for funds provided by the Bocay-Blacksburg, Virginia Sister City, the European Union- Cua Bocay Project, and the local residents of undamaged neighboring villages.
- Provided organizational assistance to ATDER-BL and the EnerGreen Foundation in reviewing a project to restore and preserve the Los Angeles, Elevay, and La Pita watersheds in Nicaragua. We planted 200,000 trees and purchased 1,100 acres of the most critical habitat for community ownership and watershed protection to ensure long-term electricity production. This project was funded by the EnerGreen Foundation in June, 1996 with a grant of \$5,310 and by the Inter-American Foundation which donated \$67,000 for training in soil and forest conservation, improvement of agricultural practices, and establishment of a revolving farm credit fund.
- Provided community organizations, such as the Women's' Association of El Cua and Bocay Hydroelectric system with donated computers and equipment.

1998

- Supported the design and construction of a micro hydro electrical project in La Pita, Nicaragua that brought electricity to 400 villagers. Green Empowerment started funding this project in 1998 and continued funding it through December 2000, when it became operational. Green Empowerment provided \$72,000 over this period in grants and also provided limited organizational and technical support. Matching grants were received from the EnerGreen Foundation (Canada, \$6,500), the Nicaraguan Government (\$15,000), the Peoples' Republic of China (\$4,700), Community of La Pita (\$7,800), and our partner NGO ATDER-BL (\$2,500).
- Assisted in the development of a Three Year Plan for ATDER-BL.
- Development of three nanoturbines (site specific, very small water-generated power). Green Empowerment made a grant of \$2,400 for this effort. The German Government made an additional grant of \$17,000 to this project.
- A training program to enhance the technical capabilities of ATDER-BL staff in Nicaragua was granted in the amount of \$3,820.
- Green Empowerment initiated the EL Bote, Nicaragua Community Micro Hydro Project, which would serve thousands of people in a remote area of northern Nicaragua, with a grant of \$51,880. Green Empowerment continued to fund this project in 1999 to a total of \$138,800. The Nicaragua Institute of for Rural Development provided a matching grant of \$44,280, ATDER-BL provided technical counterparts worth \$2,900, and the community of El Bote provided matching labor worth \$4,384 at local rates.
- Made a capacity grant of \$11,215 to support the work of its Nicaraguan partner



NGO- ATDER-BL.

- In partnership with the Borneo Project, Green Empowerment made an initial grant for the construction of a community micro hydro project in Long Lawen, Sarawak, Malaysia in the amount of \$5,780.
- Green Empowerment provided a matching grant of \$4,000 to support the design and feasibility stage of a renewable energy electrification project for the Selkirk First Nation in the Yukon, Canada. Green Empowerment's Canadian sister Foundation, the EnerGreen Foundation, made a \$12,000 commitment to this project, which was disbursed in 1999.
- Extension of the Bocay electrical grid in Bocay, Nicaragua to an outlying resettlement community that brought electricity to 500 more people with a grant of \$5,964.