Perceived Impact of FAD Development Programs on the Livelihoods of Caribbean Offshore Fishers

Percepciones Locales sobre el Impacto de Programa de Dispositivos de Concentración de Peces sobre la Vida y el Sustento de los Pescadores Artesanales del Caribe

Impact Perçu des Programmes de Développement des DCP sur les Moyens de Subsistance des Pêcheurs en Mer des Caraïbes

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EXTENDED ABSTRACT

The Japanese government has supported the introduction and/or expansion of the use of Fish Aggregating Devices (FADs) to develop the offshore pelagic fishery in the eastern Caribbean region through a five-year project (2013-2018) called Caribbean Fisheries Co-Management (CARIFICO). The project has been implemented in partnership with the Caribbean Regional Fisheries Mechanism (CRFM) and the governments of six Caribbean islands (Figure 1). CARIFICO has been facilitated through consultations, trainings and the supply of FAD equipment; and by strengthening policy and organizational mechanisms to manage and sustain the fishery. The goal of the project was to improve the livelihoods of artisanal fishers. A key evaluative component of the CARIFICO project was to determine the impact that co-managed FAD programs had on the livelihoods of artisanal fishers. This was accomplished through a socio-economic survey of fishers residing on islands participating in the CARIFICO project.

Socio-economic information solicited from 384 fishers helped to determine if there was an overall positive or negative change in livelihoods prior to and during CARIFICO implementation. The Sustainable Livelihoods Framework (Chambers and Conway, 1991), adopted from the relevant literature was applied to evaluate trends in five key livelihood assets: natural, physical, social, financial and human over a five-year period, commensurate with initiation or expansion of FAD programs. This framework has been widely applied to evaluate how livelihoods can change from a policy or management decision and to evaluate the ability of communities to cope with and recover from stressors (Rennie and Singh, 1996).

The results of the socio-economic survey indicate that fishers believe that there has been a decline in natural assets (fish abundance) and financial assets (disposable income) during the past five years. To the contrary, fishers' physical assets (material wealth) and social assets (participation in fisher organizations) have increased during the past five years (Figure 2, Table 1). The possession of human assets (participation in trainings and consultations) were not measured over the five-year -time-frame. Nevertheless, CARIFICO trainings and consultations were attended by approximately sixty percent of the survey respondents and almost all of the fishers who attended or participated in these activities (96% participants) believed that they benefitted from the skills and knowledge gained.

The survey results show that CARIFICO activities have facilitated the development of the offshore FAD fishery for several reasons. First, fishers believe that they are catching more fish while using FADs. This success, according to the survey results, is causing more individuals to take up offshore fishing as a profession. Second, fishing success has resulted in the accumulation of greater material wealth to individual fishers, particularly in countries where FAD used is a more recent development, such as Grenada.

The direction (decrease or increase) of the change (5 years ago vs. past year) in each livelihood asset, measured by comparing mean scores, was the same for all countries studied. However, there are differences in the strength of the direction for some countries (Table 1). For instance, respondents from Saint Lucia believe that their natural assets have decreased more significantly than other countries over the past five years, while fishers in Grenada perceived the greatest increase in the physical assets over fishers in the other studied countries (Table 1).

The results show that the CARIFICO project has had success towards improving the livelihoods of artisanal fishers, but opportunities remain for strengthening the capacity of fishers to more effectively organize, manage their activities and sustainably exploit natural resources. Apart from Grenada, it remains to be seen if an increase in fisher participation in organizations such as cooperatives and associations can translate into greater influence in management decisions. Opportunities also exist for strengthening the capabilities of government (fisheries and cooperative divisions) to provide data collection, outreach and management necessary to build upon initial CARIFICO successes. Addressing these opportunities will require a longer-term commitment of government engagement: A commitment that accrues tangible shorter-term benefits to participating fishers.

KEYWORDS: Livelihood, FAD, artisanal fishers, perceptions, Caribbean

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Table 1. Differences in mean livelihood assets over time.

Country	Natural	Physical	Financial	Social
Antigua & Barbuda	-0.054	0.017	-0.062	0.014
Dominica	-0.079	0.056	-0.050	0.067
St. Lucia	-0.126	0.052	-0.050	0.032
St. Vincent & the Grenadines	-0.082	0.053	-0.092	0.055
Grenada	-0.025	0.115	-0.078	0.072
ALL	-0.076	0.055	-0.064	0.042

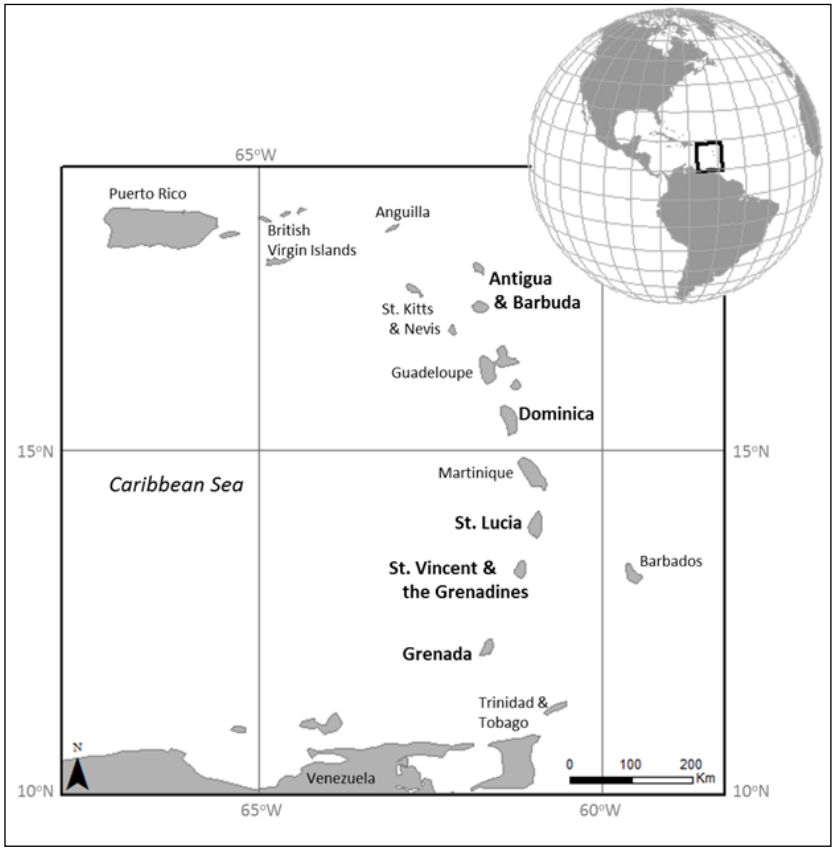

Figure 1. Study sites: Antigua and Barbuda, Dominica, St. Lucia, St. Vincent and the Grenadines, and Grenada.

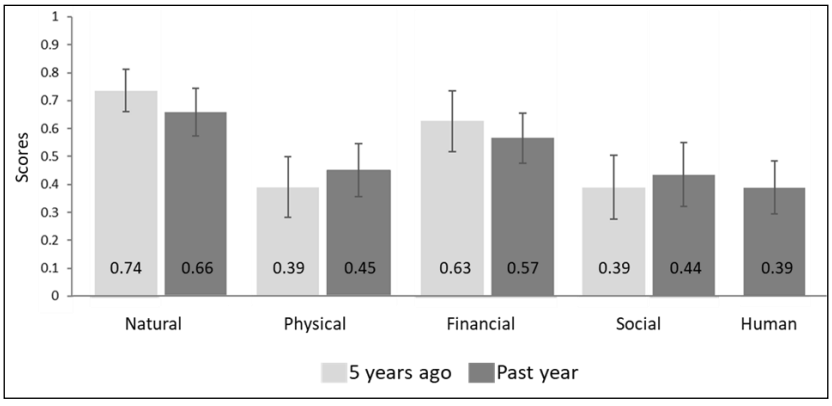

Figure 2. Mean scores for the livelihood assets (n = 330).