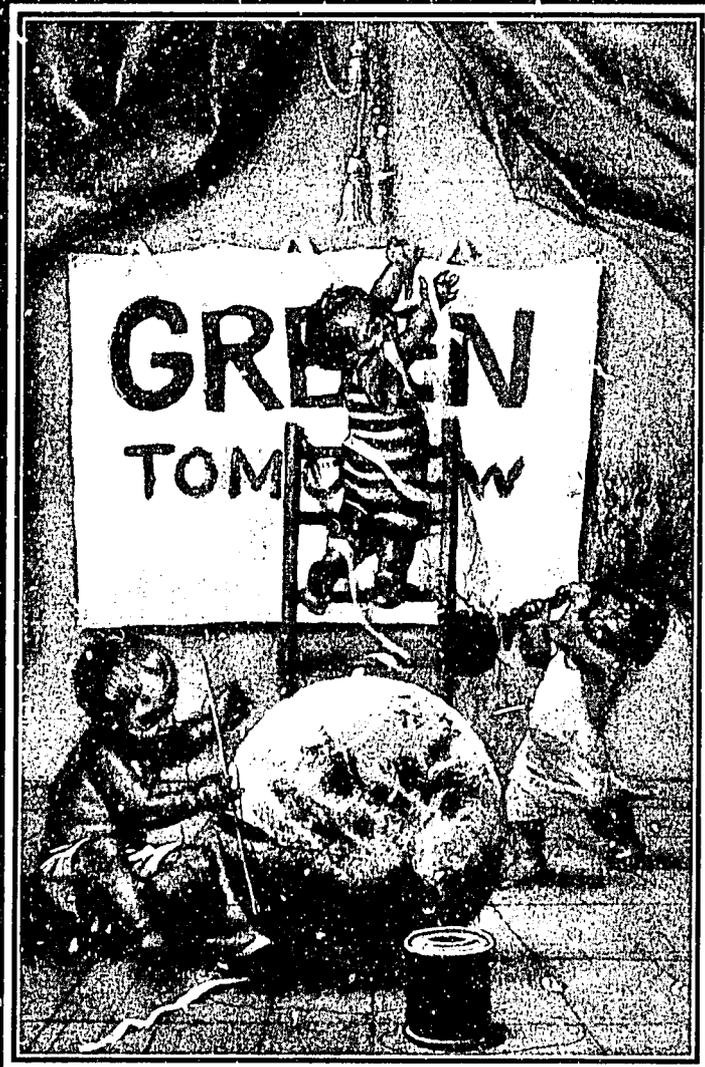


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PARTNERS *in* ACTION



Environmental Social Marketing and Environmental Education

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PARTNERS - *in* ACTION

*Environmental Social Marketing and Environmental Education*

MICHELE ARCHIE ■ LORI MANN ■ WILLIAM SMITH

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**PARTNERS *in* ACTION**  
**AN INTRODUCTORY DIALOGUE**



In June 1992, the Academy for Educational Development (AED) and the North American Association for Environmental Education (NAAEE) sponsored a two-day seminar entitled, "Environmental Education, Communication, and Social Marketing: Toward a Common Understanding." The seminar brought together leading members of the environmental education, communication, and social marketing communities to discuss social marketing in an environmental context and to explore effective environmental education and communication strategies.

The seminar focused largely on examining possibilities for a complementary relationship between the fields of social marketing and environmental education. The results of that conversation suggest that, in many circumstances, social marketing techniques combined with methodologies and content associated with environmental education may offer an effective and efficient means of addressing natural resource use problems.

This paper aims to further the discussions begun during those two days in Washington, D.C. Its more formal exploration of environmental education and social marketing, and of the possible interaction between the two fields, is intended to promote broader consideration of the possibility and desirability of combining social marketing and environmental education methodologies. It is also intended to fuel attempts to clarify the nature and techniques of the resulting combination.

Excerpts from an interview with William A. Smith, AED Executive Vice President, and Lori Mann, NAAEE President, provide the heart of this discussion paper.

William A. Smith came to social marketing as a means of organizing communication programs for infant health. Since the late 1970s, Smith has applied social marketing to behavioral

change aspects of problems such as AIDS, sexually transmitted diseases, family planning, maternal/child nutrition, environment, and family practices.

To her work in environmental education, Lori Mann brings an emphasis on linking people's understanding of their behavior with an understanding of its implications. As Education Director at Coyote Point Museum in San Mateo, California, Mann develops nonformal educational programs that help people of all ages make those connections.

## **Social Marketing and Environmental Education: Defining the Terms**

*Let's start by laying some groundwork. Bill, could you give us a basic definition of social marketing?*

**SMITH:** Well, let's begin at the beginning. Philip Kotler, who is one of social marketing's founding fathers, provided a basic definition of marketing management—the discipline that is the foundation of social marketing. Kotler said that marketing management is “the analysis, planning, implementation and control of programs designed to create, build, and maintain beneficial exchange relationships with target audiences for the purpose of achieving [the marketer's] objective.”

In commercial marketing, the marketer's objective is generally financial profit. With social marketing, which is what we are concerned with, the objective is the adoption of a social idea, service or practice. In public health programs for example, we've learned that social marketing principles can lend effectiveness, even though smoking cessation and condom use don't “sell” as easily as something like toothpaste.

*Lori, how about a basic definition of environmental education?*

**MANN:** Over the past twenty years, I think that a strong consensus has emerged about what constitutes environmental education, and about what environmental education tries to achieve. To begin with, environmental educators aim to develop in people an awareness of and knowledge about the environment. To environmental educators, “environment” includes both natural aspects and those that are built or altered by humans.

And environmental education, which is an interdisciplinary process, goes beyond developing awareness and knowledge. In environmental education, awareness and knowledge are seen as laying the groundwork for correcting environmental problems, for resolving value conflicts that often make these problems intractable, and for preventing new problems from arising. Ultimately, the process of environmental education aims to develop in people—and in society—the ability and commitment to engage in problem-solving, inquiry, decision-making, and action. The end goal is to ensure environmental quality.

*In your work in developing public health programs, Bill, what have you learned from social marketing?*

**SMITH:** There are a number of ways in which social marketing has influenced my thinking about helping people adopt beneficial new practices. Let me hit on a few of these ideas.

To begin with, social marketing is consumer-oriented. At the center of the marketing framework, you find people. All of our decisions in social marketing revolve around what a particular group of people know, believe, and feel.

Then, there is the concept of exchange. Behind marketing is the notion that people do new things (start to recycle) or give up old things (stop using plastic bags) in exchange for benefits they hope to receive. Unless we identify a benefit people actually want (being part of a neighborhood movement, or saving money)—a benefit we can offer in exchange for the behavior change we want from them—social marketing argues that people are not likely to take our advice. The challenging, and also disturbing, reality is that the benefits people want often have little or nothing to do with the social or health benefits we want them to care about.

The third concept is the marketing mix. Social marketing is a very practical discipline. It offers four basic categories of inputs that program managers can organize and shape to give people what they want and need. Marketers, social or commercial, call these categories the “four Ps”: product, price, place, and promotion. Shaping the four Ps is called developing the marketing mix.

Then we have the idea of audience research. Social marketing is built around a sequence of program development that says, “Assess then plan; pretest then implement; monitor and evaluate; and then re-plan.” The intermingling of action and research is absolutely fundamental to successful marketing. The audience is the center of this intermingling. Marketing has given us not only an appreciation for audience research but numerous tools—from intercept surveys, to focus groups and ethnographies that bring qualitative and quantitative techniques together to build a better picture of the audience, their needs, and the benefits they desire. No other program design system places more emphasis on practical consumer research to guide program decisions than social marketing.

Finally, there is the idea of audience segmentation. Social marketers talk a lot about target audiences. A target audience or audience “segment” is a specific group of people who share common values, common access points, or common obstacles in regard to the specific idea or practice

**GOALS SET FORTH AT THE  
1977 INTERGOVERNMENTAL  
CONFERENCE ON ENVIRONMENTAL  
EDUCATION IN TBILISI, USSR**

*The goals of environmental education are:*

- to foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas;
- to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment; and
- to create new patterns of behavior of individuals, groups, and society as a whole towards the environment.

being promoted. Audience segmentation is the process of finding who, in a large and amorphous population, shares one or more of these characteristics. Social marketers believe that different people respond to different appeals, and segmentation helps target specific approaches to behavior change for people with similar approaches to problems. Also, segmentation is useful because it focuses scarce resources on the areas of greatest opportunity—where program managers can make the most impact, or on areas of greatest need.

*As environmental education has evolved, Lori, what has the field been learning about promoting behavioral change?*

**MANN:** Environmental education is a broad field with objectives that run the gamut from building awareness, knowledge, and skills, to changing attitudes, to encouraging participation. Still, among all of this diversity, it's fair to say that one of the ultimate aims of environmental education is to promote responsible environmental behavior. This is an ambitious task, but it is certainly a standard by which to judge the effectiveness of environmental education.

One thing we've been learning, is that as a field, achieving behavior change requires non-traditional education strategies. Research synthesized by two environmental education researchers at Southern Illinois University, Harold Hungerford and Trudi Volk, suggests that behavioral change

## THE "FOUR PS": SHAPING THE MARKETING MIX

*Social marketing integrates the "four Ps" in helping people adopt new behavior. Program managers use social marketing to select the right balance of factors to meet the specific needs of a selected practice and a selected audience.*

**PRODUCT:** Commercial marketers shape the product by focusing on how to meet people's needs. They make a toothpaste that tastes better, cleans better, feels better. In social marketing, this "P" represents the "benefits" that people want out of adopting a new idea or practice. It is a search for what people want out of using jojoba oil, get out of recycling glass bottles, or feel good about when they march in a demonstration.

**PRICE:** This second "P" in marketing focuses attention on "barriers." In commercial marketing, price is often the dollar cost. In social marketing, people have to "pay" in terms of time, discomfort, embarrassment, pride, or status. They may have to give up familiar customs for new ones. The marketer's job is to understand the real barriers that people see to the new idea or practice, and then to reduce those barriers as much as possible to make it easier for people to change behavior.

**PLACE:** In commercial marketing, the concept of place is straightforward. It is the distribution system that the managers use to get the product to the people. The focus is on timely and easy access to the product. In social marketing, "place" is a more complex concept. Place is the external services or support that people need to adopt a new behavior. In public health, for example, social marketers work on the hospital and clinic services, improving the way patients are treated when they come to a health facility.

**PROMOTION:** Promotion is basically communication — the combination of messages (what you say and how you say it) plus channels (the means you use to deliver the message). Channels are divided into four broad categories: community, interpersonal, print, and mass media.

—William A. Smith

does not follow a linear path, in which knowledge leads to attitude change, and attitude change to behavior change.

Volk and Hungerford suggest a more complex model of environmentally responsible behavior. Their model suggests that there are three main categories of factors that contribute to behavior change. First, there are factors having to do with basic knowledge and attitudes. These are called entry-level variables. Then there are ownership variables, which are those factors that make environmental issues very personal. Finally, we have empowerment variables. These are the factors that give people the sense that they can make changes and help to resolve environmental issues.

Traditional approaches to environmental education, and to education in general, tend to focus on imparting knowledge. Experience in educating for behavior change--and the work of researchers such as Hungerford and Volk--suggests that we have to focus more broadly than that. When educational components that are not knowledge-based are neglected, environmental education is not effective in promoting environmentally responsible behavior.

## Drawing Comparisons

*What comparisons can we draw between the fields of social marketing and environmental education?*

**SMITH:** One point of comparison is their scope. Social marketing often focuses on precisely defined behaviors in a target audience, but uses a comprehensive approach to influence those behaviors. It works on increasing benefits, reducing barriers, providing better service, or communicating more clearly and persuasively with an audience; not only on teaching concepts. In this sense, social marketing is more of a program management technique than a consumer/public education technique.

### STRATEGIES FOR CHANGING LEARNER BEHAVIOR THROUGH ENVIRONMENTAL EDUCATION

*Environmental education researchers, Harold R. Hungerford and Trudi L. Volk, suggest, "It appears that we can maximize opportunities to change learner behavior in the environmental dimension if educational agencies will:*

- 1) teach environmentally significant ecological concepts and the environmental interrelationships that exist within and between these concepts;
- 2) provide carefully designed and in-depth opportunities for learners to achieve some level of environmental sensitivity that will promote a desire to behave in appropriate ways;
- 3) provide a curriculum that will result in on in-depth knowledge of issues;
- 4) provide a curriculum that will teach learners the skills of issue analysis and investigation as well as provide the time needed for the application of these skills;
- 5) provide a curriculum that will teach learners the citizenship skills needed for issue remediation as well as the time needed for the application of these skills; and
- 6) provide an instructional setting that increases learners' expectancy of reinforcement for acting in responsible ways, i.e., attempt to develop an internal focus of control in learners."

*From Harold R. Hungerford and Trudi L. Volk "Changing Learner Behavior Through Environmental Education" In the Journal of Environmental Education, vol. 21, no. 3 (Spring 1990), 8-21.*

What has impressed me most about environmental education is the way it addresses the fundamental need to change the way we think about the world and our relation to it. I believe it not only develops broad concepts fundamental to behavior change, but concepts that are applicable to many specific behaviors.

**MANN:** At least in its ideal sense, environmental education emphasizes thinking skills that individuals and communities can apply to arrive at the best solution for themselves. Social marketing and environmental education are linked by a common perception that information alone is not enough to change behavior. But social marketing emphasizes specific behavioral change, frequently, as Bill just mentioned, in a highly focused and quite narrow manner.

Where the environmental educator might say that environmental education tries to promote a broad social and ethical construct that can function in many situations, the social marketer would take a different approach. The social marketer would probably say, "That broad approach is fine, but I want people to recycle, not throw things away, and that's the bottom line. My work aims at that bottom line."

### MARINE BIRD CONSERVATION PROJECT: SOCIAL MARKETING STRATEGIES IN THE CONTEXT OF AN ENVIRONMENTAL EDUCATION PROGRAM

Since the 1960s, coastal Quebec-Labrador has seen a sharp drop in nesting seabird numbers. Bird hunting is a traditional activity in the region; but the 1960s and the 1970s brought changes-- including electricity, increased leisure time, and declining fishing and seal industries--that dramatically increased hunting and poaching.

When Kathy Blanchard of the Quebec-Labrador Foundation joined the marine bird conservation project over 12 years ago, she believed that the project must be deeply rooted in community norms and practices. Face-to-face surveys and extended interaction with local people helped her to understand that the problem went beyond a decline in bird populations, and encompassed traditional ways of life that were threatened.

Blanchard's surveys indicated that the local population of 5,000 killed about 98,000 seabirds and sea ducks each year. Nearly everyone believed that seabirds were an acceptable food source, and most favored an open season on murre. Most people did not know that murre are protected, and cannot be hunted at any time.

Blanchard used that information to develop an education program focused on children between the ages of 8 and 14. Four-day field trips to a local bird sanctuary on St. Mary's Island are key elements of the program.

"We don't preach to children on St. Mary's," Blanchard says. "We merely teach them the biology of the birds and give them hands-on experiences that develop their natural curiosity and love for birds." The program also has an in-school component.

The success of the approach can be seen not only in the enthusiasm and knowledge of the children, but also in the teenage volunteers who participate, and in the development of local adult leadership and activities. The Quebec-Labrador Foundation has worked with a committee of parents that formed a wildlife society on the coast, incorporated, and established a heritage museum. The wildlife society will eventually take over ownership of a number of government-owned buildings on St. Mary's Island that the Foundation now manages.

Blanchard sees "a strong leadership" now, and says that the spirit is spreading. As more local people are trained, the conservation effort will require little outside support.

*Based on, and quotations taken from, Daphne B. White, "People Save Pullins: A culture-specific conservation project." In Communicating Concern: Educating for Our Global Future (Profiles of nominees for the 1990 Alvin C. Eurich Award for Excellence in Public Education and Communication to Increase Developmental Awareness) Academy for Educational Development, 1991*

**SMITH:** Well, I have to be a little careful here because I don't want to mislead you about social marketing. Social marketers tackle very broad issues—issues like democracy, fidelity, and child welfare, as well as specific behaviors like “vote on Friday”...“use a condom to protect against AIDS”...or “get your child immunized by age one.” Social marketing isn't limited to narrow behaviors—but I do believe that it offers the environmental community, at this particular moment in time, the chance to bridge the gap between a broad concept and specific behavior. It seems to me that environmentalists have been some of the best concept social marketers I've seen. In the area of using modern media and powerful messages to shape social norms and policy, for example, environmentalists have been some of the masters. And in the area of environmental curricula designed to create a new generation of environmentally-conscious youth, again you have been the pioneers. I do believe there may be opportunities now to target particularly critical behaviors, and use social marketing to help people voluntarily adopt and sustain those environmentally sound new practices. The problem is that in order to do this ethically, they must be assured that they promote behaviors that are scientifically sound. This presents a constant dilemma in a complex field of rapidly emerging new knowledge.

**MANN:** And environmental educators often feel the paradoxes presented by their dual role of environmentalist and educator. As environmentalists, they may be inclined to advocate a particular point of view. As educators, they realize the importance of providing learners with the ability to formulate and act upon their own perspective.

## Possibilities for a Complementary Relationship

*Where do you see possibilities for a complementary relationship between the fields of environmental education and social marketing?*

**MANN:** The context for environmental education varies widely. Some takes place in formal classroom settings, some in nonformal programs. Environmental education programs are aimed at many different age groups. Some efforts focus on specific issues, and some take a more general approach. In all of these varied contexts, I think that there are situations in which environmental problems are so pressing that rapid behavioral change takes precedence over the broader goals of environmental education. Particularly in these cases, systematic techniques associated with social marketing may work hand in hand with content and methodologies typically associated with environmental education.

**SMITH:** Not too long ago, I read about a Brazilian project aimed at saving an endangered monkey—the golden lion tamarin. Project managers used a social marketing approach to help them achieve their environmental aims. They employed marketing strategies to target priority problems and populations, to choose appropriate interventions, and to evaluate and revise their approaches.

Project managers worked with biologists to identify the major threats to the tamarin population. Hunting and capturing these monkeys for the pet trade was a problem, but it paled in comparison to the effects of habitat destruction. Having identified the key problems, managers could plan their approach. Primarily, they decided, they would focus on protecting enough forest to sustain a genetically viable population of the tamarin. Reducing the capture of tamarins for pets was their second objective.

One thing that I find intriguing about this project is how it clearly incorporated the concept of exchange. Building on a strategy that made the golden lion tamarin something of a local symbol of forest conservation, and that used the tamarin to increase awareness about the ecosystem and how wildlife and habitat are related, project managers worked with private landowners to enact an exchange. Private landowners were offered the opportunity to register the forest on their land as permanent private reserves. In exchange, if there were no wild tamarins on the land, landowners became eligible to receive captive-born tamarins under the project's reintroduction program. The exchange was not just a trade of deforestation activity for a pair of monkeys. It was also an exchange of destructive activity for the protection of a broader ecosystem that this project helped the farmers to understand.

The way that I understand it, you could map out this part of the Golden Lion Tamarin project in a chart that illustrates the barriers and benefits for the target audience of private landowners. Even if these are not exactly the benefits and barriers the project managers were working with, the chart still illustrates the basic ideas of benefits, barriers, and exchange, which are fundamental to social marketing.

**MANN:** ✓ It seems as though the ideas and techniques associated with social marketing can also be influential in less obvious ways. I'm

### STUDENT ACTION ON ENVIRONMENTAL ISSUES — A CASE STUDY

Two eighth grade students in down-state Illinois decide to see if bottle bills (legislation supporting a deposit on beverage containers) really are workable solutions to roadside littering and to the use of a limited resource.

They wrote to officials in each of the states that have such legislation and collected information on its effectiveness, its administrative costs, and on the perceived positive and negative effects of the legislation.

Convinced of the economic and environmental benefits of such legislation, they decided that Illinois could benefit from a bottle bill, and that bottle bill legislation currently in committee should be supported. Garnering the support of their colleagues, and then of citizens in three other area communities, these two students developed a "Bottle Bill Coalition" to lobby lawmakers. One middle school class in the coalition wrote letters to elected officials. A second coalition class invited local representatives to a meeting to discuss their concerns. Still a third class in another community visited elected officials in the state capital and lobbied for support of the bill.

The two students who had spear-headed the coalition convinced their friends to collect aluminum cans, clean them, crush them, and package them in one-pound bundles to mail to all the committee members. Each aluminum bundle was accompanied by a petition supporting the proposed legislation.

Although Illinois still does not have a bottle bill, that legislative session witnessed the passage of a bill which banned the removable tab...considered harmful to humans and animals.

*Information for this case study obtained from Dr. Trudi Volk, Southern Illinois University*

thinking, in particular, of a project of the Quebec-Labrador Foundation Atlantic Center for the Environment. This marine bird conservation project responded to a dramatic drop in the number of seabirds nesting in the subarctic Quebec-Labrador region of Canada.

This is a long-term environmental education program that was never designed to have quick impact. It is aimed at the long-term development of a conservation ethic, especially in children. Since the seabirds were not yet considered endangered species, this project had time on its side. So although the project was aimed at eventually stopping a specific practice—the illegal poaching of seabirds—the method chosen was to work on the level of the social and ethical construct I mentioned a few minutes ago.

Still, a lot of the program's success is due to direct audience research, carefully targeted and designed education efforts, and an emphasis on a particular segment of the population.

What this suggests to me is that tools that are commonly associated with social marketing may enhance the ability of environmental educators to target their efforts and set realistic goals for themselves, even if the social marketing framework is not adopted intact. Actually, some of those ideas are already used by environmental educators.

**SMITH:** Social marketers and many social scientists would argue that changes in day-to-day lives or social norms result from concerted effort over time on many fronts. An important factor is the change in individual behavior. As more people see other people stop smoking, for example, it becomes more fashionable and more acceptable to stop smoking. And, at least in a democracy, it becomes more possible for authorities to regulate smoking behavior for the greater good.

I think that it's here that we can make the best case for a complementary relationship between environmental education and environmental social marketing. There are two jobs to be done, and each field is appropriate to one of them. Environmental education must give people the cog-

### THE GOLDEN LEON TAMARIN PROJECT: BENEFITS AND BARRIERS FOR PRIVATE LANDOWNERS

*Behavior Change Objective: Reduce destruction of golden lion tamarin habitat. Preserve remaining habitat.*

#### TARGET AUDIENCE — PRIVATE LANDOWNERS

##### Barriers

- Private landowners are concerned more with economic development than with habitat for the tamarin.
- Private landowners are not familiar with the tamarin, nor with basic ecological concepts such as species interdependence.
- Private landowners do not like to be regulated.

##### Benefits

- Participation in the reintroduction of a well-known local symbol.
- Government recognition of their land as a permanent private reserve (Status).

Since 1983, the National Zoological Park Smithsonian Institution, The Friends of the National Zoo, Wildlife Preservation Trust International, The National Science Foundation, and the World Wildlife Fund (WWF) have supported the golden lion tamarin project. IGT in collaboration with Brazilian governmental and nongovernmental organizations, for more details about the project and the social marketing and environmental education strategies used, see Dely Lou Ann and Elizabeth Tompkins, "Communication for Conservation: Saving the Forest and the Golden Lion Tamarin in Brazil," Development Communication Report No. 76, 1986, 4-6.

nitive tools to judge what is environmentally sound. Because our knowledge of environmental practices and policies is changing rapidly as our science improves and progresses, we must educate people to assess new developments and integrate them into a broad context. At the same time, environmental social marketing must give people the behavioral experience that environmental change is not only possible but positive, fun, exciting, and beneficial to them today, not only for generations far in the future.

**MANN:** I don't think you'll find any disagreement among environmental educators on your assertion that societal changes take time and effort on many fronts!

*Your comments suggest that the two fields offer tools and strategies that may complement each other in pursuit of the broader goal of creating new environmental norms and behaviors. What would happen if we focus on the strengths of environmental education and social marketing, and their potential for helping practitioners in either field determine how to deal with different issues in different situations?*

**MANN:** There seem to be three basic approaches to environmental issues education. We can focus on acute issues—maybe an endangered species, or a local toxic waste problem—which are immediate and specific problems in a particular place. More broadly, we can focus on specific critical issues that may imply a longer time frame, a broader range of behaviors to affect, or a less specific population focus. These issues might include solid waste management, endangered ecosystems, marine pollution, and so on. And even more broadly still, we can work with large learner populations to give them generalizable skills to apply throughout life with all environmental issues.

It seems that practitioners in both fields would benefit from a clear articulation of this kind of framework for understanding issues. It would help them choose strategies appropriate to different types of issues. Addressing acute issues, for example, may call for the targeted strategies of social marketing, while critical issues may be more appropriately addressed with environmental education techniques and materials aimed at certain issues, but not designed for specific populations. And environmental education approaches aimed at providing generalizable constructs and skills may be most appropriate in dealing with the whole realm of environmental issues.

**SMITH:** That kind of articulation of situations and approaches could be a great clarifier. But I want to throw in a note of caution here. Among social marketers, I think, there exists a great deal of skepticism that most people will ever transform their consciousness as completely as they would need to in order to overcome the real-life barriers to making environmentally sound decisions. That's why the marketing aspect is so important. We have to be able to identify—and help our audiences identify—benefits that they really want in exchange for the old ways of behaving that we want them to give up. Without consciously incorporating that concept of exchange, we won't get anywhere very quickly.

**MANN:** Maybe what I am about to say is a repetition of something you said earlier. But it seems to me that, even when there is value in achieving a change of behavior quickly, the long-term environmental education strategies can provide reinforcement for those changes, and contribute to a transformation of basic ethics or norms over time.

There are many of these longer-term approaches in use. But one that particularly intrigues me involves people in investigating and analyzing issues that are important to them, which seems to change people's fundamental approach to environmental problems. The process of investigating the problems makes them seem less mysterious, less out-of-reach. Issues, we learn, can be identified, analyzed, understood, and acted on.

The clearest examples of this approach that I can think of are school-based issues investigation approaches that help students learn how to analyze and act on environmental issues. It's common to hear stories of students whose classroom investigations into environmental issues lead them to action within their schools and communities, and even in bigger settings. With the experience of understanding and acting on an issue under their belts, I think that these students will take a fundamentally different approach to environmental problems they encounter in the future. I think that this same kind of empowerment can be seen among adults who, for example, begin to tackle environmental problems they care about.

## Concluding Comments

*Would either of you care to take a crack at summarizing some of the important areas of comparison between environmental education and social marketing? Or to add any concluding comments?*

**SMITH:** It looks like both Lori and I have jotted down some notes which could be edited into a chart that might summarize the similarities and differences between the two fields better than a verbal rehash would do.

**MANN:** You're probably right, Bill, but I think we can both agree that effective use of media and the application of audience research techniques are two strengths of social marketing. Environmental education, on the other hand, has shown particular strength in broader education for problem solving and environmental awareness.

**SMITH:** In an ideal world, social marketers would team up with environmental educators to focus resources and effective techniques on changing behavior to solve acute environmental problems. At the same time, this team approach would rely on longer-term strategies and techniques to help foster a broader societal recognition and acceptance of appropriate environmental behavior.

**MANN:** Now that's a "one-two" punch we can both agree with.

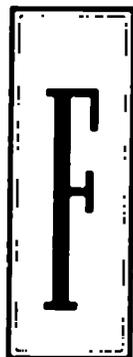
**SOME POINTS OF COMPARISON BETWEEN SOCIAL MARKETING  
AND ENVIRONMENTAL EDUCATION**

	<b>SOCIAL MARKETING</b>	<b>ENVIRONMENTAL EDUCATION</b>
<i>Goal</i>	The adoption of a social idea, service or practice (i.e. behavior change)	Developing in the citizenry the capacity for, and the commitment to engage in, inquiry, problem-solving, decision-making, and action that will assure environmental quality.
<i>Audience</i>	"Target audience" is a key concept. Efforts are directed at specific groups of people who share common values, common access points, or common obstacles in regard to the specific idea or practice being promoted.	<ul style="list-style-type: none"> <li>➤ Taken as a whole, environmental education aims to generate environmentally responsible attitudes and behavior across significant portions of the population.</li> <li>➤ Audience targeting takes many forms across the spectrum of environmental education efforts. One common approach is to target specific age groups in particular educational settings (o.g. children in classroom or non-formal educational settings, or adults in non-formal settings). Particular programs might also, for example, target audiences in a given geographic area.</li> </ul>
<i>What Changes Behavior?</i>	<ul style="list-style-type: none"> <li>➤ Information is not sufficient.</li> <li>➤ Individual perception of benefits, barriers, and support for behavior change.</li> <li>➤ The concept of exchange is important--people do new things or give up old activities in exchange for benefits they hope to receive.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Information is not sufficient.</li> <li>➤ Behavior change depends on many factors, including:               <ul style="list-style-type: none"> <li><i>Environmental sensitivity;</i></li> <li><i>In-depth knowledge about issues;</i></li> <li><i>Personal investment in issues and the environment,</i></li> <li><i>Knowledge of and skills in using environmental action strategies;</i></li> <li><i>and</i></li> <li><i>Expectation of efficacy.</i></li> </ul> </li> </ul>

	<b>SOCIAL MARKETING</b>	<b>ENVIRONMENTAL EDUCATION</b>
<i>Time Frame</i>	<ul style="list-style-type: none"> <li>➤ Short-term, in the sense that social marketing can focus on relatively immediate behavior change.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Longer-term, because of its emphasis on attitudes, skills, and a broad social and ethical framework in which broad changes in behavior happen.</li> </ul>
<i>Strongest When Applied to Which Kinds of Issues?</i>	<ul style="list-style-type: none"> <li>➤ Acute issues that demand a more-or-less immediate behavioral response.</li> <li>➤ Critical issues that demand society-wide response at some level. (Social marketing campaigns such as those to promote recycling, condom use, or to reduce smoking illustrate the appropriateness of social marketing strategies.)</li> </ul>	<ul style="list-style-type: none"> <li>➤ A broad range of environmental issues, including those that are not acute or not yet directly or locally perceived.</li> <li>➤ Critical issues that demand society-wide response. (Curricula on solid waste management and endangered species, or informational programs about household hazardous waste illustrate the appropriateness of environmental education strategies.)</li> </ul>
<i>Use of Media</i>	<ul style="list-style-type: none"> <li>➤ Often mass media—radio and television. State-of-the-art design and delivery, sophisticated application of marketing and advertising tools.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Heavy reliance on print media and written curriculum supplements. Less willingness or ability to incorporate high-tech mass media tools and innovative advertising techniques.</li> </ul>



ENVIRONMENTAL SOCIAL MARKETING  
*and the*  
ACADEMY FOR EDUCATIONAL DEVELOPMENT



ounded in 1961, the Academy Educational Development (AED) is an independent, nonprofit organization dedicated to promoting human development through education, communication, and information. In partnership with its clients, AED seeks to increase access to learning, transfer skills and technology, and support institutional development. Under contracts and grants we operate programs for government and international agencies, educational institutions, foundations, and corporations. AED's headquarters is in Washington, D.C., with offices in New York City and in more than 25 countries around the world.

AED devotes much of its work to planning and implementing programs to help developing countries find new and effective ways to extend their limited resources. It has actively sought the overall improvement of human resource development in both formal and nonformal settings. More specifically, AED projects have focused on priority problems in training, the application and transfer of technology, curriculum development, management, and administration.

A broad background and range of professional staff have enabled AED to play an active role in designing, implementing, managing, and evaluating complex development projects, both administratively and programmatically. At headquarters, it has a professional staff of over 200 persons who have experience in such fields as agriculture, natural resources management, environmental conservation, communications, technology transfer, health, population, training, administration, and education.

In addition, AED maintains relationships with many professionals in a variety of disciplines and specialized areas. The routine blending of experienced, full-time staff and expert consul-

tants enables AED to respond to a wide range of requests for services. AED has an established reputation for recruiting strong personnel in many technical fields and retaining them throughout the contract period. AED has well-established systems for careful recruitment, orientation, and evaluation of its short-term and long-term technical assistance.

### **AED's Response to Improving Environmental Quality: Environment, etc.**

From its inception, AED has worked to change existing behaviors and increase awareness of diverse groups and individuals through improved information, education, and communication. Now, it is taking a new look at environmental protection and conservation of natural resources through **Environment, etc.**, which consolidates AED's primary strengths in education, training and communication into a single unit. Environment, etc. holds as a basic premise that learning is life-long and that its central purpose is behavioral change. These beliefs commit AED to a wide stage of environmental action.

As educators, communicators, and trainers, the staff of Environment, etc. is committed to the transfer of practical information and skills for the betterment of this and future generations. To this end, Environment, etc. provides technical assistance and a range of environmental communication, education, and training programs that link science to human needs.

Although many environmental threats such as air and water pollution, the greenhouse effect, and loss of biological diversity are often regarded as global or regional in scale, they are typically the culmination of repeated acts by myriad groups and millions of individuals. Consequently, efforts designed to combat or right these macro-scale wrongs—efforts ranging from policy reform to financial incentives, economic restructuring to infrastructural development—fail when they are not linked with coherent, systematic, and culturally appropriate initiatives that are targeted to the realities of specific groups or natural resource users.

Industry, national governments, and international cooperative bodies must rethink how their actions and policies affect the environment. At the same time, individuals and local groups can, to a great extent, take control of their lives and the environments in which they live. Increased awareness and the adoption of new practices—whether improved sanitation, better waste management, or agriculturally benign farming technologies—can lead to a safer, more stable, and healthier environment for family and community alike. In turn, such awareness and actions can result in increased and more reliable income, especially for those individuals most dependent on the land for survival.

Thus, Environment, etc. assists diverse groups and individuals to improve the quality of their lives and immediate environments. This is made possible by employing communication, social marketing, and environmental education strategies to address and overcome various individual and group behaviors that adversely affect environmental quality and human health.

## Keys to Success

Environment etc.'s approach to changing existing practices that are harmful to the environment or unhealthy to human life has four main characteristics. It is behavioral, applied, interactive, and tailored.

*Behavioral* means client-centered. A behavioral approach focuses on what we want individuals to do differently when they become aware of an environmental message or have received appropriate training in a new practice (such as a soil conserving technique or a new waste disposal technology). The approach helps focus communication, education, and training components and exercises on the participants and their future practices. It directs our knowledge-transfer efforts and attitudinal development skills on critically important behaviors. And by doing so, ensures that training is practical and relevant.

*Applied* means practical. Broad environmental concepts and policies must be translated into daily challenges that can be understood and faced by individuals. Applied lessons can only be developed from a thorough understanding of the natural resource user's world.

*Interactive* means involvement. We know people remember 10 percent of what they hear, 20 percent of what they see, and 70 percent of what they do. We also know that feedback—timely, concrete, and accurate information on performance—is the single most powerful tool in learning.

*Tailored* means designed for the individual or group. A tailored approach builds upon the needs, constraints, resources, and abilities of a given community. It also adjusts the methods and styles of technology transfer to its participants.

When these four concepts are woven together into a systematic strategy, positive environmental changes can be achieved.

## AED and the Environment

As we approach the year 2000, attention will be increasingly given to environmental education, skills training, and public awareness. Environmental activities are being carried out by donor organizations, national governments, and NGOs across all sectors—including basic and higher education, health, population, and agriculture. AED will collaborate with these organizations to find appropriate ways to improve environmental quality and ensure the sustainable use of natural resources.

AED's action-oriented approach to development begins by assessing local needs and bringing to bear indigenous knowledge and attitudes. It integrates principles from various disciplines to complement local know-how. Furthermore, many programs and projects incorporate a strong emphasis on formative and anthropological research, behavioral analysis, and other techniques that shed light on how people learn and why they adopt new practices.

AED clearly recognizes that it is difficult to change the knowledge, attitudes, and practices of large numbers of people. Participatory educational methods, such as training of trainers, demonstrations, learning-by-doing, and community-based extension work, build and integrate the

awareness, skills, and comprehension of beneficiaries more effectively. This heightened capacity among beneficiaries forms the critical mass from which the motivation and know-how for long-term commitment emerge.

Field-based projects executed by AED typically include baseline surveys, analyses and three levels of monitoring (product or activity testing, program monitoring, and summative evaluation). Timeliness is an important factor in monitoring. Therefore, AED projects employ rapid reconnaissance techniques such as focus group interviews, key correspondent interviews, and intercept interviews to learn quickly what audiences know and need, like and dislike, and how they respond to, or chose to ignore, certain interventions.

## **Building on Three Decades of Experience**

AED's considerable expertise in a range of technical disciplines, built through 30 years of working with various groups and individuals, provides a firm foundation for addressing a wide array of pressing environmental issues common in both developed and developing countries. Some relevant experience is described below.

### *Social Marketing*

The professional staff of Environment, etc. have backgrounds in advertising, consumer research, marketing, communication planning, natural resource management, forestry, agriculture and other technical areas. Together, they work to identify and tailor programs to audience needs. Social marketing brings community research, mass education, and program organization into a single coherent framework for environmental planning. It can help assess attitudes towards environmental protection, identify effective channels of communication for decision makers, create appeals that move audiences to action, and organize large-scale programs that integrate and deliver messages tailored to the needs of priority populations. It can supply powerful tools to influence environmental behavior--whether the behavior of an individual farmer seeking more environmentally sound practices or that of an industrialist deciding to support or oppose a new environmental policy.

Environment, etc. staff completed several social marketing activities for different clients in 1992. Selected examples include:

- Sponsoring a three-hour panel discussion on social marketing at the World Congress for Education & Communication on Environment & Development (ECO-ED) held in Toronto, Canada. AED was also a Financial and In-kind Supporter of the Congress.
- Presenting a two-day social marketing training module for 19 environmental educators from 14 countries at the Smithsonian's training complex in Front Royal, Virginia, and AED headquarters in Washington, D.C.

- Preparing a report on social marketing and environmental education strategies for resolution of resource management problems on two national wildlife refuges in the northeastern United States for the U.S. Fish and Wildlife Service.
- Preparing a program framework to develop a communication and behavior change strategy in support of the Indonesian National Biodiversity Action Plan, funded through the Global Environment Facility and implemented by the World Bank.
- Preparing a program framework for UNDP assistance to the Government of Indonesia in order to develop an integrated marketing communication strategy that would assist BAPEDAL (Indonesia's Environmental Impact Management Agency) to enhance public awareness and participation in pollution control.
- Delivering a workshop for natural resource managers in the Philippines on the potential use of social marketing applications in addressing selected natural resource and environmental issues.

*Technical Assistance and Advisory Services.*

Given the high caliber of professionals on our staff, we are frequently called upon to lend technical input or provide counsel to clients in designing new programs, monitoring ongoing activities, or evaluating recently completed projects across a broad range of technical specialty areas.

- As part of a three-person technical team, an AED senior program officer conducted an assessment of achievements of the UNDP World Bank's 10-year global program on water and environmental sanitation. Team members visited and assessed national water and environmental sanitation programs in China, Indonesia, India, Bangladesh, and Thailand and reviewed those in Sri Lanka, Pakistan, and Nepal. AED provided technical assistance in examining women's roles in water and environmental sanitation, private sector participation, expansion of water and sanitation in rural areas through the use of social marketing techniques, and in increasing attention on low income users consumers in rural and urban fringe areas.
- A senior natural resource management specialist helped develop guidelines to assist the World Bank in planning and evaluating the environmental and socioeconomic impacts of involuntary and spontaneous settlement associated with Bank infrastructure projects worldwide.
- An institutional development specialist led a multidisciplinary team in conducting the mid-term evaluation of the World Wildlife Fund's Wildlands and Human Needs Program. A similar mid-term evaluation was also conducted on a program implemented by an environmental NGO in the Eastern Caribbean in 1992.

## *Education.*

Since its founding, AED has addressed many of the significant challenges confronting formal education systems, both domestically and internationally. We have worked in concert with local school systems, institutions of higher education, national departments of education and ministries, and donor organizations. AED also has unparalleled experience in nonformal education, particularly in social marketing and communication programs.

- Through the Mass Media and Health Practices (MMHP) Project, AED prepared a comprehensive program to deliver water and environmental sanitation messages to rural communities and provided technical assistance to a related program in three northeastern provinces of Honduras. MMHP Project activities included person-to-person instruction, mass media, and courses in primary schools to teach new water and sanitation practices. Radio programs produced and delivered by the project reached an estimated 300,000 people in the project area.
- AED is collaborating with the North American Association for Environmental Education (NAAEE) on a number of mutually beneficial initiatives to further formal and nonformal environmental education. NAAEE - which is housed within AED's Washington office—is the largest, most respected association of environmental education professionals in the world. As a networking and support agent for those in the field, and as a source of expertise for efforts in policy, standards, and materials development, NAAEE is at the forefront of environmental education in North America and worldwide.
- In Lesotho, the Basic and Nonformal Education Systems (BANFES) Project published and pilot-tested a manual-workbook to serve as a teaching reference on the environment for primary level students. A student-tailored format was developed in which a practical activity precedes any explanation or discussion. Many of the activities are suitable for or can easily be modified for primary school pupils. Chapter titles include "Things in the Environment," "Living and Non-Living Things," "Soil and Its Importance," and "Protecting the Environment." A "Hints for Teaching" section also gives other suggestions.
- Through the pioneering efforts of the Agency for International Development (A.I.D.) Bureau for Science & Technology's Rural Satellite Program, university-level courses on population and the environment, ecology, forestry, resource economics, and natural sciences were prepared and delivered via two-way satellite links to undergraduate students at 10 universities throughout Indonesia.
- The College of the Atlantic (COA) in Bar Harbor, Maine, is the only U.S. institution solely dedicated to teaching human ecology. COA's president also serves as a senior vice president at AED.

## *Training.*

AIED has a long history of training activities set within the larger framework of development. Development assistance services have integrated pre-service, in-service, short- and long-term, and participant training with technical assistance to meet national and institutional development needs. Our unique approach to the administration of training projects reflects an understanding of larger development issues, combined with an efficient and effective management style.

- We manage the United States Information Agency (USIA)-funded visitor programs for hundreds of visitors annually from dozens of countries. In 1991, the visitor program conducted a three-week project entitled "Economic Development and Environmental Protection for African Policymakers." Through seminars, site visits to various locations across the United States, and informal conversations with science and industry leaders, government officials, and environmental action groups, policymakers from sub-Saharan Africa explored techniques to curb harmful environmental effects while maintaining economic productivity. The project focused on concerns most relevant to the African context: soil erosion, desertification, and deforestation; water harvesting, water management, and irrigation; pesticide and fertilizer management; and solid and hazardous waste management.
- The Botswana Workforce and Skills Training (BWAST) Project is another example of the variety of training handled by a single AIED project. BWAST is a ten-year commitment to the Government of Botswana to increase the number of trained professionals (in both the public and private sectors) in several crucial areas, including agriculture and natural resources.

The BWAST Project supplies expert personnel who assume line positions in participating government ministries, training institutions, or private sector associations and who provide training and support for their local colleagues. When possible, each expert also stands in for a host country counterpart who can then be released for professional training. To date, AIED has fielded 74 long-term technical specialists in Botswana, five of whom have specifically addressed wildlife conservation education and natural resource management. It also provides long-term and short-term academic training, internships, and study tours with U.S. businesses. Of 337 trained participants, 60 have received bachelor's and master's degrees in areas such as wildlife law, parks management, natural resource utilization, land use planning, and tourism.

- AIED-managed Pakistan Development Support Training Project (Phases I & II) has enrolled 7,000 participants in U.S. academic programs, approximately five percent of whom have received training in forestry and natural resource management. The objectives of the project are to strengthen Pakistani management training capacity in these and a number of other technical disciplines and to develop human resources required to plan and implement national and regional development programs.

- Under the Central America Peace Scholarship (CAPS) Project, AED is responsible for managing, coordinating, and implementing educational opportunities for 400 Honduran students. Approximately two-thirds of the students are enrolled in undergraduate degree programs, while the remaining students are enrolled in either master's or associate degree programs throughout the United States. Twelve students are enrolled in academic programs in forestry, natural resource management, environmental science, and related technical areas.
- The Presidential Training Initiative for the Island Caribbean (PTIIC) Project serves nine island nations of the Eastern Caribbean. Over a five-year period, more than 200 scholars will receive undergraduate degrees and 100 trainees will come to the United States for short-term programs. To date four scholars are studying forestry, one is studying marine biology, 12 are in tourism and six are enrolled in science or agricultural education. In addition, AED conducted a one-week seminar in 1991 on the environment for 125 PTIIC scholars. The week-long program compared environmental issues in the Caribbean and the United States, and included presentations by representative of different environmental organizations.

### *Technology Transfer:*

AED was a pioneer in the late 1970s and throughout the 1980s in the development of a methodology that encourages behavioral change. The approach, which has proven highly successful in transferring a variety of technologies to inhabitants of both rural and urban areas, is based on careful audience research and a combination of communication channels and strategies. These include interpersonal communication for teaching complex skills, developing confidence, and providing sustained behavioral and social support mechanisms. The broadcast media are enlisted to provide access to a mass audience and to popularize strong, simple ideas. Print media provide timely reminders of detailed information on a continuing basis.

- Through the A.I.D.-funded Communication for Technology Transfer in Agriculture (CTTA) Project, AED pioneered a cost-effective, institutionally sustainable approach to technology development and transfer. The approach, which combined farmer-focused technology adaptation with integrated, coherent information campaigns, succeeds in diverse agro-ecological zones. CTTA successfully applied its approach in areas of steep slopes (Honduras, Peru), in the humid tropical lowlands (Indonesia), and semi-arid and arid lands (Jordan, Niger), and through special activities around the world. The model, a generic five-step process, has proven to be highly responsive to local situations and populations.

In the Comayagua region of Honduras, CTTA staff worked with the regional agricultural communication department and the extension service to change target farmers' knowledge and practices, in order to promote beneficial soil conservation practices in environmentally fragile areas, and to help increase crop yields. An information campaign combined a daily radio program, printed materials, and the training of village leaders and extensionists. The

entire process was so successful in motivating both extensionists and farmers, the approach was extended to other regions in Honduras.

In Jordan, CTTA helped teach farmers and laborers about pesticide safety, which is a crucial factor in both farmer and consumer health and in the marketability of vegetables in domestic and export markets. CTTA successfully linked eight government agencies and agricultural cooperatives, two A.I.D. programs, and six media groups to address pesticide safety through nationwide media interventions.

- In 1986, AED completed the Rural Water-Borne Disease Control Project, a six-year health education project to combat diseases related to water and sanitation. The project strengthened the capability of the Government of Swaziland to design, implement, and evaluate programs that aimed to influence the behavior of rural people, based on integrated village research on traditional beliefs.

### *Communication and Information Dissemination.*

AED is recognized as a leader in providing high quality, customized information services and multi-media communication programming to its clients. For more than two decades, we have developed or operated documentation centers, various newsletters, reader services, instructional radio programs, and computerized information request and response systems.

- AED was involved from the beginning with A.I.D.-funded pilot programs to test the potential of classroom instruction by radio. AED was a member of the consortium implementing the "interactive radio instruction" methodology in a number of countries under the Radio Learning Project, now LearnTech. The project is using radio to teach health and environmental concepts to primary school children in Bolivia and is developing environmental education for radio in Costa Rica.
- With AVANCE, a Honduran private development organization, AED publishes a popular rural development newspaper, *El Agricultor*, which covers such topics as basic soil conservation, agroforestry, and natural resource management techniques for small farmers.
- For more than five years, AED has operated the A.I.D. library and research services (CDIE DI R&RS). In 1988, in order to better serve Agency program officers, it organized its research analysts into regional and sectoral teams. These specialists work with Agency staff in Washington and in missions to ensure that information needs are effectively met. The research unit offers an environmental analyst who is dedicated to meeting the information and analytical needs of program officers. Two of the fastest-growing research request topics handled by the project are global warming and environmental economics.
- AED initiated—and for 17 years operated—the A.I.D.-funded Clearinghouse on Development Communication. The Clearinghouse constituted a complete information service with a major documentation center, a quarterly newsletter, and a request and

response mechanism on the subject of communication applied to development. In the late 1970s, the Clearinghouse undertook the enlargement of its collection to reflect the increasing interest in energy and the environment. It systematically sought materials related to developing countries. In its role as information provider and networker, it helped decision makers find appropriate resources and examine the link between communication and improved environmental practices.

### *Workshops, Seminars, and Conferences.*

Since its establishment, AED has conducted more than 1,500 workshops, seminars, and conferences for participants and trainees around the world. AED is known for its versatility and ability to quickly assemble state-of-the-art sessions on topical issues. These activities have been carried out throughout the U.S., within host countries as part of ongoing projects and programs, and within third country institutions and facilities where specialized content requires unique settings.

- As part of an Academy-delivered course for the University of Virginia on "Perspectives of Development in the 1990s," four senior AED staff team-taught a module on Maintaining the Balance: Communication and Education Strategies in Population and the Environment.
- AED conducted a workshop for A.I.D. staff in 1990 on Participatory Rural Appraisal and Data Collection Techniques. Content focused on monitoring and evaluating the impact of A.I.D.'s sectoral programs in areas such as natural resource management and agriculture.
- The now-completed Rural Satellite Program illustrates AED's ability to pull together key policy and decision makers. In 1985, at the request of Indonesia's Deputy Minister for Environment, AED helped design, organize, and conduct an interactive seminar on population and environment policy. The seminar was held via satellite—the first link-up of its kind in the country. Participants included more than 100 senior government officials, family planning officials, provincial leaders, and faculty members from 10 university locations across Indonesia.
- In 1988, AED sponsored an innovative workshop on Indigenous Knowledge Systems: Implications for International Development. Twenty-two expert participants from around the world presented papers on indigenous knowledge systems in agriculture (IKS). Their specialties ranged from agriculture and natural resources to development communication, sociology, anthropology, education, and health.
- AED held a one-day conference entitled "Biotechnology and the Third World" at its Washington headquarters in 1986. The conference reviewed the economic and social consequences of biotechnology on Third World food production, including potential impacts on the environment and the diversity of indigenous crop production.
- AED supported the Bioenergy Systems and Technology (BST) Project, which promoted the development of economic sources of energy based on biomass resources. AED provided substantive and logistical expertise to both the Producer Gas Conference held in Jakarta, Indone-

sia in 1985 and the International Conference on the State-of-the-Art Biogas Technology Transfer and Diffusion, held in Cairo, Egypt, in 1984.

## **Awards**

Each year AED honors its founder, the late Dr. Alvin C. Eurich, by presenting an award for innovation in addressing a critical problem in education. Building on its extensive experience in the use of communication for social development, AED chose to devote the 1990 Alvin C. Eurich Education Award for Excellence to efforts to increase environmental awareness through public education and communication. The 1990 awardee in the area of public education and communication was Marco Encalada, Director of Educational Programs, Fundación Natura, Quito, Ecuador. The program honored Mr. Encalada for his work over the past ten years in developing and carrying out the Education for Nature (EDUNAF) programs. These programs have inspired action on the national, provincial, and local levels to preserve the ecological richness of Ecuador.

# GREENPLAN: AN ENVIRONMENTAL SOCIAL MARKETING CASE STUDY

## *Using Social Marketing to Assess Recycling Behavior in a National Park*

In the following case study, AED introduces environmental educators to the application of social marketing, placing emphasis on the design of interventions that allow individuals and communities to change specific behavior in order to enhance the quality of their environment. In this activity we looked at three aspects of the behavior change process:

- 1) Assessing behavior and defining a behavioral problem,
- 2) Defining a competitive behavioral alternative to the behavioral problem identified, and
- 3) Developing an intervention to solve the behavioral problem identified.

### *Specific Goal of the Social Marketing Exercise:*

To assess, and if necessary, to improve the effectiveness of an environmental protection intervention designed to increase people's disaggregation of trash in a public park for the purpose of improving the quality of recycling.

### *Setting:*

Two public parks at the foot of the Washington and Lincoln Memorials in Washington, D.C. The area was divided into four sub-areas for observation purposes:

Observation Area A was near a concession stand where an attractive educational signboard on the importance of recycling has been placed along with a clearly marked container for plastic, glass, and aluminum, plus a traditional trash can.

Observation Area B was a street corner, not served by the concession stand but having both a recycling and a traditional container available.

Observation Area C was a highly congested bus stop in front of the Lincoln Memorial where the same signboard has been placed.

Observation Area D was a concession area near the Lincoln Memorial with multiple trash receptacles, the recycling sign and a rest area for visitors.

### *Existing Signage:*

The Signboard makes three points. First, it defined for the public that glass bottles, plastic bottles, foam cups and takeout containers, and aluminum cans should be placed in bins separate from all other trash—it showed a picture of the articles and a picture of two young children using the recycling container. Second, it depicted the technology of recycling. Third, it indicated how much garbage is produced on the Mall every week.

The recycling containers themselves had the symbol of recycling plus the words: Plastic, Glass, Aluminum Only, and two symbols showing not to throw hot dogs or potato chip wrappers in the can.

The trash containers were a different size and shape from the recycling containers, and were labeled Trash Only.

There was a third container unlabeled and different from the other two which is located right next to the concession stand in Area D.

**HYPOTHESIS:** *The presence of new signage and the widespread availability of recycling trash containers will lead to a high level (80 percent) of proper disposal of recyclable drink cups and other recyclable products in the target area.*

### *Activities:*

In this case study, we assessed the usefulness of the signboard in each of the four areas: a highly congested area with a signboard, a quiet area with a signboard, an area with a signboard near a concession stand, and an area with no signboard.

The case study included three activities:

- 1) **Behavioral Assessment**—direct observation to determine if the hypothesis identified above is accurate.
- 2) **Problem Analysis**—assessment of the data collected to determine which possible problems in the observation areas might be solved through intervention.
- 3) **Program Planning**—a brainstorming session on possible interventions that could be designed to correct problems identified.

Initially we had planned to interview individuals disposing of their trash about their commitment to and practice of recycling. Interviewing was dropped because of logistical reasons relating to the congestion and because there were so few people disposing of waste during the allotted time. Clearly, more time was needed if interviewing was to provide useful information.

Observations were conducted on two different days—weekend and weekday for two periods of 60 minutes each. Teams of two to three observers worked at each site for a total of 12 to 15 observers used each day. Observers were trained for one hour prior to actual observation on how to observe and record observation data.

### Results of the Observation Study

The numbers of observed events were tabulated by participant observers and are presented in the table below. As you will see, people's behavior was so consistent across all of the observation areas that the basic conclusions are strikingly clear. Most people took no note of the signs and did not recycle properly.

In addition to the observation data noted below, we observed the area and the contents of the trash containers to determine if the program was having an effect on recycling behavior. These results showed clearly that people were not recycling properly—that is, cups clearly marked as recyclable were almost evenly distributed in the recycling and non-recycling containers.

These results clearly indicate that people were not recycling properly despite a huge investment in signage and almost excessive availability of recycling containers. But on an even more basic level, people were not paying any attention to the expensive, well-designed, and well-placed signage.

After extensive discussion among the observers trying to identify both the causes for this surprising result and suggestions for what might be done, the following ideas emerged:

1. People came to the Mall to have fun—not to recycle. Signage was associated in their minds with information about the monuments they had come to see. Those few people willing to stop during their hectic transit from one monument to another were expecting to see a sign on the history of the Lincoln Memorial, not a sign on recycling.
2. There were far too many types of garbage cans—too many conflicting labels leading those people who tried to recycle to make mistakes or to give up.
3. There was no segmentation of target audience in the strategy. That is, the information program was designed to reach everyone entering the area, but only a few people—less than 2 percent who entered the area—actually purchased any item that could be recycled. If the goal was to get that 2 percent to recycle, then nothing special was done to address that goal. Rather, the general education approach of public signage was a "hit or miss" strategy that missed more often than hit.

### A Suggested Strategy

Based on our observation we believe that a marketing strategy would lead to quite a different solution. First, a clear goal would be set: 90 percent of recyclable cups will be placed in a recycling container. Second, a target audience would be identified: all individuals purchasing recyclable cups at the concession stand. Third, signage would be standardized and made more attractive to clarify the difference between trash and recycling containers—those for the cups and those not for the cups. Fourth, the signage would be replaced by a training and incentive program for the sales staff at the concession booth. We could provide them with a small financial reward every day that the recycling goal is met. They would be trained to provide a simple verbal cue to every patron buying a recyclable cup to instruct, remind, and thank people for recycling that cup.

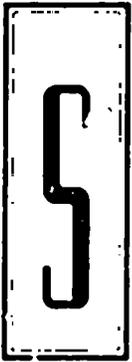
We believe this simple example suggests a strong case for the interdependence and complementary nature of environmental education and environmental social marketing. There are two jobs to be done. Environmental education must give people the cognitive tools to judge what is environmentally sound. Because the knowledge that serves as the basis for environmental practices and policies changes rapidly as science progresses, we must educate people to assess new developments and integrate them into a broad context. At the same time, environmental social marketing must give people the behavioral experience that environmental change is not only possible but can be positive and beneficial for themselves today, not only for generations far in the future.

### PARTICIPANT OBSERVATION DATA GUIDES

	A	B	C	D
Total number of people entering the area	37	52	300+	300+
Number of people attending to the sign board	12	n/a	5	12
Number of people disposing of trash	0	0	7	26
Number of mistakes in disposing of trash	0	0	3	18



ENVIRONMENTAL EDUCATION  
*and the*  
NORTH AMERICAN ASSOCIATION  
FOR ENVIRONMENTAL EDUCATION



ince its beginning in 1971, the North American Association for Environmental Education has been dedicated to promoting environmental education and supporting the work of environmental educators around the world. NAAEE is an integrated network of education professionals with membership throughout North America and in 25 additional countries outside the region.

There are many environmental interest groups, and many organizations dedicated to the improvement of education. NAAEE synergistically combines both of these perspectives. NAAEE is deeply committed to environmental education, but it is not a partisan advocacy organization. Its approach to promoting environmental education is cooperative, and is neither confrontational nor adversarial.

The Association is made up of people who have thought seriously—over lifetimes—about how people become literate concerning environmental issues. NAAEE members believe education must go beyond consciousness-raising about these issues. It should prepare people to think together about the difficult decisions they must make concerning environmental stewardship and motivate them to work together towards the resolution of environmental problems.

NAAEE recognizes the need for a coherent, accurate body of information about environmental issues, but its members also recognize that facts and analysis are only part of an effective education program. To be truly effective, this body of knowledge must be integrated into all types of educational institutions for the widest array of audiences.

## Association Members

The Association is organized into four interactive sections or interest groups designed to provide a focus for professionals of similar interests within the broad field of environmental education. The four sections are of roughly the same size, and most NAAEE members are affiliated with at least one of these sections. Classroom teachers belong to the Elementary and Secondary Education Section. Professionals working in nature centers, zoos, and museums, etc., belong to the Nonformal Section. Professors teaching college-level environmental courses are members of the Environmental Studies Section. Educators and managers associated with natural resource agencies find a framework for their activities within the Conservation Education Section.

## Programs of the Association

In order to translate theory into reality and provide tangible support for environmental education and environmental educators, NAAEE engages in a variety of programs and activities.

*The NAAEE Annual Conference.* Perhaps the single most important activity of the Association is the annual conference. Each year educators from around the world gather at a North American site to learn from fellow experts in the field and share experiences. The conference features an unusually diverse mixture of concurrent sessions dealing with the latest research findings, presentations of case studies, examples of ongoing environmental education programs, etc. In addition, the conference features a browsing library where new environmental education materials are displayed, and a film and video festival where participants can view the best in recent audio-visual productions. Field trips, symposia to provide opportunities for in-depth examination of particular topics, global briefings on environmental issues, exhibits, and noted speakers are also important components of the conference.

In 1992, NAAEE cosponsored "A World Congress for Education and Communication on Environment and Development." ECO-ED, as this Toronto conference was known, was a follow-up to the Earth Summit in Rio (at which NAAEE was an active participant). ECO-ED attracted several thousand participants from around the world and built on past NAAEE conferences to provide an expanded discussion of global issues, concerns, and effective education techniques.

In 1993, the NAAEE conference returns to the United States and will focus on coalitions and partnerships in environmental education. In 1994, the site will be in Mexico, and we are planning an in-depth look at environmental education programs and activities in the Western Hemisphere.

*Publications.* The conference is only one aspect of the Association's activities. A highly professional publications program is another key feature of NAAEE. The Association produces a bimonthly newsletter with timely articles, resource listings, and announcements. In addition, NAAEE produces professional publications of interest to environmental educators and adds

to this series of scholarly monographs and practical manuals on a yearly basis. Various occasional papers (such as the ones on social marketing and on environmental education research and program priorities in the 1990s), resource catalogs, and conference proceedings round out the publications program.

***Other Ongoing Activities.*** While the conference and publications form the core of NAAEE's programs directed toward its members, other important activities include testifying in support of environmental education legislation and innovative programs, providing information on environmental education techniques and programs in response to inquiries, and working cooperatively with other organizations in North America and throughout the world.

***Special Initiatives and Model Programs.*** In addition to ongoing activities, the Association undertakes the development of model programs and other selectively targeted initiatives on a regular basis. Several of the Association's important current initiatives are listed below.

- In 1992, the Association's Board of Directors decided to integrate NAAEE's numerous training activities under the umbrella of an Environmental Education Training Institute. Training efforts for 1993 include two courses of one month each plus a two-week course for international environmental educators; training for those interested in participating in NAAEE's Environmental Issues Forums program (EIF); a series of "dialogues" with business, industry, and other groups interested in exploring cooperative ventures; and workshops for NAAEE Affiliates and others on specific topics such as fundraising and organizational development.
- Another major initiative of the Association is its international activities. NAAEE has many members with significant professional experience in a wide variety of countries, and the Association often provides consultants to other nations and international organizations in the areas of environmental education development and planning. Long-term international activities include training courses that have been conducted in Malaysia, China, Tanzania, Sri Lanka, Pakistan, India, Egypt, and the United States (for international participants) over the last five years and providing assistance for the development of environmental education centers in Moscow and Kiev.
- In an effort to fill a perceived gap in educational programs to help communities deal with controversial environmental issues, in 1990 NAAEE began to develop its Environmental Issues Forums program. EIF uses high-quality educational materials and a structured approach to public discussion as a method for encouraging adults and high-school students to reach some common ground on complicated issues. At EIF forums and study circles throughout North America, citizens are meeting to explore viewpoints and identify areas of mutual concern on such topics as energy, wetlands, solid waste, and air quality.

Another high priority effort of the Association is the VINE Project. VINE stands for Volunteers Investigating Neighborhood Ecology, and NAAEE has established VINE environmental education programs in seven cities across the United States. The purpose of the project is to engage 8- to 12-year-old students (especially underserved and disadvantaged urban children) in outdoor hands-on investigations of the ecological relationships and environmental issues that exist right in their own neighborhoods.

*Technical Assistance.* NAAEE is increasingly being called on to provide technical assistance in the area of environmental education. Recent or ongoing projects include consulting on a national plan for environmental education in Thailand, designing and conducting an evaluation of a major supplemental curriculum materials project, assisting in the development of educational materials for Sri Lanka, writing a national report to Congress on environmental education, reviewing proposals submitted for funding under the U.S. Environmental Education Act of 1990, and writing a report on environmental education for the Congressional Office of Technology Assessment.

NAAEE has recently initiated a "Directory of Environmental Education" based on the Association's human resources data base. This "Skills Bank" and the hard copy Directory provide a systematic way to access the multifaceted talents of NAAEE members and match technical assistance requests with desired expertise.

Another activity involved investigating the application of social marketing and environmental education to solve environmental problems. Results of this experience are summarized in chapter 1 of this document. The project included a seminar on this topic, a discussion paper based on the seminar and a review of literature in the two fields, and development of a plan for the U.S. Fish and Wildlife Service to focus social marketing and environmental education strategies on specific resource problems at two wildlife refuges in the Northeast.

## PEOPLE SAVE PUFFINS: AN ENVIRONMENTAL EDUCATION CASE STUDY

*In the following case study, NAAEE presents an example of innovative environmental education work carried out for more than a decade by one of its members. This work extended education beyond schools, involving children, their parents, and local communities.*

Before Kathleen Blanchard, Vice President for Research and Education at the Quebec-Labrador Foundation (QLF), started her education project in the subarctic Quebec-Labrador province of Canada, the only time local children saw puffins up close was on their plates at the dinner table.

In fact, seabirds such as puffins, murrelets, and razorbills appeared so frequently at the table that they were disappearing from the skies and nearby breeding grounds.

But over a period of 17 years, Blanchard created an education program that not only brought children face-to-face with wild puffins and other seabirds, but cast them in starring roles in specially-written school plays.

The Marine Bird Conservation Project was not created as a quick fix, Blanchard says. "We are interested in the long-term development of a conservation ethic in a new generation." In this case time was on our side, because the birds are not yet an endangered species.

The local bird colonies, however—colonies which were visited by noted French explorer Jacques Cartier in 1535 and by John James Audubon in 1833—were in danger of extinction.

As recently as 1960, Robert Bryan saw "rafts of sea ducks stretching from horizon to horizon, seals on most of the exposed ledges, (and) puffins, murrelets and other seabirds darting around the offshore islands." Bryan is the founder and president of the QLF.

The economic changes of the sixties and seventies—including the arrival of electricity in the region, the increase in leisure time, and the decline of the fishing and seal industries—resulted in greatly increased hunting and poaching.

"Bird hunting was a traditional activity along the

coast, people consider it their birthright," Blanchard says. But whereas traditionally people only hunted what they could eat, the advent of refrigeration and semi-automatic weapons drastically increased the size of the kills.

As the granddaughter of a hunter and the daughter of a Newfoundlander, Blanchard quickly grasped the bottom line: any conservation group that came in and told the local people to totally stop harvesting birds would be doomed to failure.

"We wanted to maintain the integrity of the culture, which said it was all right to have an occasional meal of bird. But we also wanted to stop illegal poaching," Blanchard says.

Rather than pushing solely for enforcement of existing laws protecting bird sanctuaries along the 500-mile coast, Blanchard and QLF embarked on an all-out education campaign.

"The people of the Lower North Shore live simple, honest lives," Blanchard says. "They knew their birds were going downhill fast, and they hadn't really figured out what to do about it. They were willing to work with us because they, too, wanted birds to be around for future generations to enjoy."

### *Total Cultural Immersion*

Blanchard has made a point of spending a lot of time with the coastal people and participating in all their activities and rituals.

When visiting local families for dinner, she has eaten the puffin and other seabirds served by her hosts. To understand the lure of hunting, she has hunted birds (off the coast) during the legal season. And in order to communicate with the non-English speaking population (70 percent of coastal families), she studied French

"To be effective I must understand the people and relate to their problems," Blanchard says, adding that in the Yup'ik Eskimo language "bureaucrat" means "person who comes to have a meeting but leaves the engine running." Bureaucrats are not effective in changing people's behavior, Blanchard notes.

"I haven't stuck with this program for 12 years just because I'm an ornithologist and love birds so much," she says. "We are not just trying to save a species, but to inspire local people to save their way of life."

### *One-on-One Surveys*

Soon after Blanchard joined the project, she decided to conduct a survey about community norms and practices. She used a personal interview format based on indirect questions.

Thus, instead of asking "Do you hunt seabirds? How many do you hunt in one year?" the interviewer would ask "Does your family need seabirds? How many does your family need for one year?"

"We found that 70 percent of the population was involved in bird hunting, and it didn't take long to see which families were involved. Those that didn't hunt didn't know as much about birds," she says.

Face-to-face surveys can be very accurate and effective in remote areas such as Quebec-Labrador, where people are not accustomed to filling out forms, where the tradition of hospitality runs strong, and where sensitive topics can be explored in non-threatening conversations.

The survey, verified by the number of dead birds found at local dumps, revealed that the local population of 5,000 people killed an estimated 98,000 seabirds and sea ducks annually.

Fully 94 percent of the population believed it was acceptable to harvest seabirds for food, and 81 percent favored an open season on murre. A majority of the population did not know that murre are a protected species which cannot be hunted at any time.

### *Reaching Out to Children*

Armed with this information, Blanchard developed an extensive education program. At the heart of this program are four-day field trips to St. Mary's Island, a local sanctuary.

"We don't preach to the children on St. Mary's," Blanchard says. "We merely teach them the biology of birds, and give them hands-on experiences that develop their natural curiosity and love for birds." The children, aged eight to 14, learn how to behave on a sanctuary, study nesting behavior and breeding, and observe birds up close.

The real results can be seen at the end of the day, when children go home to a dinner of puffin or razorbill. "The children tell their parents what they have learned, and slowly attitudes begin to change," Blanchard notes.

Over the past 13 years, about 650 children have visited St. Mary's Island. Educational activities also take place in the schools, where plays about seabirds are performed by children.

The sons and daughters of hunters, cast in the role of threatened seabirds, are encouraged to practice their lines at home. The entire community is then invited to view the play, and "this causes a certain shift in perspective," Blanchard observes.

QLF has conducted a variety of school programs. By 1980 students at every school in the region had received some instruction by QLF. In addition, QLF started a youth conservation club under local adult leadership.

Finally, QLF conducted a school poster and poem contest that resulted in almost 1,000 entries. The winning poems and drawings were printed on a 1989 calendar which soon decorated every home and business on the coast.

### *Building Local Support*

Over the past seven years, QLF has trained more than 50 local teenage volunteers and paid staff for leadership roles in conservation. The teens learned about bird research, identifying plants and animals, and public speaking. Many remained on the job for several years, and a few have expressed interest in conservation as a career.

QLF also worked with a committee of parents interested in creating a wildlife society on the coast. By 1984 the group became incorporated and purchased a historic building in the village of Horrington Harbour as a meeting place and heritage museum.

The society has been so successful that it will eventually take over ownership of a number of St. Mary's light-station buildings which are currently owned by the government and managed by QLF.

"We now have strong local leadership, and it's a spirit that is spreading," Blanchard says. Eventually, as more and more people are trained, the conservation effort will become a local affair that will require little outside support.

"People are always asking me, when is the time to phase out, but there is no magic formula," Blanchard says.

### *Working with the Government*

From the very beginning, Blanchard realized the importance of building a positive relationship with the Canadian Wildlife Service (CWS), the government agency responsible for bird sanctuaries and the enforcement of wildlife laws.

"As could be expected, the service was initially suspicious of us, afraid we would do more harm than good," Blanchard recalls.

QLF immediately explained that their first priority was education: "We met with them and told them precisely what we would do, where we would walk, what permits we needed. We kept them fully informed right from the start."

Although it took countless visits to convince the authorities, Blanchard would not be deterred. In fact, she even took a French immersion course because she worked in a province where Quebec authorities felt all work should be conducted in French. "A copy of my report card still hangs on the wall of the Quebec office of the Wildlife Service," Blanchard says.

Within about four years, enough trust had been built for Blanchard to create joint projects with the Wildlife Service. The partnership was sealed when Blanchard put together a study tour for conservation professionals and government officials.

"Some people who had responsibility for the coast haven't had time to visit in years, or maybe ever," she says. Taking government officials to a conservation site creates an understanding and commitment that is difficult to develop from a distance.

### *Broadening the Base*

"It's hard to raise enough money year after year," Blanchard observes. One innovative way of building support is to bring conservationists in for a project site visit.

A visit to a remote area such as Quebec-Labrador, which is two full driving days and a 24-hour ferry ride from Boston, brings outsiders face-to-face with the complexities of local life. "They see that hunting is not a simple question of right or wrong, and that we are talking about the survival of a culture as well as of a species," Blanchard says.

She has so far conducted three study tours for representatives of conservation organizations. The visitors stayed with local families, who were flattered that their community and "their" birds were the subject of outside attention.

While Blanchard is looking into the possibility of promoting some ecological tourism in the area, she knows it is only a partial solution to diversifying the economy. "There is a lack of facilities and transportation, and the region can have 24 days of continuous fog in the summer," she notes. "We must be careful not to disturb the very resource we are trying to protect."

Blanchard also spreads the word about her project by writing articles, attending conferences, lecturing at home and abroad, and co-producing radio and television programs with the Canadian Broadcasting Service.

Her goal in the coming years is to adapt the Quebec-Labrador model to other situations. "Whether you are trying to save birds or a river or a forest, it's the local people who can make a difference," she says.

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