Self-Regulation by Artisanal Fishermen in the Caribbean

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The commercial fisheries of the Virgin Islands are being managed through an unusual partnership arrangement with the people most intimately concerned with the success or failure of management regimes. This system can be described as self-regulation. This paper describes how it evolved, and how it works.

THE BACKGROUND

When I became director of the Fish and Wildlife Division almost a year and a half ago, I realized almost instantly that the trap fisheries were in trouble. The CPUE was declining, the fish being caught were, for the most part, younger juveniles, and a major species substitution had occurred. Where snappers and groupers once dominated the catch, the fishery in mid-1987 was based largely on parrot fish and other herbivores.

Many fishermen knew they were in trouble. However, the general perception of some fishermen and the average consumer, who distinguishes only between boil fish and fry fish, was that the species mix and the declining size of individual specimens in the catch made little difference. Island people are used to, and easily accept, the vagaries of the weather and other natural phenomena.

The most powerful ally a resource manager can have, in addition to a sympathetic and understanding supervisor, is an informed and concerned public. Realizing that the general public attitude concerning the commercial fisheries was one of complacency—this attitude naturally shared by the political decision makers – we decided to organize a major fisheries conference for the purpose of bringing together scientists, fishermen, politicians, consumers, and resource managers, to inform the public concerning the problems in our local reef fisheries. We titled this conference "Fisheries in Crisis."

I gave a brief report on that Conference at the GCFI meeting in Caracou. But last November, I could not have predicted what was to happen in the next 12 months.

My first approach following the Conference was the traditional one. I presented fishermen's groups with a proposed schedule of events which I believed would stabilize; and, hopefully, reverse the downward trend in the fishery.

That was a mistake. In meeting after meeting, I was shot down in flames. I can recall one meeting on St. Croix attended not only by twenty-five or thirty fishermen, but four senators who were either attracted by the smell of blood or

who simply had come to enjoy the fun. A fisherman from the audience was shouting his defiance and one of the senators who was sitting almost directly behind me, murmured, "I can stop anything you try to do," he said.

It was at that point that I began to use my head and my experience instead of my training.

THE FISHERMEN

The commercial fishermen in the U.S. Virgin Islands have a variety of ethnic origins, but they share important similarities. Most of them, or their parents or grandparents, appear to have come rather lately to the Virgin Islands, and do not seem to have become assimilated to any appreciable degree. In addition to the Acadian French culture and language, one encounters the almost Scottish accents native to Montserrat, and the Hispanic accents of Puerto Rico. The constituency, in other words, is both diverse and quite insular, but with strongly shared values and attitudes.

First of all, they are fishermen. That simple statement implies a number of important characteristics. Except for their families and other fishermen, they lead independent, isolated lives, working when most men are sleeping, following on their own schedule, a dangerous trade which is back-breakingly hard work. They do it proudly, and with great self-reliance. They resent outside influences. Whether they come from New England, Chesapeake Bay, Alaska, or St. Thomas, they are highly competitive, aggressive, largely self-educated, and tend to regard the larger land-bound society with uneasy suspicion.

Independent, insular, clannish. These are the adjectives which best describe commercial fishermen everywhere. Our fishermen are no different. They also tend to be strong family men, and fishing, for them, is an inherited occupation.

It is impossible to know this, but I would guess that most – perhaps the great majority – of commercial fishermen in the United States are the children of commercial fishermen. I suspect this may be a universal pattern. The reason is not far to seek.

Many commercial fisheries are at least as lucrative today as they have ever been, and some are infinitely richer. Fishermen, understandably, tend to be as reticent on the subject of income, as they are about favored locations or successful fishing strategies. This reticence, combined with the frequently scruffy appearance of busy fishing boats has led to a general public perception of commercial fishing as a low paid, brutal and dangerous occupation. Naturally, the fisherman does nothing to correct that impression. Indeed, he capitalizes on it as a way, for one thing, of keeping the tax collector at arms' length.

As for the income, the public perception is quite wrong. There is no other honest occupation I can think of where a grammar school graduate can reasonably aspire to a six-digit income before he is 30 years old. Unfortunately, that is not the case in the Virgin Island trap fishery, but in some other American

fisheries, it is. Even here, however, five-digit incomes probably are not unusual. Commercial fishing is a highly competitive business. Some businessmen are more successful than others, and the accolade of "high boat," or its equivalent, is a coveted distinction among fishermen.

We live in such a refined age that any occupation which converts live animals into food is considered brutal. The word "brutal" implies insensitivity. In that context, the public perception is quite wrong. Like all of us, fishermen have their blind spots, but few of them want to commit economic suicide by killing the proverbial goose, although they sometimes act as if they did. Hunting wild animals as a business is atavistic, and the men and women who follow this calling may respond to certain stimuli, such as an unexpected abundance of fish, in ways resource managers might consider wholly inappropriate.

In general, however, they, like other professionals, are keen and perceptive observers of the elements involved in their craft. Their living depends on it. Fishermen, in other words, have an even greater incentive than most of us to foster, protect, and conserve, although the "commons" system under which most of them work discourages such forward looking impulses. The "self-regulation" fisheries management system described in this paper is based on a shared recognition of the need to foster, protect, and conserve.

COMMUNICATION

Forty years ago, when I was a young fisherman in Alaska, I bitterly resented the fact that my ideas for managing the salmon fisheries were ignored or ridiculed because I was not a biologist. I still remember my feelings of frustration and anger as, at hearing after hearing, I tried to convey the idea that it was my livelihood at stake, and they joked about my suggestions for improving the fisheries.

Fishermen have something to say, and it behooves us to listen. Most people equate hearing with listening, but they are not at all the same thing. Hearing is a physical phenomena. Successful listening requires skill, patience, and an honest desire to learn. Unfortunately, people trained in the physical sciences seem not to listen very well, but it is from their ranks that resource managers are recruited.

Listening is one aspect of a much broader skill called "communication." In 1964, the late Dr. Eric Berne wrote a little book entitled *Games People Play*. It was out of print for several years, but is currently available in its 28th printing.

Dr. Berne explained why feelings of frustration and anger often accompanied innocent seeming bipartite conservations. He coined the phrase "transactional analysis" to describe these events. He is worth reading, because nothing is more basic to the resource manager's trade than the ability to communicate.

He saw three possible levels of interaction. He termed those levels "child," "parent," and "adult." The most productive interaction occurs when both

participants are functioning at the "adult" level. The least productive, when both participants are behaving like children. The most mischievous interaction occurs when one participant adopts the parental role, thus compelling the other to respond as a child.

That appears to be the way many managers regard fishermen. I can only speculate why that attitude should exist, but I would guess it derives from several factors operating at the subconscious level. Those factors probably include such things as educational differences, perceived differences in social status, and of course, fear and misunderstanding. Not exactly an ideal setting for sensitive and thoughtful listening. As Dr. Berne suggests, fishermen in that situation may have little choice about their reaction.

FISHERMAN'S COMMITTEE OF OVERSEERS

Dr. Berne would have characterized that St. Croix meeting as a classic example of a game of "Uproar." While the defiant fishermen continued to shout and wave his fists, I realized that I was facing a peculiar situation. Even though a comprehensive commercial fisheries statute had been on the books for fifteen years, it had never been seriously enforced. The fishermen obviously hoped that by intimidating me, they might prevent unwanted change, which they probably translated into enforcement of the pre-existing statute. Fishermen are very conservative.

It was at a fishermen's meeting on St. Thomas, immediately after the one in St. Croix that I impulsively asked the fishermen in the audience to select twelve people to serve on the Committee of Overseers.

Consider the usual physical arrangement where a typical public official meets with fishermen. Almost invariably, the official is elevated. He is standing on a stage, often protected by a podium. This is a dominant posture, classic for the parent or teacher in a parent-child transaction.

Compare that picture with thirteen partners sitting at a long table making shared resource management recommendations to the Governor.

I was entirely candid with the twelve members at our first meeting. I told them I realized that since they obviously had the political ability to veto any management proposal I might put forward, it would be far more efficient if we, jointly, made management proposals to the Governor. I was influenced both by the practical political considerations, and also by a life-long conviction that given the opportunity, rational people will generally make rational decisions. A rational decision concerning resource utilization is that decision which will maximize long-term objectives. When a regulatory proposal had been prepared, I promised the Committee that I would do my best to steer it to the Governor's desk, hopefully for his approval.

All thirteen of us on the Committee would be entitled to votes of equal weight.

Obviously, checks and balances had to be built in. For one thing, there was a major educational component involved. I had a great deal to learn about the way tropical trap fisheries are conducted, while they needed to find out more about the reef communities and species interactions. While I was discovering how to avoid re-igniting World War II, they were learning how many years it takes a Queen conch to become sexually mature.

Last December, the Governor signed into law a set of regulations for Queen conch and whelk for St. Thomas/St. John. These regulations closed the Queen conch fishery to all harvesting for a period of five years, and imposed an annual six-month closure and minimum size limit for whelk.

Last May, he signed quite a different set of regulations for Queen conch on St. Croix at the request of the St. Croix Fishermen's Committee of Overseers. Those regulations are summarized in Appendix II, and may be compared with the St. Thomas regulations in Appendix I. The St. Croix Committee also advocated identical whelk regulations as St. Thomas.

ECONOMIC MANAGEMENT

There is another element involved here. Resource management is, or ought to be holistic. Managers must be alert to the economic and social consequences of their actions, and where possible, balance negative actions with positive ones.

The first of these is an immediate "pay-off." We are actively pursuing two enhancement projects at very small cost. The lobster project was recommended by the Committee, and Committee members have donated gravid females for the study. We hope that the project will succeed. If it does, we will have accomplished something very worth while. Even if we are disappointed, however, nothing will have been lost. We'll try it again next year.

The second involves long-range planning, and quickly moves us away from the concept of management for biological objectives into the more subtle and controversial arena of economic objectives. This is the basic distinction between maximum sustainable yield (MSY) which is purely biological, and the optimum yield (OY) of the Magnuson Act.

Economists have worried for years about the "welfare" costs in our marginal fisheries. It is true, not every fisherman earns a five-digit annual income. Indeed, in our local fishery, as in most small-boat fisheries, 15% of the fishermen probably catch 85 of the fish. The reverse of that, of course, is that 85% of the fishermen are dividing 15% of the catch. This means that a lot of fishermen have three and four digit incomes, but we must remember that most of those fishermen are operating on a part-time basis. Nevertheless, I believe today's resource manager has an obligation to strive for economic as well as biological objectives. At the very least, he must be sensitive to the economic implications of his actions.

What happens when the St. Thomas Queen conch season reopens at the end

of 1992? Are we going to allow a conch stampede? What will the economic value of this resource be in four year's time? What sort of economic rent ought to be extracted from it? Or should we try for a trade-off, in effect exchanging access to the conch fishery for a reduced level of effort–perhaps an area closure – in the trap fishery? The possibilities are endless.

These are the kinds of questions the Committee will be discussing in future months, while digesting the work of the past ten months or so.

APPENDIX I

1. Closed the Queen conch (*Strombus gigas*) fishery for five years;*
2. Imposed a minimum size (70mm) and a six month closed season on whelk, (*Cittarium pica*)**
3. Proposed prohibition on seines with meshes smaller (stretch measure) than 1 1/4";
4. Proposed prohibition against wanton waste of bait or food fish;
5. Proposed prohibition against the export of baitfish;
6. Proposed closing a Red hind spawning reef during Jan, Feb, Mar;
7. Proposed prohibiting the possession of Nassau grouper during same period (partially implementing Reef Fish FMP), and, illegal possession of undersized whelk.

* On October 8, 1988, six men were arrested for illegal possession of 364 Queen conch.

** On October 16, 1988, three men were cited for possession of illegal whelk, and were released on their own recognizance.

Three additional men were arrested on October 30, 1988 for illegal possession of undersized whelk.

APPENDIX II

The St. Croix Committee has been equally industrious. That Committee has:

1. Imposed a three month closure on Queen conch (July, Aug. and Sept.) in each successive year;
2. Established a 9" minimum size limit for Queen conch;
3. Imposed a six-Queen conch bag limit for personal use;
4. Restricted the sale of undersized Queen conch shell in souvenir shops; and,
5. Adopted same protection for whelk as St. Thomas.