

Marine Protected Area Management Capacity Building For the Gulf of California

The Nature Conservancy and World Wildlife Fund

in collaboration with

Comisión Nacional de Áreas Naturales Protegidas and

NOAA's National Marine Sanctuary Program

The Gulf of California has achieved significant advances in marine conservation during the last decade, with the Mexican government decreeing six out of the eleven existing marine protected areas (MPAs) during the last ten years alone. The country also established the Comisión Nacional de Áreas Naturales Protegidas (CONANP), Mexico's national park agency, assigning budgets and professional staff to the areas. Local stakeholders, including NGOs and academics, have increasingly assisted in developing management plans, establishing no-take zones and monitoring.

Despite these advances, MPAs in the Gulf of California continue to face important management challenges. In 2006, a working group was created to determine the current state of MPAs in the Gulf, identifying opportunities and actions to increase their effectiveness. This working group included individuals experienced in creating and managing MPAs, as well as in conserving and managing natural resources. In their report, *Current state, opportunities and actions to increase effectiveness of marine protected areas in the Gulf of California*, the group identified the following objectives for change and improvement:

- strengthen and supplement a regional network of MPAs;
- develop and professionalize the MPAs' local and regional management structures and systems;
- improve the effective application of legislation and regulations to guarantee the conservation of the MPAs' natural resources;
- improve fisheries management within the MPAs and their areas of influence;
- foster the integrated management of coastal MPAs; and
- improve social participation structures that will democratize and strengthen MPA decision-making and learning.

In addition to this effort, in 2007 Pronatura, CONANP, The Nature Conservancy and World Wildlife Fund (WWF) completed a capacity needs assessment for the protected areas in northwest Mexico, concluding that the main threats to the protected areas are fisheries, tourism, coastal development pollution and climate change. In addition, the report identified that the most crucial management challenges facing MPAs relate to planning, protected area design, social participation, sustainable finance, partnerships, communication, legal frameworks and monitoring.

To address these threats and management challenges, CONANP, the National Oceanic and Atmospheric Administration (NOAA), the Conservancy and WWF are designing and implementing a three-year program to improve the management effectiveness of MPA managers and key stakeholders in the Gulf of California, developing the program's curriculum around the needs identified in the two assessments reports.

Background

Nations worldwide recognize MPAs as a valuable way to conserve ecosystems. Indeed, participants attending the Fifth World Parks Congress meeting in Durban, South Africa, called upon the international community to establish by 2012 a global system of effectively managed, representative networks of marine and coastal protected areas. The Congress recommended that these MPAs be extensive and include strictly protected areas that amount to at least 20 to 30 percent of each habitat type.

Additionally, the U.S. Ocean Commission's report *An Ocean Blueprint for the 21st Century* (September 2004) recommends that "the United States should increase its efforts to enhance long-term ocean science and management capacity in other nations through grants, education and training, technical assistance, and sharing best practices,

management techniques, and lessons learned” (Recommendation 29-8). To effectively protect marine and coastal ecosystems and their resources, we must build support for MPAs through site-based planning.

Many MPA managers and policy makers, including local and indigenous community members and other stakeholders, do not have access to the newest information and guidelines on effective MPA management. They also have little opportunity to learn from conservation scientists and seasoned resource managers and share their experiences with other MPA staff around the world.

This is true in the Gulf of California, where — although MPAs have made remarkable strides in the last decade — MPA staff are eager to improve their skills and resources, as well as network among each other. The threats to the Gulf continue to grow, however, including: unsustainable artisanal and industrial fishing practices, urban development and tourism growth, the expansion of aquaculture, excessive water use, turtle consumption, pollution, sport fishing and diving, and logging. Our new capacity-building program will provide managers with the skills they need to more effectively manage their MPAs and address these threats. It will bring resource managers together to learn from one another and from conservation experts, share lessons learned, and set new standards for the management of MPAs regionally and globally.

Program Description

This new capacity-building program will be a vital part of our organizations’ larger strategy to achieve the long-term conservation of the Gulf of California, as framed by a vision statement developed by the Conservancy, WWF and local partners (see box). To reach this vision for effective conservation, the Conservancy-WWF team is focusing on three interdependent elements:

- ensuring viable biodiversity;
- abating threats to conservation; and
- ensuring effective management capacity (enabling conditions for conservation).

Primarily addressing the third element, the capacity-building initiative will increase the knowledge and skills of key on-the-ground staff and stakeholders through intensive, in-residence management training supplemented by a substantial follow-up program. Participants — including key managers and staff from Gulf of California MPAs, government officials, MPA users and NGO staff — not only will influence conservation through their own work, but help educate their colleagues, thereby expanding the program’s reach and creating the “enabling conditions” necessary for effective conservation. Thus, the program ultimately will help abate threats to conservation and ensure viable biodiversity (elements one and two above) across the Gulf of California.

Goals and Objectives

The capacity-building program’s primary goal is to increase MPA management effectiveness in the Gulf of California by strengthening the knowledge, resources and skills of staff and key stakeholders. We will achieve this by:

- offering a range of MPA management core courses and activities that are tailored to the management needs of the Gulf of California;
- developing on-going support and a follow-up program to ensure that the knowledge and skills gained through the training are implemented at the field level;
- creating a coordinated network of MPA managers to share knowledge, information and lessons learned among the region’s MPAs; and,
- as a result of participants applying their new knowledge and skills on the ground, influencing MPA workplans and improving management effectiveness.

Gulf of California

Vision Statement

A productive and resilient Gulf of California that sustains a diversity of healthy, interconnected ecosystems that reliably produce the ecosystem goods and services needed to support

In the long term, we aim to:

- secure effective MPA management at the local and regional level;
- establish partnerships between MPAs within the network;
- build and maintain communication links on a regional level; and
- advance global efforts to meet the Durban Accord 2012 target date to establish a global system of representative networks of marine and coastal protected areas.

Program Strategies

The program has five main strategies: 1) developing MPA management training curricula based on capacity-building needs assessments and threat reduction needs; 2) building the knowledge, skills and resources of key staff and stakeholders who will be expected to implement on-the-ground conservation projects; 3) promoting a “capacity-building domino effect,” creating a professional network of Gulf of California MPA managers who will serve as local “capacity builders,” 4) supporting the implementation of conservation projects in Gulf of California MPAs that utilize lessons learned during the training program; and 5) measuring the success of the capacity-building program.

Developing MPA Management Training Curricula. The training program is being tailored to meet the needs and priorities of MPAs in the Gulf of California. In October 2008, CONANP, NOAA, TNC and WWF participated in a two-day workshop to identify those capacity-building activities most needed in the region and define the final list of training modules for the program. The modules encompass:

- Effective Management Planning for MPAs;
- Planning for Sustainable Fisheries;
- Planning for Sustainable Tourism;
- Private Marine Conservation Agreements;
- MPA Network Design and Implementation;
- Social Participation; and
- Planning for Climate Change.

Customized for the region using input from local and international experts, the modules include detailed daily working agendas; a training manual including curriculum, exercises and handouts; and accompanying PowerPoint presentations keyed to the training manual. The team incorporates case studies to illustrate key points, to the extent possible highlighting local or regional examples. Additionally, the training manual is a resource for the participants when they go out in the field and thus include more information than is covered during training. In addition to classroom work, we include at least one field trip and at least one day of practicum in the local community.

Building the Capacity of Key Staff and Stakeholders. We train at least 30 people in each module in effective MPA management over the course of three years while ensuring that participants integrate lessons learned into their daily management actions. Participants include government officials, MPA users, NGO staff and managers and key staff from nine Gulf of California MPAs:

- Área de Protección de Flora y Fauna Cabo San Lucas,
- Reserva de la Biosfera El Vizcaíno,
- Reserva de la Biosfera Alto Golfo de California y Delta del Río Colorado,
- Reserva de la Biosfera Cabo Pulmo,
- Parque Nacional Bahía de Loreto,
- Reserva de la Biosfera Isla San Pedro Mártir,
- Parque Nacional Archipiélago San Lorenzo,
- Parque Nacional Zona Marina del Archipiélago de Espíritu Santo, and
- Reserva de la Biosfera Bahía de los Ángeles.

Taught in Spanish, the program is participatory, interactive and emphasize teamwork. Participants share case studies and lessons learned; give presentations; work together on both group and individual projects, as well as on problem-solving exercises. Trainings are held over eight days and each training day cover a different topic and include both classroom work and fieldwork. Instructors not require homework, although full participation is required each day. All participants establish a relationship with their five-to-six-member roundtable team, which is led by a mentor.

Promoting a “Capacity-Building Domino Effect.” This program strengthen the professional network of Gulf of California MPA managers and further enhance local capacity by training trainers who ensure the sustainability of the program beyond the project’s initial three years. We offer a “Training of Trainers” (TOT) program for eight to twelve outstanding individuals who have been nominated by their MPAs for their leadership skills. Fostered as MPA trainers for the region, these leaders help ensure that on-going training opportunities and lessons learned continue to be shared throughout the region.

Each TOT participant complete a three- to five-day course prior to a standard module, where they learn additional skills such as facilitation, interactive/participatory training techniques and project design. They then participate in all other trainings in the region, using that experience as their practicum by working side-by-side with professional trainers and sharing the responsibility of delivering each course. In NOAA’s experience, it takes about two years for participants to take on the full responsibility of delivering training programs themselves. As new courses are introduced, however, established TOT participants usually are able to take on the full responsibility for a new course after only one round of teaching it with professional trainers.

Supporting the Implementation of Conservation Projects. The implementation contract agreement described in strategy two help ensure that participants apply their new knowledge and abilities at their respective MPA during the 6-12 months following the training. Each participant’s training team and team leader/mentor also provide support during this time.

Participants also can apply for economic incentives that allow them to more effectively realize the goals of their contract agreements. A participant could, for example, use the funds to develop a management, fisheries or tourism plan. Most notably, we give priority to those teams wishing to develop monitoring plans and baselines, and provide these teams with technical support from the Conservancy’s effectiveness measures team. To be eligible for economic incentives, participants must demonstrate at least a 1:1 match, with matching dollars earmarked for the implementation of their contract agreements. To ensure transparency, a separate committee review applications and award incentives.

Every quarter for the first year following the training, the mentors evaluate and report on progress made by each of their team members. As previously mentioned, progress on these agreements is a pre-requisite for advanced training or study exchanges and also will be an indicator of the program’s success.

Once the modules have been completed we will have a peer review meeting where training program participants will be able to share with each other and outside experts how they have applied their new skills and receive constructive feedback on the technical and scientific merits of their work. Such peer review allows participants to improve their projects, achieve better results and gain credibility for their work. It also fosters trust among MPA managers, partners and stakeholders, further encouraging a network of active learners. The peer review process will be complete when participants consider and incorporate the comments and recommendations of the reviewers into their projects.

Measuring the Success of the Capacity-Building Program.

The real success of the program depends upon the ability of participants to implement lessons learned and improve the effectiveness of their MPAs, but we also must periodically evaluate our progress in the implementation of the program. To measure the success and progress of our activities, we have developed effectiveness indicators for four of our five strategies (curriculum development, building capacity, promoting a “domino effect” and implementation). These measures (described in more detail in Appendix IV) will allow us to evaluate success at various levels:

- *activities*;
- *outputs*, or the direct results of the activities;
- *outcomes*, which reflect individual and collective competencies and capacity development; and
- *impact*, or long-term change, including the abatement of threats and an increase in biodiversity health.

Success of the capacity building program is being measured at different levels using different indicators and methodologies. This capacity-building program is part of a larger regional strategy, the Network of Marine Conservation and Management Areas, which was developed jointly by The Nature Conservancy and WWF in alliance with local partners, using TNC's *Conservation Action Planning* method. The planning process included the development of *Results Chains* (a methodology created by Foundations of Success), which helped us to identify expected Outputs, Outcomes and Impacts and assign indicators and methodologies to monitor progress for relevant components. In our program, knowledge gained (output) at the capacity building program should impact MPA management effectiveness (outcome) and consequently, contribute to reduce threats and ensure biodiversity viability (impact).

To evaluate *Outputs* (knowledge gained) of the capacity building program we are using Kirkpatrick's learning and training evaluation theory to develop evaluation formats for each workshop to measure: reaction of the student (what they thought and felt about the training); learning (resulting increase in knowledge); and results (effects resulting from the trainee's performance) (Kirkpatrick, 2006). Participants are asked to fill out an end of event evaluation form, and incentives are provided to projects to implement what they learned. Direct follow-up is provided to projects receiving support, to assess application of knowledge towards specific products such as completion of a management plan, development of a financial plan, fundraising results, etc.

To evaluate field impact we considered the proposition of the Cambridge Conservation Forum, which is described in the article titled *Outcomes, not implementation, predict conservation success*" (Kapos et al., 2009). This article points out that the effects of many conservation projects on target populations or habitats only become measurable well beyond the time frame of the usual project cycle and it proposes an alternative approach to identify predictors of success. In our capacity building program a "predictor of success" is the outcome of management effectiveness. In order to assess the Gulf of California's MPAs in terms of Management Effectiveness, a survey was designed for MPA staff, using Survey Monkey as the survey tool. To maintain a sense of continuity, the questionnaire is an adaptation of the Rapid Assessment and Prioritization of Protected Area Management (RAPPAM) methodology, which has been used in official protected area system assessments. This assessment can help detect general trends, rather than determine the exact degree of fulfillment. The survey was conducted in May 2010 and was answered by staff working in 12 Gulf of California MPAs. The analysis covered two aspects of protected area management effectiveness: inputs and management processes. Inputs include staff, communication and finances. Management processes include management planning, management practices, monitoring, and evaluation. The average grade for all protected areas (system-wide level) was 26 out of 60 possible points. A similar survey will be conducted at the end of the project to measure whether management effectiveness has improved.

To develop different layers of indicators, the use of the results chain tool was very useful for determining the specific indicators to measure the results of our capacity-building program at different scales, and to demonstrate how these results relate to longer term conservation impacts. To identify the best methodologies to use it was important to ask three main questions: 1) Who is going to use the measures (project managers, donors); 2) What do they need to know and 3) How do they like to receive information?.

The MPA Capacity building program involves steps that have different outcomes that may have different appropriate measures of success. To relate success of a capacity building program with conservation impact, we should identify key outcomes that provide the platform for reducing threats and for ensuring biodiversity viability. For capacity-building, the key outcome is the increase in the quantity and/or quality of effective conservation action. In our program effective action was reflected as MPA Effectiveness Management and was evaluated through the RAPPAM methodology to assess management effectiveness at a system-level. The RAPPAM implementation has the limitation that it is based on the perceptions of the interviewed persons. Extra care should be given to data analysis and presentation of RAPPAM results.

Trying to evaluate field conservation impacts and link them with investments in knowledge development/capacity building programs is complex. Measures of key outcomes can potentially serve as predictors of real conservation effects, and project success. Conservation impacts depend on many factors, not only on knowledge and capacity. To measure the success of a capacity building /knowledge management program, it is useful to measure different steps of the process. First, it is useful to measure inputs and outputs, with indicators such as reaction and knowledge learned. Then, it is useful to define a “predictor of success” that can link an intermediate result with conservation impact. In our case, the “predictor of success” is Marine Protected Areas’ Management Effectiveness.

Even when using key outcomes as predictors of success (such as Management Effectiveness to predict Threats Abated and Biodiversity Viability) there’s always uncertainty about the effects and the actual contribution of capacity building to conservation results. We are in the middle of the assessment process. We generated a Management effectiveness baseline for the Marine Protected Areas Network of the Gulf of California, and we will compare these with the final results that will be assessed on 2011. It would be very useful for us to learn from other experiences on how others are measuring and linking capacity building and training programs with real conservation effects in the field. A big question that remains is – how much did capacity building contribute to achieving conservation results?

References:

Kapos, Valerie, A. Balmford, R. Aveling, P. Bubb, P. Carey, A. Entwistle, J.Hopkins, T. Mulliken, R. Safford, A. Stattersfield, M. Walpole and A. Manica. 2009. Outcomes, not implementation, predict conservation success. *Fauna & Flora International, Oryx*, 43(3): 336-342, doi:10.1017/S0030605309990275.

Kirkpatrick, Donald L & James D. Kirkpatrick. 2006. *Evaluating Training Programs: The Four Levels*. Third Edition. Berrett-Koehler Publishers, Inc. 379

TNC, 2007. *Conservation Action Planning Handbook: Developing Strategies, Taking Action and Measuring Success at Any Scale*. The Nature Conservancy. Arlington, VA.

MPA CAPACITY BUILDING PROGRAM PHOTOS



Group's dynamic



Participants and instructors



Mary Sue Brancato. NOAA instructor



Carlos Garci: Case study presentation



Practicing negotiation skills



Teamwork: Effective communication



Group's dynamic



Field Trip. Cabo Pulmo National Park



Teamwork: Advisory Boards



Alto Golfo Biosphere Reserve Director, José Campoy



NOAA's instructors



Sustainable Livelihood: *Women of the Gulf Fisheries Cooperative* presentation