

THINKING ABOUT HOW TO MANAGE ARTISANAL FISHERIES IN COLOMBIA

Lina M. Saavedra-Díaz
University of New Hampshire, USA; and
Universidad del Magdalena, Colombia

Andrew A. Rosenberg
Conservation International and
University of New Hampshire, USA

Introduction

A small scale fishery is a sector that is the economic and social base for the livelihood of some coastal fisheries communities in developing countries. Colombia, for instance, has many small scale fisheries communities experiencing a low quality of life. The well being of these communities has been affected by inadequate marine resource management. Some resources are already overexploited. A lack of resource information, free access to the resources for artisanal fisheries, poor socio-economic conditions coupled with the tropical environmental conditions (high diversity and low abundance), place these fisheries resources at risk. Both food resources and economic activities that support the local people will suffer the effects.

Marginalization, vulnerability and lack of recognition are typical features of marine artisanal fishing communities due to the existence of a gap in the mental map of decision-makers in tropical developing countries (Pauly, 1997). **Marginalization** is noticed through inadequate social services, lack of working rights, poor roads, transportation or communication services since they are located on remote areas, and lack of access to credit. **Vulnerability** is shown by the fishing operations with inadequate equipment, weak political representation, open access to marine natural resources resulting in overexploitation due to the tragedy of the commons (Hardin, 1968), uncertainty in fishing catch rates, and weak communal organization. Lastly, the lack of **recognition** is because artisanal fishing has small representation in national economies and they are excluded from the process of development planning (Pauly, 1997 and 2006; COFI, 2007). Besides, these fisheries communities are affected by the “Malthusian overfishing” effect which is defined as new fishers that have to move to coastal areas due to the lack of land, or employment opportunities. The increasing number of fishers results in declining catches and marine ecosystem degradation (Pauly, 1997).

Due to this situation, the FAO Committee on Fisheries (COFI) has elucidated a human-rights framework that can support the small-scale fisher’s rights and highlighted the importance of its implementation in order to expect the real adoption of responsible fisheries practices for these fishing communities (FAO, 2007). Consequently, COFI (2007) based on the review of the Universal Declaration on Human Rights, the Millennium Development Goals, the Code of Conduct for Responsible Fisheries, and the Poverty Reduction Strategy Policy Papers has recognized the need to promote human rights and improve access to social services (health, education, social insurance and others) in small-scale fishers. Based on these current conditions there is a strong need to generate a marine artisanal fisheries management framework based on fisheries communities administration. As a result, the underlying weakness in conditions for

human rights and services have turned into social threats, that if they are faced, it could provide real social community development, and better environmental actions such as participation in co-management and community-based fisheries management regimes. In technical terms, this approach is known as co-management or cooperative management (McCay and Jentoft, 1996; Wilson et al, 2003). Consequently, local fishery communities can facilitate fishery management and oversee marine areas that cannot be supervised by national governments (Pauly, 2006). This approach has been implemented in some tropical countries, in particular, the Caribbean, with positive results. Co-management has proven to be an effective tool in marine resource management for preserving both the natural resources and the communities.

The goal of this study is to explore the basis for the first marine artisanal fisheries management plan in Colombia. Although a national marine fishery framework involves different sectors (scientists, artisanal, industrial fishermen, trade, and administrative/government), this project is focused on the artisanal fishery and proposes the development of a bottom-up process for management. In particular, to explore community based management as an alternative for marine fisheries management. That is the base in order to develop in the future a management policy working directly with fishing communities, rather than imposed by central government.

This project is part of a doctoral research that is still in the process of data analysis; nevertheless in order to participate in the World Small Scale Fisheries Congress there will be presented only preliminary results of one research goal. This objective looks for the establishment of weaknesses at the marine artisanal fishery sector through the discussion of the problems and solutions that were raised by fishermen, community leaders and fishery experts.

Justification

Colombia, because of its geographical features, is considered the second most biodiverse country in the world. Because of this, Colombian ecosystems need to be carefully managed for sustainability to protect natural resources of global importance. Since high biodiversity implies low abundance per species, each species subjected to fishing is vulnerable such that bio-ecological studies are needed to guide management planning. However, there are many Colombian fisheries resources that are already over-fished. Moreover, because the country has territory in two oceans and high economic needs, there is a tendency to push for exploitation beyond sustainable limits. Colombia needs to change its fisheries policy and implement an adequate fisheries management system based on the current best practices to achieve sustainability. This management must be focused on conservation and reconstruct populations already damaged, while allowing the sustainable use of some species. In each region, it is necessary to explore other activities that diminish the pressure on the oceans and to start the implementation of a co-management culture to engender a sense of local stewardship of fisheries resources. Co-management involves local communities directly in the development and implementation of policy to achieve sustainable fisheries. Academia and the Colombian fisheries experts recognize the importance of developing and implementing a comprehensive approach to the management of these resources, but it is widely recognized that such an approach must be tailored to the specific natural and social environment in the country including recognition of the important role of fishermen and fisherwomen in society.

Environmentally, marine resources are depleted due to overfishing, inadequate use of the resource through inappropriate fishing gear, the catching of undersized individuals, destruction of marine habits through dynamite or other destructive practices, and by land-based activities

effects such as runoff. In addition, from an economic perspective, fishing is not very significant in the national economy although it supports the social and economic well-being of many families on the coast. Due to the internal war in Colombia against drug trafficking, paramilitaries and guerrillas the environment is not considered a national priority because most of the government efforts are concentrated on this war. Because of this, enforcement capabilities for fishery regulations are limited. Regarding the administrative sector, the resources have been negatively affected by the lack of marine resource management planning as well as limited scientific information due to budgetary constraints. From a social perspective, it is important to consider the livelihood of the 40,000 artisanal fishers and their families who rely upon these declining fishery resources. Nowadays these artisanal communities are the “forgotten Colombians”, without social security or education, and few medical benefits. As a consequence, the highest levels of poverty are found on both coasts.

Methods

Besides this administrative division, from an environmental perspective, Colombia has five marine and coastal eco-regions on the Atlantic and four marine and coastal eco-regions on the Pacific coast. This separation categorized by different environmental aspects such as geomorphology, hydrography, sedimentology and coastal and marine ecosystems (INVEMAR, 2000). Political and environmental divisions are relatively similar, their boundaries almost overlap, and consequently, for the purpose of this study the marine environmental zoning has been chosen. For the purpose of this research, this study will not include the eco-regions of Caribbean and Pacific Insular since they are Marine Protected Areas.

Primary information:

First, a pilot survey was performed to identify nine representative inshore artisanal fisheries communities (AFC) in Colombia, four AFC on the Pacific coast and five on the Atlantic coast. This identification was based on expert opinion. The participation in this project was voluntary; each AFC decided freely their participation in the present study.

Second, once the nine AFC were chosen, field work within each community was conducted for approximately three weeks to one month. This work was divided into three methods - communal, group and individual approaches.

1. The communal approach consisted of two main hearings: one in order to discuss and identify fishery threats in the community and the other hearing was focused on co-management and fisheries regulations (*).
2. The group approach was based on a focus group with “experienced fishers” in order to reconstructed historical fishery changes based on traditional knowledge.
3. The individual approach was based on semi-structured interviews with fishers (one or two were chosen per fishery method), community leaders in each community, and fishery experts in each coastal environmental units (*).

(*). In the WFSS, only preliminary results of the first hearing and the related questions in the individual interviews with fishermen, community leaders and fishery experts will be presented.

Secondary information

At the national level, four undergraduate students gathered documents, such as reports, theses, and books, among others, through the interaction of different environmental and governmental institutions. All texts shared the marine artisanal fisheries as a main subject. Through this information, we aim to be able to establish where the production of artisanal fisheries knowledge in the last four decades has been focused, and identify the main points for the artisanal fisheries management plan to be proposed as a result of the present research.

Benefits

Due to the situation of marginalization, vulnerability and the lack of recognition that is surrounding the marine artisanal fisheries communities (Pauly, 1997); this project recognizes the importance of them as fundamental stakeholders in the sustainability of the marine resource as users and local managers.

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Corresponding author:
Lina M. Saavedra-Diaz
University of New Hampshire
106 Morse Hall
Durham, NH, 03824
USA
lina.saavedra@unh.edu