

Small-scale fishery promotion in high-value markets

Eric Ross Salazar

MarViva Foundation, Costa Rica

Abstract

The community of Costa de Pájaros in the Pacific of Costa Rica fulfilled legal requirements for the creation of a responsible fishing marine area (RFMA) on its traditional fishing grounds. The area is open access to any licensed fisher that complies with special regulations within the area, however, this has caused conflicts with fishers that use less responsible gear that were displaced and with fishers from other communities that travel to the RFMA to fish. Fundación MarViva has worked for several years with members of the fishers' community and three landing sites to promote responsible fishing. Currently, these three landing sites sell to corporate buyers or to intermediaries that work with corporate buyers willing to promote responsible fishing, and these include restaurants, hotels and supermarkets. Fishers help the landing site managers carry out monitoring of catches and managers fill traceability questionnaires so that corporate buyers can be sure of the origin of the product. Fishers comply with special gear regulations that go beyond the requirements of the RFMA and landing sites only sell fish above minimum landing sizes as responsible.

1. INTRODUCTION

1.1 Description of the fishery

Costa de Pájaros is located in the central Pacific region of Costa Rica, specifically in the inner part of the Gulf of Nicoya (Figure 1). Fishing in this area is limited to small-scale fishers that use gillnets, a hand line and bottom longline to catch weakfish, snook, mackerel, catfish and shrimp. Fishers usually own the boat they use for fishing and take one or two helpers onboard. Their activity is carried out once or twice per day, returning home after a five to six hours of fishing, depending on the moon phase and winds.

Costa de Pájaros is a Responsible Fishing Marine Area (RFMA) that only allows the use of hand line within its borders. This has caused conflicts between the user of the RFMA and fishers that use gillnets that are excluded from the area. The RFMA harbor Bajo Las Peladas is a very important fishing ground for weakfish. Thus, when the RFMA was created, it caused conflicts with gillnets fishers. In order to demonstrate their displeasure, they have sunk car batteries hoping to affect handline fishers and have moved or cut buoys that had been placed to mark the RFMA.

The community is located in an area that is incorporated into the annual closed season of the Gulf of Nicoya. During these three months of closure, another conflict arises between fishers that respect the closed season and illegal fishers. Unfortunately, there are many fishers that continue their activity during the closed season, reducing its effectiveness in protecting the reproduction peak of weakfish and shrimp and there are continuous rumors of receiving centers that continue to operate during the closed season. This causes responsible fishers to lose faith in the Coastguard, Fishing Authority and local police since there are few controls during the three-month closure.

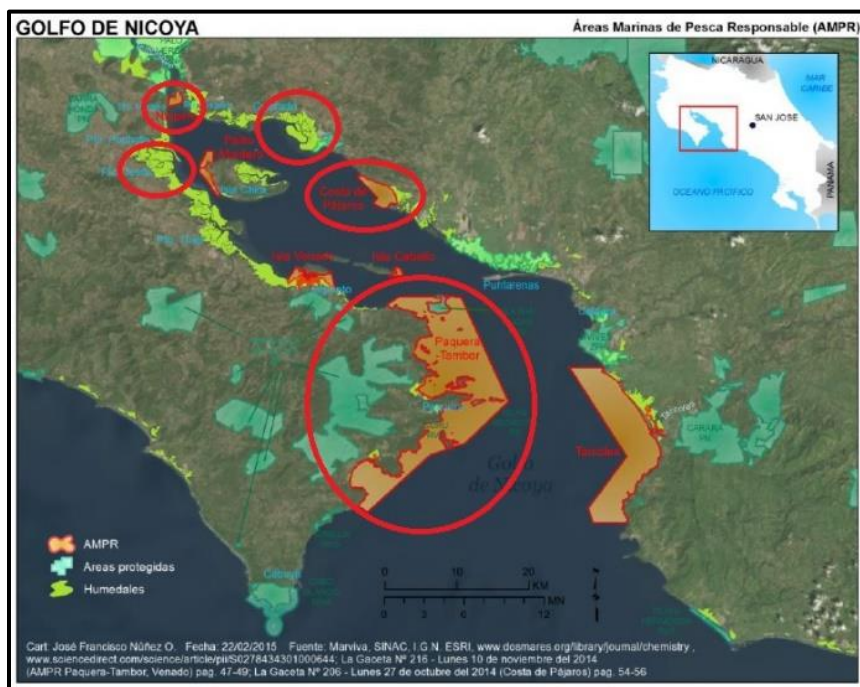


Figure 1. Map of the Gulf of Nicoya.

Source: Marco Castro, Fundación MarViva.

The fishery is a multi-species coastal marine fishery –the stock is mobile and migrates along with different areas of the Gulf of Nicoya, found only within national jurisdiction. Weakfish (*Cynoscion* sp.), mackerel (*Scomberomorus sierra*) and snook (*Centropomidae* sp.) are all found year-round. Weakfish populations along the Pacific coast of Costa Rica are considered either fully exploited or over-exploited by scientists. In the Gulf of Nicoya, studies by the GiZ and UCSB found that resources are overexploited; these results are in line with previous studies from the National University and INCOPECA. The size of weakfish caught has been decreasing for over three decades; in 1992, the size of the first maturity for corvina reina was calculated at 75 cm, 20 years later it was calculated at 55 cm.

Target species are caught for sale in national markets, smaller individuals and non-commercial species may be kept for personal consumption. Fishers generally have a second livelihood source in case they cannot go fishing due to closed season or strong winds. This secondary income usually comes from agriculture or construction. Due to the lack of job opportunities in the area, the fisher populations have been increasing. Some of the newest fishers are fishing illegally because of the lack of licenses, which is causing local migrations to coastal areas when the agricultural season is over. There are also an important migration of fishers from other communities to the fishing grounds used in the Costa de Pájaros RFMA.

The fishing gear types used vary between the more responsible fishers and the others. Within the RFMA, only hand lines are used, with either one, two or three hooks. Outside the RFMA, gillnets are very common, varying from 2.5" (illegal) to 8". However, a recent regulation also does not allow the use of gillnets larger than 5" in order to protect large reproductive animals (usually 400 meters long). Bottom longlines have between 150-300 hooks and can be 500-800 meters long. Dredges are illegal, but an estimated 1 000 illegal dredges are found inside the Gulf of Nicoya.

The owners of the vessels are fishers from the local community; communities do not own vessels collectively in Costa Rica. Sometimes the owners of the receiving centres possess boats, but they often register them under the name of fishers so that they can manage them. The local fishers usually own the fishing gear. However, there are cases where the owners of receiving centres loan money to fishers to enable them to purchase the gear. In return, the fishers are obliged to sell their catch to that person. Management of the fishery is under the Fisheries Authority. However, each RFMA has a local commission constituted by fishers and authorities that can decide to change how the RFMA is managed. The Fisheries Authority board of directors must approve any changes before they are made.

1.2 Economic contribution and social implications of the fishing activity

There are close to 17 communities in the Gulf of Nicoya that target the same resources as Costa de Pájaros, with a total of about 5 000 fishers in the region. Of these, about six percent are women, mostly dedicated to the collection of mollusks. Most of the fishers are full-time, generating at least 90 percent of their livelihoods from this activity.

The fishers have remained in the same fishing grounds for generations, as it is one of the most productive areas in the Gulf of Nicoya. However, the depletion of resources in other fishing grounds has attracted fishers from neighboring communities into the area, thus causing conflict.

Fishers use motorized boats for their activity, with an average length of 5-7 meters, average GT of 300 kilos and average power of 40 kW. The length of fishing vessels has increased, as have the capacity of boats and power of motors in the last thirty years. After an increase in the number of vessels at the start of this century, the number has stabilized due to restrictions from the Fisheries Authority for new licenses.

2. MANAGEMENT OF THE FISHERY AND RIGHTS-BASED APPROACH

2.1 Management of the fishery

Fishers have formally recognized rights in the form of individual non-transferable licenses. Currently, there is a prohibition on assigning new licenses due to a lack of knowledge on the state of marine resources. This current system of licenses has been on-going for several decades. Each license allows owners to fish as many resources as they can.

In recent years, there has been work in allocating rights for mollusk collectors, most of which are women and to appropriately manage the fishery in order to reduce pressure. Fishing rights are allocated to individual fishers and to vessels. Each license details which species and gear the fisher/boat is allowed to catch/use.

The license is valid for a period of six years. Fishers must pay an annual quota every year and renew the right at the end of the six-year period.

In the case of the RFMA, the commission in charge of its management can propose changes to fishing gear, seasons, size restrictions, etc. There is little to no data collection. Occasionally the Fisheries Authority monitors catches. Currently, the only constant monitoring of catches is being done by three receiving centers working with MarViva Foundation.

2.2 Brief history of the former rights-based approaches used in the fishery

Prior to the current approach, over half a century ago, fishing rights were more informal, and it was an open access system.

2.3 Rights-based approach: allocation and characteristics

Fishing rights cannot be sold or leased, but there have been efforts to promote rights to be hereditary. The access to the resource is regulated by the Fisheries Authority through licenses and by the Coastguard. However, every person has a right to fish if it is for subsistence purposes. In this case, catches cannot be sold and subsistence fishers must register with the Fisheries Authority, they must also comply with fishing regulations.

Vessel owners are required to comply with yearly inspections of the port authority based on vessel clearance and complying with safety standards. Receiving centers must have permits given by the Fisheries Authority and the National Animal Health Service.

It is frequent to observe fishers without licenses operating in fishing areas, even within the RFMA. These fishers have been linked to the use of illegal fishing gears. The communities cannot act on their own to stop illegal activities, and even if they could, illegal fishers are very aggressive and sometimes possess handguns. Responsible fishers occasionally alert the Coastguard, however, inaction on their side has caused complaints to go down.

3. CONTRIBUTION OF THE RIGHTS-BASED APPROACH TO ACHIEVING SUSTAINABILITY

3.1 Sustainable use of the resources

The limitation of access to the fishery through licenses is designed to reduce pressure and guarantee the sustainability of the resource. However, ineffective management, use of illegal fishing gear, lack of implementation of landing sizes, lack of supervision of gear used and near non-presence of the Coastguard have caused resources to be overexploited.

3.2 Economic viability of the fishery

Fishing effort and capacity has increased, though the implementation of licenses has curtailed the growth of the number of legal fishers. The distance, in the specific case of Costa de Pájaros has remained constant, however, other communities that have seen their resources reduced, migrate to the fishing grounds of the RFMA.

Even though the distance has not increased, the average length of fishing trips has increased, as fishers must remain in the water longer to increase their catches due to overexploited resources. This goes together with a decrease in the use of hand lines and an increase in the use of gillnets, which have also seen a reduction in the mesh size. Fishing vessels with outboard engines have increased in the last half-century, as has the power of the engines. Average length and gross tonnage have also increased. It is common to find boat owners that have one or two helpers go out fishing with them, distributing income from catches in pre-accorded percentages.

3.3 Social equality

There are no indigenous communities in the area. However, they would have the same rights as any other resource user. The registry of legal fishers through the licensing system allows the Ministry of Social Aid and Fisheries Authority to give financial aid to legal fishers during the closed season and in case of natural disasters that reduce their fishing capacity.

4. MAIN CHALLENGES AND WAY FORWARD

4.1 Challenges for the fishery

The main challenge faced by this fishery is dwindling stocks. The Fishery Authority has recently tried to implement regulations focused on recuperating stocks (i.e. minimum and maximum landing sizes). However, lack of enforcement and control of illegal gears has not allowed recovery of stocks. The effectiveness of the three-month closed season is reduced each year due to a lack of patrolling by the Coastguard and control of receiving centers not operating during the closure by the Fisheries Authority and local police.

The presence of illegal fishers and illegal fishing gear is an important challenge for fishers, affecting their livelihoods directly and their safety at sea since illegal fishers are aggressive and can be armed. The lack of presence from the Coastguard has affected the perception of this police force within coastal communities; they are seen as ineffective and more interested in drug-running than natural resources.

4.2 Improving fishery sustainability in the future

In order to improve the sustainability of resources, several steps should be taken:

- Improved monitoring of catches in order to better evaluate resources and health of fish stocks.
- Increased presence of the Coastguard to control illegal fishers, especially during closed seasons.
- Improved research on key habitat areas for species and constant monitoring of reproductive stages for better implementation of closed seasons.
- Better communication with communities so that they can understand the importance of minimum and maximum landing sizes, gear size restrictions, responsible fishing, monitoring.
- Promoting the insertion of responsibly caught seafood into value chains that recognize this effort and are willing to pay more to the fisher, thus reducing the amount of fish they must catch to receive the same amount of money for their catch.
- Analyze the effectiveness of the closed season and the monetary aid given to fishers and verify if resources can be applied differently in order to produce a more significant impact.
- Attend the social problems of coastal communities in an integral manner, including health, education, safety, housing, etc.
- Promote job creation in coastal areas in order to give options to fishers, especially for their children, so that livelihoods can be gained by alternative means.