Developing a diversified portfolio to finance marine protected areas in Mexico

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Abstract

Marine protected areas are places where funding from different sources meet. An analysis of the funding sources in four marine protected areas in Mexico identified both long-term and short-term sources, which complement each other to cover the needs of these protected areas. Long term funding includes the interest derived from a private endowment fund and federal support that results in a private-public partnership which has proved to be highly successful. Federal support channelled to the marine protected areas has increased substantially over the last six years with entrance fees now providing an additional source of long-term support. Short-term funding is provided by a diversity of donors and covers specific conservation needs in these protected areas. Such funding is attracted by the long-term funding base that ensures the continued operation of protected areas. The strengths of each funding source can help cover the deficiencies of another. For example, fiscal appropriations channelled by CONANP cover the salaries of permanent staff of a protected area, but similar appropriations to cover current costs typically arrive late in the year. Support from the Protected Areas Fund (FANP) pays for complementary personnel and additional conservation activities in reserves and, while much less than fiscal funds, FANP resources are available at the beginning of the year. Short term donations have helped to renew the infrastructure in the protected areas, thus making reserves more attractive to tourists and strengthening the long-term contribution of entrance fees. Monitoring the impact of funded activities on the conservation of parks helps to attract additional funding sources by clearly demonstrating conservation impacts. Managing such diverse portfolios poses a challenge to marine protected area managers, who have developed partnerships that facilitate the application of funds and attracting other donors. Such teamwork results in the improved use of the limited resources available for conservation in marine protected areas.

Introduction

The first protected areas in Mexico were created towards the end of the twentieth century; however, their organization into the National System of Protected Areas was accomplished only 25 years ago. Most protected areas in this System were de facto “paper parks” at the beginning of the 1990’s, since they had
neither financial support nor personnel. The Mexican Government decided to address these problems in certain priority areas and began looking for financial sources to support them. In 1992, the Global Environment Facility (GEF) approved a US$ 25 million grant submitted by the Mexican Government via the World Bank. This grant was designed to support the basic conservation needs of ten protected areas over five years. A complicated administrative design caused project funds to flow slowly to protected areas. Funds became available to protected areas late in the year, requiring staff to quickly (and therefore inefficiently) spend large sums of money. As the closing date of the grant approached, it became clear that an extension and a restructuring process were needed. The World Bank accepted a proposal by the Mexican Government to hire a private conservation organization to carry out an extensive consultation process to determine the restructuring required for the project’s success.

Most of the institutions and people interviewed during this process suggested that the remaining funds from the GEF grant should be used to establish a private endowment fund for the protected areas included in the grant. The interest generated by such a fund would then be able to support basic conservation activities in these priority protected areas over the long-term, as well as functioning as seed capital to attract additional support for these areas. The National Council for Protected Areas, an independent advisory body, composed of representatives from all sectors of society, decided to locate this Protected Areas Fund within the Mexican Nature Conservation Fund (FMCN), a private institution that had established a successful track record in managing similar endowment funds. The Mexican Government, the World Bank, and the Mexican Nature Conservation Fund worked for a year to design the Protected Areas Fund (FANP), which was finally established in 1997 with a US$ 16.48 million donation from the GEF to the FMCN. This donation was the remnant of the original US$ 25 million grant approved in 1992.

The FANP project involves four different collaborators. The FMCN manages the FANP endowment, ensures that the interest it generates is quickly and efficiently channeled to the protected areas, and that spending follows agreed upon guidelines. Additionally, the FMCN raises funds for parks within the National System of Protected Areas. The National Council for Protected Areas is the public entity responsible for insuring the proper management of protected areas. This body insures that funds are allocated towards conservation priorities in the most efficient and strategic manner possible. As Mexican law does not allow the FMCN to channel these funds directly to CONANP, local conservation organizations are selected to manage the accounting and hiring of personnel according to annual plans developed by protected area staff. The World Bank, as the GEF implementing agency, supervises the project’s overall development.

Six years after restructuring, the FANP project has proved to be a successful private-public partnership. The FANP endowment has grown 154% to US$ 42 million following contributions from 12 donors that support conservation activities in 16 priority protected areas. Most impressively, federal public funds have more than tripled, so that CONANP now has a staff and budget in 56 out of a total of 148 federal protected areas. Investment from other sectors has been maintained and even increased in some areas. These results indicate that building a financial platform that covers the basic operation of priority protected areas helps to attract additional funds from public and private sources. The resulting portfolio can then be used to take advantage of the strengths and weaknesses of the different funding sources to ensure the long-term financing of protected areas.

An especially interesting case study confirming this point is provided by four marine protected areas supported by FANP. These reserves have proven to be an interesting laboratory for testing schemes for financial self-sufficiency with the support coming from tourism in addition to traditional mechanisms. This experiment in financial self-sufficiency captured the attention of the European Commission, which approved a grant to help develop local financing mechanisms for these four marine protected areas. Recently, the Finance Ministry approved the charging of entrance fees in protected areas, which are already proving to be an important additional source of support for these protected areas.

This paper will analyze how different funding sources contribute to the basic operation of four marine protected areas. I will review the amount and length of support per source, while attempting to also identify the weaknesses and strengths, as well as the complementarity provided by multiple donors. Given the limited funds available for supporting protected areas, a better understanding of the presence
and interaction of funding sources in marine areas can increase the efficiency with which their long-term conservation is achieved.

**Funding sources in four marine protected areas**

The four marine reserves highlighted in this presentation are:

1. **The Islands of the Gulf of California**: this protected area includes more than 900 islands and islets found in the Gulf of California, which is considered one of the most diverse and productive marine areas in the world;

2. **The Ría Lagartos Biosphere Reserve** in the Yucatán Peninsula along the Gulf of Mexico is a 60,348 ha protected area, with important wetlands providing nesting sites for flamingos and recognized by the RAMSAR Convention;

3. **The Sian Ka’an Biosphere Reserve** located along the Caribbean has an extension of 651,029 ha, including 34,927 ha of coral reefs, which are part of the Mesoamerican Coral Reef which is the second largest in the world;

4. **The Contoy Island National Park** in the Caribbean is an important site for migratory species from a variety of taxa. The park includes 230 ha of land and 4,896 ha of marine habitat. It is situated two hours by boat from Cancun, the major tourist stop in Mexico.

Funding sources for these four protected areas can be classified as follows:

1. **CONANP**: these are funds channeled by the federal agency in charge of protected areas. They cover the salaries of a core staff of five people, current operational costs, and the infrastructure needed for basic conservation of the protected areas;

2. **Entrance fees**: starting in 2002, each tourist entering a marine protected area in Mexico pays the equivalent of US$ 2, which is channeled towards the operation of the protected area to cover salaries of complementary personnel and basic operational costs;

3. **FANP endowment interest** is channeled annually to the protected areas included in the program. The amount provided to each area varies and is determined according to variables such as previous performance, the number of inhabitants, the area, and the number of localities within a given protected area. The FANP actively promotes the “graduating” of protected areas from the program by helping them acquire long-term support from other sources. Funds that become available from the graduation of reserves will allow new protected areas to be incorporated into the program.

4. **The European Commission**: this $786,940 Euro, three-year grant has two main objectives: 1) to establish local funding mechanisms in Contoy Island and Ría Lagartos protected areas, where management is fairly advanced and tourism is an important source of funding, and 2) improving the infrastructure in the Sian Ka’an and the Islands of the Gulf of California, in order to permit additional support to be captured through tourism in the near future.

5. **Others**: directors of protected areas coordinate their activities with other institutions, thus attracting funding from a diverse array of sources to support conservation activities. Each year, FANP personnel collect data on the amount of support provided by these additional sources.
Table 1. Contributions (in US dollars) to four marine protected areas by different funding sources (CONANP is the National Commission of Protected Areas; FANP is the Protected Areas Fund).

<table>
<thead>
<tr>
<th>Funding in four marine PA’s</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONANP</td>
<td>476,110</td>
<td>622,915</td>
<td>1,492,334</td>
<td>1,216,367</td>
<td>1,493,164</td>
<td>5,300,891</td>
</tr>
<tr>
<td>ENTRANCE FEES</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>92,396</td>
<td>92,396</td>
</tr>
<tr>
<td>FANP</td>
<td>421,821</td>
<td>350,861</td>
<td>406,585</td>
<td>313,951</td>
<td>342,010</td>
<td>1,835,227</td>
</tr>
<tr>
<td>EUROPEAN COMMISSION</td>
<td>-</td>
<td>-</td>
<td>3,088</td>
<td>185,690</td>
<td>140,122</td>
<td>328,900</td>
</tr>
<tr>
<td>ADDITIONAL</td>
<td>761,961</td>
<td>495,110</td>
<td>606,564</td>
<td>974,436</td>
<td>668,675</td>
<td>3,506,746</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,659,893</td>
<td>1,468,886</td>
<td>2,508,570</td>
<td>2,690,444</td>
<td>2,736,367</td>
<td>11,064,159</td>
</tr>
</tbody>
</table>

An analysis of the funds contributed to the four marine protected areas by the different sources (Table 1) indicates that CONANP funding has increased substantially (314%) over six years. The slight reduction observed in 2001 corresponds to the first year of a new Administration, when lower investments are typical. Funds derived from the charging of entrance fees started in 2002 and are helping to complement federal allocations. In contrast, the interest generated by the FANP endowment decreased in 2001, following the loss of investor confidence in financial markets. The financial strategy for this endowment has since been changed from 40% to 90% fixed income to both protect the remaining capital and stabilize annual allocations provided to protected areas. Due to the increase in funding from other sources, FANP’s participation in the financial portfolio of these marine areas has decreased, which indicates success in leveraging additional funds. The grant by the European Commission, obtained by FANP, started flowing in 2000. Figures in future years will reveal whether the European Commission grant helped leverage additional contributions from the tourism industry. Additional funds encompass a variety of sources and complement the fundraising efforts of protected area personnel. The amount raised varies from year to year, as different funding opportunities become available. However, in general, international funds, support from civil organizations, and public sector funding from sources other than CONANP are the main contributors of these additional funds (Figure 1).

Figure 1. Percentage of the total contribution made by funds from sources additional to CONANP, entrance fees, FANP and the European Commission that were channeled to four focal marine protected areas (see text).

The diversity of funding sources for these four marine protected areas poses the challenge of managing a diversified portfolio to ensure the conservation of natural resources in the most efficient manner. One strategy for meeting this challenge, and insuring the efficient use of available funds, is to utilize the strengths of one funding source to complement the weakness of another. CONANP funds, for example, pay for the expensive salaries of core staff, which none of the other funding sources can cover. CONANP
funds covering operational costs, however, are typically not available until April or May of each year. FANP funds, on the other hand, are available starting in January. These funds cover the hiring of complementary personnel and additional operational costs. Although smaller in amount than CONANP’s contribution, FANP funds can be used to pay certain expenses, such as telephone and office rent, which are extremely difficult to pay using federal allocations. Entrance fees also cover the expenses related to complementary personnel and current costs. This source of funding could eventually reduce or eliminate entirely the need for FANP funding, which could be channeled to additional protected areas where entrance fees are not an important source of revenue.

The contribution by the European Commission provides important support for infrastructure and specific projects that improve the conditions in protected areas and thus enhance tourism. This contribution adds to CONANP funds that can also be used to renew reserve infrastructure. The funds from the European Commission flow slowly and modifications in the budget have to undergo numerous approval procedures in Brussels. They are thus most suitable for non-urgent but important works. As a general rule, public or international funds should be obtained to improve the infrastructure in these protected areas every ten years. Finally, additional funding sources provide short-term funding that complements the long-term support from CONANP, FANP, and entrance fees.

Long-term support depends on the stability of the funding source. In the case of the four marine protected areas, long-term support comes from budget appropriations channeled by CONANP, FANP endowment interest, and park entrance fees. Budget appropriations depend on successful lobbying by the CONANP President within the Environmental Ministry. Increasing support from a growing constituency supporting protected areas in Mexico facilitates this lobbying process. The stability of the FANP endowment depends on a solid financial strategy that can respond to changing financial markets. The FMCN successfully exploited the opportunity provided by the spectacular markets in 1998 and 1999. As markets declined in 2000, the FMCN changed to a 90% fixed income strategy to ensure a constant 8.5% annual return. Thus, fixed costs within reserves were matched with fixed income from financial resources. In future years, the stability of the flow from the FANP endowment will depend on fixed income instruments that can provide an attractive return while guaranteeing medium to long-term stability. Finally, entrance fees depend on the tourism industry, which can show important fluctuations such as those following events on September 11, 2001. In the Contoy Island National Park, the number of tourists that visit the island fluctuates between 15,000 and 30,000. However, hurricanes (1993) and terrorism (end of 2001 and beginning of 2002) both significantly reduced the number of visitors to this park (Figure 2). A potential strategy for dampening oscillations in tourism-derived funding would be to set aside some funds acquired in good years for use during bad years.

Figure 2. Number of visitors registered from 1990 to 2002 in Contoy Island National Park (source: CONANP).
Long-term support is complemented with medium- to short-term contributions, thus covering basic operational expenses and specific conservation needs. Long term support helps to attract additional contributions, but alone is not enough. A successful track record with demonstrated conservation impact is necessary to lure donors to invest in the area or program. Monitoring impact in the field is therefore an essential part of the basic operations in the four marine protected areas under examination. Two of the indicators being used in these areas to measure conservation impact are the rate of habitat transformation and the population trends in indicator species. On Contoy Island and the Islands of the Gulf of California, the terrestrial zone has suffered no transformation in the last 30 years. In the Ría Lagartos Biosphere Reserve an analysis of satellite images reveals an increasing rate of land transformation. However, support from the funding sources in the last decade has helped diminish this impact. In the Sian Ka’an Biosphere Reserve the regeneration of terrestrial ecosystems was detected by satellite images from the 1970s and 80s. Over the last decade, no transformation of the natural vegetation has been detected. Marine areas where funding just started register detectable rates of land transformation (Alto Golfo Biosphere Reserve) (Table 2).

Table 2. Habitat transformation rates in the last three decades registered on the terrestrial portions of three marine protected areas. Funding started in 1994 in the Ría Lagartos and Sian Ka’an Biosphere Reserves, and in 1998 in the Alto Golfo Biosphere Reserve.

<table>
<thead>
<tr>
<th>PROTECTED AREA</th>
<th>Average annual transformation rate 1970-1980 (%)</th>
<th>Average annual transformation rate 1980-1990 (%)</th>
<th>Average annual transformation rate 1990-2000 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BR Ría Lagartos</td>
<td>0.51</td>
<td>0.71</td>
<td>0.67</td>
</tr>
<tr>
<td>BR Sian Ka’an</td>
<td>-0.02</td>
<td>-0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>BR Alto Golfo</td>
<td>0.00</td>
<td>0.02</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Conclusions

Financial self-sufficiency may not be fully attainable in marine protected areas, however such areas certainly benefit from support from a wide array of funding sources. These vary in the amount they provide, the time frame over which support is provided, and the flexibility with which their resources can be used (figure 3). The case study of marine protected areas in Mexico shows that managing these different sources successfully can result in synergies if their comparative strengths are used to address the full spectrum of needs of these reserves.

In time, the combination of funding sources available will probably shift. Entrance fees, for example, will hopefully grow and together with support from CONANP, should become the principal financial base providing long-term support of these highly visited areas. This in turn should allow FANP resources to be allocated to other areas in need in the system. Some new funding sources may thus appear, while others may be shifted to supporting other protected areas. However, the experience in Mexico shows that long-term funding sources supporting the main operation of the marine protected area will always be important. When the basic expenses of protected area personnel are covered, this attracts additional sources of funding, which can then support specific projects that are necessary to ensure the long-term protection of marine resources.
Monitoring the conservation status of protected areas permits the evaluation of the possible impacts of conservation funding and is thus an important tool for both management and fundraising. Monitoring costs, a long-term activity, should be paid by long-term funding sources. A successful track record can provide eventual donors the assurance of knowing that they are contributing to a successful project.

The tremendous diversity of funding sources found in marine protected areas pose a real challenge to the reserve personnel in charge of applying these funds. These persons must juggle requests from different donors, while simultaneously attracting new contributions. Partnerships can help in this daunting task. Most short-term funds are applied by local conservation organizations or local governments with help from the protected area personnel. Among the long term funding sources, FANP serves to not only channel funds, but also aids in raising additional funds, and establishing direct contact with donors to match their requirements to the needs of reserves. CONANP central offices, on the other hand, work constantly on the arrangements with the Finance Ministry to increase the flexibility and agility of funds obtained from entrance fees. Teamwork between the tourism sector, protected area staff, civil society organizations (both national and international), environmental funds, local, state, and federal governments, as well as private donors, is essential for managing the complex financial portfolios found in marine protected areas. Every actor and every funding source occupies an important niche. Together they contribute to the funding and conservation of marine protected areas.