

Nicaragua

Communication for Protected Areas



In 1996, USAID/Nicaragua asked GreenCOM to coordinate a series of technical assistance to strengthen Nicaragua's protected area environmental communication activities. GreenCOM worked with partners to achieve three primary objectives:

- Provide environmental communication training to staff of protected areas, environmental NGOs, and residents of communities located near protected areas.
- Develop promotional materials for eight national parks and protected areas.
- Conduct research in one national park to develop a profile of visitors and assess the park's needs for interpretation services.



Hands-on Workshops

GreenCOM organized a series of professional training workshops for protected area managers, environmental technicians, extensionists, and representatives from communities near protected areas. Each mini-course outlined specific concepts and techniques necessary for developing effective messages, communication strategies, and interpretive materials. Workshop facilitators emphasized practical application of environmental education and communication methodologies and stressed the importance of stakeholder participation and consensus building. Some of the workshops included:

- **Environmental Communication Capacity Building for Buffer Zone Communities**
After this workshop, participants were divided into co-management teams and took part in a

one-month practicum to apply their new skills in identifying target behaviors, developing communication strategies to address them, and pretesting messages.

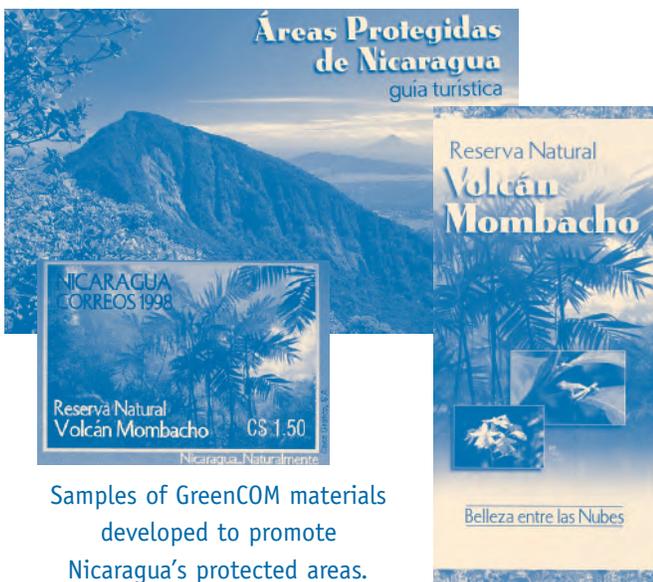
- **Educational Materials Design**
Facilitators covered the basics of graphic design and print production, including relevant computer hardware and software. Participants produced sample materials for their respective communities.
- **Interpretive Strategies for Protected Areas**
At the end of this course, participants were divided into small groups composed of representatives from the tourism, NGO, and

government sectors. Their assignment was to assess the interpretation needs of a particular protected area and develop targeted messages.

In addition to these professional development workshops, GreenCOM and the University of Idaho arranged a study tour in the United States and

El Salvador for ten workshop participants to examine different approaches to environmental interpretation for protected areas. The goal of the study tour was to create a core group of environmental communication professionals who could collaborate across institutions to improve management of Nicaragua's protected areas.

Nicaragua...Naturally



Samples of GreenCOM materials developed to promote Nicaragua's protected areas.

With the materials development workshops as a foundation, GreenCOM collaborated with staff members from MARENA's Protected Areas Division on companion communication materials designed around the slogan "Nicaragua...Naturally."

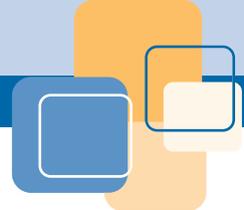
The posters, informational brochures, and tourist guide were used to promote the attributes of eight national parks, wildlife reserves, and forest reserves in the country's National System of Protected Areas (SINAP), which incorporates 72 unique locations throughout Nicaragua. Overall, 17 percent of Nicaragua's national territory is part of SINAP—one of the highest levels anywhere in the world. These protected areas are crucial to the survival of

hundreds of species of migratory birds as well as many other plant and animal species.

The materials developed by GreenCOM and MARENA staff included:

- A booklet on protected areas called *Áreas protegidas de Nicaragua: Guía turística* to introduce the country's parks and refuges.
- A park ranger training manual that addressed all aspects of park protection, from fire control to environmental education.
- Brochures and posters for eight priority protected areas to explain their history and unique features and to provide tips for eco-friendly visits. In 1999, GreenCOM won an interpretive media award for the poster designs from the National Association for Interpretation.
- A stamp series, which was a unique promotional initiative to attract national and international attention to SINAP and provide a sustainable revenue stream to support environmental education and communication activities in the protected areas.

GreenCOM brokered an arrangement with Fundación Cocibolca, a leading environmental NGO, and the Nicaraguan postal service to produce the stamps, which used images of the eight protected areas that were featured in the posters and brochures. The postal service issued 900,000 stamps and 50,000 philatelic collector sheets. A portion of the revenues



from stamp sales went to Fundación Cocibolca to finance environmental education and communication activities.

GreenCOM coordinated a special event at the National Palace of Culture in Managua to mark

the first stamp cancellation. More than 350 representatives from the public and private sectors attended, including distinguished guests such as then-President Arnoldo Alemán, Nicaragua's minister of environment, and the U.S. ambassador.

Turtle Egg Distribution Program

GreenCOM also worked with communities in the buffer zone around southwestern Nicaragua's La Flor Wildlife Refuge. This protected area is a prime nesting area for olive ridley (*Lepidochelys olivacea*) sea turtles, whose eggs are a source of income and nutrition for local residents. The Ministry of Environment and Natural Resources (MARENA) estimated that 43,000 turtles had nested in La Flor in 1996, laying approximately 4.6 million eggs that year.

Population pressures in the communities adjacent to La Flor had created conflict among residents over turtle egg harvesting and the Nicaraguan military had been called upon to patrol the area. At the request of USAID and MARENA, GreenCOM provided formative research services in support of MARENA's new egg distribution (*aprovechamiento*) program for eight buffer zone communities. The program was designed to eliminate illegal harvesting of eggs and promote sustainable use of this resource.

GreenCOM administered a survey of residents from the eight buffer zone communities to explore whether residents were aware of turtle protection behaviors that communities and individuals could adopt and understood MARENA's egg distribution program.

Results indicated that residents were aware of many turtle protection behaviors, but they were not necessarily behaviors that fit the framework MARENA had established. They also misunderstood some aspects of the distribution program and had negative perceptions (especially among female respondents) of



the commissions that administered the program. Based on the survey results, GreenCOM recommended that MARENA initiate communication and education interventions to:

- Provide information on the distribution program in ways that addressed the specific needs of different population segments.
- Sensitize commissioners for the distribution program to the socioeconomic needs of local residents and the need for resident participation to ensure sustainability.
- Explore alternative sources of income to reduce residents' reliance on egg harvesting.

After the research was disseminated, GreenCOM helped staff from La Flor to develop starter communication materials, including a poster to inform residents about the closed season for turtle egg collection.

Volcán Masaya Visitor Study

Another aspect of GreenCOM's work in Nicaragua was a research study of visitors to Volcán Masaya National Park to help park officials and MARENA staff improve park services and involve the private sector.

Research consisted of three parts: a quantitative assessment of adult visitors' characteristics and preferences; a qualitative analysis of adult and youth visitors' reactions to the park and visitor center

exhibits; and systematic anonymous observation of park employee interaction with visitors.

Researchers made several recommendations to park management. Suggestions included production of better maps and more detailed publications; the need for better interpretive services, including multilingual guides; and the potential benefits of introducing food service in the park.

Results and Lessons Learned

GreenCOM made several significant achievements in strengthening Nicaragua's rich collection of protected areas. Training workshops built capacity for protected area staff and other stakeholders to use communication and education tools, which are essential for building healthy relationships with communities in protected area buffer zones and for executing successful education, communication, and interpretation programs.

The postage stamps that were created as part of

this initiative also provided a source of sustainable income to support future education and communication activities.

Finally, GreenCOM and Nicaraguan counterparts conducted valuable research on national park visitors. The resulting data provided a foundation for protected area managers to develop better visitor services and to solicit private sector involvement to ensure sustainability of their parks and the protected area system as a whole.

Selected Publications and Products

GreenCOM Project. *GreenCOM Summary Report: Nicaragua Delivery Order*. Washington, DC: Academy for Educational Development (AED), 1999.

Ham, Sam H., and Rob Whipple. *Volcán Masaya National Park Visitor Profile: Final Research Report*. Washington, DC: AED, 1998.

Hernandez, Orlando, Reva Schwartz, Efen Martin Pineda, Meg Braddock, and Silvia Rurh Hernandez. *Participation in the Aprovechamiento Program and Turtle Protection Behaviors in the Buffer Zone of the La Flor Refuge, Nicaragua: Exploratory Qualitative Study*. Washington, DC: AED, 1998.



GreenCOM

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