

Participatory Management of a Reservoir Fishery in Northeastern Brazil

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Consensus, Compromise and Cooperation. That was how more than 100 fishers reached agreements on how they would manage their own fishery in a small reservoir in northeastern Brazil.

The authors describe the long hard road that led to the agreements, the final congress in which the fishers "made minor history", and the lessons that others may draw from the experience.

The fishers agreed on a nonfishing period of protected areas and a seasonal ban on certain nets—in the face of a government department that told them the measures were "non-binding and essentially illegal".

It is still early and the sun shines out of a clear, blue sky after weeks of rain—a good omen. The atmosphere around the man-made reservoir Caxitoré is spirited, everyone is busy. Food is being prepared, buses are traveling back and forth, last-minute preparations are in hand. Men and women fishers from the seven villages around Caxitoré are to take



Good-sized tucunaré and Nile tilapia from Caxitoré reservoir.

part in a fisheries congress. Its objective? To develop a participatory management system for "their" fishery. The outcome is still questionable: can some 200 fishers, all of them individuals to the core, get together and draw up management rules for the resource? The key is consensus, compromise and cooperation.

The moderator of the congress is an experienced extension officer. It is thanks to his groundwork that the fishers have reached this stage. The program was initiated in 1989 and culminated in three months intensive lobbying. Initially, courses to strengthen management capabilities were

given to community leaders, while some 30 teachers and 110 fishers took part in two-day environmental awareness programs.

It was during the latter that the idea of a communal management system was first mooted. Participants identified 13 problem areas, e.g., capture of fish during their spawning migration, use of fine-mesh gillnets, unclear land distribution rights, and the need of fishers to participate in community meetings where they could present their ideas and possible solutions. As the word spread and the process snowballed, even more persons



Fishers take a vote on a proposed law.

participated. To assist the process, community leaders were given special training in the moderation of meetings to maximize their impact. During these meetings, the leaders were given responsibility for bringing to paper the fishery management recommendations drawn up by the group. Fishers came together for meetings, week after week, before each community finally could draw up, in consensus, their management proposals. During this period, three groups emerged, formed around the strongest community leaders. These groups decided to address four problem areas for which solutions existed, to avoid the pitfall of discussing everything and deciding nothing.

And now the day is at hand. Fishers stream from all directions towards meeting points from where buses take them to "school", the congress venue. It is to begin at 0800, but the sheer numbers overwhelm the volunteer helpers registering the participants, who are to sign the management proposals they will draw up today. Shortly before nine it can begin. More than three-quarters of all fishers are present, 149 persons in total. In addition, senior officials from six government institutions, journalists, a television crew and other interested parties have come.



A community leader explains a point to the assembled fishers.

The air is one of expectation as the meeting opens, but soon the atmosphere becomes charged as each group presents its proposals and the fishers begin discussing in earnest the merits and flaws of each proposal. The four points of discussion are:

- 1) a ban on fishing during the annual spawning run;
- 2) the prohibition of small-mesh nets;
- 3) the delineation of protected areas where fishing is to be prohibited; and
- 4) the control of fishing pressure on freshwater prawn stocks that fishers believe to be vulnerable.

Each theme is discussed in turn. Participants don't hesitate to use harsh language, and the moderator has his job cut out just trying to keep a semblance of order. And yet, the fishers usually advance well thought-out suggestions and

comments; their professionalism is encouraging. The role of the moderator is critical in this phase as he/she must ensure that all must be able to air their views, without being overridden by more powerful speakers. The "rules" that were voted on and accepted by all at the beginning of the meeting are the backbone of this process: each person has up to 3 minutes to present his case without disturbance and anyone who breaks this rule too often is asked to leave. Just the threat proves to be sufficient to maintain order and it takes less than an hour in each case for everyone to be satisfied that everything necessary has been said. Then the various suggested management options are explained in simple, local language by the moderator and a vote is taken.

In three cases, the fishers reach agreement with overwhelming majorities on what management options are to be implemented, but in the fourth concerning overfishing of prawns, a consensus cannot be reached. It is decided to leave it at that for the time being. Informal discussions continue during the lunch break while group leaders write up the final document outlining the conclusions. This will be presented in the afternoon, when three government Heads of Departments will attend the closing ceremony. The document lays out that:

- 1) fishing is to be prohibited for 15 days after the beginning of the spawning run (community leaders and elder fishers will announce this);
- 2) three bays will be set aside as protected areas (+4% of the total reservoir area of 2,260 ha); and
- 3) nets of <9 cm stretch mesh are to be

banned between January and June, the growout period of several vulnerable fish species (interestingly, participants did not consider either Nile tilapia (*Oreochromis niloticus*) or tucunaré (*Cichla monoculus*) to be at risk, as they breed throughout the year).

The presentation of these "laws" is eagerly awaited and the change in atmosphere is palpable. Everyone is lighthearted. Children play noisily, now no one reminds them to be silent. Now the three

tory: they have come together and drawn up fishery regulations in consensus to be implemented by and for their communities without the need for active participation of the government in the implementation of regulations.

And what lessons can be drawn? First, experience elsewhere has been confirmed that a dedicated extension worker must live in the field for long periods to be accepted by the communities before being able to help them organize and manage themselves. Second, training is an

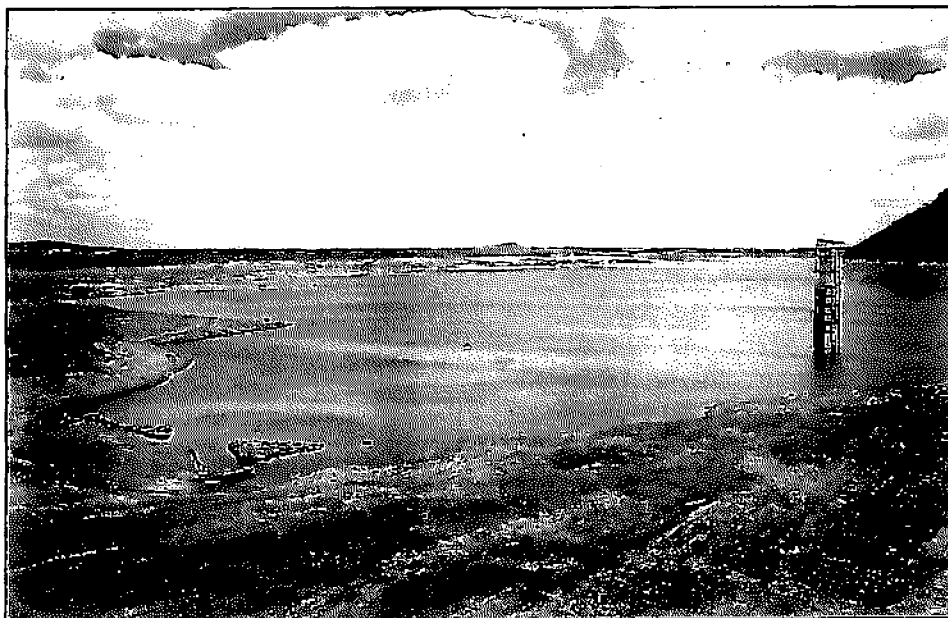
essential part of the process. Thus, environmental awareness courses helped participants to visualize the important effects of interactions between animals and plants, which led to an understanding of the need for a certain level of environmental protection to sustain production levels. Similarly, fishers and community leaders also require training in organization and management of associations and in moderation techniques, in order to implement communal activities successfully. Third, poor communities in many developing countries have a strongly developed feudalistic mentality, whereby they wait for the authorities to solve their difficulties. Donor organizations have, in the past, often strengthened this characteristic through gifts (a school, nets, a well, etc.) without realizing that people must learn to take responsibility for solving

their own problems. Systems such as rotating funds, access to credit for people with no security and the development of community associations are all examples of how communities can learn to help themselves. Fourth, it is not always possible to achieve a consensus. This is possibly due to a lack of information which signals one direction that future government intervention could take: officials and scientists must supply the hard facts needed to convince skeptics. Lastly, work of this type must be implemented in the long term, i.e., 6-8 years minimum. If not, community leaders are unlikely to have developed the necessary skills to continue the processes initiated by the project.

It is thus important for all participants to realize that this is only a first step on a long and rocky road to better management of the resource and optimization of fish production. For Caxitoré, fishers have decided to set up a community association. Initially it will administer a licensing system that is to be open to all comers at first. Month- and day-licenses are in discussion. The proceeds will be used to finance one or two fisheries guards and their equipment, who will monitor the "laws". Later, the association could take over responsibility for general community development, acting as the official go-between for villagers and authorities. In 1995 a second congress is to be held to highlight progress and problems. Fishers will then need once again to define solutions to their own problems. In the long run, communal management is the only answer—the government neither has the resources nor the will to do more than offer basic support.



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Lack of water in the dry season leads to dramatic reductions in water volumes of reservoirs.

Brazilian Department heads address the crowd. Two praise the fishers for their initiative in coming together to draw up a set of management regulations for their fishery. It is apparent that they are impressed. The remaining official, however, tells the assemblage that his Department has spent 30 years setting up relevant fishery laws, so today's proposal is non-binding and essentially illegal. He has apparently heard nothing of the worldwide trend towards bottom-up planning, participatory fisheries management or group dynamics. But, the fishers and official participants take his words with a pinch of salt: his staff has never regulated anything in those three decades.

The day draws to a close, everyone leaves for the nearest village bar or their homes. The discussion will continue, but today the fishers have made minor his-

essential part of the process. Thus, environmental awareness courses helped participants to visualize the important effects of interactions between animals and plants, which led to an understanding of the need for a certain level of environmental protection to sustain production levels. Similarly, fishers and community leaders also require training in organization and management of associations and in moderation techniques, in order to implement communal activities successfully. Third, poor communities in many developing countries have a strongly developed feudalistic mentality, whereby they wait for the authorities to solve their difficulties. Donor organizations have, in the past, often strengthened this characteristic through gifts (a school, nets, a well, etc.) without realizing that people must learn to take responsibility for solving