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Inspiring Support for Protected Areas through
Communication, Education
and Public Awareness Programs
A Quick Guide
FOR PROTECTED AREA PRACTITIONERS

ELEMENTS OF A PROTECTED AREA SYSTEM MASTER PLAN

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- process for developing and approving the plan
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Introduction

One of the most important determinants of conservation success within protected areas is the extent to which local communities understand and support the protected area management objectives. Communication, education and public awareness programs are critical to achieving this understanding and inspiring support.

Encouraging people to change their perceptions and behaviors requires an approach to communication, education and awareness that goes well beyond simply posting signs or distributing brochures. Effective communication is more than simply a park agency transmitting and receiving information with community members; it is about changing perceptions and behaviors and inspiring conservation actions.

In February, 2004, 188 countries ratified the Convention on Biological Diversity's Programme of Work on Protected Areas, an ambitious set of activities aimed at establishing and maintaining comprehensive, effectively managed and ecologically representative national and regional protected area networks. One of the major goals of the Programme of Work on Protected Areas is to strengthen communication, education and public awareness efforts. Specific activities outlined in this goal include:

- Establishing education and public awareness programs

- Identifying core themes for education, awareness and communication programs

- Strengthening information mechanisms directed at target groups

- Developing mechanisms for dialogue and information exchange

- Incorporating protected areas as an integral component of school curricula

- Establishing mechanisms to evaluate the impacts of communication, education and public awareness programs

Despite the importance of communication, education and public awareness programs to the overall effectiveness of protected areas, communication programs are all too often an afterthought in protected area management. Park managers and staff typically have a poor understanding of how to build local awareness and support.As a result, communication programs are among the first to be cut in times of budget constraints.

Governments, NGOs, and local leaders need tools and approaches that will help them to inspire and motivate community members. The purpose of this Quick Guide is to outline an approach for protected area practitioners and conservation planners that can be used to inspire support and action among communities and decision makers that leads to more effective protected areas.

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introduction to
communication, education and public awareness programs

TRADITIONAL COMMUNICATION AND OUTREACH PROGRAMS

Communication, education and awareness programs are all too often an afterthought in conservation planning. Yet nearly all conservation efforts are embedded in a social, cultural, political and economic context – making community engagement a key factor for success. The tools we use to communicate, and the investment we make in shifting human behavior and social norms at the community level, must be given the same level of consideration currently reserved for science and management programs.

Despite growing evidence that communications have a strong impact on conservation success and sustainability, many protected area agencies lack the resources or capacity to implement effective outreach. Creating change at the community level requires more than simply transmitting and receiving information; it requires figuring out what moves people on an emotional and practical level and then designing communications that speak to these needs. This Quick Guide provides some best practices and tools for doing so.

Communication, education and public awareness programs have been characterized in many different ways by many different organizations. They have been described as programs that: attract and mobilize positive action for biodiversity; provide ways of managing multi-stakeholder dialogue; enable protected area managers to focus more on conservation and less on threat reduction efforts; help gain the cooperation of different groups; and provide the tools to develop community capacity to support conservation within protected areas[1]. However, the essence of a protected area communication and education program is the simple act of people exchanging information on biodiversity, and on the consequences of human behavior on that biodiversity, within and around a protected area.

Many protected area agencies around the world have developed communication, education and awareness programs. Many of these programs focus on educating people about the biodiversity within

protected areas, and warn visitors not to take certain actions, such as litter, or feed wildlife. While these types of communication efforts may be helpful in certain circumstances, they are likely to do little to inspire communities to change behaviors that are harming biodiversity, and to adopt behaviors that support biodiversity conservation. In fact, a large number of protected area communication programs share a set of common weaknesses – in many cases, the program:

- is not targeted to the right audience;

- includes messages that are too broad to act upon – such as 'protect biodiversity' or 'respect nature'; and lacks a specific call to action

- does not incorporate an understanding of the societal values, norms, customs and behaviors;

- does not have a clear understanding of the key threats that are having an impact on biodiversity;

- does not understand what the key drivers are that are causing the threats;

- does not appeal to the emotional side of the recipient;

- is not based on a clear 'theory of change', or concise strategy, of how the communication efforts will change destructive behaviors;

- is not paired with incentives and does not remove barriers to motivate behavior change; and

- does not include efforts to sustain change over time.

Even where planners develop targeted messages aimed at the right audience to try and reduce threats to biodiversity, many conservation planners simply assume that providing people with information will automatically result in changed behavior. However, we know from many other sectors, such as public health, that knowledge alone does not typically change behavior. Planners must pair communication programs with efforts aimed at providing incentives and removing barriers to changing behavior.

DEVELOPING A 'THEORY OF CHANGE'

If they are to be effective in designing communication programs that inspire community members, conservation planners must first understand both the social and conservation context within which destructive behaviors are rooted. The societal context includes the set of cultural norms, values, habits, customs and beliefs, as well as the positive, negative and perverse incentives that are an inherent part of any economic and political system. The conservation context includes the range of behaviors that positively and negatively influence biodiversity, the threats and opportunities that result from those behaviors, and the positive and negative conservation outcomes.

With a clear understanding of the societal and conservation context, planners can develop a 'theory of change', a strategy or blueprint for achieving specific conservation outcomes. The strategy is based on an understanding of the threats to biodiversity within a protected area, an understanding of the behaviors that cause the threats, and an understanding of the societal context that drives those behaviors. When planners have a clear theory of change, they will find it easier to focus on key issues, develop effective strategies, communicate their strategy effectively to others, and measure their success.

1   Hesselink, F.J. (2007); *Communication, Education and Public Awareness, a Toolkit for the Convention on Biological Convention.* Montreal: Convention on Biological Diversity.

For example, an organization called Rare has developed a model that enables conservation planners to develop a theory of change when working on conservation issues, including protected areas[2]. This model includes the following components, each of which is linked to the next:

- **Conservation result:** An understanding of the status of key biodiversity within a protected area, including an understanding of the extent to which biodiversity is threatened, and an understanding of the desired future outcome.

- **Reduction of threats:** An understanding of how human behaviors are causing these threats to critical biodiversity.

- **Behavior change:** An understanding of how these behaviors need to shift in order to conserve key biodiversity within a protected area, and an understanding of alternatives to that behavior.

- **Removal of barriers to behavior change:** An understanding of the social, cultural and economic barriers that prevent people from changing their behavior, an understanding of potential strategies for removing barriers, and recommendations for alternative, more sustainable, practices

- **Interpersonal communications:** An understanding of the kinds of conversations, situations, meetings and interactions people that need to take place in order for community members to start weighing the costs and benefits of change, and to begin to change their behavior.

- **Knowledge and attitudes:** An understanding of what someone must know, believe and feel in order for them to begin to think about changing their behavior.

It is important to note that while appearing linear, in many instances progression along the theory of change may require inputs of additional knowledge or fostering further interpersonal communication for progress to continue.

STEPS TO DEVELOPING AN EFFECTIVE COMMUNICATION, EDUCATION AND AWARENESS PROGRAM

Rare's 'theory of change' model provides a conceptual framework and specific steps for developing an effective communications program. The steps of this process, described in this Quick Guide, include:

- *Step 1:* Understanding the societal and conservation context

- *Step 2:* Changing knowledge and attitudes

- *Step 3:* Changing social norms, values, perceptions, and conversations

- *Step 4:* Removing barriers and creating incentives

- *Step 5:* Motivating positive actions

- *Step 6:* Sustaining behavior change over time

- *Step 7:* Assessing and monitoring the impacts of behavior change

By implementing these steps, protected area practitioners can help to inspire local communities to conserve the biodiversity within and beyond protected areas.

2 Rare (2009); *Rare Pride Leadership Development Program.* Arlington, VA: Rare.

step 1:
understanding the societal and conservation context

Overview

Understanding the broader context in which threats to conservation occur is the starting point for any effective communications program. This process includes three parts. The first part is the **conservation context,** which includes the key biodiversity features, the threats they are facing, and the underlying root causes of these threats. The second part is the **societal context**, which includes the social and cultural context, as well as the political and economic context. Finally, there is the **implementation context** to consider, including both the key audiences, and focused, strategic objectives.

Part I: Conservation Context

IDENTIFYING KEY BIODIVERSITY FEATURES

One of the very first activities in understanding the conservation context is clearly identifying the key biodiversity features – the species, natural communities and ecological systems – that are important within a protected area. When choosing key biodiversity features for a communication, education and awareness program, it can be especially helpful to identify charismatic species that the community can rally around, and which represent larger ecosystems and ecological processes. For example, a planner may choose a threatened bird as a way to generate interest and enthusiasm in conservation, and as a way to begin discussions about the habitats and ecological processes that sustain the bird. Similarly, a planner might choose a tiger as a key biodiversity feature because it is a charismatic animal, even though the conservation focus may be on the much wider tiger habitat and associated species and ecological processes. This type of key biodiversity feature is called a 'flagship species' because it serves to focus people's attention on popular and charismatic species, while at the same time focusing on broader issues.

UNDERSTANDING AND ASSESSING THREATS

The next step is to identify the specific threats to the key biodiversity features. These could include, for example, threats such as over-fishing, illegal logging, mining, road building, invasive alien species, and waste and pollution, to name a few. Once planners have identified the threats to the key biodiversity features, they will then need to assess the level of each threat. Planners usually measure the scope, severity and irreversibility of threats to biodiversity in order to prioritize their actions and focus their communication programs. For example, a planner may analyze a variety of threats to a marine protected area, but based on a threats analysis (rating/ranking), decide that over-fishing is the most important threat to focus on first.

UNDERSTANDING UNDERLYING ROOT CAUSES

The third activity is to understand why those threats are occurring. One way to think about this process is to consider the underlying root causes that lead to the threat. A 'situation analysis' that maps the threats to biodiversity, the direct causes of these threats, and the indirect contributing factors of these causes, can help planners clearly identify the most important underlying root causes. For example, the conversion of natural forest to small-scale agriculture within a protected area may be occurring because farmers are planting drug crops because they do not have an alternative livelihood. Or the root cause of clearing forest for firewood is that their stoves are inefficient and they lack access to, or the funds required, to purchase more efficient stoves or alternative fuels such as biogas or solar. These problems can be exacerbated by other contributing factors for example cultures where people like to sit around an open fire or a perception that food tastes better when cooked over an open wood fire.

Part II: Societal Context

The social and cultural context includes the values, norms, belief systems, practices, customs and traditions that influence how individuals within society behave. For example, the belief that killing a lion is a necessary rite of passage for a boy will influence behavior related to killing lions. The other aspect of the societal context is the economic and political context. This includes the positive, negative and perverse incentives, the policies and laws within the protected area and within other related sectors, the market conditions, government capacity and resources, and the degree to which the protected area is effectively governed. For example, transportation policies that do not require an environmental impact assessment may result in a road being developed through a protected area.

Part III: Implementation Context

IDENTIFYING KEY AUDIENCES

Here planners identify the target audience for the communications program. The target audience will largely depend on the types of threat that are occurring, and the types of behaviors that contribute to threats to biodiversity. For example, in addressing threats caused by the illegal use of dynamite to fish, planners might identify fishers and their families, local fish market vendors and law enforcement agencies. The communication plan may also target more indirect audiences, such as school children and other members of the community who may have an influence on fishing behavior. In this step, it is important to understand the different ways that people learn, and to identify how the target audience is mostly likely to learn and understand new information.

SETTING 'SMART' OBJECTIVES

The final activity in understanding the context is to develop clear objectives – these will form the basis of the communication strategy. Many planners use the acronym 'SMART' to help them remember to develop strategies that are:

- **Specific:** There is a description of a precise behavior, outcome and audience, and these are linked to a rate, number, percentage or frequency.

- **Measurable:** There is a reliable system in place to measure progress towards the achievement of the objective.

- **Action-oriented:** The objective describes conditions that directly lead to specific actions that can be taken – if the objective is achieved, it will have a positive influence on the desired outcome.

- **Realistic:** The end result is achievable with a reasonable amount of effort, within the given resources, and within the given time frame.

- **Time-bound:** There is a finish and/or a start date clearly stated or defined.

Clear, 'SMART' objectives help planners to keep track of how well they are achieving their conservation goals, and to ensure that the plan has a solid basis from the beginning.

step 2:
changing knowledge and attitudes

Overview

With a clear understanding of the societal and conservation context, planners will need to develop a strategy aimed at changing the knowledge and attitudes of target audiences. Changing knowledge and attitudes is not necessarily enough to change behavior, but it is usually a fundamental prerequisite. The goal of changing knowledge and attitudes is for members of a community to begin to understand and care about the relationships between human behavior and environmental outcomes. The list below[3] is a sample of some of the many approaches that planners can use to communicate key messages to their target audiences.

ART CONTEST: An art contest of a charismatic species could be held in schools to raise the awareness of school children and their parents, or by artists for a local stamp or art exhibit.

BILLBOARD: A billboard that is placed along a major highway of on the sides of buildings can effectively highlight a flagship species, an environmental threat, the adoption of a new behavior, or a simple message.

BOARD GAMES AND CARDS: Board games and cards are highly effective teaching tools that help children and adults integrate and remember key messages.

BUMPER STICKER: A bumper sticker can contain a concise message, and can be placed on automobiles, public transportation, and other sites with high visibility. It can be a good way for individuals to show their support and to serve as a visual reminder or prompt of key messages.

BUTTON: A button with a key message and image are effective because they allow people to demonstrate their support without having to say anything. This type of strategy can be important in interpersonal communication channels, especially if influential people where them.

CALENDAR: A calendar is a daily and personal reminder of images and key messages, usually in the home or office.

CLOTHING AND ACCESSORIES: This may include caps, T-shirts, bags, bandanas and other accessories. T-shirts can accommodate a rather large area for design and text.

COLORING BOOK: Coloring books aimed at children can be part of an overall strategy for increasing familiarity with a range of species or life cycle stages. They can also be designed to include key messages and story boards. Coloring books are a fun way to engage school children.

COMMUNITY THEATER, PUPPET SHOWS AND STORY TELLING: Community theater activities, in which community residents act out sketches in costumes, can be a very effective and engaging communications approach, especially in cultures with an oral tradition.

COSTUMES AND MASCOTS: A costume of a mascot can be an engaging way to capture the attention of children and adults alike. Mascots can help focus attention before or during an event, and can be a key part in community theaters, dances and festivals.

DEMONSTRATION PLOTS: A demonstration plot that highlights best practices in resource management, or innovative and sustainable livelihood options, can be a good way to convince those learners who learn best by observing and analyzing.

FACT SHEETS AND BROCHURES: A fact sheet or brochure can provide a lot of information in a graphically appealing format. They can easily reach a variety of target audiences, and can supplement and reinforce other types of communication channels.

FESTIVALS AND PERFORMANCES: In some cultures, festivals and performances are a routine part of life. A festival typically has a clear focus, such as celebrating a particular species, or building support for restoration activities.

FIELD TRIPS: Trips to visit an area can be an important way to convince local decision makers of the importance of conservation and protection. They can also be engaging activities for students and community groups.

LETTER WRITING AND PETITIONS: Letter writing and petitions, especially when they are focused on a key decision maker with a clear message, can help sway opinions and demonstrate broad public support.

MURALS: A painted mural is usually a community effort that is attractive and informative, and is a visual reminder of community participation in creating a message.

NEWSPAPER ARTICLES: Newspapers are broadly read by a wide variety of audiences. They can influence public opinion, and can generate a perception that an issue is important simply by being included in the news.

POSTERS: Well-designed posters can be placed in strategic locations, such as public buildings, schools, shops and meeting places.

RADIO SPOTS: Radios reach perhaps the largest populations, especially in rural areas where satellite television and internet are not available. Radio shows that feature local interviewees and stories can be very persuasive.

SCHOOL VISITS: When community volunteers visit schools, they can engage them in a variety of learning activities. These reach not only the children but also their parents.

SONGS: Songs that include lyrics with key messages can be memorable for participants, and often 'stick' in participants' minds longer than other forms of communication.

TRAINING SESSIONS: Training session for a small group of participants can help raise the level of skills needed to achieve a particular objective in a short amount of time.

VIDEO: A video such as a short documentary or clip can be visually engaging and effective, especially if it is broadcast and distributed to key audiences.

3   This list is compiled based on Rare (2008); *Rare Pride Handbook: A Guide for Inspiring Conservation in Your Community.* Arlington, VA: Rare.

step 3:
changing social norms, values, perceptions and conversations

Overview

Changing social norms requires that community members are not only exposed to key messages and images, but also that they begin having conversations with their friends, families, neighbors and colleagues about these messages. In this way, conservation leaders will begin to see a shift in societal expectations about what is acceptable and appropriate behavior.

Key concepts in implementing a communications program

There are some key concepts to remember when designing a communications program that aims to change social norms, values, perceptions and conversations. These include:

- **Social change is non-linear** Social change often starts slowly, and then suddenly reaches a 'tipping point' where it takes off very quickly.

- **Changing social norms and values is often difficult** Social change requires individual changes in behavior that are usually deeply rooted in cultural and social beliefs, traditions, habits and practices. This means that social change strategies must focus on changing the underlying social context.

- **Behavior is highly contextual** Social change occurs within a specific context. For example, if the source of information is viewed as credible and trustworthy, the message is more likely to be accepted. It also matters where the message takes place and how the message is delivered. In other words, the context of the message is just as important as the substance of the message.

- **Change occurs at many levels** Social change occurs at individual, family and societal levels. It also occurs within social networks, such as schools, businesses, religious groups, neighborhoods and associations.

- **Individual behavior change involves emotions** People change their attitude and behavior about something based not only on rational messages, but also on messages that appeal to their emotions and feelings.

- **Planning for social change requires an in-depth social understanding** Any social change strategy requires an understanding of the social context, and an understanding of how change is likely to occur within a particular society.

- **Change often occurs through interpersonal conversations** One of the most potent and direct ways to change attitudes and social norms is through interpersonal communications, whether they take place in informal one-on-one conversations, or in more structured environments such as workshops and meetings.
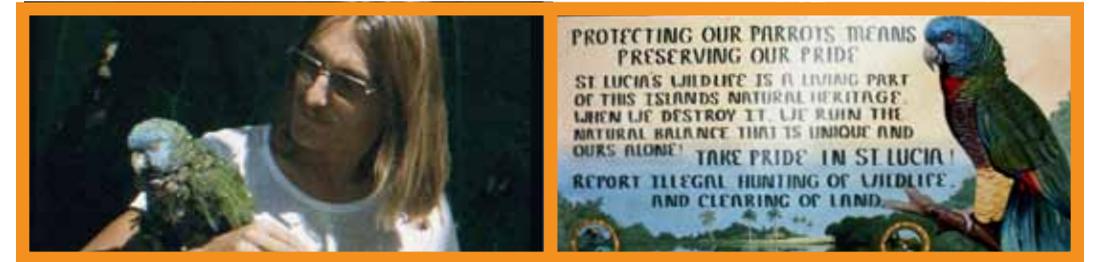
Tipping points and social change

The idea of a social 'tipping point' is that there is often a crucial moment when isolated individual behavior turns into a societal trend and becomes mainstreamed into societal norms[4]. Some key concepts in understanding societal tipping points include:

- Social changes are like 'epidemics' – they begin with small, isolated changes, but if the conditions are right, they can spread very rapidly.

- Social change depends on people who are 'connectors' – people with many social ties and networks; on people who are viewed as highly knowledgeable on a range of issues and are traditional sources of information within a community, as well as on people who are convincing, committed, passionate and persuasive.

- Social change depends on messages that stick in people's minds; they are memorable and compelling.

- Social change often depends on a group of small, closely knit people who have the power to magnify a growing trend.

Example of social change in St. Lucia

An example of an organization that aims to change knowledge, attitudes, social norms and behaviors is Rare. Rare's ability to inspire conservation and change knowledge, attitudes, social norms and behaviors is illustrated with the case of the St. Lucia Parrot[5].

In 1977, the St. Lucia Parrot, a parrot that is found nowhere else in the world except this small Caribbean nation, was on the edge of extinction. Scientists had written off the endangered Saint Lucian parrot as "in terminal decline," its population below a hundred birds. Paul Butler, an advisor to the forestry department of the Caribbean island, noted at the time that "There was a complete lack of local awareness about this bird. If you don't know about something, you can't appreciate it. If you can't appreciate it, you can't love it."

The Saint Lucia Forestry Department working with Butler, set out to raise awareness using a larger-than-life mascot, Jacquot (the Saint Lucian term for the parrot), a song about the bird, posters, phone cards, billboards, bumper stickers, and fun classroom activities. They also enlisted the help of the clergy and the government. In the wake of Saint Lucian independence in 1979, the new island nation decided that not only did it need its own flag but it needed a national bird as well, which became the Saint Lucian parrot. In essence, the communications campaign convinced St. Lucians that they were the kind of people that protected their native biodiversity. Since that first campaign, the Saint Lucia parrot has rebounded from the brink of extinction. Its population has been estimated to be about 600.

4   Gladwell, M. (2007); *The Tipping Point: How Little Things Can Make a Big Difference.* Boston: Little, Brown and Company.
5   Heath, C. and D. Heath (2010); *Switch: How to Change When Change is Hard.* New York: Broadway Books.

step 4:

removing barriers and creating incentives

Overview

Because knowledge and attitudes are not always enough to change behaviors, planners need to examine additional approaches. One strategy for changing behavior is to remove barriers that prevent change from happening easily. The other strategy is to create incentives that motivate positive behavioral changes.

Approaches to removing barriers

Barriers are specific reasons why individuals are reluctant to change their behavior, even when they believe they should do so. There are many kinds of barriers. **A socio-cultural barrier** is when society's values, norms, belief systems, practices, customs and traditions prevent an individual from behaving in ways that protect biodiversity, and secure long-term benefits from nature. In this case, an individual may believe that a change in behavior will cause conflicts with friends and family members. A **political-economic barrier** is when economic incentives, policy environment, market conditions, government capacity and governance conditions prevent an individual from behaving in ways that protect biodiversity, and secure long-term benefits from nature. In this case, individuals may believe that change is too expensive, or requires technologies that are not readily accessible. There are also **individual perceptions** that can act as barriers; individuals may perceive that change is too complex, too time consuming, not very important or they may simply forget. Some common approaches to removing barriers include:

- **Provide tools, technologies and expertise required:** If a new technique or management approach is part of a communications strategy, effective implementation will require new tools, technologies and expertise to support those practices. Strengthening the capacity to implement proposed alternative techniques will therefore be critical to the success of a communications strategy.

- **Create alternative livelihoods:** Promoting a message that prohibits of fines destructive behaviors related to economic activities will only be successful if there are other viable livelihood alternatives.

- **Provide alternative techniques and management approaches:** People who use and manage resources must not only understand which techniques are harmful to biodiversity, but must also have access to alternative techniques if they are to change their behavior. Changing the type of fishing net, the time and length of harvest bans, the way firewood is burned are all examples of alternative techniques that can make the difference between success and failure in conservation efforts.

- **Change policies:** In many cases, the policy environment provides a number of barriers to effective conservation actions. Ways to improve the policy environment include removing perverse incentives (such as subsidies that cause unintended negative consequences for biodiversity), and creating positive and negative incentives that encourage conservation actions at individual, community organizational and corporate levels.

- **Address perceptions through social marketing:** Just as commercial marketing for products shapes the consumption patterns of buyers, the effective use of social marketing (defined as the systematic application of marketing principles and concepts to achieve conservation goals), can shape public perceptions and behaviors.

Approaches to creating incentives

Sometimes it is not enough simply to remove barriers; planners must also create tangible incentives in order to change behaviors. When it comes to motivating people to change, there are many two main types of incentives: positive and negative. Positive incentives provide a tangible reward for behaving in a certain way, while negative incentives provide a tangible punishment for behaving in a certain way. Not all incentives are financial, just as not all decisions are based on a financial rationale. However, financial incentives can be powerful motivators, especially if economic factors are a primary barrier to changing behavior. Some commonly used positive and negative incentives include:

- **Tax reductions and exemptions:** Taxes are a part of virtually all societies. Reductions in property, income and sales taxes can influence behaviors. For example, a landowner may decide to protect his or her property if there is a significant reduction in property taxes.

- **Payments for ecosystem services:** This can include payments (in the form of money or goods) from people who use an environmental service, to people and communities responsible for protecting the resource that maintains the ecosystem service. Examples include carbon sequestration markets or bee boxes given to upstream farmers who protect rain collecting forests.

- **Conservation easements:** A conservation easement is a legal document that separates the rights of ownership of land from the rights to develop the resources on the land. The sale of a conservation easement can provide landowners with income, while still allowing them to practice sustainable management practices and own the land.

- **Preferred markets:** Increased market premiums (where there are increased prices for sustainably managed products), increased market access (where there is access to new markets), and increased market share (where there is a proportionate increase in the volume of sales) can all be financial incentives. Specific mechanisms typically involve third party certification bodies to verify responsible management practices.

- **Secured livelihoods:** This can include increased security of access to natural resources, such as fish, timber, and hunting rights.

- **Taxes:** Just as a reduction in taxes can motivate behavior change, an increase in taxes can also change behavior. Examples include taxes on activities within protected areas that use natural resources.

- **Judicial punishment:** Judicial punishments include jail sentences which can increase proportionally for repeat offences.

- **Fees, fines and penalties:** Fees can apply to sectors within protected areas, and fines or penalties can be applied when a violator breaks a law. Steep increases in fines and penalties can be a strong negative incentive.

Example of addressing barriers and creating incentives in Mexico

In Indonesia's Lamandau River Wildlife Reserve, in the heart of Borneo, slash and burn agriculture was threatening critical habitat for the endangered orangutan, as well as a wealth of biodiversity in the area's rich tropical forests. While building knowledge about the dependencies between farming and healthy forests was critical, removing barriers for farmers with few alternatives was the real key to success. Thus, communicators at the site included outreach tactics designed to introduce the more sustainable practice of agroforestry. Tactics included making training accessible to a significant percentage of farmers in the target communities, developing demonstration plots, and linking improved economic benefits to better forest management. Ultimately, 58% of farmers in the target villages adopted agroforestry techniques and gave up slash and burn agriculture. A joint report issued by several partner organizations showed no incidents of illegal logging or forest fires in the reserve during or after the campaign. And early satellite tracking of forest coverage within the reserve shows a promising increase in forest coverage.

step 5:
motivating positive actions

Overview

Changing individual behavior is critical to the success or failure of a communications and awareness campaign. If a communication campaign is successful, it will change the knowledge and attitudes of individuals and the community social norms. It will also reduce behaviors that have a negative impact on biodiversity.

Stages in behavior change

When it comes to deeply rooted practices and beliefs, Individuals do not typically change their behavior immediately. The process of behavior change typically follows a series of several stages[6]. These stages are described below, using an example to illustrate the stage:

- **Pre-contemplation stage:** During this stage, the focus is on creating awareness and providing descriptive information of the new behavior and its benefits. For example, a fisherman first hears about the adverse impacts of dynamite fishing. He learns about the extent of reef damage, the decline of fish stocks, and how these trends might affect his future and that of his children. He also learns of the availability of a new type of net and how using this results in improved stocks as young fish live to grow and breed

- **Contemplation stage:** This is the stage in which individuals are considering action. The fisherman begins to think about the benefits of using different fishing techniques. He learns about how he could market sustainably harvested fish and get a small premium. He weighs the economic risks of not catching as many fish in the short term as well as the potential impacts his actions might have on other fisherman in the community.

6   Rare, 2008. *Rare Pride Handbook: A Guide for Inspiring Conservation in Your Community.* Arlington, VA: Rare; from Andreason, 1994. Social marketing: Its definition and domain. Journal of Public Policy and Marketing 13(1): 108-114.

- *Validation stage:* This is the stage where an individual typically identifies others who are also contemplating a similar change in behavior, and then discusses the costs and benefits with them. For example, the fisherman discusses the ideas with other fisherman within the community. He also goes to the market, and discusses the possibility of marketing sustainably harvested fish

- *Action stage:* At this stage, the behavior change begins. The individual needs to believe that he or she has the power and resources to make the change, and that the benefits will outweigh the costs. For example, the fisherman learns about a no-interest loan that would allow him to purchase fishing nets at a very low rate. He also learns that the consequences for dynamite fishing have changed – he is now more likely to face a steep fine if he is caught. He notices that several other fisherman in the community have stopped using dynamite, and they appear to be having success marketing their fish. He decides to try a new, more sustainable fishing technique.

- *Maintenance stage:* In this stage, the new behavior is reinforced and sustained over time. Individuals can fully see the results of their changed behavior, and realize the full benefits. As more and more people change their behavior, these changes begin to define the broader societal context, changing social norms, values and expectations. Once this happens, it becomes much easier to sustain change over time. For example, the fisherman finds that he is able to bring in as much income as he did using dynamite. He also finds over the next year that the fish are larger. Many more of his peers have switched to the new technique, and dynamite fishing is becoming rarer and rarer. Dynamite fishing has become socially unacceptable and those who do it are getting caught and getting fined.

Process of change within a community

It is important to keep in mind that individuals change their minds and their behaviors for many different reasons. Economic costs and benefits are only one factor. Other possible factors include the potential prestige of being first within a community, social competition with community members, underlying values and beliefs about the environment, and a personal sense of leadership. Planners who are developing a communications campaign should keep in mind that the target audience, and the communication message for this audience, is likely to change over time.

One way to think about the patterns and trends of change within a society is the 'diffusion of innovation.'[7] The concept of diffusion of innovation can be useful to planners who are developing a communication, education and awareness program because

- **Innovators:** Innovators typically take risks and are willing to try new technologies and techniques. Communication efforts should focus on the intangible benefits of the behavior change, and how this change shows innovation, leadership and courage – how it is the right thing to do for future generations.

- **Early Adopters:** Early adopters, who quickly try new technologies and innovations, are typically seen as opinion leaders within a community, and often have more wealth and education, and therefore a higher tolerance for risk. Communication efforts should focus on how the benefits outweigh the costs, and on showcasing the experiences of the innovators. Testimonials of highly influential innovators can be helpful.

- **Early Majority:** Individuals in the early majority category tend to be slower and more deliberate in their decision-making processes. Communication efforts should focus on the changing social norms and values, and on how growing numbers of people are finding that the benefits outweigh the costs.

- **Late Majority:** Individuals in the late majority category are typically skeptical of new innovations, and require strong proof that the benefits of an innovation outweigh the costs. Communication efforts should focus on how most people have adopted the change, and how they will be left out if they do not also change. Emphasize the costs and benefits of people who have had adopted this behavior change for some time, and raise the possibility of negative consequences for not adopting the change.

- **Laggards:** Laggards are the last to adopt an innovation, and tend to have the lowest tolerance for risk, and the highest aversion to changing their behavior. Communication efforts should focus mostly on the negative consequences of not making the change – they may be shut out of the market, for example, or face increased fines and penalties.

Motivating behavior change is about finding communication strategies to accelerate the decision-making process and each stage of behavior change, and to encourage individuals at all stages of the diffusion of innovation model to change their behavior using a variety of approaches.

| 2.5% Innovatorvs | 13.5% Early Adopters | 34% Early Majority | 34% Late Majority | 16% Laggards |
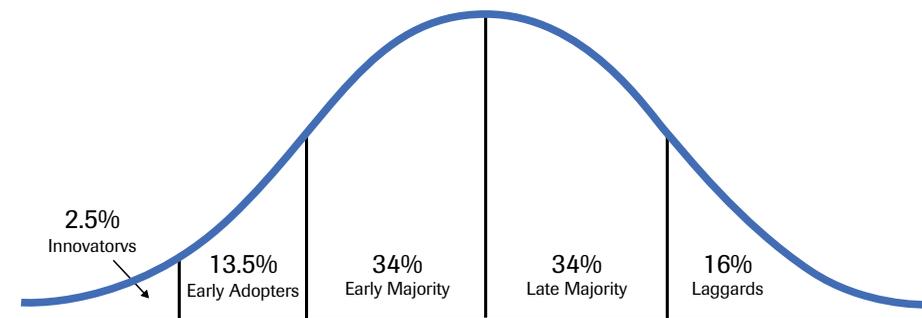
Source: Rogers, E. Diffusion of Innovation

7   Everett, R (1983); *Diffusion of Innovations.* New York: Free Press.

step 6:

sustaining behavior change over time

Overview

Once planners have developed an effective communications program, they still need to think about ways to sustain behavior change over time. They can sustain change in several ways, including by focusing on school programs, by conducting media campaigns, by focusing on protected area values, and by creating broad constituencies.

Conduct school programs

One of the most effective ways of raising awareness, creating change, and sustaining changes over time is through school programs. Communication campaigns can be tailored to almost any age group, and school children reach across many levels of society. There are a number of best practices to consider when designing school programs. These include:

- **Encourage critical reflection:** Even at a young age, children need more than simple information; they need to understand causes, effects and relationships between behaviors and environmental outcomes. For older children, an activity such as a science fair can be an effective way of enabling them to analyze and articulate these complex relationships.

- **Tap into natural enthusiasm:** Children are naturally curious and enthusiastic learners. Planners can build on this enthusiasm by creating activities that get children outside, conducting experiments, taking field trips, seeing animals in the wild, collecting plant samples and drawing what they see.

- **Use stories:** Children love to hear stories. Planers and educations should consider approaches that include stories about the animals, plants and ecosystems. One way to do this might be to have a writing contest among adults to develop a children's story book about an important species.

- **Use charismatic mascots:** Charismatic mascots can be a powerful way to influence school children. The International conservation organization Rare has found that mascots generate enthusiasm and excitement among children and their parents.

- **Use different learning styles:** Not all children learn in the same way. Some learn better by doing activities, others by reading, others by drawing, and others by talking with their peers. Planners and educations should consider a variety of learning activities to accommodate as many learning styles as possible.

- **Involve families:** Planners should consider developing activities that engage not only school children but also their families. For example, an activity might be aimed at having children interview their parents and grandparents about life when they were children.

- **Involve the whole community:** School children are an important part of an entire community. Planners should focus on ways to bring in the broader community. For example, the results of a school art contest can be posted at a community center.

Conduct effective media and social marketing campaigns

A communications program is often associated with a media or social marketing campaign. Social marketing is the systematic application of marketing principles and concepts, along with other tools and techniques, in order to achieve specific behavioral goals for a social good. In this case social marketing campaigns improve the protection and conservation of biodiversity, and to reduce threats to biodiversity within protected areas. A media campaign includes the use of communication means in order to reach a large audience, including television advertisements and news stories, newspaper articles, radio spots, bulletin boards, bumper stickers and billboards. A media campaign can also include highly visible activities, such as having a mascot march in a parade. The following are effective practices to consider when designing and implementing a social marketing and media campaign.

- **Target different audiences with different messages:** An effective media campaign targets individuals at each the different stages in behavior change and along each spectrum of the diffusion of innovation, in order to appeal to the widest audience.

- **Use different arguments:** Some individuals change their behavior because they are motivated by rational and economic arguments. Others are motivated by intangible issues, such as national pride.

Planners should use a range of different arguments, including rational, economic, personal and emotional, in their media campaigns.

• **Use influential spokespersons:** If a message comes from an influential spokesperson, such as a popular actor, a community leader, or a religious figure, it may be more effective in changing behavior than if the message comes from a protected area manager.

• **Repeat the message:** One of the best ways to reinforce a message is to hear it from different sources. For example, a parent whose child is entering an art contest on lobsters, who reads an article about lobsters in the newspaper, who sees a lobster mascot at a community meeting, and who hears radio stories about the decline of lobsters, is likely to begin to believe that lobsters are an important issue.

• **Coordinate with other campaigns:** Ensuring that key messages are consistent across different communications strategies is important so that the target audience has a clear and consistent understanding of the main issues.

Focus on the value and benefits of protected areas

Because the issues related to biodiversity are different in every situation, each communication campaign will have a different focus, use different strategies, and focus on different target audiences. However, one of the most important cross-cutting themes in protected area communications campaigns is the understanding the full value of protected areas. This is because people are often motivated by personal benefits that will accrue to them. The different benefits that protected areas provide can be the foundation of an effective communications program, including:

• **Water:** Protected areas, particular forest protected areas, help regulate the flow and quality of water supplies. Many cities, towns, villages and communities are completely reliant upon these areas to maintain their drinking water supplies.

• **Agriculture:** Protected areas provide water for irrigation, and also provide habitat for insects that help pollinate crops. Some protected areas also harbor crop wild relatives that can be used to maintain the genetic vigor of domesticated crops.

• **Employment:** Protected areas provide employment not only for those who work directly for the protected area agency, but also for those working in tourism and other related industries.

• **Livelihoods:** Protected areas provide goods and services from which local community members can often derive an income and livelihood, such as the sale of fruits sustainably harvested from protected areas.

• **Tax revenue:** Many protected areas provide a source of income from property taxes, income taxes from tourism revenue, and other fees and permits.

• **Food:** In many places around the world, protected areas are a main source of food. They provide habitat that can be critical to important food species. For example, a marine protected area in an important fish spawning area is vital to the food security of local communities.

• **Medicine and health:** Protected areas are increasingly recognized for their important role in promoting human health, and providing habitats for key medicinal species.

• **Carbon storage and sequestration:** Protected areas typically are a net carbon sink. In some cases, this can be used to leverage carbon funding.

• **Storm protection:** Because of their location, some protected areas provide buffers to the impacts of severe storms. Protected areas along coasts reduce impacts from storm surges, protected areas in wetlands help reduce downstream flooding impacts, and protected areas along steep hillsides prevent erosion.

Build a broad constituency

Another way to sustain change is to focus on building a strong constituency, or group of people who actively support the protected area and promote key messages.

One way to build a constituency is to foster the creation of a "Friends of the Protected Area" group. Such a group usually consists of volunteers from within a community who help promote the protected area by helping to conduct outreach campaigns, for example. This group can provide an effective bridge between community members and protected area agencies.

A related strategy to build a strong constituency is to create a multi-stakeholder advisory board that can help define and implement the communications campaign. Having an advisory board that cuts across many sectors of society will help to ensure that the delivery mechanisms, key messages and target audiences are accurate and effective.

Finally, planners can build a constituency directly within communities by promoting affiliation, or connection, with a protected area or key message. Using t-shirts, hats, buttons, bumper stickers, pins and other forms of recognition helps to build a sense of common purpose and shared values among community members.

step 7:

assessing and monitoring the impacts of behavior change

Overview

The last phase of running a successful communication, education and awareness program is monitoring. Monitoring is a key component of all conservation planning. Effective monitoring allows planners to know if their efforts are succeeding and having an impact. The primary tool for monitoring the effectiveness of a communication campaign is a set of indicators. Effective indicators are those that provide reliable, repeatable and consistent data, are simple to use, are easily communicated, and are directly linked with the conceptual model upon which the communication, education and awareness campaign is developed.

Types of indicators

This guide outlines several steps for conducting an effective communication, education and awareness program. Indicators for monitoring could be developed for many of these steps. For example, if a communication program is aimed at reducing pressure on forests from illegal logging, there could be a variety of indicators:

- **Changes in knowledge and attitudes:** Indicators could focus on changes in knowledge and attitudes. For example, a researcher could survey residents who live near a protected area to determine how well they understood the importance of the forests for sustaining drinking water supplies.

- **Changes in social norms, values, perceptions and conversations:** Indicators could focus on societal views toward an innovation. For example, a researcher could survey residents to determine the prevailing view toward a payment-for-ecosystem-service scheme.

- **Changes in behavior:** Indicators could focus on changes in individual behavior. For example, planners could track how many landowners use fuel-efficient stoves and participate in payment-for-ecosystem-services schemes.

- **Changes in threat status:** Indicators could focus on changes in the scope and severity of threats. For example, planners could measure the extent to which illegal logging has decreased compared with previous years.

- **Changes in biodiversity outcomes:** Indicators could focus on changes in the trends and status of biodiversity. For example, planners could measure the overall forest integrity and fragmentation.

Selecting indicators for monitoring

Choosing from a range of possible indicators can be difficult. Some indicators would be nice to have, but are impractical. Others are practical, but not particularly effective. Planners will need to select the most appropriate, efficient and effective set of indicators to help them monitor change. Some guidelines for developing indicators include:

- Select indicators around issues that people care about, such as income, jobs, increases in fish catch;

- Select indicators around the charismatic species that people can become passionate about. If your campaign uses a charismatic species, be sure that one of the indicators measures changes in the species (habitat, population size, etc,);

- Select indicators that show how effective the communications campaign has been – documenting dramatic changes in public awareness and attitudes can create a very powerful and persuasive message about the effectiveness of the communication program;

- Select indicators that people can easily understand, such as changes in the population size of a species, volume of trash diverted from a beach, or amount of money generated in alternative livelihoods schemes;

- Select indicators that show how momentum is building, such as the number of people who have adopted a change in behavior; and

- Select indicators that enable the project to learn. For example, planners can test whether the hypothetical relationships in a conceptual model are accurate.

case study:
communication program to protect the winter habitat of the Red Knot

Introduction

The Red Knot *(Calidris canutus)* is a Western Hemisphere shorebird that migrates more than 8,000 miles each spring from the tip of Argentina to the Arctic tundra, and then back again each autumn. Throughout its migration, the Red Knot relies upon intact coastal ecosystems throughout the Western Hemisphere to rest and feed before continuing its journey. Rare, an organization that focuses on implementing effective communication and conservation campaigns, and the Manomet Center for Conservation Sciences, an organization dedicated to bird conservation, teamed up with three local partners (Fundación Inalafquen, Asociación Ambiente Sur and Fundación Biosfera) to protect three critical stopover sites for the Red Knot in Argentina: the San Antonio Bay Natural Protected Area, Río Gallegos Estuary and Costa Atlantica.

Understanding the societal and conservation context

There are major threats to the Red Knot and its habitat. Heavy use of off-road vehicles destroys vulnerable nests and eggs, and place an added strain on the Red Knots. Plastic trash on the beach and in the ocean reduces the ability of the Red Knot to feed, and ultimately reduces breeding success. Prevailing attitudes view recreational driving of off-road vehicles on key habitat, and inappropriate disposal of solid waste as acceptable behavior.

Changing knowledge and attitudes

The communication programs focus on community knowledge of the Red Knot, and on increasing understanding of the status of the stopover sites as critical areas to conserve the Red Knots. A spot on the local television channel covered the campaign launch, and touched upon key issues. A radio spot and banners reached an estimated audience of 10,000 pilgrims. A series of 35 visits to schools reached over 1,500 school children, and provided them with a coloring book on the nature of the protected area, a cloth shopping bag and a CD with music about the Red Knot.

Changing social norms, values, perceptions, and conversations

The conservation planners conducted a number of outreach activities aimed at changing social norms and sparking conversations. These included a local Red Knot theater production, several art exhibits on the beach, conversations with groups of young off-road riders, school field trips to a local environmental education center, and local shorebird festivals. One training workshop reached 75 teachers and local citizens, while another training workshop focused on municipal officials.

Removing barriers and creating incentives

In order to provide alternatives to existing patterns of off-road driving behavior, conservation planners developed an alternative recreation trail for off-road vehicles away from the beach. This allows tourists and residents to continue to enjoy riding their vehicles and also safeguards important Red Knot habitat. In order to reduce solid waste in key Red Knot habitat, planners established a partnership with the local grocery store to develop cloth grocery bags with the campaign's logo that would reduce the use of plastic bags. In the Rio Gallegos Estuary, an area facing increasing sold waste problems, planners have established official disposal sites, disposal schedules and waste sorting techniques.

Motivating positive actions

Planners involved local community leaders and community businesses to help design and distribute trash bins, billboards and cloth shopping bags. By developing partnerships with local youths, planners were able to reduce the amount of waste left on the beach. Planners also used innovative social media such as Facebook to promote conservation, especially among young people.

Sustaining behavior change over time

Local school children are helping to create and distribute marketing materials. The municipal government was also involved as a key partner to support the campaign. Planners also implemented a coordinated marketing campaign that including mascot costumes, posters, t-shirts, flags and signage.

Assessing and monitoring the impacts of behavior change

Planners are looking at a wide variety of indicators along different aspects of the theory of change conceptual model. They will measure:

- **Conservation outcomes**: the number of Red Knots showing breeding plumage by early March, with an aim of 50 percent; the number of Red Knots that measure a '3' on their abdomen profiles by

8   From Rare (2010); *Protecting the Winter Habitat of the Famed Red Knot.* Program Brochure. Arlington, VA: Rare.

the third week of April, and the annual survival rates of Red Knots at San Antonia, with an aim of 80 percent or above; and the overall population of Red Knots, which has plummeted from 51,200 in 2000 to 17,700 in 2008.

- **Threat scope and severity:** The amount of trash in the estuary decreases by five percent. The decrease in damage to nesting birds and their eggs from off-road vehicles.

- **Behavior change:** The extent to which homeowners separate their garbage and recycling, keep their yards free from trash, and prevent illegal dumping of waste into the estuary. The decrease in off-road vehicle use, and the increase of off-road vehicle use on the new trail.

- **Barriers and incentives:** The number of trash bins distributed throughout communities, and the number of cloth bags distributed to community members. The number of miles of established alternative trail systems.

- **Knowledge and attitudes:** The degree to which community members understand that status of the key protected areas as significant stopover sites for the endangered Red Knot; and the degree to which community members believe that trash poses a threat to Red Knot habitat.

- **Societal and conservation context:** Community leaders have approved a local integrated solid waste management plan. The zoning and plan for the alternative trail is approved.

Improving the long-term outlook for the Red Knot

Due in part to targeted communication and education efforts, the legislature of Santa Cruz Province in Argentina approved a law in late 2010 declaring the conservation of migratory shorebirds and their habitats to be "in the provincial interest." Such a declaration can be more powerful than a listing as an endangered or threatened species, and is a huge conservation success for the Red Knot.

lessons learned in
developing and implementing communications programs

Overview

Developing and implementing an effective communications program for protected areas can be challenging. The following are some tips and lessons learned from various communications programs around the world:

Developing communications, education and public awareness programs

- **Choose settings and context carefully** Because context can be critically important in how a message is viewed, planners should carefully assess which contextual factors will be most important in ensuring the success of their communication programs.

- **Understand how information will likely be diffused** Planners should consider identifying people who are likely to be among the first to change behavior, and enlist their help in communicating and promoting change among others who might be slower to change their behavior.

- **Identify and enlist key messengers** There are many different kinds of potential messengers in a communications program. Enlisting messengers who are viewed as credible, trustworthy and/or influential, whether that person is a local teacher or religious figure, a community leader, an actor or a scientist, can help promote the message more effectively.

- **Plan a realistic timeline** Changing knowledge can happen very quickly – a well-planned and high-profile campaign can transform knowledge within a very short period of time. Changing attitudes will take more time, and changing social norms will take even longer. Planners should develop a timeline that reflects these phases.

- **Plan on using multiple communication channels** Using multiple communication channels can help to not only reinforce messages, but can create the conditions under which interpersonal communications and social dynamics begin to change. A fisherman who hears messages about the importance of coral reef health to sustaining fish populations from a radio story, from his daughter who learned it at school, and from his peers, will likely begin to perceive a new social norm.

- **Involve the community in designing monitoring indicators** Even if they aren't perfect indicators, if the community is involved in selecting them and gathering data, there will be more support for collecting, analyzing and using the data.

Implementing communications, education and public awareness programs

- **Keep messages simple and concrete** Simpler messages are easier to communicate and understand, and generally have more impact than complex messages. For example, a communications program in Loreto Bay focused on the slogan: "Loretanos for a sea full of life." A concrete message identifies a specific action or a response. A message such as "Together We Safeguard Forests, the Legacy of Future Generations" is more specific and concrete than a message such as "Protect Nature."

- **Make messages surprising and unexpected** Creating surprising messages using unexpected images can be a very effective approach. Using metaphors is one way to generate surprise. For example, one campaign showed a picture of a mother bathing her baby in water filled with trash. The message said: "Would you want your child in this water? Neither do the fish. Dispose of waste properly."

- **Appeal to emotions** Using images, words and communication strategies that evoke an emotional response can help in driving home a message. Charismatic species can be used to effectively appeal to emotions, as can appealing to a responsibility to future generations.

- **Build local and national pride** An example of a message that builds local pride is a slogan used in the Parque Nacional Lagunas de Montebello in Mexico: "Clean and Beautiful, the Color of Montebello."

- **Support individual behavior change** Sustaining change is about recognizing and rewarding individual behavior change. This can be accomplished through a variety of means, including awards, newspaper articles highlighting innovators and early adopters, and promoting other forms of community recognition.

- **Build momentum** Sustaining change requires that planners build momentum by encouraging more and more individuals to change their behavior. One way to do this is to celebrate and promote early and small successes.

- **Integrate messages into a variety of media** Key messages should be integrated into a variety of different types of media, including newspapers, street theater, school visits, and radio shows, among others, and should be integrated into a variety of venues, including school programs, religious institutions, businesses and community meetings.

- **Institutionalize messages** In order to sustain change, the messages must be repeated over time. The best way to do this is to fully institutionalize messages into ongoing programs, such as school curricula, an ongoing newspaper column, or a radio show.

- **Promote community ownership** Communication, education and awareness campaigns are often developed and run by protected area agencies, non-governmental organizations, or a partnership of the two. However, the long-term success of the campaign is ultimately defined by whether or not community members fully embrace the key messages, and continue to sustain change themselves.

- **Focus on the benefits** Most people will act in their self interest if they fully understand all of the costs and benefits of a specific change in behavior. For example, when advocating fuel efficient stoves, planners can focus on the benefits of more time available, better health from less smoke and faster cooking times.

- **Choose the most important barrier first** Rather than tackle all barriers at once, identify the one or two most important barrier to remove first. Once this barrier is removed, it will be easier to address the others. Reviewing the analysis of the root causes can provide clues about which barriers are the most important.

- **Explore creative incentives** Most people are motivated by a variety of factors, including community recognition, community pride, and mastery of a technique, among many others. Conservation planners can identify non-monetary incentives that can help motivate behavior change quickly, while at the same time working on longer-term legal and financial incentives.

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"An effective community-led communications program is a critical component to effective protected area management. This publication helps show the way, from an organization that has a solid track record in inspiring communities around the world to conserve biodiversity."

—Jo Mulongoy, *Convention on Biological Diversity*

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