Integrating Sustainable Fisheries as a Socioeconomic Target in Marine Protected Areas Planning in the Mesoamerican Reef

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EXTENDED ABSTRACT

Over the past 15 years, TNC has developed an integrated process for planning, implementing, and measuring conservation success for its conservation projects. This process is called the "Conservation Action Planning (CAP)" process. The basic concepts of this conservation approach follow an adaptive management framework of setting goals and priorities, developing strategies, taking action and measuring results. CAP is a framework to help practitioners to focus their conservation strategies on clearly defined elements of biodiversity or conservation targets and threats to these targets and to measure their success in a manner that will enable them to adapt and learn over time. The CAP process accomplishes this by prompting a conservation team that includes local stakeholders to work through a series of diagnostic steps that culminate in the development of clearly defined objectives and strategic actions.

Traditionally, Marine Protected Areas (MPA´s) have focused on biological and ecological aspects for planning. Conservation practice has shown that socioeconomic issues need to be taken into account in order to achieve long-lasting conservation results. Increasingly managers and practitioners recognize the need of incorporating economics and social aspects into planning and implementation. At the same time practitioners are trying to find the appropriate ways to incorporate socioeconomic and cultural information into their work, often with little support, and their approaches are rarely shared.

Through the Conservation Action Planning (CAP) methodology, TNC has started to include socioeconomic activities as part of the targets in the MPA planning process in the Mesoamerican Reef. Among these activities, sustainable fisheries are a highlighted issue. Marine protected areas (MPA) are often designed as an instrument for improving both fishery management and marine environmental protection. However, fisheries in marine protected areas have been traditionally approached only within a threats context. This has often resulted in having a perception of fishermen as the "bad guys", which at the same time discourages their participation in planning and decision making processes.

This new approach implies considering fisheries and other human activities as socioeconomic targets linked to social and economical values generated in the protected area, and not only considering them from the perspective of the threats that they might cause to biodiversity. This analysis includes the identification of key attributes of fisheries as an economic activity with the purpose of analyzing its viability, identify and qualify threats to the development of the activity itself and ultimately to generate strategies focused on improving its profitability and sustainability.

The CAP methodology was applied in 2006 in Punta de Manabique Wildlife Refuge and 2008 in Rio Sarstún Multiple Use Area two protected areas in the Caribbean coast of Guatemala that belongs to the Mesoamerican Reef ecoregion. These two separate CAP process were carried out in order to prepare management plans for these two areas. There is a considerable number of human communities living inside or adjacent to these MPA´s, and many of them practice fisheries as livelihood. Each process was widely participatory and included at least four workshops and five technical meetings. In both cases the term "sustainable fisheries" was selected to identify fisheries as a socioeconomic target. It included only artisanal fisheries practiced by local communities. Care was taken to exclude those considered "unsustainable fishing practices" that were previously identified by scientists, managers and local communities in a participatory workshop, . A viability analysis of these fisheries practices was made considering three main attributes: profitability, sustainability and context. Secondly, a threat analysis was conducted, which includes the identification and qualification of stresses and sources of stress. Frequent examples of threats to local fisheries were: inadequate closed seasons, lack of access to markets, lack of training on transforming seafood products, reduction on the abundance of commercial species, etc. Subsequently, the development of strategies objectives and specific strategic actions took place. All strategies, including socioeconomic and conservation, were analyzed to identify conflicting strategies. Only similar, complementary or non conflicting strategies were included in the management plan. The process was completed with a monitoring plan.

By using this approach the management plans in these two areas included strategies, regulations and indicators that aim to :

i) Ensure support from MPA to increase productivity and sustainability of artisanal fisheries based on MPA´s goals and regulations.
ii) Acknowledge a variety of livelihood strategies that occur in and about the MPA, and spatial and temporal changes in fisheries use and value.
iii) Consider costs and benefits to local communities in management of artisanal fisheries.
iv) Protect marine resources, which local communities identify as important to their livelihood.
v) Restrict destructive fishing practices, in agreement with local communities.

vi) Recognize fisheries benefits of MPAs.
vii) Measure the status of the fisheries as a economic activity along with the status of biological populations that sustain them.
viii) Establish mechanisms to ensure permanent participation of fishers into the decision making process for management of the protected areas.

In the two cases, the planning process counted with a wide participation of communities' representatives including the fisheries sector in contrast with previous processes where local participation was minimal mainly due to lack of interest or direct opposition to the MPA. Early evidence shows improvements on conflict resolution and strategies implementation with more participation from fishers. In Punta de Manabique, local fishermen associations now are part of the MPA´ Board and a similar arrangement is planned for Río Sarstún. However It is still too early to analyze the impact of these strategies on the MPA´s biodiversity and in the fisheries sustainability.

KEY WORDS: Marine protected areas, fisheries, socieconomic

Integrando la Pesca Sostenible como un Elemento Socioeconómico en la Planificación de las Áreas Marinas Protegidas en el Arrecife Mesoamericano

La práctica de la conservación ha demostrado que los asuntos socioeconómicos necesitan ser considerados para alcanzar resultados duraderos. Las áreas protegidas marinas se conceptualizan como instrumentos para mejorar el manejo de la actividad pesquera y la protección del medio ambiente marino. Sin embargo, las pesquerías se han abordado tradicionalmente solamente dentro de un contexto de amenazas a la biodiversidad. En muchos casos esto ha dado lugar a considerar a los pescadores como los "malos", lo que a su vez desalienta su participación en los procesos de planeamiento y toma de decisión. Con la metodología de la planificación de acciones para la conservación (PCA), TNC y sus aliados han comenzado a incluir actividades socioeconómicas, incluyendo las pesquerias, como parte de los elementos centrales en el proceso del planeamiento de áreas marinas protegidas. Este nuevo abordaje implica considerar a las pesquerías sostenibles como elementos socioeconómicos ligados a los valores sociales y bienes económicos generados por el área protegida, y no sólo desde la perspectiva de las amenazas que pueden causar a la biodiversidad. Este análisis incluye la identificación de los atributos principales de las pesquerías con el propósito de analizar su viabilidad, amenazas para su desarrollo y diseñar las estrategias centradas en mejorar su rentabilidad y sostenibilidad. Esta modalidad se ha aplicado en 2007 y 2008 en tres AMP´s en el Arrecife Mesoamericano. En estos procesos se contó con una amplia participación de pescadores. Los primeros resultados indican mejoras en la resolución de conflictos entre pescadores y la administración del AMP, así como en la implementación de las estrategias de manejo aunque es aún muy pronto para analizar si tendrá algún impacto en la biodiversidad.

PALABRAS CLAVES: Areas marinas protegidas, pesca, socioenocomico

Intégration des Pêcheries Durables comme une Cible Socio-Économique Dans une Aire Marine Protégée Dans le Récif Méso-American

La pratique de la conservation a montré que les questions socio-économiques doivent être prises en compte afin de parvenir à des résultats de conservation durable sur le long terme. Les aires marines protégées (AMP) sont souvent conçues comme un instrument pour améliorer à la fois la gestion de la pêche et la protection de l'environnement marin. Toutefois, la pêche dans les aires marines protégées a été traditionnellement abordée uniquement dans le contexte de menaces. Cela a souvent conduit à avoir une perception des pêcheurs comme étant les «méchants», qui en même temps décourage leur participation à la planification et aux processus décisionnels. Grâce à la méthodologie de la Planification de l'action de conservation (PAC), le CNC a commencé à inclure des activités socio-économiques dans le cadre des objectifs du processus de planification d'AMP dans le récif méso-américain. Parmi ces activités,les pêcheries durables sont un problème mis en évidence. Cette nouvelle orientation implique de considérer la pêche comme des cibles socio-économiques liées aux valeurs sociales et économiques générées dans la zone protégée, et pas seulement les considérer sous l'angle de la menace qu'ils pourraient causer à la biodiversité. Cette analyse comprend l'identification des principaux attributs de la pêche dans le but d'analyser sa viabilité, les menaces pour le développement de l'activité elle-même et, finalement, pour générer des stratégies axées sur l'amélioration de sa rentabilité et viabilité. Cette approche a été appliquée en 2007 et 2008 dans deux zones protégées dans le récif méso-américain. Dans les trois cas, le processus de planification a compté avec une large participation du secteur des pêcheries. Les premières données montrent des améliorations dans la résolution des conflits et la mise en œuvre de stratégies.

MOTS CLÉS: Aires marines protégées, pêche, socio-économique