Terry O'Connor Consulting
Linking conservation and education

A Template for Beginning an *In situ* Conservation Education Program

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Introduction

Zoo and Aquarium *in situ* conservation programs, as well as those administered through AZA SSPs, TAGs and SAFE programs, are increasingly incorporating education components as part of a multi-faceted approach to species and habitat conservation. Education is one possible strategy for community-based conservation engagement (CBCE). The goal of CBCE is to enable communities to protect the wildlife, habitat and natural resources that are a win for conservation AND that benefit the community.

In situ education programs can be those in your community or region, or those created for global communities. One of the most important factors affecting the ease of program development and implementation, as well as the sustainability of the program, is a consistent contact in the field. Having a contact person who can supply information, and who can ensure the program's continuity is invaluable. If you are planning to create an *in situ* education program, especially when working with a team, you may also find the following ideas helpful:

1. Develop a common understanding of the intended outcomes

There are many valid reasons to create an education program. Your program may be intended to:

- Expand knowledge/raise awareness
- Provide natural history education as part of a commitment to support a local community's needs
- Influence attitudes
- Encourage a conservation ethic
- Teach skills
- Change behavior

The answers to these questions will determine the approach and the most appropriate audiences to target. Education is not limited to working with schools. For it to be called *conservation* education, a program should identify a conservation action that will occur as a result of participating in the program. It is important that all those involved in the conservation program (as well as potential funders) share a common understanding of the education element's purpose, and the outcomes that may be expected. How will you define success? Develop your evaluation plan at the beginning stages as you are developing your program objectives, rather than at the program's conclusion.

2. Understand the community's perspective

While your team may have identified compelling reasons for initiating an *in situ* education program, you will need to determine what the community's needs are for education (rather than telling them) and, depending on the situation, secure the resources needed to meet those needs.

Your local contact can be extremely helpful in connecting you to the local community. Listen to their perspectives. You can conduct surveys, facilitate community meetings/listening sessions, or whatever is appropriate for that community. What is working well and what problems are they trying to solve in their community? How can those problems be addressed through greater involvement by your organization, or a consortium of partners? How could education address these community problems and encourage action that will benefit the community while also protecting wildlife and habitat? This approach is much more likely to be successful than imposing a program on a community that does not address their needs. Think of this as a partnership with the local community, and how the program can be sustained for the long term.

Does the local contact support doing an education program (i.e., is this a project that we are imposing on a staff, or do they want to participate)? You will want to work with your local contact to determine program needs and the best approaches for reaching local audiences. While it is your passion for wildlife conservation that may be the driving force (and having that passion is really important), the program must be developed to meet the needs of the target audiences.

3. Identify the species and/or habitat conservation issues

What is/are the problem(s) you are trying to address? What is the current population status and why is the survival of this species vulnerable? Examples may include: development; dredging wetlands; deforestation; habitat fragmentation; poaching and/or over-hunting and

eating the species targeted for protection; non-sustainable fishing practices; wildlife trafficking; killing predators of domestic livestock; plastic pollution; household/agricultural runoff of toxic chemicals into waterways, etc. These pressures may exacerbate environmental factors such as geographic isolation, or natural disasters such as cyclones.

Gather as much information as possible from people working in the field who are familiar with the issues. A lot of valuable information is not yet published, and therefore will only be available through personal contact. These field research colleagues may also have images that they would be able to contribute.

4. Investigate local knowledge, beliefs and attitudes

What is the current attitude(s) of local people toward the species/habitats you hope to protect? Do people commonly see the animal or are they aware it exists in their area? Do they see this species as a nuisance (for example, elephants raiding crops, fruit bats in orchards or perceived as disease vectors, jaguars killing livestock)? What evidence exists to support this? Gather facts about the actual impact of the species on the lives of local people. Are the animals valued as a food source but are non-sustainably harvested? Is taking bushmeat endangering animal population survival? What are the perspectives of local people? Are there acceptable, sustainable alternatives that would benefit communities while also protecting wildlife? In addition, is there current or historic folklore surrounding these animals (i.e., are species feared or revered)? This will be valuable information to incorporate into your program.

5. Establish the relevance of species conservation to the lives of local people

How could preservation of the targeted species and/or habitat benefit local people? For example, what would happen to the environment if this species were eliminated? Are there economic implications? For example, many fruit bats are pollinators or seed dispersers of economically important fruits. Similarly, in the U.S., loss of pollinator species has tremendous economic as well as environmental impact. Unsustainable harvesting of seafood could result in loss of fisheries. Without insectivorous bats, populations of many insect crop pests would be unchecked. What are the implications for human health? Determine specific relevance of the targeted species to the lives of local people.

If there is a conservation story that involves an animal/plant relationship, confirm the scientific as well as the common local name of the plant for further research—many species have multiple common names, which can be confusing.

6. Understand the conservation success stories

Much of the information we need to communicate is about conservation problems. However, it is important to interpret what is working, and to explore reasonable conservation solutions. Research local conservation success stories brought about by the actions of government, NGOs, the actions of local people, or collaborations. What are reasons for local people to take pride in their community or country's endeavors to preserve wildlife? It is frequently the case that local people may not be aware that their endemic wildlife is unique. Therefore, stories about conservation of these species can be a source of national pride. Use opportunities to recognize local conservation heroes.

7. Identify the appropriate audience

Depending on the issues identified and the intended outcome, you may choose to target one or more audiences. If you will be working with communities, you will want to learn about how people typically learn information. You might engage adults through their children's school, community gathering places, church groups, women's groups, youth groups, or through local newspapers or radio programs. You may choose to target more focused community groups, such as neighborhood groups, garden clubs, ranchers, farmers, agricultural groups or teacher colleges. You may also work with local schools, which raises a different set of questions addressed below.

8. Determine school needs

If your target audience is students, the initial questions when developing a program in another country are similar to those you would ask for a program serving your own local community. Which environmental subjects are teachers required to teach? How will your topic fit into their curriculum? Given that information, which grade levels are the most appropriate? Will the program be taught in the schools, or be taught at the local zoo for school children?

Involve local teachers and school administrators in planning and curriculum development whenever possible. You may find that the participatory and experiential education style that we are familiar with in the U.S. is very different from the way children are used to learning in other countries—they may be more familiar with worksheets. This does not mean that you cannot introduce new techniques; however, you will need to be sensitive to these differences. If you are introducing a new methodology, it is worth exploring whether teacher training would be helpful. Determine who can facilitate your contact with the Ministry of Education

(or equivalent) to determine this information. It would be very helpful if that person(s) would also be available to review/approve/endorse your project.

9. Identify the appropriate media and language

Media: You will also need to determine the most appropriate media to work with your targeted audience(s). For example, you may want to create props, a program script for a community presentation, audiovisual materials, a citizen science training program, web content, a workbook on local plants for restoration projects, a script for a radio show, or a theatrical presentation. For a school, you might also choose to create a curriculum and kit of teaching props and materials, and a teacher training workshop. Remember to consider that for a conservation education program, what changes in attitudes and behavior will likely result and how do you know?

There may be special situations to consider when choosing activities or media. For example, in some countries, paper supplies may be limited, so distributing a written survey might be considered frivolous. Humid tropical climates result in mildewed props, so that materials will need to be durable and/or properly packed in moisture-resistant containers.

Language: Determine the language you will need to work in, and how you will arrange for translation. While children may learn English in selected grades, they may be more comfortable speaking in their first language. Language dialects may be different; for example, Canadian French is somewhat different from Malagasy French. Therefore, you will want to have a bilingual person native to the area to translate or review your translation.

10. Learn about the local customs and culture

While we may approach working in another country with sensitivity to cultural issues, we also view the situation from the perspective of our own culture. The most well-meaning of intentions can result in a problem if we do not understand the local culture.

Programs may take longer to implement than expected, because it may take some time to establish a relationship with local people. This is one reason that having an experienced local contact is so important. A local person will be able to help you to avoid cultural errors, such as not understanding local customs and societal dynamics, appropriate dress for women, or gestures/expressions that may be interpreted quite differently in another country. You can also draw on the experiences of other colleagues who have worked in this area. Learn all you can, and then learn from your own experience. Sensitivity to local cultural issues can help determine the success of a program.

11. Determine a realistic budget

To develop a realistic program budget and timeline, you will first need to determine whether the program is planned as a one-time event (such as a training workshop) or will be ongoing (such as working with a local community). The program may be a pilot project that will be evaluated to assess its potential for continuation or expansion. It is helpful to develop a strategy for ongoing support of the program if it is needed, and program funders often ask this question. If you are an educator developing a program for an AZA Species Survival Plan (SSP), Taxon Advisory Group (TAG) an SAFE (Save Animals from Extinction) program or any conservation program, an initial question to clarify is whose responsibility it is to identify funding sources and prepare grant proposals for education initiatives; ideally, it is a shared responsibility with other team members.

When preparing a budget, be sure to include in-kind contributions, and to budget for containers, postage and shipping costs. If program materials have a limited life (especially due to climatic conditions), factor in costs for replacement elements as needed. Funders may also ask whether the program can be implemented if you were to receive partial funding, so you will want to consider whether the program can be phased, or if there are discrete elements that can be funded separately. It is important to ask the questions suggested above as you plan your program, so that you can budget and plan accordingly. For example, you may need to budget for translation costs. It is a good idea to budget an additional amount for contingencies, too.

12. Determine a realistic timeline

What you can get done and when you can get it done depends on a host of factors, including working in another culture. You will need to consider time for materials to be reviewed, translation, graphic design, pilot testing, evaluation and reassessment, as well as dissemination of results and reporting back to funders and other stakeholders. Many logistical considerations affect the timeline, such as when schools are in session; local holidays; allowance for bad weather interfering with travel or activities; delays in shipment; times when local communities are harvesting; and many others. Plan a realistic timeline that is not too tight and provides for some flexibility.

13. Monitoring Progress and Program Evaluation

How will you monitor progress on your project? You can determine this with the community. Determine the metrics you will need to ensure that everything is working well

(and adjust if it is not). What do you need to report to funders and on what timeline? Plan a final evaluation based on your criteria for program success and defined outcomes (see #1). If the program did not work as planned, why not? How could it be improved? What did you learn that will help you and others?

14. Communications

How will you keep your zoo and aquarium staff, members and community updated on your program and attract their support for your work? You can work with your zoo, aquarium or other conservation organization's communications staff to help write messages/social media posts and ensure that all communications are consistent.

A quick checklist of questions to clarify:

- Who will be our contact(s) for the project? Does this person(s) have regular access to email? If you do not speak the local language, does this person speak English?
- Who are other researchers working in this area, and what is their contact information?
- What are available sources of information on local animal and plant species, plant/animal interdependencies, animal/human interconnectedness, culture and customs, environmental issues and conservation success stories? Are any relevant children's and/or adult books?
- Where can you obtain images/illustrations that you can use for your program? Are there copyright issues in using them for educational purposes?
- Who will be responsible for conducting the education program?
- Can you hire people from the community?
- If others will be presenting the education program you have developed, what training is needed?
- Who will transport the education materials to the site?
- Who can take images of the program in progress?
- Who will conduct the evaluation?

If you have other suggestions from your experience that you would be willing to add to this template, please contact:

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Resource

Conservation Project Manual, Flora and Fauna International