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Collaboration and conflict in an applied human ecology project in coastal Yucatan, Mexico

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Abstract

A report is made of the accomplishments and difficulties encountered during an applied human ecology project carried out in a fragile coastal wetland on the coast of Yucatan, Mexico. The agents included a Scientific Research Team (SRT), the Palafitte Group (PG), comprised of facilitators, and the community as a whole. Information was culled from 96 weekly reports for meetings held between May 1999 and February 2001 with the PG, eight interviews carried out in March 2001 with SRT members, and four work meetings held by the authors in February and March 2001. Data were examined using 'content analysis' at four interaction levels: (1) within the SRT; (2) between SRT and PG; (3) between SRT and the community as a whole; and (4) within the community, including the PG. Main results were: (1) advances in integration of the multidisciplinary research group during the analyzed periods, especially in acquisition of a common language, and, to a lesser extent, in its coordination; (2) within SRT, less than optimum internal discipline, breadth and depth of common language, participatory research training, and motivation; (3) lack of communication and poor commitment fulfillment between SRT and PG, and between SRT and community as a whole; (4) weak means and form of communication between PG and community, resulting in poor community motivation and collaboration. Results were analyzed with a view to applied human ecology projects similar to the studied project, i.e. those designed to contribute to the halt and reversal of anthropogenic impacts on fragile environments.

Keywords: Participatory research; Applied human ecology; Yucatan; Mexico

Resumen

En este trabajo se reportan los logros y dificultades enfrentados en un proyecto de ecología humana aplicada, desarrollado en una comunidad ubicada en un área de frágiles humedales localizados en la costa del estado mexicano de Yucatán. Los agentes del proyecto fueron un equipo de investigación científica (EIC), el Grupo Palafito (GP) integrado por facilitadores, y la comunidad en su conjunto. La información aquí reportada fue obtenida a partir de los registros de 96 reuniones semanales del GP, realizadas entre mayo de 1999 y febrero de 2001, entrevistas a ocho miembros del EIC, realizadas en marzo de 2001 y cuatro reuniones de trabajo realizadas por los autores en febreo y marzo de 2001. Se aplicó un análisis de contenido a la información obtenida,

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atendiendo cuatro nivles de interación: (1) al interior del EIC; (2) entre el EIC y el GP; (3) entre el EIC y la comunidad en su conjunto y (4) al interior de ésta, incluyendo el GP. Los principales resultados fueron: (1) avances en la integración de un grupo de investigación interdisciplinaria en el periodo analizado, especialmente en la adquisición de un lenguaje común y, en menor medida, en la coordinación del grupo; (2) al interior del EIC, es necesario alcanzar la interdisciplina, ampliar y profundizar el lenguaje común, mejorar la capacitación en investigación participativa y la coordinación del proyecto y mantener la motivación interna; (3) para un mejor cumplimiento de los compromisos entre EIC y GP es necesario lograr una mejora sustancial de la comunicación entre ellos, así como llevar al cabo un mayor número de actividades comunes; (4) se encontró falta de comunicación e inadecuado cumplimiento de compromisos entre el EIC y el GP y entre el EIC y la comunidad en su conjunto y (5) es necesario fortalecer la motivación y la colaboración de la comunidad, mejorando los medios y formas de comunicación entre la comunidad y el GP. Se analizan las implicaciones de estos resultados para proyectos aplicados que, como el reportado, buscan contribuir a detener y revertir el impacto antropogénico sobre ambientes frágiles como la costa de Yucatán, parte de importantes humedales del continente americano.

Palabras claves: Protección de recursos naturales; Desarrollo comunitario; Formación de asociaciones civiles; Políticas mexicanas de conservación; Donadores conservacionistas internacionales

1. Introduction

The coast of the State of Yucatan, Mexico, consists of a narrow barrier island with a surface of approximately 1392 km^2 (SPP, 1982). This island is separated from the mainland by coastal lagoons rimmed with mangrove forests, and 14 towns of varying size are located along its length.

From the late 1960s to the 1980s, government agencies invested large sums in the communities along the coast of Yucatan in the form of credits to fishing cooperatives to buy vessels, for road construction, ice factories, refrigeration plants, boat harbors, and extension of the electrical grid (Paré and Fraga, 1994). This investment converted the coast into a local development pole, stimulating immigration into the municipalities of Celestún, Dzilam de Bravo, Progreso, San Felipe, Río Lagartos and Telchac Puerto. The population in these six municipalities grew from 21,439 inhabitants in 1960, to 49,510 in 1990, to 57,236 in 1995 (SPP, 1982; INEGI, 1996).

The ports of Yucatan are also centers for local summer tourism, which creates an elevated, strong property demand, especially for ocean-front lots. This demand, coupled with land scarcity on the narrow coastal barrier island, leads to a relatively high cost for urban lands. As a result, lower socioeconomic groups, immigrants and established residents alike, are forced to fill in the neighboring wetlands in a disorderly manner with trash, rocks and sand to create areas for new housing construction.

This filling significantly contribute to unhealthy living environments containing a wide spectrum of pollutants. It also causes the disappearance of coastal lagoon ecosystems by drastically altering local hydrology, blocking the free flow of water, closing off freshwater springs, and killing mangrove and other neighboring vegetation communities through isolation of lagoon areas. Growth in the ports of Yucatan is clearly threatening the characteristic biodiversity of the Yucatan coast. It is also compromising other natural resources which are the base of a relatively low environmental impact, multiple-use strategy, among them the salt pans along the coast.

Inadequate housing space and flooding are endemic in wetlands around the world, and the construction of palafittes, houses built on piles or poles, is a well-known solution (Hamilton, 1991). The use of palafittes in these environments contributes to wetlands preservation by making filling unnecessary and maintaining water flow regimes, while reducing human and material losses from hurricanes and floods. Palafittes have been used in wetlands on the Yucatan Peninsula. Documented instances are known in Río Lagartos, Yucatan; Chetumal, Quintana Roo; Chinchorro Bank, Quintana Roo (Morales and Contreras, 1998); Uaymitún, Yucatan; and in Belize.

A number of factors influence palafitte design. Local environmental, social and economic conditions dictate the most effective palafitte design and construction materials in any given location. In Yucatan, for example, one of the main factors to consider in determining floor