

# EDUCATION & OUTREACH

## MODULE 10



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### 10.1 EDUCATING LOCAL COMMUNITIES

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Engaging the community in building visitor awareness  
Identifying the audience  
Educational activities for schoolchildren  
Materials & media for education  
Capacity-building in the local community

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### 10.2 EDUCATING VISITORS

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Developing primary interpretive themes  
Visitor centers  
Brochures, leaflets & field guides  
Self-guided nature trails  
Botanical gardens, aquaria, zoos & wildlife rehabilitation centers  
MPA staff and naturalist guides

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### 10.3 GUIDES AND GUIDE TRAINING

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Case study: Team Ocean Channel Islands Naturalist Corps  
Case study: Galapagos National Park  
Roles of guides  
Key considerations for a successful guide training system  
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***“EACH ONE TEACH ONE” FIELD TRIP***

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**Acknowledgements**

*The majority of the following material is excerpted or modified from:*

Christ, Costas, Oliver Hillel, Seleni Matus, and Jamie Sweeting. 2003. *Tourism and Biodiversity, Mapping Tourism's Global Footprint*. Conservation International and UNEP, Washington, DC, USA.

Drumm, Andy, Alan Moore, Andrew Sales, Carol Patterson, and John E. Terborgh. 2004. *Ecosystem Development - A Manual for Conservation Planners and Managers. Volume II: The Business of Ecotourism Development and Management*. The Nature Conservancy, Arlington, Virginia, USA.

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## **OVERVIEW**

*Education is a key component of supporting the MPA's conservation and management activities. It has to occur at all levels and among all of the groups that are involved: local communities, tour operators and their staffs, the tourists who visit the MPA sites, and the MPA staff themselves.*

Educational materials and other promotional tools are essential for raising awareness about the issues in your MPAs, for educating local communities so that they can become advocates for their natural "treasures," and hopefully, for promoting behaviors among all the stakeholders that will have beneficial impacts on the MPA.

Publicity and promotion offers the following advantages:

- Raising awareness among stakeholders and encouraging their participation;
- Changing people's thinking and behavior in relation to a particular issue (i.e., consuming turtle eggs);
- Informing people about the MPA and its achievements and any changes in regulations or management activities;
- Raising awareness about the MPA at regional and international levels to strengthen linkages;
- Assisting in fundraising.

Tools to accomplish these ends include a suite of communication strategies and methods including printed materials, videos, websites, the media (TV, radio, newspapers), exhibitions, and special events, as well as integrating a presence within traditional events and festivals.

## **LEARNING OBJECTIVES**

- ✓ Learn how to develop an effective environmental education program
- ✓ Learn how to engage the community in building visitor awareness
- ✓ Learn about visitor centers, nature trails, and other ways to educate visitors
- ✓ Understand the importance of well-trained naturalist guides, and the complexities of developing an effective guide-training program in the local community
- ✓ Understand the suite of educational packages, tools, and approaches for educating tourists



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## LESSON PLAN

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### 10.1 EDUCATING LOCAL COMMUNITIES

#### Engaging the community

Careful thought should be given to developing an environmental education program, especially in MPAs where this is a specific objective. The management plan for the MPA may provide a framework for developing an educational program, but this is often overlooked. By working with schools, fishing groups, and local government departments, the MPA can help to stimulate environmental awareness and to develop local capacity for marine resource management. MPAs are often more exposed to international issues than local organizations and can provide broader information of educational interest.

Civic awareness plays a major role in the success of coastal conservation. In countries where MPAs are effective, conservation awareness is usually high among communities, managers, and the private sector. The most important goal is to explain to the people the long-term, sustainable benefits that sustainable tourism and conservation can provide. Note that education should not be used as “propaganda” for selling conservation programs; honest efforts to inform the public are essential.

#### Identifying the audience

Environmental education aims to provide the community with information and a conservation ethic so that its members can make informed decisions about the use of their resources.

The first step in designing an education program is to identify the main audiences; for example, fisher people, dive operators, tourists, hotel owners, port directors, politicians, schoolchildren, etc. For example, Hudson (1988) recommended the following plan for Australia’s Great Barrier Reef:

Target Group	Message
General Public	Nature of coral reef environment Need to protect reef areas
Fisher People	Economic benefit of proper management Provisions of plan regarding fishing
Tour Operators	Suggested tourist activity on reefs Provisions of plan regarding fishing
Govt Agencies	How plan interacts with their mandates

Next, specific objectives must be established in terms of knowledge, attitudes and behavior to be changed or influenced within each group. For example, in the Central Visayas project of the Philippines, fisher people who were educated about artificial reef construction and use were able to increase their catches and abandon dynamite fishing at the same time.



Initially, a multifaceted approach, combining printed materials, audio-visual presentations, and face-to-face interaction, is probably the best way to start an education program. Depending on the target audience and budget, a variety of additional options can be employed: mass media (press, television, radio), fixed exhibits, tours, training workshops, the sale of promotional materials such as t-shirts, and informal recreational activities with an educational focus.

#### Target groups can include:

- **Universities and institutions.** The MPA can provide a venue for, and assist with input into, field courses and training activities.
- **Schools** - Developing a joint environmental education program, including workshops for teachers. Activities should be linked to the ongoing school curriculum, so that both pupils and staff can see the relevance of the MPA to broader issues that are being taught. A good contact point within the school is essential for liaison with staff and parents.
- **General public and local communities** - The MPA could organize short courses (e.g. for fishers on fisheries management), one-day events, or talks and lectures (e.g. by visiting researchers). With local communities, discussion of topics such as first aid, coastal dangers or swimming may be a good icebreaker before moving on to subjects such as sustainable fisheries or MPAs.
- **Tourists and casual visitors** - Visitors may be equally interested in educational activities, so advertise all educational activities widely and allow attendance by as many people as possible.

#### Educational activities for schoolchildren

##### *Handout 10.1 - Environmental Education at Rodrigues, Mauritius*

Schoolchildren can be an especially good audience. Schools and school teachers are usually eager for good, engaging ways to teach their pupils about the local environment. Children are easily engaged by MPA's nature message, and they often spread the message to their parents and other family members as well.

The most successful learning is often that done through personal experiences and reflection, combined with "sense experiences". The five senses (touch, sight, smell, taste, and hearing) can be used to maximize learning (e.g. through touch tanks or feel boxes). If the MPA has a visitor center (see below), activities can be based around its facilities. It is beneficial to involve local museums, the business community, and environment groups or wildlife clubs.

Non-field based activities tend to be cheaper to organize and include: board and card games, jigsaw puzzles, and quizzes that can be designed to suit the MPA. Others may include visits to museums, variety shows with plays, mime, poems, story-telling, environmental songs, or puppets; art activities, including costumes for plays and creation of displays; radio, TV, and video programs with discussion and follow-up; sport and art competitions; recycling and handicraft projects; and special awareness-raising events (e.g., the Kenya Wildlife Service and the MPAs organize an annual Marine Environment Day).

Field activities are probably one of the best ways of creating awareness, and can include: visits to intertidal flats, mangroves, rocky shores, beaches, coral reefs (glass bottom boats or snorkeling), turtle and bird nesting sites (if very carefully managed), dolphin, whale and whale-shark watching, and participation in management activities such as planting beach vegetation or clearing rubbish. Such activities can be costly, as vehicles and boats may be required. Where MPA authorities are short of funds, donors and the private sector are often eager to support such activities as long as they are well organized. Members of the local community may be able to help (e.g. providing a fishing boat for transport).



Providing incentives is a valuable means of increasing motivation for people to learn. Children are often more interested in field-based activities, so these can be linked tightly with classroom work, for example, with swimming and snorkeling as incentives for completing course work. Educational programs can also be linked with national youth award schemes where these exist, or the MPA can develop its own system of awards and certificates.

## Materials and Media for Education and Outreach

Whatever the target audience, a wide variety of materials and media can be used to spread your educational message:

Leaflets – both general about the MPA, and also for specific events and short-term activities.

Brochures and Pamphlets – provide more information, including details, and specific topics of interest.

Newsletters – These are regularly-timed messages, often with catchy names and timely information. They may be seasonal, or prepared more often, depending upon the level of activities or rate of change being experienced in the MPA. It is important for them to look attractive, as well as be informative, to create a good impression about the importance of the MPA.

Calendars – Have the advantage of being displayed, and automatically can provide information about regular events and seasonal changes. In addition, they provide space for notes and messages. Mafia Park in Tanzania produced a calendar in Swahili, giving both international and Muslim dates, which proved very popular with the local fishing communities. Other MPAs have produced calendars as well.

T-shirts, caps, badges, key rings, drinks, etc. – These are items that can be sold, generating both money and advertising. They are cheap to produce, highly visible, and can become popular prestige items among teenagers. They are also good rewards for school groups or volunteers. Again, such efforts should be well-planned, environmentally sustainable, and locally or regionally produced.

Display boards – Can be made for use at exhibitions, and events. They can also be locally made (designs can be created by students, for example).

Websites – these are now considered essential, but require careful design and planning, as well as hosting and maintenance, which entail costs.

Video – production and screenings of videos have been expensive in the past, but new technologies are making them more accessible, though still costly. Well-produced documentaries have brought some MPAs international attention and helped with fundraising.

Traditional media – TV, radio, and newspapers can be very useful as well. Regular stories in local newspapers, or even a regular column, can be an invaluable means of integrating your MPA into community life. When interesting events happen in the MPA, such as whale migrations, a coral bleaching event, visit by a famous person or dignitary, a school trip, or workshop), inform the media and provide the necessary information for the story. Not only is it news of current events, it is free publicity.

Television has a general audience, raises general awareness of the situation, and can motivate people to do something about an issue which they may not have known about before. It is a passive medium for the receive, but when handled well can be of great benefit in public education.



Radio is an excellent medium. It is available in most countries and is extensively used by schools and other teaching institutions. Radio series on environmental issues, especially if there is a strong story line, are often appealing to children. Once children listen to a radio program, their families often do as well.

*Special events and exhibitions* – Publicizing your MPA through exhibitions, talks, and displays at trade fairs, local museums, schools, fish markets, and activities organized by NGOs should all be encouraged. Drama and puppet shows in schools are also effective.

#### Key Points for Developing Materials:

- Identify the message and the target audience.
- Consider holding a focus group with the target audience to determine what they already know and what they need to know.
- Review all publicity and educational materials for accuracy and alignment with policy.
- Keeping messages simple and straightforward is always a good idea.
- Develop a consistent design style that becomes associated with your MPA, so that your materials are immediately recognizable.
- Keep records and seek feedback in order to evaluate how useful different materials were so that future materials that be improved and made more effective.
- Develop a logo, either for your MPA, or your management agency.

#### Key Education Points for MPAs:

- Developing an environmental education program is important, even if it means figuring out how to hire additional staff or find volunteers to help with the effort.
- Developing a monitoring program of some sort to measure how much environmental awareness, feelings about the MPA and creatures in it, and behaviors are changing will provide feedback on which campaigns and strategies are more effective than others.

### **Capacity building in the local community**

Local communities may benefit from education, training or assistance in developing certain features of their community to support sustainable tourism. Examples include hospitality training for lodging and food providers, language training, and so on. See the handout for particular examples.

*Handout 10.2 - Training and capacity building in Ecuador*

## **10.2 EDUCATING VISITORS**

### **Developing Primary Interpretive Themes**

Primary interpretive themes are those ideas about MPA resources that are so important that every MPA visitor should understand them. The list of primary themes does not include everything the MPA staff may wish or need to interpret, but should cover those ideas that are critical to visitor understanding of the MPA's significance.

A new trend in some parks and MPAs is to articulate “park themes” that are broader than interpretive themes and can be thought of as themes for resource management and maintenance as well as for the interpretation program. Examples of both kinds of themes are offered in the next handout.



### **Pointers for Articulating Primary Interpretive Themes**

- Primary themes are only those basic ideas that communicate the significance of the MPA. This is not an outline of the entire interpretation program of the MPA. Do not list all the interpretive themes and call them primary themes.
- To be most useful, **themes should be written as complete sentences to communicate a complete thought.** Incomplete thoughts do not provide enough focus to be useful in guiding planning and management efforts. For example, rather than writing, “the importance of Spanish and Portuguese exploration” (a topic, not a complete thought), write “Spain and Portugal played major roles in human understanding of the globe - they explored three-quarters of the U.S. and colonized half of it” (a complete thought, and the actual message to be conveyed).
- The list of primary interpretive themes should be short. **Most MPAs should not have more than three to five primary interpretive themes.** Keep in mind that some significance does not need to be interpreted, only experienced. For example, many MPAs include unusual or particularly spectacular scenic vistas as part of their significance; such vistas rarely require interpretation.

### **Handout 10.3 - Examples of Primary Interpretive Themes**

## **Visitor Centers**

A visitor center is extremely useful in helping an MPA carry out the important task of interpretation. Good interpretation can affect the visitor’s behavior so that he/she can contribute to the conservation objectives that the MPA has been set up for, and has several aims. These include bringing alive the meaning of the MPA and its role, informing visitors about the marine environment and communicating to them its importance and value, as well as helping visitors to understand why the MPA is managed in certain ways and what any regulations mean.

A visitor center may have several components, with separate areas for displays and exhibits, meetings, talks and slide shows, as well as children’s’ activities. Refreshments and souvenirs or education materials may also be sold there, ensuring that any exhibits are well protected from the eating area.

Displays and exhibits might include the following topics:

- Natural history (e.g. touch tanks, “guess the object” games, models, photos/specimens)
- Socio-cultural issues related to the MPA
- How the MPA is managed
- A map of the MPA and surrounding area
- Ways in which visitors can help with the management or funding of the MPA.

There are several issues to consider when designing a visitor center and its displays, including:

- **Type of visitor** - the main visitors need to be identified as this will affect the style and content of the displays, e.g., whether these are tourists, children, or local adults;
- **Language of displays** - labels and information should include local languages and also the language of the main groups of tourists visiting the MPA;
- **Weather-proofing** - protection is needed from weather (sunlight, rain) and from human contact (children touching, salty water if visitors enter the center from the beach);
- **Durability** - displays and exhibits generally need to be fairly robust and durable to survive time, handling and harsh environmental conditions;
- **Portability** - there may be a need for components of the exhibition to be portable, for temporary exhibitions in other parts of the MPA or for use elsewhere;





- **Safety and security** - theft possibilities (e.g. if exhibits such as shells are left uncovered) and threat from falling exhibits (and thus danger to visitors) need to be minimized;
- **Location** - siting the center is important to ensure that visitors are drawn to it quickly and easily.

Multi-media exhibits may be appropriate in some instances, but are expensive to install and maintain (especially in tropical coastal areas), risk breaking down, and sometimes create a “barrier” to experiencing the real, natural environment. It is better to have something simple that is sure to work. Use the space, walls and surfaces in the display area carefully and order the exhibits so that they make sense to visitors, and perhaps follow a pattern, rather than displaying information randomly. Ensure there is good lighting of exhibits and displays, whether natural or artificial; if the exhibits receive a lot of natural light, printed materials will need to be UV proof to avoid rapid fading.

Visitors from developed countries may have high expectations of interpretation materials and visitor centers, as they are used to professional standards in their own countries. It is generally better to have a small, focused visitor center that is well-designed and of high quality, rather than a large one of poor quality. A mix of passive and active displays is recommended. Passive displays are those that are just read or looked at (e.g. posters, charts, specimens, models). Interactive displays include, for example, live animals, in a tank, “guess the object” games, or small panels that flip up to find an answer. Make sure there is a balance of pictures and objects and text (the latter kept very brief and in large clear font so it can be read easily, as people rarely read much). Lectures, slide shows, videos, guest talks, tours and special sessions for school children can be scheduled at appropriate times.

### Brochures, leaflets, and field guides

These should be as colorful, attractive and interesting as possible. Leaflets should tantalize. They are for wide distribution in tourist offices, hotels and the like. They should lure visitors to the reserve, give information on what can be seen and done there, how to get there and any special preparations required (e.g., bookings, permits, special equipment, clothes or food). The leaflet should outline the conditions and facilities available in and around the reserve and current costs of accommodation, or other expenditures.

Brochures available at the reserve should be made available in as many different languages as possible. They provide visitors with basic information to help them enjoy their visit, while at the same time they can carry a conservation message and advise visitors on environmentally sound visitor behavior. Brochures should include brief descriptions of the main attractions, a map, a list of park regulations, and any important information that visitors should know about how they should behave. Brochures should fit comfortably in a pocket.

**Specialized field guides, keys & checklists** will help visitors with particular interests or those unfamiliar with the area. Guides to local species of birds, coral reef fishes, and flowering plants are particularly popular, and can often be sold to generate revenue. Expect bird-watching tourists to be particularly demanding about accuracy and quality of the bird field guides.

**Exercise: Compare brochures and guides**

Set out all the brochures and guides available from at the MPAs of the ETPS, as well as any other MPA guides that are available.

Which are the most attractive and informative? What makes them the most attractive and informative? How were they designed? Is the main message clear? Are the visual messages clear and do they tell a story? Are there consistent messages throughout all the educational pieces from a single MPA?

Are you satisfied with the materials available to visitors at your MPA, or would you like to re-design the materials?

*Handout 10.4 Guidelines for Excellence in Environmental Education Materials*

*Handout 10.5 Evaluation of Environmental Education*

**Self-guided nature trails**

These are trails of varying lengths (though usually fairly short) where groups or individuals stop to view features of interest. Visitors may be provided with brochures which give them information about individual sites which are marked in some way, usually by a numbered post. Alternatively, the information may be on sign boards along the trail, but these are less desirable as they tend to reduce the unspoiled appearance of the natural surroundings, and in addition they require maintenance. **Underwater self-guided snorkelling and dive trails** have recently been developed in several MPAs, using underwater signs at certain spots (e.g., information on species of coral, common fishes, different habitats, etc.) a rail or marker system to guide visitors from one spot to the next, and/or waterproof information placards to take while swimming. This can help concentrate visitor activity in a smaller area, as well as provide valuable conservation information to them.

**Designing terrestrial nature trails**

As a general guideline, a terrestrial nature trail should be short (0.5 to 1.5 km), with a walking time of 30 to 60 minutes, constructed in a one-way loop that begins and ends at the same place. Keep in mind that a nature trail is about information. Visitors who go on a nature trail want to be educated; take advantage of the opportunity to engage them with interesting, compelling information and stories that carry your conservation message.

A natural trail should be inviting, with a clear, well-marked beginning, and should be wide and flat enough to walk in comfort. It should be clean and well-maintained, with trash cans at the entrance.

Steps to follow in developing and constructing a terrestrial nature trail:



- Conduct a thorough survey of the area through which the trail is likely to pass. Make a list of all notable natural and historic features. Mark these features on a sketch map and arrange a trail route to connect them.
- Walk the route to check its length and accessibility, and to determine the feasibility of construction.
- Disturb the natural scene as little as possible. Supervise workers carefully to avoid unnecessary damage during construction.
- Build the trail with curves, avoiding straight stretches where possible. A winding trail is more interesting to walk. Avoid designs that “double back”, which may encourage visitors to take short cuts.
- Avoid steep hillsides and waterlogged areas. Ensure that drainage runs off, not down the trail; install water bars and drains if necessary. In some areas the trail may need to be raised on a walkway or stepping stones.
- Clear the walking area of all obstacles along the trail, and cut overhanging vegetation to a height of 2m. Avoid cutting large trees, and do not clear all debris down to bare soil. Fill depressions with rock or dirt.
- Provide simple benches at occasional rest stops. Place trash cans here for trash from snacks.
- It may be necessary to build small bridges over streams, cut steps in rocks, etc.
- Provide a trail entrance sign with basic information (a map and the trail’s length). Directional signs may be required at junctions. Walk the trail in both directions, turning around and attempting to get lost; place additional directional signs wherever visitors might become confused.
- If possible, determine a theme and give the trail a name that reflects that theme (e.g. “Mountain Forest Nature Trail”). This adds to the interest and appeal of the trail.
- Decide between (a) printed signs or labels along the trail, and (b) numbered labels referring to a printed leaflet.
- At least 12 features, and at most 30, should be identified for interpretation. Information should be accurate, interesting, brief, and easy to understand.
- A map must be provided, either on a sign or in a leaflet. Also consider providing a checklist of “things to see along the trail.” A leaflet, if used, need not be expensive but should include sketches and diagrams and be visually attractive.
- As a final step, design and produce the leaflet. If possible, arrange for it to be translated into as many of the common languages of visitors to your MPA.

### ***Trails in marine habitats***

Marine parks have the additional opportunity to place trails in interesting marine habitats. Examples include boardwalks through coastal wetlands or mangrove forests, underwater trails (such as through the reefs at Buck Island National Monument in the US Virgin Islands), and underwater viewing chambers such as at Green Island on the Great Barrier Reef and at several marine parks in Japan.

### ***Exercise: Evaluate & design nature trails at your MPA***

*Using the detailed maps of your MPA’s attractions developed earlier, evaluate any existing trails. Are the trails effective, interesting, and well-maintained? How could they be improved, or where could new trails be placed?*

*Using an acetate overlaid on top of the main MPA map, design a terrestrial or underwater diving trail, identifying natural, historic & cultural resources visible from the trail.*



## Botanical gardens, aquaria, zoos, and wildlife rehabilitation centers

These are interesting sites where visitors can get a closer view of some of the plants and animals found in the reserve, and identify some of the things they have seen in the wild. While large facilities are beyond the reach of smaller MPAs, a small botanical garden or an aquarium with a few interesting species may be easy to maintain. These facilities can sometimes be combined with other functions such as a wildlife rehabilitation hospital, where young, injured or sick animals can be nursed back to health, e.g. orphaned sea lion pups, oiled or injured seabirds, etc. Unreleasable animals can sometimes be trained for use in education programs.

Establishment of a wildlife rehabilitation center should only be undertaken with careful planning and the involvement of highly trained staff, as the finances and veterinary care required can become overwhelming if more than a few animals are brought in. The conservation value of rescuing a few animals here and there is not in the biological effect (rarely do the few animals saved by a wildlife rehabilitation center make much difference in an ecological sense), but in the ethical message it gives to visitors that wildlife should be respected and assisted when possible. Providing local residents with a place to bring injured animals - rather than abandoning or killing them - can help change local attitudes about wild animals, and the animals can become a powerful educational tool for local residents and visitors.

### MPA Staff and Naturalist Guides

A final, and critical, part of visitor education is the information they receive from MPA staff and from naturalist guides. (The guides may be part of the MPA staff, or may be provided by tour operators.) MPA staff must be cordial and welcoming to tourists, while at the same time capable of explaining and enforcing rules and required behavior.

Guides in particular are such an important part of the visitor experience that we will discuss them in great detail in the next section.

## 10.3 GUIDES AND GUIDE TRAINING

### Introduction

Naturalist guides play a central role in the implementation of the sustainable tourism concept. They can be the principal providers of the educational element to a sustainable tourism activity, and their capacity and commitment ensures that the negative impacts of tourism are minimized. At the same time, guiding is an obvious economic opportunity for people from local communities.

Most sustainable tourism takes place in remote natural areas where it is typically not feasible for visitors to fully experience the attractions without the accompaniment of trained, knowledgeable guides. Even in more easily accessible areas, the success of sustainable tourism depends in large part on the abilities of naturalist guides to interpret the environment in ways that inspire and educate visitors. Experienced guides can make a big difference in helping visitors to minimize their impact, in addition to enhancing a visitor's experience and willingness to return. A good guide should be able to help tourists understand the best way to view wildlife, and to be well-informed of global and local environmental issues.

The use of tour guides in protected areas is not a new phenomenon. Guides have been a part of nature



tourism in many places for many years. They have accompanied tourists on safari in East Africa for several decades. They have traveled with tourists on the boat tours which millions of visitors have enjoyed on the Patagonian lakes of Argentina, particularly in Nahuel Huapi National Park. These tour guides usually were employed by private tour operators and had little or no relationship to the protected area they worked in. Over the years, this situation began to change as protected area managers realized the potential for using guides to increase contact with visitors and for accomplishing other sustainable tourism objectives as well.

To support this endeavour, it is very valuable to have a guide-training program, and, if possible, to support talented local residents in education and training opportunities for languages, biodiversity, botany & zoology, first aid, hospitality, etc.

### **Case study: Team Ocean – Channel Islands Naturalist Corps**

*Handout 10.6 – Team Ocean in the National Marine Sanctuaries*

### **Case study: Naturalist guides in the Galapagos National Park**

Galapagos National Park has transitioned over time from mostly foreign guides to mostly local guides. See the handout for further information.

*Handout 10.7 – Naturalist Guides in Galapagos National Park*

## **Roles of guides**

Naturalist guides truly play a multifaceted role. They have responsibilities to their tour operator employers, to their clients the visitors, and to the protected areas and communities where they work.

### **1. Information & interpretation**

Tour operators count on guides to provide experience-enriching interpretation of natural and cultural attractions to add value to the tourists' itinerary. They also require guides to manage logistical aspects of trips in the field, such as coordinating with accommodation, food and transport service providers. Guides are responsible for the tourists' safety and in general represent their tour operator employer in the field. Tourists look to the naturalist guide for information, interpretation and insight about the places they are visiting; for help preparing for a visit through formal briefings and informal talks; and generally to be a friendly, knowledgeable intermediary with unfamiliar places and people.

Protected area authorities look to the guides as extensions of the park ranger staff, to educate the visitors, to protect the natural and cultural resources of the area visited, to participate in monitoring programs and generally to support the conservation objectives of an area.

In addition to these roles, a naturalist guide should seek to inspire visitors to become supporters of conservation.

### **2. Nature Interpreters**

Environmental interpretation is a subset of communication that focuses on how best to explain environmental/ ecological concepts to the general public. One of the central tenets of sustainable tourism



is to educate the visitor. Naturalist guides, who spend a considerable amount of time with visitors, are in a perfect position to educate through skilled interpretation. Many local residents have a detailed knowledge of the plant and animal life as well as of other natural and cultural attractions. They can also relate first-hand experiences with wildlife, medicinal plants and other local phenomena.

### **3. Conservationists**

As the main contacts that visitors may have with an sustainable tourism site, guides serve as important role models both to visitors and their own communities. Their attitude and behavior send an important message to others about the sustainable tourism concept. Does the guide pick up pieces of trash along the hiking trail? Does the guide actively support and cooperate with site managers by reporting illegal activities? Does the guide adapt sustainable tourism to his/her own home and community situation? Some tour guides make a point of discussing the importance of conserving the incredible diversity found at a site, what the major threats to it are and what visitors might do to help conserve it.

### **4. Enforcers of Regulations**

Unfortunately, not all visitors to sustainable tourism sites know how to behave appropriately in sensitive natural and cultural settings. It is the guides' responsibility to ensure that visitors are aware of all applicable rules and regulations as well as other relevant ethical considerations. In a polite but firm manner, they must make sure that visitors comply with whatever restrictions there may be. This is perhaps the most difficult role that guides have because their major responsibility is to help provide visitors with an enjoyable experience. As members of the private sector, it can, in rare situations, create a conflict of interest between the guides' conservation obligations and their obligation to the visitor and, in some cases, their employer.

For example, a tour operator might promise clients a close encounter with a whale, but a guide may judge that at a given moment the whales seen in the distance are nursing young and should not be approached. The guide's obligations to an employer and to a park authority might be divergent at this point. Guides need special training in how best to deal with these situations. They also must be vested with the authority to report and deal with infractions of rules and regulations.

### **5. Monitors of Tourism Impact**

Since guides visit the sustainable tourism site/protected area on a frequent basis, they are in a unique position to notice certain kinds of impact, such as water quality, marine debris, increasing rareness of a particular bird species, etc. They are also in an excellent position to carry out formal monitoring observations for the site's managers. In many places, guides take the time to carry out observations of the number of nesting birds or of the regeneration of a plant species in a designated quadrant. This can be of valuable assistance to a site's managers when they are short-handed or simply do not have trained personnel to carry out these tasks.

### **6. Liaison with Local Communities**

When guides are from local communities, they can serve an important role in improving communication between the site's administration and local people. This is particularly important when there may be some misunderstanding between the two different "communities," which there frequently is. Naturalist guides in the Galapagos Islands and other places have established their own organizations to further conservation objectives. In the Galapagos Islands, they have been especially helpful in obtaining local support for the Park Service in the face of illegal fishing activities originating outside the islands.

## **Key Considerations for a Successful Naturalist Guide System**

In order for a naturalist guide system to work well in an sustainable tourism site situation, several conditions must be met.



### ***Control and licensing***

The site must have effective control over the use of guides and the conditions under which guides will operate with- in the site. This implies that MPAs either own the site or that there is legislation or some other legal mandate for exercising this control. Most effective guide systems have a licensing mechanism. The site's administration, or some higher authority acting at the administration's request, will issue a license to guide visitors within the site if the guide complies with relevant rules and regulations. The site's administration reserves the right to suspend or revoke the license if a guide's behavior is inappropriate. Licenses are usually extended to those individuals who pass a training course or a test. The site's administration reserves the right to set other criteria for attending a training course, such as: being a member of a local community, being of a minimum age, the absence of a police record and having a minimum level of education.

It is important to avoid flooding the market with too many licensed guides as this would force down wage levels as many compete for an insufficient number of jobs. However, it is necessary to have a sufficient number of guides to satisfy demand; a rough guide would be to license about 25% more guides than will be working each season.

### ***Mutual benefits***

In spite of the control that the site's administration must exercise over the guides' activities, the relationship between them should be more than one of employer and employee. Both the site administration and the guide have much to offer each other, and they should actively carry out their respective roles in order to benefit from each other's work. Unfortunately, it is not uncommon for one side or the other to lose sight of their mutually supportive roles and for the relationship to become non-productive. Constant and positive feedback is the best way to avoid this situation. Involving tour operators and guides in the sustainable tourism program planning process from the beginning is also crucial.

### ***Training***

Naturalist guides need training in order to fulfill the many roles they are charged with. The primary themes for a training course curriculum are listed below.

- **Natural history of the site and surrounding areas.** What are the major habitats, species, plant and animal communities and ecosystems? How do they interact with one another? What is their conservation status?
- **Cultural attractions.** What are the historical, archaeological and traditional cultural activities that can be found in the site and surrounding areas? What is the relationship between natural and cultural attractions?
- **Site conservation priorities and activities.** Guides should be able to explain to visitors what the site's management is doing to further the conservation of the natural and cultural resources found in the site as well as how the site relates to other protected areas and the surrounding communities.
- **Rules and regulations.** Guides need to be aware of all the rules and regulations governing public use of the site and its facilities. In particular, they need to be aware of what sustainable tourism is and how it is applied at this site.
- **Group management.** All guides need to learn how to best manage a group of visitors that can have widely varying attention spans and reasons for being there. Maintaining everyone's attention and keeping the group together can sometimes be a major chore. Experienced guides are sometimes the best people to teach this part of the course.



- **Interpretive/communication techniques.** There are very special techniques for communicating ideas to a group of disparate people. Learning the techniques comes easily for some guides; for others, a significant amount of time will need to be spent.

Training should not be a one-time event for guides. Good guides should be continually refreshing and updating their knowledge, and the site's administration should consider carrying out periodic courses for this purpose. Courses should be developed with, and at least partly financed by, the tourism industry. In addition to specialists in each of the themes outlined, tour operators should be instructors in courses, as should older, respected members of the local community.

Young men often dominate the competition for places in guide training courses, but it is important to ensure that women participate too. They make good guides, and at least 50% of tourists are women! Rare (formerly the RARE Center for Tropical Conservation), with the support of The Nature Conservancy, has developed a comprehensive guide training manual that is highly recommended (RARE, 2001).

### ***Guide availability***

Sustainable tourism encourages the inclusion of local people in as many circumstances as possible. While it may be useful to utilize local people as naturalist guides, managers should realize that residents may not be "natural" naturalist guides. Their interests or educational levels may be obstacles to reaching the level of expertise required of guides at a site. Significant training may be needed before they can function effectively.

### ***Work availability***

Work availability is a very sensitive issue in many situations. Naturalist guides have the potential to earn significantly more money than other members of their community. For this reason, when a site initiates a naturalist guide system, there are sometimes many more candidates than available work. Managers must be careful not to create high expectations among guide candidates, especially if visitor numbers are not sufficient to guarantee work for everyone. If some candidates for a training course are selected over others who appear to have similar qualifications, conflicts may arise. Site managers may do several things to minimize these problems:

- Ensure that specific criteria are used to select guide candidates and that the criteria are strictly followed.
- Limit training course size to a specific number of people and accept candidates on a first come, first serve basis.
- Initiate policies that encourage or mandate the use of local guides in the sustainable tourism site or in specific locations or zones within the site. This may cause conflicts with other, non-local guides. See the following section on "Local vs. non-local guides."
- Encourage the creation of a naturalist guides association that will help to organize guides and their response to a limited number of guiding opportunities, e.g., a system of rotation. This is also an excellent way to minimize cutthroat competition and to standardize prices. The site could mandate that guides charge only a certain amount for a given service, but the mandate would be better received and complied with if the guides were allowed to determine their own price structure.

### ***Local vs. non-local guides***

It is not uncommon for organized tours to arrive at an sustainable tourism site with a guide who works with the tour company and comes from the capital city, or even another country. Sometimes these guides are very knowledgeable about the site, but many are not. However, local community members should be given priority for positions as naturalist guides. In the case of areas that are ancestral lands of local communities, hiring a trained local naturalist guide should be obligatory. If tour operators require higher level scientific interpretation, they may choose to hire a university educated non-local guide to also accompany their clients.





Training courses for local guides will likely emphasize different themes than courses for university-educated naturalists.

If the situation is developed appropriately, guides from both categories can learn a lot from each other. Regardless, all guides should take and pass the training course and be licensed. It should be mandatory to train and provide licenses to local guides.

### **Language skills**

Local guides can face a language barrier since most tourists are from another country, usually one where a different language is spoken. Local guides can be very ingenious at communicating with visitors whose language they do not speak. However, they cannot express themselves at the level that a high quality naturalist guide would need to communicate effectively, e.g., expressing complex ideas and concepts.

When the Galapagos Islands naturalist guide system began, most local guides did not speak any English. Twenty-five years later, almost all of them speak some English or another European language. Some of these guides learned another language on their own by listening and talking to visitors, others took special courses. This ability to communicate in another language has also increased the fee they can charge. Rare has developed a nature guide training course that develops knowledge and skills while teaching English (RARE, 2001).

### **Exercise: Design a Guide Program**

*Each representative briefly describe the guide-training program, if there is one, at their MPA.*

*Discuss the plusses and minuses of the different systems. Which MPAs might benefit from a guide-training program? Are there qualified local personnel who could be trained as guides, or might there be in the future? Is there enough demand to support part-time or full-time guides?*

*Present your ideas to the large group*

### **Exercise: Design a Visitor Center**

*1. A representative of each MPA briefly describe whether they have a visitor center, what it is like, and whether they would like to design a new one or re-design the old one.*

*2. Form into three or four groups centered around three or four MPAs that would like a new visitor center. (Each group should consist of people from many regions, as well as from that particular MPA). Using sketches, design a new visitor center. Sketch out some possible floor plans for the building and any exhibits, shops, interpretive materials, etc. inside and outside.*

*What are the major themes of the MPA?*

*What do you wish to communicate about those themes?*

*Who is your target audience?*

*What visual aids will you use inside and outside the building?*

*What should be the building's design, location, and size?*

*Is the building multipurpose? (e.g. does it also contain food concessions, auditoriums, etc.)*

*Can it be used to generate revenue?*



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*Could existing buildings be modified for this purpose?*

*3. Present your ideas to the large group.*

***Handout 10.8 Each One Teach One Activity***