

Marine Conservation Incentive Agreements: Lessons and best practices from a review of ten case studies

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Conservation incentive agreements are negotiated contracts by which resource users forego destructive activities in exchange for benefits provided by conservation investors based on conservation performance. Although this tool is increasingly used in terrestrial settings, applications in marine contexts have yet to receive systematic review. We examine nine conservation incentive agreements to assess performance of the approach in different marine contexts. Data were collected from secondary sources, in-country collaborators, and site visits. The incentive agreements analyzed in this study were implemented under a variety of conditions, with different goals, and different designs. The case studies are listed in the table below:

Site	Country	Conservation action	Form of agreement	Benefit package
Laguna San Ignacio	Mexico	Limitations on coastal development to protect grey whale habitat	Legal contract in perpetuity	Payments to fund community projects
Misool	Solomon Islands	No-take zone to protect reef	Legal contract for 25 years	Lease payments, employment, training
Tetepare	Solomon Islands	No-take zone and other regulations to protect forest and reef	Informal	Scholarships
Rendova	Solomon Islands	No poaching of nesting leatherbacks and hatchlings	Spoken contract	Individual and community cash payments
Olive	Solomon Islands	No-take zone	Informal	Health clinic
Jamursba Medi	Indonesia	No-take zone on turtle nesting beach and fringing forest	Pledge	Scholarships
Mafia Island	Tanzania	No poaching of nesting leatherbacks and hatchlings	Spoken contract	Individual cash payments
Galera	Ecuador	No-take zone	Not yet designed	Not yet designed
Helen Reef	Palau	No-take zone	Not yet designed	Not yet designed

Case studies were analyzed with respect to implementation effectiveness and conservation results, and generated recommendations to inform project design and implementation. In general, incentive agreements contain a common set of elements. A key element of the approach is that benefits provided under incentive agreements are contingent on periodic verification of conservation performance, thereby providing ongoing direct economic incentives for conservation. Other components include a clear definition of parties and their rights and responsibilities, a list of prohibited or required activities, a specified benefit package for the resource owners, sanctions if the terms of the agreement are not met, and a performance monitoring protocol. We analyzed variation of these key elements across settings and assessed which components of the approach are necessary and sufficient, and how context variables affect design and performance.

The following lessons emerged from the case studies:

*Property rights:* In general, incentive agreements are applied in areas with clear property rights. Some degree of disputes and conflicts over rights does not preclude the approach, provided there is a strong enough claim to the area and ability to enforce it. For example, in Laguna San Ignacio an easement was negotiated with 43 ejido members, while an additional 400 people also reside in the area. Due to their relative political and economic power, ejido members are able to prevent other residents from disrupting the conservation easement.

*Monitoring:* The incentive agreement model hinges on the contingency of benefits on conservation performance, thus, conservation performance must be measured. Again, the Laguna San Ignacio easement is a model agreement whereby a third party monitors compliance through annual site visits and remote sensing data, and funds are released based on this report. Various criteria can be used to measure performance, depending on the terms of the contract. Examples from the case studies include: number of undisturbed turtle nests, number of hatchlings, and absence or presence of poaching incidents. Several of the agreements lack specific criteria for assessing contract compliance. Sites that do not conduct adequate and independent monitoring create incentives for resource owners to cheat, thus reducing the effectiveness of the approach.

*Enforcement:* Not only must it be possible to monitor conservation performance, but the ability to apply and enforce sanctions is also critical. This depends on the legal environment and it must be possible to take recourse in that context. In an incentive agreement, enforcement can be performed by a third party through a private contract. Previous to the implementation of the incentive agreements, many of the sites already contained protected areas and other regulations, however, these were unenforced because of low government capacity. In some projects, sanctions may simply involve withholding funds, in which case, government or third party enforcement is not necessary. This is the case for the turtle incentive payments in the Solomon Islands and Tanzania. However, in cases such as Laguna San Ignacio, legal action may be necessary to halt construction or

development that is contrary to the terms of the contract. Some of the projects, such as Tetepare and Olive, do not contain provisions to adjust benefits or apply sanctions if conservation performance is lacking. This represents a missed opportunity in terms of using the benefits to directly leverage conservation performance.

*Long-term funding:* A critical aspect of the incentive agreement approach is the guarantee of a long-term, sustained flow of benefits to the communities. This requires a secure funding mechanism for the long-term, for example, a dedicated endowment, capitalized to a level sufficient to support ongoing community benefits and management of the site. Most of the incentive agreements studied in this project do not currently have a long-term funding source, which threatens their long-term sustainability. Exceptions are Laguna San Ignacio, which has trust funds capitalized to fund benefits, monitoring, and enforcement in perpetuity, and the Misool EcoResort, which will use tourism revenues to sustain its commitments to conservation. In general, long-term finance is critical for sustainability of conservation interventions, irrespective of the approach taken, but is particularly critical for incentive agreements in terms of financing the annual benefits.

*Benefit package:* The cases illustrate that there is a broad choice of benefit options and the benefit package can be tailored to the needs of the site. From individual cash payments to funds for community development projects, to scholarships, there is a wide range of options for individual or community incentives and which is preferable will depend on the context. Incentive agreements offer benefits that are structured to be ongoing incentives and depend directly on reducing the threatening activity. The more this conditionality of benefits on conservation performance is made explicit, the more likely the success of the incentive agreement. The turtle incentive payment projects are a good example of this conditionality since benefits are only provided when hatchlings emerge from nests. Alternative livelihoods can be structured as part of an incentive agreement. For example, the Laguna San Ignacio agreement provides funds for community development and alternative livelihoods training. In contrast to a traditional alternative livelihoods project, the funds are provided only if conservation performance criteria are met. Furthermore, community members propose and select projects each year, thus the conservation organization is not responsible for creating or maintaining the livelihood projects.

*Livelihoods and opportunity cost:* Many of the areas in which incentive agreements have been implemented are remote and undeveloped. These conditions tend to make alternative livelihoods approaches problematic, as marketing and transportation costs are often prohibitive for most products. Ecotourism may be an option, but infrastructure is not yet developed in many of these areas, including Helen Reef, Jamursba Medi, and Olive. Incentive agreements can circumvent the conditions necessary for establishing profitable enterprises. In addition, the low opportunity costs generally found in these settings are favorable for incentive agreements, since this will lower the threshold for competitive benefits.

*Negotiation process:* Understanding the local context and accepting a long range view can prevent misunderstandings and conflicts. For example, it took approximately three

years from conception to completion of the Misool Eco Resort agreement. There were many legal and cultural issues to surmount, including identifying the appropriate landowners, obtaining various permissions, and explaining the concept to a large number of stakeholders. Many of the incentive agreements in our case studies were negotiated between a conservation organization and a group of traditional resource owners, which required a thorough understanding of complex local social, political, and legal systems in addition to the provincial or national systems in which they are nested.

Overall, we find that the flexibility of incentive agreements lends itself readily to replication in a variety of contexts, and that this tool is well-suited to specific site- and species-based interventions. One of the greatest obstacles to scaling up the application of incentive agreements is misunderstanding of the approach, including how agreements can be adapted for different contexts. For example, an often-cited concern is the impact of an influx of incentive payments (cash) into a small, remote community. For many of these cases, the benefit package can include in-kind benefits or funds for community development, as in the Solomon Islands cases. There is also misunderstanding about the design and implementation of incentive agreements. For example, the conditionality of benefits on performance is weak in many of the agreements, with projects that lack performance criteria or rigorous monitoring or sanctions. It is hoped that the manual resulting from this research will assist practitioners in implementing best-practices in conservation incentive agreements and avoiding failure from weak design or implementation of the approach.