

ARTISANAL FISHING IN BRAZIL

*Eduardo Schiavone Cardoso
Antonio Carlos Sant'ana Diegues*

Brazil's catch during the 1980s was between 800,000 and 900,000 metric tons a year, according to official statistics. At least half of it was taken by small scale fishermen, for both subsistence and small commercial production (table 1).

In 1988 (IBGE, 1989), some 625,000 metric tons were recorded. Of the total catch, artisanal fishermen caught approximately 25% in the southeastern-southern region (around 118,000 metric tons), 85% in the northeastern region (94,000 metric tons), and a bit more than 85% in the northern region (37,000 metric tons). Artisanal fishermen took close to 92.8% of the recorded catch in inland waters (190,000 metric tons; see map 1). The criterion for distinguishing artisanal from industrial fishing in the official statistics is the tonnage of the vessels: up to 20 tons of gross tonnage is artisanal, above that, industrial.

The main resources exploited by maritime artisanal fishermen are estuarine species such as mullets, catfish, white mullets, some species of shrimp as well as crabs and mollusks. The coastal stocks most caught by these fishermen are species like sardines, sea bass, swordfish, hake and sharks, as well as species associated with rocky bottoms, such as lobsters, porgies, groupers and red groups, among others.

Fishing methods include long-lines, driftnets, circular nets, wicker traps, small nets pulled in from the beach and fixed traps such as corrals and circles. A variety of vessels are used: canoes, skiffs, whaleboats and catamarans, among others. Resources exploited, as well as the methods and type of vessel used, vary significantly from region to region, given the length of the Brazilian coast, the physiological differentiation of the shore, the unequal distribution of resources and distinct coastal and marine ecosystems.

The National Confederation of Fishermen estimated in 1986 that there were close to 553,000 artisanal fishermen (see table 2). In some areas of the country, artisanal fishing is the main activity of innumerable communities with an invaluable cultural heritage. The coastal populations of Amazonia, the Caipiras and Azorians of the southeastern and southern part of the country, and the catamaran sailors and collectors of the northeast are some examples of the tremendous

cultural diversity that exists among Brazilian artisanal fishermen. These cultures possess knowledge extremely important for the preservation of the environment, the adoption of technology and the sustainable management of natural resources.

However, a series of factors are having a negative impact on artisanal fishing. In general, the development model put into effect by the Brazilian government, based on the concentration of wealth, leads to greater exploitation of artisanal fishermen, both on land and at sea.

The advance of speculative building on the sea shore, serious conflicts over land throughout the whole country, the establishment of industrial complexes (petrochemicals, mining and metallurgical, et al.) alongside of highly productive eco-systems, the expansion of coastal cities and tourist centers, and the increasing deterioration of water resources through urban, mining, agricultural and industrial pollution are problems found along the whole coast and factors that ruin artisanal fishing.

For example, some areas like the estuary of *the Santos-Cubatao* (Sao Paulo), the bays of Guanabara (Rio de Janeiro) and Todos os Santos (BA) and lakes like Lagoa dos Patos (Rio Grande do Sul) and Mundaii-Manguaba (AL) are already extensively polluted, causing a loss of quality in the fish taken and in some cases a reduction of the standing stocks exploited, and forcing the artisanal fisherman to diversify his activities, establish new survival strategies, or, in certain cases abandon fishing altogether.

The Brazilian development model in general excludes large sections of Brazilian society, including artisanal fishermen. The government's fishery policies do the same thing.

The creation of SUDEPE (Office of Fishers Development) in 1962 and the policy in effect since 1967 to give tax incentives to industrial fishing companies (Statutory Decree 221167) led to an unprecedented increase of capital formation in the industrial fishing sector.

An increase in the number of vessels and processing units has put more pressure on the stocks harvested

by the fishing industry and created serious conflicts between artisanal and industrial fishermen. The invasion of areas traditionally fished by artisanal fishermen, the deterioration of the environment produced by the use of predatory fishing methods and the destruction of artisanal vessels and fishing apparatuses are some examples of the conflicts produced by the uncontrolled amplification and modernization of the industrial fishing sector.

At the same time, there is some integration between the two subsectors where artisanal fishermen reinforce the labour force (including with their fishing know-how) in the fishing industry, and when they sell part of their catch to processing plants, which is then included in the statistics for the industrial sector.

The artisanal fishermen of Brazil face still another kind of problem in connection with the organizations that represent them. Created by the government between 1919 and 1923, the organizations that represent artisanal fishermen consist of fishermen's colonies at the local level, federations at the state level and a confederation at the national level. Given the paternalism and authoritarianism that has been characteristic of these organizations from the very beginning, most of the movements of artisanal fishermen operated and still operate outside the sphere of the official system of representation.

The early 1980s saw the first struggles by authentic representatives to take over the colonies and turn them

into organizations for the defense of artisanal fishermen. The movement of fishermen in connection with the drawing up of the new Constitution also began in the 1980s, when artisanal fishermen organized themselves to have their rights guaranteed by the Constitution of 1988.

The agencies that support fishermen were important in this process, especially the Pastoral Council of Fishermen, which began its activities during the 1970s.

The continuation of these struggles of artisanal fishermen up to the end of the constituent process which finally guaranteed the right of free association, and the granting to fishermen's colonies the same rights as those enjoyed by urban trade unions, among other conquests, were carried out in different ways. On the one hand, there was the discussion of the question concerning which kind of organization provided better representation, colonies or trade unions. On the other hand, there was the struggle to extend the advances of the new Constitution to the whole system of representation, including the federations and the confederation. And finally, along with the other struggles of fishermen, the movement still continues to democratize the colonies and federations that are still in the hands of non-fishermen.

It was in this context that MONAPE was born in 1988 - the National Movement of Fishermen-whose first steps were to spread and strengthen the movement of artisanal fishermen at the national level.

Table 1
OUTPUT SHARE OF THE ARTISANAL AND INDUSTRIAL SYSTEMS
BRAZIL, 1980-1988
(thousands of metric tons)

Year	Total Output	Artisanal	%	Industrial	%
1980	822,677	404,287	49.1	418,395	50.9
1981	833,164	427,621	51.3	405,543	48.7
1982	833,933	445,533	53.4	388,401	46.6
1983	880,696	451,571	51.3	429,126	48.7
1984	958,908	467,754	48.8	491,153	51.2
1985	971,537	491,891	50.6	479,647	49.4
1986	941,712	460,729	48.9	480,984	51.1
1987	934,408	472,186	50.5	462,224	49.5
1988	829,491	439,764	53.0	389,727	47.0

Source: IBGE, Anuario Estatístico do Brasil, 1988 and 1989, Estatísticas da Pesca, 1988, vols I and II

SUPPORTING THE ICSF'S PROPOSALS

Development policies in Brazil have traditionally not respected nature, despite extensive legislation guaranteeing the preservation of the environment. This development brought a "progress" that victimized the majority of the population to the benefit of a privileged minority.

Given the serious environmental violence endured by fishermen (oil refineries, paperboard and alcohol factories, chemical pollution, toxic agricultural run-offs, dams, real estate speculation, clearing of mangroves, predatory fishing, etc.), the survival of artisanal fishing as a food producer is in danger.

Despite this situation, fishermen are not passive in the face of these injustices. They are mobilizing at the municipal, state and national level, promoting the proposals adopted at the National Meeting of Fishermen on the Environment, held 1-4 August 1990 and the Fifth National Meeting of Fishermen, held 23-27 October 1991.

In addition to environmental degradation, the Brazilian government favours entrepreneurial and industrial fishing to the detriment of artisanal fishing. Also, because no area is reserved for artisanal fishing, artisanal fishermen have to compete for fishing grounds with industrial boats of large companies.

Brazil's artisanal fishermen, in their Fifth National Meeting, adopted and assumed the "Charter of Basic Rights of the Artisanal Fishermen of the World", and also decided to send to the International Collective in Support of Fishworkers proposals for the document of the ICSF.

MONAPE, as a leader in the movement of artisanal fishermen, fully accepts the proposals of ICSF to be presented to the United Nations Conference on the Environment and Development, understanding them to synthesize the concerns of the world's artisanal fishermen, and therefore a significant contribution to the movement in Brazil.

National Movement of Fishermen MONAPE

The fishermen of Chile, represented by the National Confederation of Artisanal Fishermen of Chile (CONAPACH), express with this letter our support for this initiative and our hope that the heads of state adopt the proposals made by the working commissions for the defence of the rights of fishermen, especially the

right to a clean environment and just treatment.

The National Council of Artisanal Fishermen of Chile was founded in 1986. This Council supported efforts to organize at the local and regional level. It held three national conventions in four years, more than 10 regional meetings and conventions, attended international meetings and scientific events. CEDIPAC was founded in 1988 as a technical body and has carried out training courses for leaders, seminars and development projects. It has published eight issues of *La Caleta*, a CONAPACH's publication. At this time, CONAPACH is constituted as a National to the Artisanal Fishermen of Chile since 9 August 1990, it is comprised of 12 federations and more than 125 grassroots organizations. Its headquarters is located in Valparaiso.

The main conclusions of the three conventions held between 1986 and 1989 center on the following points:

- We request that organized fishermen be allowed to participate in decisions that affect their working conditions, especially the fisheries law, determination of seasons and prohibitions to fish certain species, credits and other problems.
- We ask the state to assume a subsidiary role in problems of retirement and social security. For this purpose, we postulate the need for a tax on fish exports. We propose that a social security system be established shortly, based on internal saving and payments by welfare departments of organizations for health care and pensions.
- We petition that systems be established to market at the national level and export, credits provided to improve the, infrastructure of the artisanal fleet, set up a network of refrigeration facilities, and provide support to transport products in good condition to local markets and export points.
- We seek to consolidate systems to train fishermen in business practices, especially the leaders, so that they can deal with marketing, organizing cooperatives, credits and institutional relations.
- We also agreed to establish a broad network of national and international institutional relations, especially with other like-minded organizations of fishermen, in order to fight to defend resources, establish commercial and technical links and broaden the social bases of a Latin American and international movement of fishermen.

Regional organizations, for their part, have set up trade unions, local or regional councils and, later on, trade union federations. These have actively participated in the formation of a national confederation, in national conventions, training courses organized by CEDIPAC and in distributing the review La Caleta.

Some development projects have also been launched, either for marketing, self-financing through aquaculture, or local projects for women's organizations, radio communications, services for the aged, marine products processing centers, trade union headquarters, etc. CONAPACH has contributed to these programs by submitting the projects for funding, training leaders, intervening on their behalf with authorities, and to other development activities and the defence of fishermen in parliament, especially when the fisheries law was being drafted. I would like to give a detailed account of our experience with this last point.

Fishing was opened to everyone during the last century, as a means to promote trade and shipping and regulated in 1819. In 1832 fish products were declared duty free as either imports or exports. In 1855 the Civil Code established that only Chileans and resident foreigners could fish in territorial waters. In 1931 a decree was issued regulating fishing activities. It was in effect up till 1991. 1952 was the year of the Declaration of Santiago, in which the governments of Chile, Peru and Ecuador established that their sovereignty extended up to 200 nautical miles from their respective coasts. This gave rise to new regulations in the form of decrees, but without a definitive legal codification.

The application of a free-market economic policy brought with it a series of pressures to eliminate legal barriers, quotas and restrictions on fishing in general. A new decree was made in 1980 eliminating these obstacles, immediately setting off a race to exploit Chile's marine resources, and in some cases even leading to overinvestment in equipment in some fisheries.

The United Nations Convention for the Law of the Sea established the exclusive economic zone in 1982, and stated the rights and obligations of coastal states, especially for the management of the ocean's live resources. In 1986, law 18565 established a territorial sea of 12 miles, a control zone of 24 miles and an exclusive economic zone of 200 miles.

We artisanal fishermen have benefitted from a series of legal provisions, such as duty-free imports of fishing equipment, exemption from income tax, a reserved zone one mile from the coast, etc.

The modernization of Chilean fisheries called for a new harmonized legal code. For this reason, in 1988 an initiative of the military government, elaborated by the Ministry of Finance, launched a heated discussion. The proposal attempted to establish a broad freedom of

access to marine resources for both Chileans and foreign investors in Chile. Special regulations were to be established for fully exploited fisheries by assigning definitive individual quotas to the enterprises that had worked in the zone during the last three years. Artisanal fishermen were completely ignored, treating them as small shipowners. Aquaculture concessions were to be sold to the highest bidder. And no incentives were to be provided for the development of artisanal fishing or research.

From January 1989 onwards, numerous actions were undertaken throughout the whole country to express disagreement with this draft law. Entrepreneurs, academics and workers spoke out in forums, seminars, radio programs and periodicals. They rejected completely free access for foreign fleets. Different ways of exerting pressure were used. We artisanal fishermen went on strike on numerous occasions, to protest against the military government's law. The military junta, with the support of the Chilean Navy, modified some of the concepts concerning artisanal fishing, granting it a reserved zone of five miles, but keeping the general concept of practically complete freedom of access. The law was passed at the end of 1989, to go into effect 11 April 1990.

On 11 March of that year, to our good fortune, Chile returned to democracy and Patricio Aylwin became President. Congress suspended the law and began a long process of reformulating and changing the text proposed by the military junta. The National Fisheries Council was established and we artisanal fishermen were invited to participate in that body. The House of Representatives adopted the text with a series of modifications, but the Senate changed many of the provisions in response to the interests of a few large companies. Numerous negotiations were needed to finally obtain a definitive text which was signed by the President on 28 September 1991 in a solemn ceremony held in Caleta Portales in Valparaíso.

What are the results and benefits that we fishermen have obtained with this law?

- The most important is the participation in the national, zonal and regional fishery councils, to which our organizations can send their representatives. The councils will take decisions with respect to regulations, prohibitions to harvest certain species, managerial systems, etc
- A zone five miles from the coast is reserved for artisanal fishing and closed to industrial fleets, giving artisanal fishermen preference to develop their activities.
- The Artisanal Fisheries Development Fund is created with resources from licenses and fines under this law. This fund will finance infrastructure, catches,

processing and marketing. The administrative council of the fund will be comprised of three representatives from organizations of artisanal fishermen. The law also calls for a special fund to promote research on fisheries.

- Organizations will have exclusive management of areas with benthic resources, as a first step to obtaining aquaculture concessions. This creates an alternative to the exhaustion of certain resources.
- Artisanal fishermen will have to register in their regions and will not be allowed to work in other regions, except in certain cases involving migratory species or benthic fisheries in adjoining regions. Each fisherman will only be allowed to own two boats with a maximum gross registry of 50 metric tons.

We fishermen can fight for our rights at higher legal levels. We should have confidence that we will achieve our goals to the extent that the members of our organizations actively participate. We face many challenges, especially the internationalization of fisheries and the aggressiveness of the industrialized countries that have exhausted their own resources and are looking for new fishing grounds along our coasts, taking advantage of their technological superiority. We need training, ways to educate our leaders so that they can correctly orient our actions in benefit of the organizations' interests and not those of individuals. We are fighting for social change. That means we constantly have to make sacrifices, affecting even our families, for our organizations.

Each goal implies new responsibilities and obliges us to continuously assume new administrative tasks in our reserved zone, aquaculture concessions, new processing and marketing enterprises and intelligent participation in the fisheries councils. In order to do so, we should seek of our own or supporting technical bodies

But we fishermen need a general framework in which we can fight for our rights:

- Recognition of a coastal zone with access reserved exclusively for artisanal fishermen who live on the coast, especially indigenous communities who have lived and worked certain coasts since time immemorial.
- The right for representatives of fishermen to participate in decision-making and planning bodies, especially those that regulate the sector.
- The right to a clean and unpolluted environment, to protect the source of life and work.
- The right of women to participate freely and be respected in the professional and social activities of artisanal fishing.

- Access for fishermen and their communities to benefits like credit, housing, health care and education. The state and civil organizations should contribute to these benefits and constantly collaborate with the organizations and their communities, without the paternalism that characterizes many public and private projects.

Fraternally,

National Confederation of Artisanal Fishworkers of Chile, CONAPACH

Norges Kystfiskarlag (Norwegian Coastal Fishermen's Union) hereby expresses its support for the proposals listed in your letter and shares the hope that these proposals will be included in the Final Declaration. We will also notify the Norwegian government and the Norwegian delegation to the UNCED on your intention, and ask for their support.

Norges Kystfiskarlag is a young organization, founded by small scale fishermen who felt that the old organization, Norges Fiskarlag (Norwegian Fisheries Union), being a federation of several organization representing small-scale as well as industrialized fisheries, had become merely a spokesman for the pursuing industrialized fishing fleet, pursuing totally different goal that those of small-scale fishermen and small fisheries-based communities.

Norway is a unique country, blessed with a long coastline and access to rich fish resources. Unfortunately, many of the species making up the economic base for coastal fisheries such as the North Atlantic Cod, are highly migratory species.

Every winter and early spring the spawning stock of this cod migrates from its feeding and nursing area in the Barent Sea to the coast of North Norway, where it is harvested by coastal fishermen in what traditionally has been known as the world's richest cod fisheries. During summer, there is another migration of adult fish to the coast, feeding on spawning caplin. These coastal fisheries are carried out with passive and selective fishing gears, aimed at harvesting the stock in the ecologically as well as bio-economically best possible way.

While still nursing in the Barent Sea, the juvenile fish is however subject to heavy overfishing by Norwegian, Russian and other European trawlers, consequently reducing the migrating stock and thereby the income-earning possibilities of small-scale fishermen. Due to this situation, every fishing vessel has been given strictly limited fishing quotas.

As a result, large parts of the Norwegian coast are on the brink of collapsing economically. As we understood the situation, the Norwegian government is trying to reduce small-scale fisheries and small fishery-based communities by denying the fishing quotas high enough to enable them to sustain their way of life, while at the same time promoting big-scale industrial development.

The fishing fleet and industry of Norway is among the most advanced in the world, but the problems the fishworkers are facing are the same as in the rest of the world; money is moving in to make them their culture, their way of life and their communities of obsolete. In the process, fishworkers are made to live on social welfare, their communities are turned into ghost towns and their age old culture and craftsmanship are decaying because of lack of practice.

Given this background, we have made the demand for higher quotas for small-scale fishermen our first priority. This struggle is now at its peak, and we are witnessing how the different actors on the arena of Norwegian fisheries are grouping themselves into two opposing armies.

On the one hand we have the people who want to utilize their investment capital as the basis for future development. Here we find the owners of large vessels and industrial complexes, the major banks, supported by the Ministry of Fisheries, and as their spokesman; Norges Fiskarlag.

On the other hand are those who want employment, social and cultural values, and a sustainable resource management as a basis for future development. Among these are most of the fishworkers and members of small fishery-based communities. Although their struggle is supported from many quarters, Norges Kystfiskarlag is their only representative organization, fighting to defend their way of life.

As our goals and problems to a large extent are common, Norges Kystfiskarlag welcomes any opportunity to join forces with fellow fishworkers wherever they might be on this planet. We would also welcome the possibility of a closer cooperation with the ICSF in the future, because only in unity are we able to reach our goals.

With the best wishes for an ecologically stable future,
yours,

NORGES KYSTFISKARLAG

Maurice F. Strong
UNCED, Secretary-General

At the time of the FAO World Conference on Fisheries Management and Development, held in Rome in July 1984, some 100 representatives of artisanal fishermen's organizations and support organizations from 42 countries, mostly in Africa, Asia and Latin America, met in that same city to participate in an alternative conference of fish-workers.

In that meeting the fishermen asked the support organizations to help them strengthen the organization, education and development of fishing communities throughout the world, a task taken up since 1986 by the INTERNATIONAL COLLECTIVE IN SUPPORT OF FISHWORKERS (ICSF), a non-governmental organization, in which people from 17 countries participate in local educational and developmental activities in their communities.

Since 1986, ICSF has organized activities for dissemination, education and campaigns to defend the basic rights of fishermen, especially in Trivandrum (India, 1986), Dakar (Senegal, 1987), Valparaiso (Chile, 1988), Lisbon (Portugal, 1989), Bangkok (Thailand, 1990), Manila (Philippines, 1991), Paris (France, 1991) and Dakar (Senegal, 1991), in collaboration with professional and support organizations in each of the countries mentioned.

The impact of these actions has been different in each case. Generally speaking, they have raised the consciousness of fishermen and their communities about their basic rights and needs, especially the right to:

- an unpolluted environment, apt for the reproduction and development of the species and resources that provide them with life and work;
- participate actively in democratic decision-making in each of their countries;
- an exclusive zone for fishing and aquaculture and priority access to the coast and its resources;
- respect for their own traditions and customs, especially their way of relating to the environment;
- of women to participate in extraction and cultivation, and in organizations representing fishermen;
- participate in the benefits of modernization, especially for extracting, processing and marketing fishery products;
- social and job security.

Artisanal fishermen throughout the world expect decisive support from UNCED for their demands and the

satisfaction of their needs, especially in the form of a code of norms regulating sources of pollution, over-fishing and the exhaustion of aquatic resources, and agreements that provide resources for the definitive development of their communities, in which they wish to participate through their local and national organizations.

The members of the Animation Team and Board of Directors of ICSF are pleased to communicate this progress to you, grateful for the important task you are

undertaking for the protection of the environment and natural resources of our planet, and we express our support for the work of the United Nations Conference on the Environment and Development.

Be assured of our kindest regards,

INTERNATIONAL COLLECTIVE IN SUPPORT OF FISHWORKERS

PROPOSALS ADOPTED AT THE FIFTH MEETING OF MONAPE

Olinda, Brazil, 27 October 1991.

- That exclusive areas be established for artisanal fishing, as a way to guarantee the reproduction of species and the restoration of fish stocks.
- That the organization of artisanal fishermen, together with universities and government technical agents, regulate the use of these areas, and that they be managed by organizations of fishermen.
- That fishing seasons prohibitions for certain species be determined at the local and regional level on the basis of studies, with the participation of artisanal fishermen; that alternative activities be established for the off-season by new technicians, and that unemployment insurance be provided.
- That access to Navy land be guaranteed and ceded to artisanal fishermen; that they be given preference in obtaining jurisdiction over those lands, recognizing their social interest for effects of expropriation and establishment of groups of fishermen, through legal measures that guarantee the collective use of those areas.
- That a new fishery law be elaborated and environmental legislation reviewed, with special attention given to the state of the environment, fish species and artisanal fishermen.
- That the current concept of areas of environmental protection be revised to allow artisanal fishermen to use natural resources (land and aquatic), guaranteeing their historic right to remain in their traditional areas.
- That monitoring mechanisms effectively prevent the invasion of industrial fishing in our artisanal fishing areas, thus avoiding destruction of the environment and our work implements.
- In the face of innumerable problems (industrial pollution, land clearing, oil spills, among others it was proposed that:
 - That organizations of fishermen, along with other worker organizations, develop their own instruments and mechanisms to receive compensation from the government for the damage caused to the environment by companies that pollute, through:
 - o indemnization
 - o elimination of the source of pollution
 - cleaning up the affected area.
 - Social movements can:
 - o demand that the government enforce legislation
 - o file suit on behalf of those affected by pollution;
 - o when sources of pollution are installed, that organizations participate in the struggle to prevent or at least diminish the environmental impact;
 - That MONAPE develop channels of constant communication with the national movement of those affected by dams, to search for common strategies for dealing with the social and environmental impact of damming rivers and lakes;
 - That MONAPE maintain communication with groups working against nuclear energy, with a view to protect the lives of artisanal fishermen in the areas of risk;
 - That MONAPE encourage environmental education for its members, recovering the culture and history of fishermen, the ways in which fishermen relate to their environment, and developing exchanges with other organizations connected with education, the popular movement and the environment.

FROM SLAVERY TO CITIZENSHIP

Antonio Diegues and Luiz Silva

Artisanal fishermen, together with the *seringueiros* and those who live in the Amazon jungle, were one of the last social classes in Brazil who effectively won their citizenship. This conquest of citizen rights came late not only because of the geographic isolation of fishermen dispersed in small communities along the coastline, rivers and lakes, but mostly because of the structures of domination in which they lived.

Indeed, data from the colonial period seem to indicate that most fishing was done by slaves, who provided the *latifunda*, *haciendas* and large urban centres with fish, particularly in the northeast during the time when sugar cane was grown for export. Just like the slaves who worked the *latifunda*, the fishermen slaves were the merchandise and property of their masters. Their only right was to servile work.

Slavery ended in Brazil only at the end of last century, in 1888. In 1919, fishermen were linked, often by force, to the so-called "fishermen's colonies", created by the Navy to control those populations and convert them into "defenders of the Brazilian coast".

Colonial times

With the exception of whaling, fishing was mostly for subsistence, with whatever surplus there was being sold in towns and cities. In the south and south-east, fishing was often associated with subsistence areas of the economy that is, to those areas connected with the export-producing *latifunda*, mostly those producing sugar cane (Diegues, 1983). Many fishermen along the coast were also farmers. Several of these subsistence areas were had been previously involved in production for export. When one-crop, agriculture ended, these areas returned to multi-crop farming. This was the case on the southern coast of Sao Paulo; once they stopped growing rice, many small farmers turned to fishing (Diegues, 1973).

In the north-east, where slave-based agriculture predominated throughout the colonial period, fishing, done by slaves, was one of the activities of the *latifundum*. The main activities of this export-oriented slave social

formation in the north-east did not exclude other kinds of production for the domestic market. Fishing was one of the more important.

Thus, according to a Dutchman writing in 1630, there were 300 slaves in Olinda who worked exclusively as fishermen, when the population of that city was barely 4,800 (Silva, 1991). In 1864, towards the end of slavery in Brazil, of the 1991 fishermen registered with the port authority of Rio de Janeiro, 47% were slaves (report of the Maritime Ministry, 1854, annexes).

In 1836, the *Diario de Pernambuco* advertised for sale "a slave who can fish with a net from canoes; capable of all services". (*Diario de Pernambuco*, 18 April 1836).

During the last years of slavery, according to the census of 1872, there were fishermen in Brazil. In the provinces and the bays, according to the same census, there were 4662 fishermen (Silva, 1991).

All these people were part of the regional market for foodstuffs, and certain cities, like Recife, had a fish market from the seventeenth century (Silva, 1988).

These fishermen laid the bases for a maritime lifestyle and culture in Brazil: They comprised the group most clearly dedicated to struggling with the sea and as tasks.

Aware of this, the Brazilian Navy, in the middle of the nineteenth century, thought that fishermen could provide a naval reserve par excellence for the Navy.

Thus the first measures taken by the nation state with regards fishing was precisely to have all fishermen register by districts- This provided detailed knowledge of how many fishermen there were and where they were located, in order to recruit them for the Navy. Despite everything, the fishermen strongly resisted being recruited.

During the time of the Empire, fishermen did not register with the port authorities and fled from their districts. After the republic was inaugurated, several uprisings

of fishermen took place, such as those of Rio de Janeiro in 1903 and Ceara in 1904. Many died and even more were wounded. There was only one motive behind these uprisings: resist obligatory recruitment of fishermen by the Navy (Silva, 1991).

Later, in 1919, the so-called fishermen's colonies rose throughout Brazil. These were an alternative proposed by the Navy as an attempt to undermine resistance to recruitment. The official line was that the colonies were "a more modern and broader way of seeing national defence, and especially the protection of the valiant people of our coasts" (Vilar, 1945).

The colonies, situated at conceived as state-level federations and the General Confederation of Brazilian Fishermen, headquartered in Rio de Janeiro. Leadership positions in this system of representation were traditionally occupied by military personnel, businessmen, shipowners, et al, never by fishermen.

This situation lasted more or less up to the 1960s, except for rare cases, such as Pernambuco where the link between fishermen and the peasant movement ("peasant alliances"), denouncements of industrial pollution of rivers estuaries and the shoreline, and attempts to take over the state federation of colonies led to the beginnings of a social movement of fishermen (Callou, 1983).

The 1960s

Artisanal fishing went through several changes beginning in the 1950s, owing to the increasing urban development of the Brazilian coast and the consequent rise in demand for food. Up till that time, more than 50% of fisheries production was provided by artisanal fishermen.

In 1962, with the creation of SUDEPE, the decision was taken to develop fishing on the basis of industrial enterprises. The government began in 1967 to spend large sums of money on fishing fleets and processing plants. More than US\$ 100 million was invested in industrial enterprises between 1967 and 1974. Meanwhile, aid to artisanal fisheries through PESCART (programme to support artisanal fishing) was less than US\$ 10 million (Diegues, 1983). Moreover, much of these scarce resources never reached the bands of artisanal fishermen; they were mostly used to maintain the state fisheries bureaucracy.

The results of these investments in the fishing industry were not very encouraging: some scarce species along the coast were overfished for export, such as shrimp, lobster, and overinvestment in onshore facilities (ice plants and cold storage) led most of these firms to bankruptcy. Artisanal fishing continued to be important to the sector, either as a source of labour for the firms or by selling their catch to these firms.

Artisanal fishermen continued to belong to the colonies, in most cases dominated by people not involved in the sector or by businessmen who still controlled the marketing of fish.

Conflicts between artisanal fishing and capitalist industrial fishing increased from the 1960s on. Large trawlers exterminated schools of fish and shrimp that were fished by artisanal fishermen. The industrial fleet frequently destroyed and still today destroy the work instruments of small-scale fishermen, sometimes provoking violent reactions (Diegues, 1983; Melo, 1989; Laureiro, 1985).

Such conflicts with capitalist industrial fishing, together with those connected with the degradation and pollution of the coast, estimated an increasingly stronger reaction on the part of artisanal fishermen.

Urban expansion has been the biggest cause the destruction of vegetation in mangroves in large areas where coastal species reproduce, such as the Bays of Guanabara, Todos los Santos, Sao Jose and Sao Marcos, and in numerous estuaries in the north-east and south-east

Mangroves have been cut down to build Urban complexes for the middle class and bourgeois' as happened in Coroa de Meio in Aracaju, Sergipe. First, the crab fishermen who lived there were removed and the whole mangrove cut down. This let in sea water which finally destroyed streets and threatened the buildings themselves.

Many large beaches and reefs were subdivided risking the very existence of these important eco- systems, as happened in Isla Comprida in Sao Paulo. Besides that, many islands were and still are being privatized to be made into recreation and marine areas. The artisanal fishermen are always driven out.

Ports and large chemical and petrochemical complexes were built in ecosystems of high biologic productivity and valuable for their scenery and tourism potential, as happened in Laguna Mundau y Manguaba, in Alagoas, an estuary Suape, Pernambuco, and in Laguan de los Patos, in Rio Grande do Sur.

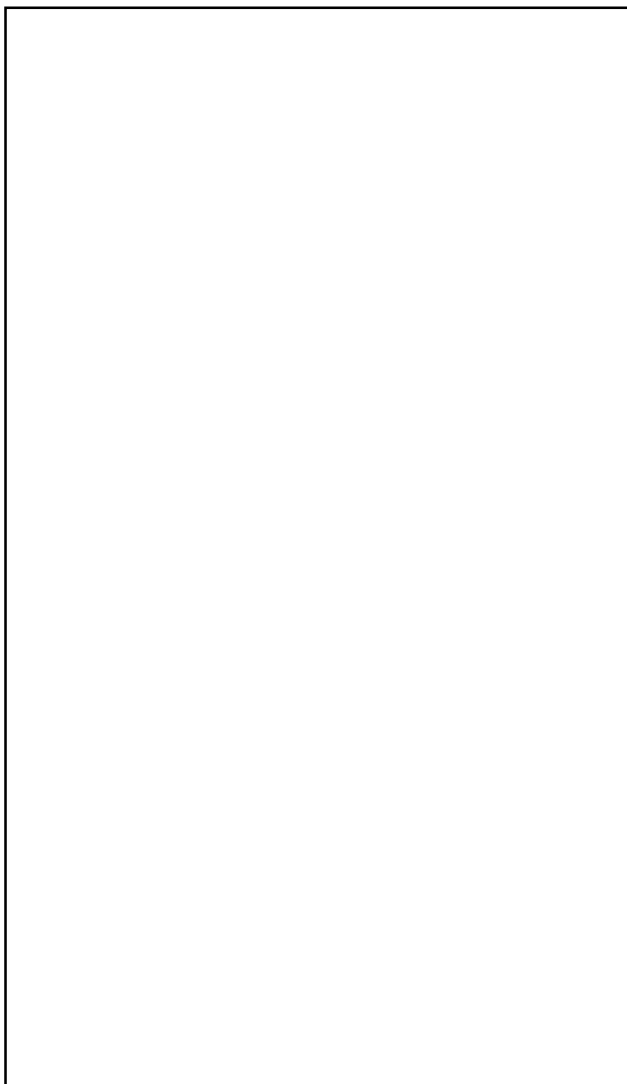
When Proalcohol was launched, subsidized sugar cane invaded the lands of the north-east, even taking over adjoining mangroves, as in Mamanguape, Paraiba. Tons of winery distillery residues and biocides are criminally dumped into rivers and estuaries.

Consequences of these processes are irreversible, completely destroying precious ecosystems that produce food for low-income groups, as happened with the destruction of hundreds of hectares of mangrove by the salt works of Galinhos, Rio Grande do Norte. Lake Batata, in the Amazon, was completely polluted by cast-offs from mining operations.

Another destructive element in rivers and lakes of the Amazon is the use of *mercury* in treating gold, particularly in rivers (like the Madeira, Gaupore and Mamore). Levels of mercury contamination are so high they approach those that caused the "killer-mine" disease that killed hundreds of people in Japan in the 1960s (Petreire, 1991).

Besides affecting the quality of life of Brazilian society as a whole, these processes have even more disastrous consequences for artisanal fishermen and their communities, ending up almost always with their being expelled from their lands and beaches.

On top of the pollution of the environment, certain actions of the state have also helped make the already difficult survival of artisanal fishing communities even more so. These actions, include the creation of parks and reservations in areas traditionally occupied by fishing communities. Many parks and ecological reservations were created without even consulting the fishermen who made their living from those natural resources. These areas were preserved because of the respect artisanal fishermen had for them, depending on them for their livelihood. These conservation units system-



atically prohibit fishing, leading to the expulsion of these small producers from their beaches. Moreover, rigid government control is always for artisanal fishermen, never for industrial fishing, trawlers, lumber operations, palmito, etc. This is highly unjust and makes artisanal fishermen and small coastal producers the villains of the story as those responsible for ecological destruction. Guided by their urban view of conservation problems, these pseudo-ecologists end up penalizing those who need clean, unpolluted water to feed their families and the general population -those who need mangroves, bays and beaches uncontrolled by construction companies, so they can exercise their profession.

Without a doubt, the rapid and intense degradation of the coastline was one of the main reasons fishermen and coastal communities mobilized from the late 1970s onwards.

In 1979 and 1980, fishermen in Pernambuco began to denounce the damage caused by the waste from alcohol production and winery distillery residues generated by the industries of the municipality of Goiana (Silva, 1989). In doing so, they were supported by the recently created Pastoral Office for Fishermen, organized by the episcopal conference of the Catholic church in Brazil (CNBB). The industries in question even gave death threats to the leaders of the fishermen. In 1983, the fishermen in that state demonstrated with a march against dumping winery distillery residues into the rivers from the Capibaribe river, which runs through the city of Recife.

These demonstrations by fishermen comprised an important social datum in a social category that was, up till then, totally dominated by the corporativist structure of the fishermen's colonies, federations and confederations.

This struggle to improve the environment of the coast was part of an emerging movement of artisanal fishermen in search for citizenship that was begun during the authoritarian military government. This movement consolidated at the end of the dictatorship and the beginning of the democratization of the country.

During that period, fishermen of some colonies began to organize to take over the leadership of those organizations. After important mobilizations, almost always supported by the Pastoral Office for Fishermen and progressive political parties, they won the presidency of some of these colonies and federations. In the states of Para, Bahia and Maranhao, fishermen became president of those federations. The struggle was fierce in those states, involving imprisonment, intimidation and even death threats for the new leaders. The Federation of Fishermen of Pernambuco was won in 1984, and in 1987 that of Alagoas, followed by others in the south (Silva, 1989).

An important moment in that emerging organization of artisanal fishermen was participating in the elaboration of the 1989 Constitution, for those parts dealing with fisheries. Several meetings were held between 1986 and 1988 for that purpose. The main reason for the movement was to elaborate a law governing the system of representation of the fishermen, since several other causes (water pollution, social security for fishermen, etc.) were politically blocked by leaders of colonies and federations who were not fishermen. Given that situation, the fishermen attempted to draw up a Magna Carta for themselves, for the movement known as the "constitutional assembly for fisheries". Despite the widespread support and participation of the whole sector, the movement was resisted by some presidents of state federations controlled by conservative sectors, generally connected with fisheries but part of the remains of the military regime.

Towards the end of the process to elaborate the Constitution, the main result of the movement was, first, the impetus given to organizing fishermen and the consciousness that they comprised a class of small producers spread along the coasts, rivers and lakes of Brazil. They also had some key victories in the text of the Constitution, such as the possibility of organizing themselves into free trade unions autonomous from the state. Fishermen also contributed to having important ecosystems like the coast and the wetlands of Mato Grosso declared *priority* regions for environmental conservation.

Another important result of the movement was the formation of MONAPE, the National Movement of Fishermen. This movement brings together the leaders of fishermen, whether or not they are representatives of colo-

nies or trade unions, with a view to democratize the colonies, see to it that the constitutional victories are implemented and fight to improve the living and working conditions of artisanal fishermen.

One of the main concerns of MONAPE is the conservation of marine and fluvial habitats as a basic condition for sustainable artisanal fishing. In two of its national meetings -Juazeiro, Bahia in August 1990 and Olinda, Pernambuco in October 1991 - the defence of the environment in benefit of local populations was one of the main points of the agenda. In those meetings, representatives of MONAPE were concerned not only about overfishing in the sea, rivers, lakes and dams, but also about the gradual and constant destruction of the natural habitats used by artisanal fishermen, such as mangroves, lakes, estuaries, reel etc.

Pursuant to decisions taken during those meetings, MONAPE members would mobilize in different kinds of campaigns to educate and denounce the degradation of the Brazilian coast, rivers, streams, lakes and dams.

As can be seen, the fishermen's struggle for Citizenship is closely linked to the preservation of habitats and ways of life that comprise a rich cultural heritage for Brazil.

Meanwhile, the struggle is far from over, as long as government agencies continue to look on artisanal fishermen as objects for aid programmes. For its part, the goal of the National Movement of Fishermen is to demonstrate that, above all, they are producers of wealth, food, workers with a defined profession, and above all, citizens, with the rights and duties of every Brazilian.

“EARTH SUMMIT”

CONCERNS AND VIEWS OF THE ICSF

Sebastian Mathew

Introduction

The first-ever “Earth Summit” -the United Nations Conference on the Environment and Development (UNCED)- will be held in Rio de Janeiro, Brazil from 1-12 June 1992. It will be the largest meeting of heads of state to date. The primary goal of the Summit, according to Maurice F. Strong, Secretary General of UNCED, “will be to lay the foundation for a global partnership between developing and more industrialized countries, based on mutual need and common interests, to ensure the future of the planet”.

The Conference is meant to coincide with the twentieth anniversary of the United Nations Conference on Human Environment, held in Stockholm, Sweden, in 1972, where environment, for the first time, was placed on the world agenda. The summit in Brazil will try to ensure that the issue becomes central to policy-making and implementation in every sector of economic life.

Further more, according to Strong, the summit “will be the ultimate security alliance and a means of mobilizing the political will of the nations to take concrete actions to redress the environmental and related economic imbalances that threaten the future, and set the world community on a new and more hopeful course”.

The summit is expected to facilitate an international agreement on the crucial issues of environment and development and the mechanisms to provide solutions to these problems. A plan of action -Agenda 21- will be formulated at the summit. It will establish programmes, define targets and fix objectives as well as strategies and actions to meet them. Agenda 21 is also supposed to outline what humanity has to do to achieve those goals in the twenty-first century.

Seven areas have been identified to be of crucial importance. Two working Groups have already been formed to prepare documents for the preparatory committee of the summit. Working group 1 tackles atmosphere issues, biodiversity, land and agriculture, biotechnology and forestry. Working group 2 deals with the oceans, toxic chemicals and hazardous wastes. Also planned is a third working group to consider legal and institutional questions.

For the first time ever, NGOs and citizen groups have

been invited to contribute to the preparations for the summit. Although it is unclear at present whether NGOs will be allowed to participate in the actual 1992 Conference or not, a parallel conference-to be hosted by the Brazilian NGO Forum, a grouping of 450 members of independent sectors in Brazil-will facilitate the participation of NGOs. This Conference is expected to complement the summit.

Through the preparatory committee meeting of UNCED and parallel NGO conference, the International Collective in Support of Fishworkers (ICSF) is planning to launch a campaign to build up awareness about the problems of fishworkers arising from depletions on the environment.

Environment and development: a general discussion

Over twenty years ago, Evelyn Hutchinson, the celebrated limnologist, wrote in his seminal paper on the biosphere:

“.. the length of the biosphere as an inhabitable region for organisms is to be measured in decades rather than in hundreds of millions of years- This is entirely the fault of our own species. It would seem not unlikely that we are approaching a crisis that is comparable to the one that occurred when free oxygen began to accumulate in the atmosphere”.

The Biosphere,
Scientific American, Sep. 1990

Almost a decade and a half after Hutchinson wrote this, the ozone hole over Antarctica was discovered. As James Gustave Speth of World Research Institute puts it:

“The ozone hole over Antarctica was such a surprise that scientists at first missed it altogether. Satellites had collected all the raw data that would have demonstrated its existence during the 1970s, but their computers had been programmed to discount as error any reading that were far outside “normal” parameters. British scientists who eventually discovered the ozone hole in 1982 did not publish their discovery until 1985 because it was so incredible that they wanted to verify it first.”

The Hindu Survey of the Environment 1991

This revelation about the ozone hole came in the midst

of growing concern over the accumulation of air pollutants and its impact on the earth's atmosphere, today better known as the "greenhouse effect". It is believed that the combined effect of ozone depletion and global warming from the "greenhouse effect" will cause devastating changes all over the world in the coming century. These would lead to problems of adverse temperature and rainfall, sea-level changes, damages to crops and marine ecosystems, increased incidence of skin cancer and cataracts and damage to the immune system. Since these trends have a forward momentum, which makes it difficult to turn around as and when one would wish, there is a growing consensus among scientists that it is imperative for nations everywhere to move in the right direction during the 1990s to avert disastrous consequences later.

"The fault of our own species' that Hutchinson refers to is the indiscriminate onslaught on our precious ecological capital. i.e., the environment -a process continuing unimpeded even today. These depredations in pursuit of development -a summary concept usually meant to indicate merely quantitative changes- have been seen to be the root cause of pollution and depletion. Moreover, these problems mainly arise when development activities cross nature's threshold of rejuvenation and replenishment.

Often, "human activity' is regarded as the cardinal reason for environmental degradation. But this generalization completely glosses over the structural factors and the manipulation of the development process by a few in search of enormous profits. When we talk about "human activity" it is important to put in the dock those few who command capital, technology and knowledge, for they are the principal offenders. This anonymous but powerful group, whose existence is tantamount to a global "club" or 'cartel", has also decisively hijacked the advancements in information technology. This permits them to even control and distort markets, often by confusing and manipulating consumers. The ultimate effect is a continuous transformation of the "wants of a few into the "needs' of the many. In the process, the ecological capital that we have inherited is heavily eroded.

However, the consequences of this are borne most often by the weaker sectors of society, and they will undoubtedly be borne by future generations as well. The most affected are the poorest and the marginal communities, who lack the means to influence the decision-making process or to improve their income levels.

The process of development as it pursued today threatens the very source of livelihood of the marginal communities. Many tribal groups, for instance, have been relegated to the status of development fugitives.

One of the consequences of such a callous development process is water pollution. Not surprisingly, most

affected are fishworkers who not only have to suffer the effects of this pollution, they are also victims of activities that displace them from their traditional fishing grounds.

Why are fishworkers concerned?

Occupying the rim of the world and operating in coastal waters, fishworkers are interjected between the negative impact of land -and sea based activities. Therefore, the relationship between development and the environment is of particular concern to them. Already marginalized, they are arguably the most disadvantaged section -certainly in comparison with workers in other sectors of the economy. Thus, the concern they demonstrate for their principal source of livelihood -the sea- arises from a genuine fear for the fishery resources. Their very existence is jeopardized, particularly in developing countries.

Alarming discoveries about the health of the ocean - taken for granted till recently for its 'infinite" capacity to accommodate filth- have come at the right juncture. Coastal fishworkers in different parts of the world are already fighting destructive fishing practices, like indiscriminate trawling, gill-netting and purse-seining. These are undertaken by industrial capital in pursuit of mammoth profits, invariably at the cost of sustainability of the resource-base. Fishworkers both in the south and north are struggling to cope with decimation of traditional stocks, depletionary tendencies shown by many species and disruptions to their fishing activities as a result of changing prey-predator relationships. Furthermore, technology-induced causes have also dislocates fishermen from their traditional fishing grounds to unknown grounds. It takes time to develop an understanding of a new fishery.

In the fisheries sector, just as in agriculture and industry, technological advancements have been incorporated into inequitable economic structures. While this has led to enhanced exploitation of resources, it has also had the opposite effect of resource depletion and pollution in several parts of the world.

Environment and development in the marine context Broadly speaking, five activities are responsible for the deteriorating conditions of the sea and the fisherfolk who live off it. These are:

- indiscriminate use of the sea as a waste-disposal sink
- inadvertent drainage of toxic chemicals from land
- exploratory and extractive activity in the mountains, rivers and the seas
- coastal construction and reclamation
- military activities.

Most of the environmental problems faced by coastal fishworkers originate from land. Dumping of domestic waste into the coastal waters affects fishery resources, spawning areas and nursery grounds. The introduction of excess nutrients into the environment changes the marine food web. The decomposition of sewage decreases the availability of oxygen for finfish larvae. The introduction of viral and bacterial pathogens in untreated sewage could contaminate fish, particularly shellfish and result in the unmarketability of fishery products.

Similarly, run-off from the use of pesticides and herbicides in agriculture severely affects marine organisms. Over accumulation of nutrients in coastal areas can significantly change the composition of species and the abundance of important food organisms. Insecticides used for vector control can cause bioaccumulation in fish which would thus reduce its marketability.

Industrial waste disposal endangers fishery resources, spawning and nursery grounds. Among the detrimental activities that have a negative impact on the fishery resources are:

- dumping of toxic chemicals
- discharge of large amounts of organic wastes with high biological oxygen demand from agriculture-based industries
- transfer of waste heat from industrial structures
- introduction of radioactive wastes into the environment from nuclear plant facilities
- injection of organic chemicals into the environment which may have mutagenic effects on fishery resources
- release of petrochemicals which are among the most potent carcinogens

Coastal or near-shore constructions can destroy habitats as a result of dynamiting and excavating; land reclamation does the same thing.

Nuclear power plants also pose threats. Chlorine and other antifouling chemicals used in cooling operations of nuclear electric power plants can build up in estuarine areas. The build-up of such chemicals has been implicated in large fish kills in the United States. Release of heat from nuclear plants into the coastal marine environment can adversely affect the flora and fauna in warm tropical waters, since these species already live dangerously close to their upper limits of temperature tolerance, particularly during the summer. Defoliation of mangrove areas, practiced in the preparation of sites for aquaculture, and use of fertilizers, lime and pesticides in aquaculture areas negatively in-

fluence the coastal fisheries. Destruction of mangroves not only destroys coral reefs and causes heavy siltation in the near-shore waters, but also exposes vulnerable coastal communities to the fury of cyclones in the Pacific and the Indian ocean. The clearing and sifting in of mangrove areas constrict the supply of nutrients to nursery grounds, and also reduce habitat area.

Siltation resulting from mining, land clearance for agriculture, lumbering, urbanization and industrialization, and dredging of harbour channels and estuaries, decrease the productivity of water and depletes fishery resources. Turbidity of water from suspended silt dwindles fish catches.

Thus, for example, silt created by offshore tin mining has been implicated in declining fish catches near Phuket, Thailand. Similarly, pollution of the coastal waters as a result of heavy discharge of mud from the Rokan River owing to massive lumbering along its banks is a factor that precipitated violent conflicts between trawler and gill-net fishermen in Sumatra, Indonesia.

Extraction of coral for the manufacture of chalk, pigment and cement; use of coral debris for road construction, land reclamation, nuclear explosions and the practice of dynamite and cyanide-fishing have widely destroyed coral reefs, an important habitat for many species of fish. Additionally, coral reefs are also highly vulnerable to constant exposure to pollutants, particularly oil. India, Mauritius, Madagascar, Seychelles, the Philippines, etc., provide enough examples of coral reef destruction.

Military activities also contribute to pollution and deny access to fishing grounds. For example, Ciguatera fish poisoning, largely related to military activities that disturb coral reef ecology, is widespread in the South Pacific, particularly in Micronesia and Polynesia, the centre of American and French nuclear tests since 1946.

The South Pacific islands are also affected by sizeable leakage of radionuclides, from either nuclear tests or the destruction of waste disposal areas by natural calamities. Similarly, rocket firing and gunnery practice ranges, mine laying and other naval exercises interfere with the freedom of access of fisherman to particular grounds, as in the United Kingdom and India.

Permanent rigs and oil and gas exploration/exploitation activities also block access to fishing grounds. Approximately 47 km² of fishing grounds have been lost in the vicinity of pipelines and suspended wellheads in the North Atlantic. Oil installations also constitute hazards for fishing vessels, and oil spills have tainted fish catches, making it unmarketable, for example, in Texas and the Mediterranean coasts.

Fishworkers' right to livelihood

The above discussion gives some idea about the kind of activities that pose a threat to the marine environment and the fishworkers dependent on them. As mentioned, coastal fishworkers are one of the most disadvantaged sectors of the international labour-force. What is at stake is their livelihood, crucially dependent on the quality of the marine environment. Damage to the marine ecosystem as a result of ozone depletion, for example, will have immense consequence on the primary productivity of the sea, which in turn will affect fisheries at a global level.

For many other sectors of society, the degradations of the environment in the immediate future may result only in a reduction of their range of choice of commodities, but in the case of fish-workers, the loss of oceanic resilience will threaten their very right to a livelihood. This has longterm intergenerational consequences. So far, fortunately, we have not yet crossed the instability threshold and -who knows?- there could be other nasty surprises in store for the future like the surprise ozone hole at the South Pole. This may eventually take us to the calamitous situation forewarned by Hutchinson: "The length of life of the biosphere as an inhabitable region for organisms is to be measured in decades rather than hundreds of millions of years".

Do we have options?

To prevent further exacerbation of the reciprocal relationship between environment and development it is imperative that a global consensus should emerge. Fishworkers are not unaware of the fact that all development activities in general have an inherent tendency to deplete and pollute. At the same time, nature's capacity to replenish and rejuvenate is limited. Only when the extent of depletion and pollution crosses the instability threshold of nature -its capacity to replenish and rejuvenate- does development become a problematic issue. If a symbiotic balance can be struck between environment and development, harmony can be restored. This, as far as we are concerned, is what sustainable development is all about.

The coastal fishworkers -"beacons of the sea" as a Chilean fisherman proudly characterized them-have already been emitting signals. It is as important to acknowledge these danger signals as it is to ensure that fishworkers are an effective party to any resolution on development processes that may have a bearing on the marine environment.

Legal institutions should legislate and formalize fishworkers' right to participate in decision-making processes and their right to advise on matters of concern and relevance to them. Already, in the oil and gas exploration/exploitation activities in the North Atlantic, fishermen are party to the decision-making process and enjoy a legally formalized right to advise on routing of pipelines. The UK Petroleum and Submarine Pipelines Act of 1975 is a good example. Similarly, in Norway, fishermen's organizations have been involved in planning oil-related activities such as decisions on the choice of areas for drilling, its extent, designation of supply boat routes, etc. In addition, the Norwegian Ministry of Petroleum and Energy also holds regular consultations with fishermen's organizations on all matters of mutual interest. These are isolated examples, confined to the oil related activities. A dialogue, more general in nature and coverage, has to emerge.

Clearly, we do have options and these must be explored. For, in the final analysis, the survival of fishworkers as well as their right to livelihood and a clean environment, is imperative for the survival of humanity. Irreparable damage to the oceans will eventually destroy terrestrial life. As Rachel Carson wrote in her preface to the revised edition of her pioneering work, The Sea Around Us:

"It is a curious situation that the sea, from which life first arose, should now be threatened by the activities of one form of that life. But the sea, though changed in a sinister way, will continue to exist; the threat is rather to life itself." □

Challenging degradation

The small-scale fishermen at Brazil are no longer silent witnesses to the degeneration of their coastal and inland waters

The degradation of coastal and inland waters is not a mere academic issue for Brazil's small-scale fishermen. It is a living problem. The growing pollution of lakes, rivers and estuaries affects them directly, since they earn their very livelihood from these waters.

Such pollution has risen dramatically since the 1970s, when small-scale fisheries production represented about 60 per cent of Brazil's total catch and provided a large range of employment opportunities for the rural poor.

Overfishing by large trawlers is not the only factor responsible for the diminishing output of artisanal fisheries. The degradation of the coast, caused by urban and industrial expansion, has contributed too.

These processes began in the mid-1960s, first in the rich southern provinces and later, expanded to the north and northeast.

The Brazilian government's major programme to modernize fisheries through fiscal incentives, began in 1962, has marginalized most of the artisanal fishermen.

The new export-oriented fishing industry was out to maximize profits quickly. In the process, it overfished most of the commercial fish species, such as shrimp and lobster, in the south and north-east.

When catching these species was no longer profitable, the industry moved to the untapped resources of the Amazon basin, continuing the rapid destruction of fish species. In the process, it negatively affected the livelihood of hundreds of coastal and riverine human communities,

since fish is the main source of subsistence among the Amazonian populations.

Speculation in land is a main cause of the destruction of coastal habitats, particularly of mangroves, which is an important ecosystem for the reproduction of many fish species.

Brazil has the world's second largest mangrove area. Although legally protected, mangroves have been extensively cut in many parts of the coast for the construction of houses.

As a result, large areas of mangrove have been destroyed in Guanabara (Rio de Janeiro) and Todos os Santos Bay (Babla Bay). Sand barriers and islands are still being privatized to build marinas for rich people. This marginalizes the artisanal fishermen who live in those areas.

Further, most of Brazil's chemical and petrochemical industries have been built in biologically rich ecosystems, as in Mundau and Manguaba lagoons in Alagoas Province, in Suape (Pernambuco), Cubatao estuary (Sao Paulo) and a lagoon in Rio Grande do Sul.

Toxic waste

In the north-east region, where over 35 per cent of the small-scale fishermen live, the main source of pollution is the *vinhoto* toxic waste produced by the large sugar-cane mills and illegally dumped into the rivers and estuaries, leading to high fish mortality.

A recent source of pollution is the use of mercury for extraction of gold in most of the rivers of the Amazonian basin, particularly in Madeira-Mamore and Guapore rivers. The situation is alarming, for many communities. Paradoxically, the establishment of protected areas has also

badly affected small-scale fishermen. Many national parks and ecological reserves are being set up in the remaining forest areas of the coast where fishermen live. Their lifestyle and the respect they have for nature, on which they have traditionally based their livelihood, have made them protect important ecosystems like mangroves, forests and estuaries.

However, according to the existing law, whenever a protected area is set up, these coastal fisherfolk have to be expelled. As a result, their traditional activities are severely limited and the fishermen are forced to move into the slum areas of the coastal cities.

Although the social organization of the artisanal fishermen in Brazil is still weak, they have formulated the first reactions against pollution and coastal degradation in the country. By the end of the 1970s, when the military regime was still in force, small-scale fishermen organized protests against the pollution caused by sugar-cane waste in the Goiana river, close to Recife.

In 1984, by the time the military regime ended, this fight against pollution was the initial step for a national mobilization to reorganize the existing structure of fishermen's social representation—the fishermen's guilds (Colonias de Pescadores). These guilds were frequently controlled by local non-fishermen leaders

in a very autocratic way. The first guilds and federations were finally taken over by fishermen leaders in 1984 and 1987 in Pernambuco and Alagoas States.

Between 1986 and 1988, regional and national meetings were organized by small-scale fishermen to present suggestions to the Constitutional Assembly that approved the new constitution.

Own organizations

According to the 1988 constitution, fishermen are free to establish their own organizations. After 1988, the organized fishermen decided to create Monape—the National Organization of Fishermen. It brought these issues to the UN Eco 92 meeting held in Rio de Janeiro.

It is becoming increasingly clear that biological diversity can only be achieved in Brazil when the cultural diversity of fishermen's communities is respected. ♣

This article is written by Antonio Cados Diegues, director of the Center of Maritime Cultures (CEMAR), Sao Paulo, Brazil

Local management works

Amidst the great changes in the commercial fisheries of the Amazonian floodplains, the system of lake reserves offers hope

Even as global attention increasingly focuses on deforestation on terra firma, another great tropical frontier, the Amazon floodplain, is also undergoing major changes. Although it comprises only three per cent of the basin, the Amazonian floodplain extends over a total area of approximately 150,000 sq km.

Since pre-Columbian times, the fertile soils and abundant aquatic resources of the floodplain have supported some of the highest population densities in the basin. Throughout this period, the seemingly inexhaustible fisheries of the floodplain have played an important role in local subsistence and, to a more limited extent, regional trade.

Over the last three decades, however, Amazonian commercial fisheries have developed rapidly. As has happened elsewhere, development of the commercial fisheries is transforming the floodplain economy and environment. Simultaneously, conflicts between individual floodplain communities and commercial fishermen from other areas have proliferated throughout the basin.

This is an important time in the evolution of Amazonian commercial fisheries. If fisheries development follows the path taken in other areas, then present trends will lead to the eventual overexploitation of fish stocks and the progressive marginalization of much of the floodplain population (*ribeirinho*).

However, some *ribeirinho* communities are taking control of floodplain lakes and attempting to regulate local fisheries. These fragile efforts to manage local fisheries represent a potentially important alternative to the conventional government-based fisheries management, which has proven totally ineffective.

The Amazonian commercial fisheries have developed largely due to three sets of factors:

- technological innovations in fishing gear (synthetic fibre for gill-nets), transport (diesel engines) and storage (ice and styrofoam), which have made it possible to greatly increase fishing effort, capturing more fish and exploiting ever more distant areas
- a dramatic increase in demand for fish products in regional as well as export markets, which has driven the growth in production
- a massive shift of *ribeirinho* labour from fanning to fishing due to the decline of jute, the main cash crop on the floodplain

Today, the Amazonian commercial fisheries involve around 230,000 fishermen, most of whom are smallholders living on the floodplain. There are four major fisheries, each focused on a specific environment, namely, the estuary, river channel, lake and reservoir.

Estuary fishery

The estuary fishery includes both artisanal and industrial fishing operations using trawls, longlines and gill-nets to capture several species of large catfish.

The river fishery focuses on two main groups of migratory species. The first consists of large catfish, which undertake long-distance migrations of up to 3,500 km. They are caught with gill-nets and longlines as they travel upstream. The second group consists of species such as characins, which spend part of their life cycle in floodplain lakes and also

undertake reproductive and dispersal migrations. They are caught with seines and gill-nets in the river channel.

The lake fishery involves both this second group of migratory species as well as sedentary species which reproduce in the lakes. The gear employed is quite diverse and includes gill-nets, fishing poles, harpoons, and bows and arrows.

The reservoir fisheries have developed as a result of major hydroelectric projects. In this type of fishery, gill-nets are used to capture mostly species such as cichlids.

Despite the great diversity of Amazonian fisheries, estimated to contain up to 2,000 species, the commercial fisheries are based on a relatively small number of species. In major urban centres like Manaus, Santarem and Porto Velho, for instance, 10 species typically account for 70 to 90 per cent of the catch.

This emphasis on a limited number of species is reflected in the annual catch, estimated at 200,000 tonnes. This is well below the productive potential of 900,000 tonnes for the basin as a whole. Only three species show signs of overfishing.

The limiting factor for artisanal fishermen is catch per unit of effort, since they are less able to increase their fishing effort to compensate for the decline in catch, as

pressure on local fisheries intensifies. Thus, while the fisheries are not yet over exploited, increased pressure on regional fisheries has significantly reduced the productivity of *ribeirinho* fishing especially in areas surrounding urban centres.

As this productivity drops, conflict proliferated between *ribeirinho* communities and commercial fishermen outside the area. This has sometimes led to the destruction of boats and equipment and even caused deaths.

So far, the Brazilian Institute for Environment and Renewable Resources (IBAMA) the government agency responsible fisheries policy, has proved incapable of effectively monitoring and regulating regional fisheries or mediating conflicts.

Open access

As a result, apart from the industrial trawl fishery in the estuary, Amazon fisheries have open access. This encourages fishermen to exploit the fisheries with concern for maintaining long-term productivity.

The open-access approach to fisheries management clashes with community notions of territoriality. Communities throughout the Amazon are asserting control over local lake systems, excluding outsiders and establishing informal

community lake reserves. Typically, these lake reserves involve the members of one or more communities and are based on a formal document signed by the majority of local landowners and fishermen. They usually limit the lake access to local fishermen and may specify informal rules for controlling fishing effort. These rules are based on the traditional knowledge of fisheries ecology.

Preliminary comparative studies of lake management suggest that well-organized lake reserves can increase the productivity of fishing effort. However, more work needs to be done to obtain conclusive evidence.

Since virtually all *ribeirinhos* are directly involved in commercial fisheries, many attempts to regulate local fishing activity fail for lack of support from community members. For this reason, the lake reserve has functioned more to exclude outsiders than to regulate fishing effort.

The problem is exacerbated by the fact that Brazilian fisheries policy is based on free access to lake fisheries. Since lake reserves are technically illegal, they can receive little formal support from IBAMA.

In recent years, a variety of organizations have begun to address the technical and organizational problems of community-based fisheries management.

In many areas throughout the Brazilian Amazon, municipal fishermen's unions (Colonel des Pescadores), whose membership is often dominated by *ribeirinho* fishermen, are taking an increasingly active role in organizing communities to manage local fisheries.

At the same time, national fishermen's organizations like MONAPE (Movimento Nacional da Pesca) and church-related groups like the CPP (Comissado Pectoral Pesca) and CPT (Comissado Pastoral da Terra) are working with the Colonias to co-ordinate and support these local efforts at the state and regional levels.

In the Santarem area, Project Ituqui is working with the Colonia and floodplain unities to develop effective management modules for community reserves and to strengthen the Colonia's ability to

support these efforts at the municipal level.

Also in Santarem, Project IARA of IBAMA involves both research on the biological and human dimensions of regional fisheries and an extensive programme of environmental education in floodplain communities. The project aims to strengthen IBAMA'S ability to work with communities and grass-roots organizations in co-management.

Project Mamirauta represents a third approach to the problem of integrating local populations into programmes for conserving floodplain resources. This combines research with community development to produce and implement a management plan for the Mamiraua Lake Ecological Station, where reserve communities have a substantial legal role in managing the fisheries.

Management model

Without doubt, the development of the Amazonian commercial fisheries and the resulting competition for resources is transforming the economy, ecology and society of the area. Lake reserves represent a management model which has the potential to address the problems of social justice and ecological sustainability that are central to fisheries development.

The direct involvement of the *ribeirinho* population ensures that traditional knowledge and resource use are incorporated into models of floodplain resource management, and that the resulting programmes address local interests.

This article is the joint effort of Fabio de Castro, Co-ordinator of the Socioeconomy Subproject of Project IARA/IBAMA and David G. McGrath, Visiting Professor, NAEA, Federal University of Para

Weaving a living

The women net weavers of Vigia in Brazil face a bleak future, as modern developments overshadow their traditional skills

In numerous countries, the presence of women is felt more in post-harvest activities in fisheries. However, in the port of Vigia in the province of Para in Brazil, women have only a minor role in this area. The majority of them weave fishing nets.

This activity is perceived as being just a part of routine domestic activities like managing the house, cooking, looking after the children and maintaining the kitchen garden. This is because it is done at home and only after all the daily chores have been carried out.

The women of Vigia do not know how to repair nets, nor do they try to learn to do so. They say that repairing is much more difficult than weaving; that is why it is left to the men.

But the fact is that it is a result of the division of labour dictated by constraints of space and occupation. As it is not necessary to have a large area to weave, this activity keeps the women at home and limits their movements. In contrast, repairing of nets requires vast spaces and is a domain of men.

This spatial division springs from cultural norms prevalent in Vigia. These are sometimes applied with rigour. Some fishermen choose to live in greater difficulty than accept the fact that their wives work out in the open.

Men are deemed to have a role to play, which is to fulfill economic obligations. But a woman's revenue is often viewed as a supplement to her husband's salary. However, in numerous communities, they contribute to a large, if not greater extend, to the family's resources, since the

fisherman's revenue is by nature uncertain.

Since the market for female labour is very weak in Vigia and orders for weaving nets are becoming very rare, the women have come up with different strategies to survive. They wash clothes or cook for others, while those who have a refrigerator—which is even rarer—sell ice cream or cold juices, and some other sell corn soup. They also undertake some harvest activities in shallow-water fisheries—on banks of river or near the beach, the high seas being a fishing territory reserved for men.

In Vigia, some women harvest the *siri* crab in the river, the *turu* mollusc and the *caranguejo* crab in the mangrove, by setting traps along the banks. They fish individually or in the company of their husbands, fathers or friends, mainly to nourish their families, but eventually to sell their produce. This money earned enables them to survive when their husbands are at sea.

These incursions into the world of fisheries are, however, very limited. Many women remain at home. Their daily activities continue to be preparing meals, washing clothes, fetching water, weaving nets, making ice, etc. All these are activities which retain them in the world of women.

Although the weaving of nets enables the women of Vigia to play a role in the fisheries economy of their community, their work is still not recognized as being a true profession.

Professionalism rare

Rare are those who speak of a 'profession' and who think of enrolling in a

professional organization such as the colia (an organization aimed at registering fishermen and collecting subscriptions for retirement benefits) or IBAMA (Brazilian Institute for the Protection of Environment) which grants permission to fish. It is difficult to estimate the number of weavers in Vigia since all the women from a family invariably know how to weave.

This source of income—meagre but essential for the maintenance of an economic balance—is, however, being threatened now. Plastic nets, made in China, are slowly replacing the traditional nylon nets. Although female labour is cheap, it can not compete with the production costs of industrial net manufacture.

What impact will the introduction of new technology have on female employment? Will the consequences be identical to those already observed in other areas of the world where unemployment has become rampant: the disappearance of women weavers, or a greater exploitation of female labour? These are the questions that will plague the women of Vigia in the years to come.

This article is written by Christine Escallier, ethnologist, and Maria Cristina Maneschy, sociologist and the Brazil co-ordinator of the Women of Fisheries Project of ICSF. It is translated by Malavika Shivakumar.

The view from the other side

As examples from Brazil show, EIAs often ignore the views of artisanal fishing communities

In Brazil, the Amazonian region represents the last frontier for coastal and inland fisheries. Fish represents the most important source of protein and income for the riverine population in the region. Brazil has the highest per capita fish consumption, equivalent to the consumption in Japan.

Traditional fishermen, however, are today confronted with problems created by the construction of large dams, water pollution by the mercury used in gold mining, the invasion of lakes and rivers by commercial or industrial fishing boats from urban fishing harbours, limits to access to resources through the establishment of large farms along biologically rich lakes and lagoons and, finally, by the establishment of national parks in those very areas in which they used to live.

All these factors are creating serious conflicts among local fishermen, big landowners, commercial/industrial fishing units and state agencies responsible for dam construction and environmental protection.

Since the 1960s, the entire coastal region of Brazil has been suffering from an intensive and destructive occupation of its ecosystems, particularly the estuaries, lagoons, coral reefs and mangroves, where most of the artisanal fishermen live and work.

This rapid occupation of the coastline became more intensive during the 'Brazilian Economic Miracle', during the military regime in the 1970s, when industrialization and urbanization along the coast became the most important socioeconomic processes. Industrial pollution, particularly the dumping of sugar cane waste from alcohol

production, was responsible for the biological impoverishment of estuaries and coastal lagoons.

During this period, artisanal fisheries were responsible for more than half of the fish caught, but the so-called 'modernization of fisheries', based on industrial fishing and promoted by FAO, largely disregarded the essential contribution of artisanal fisheries for food production and employment in coastal villages and towns. Many social conflicts occurred between artisanal and industrial fisheries, as large shrimp fishing destroyed the nets of small-scale fishermen.

As a result of this, fish resources were largely depleted by profit-eager industrial fishing companies. The marginalization of small-scale fishermen became more serious when many beaches came to be privatized for the exclusive use of tourist cottages and condominiums.

In the 1980s, to manage the use of the coastal area, the Federal Government started a Coastal Management Programme, institutionalized in 1988 through a law. From the start, however, the whole exercise became extremely bureaucratized, as coastal management was restricted to creating different maps on the land potential and constraints, based on sophisticated remote sensing and GIS techniques.

Wasted years

Consulting firms, interested only in 'selling emerging technologies of remote sensing techniques, were the bases for the initial exercises. Over a dozen years were spent in producing overlays and maps of different coastal states, but until now, not a single coastal management plan has been actually implemented.

As a result, ecologically and socially, the situation in the coastal ecosystems became critical. A new development is taking place in the northeastern state of Ceara, known for its beautiful beaches, growing tourism and lobster fishing (by both artisanal and industrial fishermen). An innovative and grass-roots experiment in coastal management has been undertaken by local associations of fishermen, assisted by a small NGO and a local university.

Instead of wasting too much time in searching *for* information and maps, they have established a Coastal Forum (Forum do Litoral) where negotiations occur among different groups on the use of coastal land and marine resources.

The Forum's activities lie in two areas. The first is a critical evaluation of a large government project called Prodetur, financed by the World Bank. The government's preliminary project proposal does not take into consideration the importance of the coastal fishing communities or the impact on these human cultures of the extensive tourist development projects along the coast.

If these local communities are not ready for an increase in tourism-related activities, the whole traditional production system based on small-scale fisheries, agriculture and handicraft will

be severely damaged. Some communities are organizing their own co-operatives to provide tourism services, while controlling the sale of their beach property to tourists. Through negotiations with the government and the World Bank, local associations are preparing themselves for the impact of the expansion of tourism. They thus hope to take advantage of the eventual benefits and restrict the negative impacts.

The second activity of the Forum comprises negotiations on managing the very lucrative lobster fishery, which employs around 12,000 fishermen in Ceara State. Fishermen are worried about the rapid decline of the lobster catch in the last few years.

After long negotiations between local fishermen's organizations, NGOs, universities, the fishing industry and IBAMA—the Federal Environmental Agency—plan for the management of lobster fishery was established in 1995. The plan put severe restrictions on the fishing of lobster juveniles by artisanal and industrial fishermen and a complete ban on diving for lobster. The artisanal fishermen's associations bought a boat to be used for the enforcement of fishing regulations.

Good results

This grass-roots coastal management scheme, based on extensive negotiations

with all users, is producing positive results, in contrast to the government's coastal management plan, which is based on long years of producing maps and ineffective top-down approaches.

Also revealing is the impact on small-scale fishing communities of a large irrigation scheme on the floodplain of the Sao Francisco River, in Marituba, a 'varzea' (a floodplain near the mouth of the river), in the coastal plain of Alagoas-Sergipe, in the northeast of Brazil. It covers about 200 sq km of marshes, resulting from periodic flooding of the river.

The swamp is crossed by the Barreiras Channel (about 20 km long) that connects the Sao Francisco River to Marituba River and Lago do Peixe. This natural channel plays an important role, as many species of fish migrate through it to reach the lakes inside the marsh. The most important lake is Lago dos Peixes, known for its abundant fish resources. The area is mainly marshy and contains several species of palm trees used by the local population for building thatched roof houses, for making traditional medicines and producing food. The Varzea da Marituba also contains important habitats for several species of fish, birds and small wild animals.

In the floodplain are two villages—Marituba de Cima and Marituba do Peixe, containing around 270 hamlets and 1,200 inhabitants who live mainly on small-scale fishing or agriculture, and handicraft. Fish and other products are sold in the nearby city of Penedo. The territory of the villages is now surrounded by sugar cane plantations belonging to a nearby distillery.

Field work undertaken by the Federal University of Alagoas has discovered that over 48 different species (including surubim, piau, cara and several species of shrimp) have been identified, and consumed and sold by the fishermen. The local fishermen have extensive and precise knowledge of the different habitats of the floodplain. Over 40 different habitats are known by the 'varzeiros' (inhabitants of the varzea) and these are exploited for fishing, depending

on the season and fish-eating habits. About 18 different fishing and fish management techniques are used by local fishermen, including a period of rest, when no fishing is carried out in the lakes and the use of 'brush parks'—bundles of branches placed on the bottom of the lagoon to attract fish, similar to the West African 'akaja'.

Two decades ago, the floodplain and their inhabitants started to undergo important changes. The first great set of impacts occurred in the 1960s, when important changes took place in the hydrological regime of the floodplain due to the construction of two large hydroelectric dams (Paulo Afonso and Sobradinho), hundreds of km upriver. The dams have regulated the flow of the river, and now fewer fish enter the varzeas than during the previous flooding period.

The second set of changes has been caused by the expansion of sugar cane plantations during the 1970s, as part of the government programme for the production of alcohol to be used as car fuel. A local sugar cane distillery bought up almost all the available land, and the sugar plantation now surrounds the lakes in the varzea. Intensive use of fertilizers and herbicides has a negative impact on the fish stocks.

The last remaining areas of forest were cut for expanding sugar cane plantations. As a result, many important habitats of game birds were lost, depriving peasants and fishermen of important sources of protein. Also, many fruit and palm trees, from which fibre was extracted for handicraft, have been lost. It is now difficult to find a tree suitable for making the traditional fishing canoe.

New transformation

The third and most important threat to the varzea is from CODEVASF, a government agricultural development agency which plans to transform the entire varzea into irrigated rice fields. This state company has already converted several larger swamps of the Sao Francisco River into rice growing projects. In the already established projects, there has been a complete transformation of the swamps and the entire hydrological regime has changed.

In the project called Betume (involving 10,000 ha), CODEVASF has blocked the waterways to the lagoons and stopped fish migration. As a result fish stocks diminished and local fishermen have found their livelihood affected. Apart from these serious environmental impacts, local populations have also suffered from the conversion of the wetlands.

Having lost their land, they have been forced to live in the outskirts of the project area. They were temporarily employed in the construction of the irrigated fields, but seldom received a plot in the project area. Rice plots with irrigation infrastructure were given to the better-off farmers, who were usually outsiders.

In 1985, CODEVASF decided to start a new project in the Marituba swamp that would lead to a complete transformation of the last existing varzea of Sao Francisco River, with the disruption of the fisheries and the hydrological regime. The peasants/fishermen would be resettled elsewhere.

The Environmental Impact Assessment (EIA), funded by the CODEVASF, argues that yields from irrigated rice plots would be higher than from the traditional planting methods of the villagers. Also, the scheme would create a large number of jobs. The EIA claims that there are no endangered species in the area and that the income people would get from irrigated rice planting will be higher than from fishing and handicraft. Overall, claims the EIA, the project has a positive regional impact.

In 1988, the University of Sao Paulo, in co-operation with the Federal University of Alagoas, started a participatory and interdisciplinary research project involving ecologists, biologists, anthropologists, historians and agronomists, and based on the ethnoscientific approach.

This project has shown that the conservation of this last remaining floodplain and its value for the livelihood of the inhabitants was higher than the benefits that might be generated by the transformation of the floodplain. It became also clear that the state company

only considered as 'productive jobs' those generated by the irrigated rice projects and not the jobs already existing through traditional activities. The varzeiros would lose their sources of income and would not receive plots in the modern rice project these were given to farmers outside the area, as had already occurred in the other irrigated schemes of the company. Very often, the choice of farmers for the project is made on a political basis, with preference given to those nominated by local or regional politicians. Another conclusion of the research is that the whole hydrological system of the varzea would be damaged, and traditional fishing would disappear, along with the important endangered species found during the research period.

As result of this research, at the public hearing to evaluate the EIA for the project, in February 1991 in the state capital of Maceio, an alliance of environmental NGOs, scientists and Marituba residents was set up. During the public hearing itself, the varzeiros made clear their disapproval of the project, but the political forces in support of the project were very strong. Thus the EIA was not rejected by the state authorities. However, new complementary studies were requested.

From this experience, it was clear that the criteria for costs and benefits were different for the different social groups involved. Since non-governmental funds and research expertise was made available, the point of view of the villagers, supported by ethnoscientific knowledge, was made clear in the public hearing. EIAs, funded by those who are responsible for the project, are usually biased against the interests of the local populations whose livelihood will be affected. Local populations and their organizations should receive specific public funds to implement their own EIAs.

Protected areas

The establishment of protected areas in coastal regions affects small-scale fishing communities. Bra-Al has around four per cent of its territory within different types of protected areas, mainly national parks, ecological stations and national forests. These correspond to around 380,000 sq km, an area larger than many European countries.

Most of the environmentally protected areas are located in Amazonia, covering around 13 per cent of the total Amazonian region. In addition, there are some protected marine and coastal areas along the coast of the Atlantic and Amazonian forests, covering adjacent coastal area ecosystems such as mangroves, estuaries and coral reefs, used by artisanal fishermen.

According to the Brazilian legislation on protected areas, which follows the model of the Yellowstone National Park in the us, people living inside have to be resettled elsewhere. This imported model has had a catastrophic impact on the livelihood of thousands of small-scale fishermen and other small producers who have lived in the area for many generations and who, due to their mode of production, were able to protect the forests and adjacent seas.

These traditional communities, often living in isolated areas, depend almost exclusively on the use of natural resources. They have a complex relationship with the natural environment which is not just of an economic nature.

Values, traditions and cultural perceptions built over centuries, play an essential role in defining their relationship with the environment and natural resources. These traditional peoples have a deep knowledge of the environment where they live and of the natural

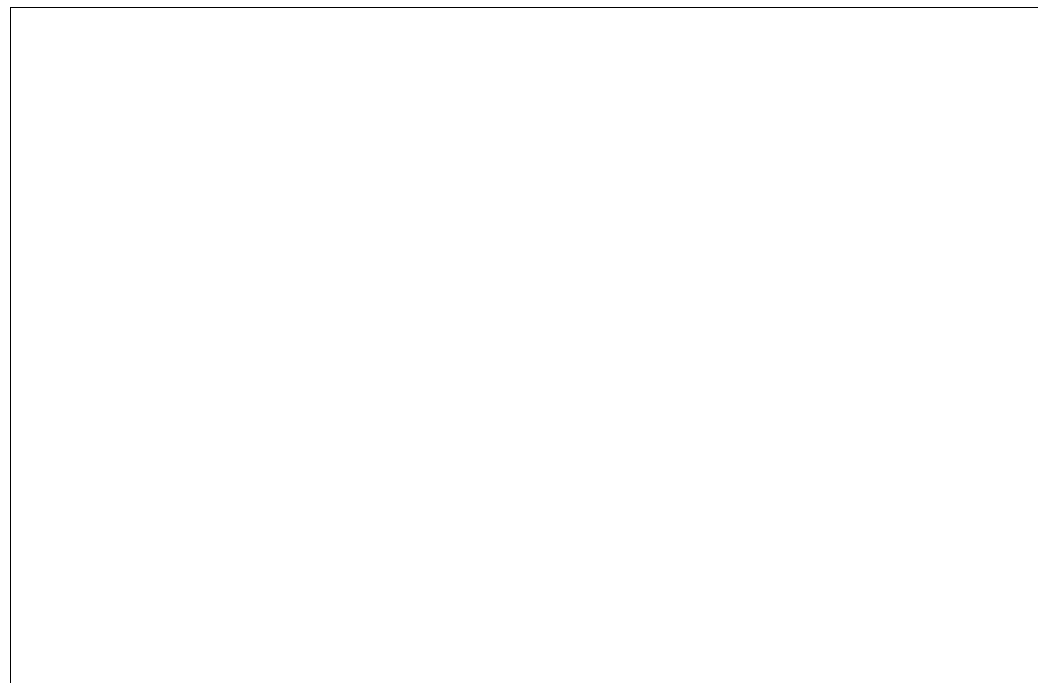
resources, and have developed, in coastal areas, knowledge-intensive management schemes.

Very often, when the government establishes a protected area, not only are the interests of local populations ignored, but the traditional territory of these people is also taken away, to be transformed into protected areas.

In coastal areas, where the pressure on ecosystems by land developers and speculators is high, leading also to the expropriation of the beaches of fishermen, the establishment of protected areas may actually hinder this process and, in the beginning, may benefit traditional fishermen. However, the park administration soon starts prohibiting most of the traditional activities of the inhabitants. Their situation then becomes unbearable, ultimately leading the communities to abandon the land of their ancestors.

Social revolt

The establishment of strict environmental protection units in large coastal areas have led local communities to a situation of social revolt, as the conditions for their subsistence are abruptly suppressed. As a consequence, the dwellers consider the newly established areas as nobody's land and start to overuse natural resources and to fish illegally, practices that they had refrained from earlier.



In addition, when these traditional communities move outside the park area, other users, such as tourists, poachers, mining and sawmill operators, may act more freely, leading to the degradation of the coastal area. Some conservationists may argue that, without uninhabited protected areas, biodiversity may disappear. However, in tropical countries, it is becoming clear that biodiversity is also protected—and even enhanced—by traditional practices.

It is becoming increasingly clear that this imported national park model, bereft of traditional dwellers, is becoming a failure, and is not achieving an adequate level of conservation. A new model of conservation has to be devised and implemented, making the traditional knowledge and management schemes of local communities the cornerstone of an effective conservation that also benefits traditional people.

In this sense, a new model of protected areas may lead not only to effective conservation but to an amelioration of the living standard of thousands of small-scale fishermen and producers. A new form of management, negotiated with the local dwellers, inside and outside the protected area, could be the basis of actions to protect simultaneously the ecosystems and the diversity of cultures of coastal dwellers in tropical countries. In the last few years, however,

local fishermen in Brazil are getting organized with the assistance of the Catholic Church (Pastoral of Fishermen) and the recently established MONAPE—National Movement of Fishermen.

In the beginning, local fishing communities started closing the entrance of the most important lakes to the commercial/industrial fishing boats. These actions led to violent conflicts. They attracted the attention of socio-environmental organizations which then started fisheries management schemes involving all the actors, particularly local fishing communities (as in Lago Grande de Monte Alegre in the middle Amazon).

The basic idea was to create areas where access to resources is restricted to local fishermen, while retaining other areas for commercial/industrial fisheries. In these restricted areas, local fishermen agreed to regulate their fishing activities so as to achieve a socially and ecologically optimal sustainable yield, applying the same principles that orient the extractive rubber tapping industry.

Ecological station

One example of these efforts is the establishment of the Mamiraua Ecological Station in a wetland area covering one million hectares along the Japura and Solimoes River, where 4,500 people live by

fishing and harvesting forest products. According to existing legislation, all the 50 small communities should be resettled outside this protected area. However, with the assistance of local organizations and NGOs, including the World Wide Fund for Nature, a conservation project was established in co-operation with the fishing communities. The communities themselves organized management institutions that regulate fishing, particularly during the dry season when several lakes are formed.

The management plan delineates six different types of lakes, some of them being considered as exclusive conservation areas, some left for subsistence fishing and others reserved for commercial fishing, also for upcountry commercial boats, provided that rules (particularly those banning the use of some predatory nets) are respected.

Overall, however, it is clear that not only ill-devised development projects but also ill-conceived protected areas may lead to the degradation of ecosystems and their natural resources, as well as to the increasing impoverishment of local populations who should actually be benefiting from these activities. It is also clear that local populations, particularly the traditional dwellers, should be involved, from the outset, in the planning of these projects, including the establishment of protected areas. This might appear contradictory, as national parks are supposed to protect biodiversity. In many cases, however, coastal protected areas, based on the imported model of the Yellowstone National Park, may lead to opposite results. These efforts lack the people's support, particularly of those directly affected by the resettlement measures or by the prohibition of traditional activities.

From these examples, it appears that protected areas should be established only after an EIA is made, taking as a priority the interests, knowledge and traditional management schemes of local dwellers. In any model, these should be actively incorporated in the management plans. The state should give the material and technical means to local communities to undertake their own environmental and social impact analyses.

Clearly, these examples reveal that costs and benefits of large projects, as stated in official environmental impact reports, very often do not take into account the views and interests of local fishermen. Presenting their own conclusions during public hearings will enable local communities to negotiate with the state and other social actors to arrive at a better solution to their problems.

This article is by Antonio Carlos Diegues, Scientific Director of NUPAUB: Research Centre for Wetlands Conservation, University of Sao Paulo, Brazil and a member of ICSF

Ceara fishermen

Sailing for a cause

A spirited campaign in the shape of a 76-day voyage of the S.O.S. Sobrevivencia highlighted the plight of the fishermen of Ceara, Brazil

The *jangadeiros*, fishermen of northeast Brazil who sail on small rafts, have had considerable impact on Brazil's history. In 1884, Ceara was the first Brazilian state to abolish slavery. Propelling this path breaking decision was a year-long protest by the *jangadeiros*, led by Francisco Jose do Nascimento, the 'Dragon of the Seas', who was the founder of the Liberation Society of Ceara.

At the time, Ceara, located in Brazil's airy northeast, was going through a severe drought which hit agriculture in the region. Not needing slaves, and to help pay their rising debts, the owners began selling their surplus slaves to the state of Pernambuco down the coast. The *jangadeiros*, with their handy *jangadas*, were needed to transfer the merchandise to the ships anchored out at sea.

No one reckoned with the high moral standards of the humble fishermen who had decided on their own that slavery was unjust. To demonstrate their will, the *jangadeiros* began a boycott with the historic phrase: "No porto do Ceara nao se embarcam mais escravos!" (No more slaves will embark from the ports of Ceara)

The *jangadeiros* held fast against threats by the Emperor and his military. To show their unity, the 'Dragao do Mar' even travelled by ship to Rio de Janeiro in 1884 with a gift for the Emperor Dom Pedro II: the *jangada* 'Liberty'. Even though the Emperor refused to see him, the trip was a political success for the abolitionists, as he was given a hero's welcome by the people of the capital.

In 1941, it was the turn of 'Jacare (the Alligator) to sail to Rio de Janeiro with three other fishermen from Fortaleza.

This time, the target was the Military Regime of Getulio Vargas, which was strongly supported by the US. The four men sailed 61 days on a raft made of six tree trunks to tell the President about the miserable working conditions of *jangadeiros* and their need to be included in the country's social security system.

The voyage caught the attention of the movie director, Orson Welles, who was in Brazil at the time making a film on Roosevelt's 'Good Neighbour Policy'. Welles was so captivated by the courage of the *jangadeiros* that he decided to make a film about their struggle instead, doing so against the wishes of the State Department, the Brazilian government, and his then employer, Rio. Rio fired Welles, who proceeded with the project only to experience tragedy.

While re-enacting the *jangadeiros* arrival in Rio, a large wave overturned their *jangada* and, before Welles' very eyes, Jacare was carried off by a wave and drowned. The film project was canned and only completed 52 years later, released by Paramount under the title, 'It's All True'.

Just as a film team was in Ceara for the final shooting of 'It's All True', a new protest movement came to life in the small community of Prainha do Canto Verde. Work had begun with the fishermen in 1991 to liberate them from a wicked network of intermediaries that was exploiting their hard and dangerous work and pocketing huge profits by buying their catches of fish and lobster at manipulated prices.

Fishermen's co-operative

After less than a year of working to establish the co-operative of the fishermen, it became clear that there were even greater evil forces at work to keep the

fishing communities in extreme poverty. Real estate speculators were busy buying up peach property using corruption and threats, while, at sea, a growing fleet of motor boats had started to capture ever-growing quantities of lobster using ill-equipped divers and capturing ever-smaller juvenile lobsters. (Both diving and catching juvenile lobsters are prohibited by fisheries regulations.)

The conflict between artisanal fishermen on their fragile *jangadas* and armed bandits on motor boats kept growing. The authorities failed to intervene and enforce regulations, even as four fishermen lost their lives from enemy fire at sea.

The adventurous dream of one young fisherman, Edilson, to sail to Rio de Janeiro, was probably inspired by 'Jacare' and his own grandfather, who together with two other fishermen from Prainha do Canto Verde, sailed to Belem, Para on a 14-day trip in 1928. The idea to unite the fishermen of various communities and supporting NGOs gave the trip the sense that it lacked. So, in three short months, the logistics for the trip and the protest campaign were planned and financed.

A week before the scheduled departure, the *jangada* and the crew were presented to the press at the fishing port of Fortaleza. They made the headlines of all the newspapers and TV stations, Taken by

surprise, the Captain of the Port Authority advised that the navy had overruled the authorization for the trip given by the captain responsible for the area of Prainha do Canto Verde, implying that the trip should not take place. But there was no way that the crew, the organizers or supporters of the protest trip would heed the advice.

On 4 April 1993, loaded with emotion, tears, encouragement and worries, fishermen from ports far away came in their *jangadas* to escort the S.O.S. Sobrevivencia on the first leg of the voyage. TV crews, photographers and reporters gave the simple fishermen a preview of what lay ahead of them; hundreds of interviews and TV talk shows on the more than 3,000 km that lay ahead of them.

Absent, as always when things get hot, were most of the representatives of the state, municipal and federal governments. But the speakers who wished the sailors well, were very clear about where the problem lay—the rich are above the law, and few people waste their time looking for justice for the poor.

On its way

Shortly after 12 noon that day, the fishers' favourite priest, Padre Marco, celebrated mass and christened the *jangada* to send it on its way, well protected by the One who Cares. The small craft was rolled down the

beach, while thousands of well-wishers, even the hardest fishermen among them, let tears flow. Edilson (Fonseca Fernandes), the Captain Mamede (Dantes de Lima), crew members Francisco (da Silva Valente) and Francisco (Abilio Pereira da Silva) were busy tacking the wooden mast to sail through the surf and gain the wide open sea, accompanied by *jangadas* from neighbouring communities, on the first leg of the trip.

The trip had been carefully planned by a small group of young fishery engineers from the local university and volunteers from NGOs working on issues of fishery, ecology and human rights. Twenty stops were planned along the coast of Brazil; contacts with a variety of groups, fishermen's colonies, women's and human rights groups and other movements were planned at each port. Press releases were ready to brief journalists on the scope of the trip and inform them about the great range of problems facing coastal communities all over Brazil.

While the men started to prepare for the unexpected, two young women were getting ready to follow the route in a small two-door Volkswagen. Loaded to the last square inch with pamphlets, background material, press releases, petition forms, S.O.S. hats and T-shirts to be sold to raise funds along the way, and

their own little belongings, they took off, after a three-day delay.

Michelle Scharer, who holds a degree in zoology from the University of Central Florida, had come down with fever on the day the trip was planned to start. Her travel companion was Marlene Fernandes de Lima, then president of the Villages Residents Association. Both were in their early twenties and faced a formidable challenge for the next two months, meeting the press, ensuring supplies for the *jangada*, organizing protest meetings and communicating with Operation Headquarters in Fortaleza. To fill the gap of three days, I went ahead to Redonda, Icapui, to meet the navigators and the members of the community and then drove to the third stop to organize local support, before heading back to hand over to the girls.

Back at Prainha, the courage of the crew and the girls rubbed off on the fishermen. On 6 April, they went on strike to protest against delayed payments and the low lobster prices offered by buyers. They went back to sea only when the price went up and the producers were paid in cash.

Storm at sea

The *jangadeiros* faced their first serious problem when they got caught in a 24-hour storm at sea. Used to facing many a storm during fishing, they weathered this one too.

Meanwhile, Michelle and Marlene had made contact with the Sisters of the Convent and the fishermen's representative in Toros, Rio Grande do Norte, unlikely allies who were fighting the local city hail which had sided with a foreigner who was terrorizing fishermen with armed guards against using 'his' beachfront property for landing their boats.

It was Holy Friday afternoon when, in the middle of the procession, Sister Aurea announced over the public address system, the arrival of the *jangada*. It was a great reception for four very tired fishermen, who had endured two sleepless nights, and also attended to Mamede, still running a high fever.

Although not fully recovered, they decided to sail on, after spending three days in this hospitable community and learning more about the local problems—it seemed just like home, full of real estate speculators and pirates diving after lobsters.

Natal was the first capital city on the next segment of their trip. They arrived there on 14 April and got the first taste of the hard life of celebrities—interviews with four TV stations, three local radios and four newspapers. The navy sergeant made up for his superiors when he told the crew that everybody at the port authority supported the trip. After a grand reception in Cabedelo in the State of Paraiba, complete with dazzling fireworks, a parade and a show organized by the local fishing co-operative, they headed for Pernambuco and the historical city of Olinda.

The girls arranged for a dentist's appointment to repair Edilson's root canal that had been bothering him for the last four days, while the *jangada* was working its way towards Olinda. The representative of the Fishermen's Pastoral arranged meetings with local groups and helped Michelle and Marlene collect signatures for the petition, and sell hats and T-shirts.

Then they went by sea and over dirt roads through the States of Alagoas and Sergipe, ahead to the country's largest coastal State, Bahia. The problems that were

discussed with the communities in different ports invariably turned to pollution of coastal areas and wetland from industry or sugar cane plantations. There were also problems relating to fishing by divers, trawlers or those using dynamite.

Another common problem was real estate speculation that drove fishermen's families from their homes and threw them back into the hinterland, in some cases forcing them to travel over two hours by bus to go to work, while earlier they used to live right beside their boats.

Exactly one month into the trip, the S.O.S. Sobrevivencia appeared over the horizon for a triumphant arrival in Salvador, Bahia, the city on the Bay of Saints. The crew got a hero's welcome at the Olodum in the historic centre of Salvador, where the world-renowned carnival takes place.

Olodum is not only the home of famous rhythm groups formed of kids who have come off the streets and regularly perform on tour in the us, Europe and Japan. Olodum is a social institution founded by blacks to help them win back pride in their origin. Street children get a chance to go to school, art and music clinics.

Tuesday just happened to be rehearsal day for Olodum and thousands of people had filled the club in historical Pelourinho. The six adventurers got a standing ovation from the crowd and the band beat the maximum volume out of the drums. That night it seemed that all the Negroes of Salvador were fishermen and all the fishermen of Brazil were black, two neglected groups of suffering people that need to recover their pride, unite and fight for their existence.

The captain of the port in Salvador was not so hospitable and required the *jangadeiros* to sign a waiver of responsibility to relieve the navy of any blame in case they should sink. But, on the whole, most of the captains along the route were gracious. Some even invited the crew for dinner at home and praised their courage and spirit.

Letter of praise

Ironically, we got a letter from the Public Relations Officer of the Minister of the Navy in Brasilia, commending us on the

initiative and offering any kind of support and assistance—perhaps a case of what happens when the right hand does not know what the left is doing.

As the trip went on, it became clear how important the female support team was for the success of the campaign and the well-being of the sailors. They looked after just about everything, functioning as look-outs, *escorts*, shoppers, public relations agents and nurses, while facing thousands of kilometres (6,700 km in 74 days) of dirt roads, often in very inhospitable areas and far from habitation.

For the campaigners, the coast of Bahia seemed to have no end, through 16 days of sailing and 10 days of being stuck in the fashionable tourist resort of Forty Seguro due to bad weather. But it was also a time to make friends in new places and to talk shop. Both Marnede and Francisco (Abillo) had earlier fished in the south on industrial fishing ships and so knew some of the areas that lay ahead of thorn.

Back in Fortaleza, we were busy co-ordinating between the support team on the road, the concerned families of the crew, the press and the participating NGOs. In May, we organized four workshops on the campus of the Federal University of Ceara on the themes of the campaign irresponsible fishing of lobster; real estate speculation; neglect of

artisanal fishing; and irresponsible tourism development.

The workshops attracted a good number of experts, students and others interested. Government representatives were invited to present their points of view, but were hard pressed for good answers. The workshops were the basis for concrete proposals that would be presented to all the interested parties and sent to the President of Brazil, Itamar Franco, with signed petitions—over 2,000 were collected.

The President did not respond to the request from the fishermen for a personal audience in Brasilia to present the petition. The Governor of the State of Ceara did not appear and never responded to the proposals. To a foreign journalist, he declared that the *jangadeiros* are long overdue for display in museums.

The support of the media in Fortaleza was impressive. We were invited to several morning news talk shows and given ample time to present the various aspects of the campaign. TV channels, radio and newspapers gave regular updates on the trip down the coast,

Home stretch

After crossing the State of Bahia, the campaigners were on the home stretch. Both the water and wind were getting colder, as they were approaching winter

in Rio. Another weather-imposed stop in Vitoria cost the crew five days of precious travel time.


From then on, there were several difficult spots, with treacherous currents and crosswinds. It took all the experience of Mestre Mamede to avoid a rocky island that seemed to be on collision course with the *jangada*. This was probably the scariest moment for the four intrepid travellers.

In Rio, the preparations for the team's arrival were in high gear and everything was planned for Saturday, 12 June, with a fleet of boats ready to escort the S.O.S. Sobrevivencia across the Bay of Guanabara. But the lord and master of the skies once more did not co-operate.

The result was heavy clouds and no wind to move the *jangada*. But on the morning of Wednesday, 16 June, Rio de Janeiro awoke in all its scenic splendour to see, despite no winds, the *jangada* working its way towards the Pracxa XV (Square 15) in the centre of the city, with 15 video cameras shooting its progress from the accompanying schooner.

TV personalities, and songwriter Doryval Cayimmi, were at hand to receive the four modest fishermen and their two fighting ladies, who had travelled 76 days in a memorable campaign, yearning for somebody, somewhere to listen to the call of the fishermen of Brazil. The expedition

ended on 19 June, after a three-and-a-half hour flight back to Fortaleza and a hero's reception in Prainha do Canto Verde that reunited all those—whether at sea, on the road or waiting anxiously back home—who had given a small part of their lives for a cause.

Despite the negative response of government officials, the fishermen of Ceara did not give up and, over the years, kept up the pressure by forging new alliances to unite the fishing communities. The resulting resurgence of the fishermen's movement has since yielded some surprising results that are bound to have a lasting and positive impact on artisanal fishing in Brazil. 

This report is by René Schärer, co-founder of the NGO, Instituto Terramar, member of the Fisheries Committee of the State of Ceara and father of the intrepid Michelle mentioned in the story

Fisheries administration

Dabbling in change

The recent institutional changes in the Brazilian fisheries sector have several implications

The second half of 1998 saw important institutional changes within the Brazilian fisheries sector, with the creation of the new Department of Fisheries and Aquaculture, under the Ministry of Agriculture. Under its jurisdiction lie issues such as a support policy for fisheries, and the regulation of fisheries. It appears that some functions, such as monitoring and enforcement will continue to be under the jurisdiction of IBAMA (Brazilian Institute of Environment).

At first glance, this is a positive change, because, since 1990, fisheries has been under IBAMA. IBAMA is part of the Ministry of Environment and is the agency responsible for environment conservation and management of natural resources, including forests and marine resources. In other words, the support for fisheries development is not the institutional focus. The focus is clearly on conservation rather than development. It has also been alleged that the priority within IBAMA has been forest management and conservation, and that fisheries has been given a back seat.

However, reactions to the creation of the new department have been varied. Different categories of actors within the fisheries sector in Brazil perceive the implications of this change differently.

Institutional changes in the Brazilian fisheries sector are not new. In the past, the subject of fisheries had been oscillating between the Naval Ministry and the Ministry of Agriculture. Despite these institutional shifts, there has been a surprising constancy in the policies towards this sector, especially towards the artisanal fisheries sector. For one, fisheries has never been a priority sector.

The lack of systematic data about production and trade, especially concerning artisanal fisheries, contributes to the low importance accorded to fisheries and to the vicious circle of little support, low productivity and marginal political influence and power. For another, it has not been considered worthwhile to consult the artisanal fishery sector, either in the formulation of support policies or in their implementation. And finally, even the actions that are periodically formulated and implemented in a top-down fashion to support the fishery sector, due to economic or political compulsions, do not last long enough to make a significant impact.

Before fisheries was shifted to IBAMA, there was a specific department of fisheries under the Ministry of Agriculture—the 'Superintendencia' for Fisheries Development (SUDEPE). While not a ministry by itself, it was certainly an institutional space for fisheries. SUDEPE was created in 1962, and, in fact, developed a set of programmes which may be seen as a fisheries development policy. Its responsibilities included planning and executing programmes for the development of the fisheries sector, as well as supervising, inspecting and controlling exploration and exploitation of resources.

Under SUDEPE, in the 1960s and 1970s, the prevalent approach was to modernize the fisheries sector by prioritizing the development of the industrial sector. It was believed that this would enable Brazil to achieve an average annual production of one million tonnes of fish per year, enough also to increase exports.

Entrepreneurial aid

During this period, entrepreneurial groups in all parts of Brazil received

generous federal funds and other incentives, such as tax concessions and cheap credit, as well as subsidies for import of fishing materials. For example, in the Amazon Region, by Federal Law No. 5174, 'dated 27 October 1966, companies which invested in the region were entitled to tax exemptions.

In the case of the fisheries sector, this law facilitated the establishment of several fishing companies dealing with the capture, processing and export of fish and shrimp in the Amazonian estuary.

Thus, in addition to its other responsibilities, such as issuing licences and professional cards to fishermen, and defining and enforcing management measures, SUDEPE worked towards the development of the fisheries sector. However, as pointed out by members of MONAPE (National Movement of Fishers), it was a development of "the big ones"—exporters and fishing companies.

To be fair, SUDEPE also initiated programmes for the artisanal sector. The most important one was PESCART—Plan of Assistance for Artisanal Fisheries—taken up in collaboration with other federal institutions, which lasted from 1974 to 1980. This provided credit and technical assistance to fishermen's co-operative societies and also to individual fishers. This plan benefited nearly 25,000 fishers in

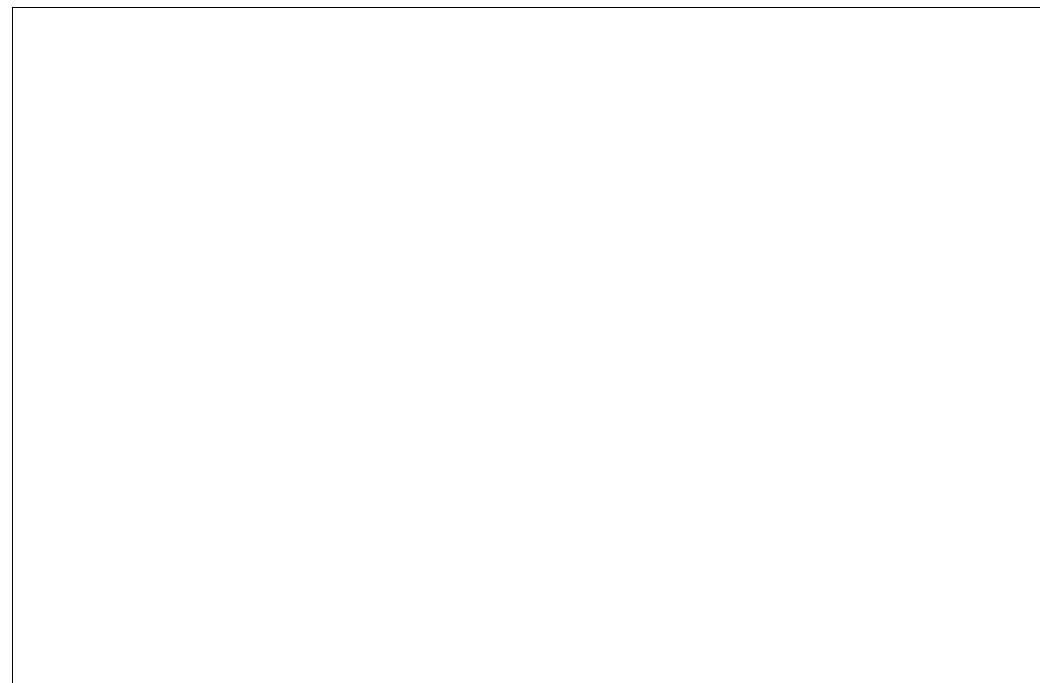
the whole country, according to data presented by W. Hartman, a past member in a SUDEPE programme of international co-operation.

According to one of the scientists who worked in PESCART in the state of Para, this plan was dropped by SUDEPE in 1980, without any serious attempt at evaluating its performance. No other support programme for artisanal fishers was subsequently created.

Analysts such as L. Furtado and V. Loureiro, who have evaluated such plans, have concluded that they did not significantly alter the general thrust of giving preferential support to large-scale fisheries. For example, it has been shown that, between 1960 and 1978, the artisanal sector received only about 12 per cent of the total financial support that had been extended to the industrial sector as a consequence of government policies, including loans and fiscal exemptions. In the state of Para, between 1968 and 1980, only three per cent of the total support had been for investment in artisanal fisheries, through bank credit plans.

Credit for fishers

Another programme for supporting artisanal fisheries, PROPESCA, was initiated by SUDEPE between 1982 and 1983. This was mainly to provide credit to individual fishers. No technical assistance was, however, provided. Regarding its role of



monitoring and enforcement of management measures, it was only in the second half of 1980 that SUDEPE took more energetic action to control trawling in inshore waters, in the north of Brazil. A law to control trawling (No. 011 in 1987) was enacted by SUDEPE.

This was also a result of pressure from fishing communities and the Fishermen's Federation of Para. However, SUDEPE lacked the means to carry out effective supervision over the 562-km coastline and 98,000 sq km of continental waters in Para State.

Towards the end, even scientists in SUDEPE were more critical about the kind of development that had been pursued within the fisheries sector.

For instance, in the last report produced by the SUDEPE office in Para, in 1988, the important role of artisanal fishers in the regional and state economy was emphasized. The need for studies about the resources and ecosystems exploited by these fishers was highlighted.

In 1990, as part of a national programme to decrease federal expenditure, the government closed down several departments. SUDEPE was wound up, and the subject of fisheries was transferred to the newly created IBAMA under the Ministry of Environment. IBAMA also took over the functions of the erstwhile IBDE

(Brazilian Institute of Forest Development).

Such a change attracted much criticism from all quarters—entrepreneurs, the Fishermen's Federation of Para and also from the scientists within SUDEPE itself. It was felt that there was little possibility of supporting the fisheries sector within the new structure.

According to a former scientist of IBAMA in Para, at first the role of IBAMA in the fisheries sector in the state was primarily oriented towards controlling resource overexploitation. It tried to control predatory fishing practices by both the industrial and the artisanal sector.

This fetched a lot of criticism from the entrepreneurs' lobby. They complained that IBAMA's only emphasis was on control and repression, and not on the development of fisheries. According to MONAPE, though, if IBAMA did nothing to support the artisanal sector, neither did it do anything to help the industrial sector. In that sense, the policies pursued by IBAMA were more balanced than those pursued by its predecessor, which were clearly biased towards the industrial sector.

Interesting initiatives

Moreover, in the past few years, some interesting initiatives have been pursued by IBAMA, such as those linked to the

co-management of resources. The vital role of coastal and riverine communities in the surveillance and management of fisheries resources has been progressively recognized.

In some areas, responsibilities for monitoring and enforcement have been undertaken in partnership with fishworkers' organizations. In some other fishing communities, environmental educational programmes have been initiated. In the State of Alagoas, for example, efforts have been made to raise awareness among fishworkers about the appropriate mesh-size of fishing nets.

Fisheries is once more under a special department, in which the emphasis is yet again on development rather than the conservation of resources. It is not yet clear what the future holds for artisanal fishworkers in Brazil.

Will there be a return to the policies of the erstwhile SUDEPE and a greater impetus to the indiscriminate growth of the industrial sector? Or will some sense of balance be restored through the adoption of policies that also protect and promote the artisanal sector and the better management of the resource base?

The only thing that is clear is that, at present, meagre federal funds will not really permit substantial allocation of resources for the fisheries sector. 3

This piece is by Maria Cristina Maneschy, a professor of sociology at the Federal University of Para in Belem, and Lourdes Furtado, a sociologist at the Museu Paraense Emilio Goeldi, Belem, Brazil

Invisibly yours

The useful work and energy that women expend in fisheries remain invisible and undervalued, as participants at a workshop in Brazil reported

A six-day workshop on *Gender and Coastal Fishing Communities in Latin America* was organized recently, in June 2000, in the coastal fishing village of Prainha do Canto Verde, in the State of Ceara, Brazil, as part of ICSF's Women in Fisheries (WIF) programme.

The workshop had the following objectives:

- to develop an understanding of trends in fisheries development and their implications for coastal fishing communities in the Latin American context;
- to make visible women's roles in fisheries and in fishing communities in Latin America, and to reflect on strategies to strengthen their meaningful participation; and
- to facilitate greater networking among organizations representing, and working with, artisanal fishworkers in the Latin American context.

A total of 36 persons participated in the workshop, including representatives from five countries in the Latin American region, i.e. Chile, Peru, Brazil, Ecuador and Mexico, and representatives of ICSF from India, Belgium and Brazil. The group that came together was diverse and rich in experience. It included representatives from the Confederacion Nacional de Pescadores Artesanales de Chile (CONAPACH), Federacion de Integracion Y Unificacion de Pescadores (FIUPAP), Movimento Nacional dos Pescadores (MONAPE) and Federacion Nacional de Cooperativas Pesqueras del Ecuador (FENACOPEC), the national fishworker

organizations from Chile, Peru, Brazil and Ecuador respectively. It also included representatives from NGOs, research institutes and organizations supporting fishworkers from Brazil, Chile, Peru and Mexico.

Participants included both men and women. This was a conscious decision, since gender was seen as an issue which both men and women of fishworker organizations, NGOs, etc. need to engage with. Equally significant, all the country delegations felt similarly, and both the male and female leadership of the organizations invited participated in the workshop.

As part of the pre-workshop preparations, five background papers on gender and fisheries were prepared from four countries in the Latin American region: one each from Chile, Peru and Mexico and two from Brazil. These papers were useful in highlighting important issues *vis-à-vis* gender and fisheries in several countries of the region, and they provided the backdrop for discussions during the workshop.

The main sessions included presentations and discussions on the following:

- a global overview of trends in fisheries development, with special reference to the Latin American context;
- background papers on gender and fisheries in countries of the Latin American region;
- World Forum of Fish Harvesters and Fish Workers (WFF);
- the development debate and a framework for social analysis as a

possible tool to analyze social reality and the reality of fishing communities;

- globalization and social movements in Latin America; and
- fishworker organizations in the Latin American region.

During the workshop, it became clear that in all the countries represented, i.e. Chile, Peru, Brazil, Ecuador and Mexico, the pressure on coastal fishing communities and on their livelihoods is increasing. This is also a consequence of globalization and the neoliberal policies being adopted by States in the region.

The picture that emerged about the work of women within the fisheries and within fishing communities was revealing. It was clear, of course, that this differs by culture and region and between rural and urban areas, and that, it is not possible to generalize. The common factor, however, is that the work of women is rarely seen as 'productive'. It has low social value and is normally seen as an extension of the 'domestic' space. Little value is attached to the domestic and community tasks performed by women.

This is despite the enormous diversity of tasks performed by women. Within the fisheries, women may work in marketing,

preparing bait, making and repairing nets, collecting crabs and shellfish, gathering and cultivating seaweed and algae, smoking, salting and drying fish, and, in rare cases, fishing itself.

Women also take on work on behalf of their fishermen husbands, such as dealing with financial institutions for credit for fisheries operations and for repayment, dealing with the governmental fisheries agencies, and so on.

They are very active in the processing sector, as either part-time or full-time workers in processing plants. The nature of the work they do is typically repetitive and low-paid. The conditions of work and social security leave much to be desired.

Often, women of coastal fishing communities take on activities outside the fishery, that give them some form of stable monetary income, since the income from the fishery is inherently unstable and unpredictable. Also, given the nature of work of the fishermen and their frequent absences, women are almost entirely responsible for the family and its sustenance, and it is often such additional sources of income that help them take the family through lean periods.

Political struggles

Women of fishing communities have been active in political struggles. The issues they have mobilized around have

differed. In Chile, for example, women have been active in the struggle against individual transferable quotas (ITQs); in Peru and Brazil, they have campaigned for better access to social security; and in Mexico, against pollution by oil companies.

In addition, women, as everywhere else, are entirely responsible for the care and nurture of the family. Where the men stay away fishing for long periods, as in North Chile, women run the household in the absence of their husbands. They are important actors in the fishing community and also in maintaining social networks and the culture of the community.

Why then does the work of women continue to be invisible? It was in this context that the workshop saw several interesting and thought-provoking discussions on gender issues. There were many debates on what the concept of gender actually was or meant, and how this conceptual understanding could be translated into practical initiatives. There were, as can be expected, several different positions.

There was consensus that women have always been important in the fisheries and in fishing communities. They have always formed the core around which family and community life has been organized. However, on several other issues, there were debates and discussions, with different positions and many questions emerging from the participants.

One position articulated by a participant was that 'gender' is very much a concept introduced from the West. Traditional societies in many parts of the developing world are based on relations of complementarity, where both men and women perform different, but complementary, roles. In indigenous societies, the sea is seen as a woman, as a source of life, and there is respect for both. These societies are based on a respect for women and nature. There is no concept of inequality and competition in relations between men and women; rather, the emphasis is on oneness and complementarity. However, modernization and the influence of other cultures, have modified these positive

features. The need, therefore, is to value or own culture, and to revive it.

However, the position of many others differed. Some felt it is important to recognize that women are discriminated against in many ways within our communities. While men and women may be born with the same potential, they do not have the same opportunities in life. Women face more obstacles. Men tend to have more power within the family and community, and this has been used and abused, sometimes taking the form of violence within the family. This kind of violence seemed to be common, and as one of the participants from Mexico put it, "violence will never end since our children are being raised in it. They will imitate their fathers."

It was also recognized that the work of women, especially within the household, has not been valued. There is need to change this perception and to ascribe value to this work.

It is as important, though, to be cautious of creating conflicts between men and women over differences in perspective on gender issues. There was also some concern about professionals, who may not have the same perspective, working with fishing communities on gender issues, as this could lead to divisions within the community. Discussions on such issues need to take place within a larger context of affirming the culture and identity of coastal fishing communities, and of strengthening these communities. It should take place within a context of creating a new type of society, which values the labour and role of women. Another position closely connected to this emphasized the creation of a society based on a respect for women and nature.

In general, there was a commitment and receptiveness among the participants to gender issues within their own contexts. Several participants spoke of the work they had already initiated along similar lines.

Verbal concern

However, as one pointed out with some bitterness, the issue may remain a merely verbal concern, with little actual implementation taking place. According

The proposals

These proposals are geared to increase, as much as possible, the role of women in the fisheries sector, to grant them recognition and participation, to reinforce the visibility and political power of artisanal fishing communities, and to search for socially just and responsible strategies for fisheries development.

The proposals were classified into the following categories:

1. Information and Analysis

Work towards a detailed collation and systematization of data and analyses concerning fishing communities, with specific reference to gender relations. The data and analyses must be shared between communities and organizations.

National co-ordinating committees should be formed to carry out this analysis. Those undertaking the assessment must work out a proposal for participatory analysis to be undertaken in different regions, with the objective of identifying:

- the status of women in the fishing communities (coastal and riverine)
- their activities, both in the public and private (domestic) sphere;
- the impact of existing pressures on fishing communities, especially with relation to the life of women.

2. Stimulation and Participation

Facilitate, stimulate and increase the participation of women within the fisheries and in fishing communities, through a combination of actions and events. These programmes

must provide a forum for women to meet and to evolve methods for ensuring their participation. They must open up spaces for women, in their daily life and in professional and community organizations.

Facilitate discussions on fisheries organizations and on promoting the participation of women in them.

Stimulate and guarantee the presence, and effective participation of, women, as well as their proposals and demands, in the national and international activities of fishworkers.

Facilitate the creation of women's departments within fishworker organizations, and promote the opening up of spaces within these organizations, which would help women define and defend their interests and needs.

All these actions should aim to:

- highlight the contribution of women within the fisheries sector and within community life;
- facilitate the legal recognition of women workers in this sector;
- take measures against the exploitation suffered by women in the workplace.
- ensure that the demands and the interests of women are taken into consideration in public policies, employment and income-generation programmes, educational programmes, training, credit and health programmes.

to her, some colleagues talk of gender, but when they come to power, they do not create a space for women fishworkers within the organization. The projects they pursue have nothing to do with women. Practice, not talk, is important, she stressed.

In the same vein, another participant stressed that increasing the participation of women should also mean creating the spaces within organizations to discuss issues that are of concern to women, and in which they are the subjects. Women should not be seen merely as agents

supporting the agendas of their men. One participant cautioned about the way mainstream agencies are interpreting gender in fisheries issues.

These are often reduced to the need for increasing women's economic participation in the fishery, without an understanding of the larger social context. To strengthen the participation of women, the promotion of their role in aquaculture is being mooted as one answer. It was generally agreed that this was a reductionist approach.

- contribute towards making the relationship between women and men more just, so that both have access to the means to aid their personal, professional, familial and cultural fulfilment.
- contribute, at the same time, towards reducing domestic violence.

3. Education and Training

Facilitate training programmes that enable fishing communities themselves to carry out surveys, and document their work and activities, so as to have at their disposal permanent means to aid and evaluate their work.

Encourage the conduct of training programmes for communities, from the perspective of gender, among other issues.

Popularize the Chilean and Brazilian experience, where the effort is towards the generation of information which aids the fishworker movement.

Develop the gender focus within the sector.

Collect and share information on fisheries and policies relating to fisheries.

4. Sharing of Experience

Facilitate the establishment of a permanent working group which allows for an exchange of experiences.

Promote alliances with other sectors in civil society so that the fisheries sector comes to be accepted as an important social entity.

Seek an exchange of experiences with relation to areas reserved for artisanal fisheries, highlighting the role of women in the management of these areas.

Build up relations and exchange with other organizations (of workers, farmers, educational entities, etc.) which have more experience on gender issues.

Promote ways by which women from the fisheries sectors can be present at, and participate in, international and national events pertaining to women.

Encourage the setting up of forums and exchanges among women in the coastal and riverine areas.

5. Judicial Landmarks and Public Policies for Fisheries

Seek a review of legislation that defines a fishworker as one who engages only in fish-capture activities.

Seek a review of fisheries legislation from a gender perspective.

Collaborate in redefining the significance of the term 'artisanal fisheries' in such a manner that there exists a common understanding of it, taking into consideration the differences between countries and continents.

Seek to define the concept of artisanal fisheries and of artisanal fishworkers, sharing experiences with other countries.

Promote the recognition by governments of women fishworkers, seaweed and shellfish collectors, vendors and traders, makers of fishing equipment, etc. Ensure that this recognition has an impact on public policies. Ensure the rights of women fishworkers to social security (unemployment insurance and other forms of social security).

The discussions were by no means conclusive. They raised many issues and questions. In all probability, the process represents but one step in what is no doubt a long and continuing process of exploring such issues.

Overall, however, the following broad consensus emerged:

- the work and roles of women within the fisheries and within fishing communities have historically been, and continue to

be, important, though often invisible and undervalued;

- there is a need to valorize the work and labour of women, and to recognize this as an important part of the productive chain within family enterprises. This may involve redefining what is seen as fisheries;
- however, these efforts need to take place within an overall context of strengthening and affirming the

way of life and cultural identity of coastal communities, and on fostering mutual respect between men and women. There is a need to be wary of triggering a divisive conflict within the community;

- women's participation in fishworker organizations should be seen as vital in not just supporting issues important to men. There are issues that are specific to women that need to be addressed too. The role of women should not be seen as complementary, but as an issue in its own right.

Participants agreed to work together on gender issues. A set of proposals for follow-up actions was finalized (see box). The participants also proposed the creation of a group, with representatives from each of the countries present, to see through the implementation of the proposals.

This report has been filed by Chandrika Sharma (icsf@vsnl.com), Programme Associate of ICSF, who was one of the organizers of the workshop

Faceless no more

The Fishermen's Pastoral Council has effectively contributed to several political changes in Brazil

The Fishermen's Pastoral Council (CPP) is a Brazilian organization close to the Catholic Church structure. Recently, during the celebrations of its 30th anniversary, from 17 to 19 November 2000 in Lagoa Seca Village in Paraíba State, several people recalled various aspects of the history of the movement. Since its beginning, CPP has played an important role in supporting the fishermen of Brazil, and has effectively contributed to several political changes. Today, many *colônias* around the country are headed by active fishermen or fishworkers. (*Colônia de Pescadore* is the traditional name for the municipal or district-level organization of fishermen in Brazil.)

According to Bernardo Siry, the present national co-ordinator of CPP, at the end of the 1960s, when the movement began, it was made up of fishermen, priests, nuns and other supporters. Starting in some of the beaches of Olinda (in the neighbourhood of Recife, the capital of Pernambuco State), the movement centred around the work of a Franciscan priest, Alfredo Schnuetgen, a priest whose memory is still alive among many fishermen's groups, notably in the northeastern region of Brazil.

The movement soon outgrew its local character, spreading rapidly to other regions of Pernambuco and beyond. As Professor Luiz Geraldo Silva, from Paraná University, recalled at the celebration, around 30 years ago, two trajectories met—CPP's and that of the organized fishermen in Brazil. Since then, the histories of both have been intertwined.

Bernardo Siry nostalgically recollected the initial adventures of Alfredo the priest, who didn't want to be "confined to parishes, but wanted to find the people."

During his walks along the Olinda beaches, Alfredo had observed the neglected fishermen, whose lives were characterized by isolation, distance and subordination to merchants. He began to work in two communities in Olinda. Initially, it was not an easy task to get them to discover their own reality.

Out of the first meetings with the Olinda fishermen was born "Christian Fishermen", which began to publish an informative bulletin, *O Leme (The Rudder)*. One of the main difficulties the bulletin addressed was the existence of middlemen. Toinho, a fisherman who was part of the early movement, recalled that the middlemen owned the boats and the gear, and they forced the fishermen to sell their products through them. Soon, Alfredo's discussions stimulated interest in an effective organization for fishermen. Groups of fishermen began to form associations within the *colônias* to acquire fishing gear. These groups were the seeds of the future co-operatives.

Those early initiatives soon expanded to the other beaches of Pernambuco and the neighbouring States. Literacy groups began to be organized for the fishermen and their families. Meanwhile, *O Leme* was increasing its circulation, while a radio programme, *Voice of the Fisherman*, began to attract listeners in the northeast region.

Autonomous entity

In 1974, Christian Fishermen was recognized by the Regional Northeast CNBB (National Conference of Brazilian Bishops) and, in 1976, it was declared a "pastoral of national interest", and named the Fishermen's Pastoral Council, with headquarters in Recife. In 1978, it became an autonomous entity, and began to hold general assemblies and meetings for national co-ordination.



Brazil



The fishermen wondered whether it should turn into a movement for fishermen or remain a pastoral service for them. After a great deal of controversial debate, they decided on the latter objective.

Today, the Council has both religious and lay members. It participates in the religious and cultural occasions of the community, and also in the struggle for the rights of the fishermen.

The profile of the fishermen is no longer that of a bunch of workers subservient to merchants, the military and politicians. Increasingly, more and more fishermen have been mobilized in a lot of *colonias*, and this has led to a national movement of fishermen.

Today, the role of women is an important part of the Council's work. As early as 1974, it supported the organization of *pscadeiras* (fisherwomen), as reported in the early editions of *O Leme*, copies of which were displayed at the 30th anniversary meeting.

At the meeting, Bernardo emphasized the pioneering role of Sister Nilza, who, in the 1970s, began working closely with a group of fisherwomen of Itapissuma, in Pernambuco. It was from Itapissuma that, for the first time in Brazil, a woman became the president of a fishermen's *colonia*.

The president of the fishermen's *colonia* of Remanso, in Bahia State, recalled, "The fishermen didn't know they had somebody who could do something for them." An added disadvantage was the lack of organization.

Today, thanks to the support of the Council and some parishes and dioceses that gave priority to the cause of the fishermen, four *colonias* in the Sobradinho area are ruled by fishworkers. "Today, a fisherman can sit down and talk with anyone, even with the head of the country," said the president.

The testimony of Divino Alves, another professional leader, was along the same lines: "The fishermen today see themselves as a category of workers, with specific problems. The Fishermen's

Pastoral Council began to show fishermen that they are individuals with rights and dignity."

Toinho, president of the *colônia* from Penedo, So Francisco River Region, recalled the initial support from Centro Josué de Castro, as well as the help of a technician from the old official fisheries institute, SUDEPE. Those days, he said, were marked by surveillance by the military regime of Brazil, which was suspicious of any workers' meetings.

As an important consequence of the work initiated by the Council, a fisherman was elected president of the National Fishermen's Confederation. Soon, the fishermen were clamouring to be officially recognized in the country's constitution, egged on by Dario, a fisheries technician who came to Olinda in 1986.

In Brasilia, the country's capital and home to the federal government's headquarters and the National Congress, the fishermen participated in a seminar with deputies and senators who were engaged in the constitutional process.

A team of fishermen's leaders and support technicians took charge of lobbying the constitutional assembly in Brasilia. As Toinho reminded the audience, MONAPE, the national fishermen's movement, was born of that early process. "The fight of the fishermen continues, but it was never easy," he recalled.

In 1986, a Constituent Movement was organized to put before the country's Constituent Congress, the views, interests and propositions of the fishermen. Ricardo Campos, a lawyer and an old member of the Fishermen's Pastoral Council, recalled that not more than 20 years ago, the *colonias* were dominated by the military.

Forced affiliation

The Constituent Movement sought to struggle against the obligatory affiliation of fishermen to the *colonias*. It also fought against State interventionism, which was manifested as statutes promulgated by the Ministry of Agriculture, and by the fact that the president of the National Confederation of Fishermen was nominated by the minister.

René Schärer, of Prainha do Canto Verde and a member of the NGO, Instituto Terramar, of Ceará State, pointed out the positive and negative aspects of the fishermen's history. Among the positive ones were the training courses for leadership. "The present leaders of Ceará came from the school of the Fishermen's Pastoral Council," he said. The courses that Instituto Terramar conducts today are inspired by those early programmes. As negative points, René pointed to the inefficient operations in a lot of the colonies. He also believed that a larger discussion on fisheries management is yet to occur.

The posters presented at the 30th Assembly meeting referred to several seminars and events that had taken place during the period, both locally and nationally. On display was a copy of a bulletin published by MONAPE, called *Fishing and Struggling*, as well as a copy of a "Letter on the Fundamental Rights of the Artisanal Fishermen of the World," which talked of the right for women to participate in fisherworkers' organizations and in fishing activities.

Professor Luiz Geraldo da Silva, a historian who had worked in the Council between 1986 and 1990, and who is the author of *The Fishermen in the History of Brazil*, reminded the Assembly that the first indigenous inhabitants of Brazil used the swamps, the rivers and the sea. With

the arrival of the Portuguese and, especially after the 18th century, slaves began to be employed in the fisheries. The price of a slave fisherman varied with specialization. There were shrimp fisher slaves, shell collectors, manufacturers of rafts, etc., Geraldo explained.

The professor also reminded his audience that since the 18th century, middlemen have been operating on the beaches. Then they owned corrals (fixed traps), nets, and ranches of coconut trees. Fishermen had to pay for the right to build the straw huts for their boats and fishing materials. Their freedom was restricted, as they were obliged to the middlemen.

Navy recruitment

In the 19th century, Geraldo continued, the State began to see the fisherman as an "ideal type of servant for the navy." After 1840, the navy began to create "Districts of Fishing" along the Brazilian coast, in a recruitment drive for warship crew. Fishermen, along with other seafaring categories, were supposed to enroll in those districts. Though those early mariners were seen as the advanced sentry for the nation, they met with repression, and were forced to move away from their families and communities. Around 1919, the navy embarked on a military mission of creating *colonias* of fishermen, along the whole Brazilian coast. The intention was, always, to recruit individuals into the navy.

In that era, male and female fishers were socially invisible, although they were essential as food producers, and were responsible for the profits of several categories of middlemen. In time, their profile changed, as different strategies entered their agenda, such as the fight for enlightened public policy and development programmes, the search for a rational use of aquatic resources, and the recognition of the role of women in fisheries. Nowadays, fishers are no longer content with fighting for mere existence and organization. They demand the right to dignity and public recognition, production infrastructure, a healthy environment, political representation, professional capacity enhancement, and social and welfare rights. ♣

Brazil

This report was written by Maria Cristina Maneschy (crismane@terra.com.br), Professor, Federal University of Para, Belem, Brazil

MSC Certification

Lobbying for lobsters

This is a partial pre-assessment report of the Prainha do Canto Verde Community-based lobster fishery in Brazil

The Marine Stewardship Council (MSC) is a non-profit organization dedicated to the long-term protection or “sustainability” of marine fisheries and related habitats. First started as a joint initiative between Unilever and the World Wide Fund for Nature (WWF), the MSC is now a fully independent organization that is governed by an independent Board of Directors advised by a panel of scientific, economic, and fishery experts.

The MSC Mission Statement is:

To work for sustainable marine fisheries by promoting responsible, environmentally appropriate, socially beneficial, and economically viable fisheries practices, while maintaining the biodiversity, productivity and ecological processes of the marine environment.

Dedicated to promoting “well-managed” or “sustainable” fisheries, the MSC initiative intends to identify such fisheries through means of independent third-party assessments and certification.

Once certified, fisheries will be awarded the opportunity to utilize an MSC promoted eco-label to gain economic advantages in the marketplace. Through certification and eco-labelling, the MSC intends to promote and encourage better management of world fisheries, many of which have been suggested to suffer from poor management. In September 1996, the MSC gathered together a group of more than 20 preeminent persons experienced in fisheries and fisheries-related issues (scientists, social scientists, economists, lawyers, etc.) to discuss the establishment of guidelines for defining “sustainable” fisheries. Pulling from large volumes of work by a number of leading organizations (FAO, Greenpeace, WWF, ICES, etc.), as well as their cumulative

experience and expertise, the group was able to develop a document entitled “Draft Principles and Criteria for Sustainable Fishing”. These principles and criteria, which are now approved for final use by the MSC Board of Directors, form the basis for qualifying fisheries as certified and able to utilize the MSC ecolabel.

At the request of Julia Novy, Director of the Community Based Conservation Program for World Wildlife Fund and Rene Sharer of Instituto Terramar, Scientific Certification Systems, Inc. undertook a Pre-assessment of a small community-based lobster fishery in Prainha do Canto Verde in Northern Brazil to determine if this fishery is a good candidate for MSC certification. More specifically, this pre-assessment project was divided into two parts:

Part 1: Collect and assess general information about the fishery and the status of lobster stocks in Brazil. If information is found that strongly suggests that the fishery under evaluation could not meet the MSC certification requirements, the project would not move on to Part 2.

Part 2: Complete the data collection and interviewing of relevant managers, scientists and stakeholders in the fishery to provide information on the following issues:

- The fishery management policy objectives, regulations, and practices;
- State of preparedness for assessment, in particular, the extent to which the fisheries systems are based upon the MSC principles and criteria;

- List of stakeholders in the fishery;
- A short description of the fishery;
- General historical background information on the fishery and area;
- Identification of other fisheries in vicinity, but not subject to certification;
- A decision as to whether it will be possible to move from the pre-assessment to final assessment stage;
- A discussion of the key issues and factors identified as potentially troublesome in completing a successful certification assessment based on the MSC principles and criteria, and;
- A budget estimate for conducting a full certification assessment.

The following report details the work completed for Part 1 of this project, noting that the project was terminated after the completion of Part 1 due to the information obtained on the status of lobster stocks in Brazil. Part 2 of this project was therefore not completed.

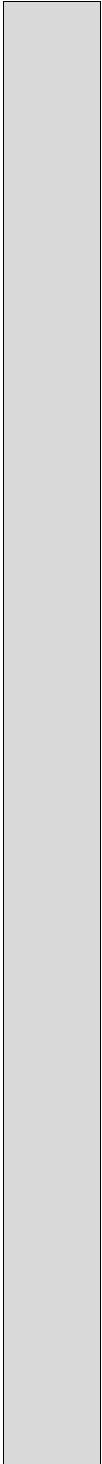
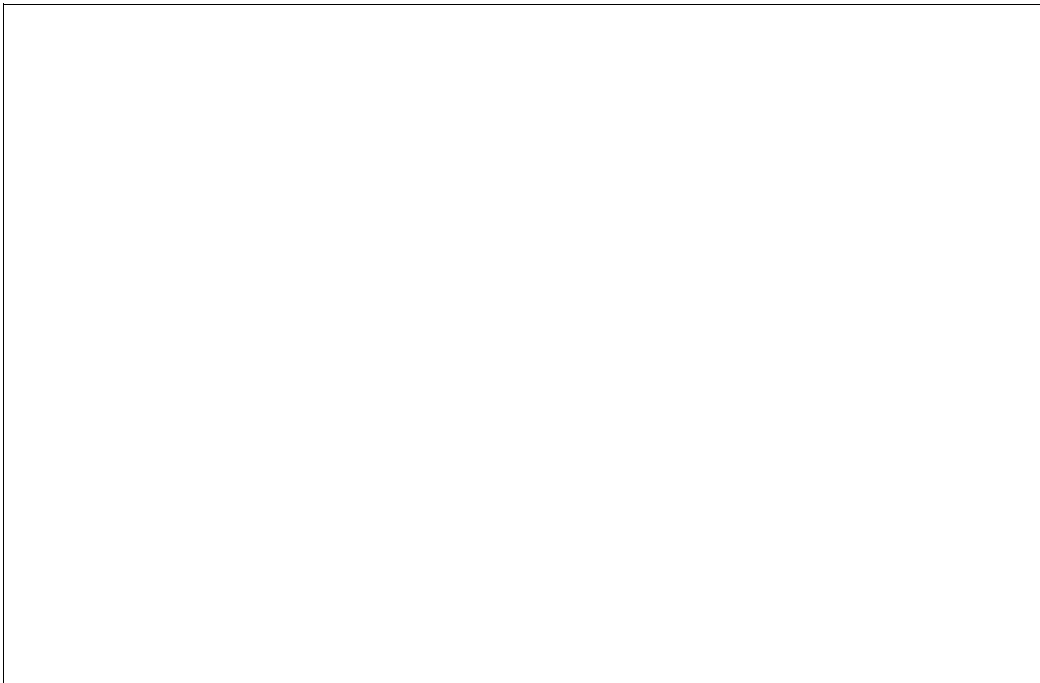
Scientific Certification Systems (SCS), founded in 1984, has developed a series of

programs to independently evaluate and certify environmental and food safety performance. The company's mission is to provide objective, scientific information to industry, government policy makers, and consumers about the environmental and health consequences of various industrial and agricultural practices, and to encourage voluntary, responsible improvements through recognition of outstanding industry achievement.

SCS consists of a multi-disciplinary team of scientists, trained in the fields of chemistry, chemical engineering, process engineering, packaging engineering, biology, statistics, entomology, geology, nutrition, agricultural sciences, marine sciences, and forestry.

Chet Chaffee directed this pre-assessment. Chaffee has over 15 years experience in the field of marine sciences, and more than 10 years of experience in environmental certification and eco-labelling. Chaffee has conducted or participated in certification projects for both small and large (Fortune 50) companies in a wide variety of industries from chemical manufacturing to food to resource extraction.

Bruce Phillips has more than 30 years experience in fisheries research and management from both a practical standpoint, having worked at



Commonwealth Scientific and Industrial Research Organization (CSIRO) and, academically, as a professor at Curtin University.

Phillips is internationally recognized as one of the leading authorities on lobster biology and lobster fishery management having worked as a consultant and research scientist to lobster fisheries in Australia, New Zealand, Brazil, Mexico, Cuba, and several Asian fisheries. Most recently, Phillips has been working as the editor for a compendium of papers on lobster fisheries and their management around the world.

The community of Prainha do Canto Verde (PCV) comprises a small number of fishers that use traps to catch lobster. The community, through the livelihood of the fishers, is dependent on lobster through both subsistence and commercial fishing.

This project was undertaken as an MSC-compliant pre-assessment of that part of the Brazilian lobster fishery fished by the fishers at PCV. This means that the scope of the project is to look at how the fishers in PCV manage and fish for lobster in an area defined geographically by the ability of the fishers to sail their *jangadas* (indigenous sailboats) to fishing locations.

The project is not concerned with other fishers or other management activities except where these activities may impinge

on or significantly effect the management and fishing of lobster by the community at PCV.

In essence, to examine if this community of fishers is managing and fishing a sustainable fishery as defined by the Principles and Criteria of the MSC, one must look at three things:

1. The health of the stock being fished by PCV fishers
2. The ecological/environmental impacts of fishing lobster in the areas fished by PCV fishers, and
3. The robustness of the system in place to manage the lobster fishery fished by the fishers of PCV.

In terms of community-based fisheries, this means looking at the following:

1. Stock Status: Even though a community such as PCV may be fishing a small portion of a large stock that is being fished by many others, the sustainability of that fishery is dependent on the entire stock being in healthy condition.

If the stock is not healthy, then it may become quite problematic to catch lobster in PCV or any other area in Brazil. As a result, the pre-assessment must look at the health of the entire lobster stock throughout its geographic distribution.

2. **Ecological Impacts:** It was determined by the MSC Standards Council that it is part of the MSC process to look at ecological impacts anywhere in the fishery where the impacts could either be tied directly to activities of the fishers applying for certification, or of such magnitude that the impacts from other areas not fished by the applicants could have detrimental effects on that part of the fishery under consideration.

3. **Management System:** In the case of a community fishery, it is incumbent upon the certification body conducting the pre-assessment to determine if there are multiple management systems at work in the fishery. In the case of PCV this is certainly the case. The PCV community has its own management system for structuring the fishing effort, protecting the resource, and minimizing effects on the local environments. At the same time, the federal government has a management system in place that provides some regulatory controls and is responsible for the effort applied throughout the lobster fishery along the entire coast of Brazil.

At the beginning of this project, there were some suspicions that there may be problems with the health of the lobster stock or stocks in Brazil. If this could be shown to be true, it would be difficult to see how the lobster fishery in Prainha do Canto Verde or any other part of Brazil could be considered sustainable under the MSC program. As a result, WWF asked for this project to be separated into two parts:

Phase 1 Examination of the health of the stocks in Brazil and in the areas fished by fishers from Prainha do Canto Verde.

Phase 2 - If the stock or stocks of lobster being fished in Brazil can be shown to be healthy, then the remainder of the pre-assessment examination of the ecological impacts of fishing and the robustness of the management system could be undertaken.

If evidence became available that the stock(s) is in poor condition and that the fishery would not be able to be certified under the MSC program, then the project would be terminated to avoid further expenses to WWF.

Two main species of lobster occur in the catches of Brazil; *Panulirus argus* and *P. laeviscauda*. *P. argus* is the predominant lobster caught in Brazil and makes up the larger part of the catch in the PCV fishery.

Early discussions with fishery scientists, fishery managers, and others in Brazil provided excellent evidence that the lobster stocks in Brazil in general are in serious decline. In and of itself, this may not have been sufficient for the project to be terminated if there were some indication that the stock being fished by the fishers of Prainha do Canto Verde was a separate and identifiable stock from other lobster stocks in Brazil. However, after considerable discussions again with fishery scientists and managers in Brazil it became clear that there is no reliable or reasonable evidence to suggest that separate lobster stocks exist along the coast of Brazil. There is some anecdotal evidence that there may be some geographic or hydrologic barriers between areas that could facilitate the separation of breeding units and, therefore, stocks (Fonteles-Filho, 2000), but to date there is no scientific support for this. All the scientists interviewed in Brazil and the literature reviewed suggest that there is a single stock of both *Panulirus argus* and *Panulirus laeviscauda* and the Brazilian government manages the lobster fishery as one management unit.

Landings of lobster in Brazil were once considered to be the world's second largest catch of warm-water species. Landings showed an upward trend from 1965-1979, but from 1979 to present there has been a gradual decline with a few production peaks as in 1982, 1984, 1990, 1991, 1995, 1996.

The decline in the total annual catch is only one indication that the lobster fishery is in trouble. The catch per unit effort or CPUE has also declined from 0.936 and 0.410 kg/trap-day in 1965 to 0.097 and 0.019 kg/trap-day in 1997 for *P. argus* and *P. laeviscauda* respectively.

Increased effort

To try and bolster the economic aspects of the fishery and maintain annual catches, the effort in the fishery has increased considerably over the years. Effort has increased by expanding the number of

boats in the fishery and by increasing the geographic boundaries of the fishery. In addition, the types of boats and gear in the fishery have changed so that there are now many more industrial fishers with large motor craft in the fishery that are able to expend a good deal more effort than the traditional indigenous fishers using local sail craft (*jangadas*).

The distribution of effort in the fishery at present shows that the number of boats is near equally distributed between sail craft and motor craft, but the effort is skewed such that more than 90 per cent of the effort is produced by the motorized fleet, and less than 10 per cent of the effort produced by the traditional sail fleet.

There may be many reasons for the decline in the catch of lobster in Brazil from changes in the biological and oceanographic regimes to fishery management. However, due to the fact that there is such agreement that the decline is real and is continuing, this pre-assessment project was terminated as there would be no way the fishery would be able to meet the MSC requirements for certification. Further effort was not expended to determine the causes of the decline.

One thing appears to be clear, the management of the fishery in Brazil does not appear to be making the necessary effort to change its management practices to stop the decline in the lobster fishery and rebuild the stocks. This appears to be a serious problem that is putting the PCV lobster fishers, other fishers, and the local ecology and fishery at risk through no fault of their own.

Although Phase 2 of the project was discontinued, Chet Chaffee upon his visit to Brazil was able to talk with the fishers in PCV to see what measures, if any, were being taken on a local level that might have been useful in an effort to obtain MSC certification.

In terms of understanding the local ecological effects caused by fishing, there was some local and traditional knowledge that PCV fishers were able to provide. The fishers in PCV have a good understanding of the distribution of lobster in the areas

fished. There is good awareness of areas with high incidence of juveniles and these areas are avoided whenever possible. In addition, the fishers appear to be very aware of changes in catches and move to new locations whenever catches are down. This appears to help distribute the effort over space and time, thus reducing fishing pressure on any one area.

In discussions with fishers in PCV, it also became clear that there was a significant amount of knowledge about the distribution of habitat types in the fishery areas. However, this base of knowledge had not been captured in any formal way to better help local management efforts in terms of sensitive habitats. Today, it appears that the fishers in PCV are working with a local NGO (Instituto Terramar) to map the various types of habitats in the PCV fishing territory.

From this information, it appears that the local PCV fishery could meet the necessary requirements under Principle 2 of the MSC certification should the fishery ever be in a position to apply (i.e. the stock status changes due to improved management at the federal level). The fishers are actively engaged in efforts to better understand and mitigate the impacts of fishing within the geographic boundaries of the PCV fishery.

Two groups handle the management of the lobster fishery at PCV: the federal fishery management authority, IBAMA (Institute for the Environment and Natural Renewable Resources), and the local PCV fishing community.

At the federal level, there appears to be some changes necessary to improve the fishery. There are many regulations in place to protect the lobster fishery, but there appears to be a problem with proper enforcement. For example, there are laws making it illegal to land, sell, or transport lobsters smaller than 65 mm CL (*P. Argus*) and 59 mm CL (*P. laevicauda*).

Closed season

There is also a closed season from January to April. In addition, it is illegal to fish by commercial diving as this is considered to be a non-selective practice. While these laws are present, the certification team was told that there are many instances of



what Brazilians call “predatory fishing” where illegally fished and undersized lobsters are taken, sold, and exported (including to the United States) because there is a lack of federal government enforcement in the fishery.

In addition to the lack of enforcement, there also appears to be a power struggle within the federal government about who should control the management of fisheries. While IBAMA has traditionally had the responsibility, it appears now that the responsibility may be split with other agencies. This split in control along with declining budgets for fisheries management seems to be affecting fisheries management and enforcement in Brazil.

At the local level, the PCV fishing community appears to have excellent local management. The PCV community has a local management council and strict regulations regarding who can fish, what time of day fishing can occur, what can be caught.

In addition, the community has placed restrictions on gear, enforces closed seasons, and is working hard to patrol their own fishing territory to ensure that overfishing and predatory fishing do not occur.

There are severe penalties for those who violate the local fishing regulations from

losing permission to fish for given periods of time to having either fishing gear or boats confiscated.

In terms of meeting the MSC Principles and Criteria for management it is clear that the local PCV community has excellent measures in place to create a sustainable fishery within its local waters. However, it does not appear that the federal management would meet the stringent requirements of the MSC.

In general, we found that the Prainha do Canto Verde fishing community was doing everything it could to ensure the long-term sustainability of its fishery. The PCV community and fishers should be applauded for their hard work, their diligence, and their continued commitment to making their local fishery as sustainable as they possibly can.

Through no fault of its own, the PCV fishery at this time would not meet the MSC requirements as the stock is in serious decline with what appears to be little or no effort being made to reverse the situation. If ever the situation should change in Brazil, we believe the Prainha do Canto Verde lobster fishery would make an excellent candidate for MSC certification. In the meantime, we sincerely hope that any commercial concern purchasing lobster from PCV will recognize the efforts that these local fishermen continue to make toward the sustainability of their fishery. **3**

This document was prepared by Chet Chaffee, Scientific Certification Systems, Oakland, us, with assistance from Bruce Phillips, Curtin University of Technology, Perth, Australia for Prainha do Canto Verde, Brazil

MSC certification

A small start

An experiment in Prainha do Canto Verde tests the MSC's principles and criteria for community-based certification of a fishery

The rich lobster fishery of the northeastern part of Brazil has been exploited since 1955. The older fishermen remember a certain Mr. Morgan introducing traps from Florida and starting to export lobsters to the US. The fishery was artisanal, using small canoe-shaped boats with sails, called *canoas* and sail-rafts called *jangadas*. (Interestingly enough, the word *jangada* originates in India and comes from the Malayalam word *changadam*).

There was no danger of overfishing until the motorized fleet was introduced in 1965. But, in the 1970s, once the fleet had grown out of control and greedy merchants began to buy undersized lobsters, the first danger signs appeared.

The fishery was administered by a federal agency called "SUDEPE", together with scientists and the syndicate of exporters. Artisanal fishermen and the Fishermen's Union were simply ignored. Even when the newly created IBAMA (Environmental Institute of Brazil) took over responsibility for fisheries, management was conducted in a very isolated manner. The result was that Brazil's total lobster capture and exports crashed from a peak of 5,000 tonnes to 3,200 tonnes in 1993 and, later, to 1,700 tonnes in 1999. The struggle for participation in fisheries management started in 1993 after conflicts with crews of fishing boats with illegal diving equipment led to several deaths on both sides. Fed up with the *laissez faire* attitude of the government and law enforcement agencies, fishermen in Prainha do Canto Verde reacted and went on a 76-day protest trip to Rio de Janeiro on the *jangada S.O.S. Survival* (see *Sailing for a Cause*, SAMUDRA Report No 18, 1997).

In the last eight years, a lot has changed and the fishermen are now part of the

decision-making process. The NGO "Instituto Terramar" (which was founded as a result of the protest in 1993) started to bring together fishing communities, organized a statewide awareness campaign and nursed along the first initiatives of community fisheries management. (For more background information on the project Prainha do Canto Verde/Instituto Terramar go to www.fortalnet.com.br/~fishnet). The government and the fishing industry continued to drag their feet, not addressing the main problems: excessive fleet, lack of control of the access to the fishery and predatory fishing.

I have been following the Marine Stewardship Council (MSC) experience and the debate promoted by ICSF with great interest, seeing the potential, on the one hand, of a market-based instrument, and, on the other, its limitations for small-scale and artisanal fisheries. Julia Novy, director of Community-based Certification (CBC) in the WWF Endangered Seas Campaign had learned of our community management experience in Prainha do Canto Verde. She invited me to participate at a workshop in Seattle in 1999, together with a number of representatives of community fisheries and several WWF staff from all over the world (Europe, USA, Asia, Australia and Latin America) and the directors of MSC.

Open mind

Being a newcomer to fishing, I am always keen on participating and learning, and keep an open mind for anything that may bring some hope to our lobster fishery. The workshop was, thus, an excellent opportunity to learn from other community experiences and, at the same time, get a chance to debate the issue with representatives of MSC. It seemed just great to have the opportunity to test the

principles and criteria of MSC, knowing, from the SAMUDRA debate, that these were being questioned.

During the debate, MSC project manager Carl-Christian Schmidt talked about field testing of the certification system in small-scale fisheries, but there remain doubts whether small or community-based fisheries had really been made part of the consultation process.

It was clear to me from the beginning that our lobster fishery would have great difficulty to obtain certification under any scheme, because it is so badly managed. But I felt that to go ahead with the experience would be useful for three reasons:

- It would provide the opportunity to test MSC's principles and criteria in a community fishery.
- It would alert the lobster fishery stakeholders to the need for action.
- It would allow an independent and international entity to furnish evidence to pressure Brazilian fishing authorities to implement the existing fisheries management plan.

The WWF took over the costs of the project, which included a preliminary phase,

including awareness raising for stakeholders and the pre-assessment for MSC certification.

It was quite a surprise for the fishing industry in Brazil to learn that NGOs and fishermen were once again a step ahead. Fisheries managers had very little information about MSC, but got very keen when they learned that the Western Australian lobster fishery was already applying for MSC certification. Suddenly, we became more interesting as partners. Five NGOs and fishermen entities were quickly admitted to the "Lobster Foundation" an organization that is supposed to lead the search for responsible fisheries management.

Thus, on 26 November 1999 in the five-star Hotel Marina Park in Fortaleza, Ceará stakeholders and the media got firsthand knowledge of the Lobster Foundation and the MSC's first appearance in Latin America. Two days later, the presentation for fishers and communities took place at the traditional *Jangada* Sail Race in Prainha do Canto Verde.

Media coverage

The event, which attracts over 10,000 fans, and for which we had outstanding TV coverage, was ideal to introduce fishers from many communities to certification and community fishery management as it is practised in Prainha. The former Environmental Minister and Member of

the Board of MSC, Henrique Brando Cavalcanti, was present and was impressed with the state of community organizations in Ceará.

Over the next five months, the community-based certification concept and the community fisheries management plan were presented in communities of the eastern seaboard of Ceará, to fisheries managers, scientists of two universities and the two main research centres of the country (the lobster fishery extends over nine federal States and 1,800 nautical miles of coastline).

In May 2000, Chet Chaffe of Scientific Certification Systems of Oakland California, who had led the team that certified the lobster fishery in Western Australia two months earlier, arrived in Fortaleza.

At a workshop, 20 scientists and fisheries technicians were briefed about certification, before the address to 250 delegates at a fisheries industry gathering sponsored by the fishing industry.

The visit to the lobster fishery at sea and the days spent with the fishermen and contacts with lobster specialists quickly revealed the obvious:

“The pre-assessment does show that certification will not be possible in the short term. The Brazilian government needs to do something about saving the lobster fishery first as it is in a very bad condition. However, potential buyers can rest assured that the fishing co-operative in Prainha do Canto Verde is doing everything it can and doing it well. If the government were doing its job properly, the catch out of Prainha do Canto Verde would meet the MSC requirements for certification. The fact that it does not, is no fault of the fisherman.” (For the detailed report of Scientific Certification Systems go to www.fortalnet.com.br/~fishnet and search for the MSC page).

The result just confirmed what we already knew: we can't save just the lobster fishery of Prainha do Canto Verde; it's all or nothing. The recovery of the lobster fishery is crucial for the survival of coastal communities. Over the past 15 years, the

lobster fishery has become more and more artisanal, and exporters depend on the small-scale fishers for the harvesting of lobster. Price increases on the international market are passed on to fishermen. In this particular fishery, everybody stands to benefit from MSC certification.

The pre-assessment was a positive experience. During the hours spent with Chet, we learned that we know very little about our fishing area. Since then, fishers of Prainha have started to innovate. They are in the process of marking and mapping “their” ocean, firstly, to obtain detailed knowledge about all the resources, and, secondly, to manage it better. We need to convince fishing authorities that the whole coastal area has to be managed in a new way, through community areas with management teams that integrate fishers and scientists.

Maintaining contact with Julia Novy and her community management team has allowed me to keep abreast of the discussions going on around the world. Participants at a WWF-sponsored Community Fisheries Workshop in Sydney in 2000 had some very interesting discussions.

The conclusions they reached do not differ much from the ones we reached in Prainha. But they took the debate a step further and started a discussion on how community certification schemes might look like.

I hope that Julia Novy will keep SAMUDRA readers informed about the progress of this discussion and that the WWF expands its activity in the field of community management to other continents.

Lack of data

Some of the difficulties under MSC certification are the non-availability or poor quality of data in community fisheries or, in the case of Prainha, the lack of comparative data from other communities; or the fact that most resources move around and the community has no control outside its fishing area; and the lack of enforcement capacity. To prepare a fishery for a “real” MSC certification would need time and resources that community fisheries don't

and international funds and organizations. The MSC could be one of the sponsors of a community-based certification “seal of excellence for community fisheries management”, with financial support by MSC signatories and certified fisheries. ICSF, WWF and other NGOs that work with small-scale fisheries could be the stewards for this initiative. A community-based certification programme will be a powerful tool for sustainable coastal development.

Since the MSC presentation in 1999, the community of Prainha do Canto Verde and Instituto Terramar have gained national recognition and are pushing for major changes. At a regional level, we have been able to convince mayors of six coastal counties (municipal governments) to launch a regional management effort along 200 km of coastline, including enforcement actions with a community-owned motor boat and over 50 local actions aimed at controlling the fleet, eliminating backyard lobster buyers (trafficking in undersized lobsters), launching awareness campaigns and many local actions to create alternative fisheries or alternative sources of income in order to take the pressure off the lobster fishery. The federal government has already indicated that it is supporting the initiative and is making available money from the National Environmental Fund to support the plan.

Next on our list are Brazilian exporters and US importers of seafood; we do hope they come aboard. But if they don't, we are in touch with the organizers of the Boston Sea Food Show to present our “case” in March 2002. At this year's show, one of the conference themes was: “Boycotts, Petitions and Purchasing Guides: What's the Industry to Do?”

This article is by René Schärer (fishnet@fortalnet.com.br), a Member of ICSF. He has been working with the community fishery in Prainha do Canto Verde since 1992, and is the co-founder of Instituto Terramar.

have, while the returns would not justify the investment.

For most community fisheries, the benefit may not necessarily be money, but: recognition, validation of community management techniques, technical and financial support for community management programmes, employing community leaders to transfer the knowhow to other communities and the long-term sustainability of the fishery. Active WWF support for community-based efforts to sustainably manage their local fisheries can help convince national governments to support these efforts. That is one thing we still hope will happen in Brazil.

Just the fact of having been chosen to test MSC certification has helped the community of Prainha do Canto Verde find sponsors for the project of marking and mapping their fishing area, and there is a good chance to obtain support from the federal government to extend the experience to other communities.

We may come to the conclusion that the way it stands, MSC is an unlikely instrument to certify artisanal or small-scale fisheries. But we should not deny it the recognition that it has started a discussion that could go a long way to advance community fisheries management and put it on the agenda of national governments, multilateral banks

The arrogance of experts

This piece on the Marine Stewardship Council and the lobster fishermen of Brazil is in response to an article in *SAMUDRA Report* No. 29

The August 2001 edition of *SAMUDRA Report* carried a 'pre-assessment report' of the Prainha Brazil lobster, prepared by Chet Chaffee who is with a group called Scientific Certification Systems, based in California.

I was so furious with the report that I wrote Sebastian Mathew of ICSF who encouraged me to put my thoughts down for the next issue of *SAMUDRA Report*. What follows is really no more than a 'Letter to the Editor'. I have never been to Brazil nor have I ever met anybody associated with the Marine Stewardship Council (MSC).

Mr. Chaffee begins his report by telling us the MSC is "now a fully independent organization", independent supposedly from Unilever and the World Wide Fund for Nature (WWF), but later in the article we find that the WWF is indeed paying for the report. In any case, even if the MSC is fully independent, who are they?

According to Chaffee the Draft Principles and Criteria for Sustainable Fisheries was produced by "20 eminent persons". He talks of a panel of "scientific, economic, and fishery experts." There is no mention of fishermen representatives or unions. How incredibly arrogant! Mr. Chaffee's own Scientific Certification Systems has a multi-disciplinary team of scientists. We are supposed to be overwhelmed by all this science and expertise! But I still wonder, who is the MSC and who are they to be going to coastal Brazil to certify anything?

Consider Mr Chaffee's assessment of the lobster fishery itself. Nowhere in the article do we find evidence to suggest that the Prainha lobster is just one small component of a much larger discrete stock. Yet, the fact that the general trend in lobster landings is declining in Brazil as

a whole seems to be the fundamental reason for ceasing the assessment. Much is made of the increased effort since 1965, and the commensurate decline in 1979 and beyond.

Yet, there is not one shred of evidence to suggest that the increased effort is a threat to the sustainability of the resource. Apparently, we are supposed to be impressed by the dramatically lowered catch rate, even though the next paragraph asserts an expanding number of boats and gear, something that would reduce the catch rate per trap but tell us nothing of the state of the resource.

In the lobster fishery of the Maritime Provinces of the East Coast of Canada, we have 41 lobster management zones. There is wide consensus that lobster should be managed locally and there is absolutely no data to determine what constitutes a discrete stock; the Fisheries Resource Conservation Council has hypothesized that there may be lobster production areas that are larger than a given management zone, but stresses that lobster should be managed locally, while admittedly taking into account measures for the whole production area.

Our lobster fishery was commercialized in the late 1800s and catches peaked some 15 years later and declined throughout the 20th century to a level where landings were a third of the historical highs.

Declining catches

In the late 1970s, landings began increasing and, in 1990, reached levels comparable to the turn of the century. Now they are declining again, as one might expect. We have lots of science and enforcement but absolutely no reason to believe the declines in some areas will not continue, while in others they are

increasing. There is no one out there who has the secret to reverse the trends and there is virtually no correlation between so-called effort and resource sustainability.

This is because, in my judgement, we use a 'passive' form of fixed gear fishing combined with basic protection of the berried females and the immature lobsters. In this type of management fishery, effort is almost invariably a competitive act towards the other participants and not really a determinant of resource decline or expansion.

My guess would be that if Prainha successfully implements its local management measures, the lobster fishermen will most certainly see benefits in future years, regardless of what the rest of the coast is doing; but other parts may 'bloom' for no detectable reason, while Prainha just plods along.

Notwithstanding the optimistic views of René Sharer in a compendium article, I am outraged by Mr. Chaffee and his cohorts in MSC and WWF, with their pompous scientific jargon about sustainability, when they can't even enlighten us on the relation between Prainha and the rest of Brazil's lobster stock. §

This piece comes from Michael Belliveau (mfuupm@nbnet.nb.ca), Executive Secretary of the Maritime Fishermen's Union, Canada

Dreams vs painful realities

There are contradictions aplenty on both land and sea in the Corumbau Marine Extractive Reserve

This article describes some of the social and environmental aspects of the Ponta do Corumbau Marine Extractive Reserve, located on Costa do Descobrimento, 800 km south of Salvador, the capital city of the State of Bahia, Brazil. The region is home to part of what remains of the Mata Atlântica, areas of mangroves and coral reefs, recognized in 1999 as a World Historical Site by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Marine extractive reserves are a form of marine protected areas with defined user rights that are contracted out to the communities of resource users that live in the surrounding area. They are an adaptation of the *reservas extractivistas* or RESEX, a novel and unique partnership in natural resource extraction and conservation that Brazil has been experimenting with since 1989.

On the one hand, the move reflects growing official recognition in Brazil of the role of traditional resource users and their management systems in environmental conservation. On the other, it is the product of the struggles of the rubber tapper unions, under the leadership of Chico Mendez. It is thanks to these struggles that legislation was passed in 1989, allowing for the establishment of extractive reserves. Extractive reserves comprise a collaborative management regime where government works in partnership with local communities for the sustainable use of resources

Originally, RESEX focused on protecting terrestrial and other inland ecological systems and populations, but now they can cover land, sea or both. The original decree that created RESEX states that “extractive reserves are territorial spaces

designated for the self-sustaining use and conservation of renewable natural resources by extractive populations”.

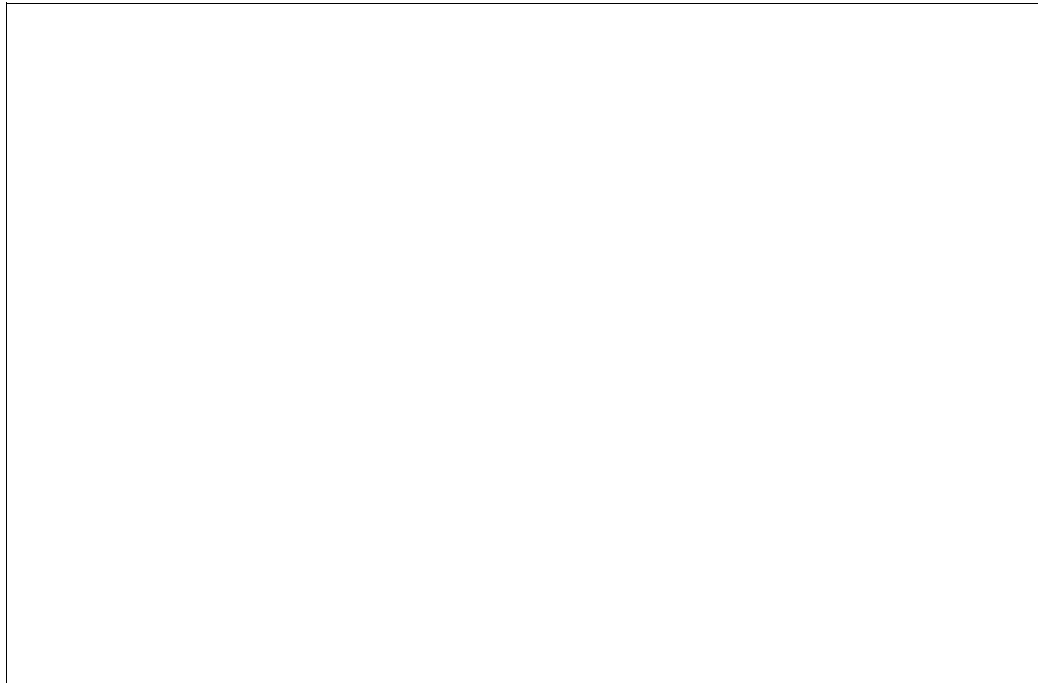
In the case of the marine extractive reserves, a marine area is assigned for the exclusive use of a number of people (small-scale fishermen, traditional communities, etc.) who live around it.

Although it is a partnership between the people and the government, the initiative has to come from the local population, and the participation of the people is a must. Communities that live adjacent to RESEX, and the organizations that represent them (associations, co-operatives, syndicates, unions, etc.) may apply for the rights to extract resources from the RESEX.

A central plank in all RESEX is the development of a utilization plan (*plano de utilização*) that determines who can use the resources in question and how. In essence, this is a social contract, binding the resource users to a mutually agreed set of operating rules. Such rules could govern measures such as minimum catch size, technology used, or restricted access to important breeding grounds.

Public forum

Decisions over what the rules should be are defined by the resource users themselves at a public forum where they have the right to vote on decisions made. It is essential that resource users participate at this stage since the adherence to rules depends, to a large degree, on their widespread understanding and prior approval. The utilization plan, along with the process leading to its creation, is also important for resolving (or at least revealing) conflicts amongst resource users as well as conflicts between resource users and the larger community.



A further essential element is the concession contract that legalizes the user rights of the communities. This agreement is prepared by IBAMA, the Brazilian Institute for the Environment, and signed by both parties. Individual resource users are then issued with Authorization of Use certificates. These entitle them to open-ended user rights, which, in practice, extend for 10-20 years, but may be extended for as long as the RESEX fulfills its purpose.

According to Antonio Carlos Diegues, the framework of restricted access to, and economic use of, the coastal sea space of the RESEX offers Brazil a way to begin controlling the highly destructive and unmanaged development of its extensive coastal zone (harbouring a wide range of habitats of high conservation value, not only coral reefs), while, at the same time, reinforcing the resource-use rights and territorial claims of local communities to the micro-environments of small-scale fishing.

Such controls are clearly needed in southern coastal zones of Bahia State, which have been subject to significant environmental and social changes in the last 10 years. Intense industrial fishing was initiated to exploit the local marine stocks, with no respect for biological processes or biodiversity. Tourism development has given rise to demands that have led to a disordered occupation

of the land, while the urban infrastructure has been unable to keep pace with the increase in domestic effluents and litter, affecting the mangrove forests and the margins of the rivers.

As this article shows, there are many problems that need to be addressed if RESEX are to function effectively. One such issue, highlighted by the work of Alpina Begossi, is that, although a great variety of extractive reserves now exist in Brazil, few can be said to be the result of a legitimate process of local organization in the face of the threat of depletion of their resources.

This is not the case with the Ponta do Corumbau Marine Extractive Reserve (Corumbau RESEX). In 1998, a group of artisanal fishermen from nine communities in the municipalities of Prado and Porto Seguro came together to create a conservation unit that would protect the region from the unsustainable prawn trawling being carried out by the industrial fishing fleet.

Sustainable exploitation

The Corumbau RESEX was then established in September 2000, thanks to the initiatives of artisanal fishermen from nine different communities, with its use conceded to the traditional extractive populations, in accordance with the National System of Conservation Units. According to its founding decree, the Corumbau RESEX “aims at ensuring the

sustainable exploitation and the conservation of renewable natural resources, traditionally used by the local extractive population”.

The extractive population of the RESEX comprises 484 registered members, traditional users of the resources resident in nine communities: Curuípe, Caraíva, Aldeia Indígena Pataxó de Barra Velha, Corumbau, Veleiro, Barra do Cahy, Imbassuaba, Cumuruxatiba and Japara. When the families of these fishermen are included, the RESEX resources will directly benefit some 1,750 people.

The Corumbau RESEX includes part sea, and part land, with areas of foreshore, dunes and mangroves. The marine part of the Corumbau RESEX covers 90,000 ha, with its landside boundary demarcated by the high-water level. The land areas, where the extractive communities live, make up the ‘surrounding area’ or ‘buffer zone’.

The property rights and user rights regimes that govern conservation, ownership and resource extraction differ in the two areas, giving rise to contradictions in the conservation and resource extraction policy objectives of the RESEX and complicating life and livelihoods in the communities.

In the publicly owned marine area, only the extractive communities have resource extraction rights. However, the land area is under private ownership and the extractive communities have no resource extraction rights there. Furthermore, there are no guarantees or conditions provided for the permanent settlement of the extractive populations in the surrounding land area, a key condition for establishing economic activities and for providing sociocultural stability in communities.

This contradiction between the land and sea components of the Corumbau RESEX, arising from the way that the property and use rights regimes have been set up, is the root cause of many of the social conflicts, and represents a major problem for the effective functioning of the RESEX. Alpina Begossi’s work in the Amazon concluded that extractive reserves do offer significant potential for political organization, and

improving environmental and social resilience, compared to other conservation approaches. Such a satisfactory level of institutional development has still to be attained in Corumbau.

One major stumbling block for achieving satisfactory levels of institutional development is that the ‘surrounding areas’ where the communities live are isolated. Roads are unpaved, the bridges precarious and there is no regular transport by boat.

There is no electricity supply in the villages, with the exception of Cumuruxatiba and some hotels that possess generators. This is a constraint for fish storage and increases the dependence on intermediaries to market products. These factors also work against the active participation of the local extractive population in the establishment and development of a utilization plan and their participation in the wider management decisionmaking processes of the RESEX.

A further stumbling block, and source of social conflicts, is the presence of more powerful economic interests such as hotels and tourism businesses. These interests are fueling a growing speculation in real estate. RESEX community residents are being forced to sell their houses at very low prices and move far away where there is no infrastructure or government assistance of any kind.

Also, due to the increasing privatization of access to, and use of, the coastal strip, access to the sea is becoming more difficult for the communities. This is leading to a gradual cultural erosion and the complete exclusion of the fishermen from areas near the seashore.

Private interests

The variety of private economic interests also makes it difficult for the local population to support conservation policies and participative processes that are capable of offering alternative solutions to the conflicts existing in local society. Tourism is expanding in the Corumbau RESEX. Visitors are attracted by the tranquility, freedom and the beauty of

the countryside, particularly in the littoral zones, and by the hospitality of its people.

However, the capacity of the villages to support tourist activity is quite limited. This is mainly due to a lack of basic infrastructure, such as energy, piped water, the treatment and disposal of solid and liquid waste, and health and education facilities.

The National System of Conservation Units assures the participation of the local populations through co-management, where power is decentralized, in ways appropriate to the daily reality of the local context. The RESEX utilization plan was drawn up and approved in 2002, and should lead on to the management plan.

Meanwhile, the fishermen do not appear to be familiar with the objectives of the planning exercise. Recent research shows that just 14 per cent of the residents of Cumuruxatiba, 25 per cent of Corumbau and 45 per cent of Caraíva knew about the utilization plan in force and the rules that regulate the reserve.

The factors indicated as obstacles to the participative process were the large distances between the venues of meetings, the incompatibility of the timing of meetings with daily routine activities (principally for the women),

and the shortage of information about the process of foundation and administration. A Participatory Appraisal from a Gender Perspective (PAGP) exercise was carried out with the aim of promoting the active participation of the various interest groups of the RESEX communities, especially women, in the management of the area, faced as they are with changes imposed by tourism. The PAGP techniques and tools used were those recommended by IUCN—the World Conservation Union. In order to provide an analysis with a gender perspective, information gathering and data presentation were disaggregated by gender. This enabled an examination of the needs and demands of men and women separately.

Through a systematic process, PAGP helps to identify particular problems and their origins, where knowledge is built up with the participation and collaboration of the people affected. Rather than observing the group as a homogenous unit, PAGP recognizes that women and men have different needs, perceptions and realities in accordance with their age and sex.

Equity goals

Through the use of appropriate tools, it seeks to expose the power relations in the community. It is designed to assist the introduction of the changes necessary in the delivery of policies that seek to achieve equity. The aim of PAGP is to promote collective responsibility, environmental

justice and quality of life for the populations involved, so as to decrease impoverishment and consequent social exclusion.

It has been demonstrated that the introduction of the variable 'gender' adds another dimension to the analysis of natural environments, given that there are unequal power relations between men and women in many societies, power relations that are subject to change. Within the gender dimension, there can be complementarity and space for negotiation. The possibility for negotiation has important implications for planning and management, since it puts the planners and the communities at a level where it is possible to promote greater equity in the distribution of the benefits, and user and management rights.

The PAGP carried out in the Corumbau RESEX had aimed to understand the obstacles to the participation of the traditional population in the management plan, as well as to obtain information on the local infrastructure available to the residents and visitors. It aimed at providing information to improve the participative process, which would safeguard the success of environmental policies in the face of the reality of the expansion of tourism in the region, with economic and cultural consequences for its inhabitants.

The application of PAGP achieved its objective of identifying the needs, expectations, wants and problems of the communities visited. The main needs are related to access to electricity, quality education and better health conditions.

Beyond that, the wants most highlighted were roads and bridges and piped potable water. While, on the one hand, electricity is a dream for both male and female residents, on the other, there are those living by hotels and tourist resorts who prefer to preserve the bucolic and rustic aspects that attract tourists, leading to profitable business during the seasons. Thus, the lack of surfacing on the sand roads of Caraíva, for example, makes daily life very difficult for the women, but is seen by others as giving a picturesque air to the place.

The onus of maintaining this rusticity falls, in the end, on the local population, particularly on the women who, in their day-to-day lives throughout the whole year, have to cope with extremely tiresome conditions. Roads are also the subject of debates and conflicts, both among the population and between conservation bodies, who see in them the threat of mass tourism and a consequent loss of cultural and environmental character, which represents a great contradiction for the administration of the Conservation Unit.

The possibility of seeing the community uniting around its objectives, and fighting for the collective welfare, is an important 'dream' for the women, even transcending their individual objectives.

It is hoped that participative management can result in measures favouring political strengthening and income generation, preserving local knowledge and the permanence of the native population in the area. The preparation of a socio-environmental participatory appraisal can contribute to the involvement of the population in public policies for improved living conditions, the systematic inspection of tourism enterprises that affect the life of the communities, and the sharing of benefits with the residents.

Another benefit to be sought is environmental education aimed at tourists and the community, based on information and output of the appraisal carried out. If the objective were sustainable tourism, then the communities should benefit with improved basic infrastructure in the villages.

Reconciling such a diversified and contradictory set of interests is a challenge that will have to be faced by those in charge of the development and implementation of the new management plan.

Rules needed

Most importantly, in order to guarantee sustainability, rules must be set not only to control tourism activities and the distribution of its benefits, but also to restrict the way economic interests are



causing real estate speculation in the area. At the same time, the regular participation of the population in the RESEX administration must be assured, while maintaining gender equity. This could help to empower the community through participatory management, to raise the quality of life of the residents and to ensure their contribution to the conservation of ecosystem biodiversity. 3

This article by Regina Célia Di Ciommo (rdiciommo@linkway.com.br) of the Human Ecology and Ethnoecology Laboratory at the Federal University of San Carlos, Brazil, has been translated by Brian O'Riordan (briano@tiscali.be)

Fishers' movement

Towards a global force

The following is based on an interview with Jose Alberto de Lima Ribeiro of Brazil's national movement of fishers

According to Jose Alberto de Lima Ribeiro, a fisherman from the community of Prainha do Canto Verde, the State of Ceará, Brazil, there are several issues facing the Brazilian artisanal fisheries, which are also causing the decline of fish resources. These are, mainly, (1) poor fisheries management; (2) lack of scientific studies on various species of commercial importance; and (3) lack of dissemination of the results of such research.

Ribeiro feels that Brazilian fishers are still using craft and gear that are not the most appropriate for the capture of the predominant species. They would like to find a way to improve the technology of their fishing vessels and gear so that they become more efficient, both in terms of environmental sustainability and in terms of fish catch.

Some of the gear that they currently use are not environment friendly, says Ribeiro. For example, lobsters can be caught both by bottom-set gillnets, which harm benthic organisms and substrata, and by lobster traps, which are environmentally friendlier and probably give the fishers and consumers a better-quality final product.

However, the market makes no distinction between lobsters caught by these two capture techniques, and the fishermen get almost the same price for both. This lack of incentive to use selective fishing methods should be addressed, Ribeiro feels. There should be efforts to improve gear to give more value to the catch, while ensuring less of a harmful environmental impact.

Importantly, says Ribeiro, it has to be borne in mind that the culture of the typical Brazilian fisherman is not always

in favour of the sustainability of fishery resources. Typically, they may not think much about the future of the resources, and would go out and capture everything they can get. Therefore, they end up bringing in fish that is not the right size. They may not take the best care of the habitats on which they will continue to draw their livelihoods. This is compounded by the incentives that they receive from commercial exporters for exploiting fishery resources. The commercial exporters, whose motive is only production to make more profits, finance the fishers to take everything from the sea, irrespective of the season and size and quality of the resource. Such incentives force the fishermen to fish in a more exploitative manner, even if they are basically content to catch for subsistence.

Brazil's national movement of fishers, Movimento Nacional de Pescadores (MONAPE), is demanding from the government, effective enforcement of the fisheries laws that already exist in Brazil, says Ribeiro. This would strengthen the artisanal fishers' situation and allow them to continue their way of fishing. MONAPE is also demanding assistance for fishers who are ready to move to a more selective type of gear that is environmentally sound and less damaging to habitats and resources.

MONAPE is also looking at the prospect of establishing marine protected areas for sustainable exploitation, in which fishermen become part of the design and implementation, and benefit from the results of better protection of resources.

Better protection

Another critical problem faced by artisanal fisheries in Brazil is the lack of organized groups of fishermen and fisherwomen. There are several separate

efforts, and a great deal of energy is wasted in these separate efforts.

If such individual efforts could be consolidated, Ribeiro feels, it would give the fishers more power to enter into sustained and meaningful dialogue with the government, which will be forced to listen to their concerns and address them. Such an organization of fisher movements is critical, and MONAPE is leaving no stone unturned to gather all these different initiatives under one umbrella so as to make the fishers and the communities they represent, strong enough to face the government.

One area where the fishing community has been found completely lacking is education. As a consequence, MONAPE is planning to take up educational campaigns for fishers and their families.

The primary objective is to make the community aware of the linkage between the nature and health of the ecosystem and their own livelihoods. This would help them understand the necessity to protect the resources and habitats on which they depend. MONAPE's campaign will aim for better educational and training material for capacity building, information gathering, and dissemination of related knowledge.

Another huge challenge that MONAPE faces is to create awareness about the importance of the role women play in the

artisanal fishery sector. Even though there are only a few women who actually go out and fish, most of the post-harvest processing and preparation of gear are carried out by women. MONAPE would like to flag this issue and make people aware of women's role in fisheries.

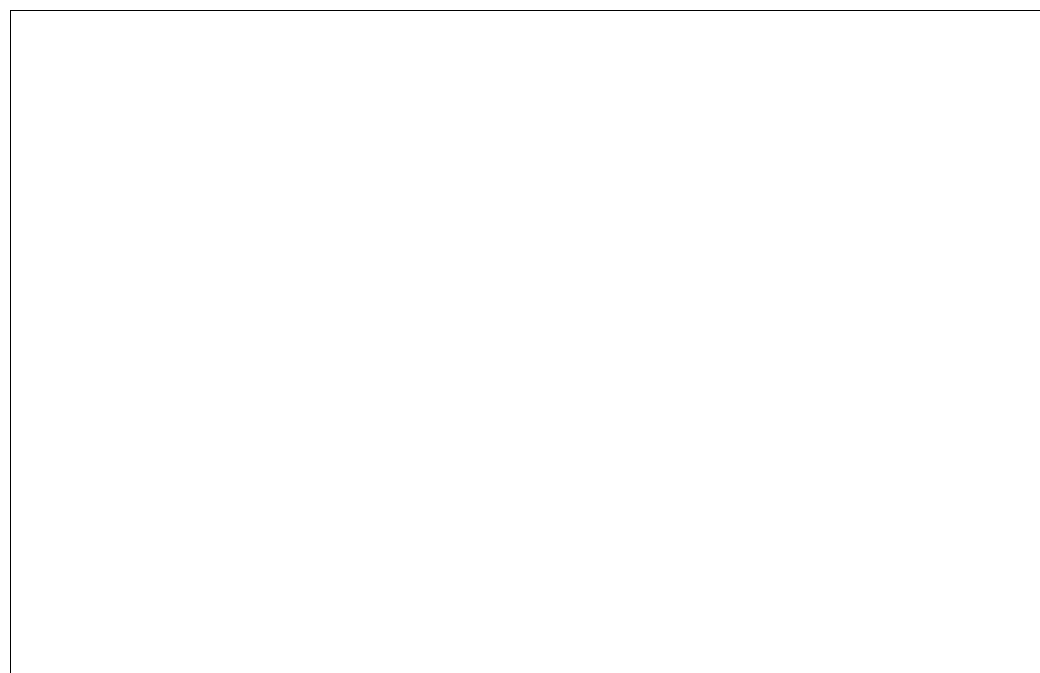
On the value and strength of international meetings like the one on "Emerging Concerns of Fishing Communities" conducted by ICSF at Fortaleza, Brazil, in July 2006, Ribeiro felt that sharing of issues and common concerns result in lessons and experiences that are valuable for fishing communities.

Ribeiro feels that such collaborations are improving every day and there will be more joint efforts with some of these organizations to deal with these issues.

According to Ribeiro, for all its work, MONAPE seeks support primarily from the government. It is represented in various councils of the government. It also seeks local State-level support to carry out its campaigns. It has already benefited from co-operation with the government in some campaigns. Much depends on how well-organized the movement is, and how strongly it can put up its case for co-operation and support.

Existing realities

MONAPE, says Ribeiro, is keen to know, in more detail, about the existing realities in the fisheries of other parts of the world. It



would also like to discuss the pros and cons of different ideas and proposals that have been brought out at the ICSF Fortaleza meeting, to analyze various aspects of the issues, and see how MONAPE can join hands with kindred organizations from different parts of the world, who face similar problems, so that they can constitute a global initiative and force. ¶

This interview with Jose Alberto de Lima Ribeiro was done in Fortaleza, Brazil, by Neena Koshy (icsf@icsf.net), Programme Associate, ICSF

Mining the gold of the sea

In their search for sustainability, artisanal fishing communities in Ceará, northeast Brazil, are combining tourism with fishing to enhance incomes

The artisanal fishery in Brazil contributes to over 50 per cent of the total capture of fish and crustaceans, and accounts for about 90 per cent of the country's fishers and fleet. Artisanal fishing dates back to before the European discovery of Brazil around 1500, as indigenous peoples explored the coastal areas for their subsistence, using rafts made of wooden logs tied together with ropes. The rafts were called *piperi* or *igapeba*. When the Portuguese fleet landed on the shores of Brazil in 1500, they christened the rafts *jangada*, after *janga* or *jangadum*, similar craft they had seen in India, in the province of Goa.

By the early 17th century, responding to the increasing need for fish from a growing population, some ingenious boatbuilder added a sail, a centreboard and other helpful accessories that allowed the *jangada* to sail windward and start to plough the ocean. With the colonization of Brazil, slaves began to be employed in fisheries. The prize of a slave fisherman varied with specialization, depending on whether he was a shrimp fisher slave, a shell collector or raft-builder, and so on. By the 18th century, fishermen were obliged to the middlemen who controlled every aspect of capture (boats, fishing gear, fishing spots) and, of course, the sale of the product. Around 1840, the government discovered fishermen as ideal inputs for the navy and began to create "Fishing Districts" in a recruitment drive for warship crews. Almost 80 years later, around 1919, the navy embarked on a military mission called the "Crusade of José Bonifácio", establishing *colonias de pescadores*, (fishermen's colonies) along the country's coast to enlist fishermen and their sons for the navy and to tie them, once and for all, to the national defence system. Even after the navy turned over control of the fisher colonies to municipal

governments, the fishermen did not learn how to become independent, and continued to be exploited by middlemen and politicians. Even as the lobster fishery and its potential for export was discovered around 1955 by an American called Morgan, fishermen continued to work hard capturing lobsters without getting a just price for their catches, as the middlemen made sure they were kept dependent on them for traps, bait and cash advances.

A movement organized by fishermen from the north and northeast of Brazil in 1986 finally gave them their first victory on the way to independence, as the revision of the Federal Constitution of 1988 recognized the right of fishermen to organize in fisher colonies through democratic elections. However, many colony presidents managed to remain in power through pseudo-elections and continued to enrich themselves at the expense of the fishermen they were supposed to represent. Only in 1992 did fishers start to speak up about their exclusion from fisheries management, and started to mobilize to become part of the decision-making process of fishery and coastal development.

Strange odyssey

Ten years have passed since the odyssey of four men and two women from a small fishing village, looking for answers for their artisanal fishery. The sail-raft named *Comunitária* (Community) left from the beach of Prainha do Canto Verde in the State of Ceará at high noon on 4 April 1993 with four fishermen (Edilson Fonseca Fernandes, Mamede Dantes de Lima, Francisco Abilio Pereira and Francisco da Silva Valente) aboard, accompanied along the coast in a small car by two women from the village: Marlene Fernandes de Lima, then president of the village

association, and Michelle Schärer, a graduate in marine biology from the University of Central Florida.

The girls were responsible for logistics and support services such as food supplies, communications, press relations, medical service and the organization of meetings with fisher, environmental and human-rights groups along the route, with over 20 intermediate stops. Seventy-four days later, the brave travellers arrived in Rio de Janeiro, where they were welcomed by a large crowd, representatives of NGOs, authorities, the media and Doryval Cayimmi, an immortal composer of Brazilian popular music, many of whose songs were about the romantic *jangadas*.

The expedition was a spontaneous reaction and protest against predatory fishing, real-estate speculation, exclusion of the community from tourism development, and the lack of support for artisanal fishermen. Fifty-two years earlier, four fishermen from Fortaleza had made a similar trip to Rio to claim retirement benefits for fishers. That voyage, led by master Jacaré, was to gain worldwide fame, including coverage in the 8 December 1941 issue of Time magazine, and because of the American movie director Orson Welles, who filmed the story during a stay in Brazil, amid controversy about the tragic death of Jacaré after the *jangada Saint Peter* was turned over by a wave. The film was finally finished by another team from Paramount and released under the title *It's All True* in 1994.

The expedition had been planned and carried out by a small group of community leaders, idealists and volunteers from the Federal University of Ceará who worked hard to make the trip a success. Eight NGOs gave moral support to the expedition, while government agencies' staff and other fishery stakeholders chose to stay away. Naval authorities who had never envisioned independent fishermen, tried to abort the trip at the last moment, but this time the fishermen decided not to obey. During the 74-day trip, four workshops were held with the participation of civil society, NGOs, fishery specialists, fisher community leaders and invited

government representatives, to discuss the themes of the protest. Concrete proposals from the workshops for solutions were subsequently sent to federal, State and municipal authorities, and NGOs and fisher organization throughout Brazil.

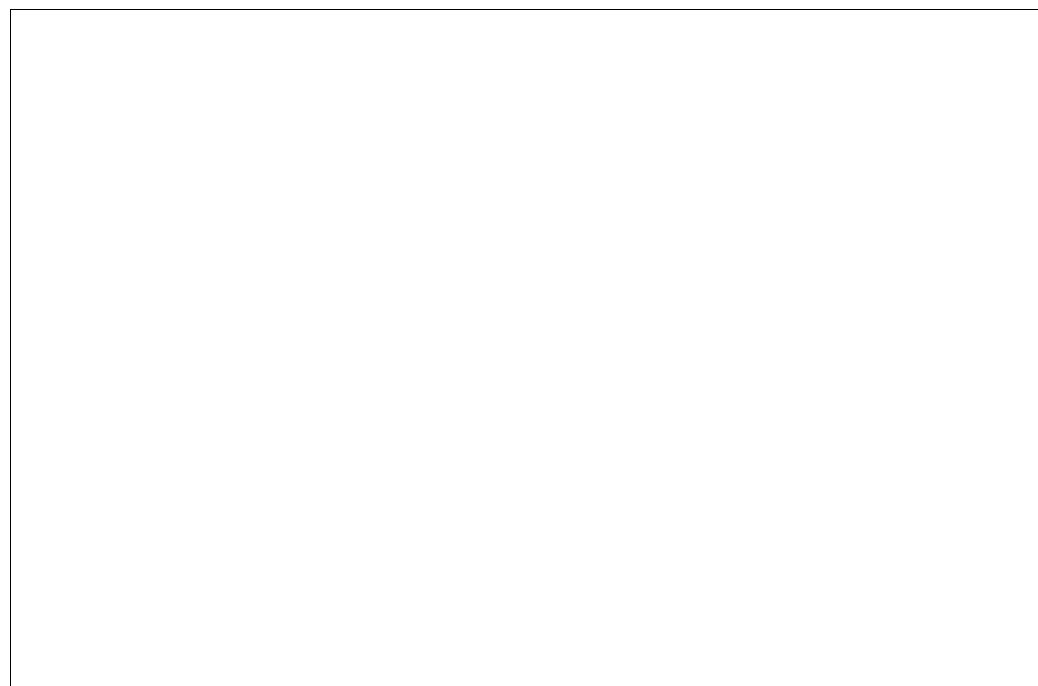
Meanwhile, the fishermen and friends patiently made alliances with other villages, NGOs and some fishery managers. With two years gone by and no real government reaction to their demands, the fishermen decided to protest once more. On 4 April 1995, 500 fishers, women and activists marched to the seat of the State government and received the promise for action by the Governor's deputy. Shortly thereafter, the "State Fisheries Committee" was created by a government decree and, for the first time in Ceará's history, all fisheries stakeholders sat down at one table. The NGO Instituto Terramar, founded in 1993 as a result of the historic expedition, was now leading fishers' organizations, and many of the subsequent developments were a direct or indirect result of that adventurous voyage.

After adding a sail and a centreboard to the *jangada* in the 17th century, few modifications have been made to this remarkable craft. The major change has been to replace tree trunks with planks around 1950, which added comfort and speed to the boat.

The *jangada* continues to be the ideal boat for fisheries close to the coast (within 20 nautical miles, in the case of the coast of Ceará) as other boats are too costly to build and operate. The Ceará fishery is essentially a day fishery or, at most, a one-night fishery, where the technological limitations of the craft are not an obstacle, as fishing spots are marked in the minds of the fishermen.

Technology problem

However, the *jangada* is used less in the fishery up to 60 miles out on the continental shelf, due to the difficulty of unfurling the sails for 10 to 12 straight hours and spending four to five uncomfortable days at sea, exposed to the elements. Without land in sight, the lack of technology to locate and mark fishing grounds becomes a real obstacle. So the



fishers of Prainha do Canto Verde, with a little help from friends, have adapted a sail catamaran for the fishery, with excellent results. Improved security, comfort and stability, coupled with modern technology (everything except a motor), easy maintenance and low operating costs make this boat ideal for the multi-species fishery.

Economically too, the sail catamaran beats motorboats by a wide margin. The sail catamaran is, without any doubt, the boat of the future to explore the continental platform of Ceará and Rio Grande do Norte. Another advantage of modernizing the fleet with catamarans is the potential to create jobs for boatbuilders in the coastal communities. Substitution of motorboats in the coastal area with sail catamarans will reduce both unemployment and fishing effort at the same time. This substitution with a 'soft' technology will greatly increase food security for three reasons: (a) more fishermen can be deployed per trap; (b) new jobs can be generated for boat-builders; and (c) the overall fishing effort can be reduced.

However, other obstacles exist that prevent the development of small-scale fisheries in Ceará. The main hurdles are low literacy rates, lack of professional training, little extension work of fisheries scientists in coastal communities, and the historical perception of fishermen that

everything will be alright as long as they follow instructions and leave the rest to God. The commonly used expression in Portuguese "*Deixa comigo*" ("Let me take care of it") typifies the continued dependence that has led to extremely low self-esteem of small-scale fishers in Brazil. But fishers have a good understanding of ecological processes and can talk hours on end about what fish do and eat and is the right time to catch them. Fishers understand the concept of overfishing and sustainability, but they cannot articulate their innate understanding in a written form. Experiences in the lobster fishery along the eastern seaboard of Ceará over the last ten years have shown that investments made in awareness and technical training lead to greater self-esteem and co-operation with fishing regulators in enforcement actions.

Predatory fishing

Some artisanal fishing communities in Ceará have been actively involved in efforts to curb predatory fishing since 1993, through community meetings, partnerships and financial contributions for enforcement trips. These efforts led to two major events in Ceará that discussed and promoted responsible fisheries. The first was in 1997, when Instituto Terramar, together with the International Collective in Support of Fishworkers (ICSF), organized, the First International Conference on the FAO Code of Conduct for Responsible Fisheries, which brought

together over 300 participants and the support of IBAMA (the Brazilian Institute for the Environment, responsible for fisheries).

The second event occurred a year later, in the form of the “Lobster Caravan”, a two-month, 20-community roadshow to raise awareness among fishers and their families of the need to preserve the lobster fishery. The caravan was a team effort, led by the Fisheries and Education Departments of IBAMA and Instituto Terramar, with fishers and NGOs, along with promotional support from local government and other stakeholders. In a recently inaugurated community fisher school in the village of Prainha do Canto Verde, high school student fishers show self-confidence and are developing their own projects to construct fishing gear, artificial reefs or mounted structures for seaweed farming. Rather than being the cause of the problem—as fishing industry officials are quick to point out—artisanal fishermen are becoming part of the solution for sustainable fisheries management. Unfortunately, the expectations awakened by the creation of the Special Secretariat for Aquaculture and Fishery at the ministerial level did not fulfill the campaign promises made by Brazil’s President, Luis Inácio da Silva, popularly called “Lula”. Preference is still for industrial fishing, big companies and unsustainable shrimp-farming operations, and the entrepreneurial lobby is growing stronger.

There is agreement among all stakeholders that fishing effort is the number one problem in our lobster fishery. But there is no agreement on how to reduce the effort. As a matter of fact, the fishing industry points the finger once again at the artisanal fishers.

As already shown above, the ideal craft to capture the great variety of fish and seafood in the coastal zone are sailboats (*jangadas* close to the shore and catamarans towards the end of the continental shelf). Their low operating cost and great economy, as well as the low fishing effort they expend and their versatility, make them ideal for a multispecies fishery, and also offer the opportunity for fishers to combine

fishing with other revenue-generating activities like tourism and sport fishing. Thus, fishermen can quickly switch from lobster fishery to some other activity if there is a need to reduce the fishing effort.

The continental shelf on the coast of Ceará and Rio Grande do Norte (a major lobster fishing area, with many nurseries) is very vulnerable to overfishing by the motorized fleet. The motorized fleet explores only the lobster fishery, and many fish with illegal gear and techniques (like mechanized diving) in the coastal area. Boats of 12-15 m length, carrying 600 to 1,000 traps, add more pressure on lobster stocks and compete for space with small *jangadas* fishing with 40 traps. Worse, the State finances this madness by subsidizing fuel for the lobster fleet. If subsidies are used, they should be applied to reduce effort or explore other resources. The money could be applied for co-management education programmes for the fishery or to encourage low-impact craft and gear. There is also a need for better control of the sail fleet in the coastal area and for better management and enforcement of existing laws and regulation, in co-operation with fishers. Food security in the coastal area cannot be maintained at its present high level if artisanal fishers are expelled from the highly lucrative fishery. Stakeholders for the industrial and commercial fishery will need to sit down and look at their future with a long-range vision for a sustainable fishery. So far, there has not been much of an effort from industry and vessel owners to do so.

Gold of the sea

Lobster is popularly called the “gold of the sea”, because of its high value. Since Ceará’s fishing communities have all but eliminated intermediaries, the fishers receive about 90 per cent of the export price of US\$32 per kg of lobster tails in 2001. At the end of 2004, artisanal fishermen would fetch around US\$50 per kg of lobster tail, half the value of the official monthly minimum salary of US\$100. Premium fish species, on the other hand, fetch US\$2 to US\$3 per kg. With lobster catches decreasing since 1991, nobody fishing with traps has become rich, since the cost to equip a motorboat with legal fishing gear is very high. Thus

more and more motorboat owners are either going out of business or turning to illegal fishing.

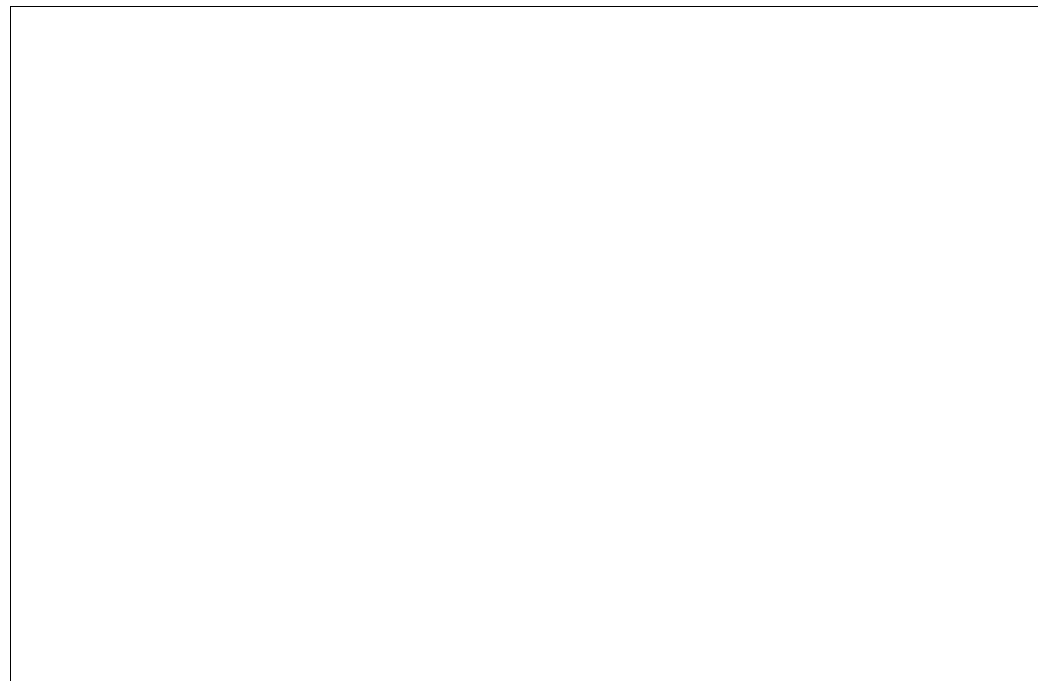
A review of the chain of custody is crucial to understand the contribution of fish trade to the food security of the coastal population of Brazil. The middleman is a figure that has haunted fishermen since the 17th century, and only in the last decade has this started to change. Under the command of the navy, there were fixed percentages of the catch that had to be delivered to the president of the fishermen's colony or the local co-operative, and to be distributed to dignitaries and government officials. Only the leftovers were meant for the fishermen to keep.

Only in the 1970s did the Pastoral Fishermen's Council (CPP) in Olinda, Pernambuco, make a first attempt to organize fishermen into co-operatives and support their struggle for honest elections in the fishermen's colonies. This also led to the first attempt to train leaders of fishing communities to become informed citizens. Some of these leaders are still part of a network of fisher movements such as Movimento Nacional de Pescadores (MONAPE, the national fishermen's movement), Fishermen's Forum of the State of Ceará and groups of fisher colonies in the States of Pernambuco, Alagoas, Pará and Maranhão that have close ties with the CPP.

Ceará's fishers depended on middlemen for various reasons: distances from ice plants; lack of transport, working capital and administrative skills; as well as mistrust and individualism. Finally, realizing the increasing importance of income from the lobster fishery, several communities on the eastern seaboard already working together to fight predatory fishing, started to exchange experiences on how best to do away with middlemen. Fish merchants have the advantage of easy credit from lobster exporters, who were very generous with the millions of dollars they received in government subsidies, which they used to provide lobster traps, bait and cash advances to the fishers who were chronically in debt. So while one community started to build their own traps, another got some working capital, and this way, they slowly started to cut out the middleman. Communities, for the first time, joined together to negotiate prices directly with exporters.

Price increases

For some communities, this meant an increase of up to 50 per cent or over US\$10 per kg of lobster tail. The same happened with the marketing of fish, with substantial increases in the price of fish, in the range of 50-70 per cent at the time of breaking the monopoly of the fish buyers. The number of communities marketing their own production is increasing continually. They travel and meet to



exchange knowhow on boat and fishing gear technology and alternative income generation from other marine resources such as seaweed and oysters.

The exchange of market information, especially about lobster prices, guarantees top market prices. On two occasions, fishermen even threatened to pull their traps, unless prices were adjusted for increases in the exchange rate of the local currency. (Prices for lobster are quoted in US dollars.) Some leaders have contacted exporters to discuss closer co-operation in the handling of lobsters and control of their source of origin, in order to cater to quality-conscious niche markets.

One community even went through a certification process. Lobsters fished by the artisanal fleet are landed live and are of the best quality. The high value of lobster and some demersal fish from artisanal fisheries has allowed many fisher families to improve their living standards and food security. As only lobster tails are exported, there are a great number of lobster heads available for local consumption, and it is quite normal for poor families from nearby villages to walk 10 km to the beach where they get lobster heads to take home; solidarity still works here and helps food security. The same cannot be said for the motorized fleet, which discards a lot of lobster heads at sea.

Boats equipped with rudimentary and life-endangering diving gear, have the lowest investment cost and the highest capture capacity. Divers who die or are paralyzed for the rest of their lives from diving accidents, are quickly replaced from a waiting list of young men willing to risk their lives. Due to poor enforcement at sea, the chances of getting caught are slim, and the likelihood of being prosecuted for environmental crimes, even smaller. Two divers can easily haul in 600 kg worth US\$ 18,000 in two days of diving. *Jangada* fishers, however, will have to work the whole year to catch that much in a good season. The average yearly catch for a motorboat with 400 traps is between 1,500 and 2,000 kg for 11 trips of 14 days each.

The other big business is the export of undersize lobsters to the US. According to calculations by an industry source, the profit potential per container exported is very high.

Special advantage

Illegal exporters thus enjoy considerable advantage in deploying their profits to be more competitive and increase their market share. NGOs have established a working relationship with agents in the US, which is the principal market for Brazilian lobster, and are working to convince the government to negotiate an agreement for co-operation in the inspection of export shipments to the US.

The Lacey Act allows the US Justice Department to prosecute offenders against environmental laws in other countries, such as importers of undersized lobsters.

The Wall Street Journal wrote on November 1, 2001: “Fisheries experts here (in Brazil) say the US, as the biggest importer of Brazilian lobsters, is unwittingly contributing to the demise of the *jangadeiros* because of its appetite for small lobster tails. The US has created a market for really small tails, so back in Brazil they keep catching them,” says Paul Raymond, special law enforcement agent.

More efficient prosecution of illegal fishers and exporters will considerably improve food security by allowing artisanal fishers to capture more lobsters locally. Responsible exporters will also benefit.

Development of resort tourism presents risks to food security in the coastal areas of the state of Ceará. Due to the high value of beach property, real-estate speculation has displaced communities from their living spaces on the coast and has only marginally contributed to the income of fisher families.

In their search for sustainability, artisanal communities are combining tourism with fishing to enhance incomes. According to a case study published last year, two pilot projects in Prainha do Canto Verde and Ponta Grossa have proven that complementary income-generating tourism activities can be undertaken by communities while at the same time preserving the environment and valorizing the cultural identity of fisher families. This experience is now being extended to other communities.

Other activities that bring in additional income are agro-ecology, handicrafts and information and communication technology. Land tenure is, of course, necessary for coastal communities to develop economically and is crucial for their survival.

Clearly, the survival of artisanal fishing communities is closely linked to the sustainability of marine fisheries. If we

can harness fishermen’s instincts and take advantage of their traditional knowledge, we will be able to guarantee food security for tens of thousands of coastal residents of Ceará.

Brazil

This article is by René Schärer (fishnet@uol.com.br) of Instituto Terramar, Ceará, Brazil, a Member of ICSF

Towards Fishing Safely

A regional tripartite seminar for the Americas on the ILO Work in Fishing Convention, 2007, was held in Rio de Janeiro, Brazil, during 24–26 August 2009

From 24 to 26 August 2009, representative delegations of governments, employers and workers in the fishing sector met at Rio de Janeiro, Brazil, to discuss the Work in Fishing Convention, 2007, of the International Labour Organization (ILO). The following countries were represented: Argentina (government, employers and workers); Brazil (government, employers and workers); Chile (employers and workers); Colombia (government and workers); Ecuador (government, employers and workers); Honduras (government, employers and workers); Mexico (employers and workers); Panama (government, employers and workers); Peru (government, employers and workers); Dominican Republic (government); and Uruguay (government and workers).

Brazil's delegation was headed by the Ministry of Labour, accompanied by the Ministry of Fisheries and Aquaculture. The meeting was opened by Lais Abramo of Brazil's ILO office, who asked for the observance of a minute's silence in memory of the seven fishermen who recently died at sea after their boat overturned in the south of Brazil, a tragic incident that was also a reminder that fishing is among the most hazardous professions in the world.

This was the second regional seminar promoting the ILO Fishing Convention, and the first in the Americas. The Rio meeting gave participants an opportunity to clear doubts about aspects of the Convention, and for ILO staff to increase their knowledge about the social and labour situation in the member countries, to get updates

on the status of the Convention's ratification process, and to recognize the potential roadblocks in its implementation.

The presentations by government, employer and worker representatives provided important information about obstacles to the ratification of the Convention in each country, allowing for the identification of concrete actions to improve working conditions for fishworkers, and how to facilitate the ratification process.

In many countries, it was realized, there is a need to improve co-ordination among different agencies involved in the application of the Convention, such as those related to labour, fisheries

The Rio meeting gave participants an opportunity to clear up doubts about aspects of the Convention...

and maritime affairs. The need to strengthen tripartite processes of consultation and technical assistance in all the countries to further the ratification process was also stressed. The seminar was also informed of the need to determine flexibility in the 'progressive implementation' of the Convention in each country.

Most important

The Work in Fishing Convention, 2007, is the most important international instrument that seeks to foster the concept of decent work in fisheries by promoting the harmonization of working and living conditions,

*This report is by **René Schärer** (fishnet@uol.com.br), Founding Member of Instituto Terramar, Ceará, Brazil, and a Member of ICSF*

including accommodation and contract issues on fishing vessels, besides including mechanisms that permit a gradual implementation of certain provisions of the Convention, depending on the ground reality in each country and the type of fishing fleet involved.

Channels of dialogue should be established to advance the process of discussion of the Convention at a national level...

Before starting procedures for submission and ratification, the labour authorities in each country should ask all public agencies and social actors to identify aspects relative to the progressive implementation of the Convention, so that each country can select exclusions and progressive application of provisions, through national legislation. Such a consultation process, as well as advances in harmonization of national laws and the resolution of doubts regarding the Convention, should be done prior to the ratification of the Convention.

Countries should ask ILO to continue with technical assistance and information campaigns, workshops and seminars, and modules for training and communication. All these should aim to reveal the potential of the Convention

so that stakeholders have all the information necessary to take informed and conscientious decisions. Channels of dialogue should be established to advance the process of discussion of the Convention at a national level, as is already happening in Argentina, Brazil and Chile.

The implementation of the Convention will contribute to reducing unfair competition, and bring about a safer industry that can incorporate advances in technology and fishing vessel design so as to mitigate accidents and health hazards in fishing operations.

A country-by-country forecast for ratification of the Convention was attempted at the Rio seminar. **Argentina** expects the Convention to be ratified. **Brazil** is on the way to ratification, as promised by the Fisheries Minister in 2007. However, there are over 90,000 vessels in the country that do not offer sufficient safety measures for fishers. The Labour Ministry expects the Fisheries Ministry to go ahead with fleet modernization. Brazil's legislation already reflects the provisions of the Convention; it now needs to be put into practice, and there is also a great need for training. **Chile** expects the Convention to be ratified. **Colombia** will start dissemination of the Convention's provisions, and begin dialogue prior to working on legislative proposals. **Ecuador** will have tripartite discussions after the national elections. **Panama** will hold dialogue with the sectors before presenting the Convention to parliament. National legislation will also consider the interest of artisanal fishers. **Peru** has been working on discussions and dialogue, and needs time to work with employers and employees to clarify issues. Peru's employers have provided funds for fishworkers' social security, and training for fishers' safety. **Uruguay** has been holding tripartite consultations since December 2008.

Important participation

At the conclusion of the Rio seminar, the importance of the participation of groups like the International Collective in Support of Fishworkers (ICSF) and the

BRIAN O' RIORDAN / ICSF




Trawlers at San Antonio harbour, Chile. The country expects to soon ratify the ILO Work in Fishing Convention, 2007

International Christian Maritime Association (ICMA) was specifically mentioned. It was also pointed out that Spain, whose ambassador was present, was one of the countries that had financially supported the seminar.

On the last day of the seminar, participants visited the naval simulator of the Rio de Janeiro Port Authority, where an impressive assembly of technology for training ships' captains was displayed. The concluding dinner at a typical *churrascaria* (a Brazilian steakhouse) brought the seminar to a happy end.

Personally, at the beginning of the seminar, I did feel somewhat like a fish out of water, due to my limited knowledge of the subject and also because the main focus was on industrial fisheries. Even though artisanal fisheries were mentioned by several speakers, it was obvious that the Convention was mainly geared towards fishers on board industrial vessels. But conversations with the leader of the Brazilian delegation, Vera Albuquerque of the Labour Ministry, showed that at least within the Brazilian government, there is genuine concern for artisanal fishers and, as far as social-security benefits are concerned, Brazilian fishers are well protected. It is up to representatives of artisanal fishers to lobby their fisheries authorities to address their constituents' concerns. Unfortunately, at the seminar there was hardly any representative from the artisanal fishery of any country of the region. (One representative of the National Federation of Fishermen of Brazil was present, but stayed only for an afternoon.)

My personal impression, which was shared by several representatives I talked to, is that the Work in Fishing Convention, 2007, has a very good chance of being ratified, but it may take some time to happen. 



Unloading cargo from a fishing boat, Argentina. Fishing is among the most hazardous professions in the world

For more

labour.icsf.net

Labour Page of ICSF

www.fao-ilo.org/fao-ilo-fisheries/en
**ILO and FAO Working Together:
 Fisheries**

www.ilo.org/public/english/dialogue/sector/sectors/mariti.htm

Maritime Activities at the ILO

www.safety-for-fishermen.org/en/
Safety for Fishermen

Uniting for Change

At a recent conference in Recife, fishers from northeast Brazil demanded recognition of their status and rights to their territories

A conference on 'Artisanal Fishers, Protected Areas and Climate Change', was held from 31 August to 3 September 2010 at Recife, Brazil. The conference—the third conducted by the Joaquim Nabuco Foundation—was held in partnership with the International Collective in Support of Fishworkers (ICSF), as well as with the support of FACEPE, the State organization for research. The

in Recife or in communities of artisanal fishermen.

The gender symposium, conducted for four years by the Regional Feminista Norte e Nordeste de Estudos e Pesquisas sobre a Mulher e Relações de Gênero (Redor), the Feminist Northern and Northeastern Regional Network for Studies and Research on Women and Gender Relations, provided a forum for scholars of gender relations to get to know the actors in Brazil's fisheries sector.

Being a continental country, Brazil is marked by diversity in fishing, both in terms of ecosystems and socioeconomic factors. While the southeast and south are subtropical climate regions influenced by cold ocean currents, the northeast of the country has a tropical climate and is bathed by the warm waters of the South Equatorial Current (Atlantic Ocean), which features low productivity. The north region, despite its tropical climate, is marked by high biological productivity, as a result of the continental water flow from the Amazon River.

The coasts of the north and northeast regions have plenty of mangroves and coral reefs, ecosystems that enrich the adjacent coastal waters and facilitate the entry of artisanal fishermen into the fisheries. These regions account for more than 80 per cent of the 850,000 fishermen legally registered with the country's Ministry of Fisheries, a figure that could well be an underestimate.

Historical invisibility

Despite the historical invisibility of artisanal fisheries in Brazil, reflected in the lack of support for the sector, it

Brazil is marked by diversity in fishing, both in terms of ecosystems and socioeconomic factors.

conference included a number of other partners, such as universities as well as non-governmental organizations (NGOs) like the Fisheries' Pastoral from the Catholic Church. The conference discussed gender issues too through the Fourth Pernambuco Symposium on Women and Gender Relations.

The Recife conference differed from other events held in the region in that it promoted interactions between researchers and public managers with the key actors in the fisheries sector, namely, the artisanal fishermen and fisherwomen.

The Joaquim Nabuco Foundation is a research institution of the federal government oriented to conduct social research in the north and northeast of Brazil. Its Environmental Department has been developing research in the area of fishery since 1994. Annual seminars have been held in the last six years, either

*This article is by **Beatriz Mesquita Jardim Pedrosa** (beatriz.mesquita@fundaj.gov.br), a researcher from Joaquim Nabuco Foundation, Brazil*

provides more than 55 per cent of the total capture fishery production in the country, which, in 2009, amounted to 585,671.5 tonnes. The artisanal sector also practices sustainable ways of fishing and living with the environment, given the characteristics of the culture and lifestyle of artisanal fishing communities. The history and culture of these people have long been important aspects of the Brazilian coast.

For the artisanal fishermen and fisherwomen of Brazil, their relationship with the land and territory is very important. For them, defending their territories in face of the conflicts due to land speculation and economic activities such as tourism, has been a continuing activity. The other threats they face include overfishing, habitat degradation, pollution and climate change. The historical pressure on coastal areas comes from the population density. Today, one quarter of the country's population lives in the coastal region, resulting in a population density of 87 persons per sq km.

Brazil owes a social debt to its artisanal fisheries. This sector, although having always accounted for a large portion of fish production in the country, has been treated as marginal, while the industrial fisheries sector has received government investments and has benefited from increased domestic production of fish (until the 1990s). The artisanal sector has recently received increasing attention both from the government and academic institutions, as well as from civil society. This recognition is the result of a series of changes that occurred after the political liberalization and the 1988 Constitution, which allowed free advocacy of rights and free association of marginalized groups of society, like the small-scale fishers. Among the other changes: the emergence of fishery social movements; the action of NGOs, and the media coverage given to the fishers, mainly due to the large pressures on the coastal environment.

Despite recent institutional changes in the fishery sector in the country, culminating with the creation

of the first Ministry of Fishery in 2009, the social policies and those encouraging the sector fall short of the demands of artisanal fishermen, who call for transparency, recognition and participation in preparing public policies for fisheries. The Recife conference highlighted the conflicts existing in the coastal region, the role of the government, especially the Ministries of Fishery, Aquaculture and Environment, the relationship between researchers and traditional communities, as well as experiences and positive actions to minimize the problems of the sector, such as the marine extractive reserves (MERs).

The conference brought together 300 participants from various regions of Brazil. They included scholars, artisanal fishermen and fisherwomen, public managers, NGOs and representatives of communities living in marine protected areas (MPAs). The conference saw presentations of 36 scientific papers and 12 reports on the experiences of fishing communities, under the following themes: Artisanal Fisheries and Gender; Artisanal Fisheries and Protected Areas for Sustainable Use: Territories and Conflicts; and Artisanal Fisheries and Climate Change.

For three-and-a-half days, roundtable meets were organized



FELIPE FERREIRA

The conference brought together 300 participants, including scholars, artisanal fishermen and fisherwomen, public managers, NGOs and representatives of communities living in MPAs

The Recife Letter

The Recife Letter, which was the outcome of the conference, and was presented on 3 September 2010, stressed:

- the importance of MERs along the Brazilian coast as a means for the conservation of marine resources and the survival of a diversity of cultures and ways of living of artisanal fishers;
- the role of these reserves in strengthening the fishers' organizations as each MER and reserve for sustainable development requires the creation of strong local social organizations and institutions;
- the role of MERs in determining a marine territory to be managed by organizations of fishers; and
- the role of these reserves in also fostering the growing participation of women.

The conference recommends:

- Further development of legal instruments for the recognition of the fishing territories of coastal artisanal fishing communities outside the existing marine reserves as well.
- The establishment of a permanent forum of civil society for discussing the demands of artisanal fishing communities, and monitoring government activities and projects related to the coastal and riverine areas.
- The organization of an electronic network by civil society organizations and marine reserves' associations to exchange ideas on positive experiences at the local level, dissemination of information on violation of fishers' rights, and organization of workshops.
- The organization of a conference every two years, similar to the Recife conference, in order to discuss and monitor the

development of MERs and for the exchange of experiences among them.

On fishers' rights, territories and MERs

The conference acknowledges the growing number of marine reserves for sustainable use as an important strategy for fish resources conservation, particularly in the north and northeast regions where most of the 22 already established reserves are located and many more are being planned. It also recognizes that a growing organization of local associations is essential for the establishment and development of these reserves, particularly due to the fact that as their number has been rising, conflicts with other users of the coastal areas have also grown.

In view of this, the conference calls on the government and civil society to:

- respect and support the autonomous movements of fisherwomen in order to increase their social visibility and the importance of their role in fishing, processing and trading activities;
- reinforce and expand the legal status and rights of women in fisheries, including their role in the management of MERs;
- expand health and education services, taking into account the specific characteristics of fishing activities of women in the coastal communities;
- respect fishers' rights in their territories, and establish a moratorium on the expansion of commercial shrimp farms if they negatively affect mangroves and the way of living of artisanal fishers;

in the mornings, some formed exclusively by fisher leaders—male and female—and some by researchers, technicians, government officers and NGOs to discuss issues on MPAs, particularly those for sustainable use (like MERs and reserves for sustainable use, RDS), the role of fisherwomen in those reserves and climate change. In the afternoons, there were sessions organized for presentation of research papers by fisher leaders on the main issues and on the experiences in MPAs. Group discussions on relevant points that would later form the basis for the recommendations of the conference also took place in the afternoon.

Professor Antonio Carlos Diegues, a Member of ICSF, discussed the identity of coastal communities,

describing artisanal fishers: "The artisanal fisherman is someone who decides for himself how to go fishing, when to go fishing, which buddies or fellows to go fishing with. The only aspect he does not command in all this process is the commercialization. That's where he fares badly."

Researcher Lourdes Furtado from the Amazon talked about the indivisibility between land and water for the artisanal fishermen, bringing up the issue of the territories: "Land for living, water to work".

Maria Aparecida Ferreira, a community leader from the Ibiraquera MER in the State of Santa Catarina, shared the experience of strengthening the fishermen's organizations during the process

...contd

- require the Prosecuting Office from the Ministry of Justice to be more involved in the solution of growing conflicts between artisanal fisheries and large-scale activities;
- demand that funds from environmental impact mitigation projects also benefit local coastal communities and their environment;
- ask fishers' organizations to reinforce their alliances with indigenous peoples and traditional communities participating in the National Forum of Indigenous Peoples and Traditional Communities so that they are more empowered;
- ensure that the territory of extractive reserves includes not only the marine but also the land area used by fishers;
- ask fishers' organizations and governments to promote mutual visits among extractive reserve members in order to exchange positive experiences and problems faced by the reserves; and
- promote activities complementary to fishing, in particular local or community tourism.

On recognition of artisanal fishing knowledge

- recognize and use the traditional ecological knowledge of fishermen in the planning, monitoring and running of MERS;
- ensure that scientific research and studies undertaken by several institutions benefit local communities and that the results are passed on to them;
- promote and disseminate research on traditional and scientific knowledge on MERS, and encourage researchers to send the communities a summary of their studies in an accessible format;
- incorporate the traditional knowledge of fisherwomen in the process of establishing and running MERS; and

- produce statistics on production, marketing, health and education, taking into account the specificity of women's fishing activities.

On fishing communities and climate change

Many fisher leaders have expressed their concern about the frequency and devastating powers of extreme climate changes, including intensive flooding close to the river mouths, which affects communities; change in coastal water temperature, which affects the migratory patterns of fish species, pushing some of them out into the high seas; increase in the number and severity of storms, particularly in the southern States, leading to the capsizing of a greater number of fishing boats; and coastal erosion that threatens some villages. There is also concern that fishing communities will be more affected than others, although their contribution to climate change is lower than that of industrial societies.

In view of this, the conference recommends:

- More attention should be paid by the government to the impacts of climate change on fishing communities, as many of them are distant from urban centres.
- Coastal communities should develop their local institutions to cope with these events.
- Special funds should be allocated to community organizations to cope with climate change and its impacts.
- Coastal communities should share their knowledge on the impacts of these changes and ways to cope with them.
- Marine and coastal reserves can be important tools to protect the environment and communities against the consequences of climate change.

of creating a reserve: "Formalizing the reserve is just a detail; what really matters is the union of a people in search...the hardest part is to engage the community. A reserve makes the fishermen bring the responsibility upon themselves".

Fisherwoman Eliene Maria, from the National Articulation of Fisherwomen of Ceará State, described the creation of the movement, highlighting the fisherwomen's difficulty in having their work valued and acknowledged, while struggling to establish themselves against the power of the fishermen in their own community.

"If I go to a clinic, I have to state in writing that I'm a fisherwoman. But what do the women do? They say they're housewives. Today we are calling for changes in the

documentation. We must state what we are; if I am a fisherwoman, I must say I am a fisherwoman," said Maria.

The non-recognition of occupational diseases by the healthcare system was also discussed to a great extent, especially in relation to the shellfish fisherwomen, as explained by Maria Jose Pacheco from the Fisheries' Pastoral: "The health policy does not take into consideration the specific health aspects of the communities, especially of the shellfish fisherwomen".

Climate change was also discussed at the conference, and MPAs were cited as a way to cope with such external changes. The need to sensitize communities to the effects of climate change was cited by fisheries engineer Jefferson Souza from the NGO, Terramar Institute: "Who among us

does not feel the bio-ecological change of some species?”

The relationship between researchers and community, and traditional and scientific knowledge was constantly discussed at the plenary sessions. That was also the topic of the presentation by Professor Maria de Los Angeles Gasalla, who focused on climate change and the vulnerability of artisanal fisheries: “It is very important to know what is going on, what is changing in our environment, in order to adapt—because adapting is what you (fishers) know how to do”.

The creation of MERs—the Brazilian experience in sustainable-use MPAs—was regarded by communities and researchers as one of the most appropriate policies to minimize the existing conflicts in the coastal region that directly affect traditional communities. By definition, MERs are “protected areas aimed at sustainable use and conservation of natural renewable resources by traditional extractive populations”. Such MERs are currently seen as the best institutional arrangement to ensure fishing areas, minimizing the impacts and conflicts mentioned earlier. The main difference between the MERs and other MPAs is that management is performed by a deliberative managing council of the absolute majority of users—artisanal fishermen and fisherwomen—apart from the fact that MERs may only be set up upon the request of fishing communities.

As a result, a new generation of young male and female fisher leaders is being formed who participate actively in the process of establishing MERs. This is especially important since in some places conflicts occur with commercial shrimp farms, large-scale tourist interests and mining industries, among others.

The conclusions from the Recife conference were presented to the Convention on Biological Diversity (CBD) meeting in Nagoya, Japan, in 2010 during a side-event organized by ICSF and resulted in a statement published in the “Action for Biodiversity Convention: Towards a Society in Harmony with Nature”,

where MERs were cited as an important stake in marine resources by the coastal communities in Brazil.

The Recife conference was conducted to open up a discussion space for the actors in artisanal fisheries in the northeast of Brazil. It resulted in the “Recife Letter”, a document that summarized the sector’s aspirations and claims, which was distributed to public and academic institutions, as well as to coastal communities. In addition, three demands that focused on the actual problems in the sector were produced:

- Support the struggle of the caiçara fishermen from the Jureia-Itatins Ecological Station, State of São Paulo, who are threatened with expulsion from their traditional territories, and who are demanding the creation of MERs in their territory.
- Support the struggle of fishermen and shellfish fisherwomen from the Baía de todos os Santos Bay of All Saints, in particular the struggles of the extractivist fishworkers from Iguape Bay MER against the implementation of economic projects which are harmful to fishing.
- Support the permanent rights of the families in the islands of the Sirinhaém estuary, State of Pernambuco, to have their territory of residence and work officially recognized by the State with the creation of the Sirinhaém-Ipojuca MER.

For more

www.fundaj.gov.br/

Joaquim Nabuco Foundation

icsf.net/icsf2006/uploads/publications/monograph/pdf/english/issue_99/ALL.pdf

Marine Protected Areas and Artisanal Fisheries in Brazil

www.icmbio.gov.br

Chico Mendes Institute for Biodiversity Conservation

Staking Claims

Artisanal fishworkers of Brazil are mobilizing in defence of their territories through a campaign for a new bill of rights

In recent years, artisanal fishworkers and their communities in Brazil are being forced out of their traditional territories or are being subject to increasing pressure to leave their territories, multiplying the risks to their economic and cultural survival. The cause is a new wave of development, in the form of public and private investments and construction of large-scale infrastructure projects, which advance by occupying spaces whose populations and traditional uses are considered obstacles to 'progress' and the 'public interest'.

institution of collective rights for indigenous people and *quilombolas* (isolated communities constituted mainly of black slaves who have escaped from their masters during the slavery period (XVII – XIX)), and has provisions to guarantee the demarcation and possession of their territories. Moreover, the Constitution guarantees cultural rights and the protection of Brazilian cultural heritage in its tangible and intangible expressions, taking into account the identities of different social groups that have formed Brazilian society, including their various modes of creating and sustaining livelihoods, while also defining the obligation of the government to protect it. Further, there is a constitutional injunction that obligates that urban and rural properties be used to fulfill a social function, implying the possibility of expropriation and redistribution of land in the interests of equity and larger social compulsions.

...the Constitution guarantees cultural rights and the protection of Brazilian cultural heritage...

In the face of this, the National Movement of Artisanal Fishermen and Fisherwomen has taken the initiative to draw up a bill for the recognition of their collective right to stay and use their territories. In early June 2012, the Movement launched a national campaign to collect signatures to force the entry of the bill in Parliament.

The recognition of the territorial rights of traditional communities in Brazil is based on a diverse set of legal texts. The main ones are: the 1988 Constitution; the law which created the National System of Conservation Units (protected areas) (2000); and the Decree which established the National Policy for Sustainable Development of Traditional Peoples and Communities (2007).

The Brazilian Constitution of 1988 has introduced advances in the

On the other hand, the National System of Conservation Units (NSCU), created in 2000, includes two types of protected areas that provide for the permanence of traditional communities—'extractive reserves' and 'sustainable development reserves'. These categories originate from the struggle of traditional extractive populations in the Amazon region, but after the institutionalization of NSCU, they have become an important strategy in the pursuit of securing the territorial rights of communities all across the country.

Traditional rights

However, the creation of these reserves does not automatically establish rights for all traditional

This article has been written by **Naína Pierri** (pierrinai@gmail.com), Member, ICSF, Brazil, **Natália Tavares de Azevedo** (nataliatavares@ufpr.br), PhD in Environment and Development and **Beatriz Mesquita** (beatrizmesquita@fundaj.gov.br), Member, ICSF, Brazil

communities. They are determined on a case-by-case basis, in a process where environmental conservation criteria often render subordinate the recognition of collective rights to territory. Thus, these protected areas are limited in their ability to ensure the traditional peoples' rights to remain in their territories and enjoy their resources.

To close this gap, the National Policy for Sustainable Development of Traditional Peoples and Communities was formulated in 2007, which addresses the needs of those culturally diverse groups that recognize themselves as such, and have their own forms of social organization, who occupy and use lands and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, and who use knowledge, innovations and practices generated and transmitted by tradition. This national policy aims to recognize, empower and guarantee the territorial, social, environmental, economic and cultural rights of these communities, as well as their access to the natural resources on which they depend for their sustenance. However, the government has not yet adopted the necessary laws and regulations for the effective implementation of the national policy.

Thus, despite this broad legal framework, artisanal fishing communities in Brazil have great difficulty in gaining legal recognition for their territories—mainly due to conflicts of interest that hinder the creation of extractive reserves and sustainable development reserves/protected areas, and by the effective implementation of the National Policy for Sustainable Development of Traditional Peoples and Communities.

It is in this context that the artisanal fishworkers took the initiative to draft a bill that recognizes the rights to the territories of traditional fishing communities and that delineates the procedures for their delimitation and granting of title deeds. For this project to be considered by the parliament, it is necessary to obtain the support of a significant number of voters, through a signature

campaign, which has already began throughout the country.

The presentation of bills by popular initiative is a right established in the Brazilian Constitution. It is necessary to collect the signatures of one per cent of the electorate. Currently, this represents 1,385,000 signatures. Once backed by the number of required signatures, the bill will be forwarded to the Chamber of Deputies, where it will be filed and subject to the same process as other legislation projects. Often, however, controversial projects take years before they come up for final voting, after which they must still pass through the senate and gain presidential approval.

The bill prepared by the Brazilian fishworkers provides "...the recognition of the right to the territory of traditional fishing communities, which is considered material and immaterial cultural patrimony, subject of safeguarding and promotion..." as well as establishes "the procedure for its identification, delimitation, demarcation and titling", ensuring traditional fishing communities "exclusive access to the natural resources" on which they depend.

The bill defines 'traditional fishing territories' as "areas of land and water used by the traditional fishing communities for their housing, productive activities, and for the conservation, shelter and reproduction of the species and other resources necessary for ensuring their livelihoods, as well as physical, social, economic and cultural reproduction, including



The National Movement of Artisanal Fishermen and Fisherwomen has drawn up a bill for the recognition of their collective right to remain in, and use, their territories



Fishworkers, representatives of social movements and officials of public bodies at the launch of the signature campaign for a new bill

10

spaces which are symbolic, religious, cosmological or historical sites".

In addition, the bill establishes the duty of government to formulate a national policy for sustainable development of traditional fishing communities and incorporate it into plans, programmes, projects and actions, with targets, resources and responsibilities assigned to the agencies involved in implementation. It is proposed that this policy should address the following areas: income generation with environmental sustainability; quality of life; gender, racial and generational equity; strengthening and empowering of communities, and their participation and social control.

Among the explicit objectives of the bill, the following ought to be highlighted: to ensure the full exercise of individual and collective rights pertaining to traditional communities, especially in situations of conflict or threat to their integrity; ensure the full protection of mangroves, *apicuns* (sandy

sediment bordering areas of the mangrove ecosystem), riparian forests and coastal lagoons; ensure free access to communities; and promote fisheries management in watershed and coastal regions, with the wider participation of fishworkers, keeping in mind their traditional knowledge.

Thus, the bill defines its main goal as the sustainable development of traditional fishing communities through the recognition of territorial rights as being fundamental.

The launch of the campaign to collect signatures to support the bill drafted by the fishworkers occurred between 4 and 6 June 2012 in Brasilia, in the Exhibition Hall of the City Park, with the participation of 2,000 fishermen and fisherwomen, who arrived from different regions of the country and camped there.

Public ceremony

The official launch was held on the morning of 5 June, at a public ceremony presided over by a board composed of

fishworkers, representatives of other social movements and supporting organizations, as well as officials of public bodies, including the Minister of Fisheries and Aquaculture.

That same day, in the afternoon, a public hearing was held that was attended by representatives of the Federal Public Ministry, the Ministry of Environment and the Heritage Department of the Union. The public hearing exposed how fishing communities are being expelled from, or pressured to leave, their territories.

The climax of the event was the March in Defense of Artisanal Fisheries in Brazil, which occurred on 6 June, between the City Park and the National Congress.

As a culmination of the march, 50 people representing fishermen and fisherwomen met parliamentarians and delivered the bill, announcing that they would return with the signatures required for the project, which could then be received, discussed and eventually approved by the parliament.

Although the signature collection allows the bill to be presented in the parliament, no deadline has been fixed for its discussion, nor is there any guarantee of approval.

However, the fact that the bill is promoted by social movements and supported by a significant part of the electorate ought to work in favour of its effective discussion and eventual approval, which would then make it a fundamental law in defence of fishing communities.

The importance of the signature campaign, however, transcends the legal sphere; its true significance became apparent from the very first day, when fishworkers rallied around the bill and mobilized resources to make known nationwide their situation and their legitimate claims, and garner support from the general public.


The mobilization around the bill seems capable of accumulating the forces needed for success, for various reasons. For one, this is a national campaign that unifies struggles, which are usually fragmented and dispersed among various local fishing communities.

For another, it also overcomes the limitations of the usual, short-term, more reactive actions, by outlining a long-term programme for the next three years, which can be supported by other organizations and sectors.

Finally, the campaign constitutes the most significant mobilization effort promoted by fishworkers in Brazil in the past 20 years, and it expresses the political maturity of the National Movement of Fishermen and Fisherwomen, which is an autonomous organization that maintains a critical

The public hearing exposed how fishing communities are being expelled from, or pressured to leave, their territories.

distance from government and its policies.

Regardless of the final outcome in terms of approval of the bill, the ongoing campaign of the artisanal fishworkers of Brazil is very important because it reinforces the ability of fishermen and fisherwomen to fight and struggle, gives them greater visibility as economic and political agents, and offers a replicable example for other traditional communities and fishermen whose territories are also threatened. 

For more

www.peloterritoriopesqueiro.blogspot.com

Campanha Nacional Pela Regularizacao de Territorio das Comunidades Tradicionais Pesqueiras

www.icsf.net/en/samudra-news-alert/article/detail/48533-National-campai.html?language=EN

National campaign to secure traditional fishing territories launched in Brazil

Short-term Model

The government of Brazil is backing increased production through promoting industrial fisheries and aquaculture to the detriment of small-scale fisheries

With the election in Brazil in 2003 of President Luiz Inacio Lula da Silva, the Workers Party candidate, high expectations were raised that policies would be developed that favoured the working classes. In the case of the fisheries sector, this would mean policies favouring artisanal fishworkers. Over the next eight years (2003-2011), including the second mandate of President Lula, many programmes

different institutional structures and lines of action, which are important to bear in mind when trying to get a better understanding of the current policy. The first period, from 1964 to 1989, was characterized by a development model for modernization that was environmentally irresponsible. In the second period, from 1989 to 1998, the government reacted against what had preceded, and established a policy that was fundamentally conservationist. The third period, from 1998 to 2003, was characterized by institutional infighting where attempts to resuscitate the development of the sector were blocked by environmental requirements.

From 1964 to 1989, a period that included the military government (1964-1985), the body responsible for sectoral policies was the Department (Superintendence) for Fisheries Development (SUDEPE), which implemented a development-oriented policy with a particular focus on industrial fishing, and making use of, *inter alia*, fiscal incentives and tax breaks in the 1967 Fisheries Law. In this period, various modernizing measures were also applied in the artisanal fisheries sector, notably, the financing of motors, although these occupied a minor space in the entirety of programmes undertaken.

Extractive fishing

The overall impact generated by this policy, from an economic perspective, was the greatest-ever continual growth of extractive fishing the country has seen. However, from an environmental perspective, it generated overfishing of the main resources, highlighted by the collapse

and actions were conceived and implemented by the government for the fisheries sector. However, a rigorous analysis of these shows that in the case of artisanal fisheries, although it had been given greater consideration than ever before, it was not the subsector that benefited most. The actions directed at the other subsectors, along with other omissions have, in reality, weakened artisanal fishworkers. In the last years, all indications are that the government of President Dilma Rousseff (who took office in 2011 and continues to date), who comes from the same party as President Lula, is continuing and deepening these policies, creating conditions that make artisanal fisheries even more vulnerable.

Prior to Lula's government, fisheries policy in Brazil passed through three distinct phases with

The overall impact generated by this policy, from an economic perspective, was the greatest-ever continual growth of extractive fishing the country has seen.

This article, written by **Natália Tavares de Azevedo** (nataliatavares@ufpr.br), Researcher at Federal University of Paraná-UFPR and **Naína Pierri** (pierrinai@gmail.com), Professor at UFPR and ICSF Member, has been translated by **Brian O'Riordan** (briano@scarlet.be) of ICSF's Belgium Office

of the 'Brazilian sardine' (*Sardinella brasiliensis*). The fishery resource crisis, in addition to various denouncements over misappropriation of public funds and corruption, led to the extinction of SUDEPE.

In 1989, after the revival of democracy and the enactment of the new Constitution, the functions of SUDEPE were passed to a newly created environmental institute, the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA). This later became the main executive branch of the Ministry for the Environment, created in 1992. In this period, which goes up to 1998, in addition to responsibility for fisheries policy being in the hands of the federal environmental body, there was a general adoption of neoliberal policies which constrained certain kinds of public investment, and which led a conservationist policy focus. In this way, all incentives for developing fisheries activities were cut, being considered in their entirety to be destructive, and various management instruments were created, which sought to restrict fishing effort and protect certain species.

The third period began in 1998 with the creation of the Department of Fisheries and Aquaculture (DPA) under the Ministry of Agriculture, which was an attempt to remove the environmental focus of the sector and implement once again a policy for its development. Thus a period of fierce institutional conflicts was opened up between the Ministry of Agriculture and IBAMA, caused by the division of competencies in the regulation and management of fishery resources and by the barely started resumption of investment in the fisheries sector. The focus now is on the industrial fisheries sector and commercial aquaculture.

Artisanal fisheries was, therefore, not the target of practically any governmental action over these three periods, which were centred as much on the development of the industrial sector as they were on conservation and preserving resources. In this way, the social condition of the artisanal fishermen, their contribution to the

economy and to food security, and the cultural diversity of their livelihoods were basically at the periphery of governmental concerns. What is more, developmentally oriented and conservationist policies, in addition to the absence of substantive policies, forces artisanal fishers and their communities to remain in precarious living conditions. In this way, these fishers were the principal victims of the fishery resource crisis although they had not been mainly responsible for causing it; they remained condemned to poverty and had to face unequal competition with industrial fisheries and commercial aquaculture.

When President Lula began his first government, in 2003, it was hoped that he would act to favour artisanal fisheries, which is responsible for more than half of the national fishery production, directly providing employment for 700,000 people and sustaining around two mn people.

The main actions taken by the Lula government to implement the new fisheries policy were: the creation of a specific and hierarchical sectoral body and, years later, a new fisheries law; the creation of new spaces for, and forms of dialogue between, the government and civil society; and the incorporation, in the body for developing the sector, of environmental regulatory and

NÁINA PIERRI



A truck marketing fish in Brasilia, Brazil. Overfishing has led to the collapse of the main fish resources in the country

management functions which previously were implemented by environmental bodies. Thus, President Lula, at the start of his government, in 2003, created the Special Secretariat for Aquaculture and Fisheries (SEAP) with ministerial status. In 2009, SEAP was transformed into the Ministry of Fisheries and Aquaculture (MPA), which represented an increase in human and financial resources, widening and strengthening institutional capacity.

As regards the spaces for dialogue with civil society involved in the sector, the government created two main bodies: the National Fisheries

...participation in these spaces, above all when numerous, can be used by the government in power as a show of strong support for its own objectives, or for electoral purposes.

Council (CONAPE), which is a permanent collegiate body that is consultative in nature, created in 2003 as part of the SEAP structure, and the so-called National Conferences. Preceded by State-level conferences to which all the fishers from the communities are invited, these are a mechanism for knowing the demands of civil society, and have been carried out for fisheries as well as for other sectors. CONAPE is made up of 54 members, 27 being nominated by civil society every two years for its assemblies (15 representatives from workers' social movements, 10 representatives from the commercial sector, and two from academia and research), with the other 27 members from governmental bodies linked to the issue. In the period analyzed, CONAPE met two to three times per year, held three National Fisheries and Aquaculture Conferences (2003, 2006 and 2009), gathered 600 to 1,500 people, and also organized a Conference of Women Workers in Fisheries and Aquaculture in 2004.

Although the creation of these spaces for participation represents an

important step forward democratically because popular demands can be expressed through them, on their own they do not guarantee that these demands will be incorporated into public policies. What is more, participation in these spaces, above all when numerous, can be used by the government in power as a show of strong support for its own objectives, or for electoral purposes, seeking to capture votes, and, in any case, may provide a mechanism for legitimizing policies that do not benefit the working classes or which may even undermine them. In fact, the four fisheries conferences organized contained all those aspects to varying degrees.

Also in 2009, alongside the creation of the Ministry, a new legal framework was approved for fisheries in the country, Law No 11.959, which instituted the National Policy for the Sustainable Development of Aquaculture and Fisheries. One of the main changes arising from this legal restructuring was the incorporation of competence for fisheries administration and aquaculture management in the hands of the MPA.

Up to that moment, this competence was split between SEAP, the Ministry for the Environment (MMA) and IBAMA, but with the greater power vested in the environmental bodies. SEAP perceived the activities of these bodies as an obstacle to the boost it wanted to give industrial fisheries and especially to aquaculture.

Then, after years of tensions and conflicts, the new fisheries law made the MPA the co-ordinating body of the fishery management and regulatory processes, while maintaining the environmental bodies as collaborators, in the System for Shared Management for Fisheries Resources which also foresaw the participation of scientists and resource users.

Political action

This institutional reorganization constituted a political action through which the federal government, backed and legitimized by the participation

and support of the artisanal fishermen and other fisheries and aquaculture sectors, brought together a range of forces. This enabled it to open up the way for boosting fish production through the creation of a new ministry, the approval of new legislation and, above all, the weakening of environmental barriers.

Fisheries policy objectives were oriented by the government to consolidate growth in production as the main aim, as was announced in the first Political Project of SEAP, presented after the First National Conference of Aquaculture and Fisheries in 2003, and enshrined in 2008 in the first systematic plan for the fisheries sector entitled "More Fisheries and Aquaculture". Additionally, it included amongst its objectives the modernization of the sector, for capture, processing and trade, and, secondarily, to increase the social rights and income for artisanal fishers.

Recognizing that most fish stocks in coastal areas were overexploited, but not putting special effort to reverse the trend, the government drew up incentives for high-seas industrial fish production, based on the argument that in deep waters there still existed some margin to increase fish production.

In this way, for extractive fisheries, the government established industrial fishing companies rather than artisanal fishermen as the main actors for realizing the intended growth. To generate such growth, the government developed various lines of action. One of them is the Pro-fleet programme, which consists of a credit policy to build vessels and establish a national fleet for the Brazilian exclusive economic zone (EEZ). This is expected to increase fishing for species such as tuna and tuna-like species. This fleet would serve to replace foreign vessels which were being chartered and would provide the country with resources that were also being appropriated by foreign fleets.

It is noteworthy that, in addition, the Pro-fleet provided funding for replacement of industrial fishing

vessels that operate on coastal stocks of shrimp, snapper (*Lutjanus purpureus*) and piramutaba (Brazilian catfish, *Branchyplatystoma vaillant*) that was conditional on older vessels being scrapped. The programme, however, did not achieve the desired success: only eight vessels were financed of the 130 planned.

In addition to the above, industrial fisheries benefited from the gradual increase in the Diesel Subsidies Programme for vessel fuel, which, later on, the government tried to extend to artisanal fishermen, but with limited success due to operational difficulties. It may be said, then, that this programme favoured industrial fisheries, and contributed to making fishing that was not viable environmentally, economically viable, and, on the other hand, contributed to increased conflicts between industrial and artisanal fisheries.

The expansion of credit for the fisheries sector has also been a priority for the government, and was consolidated with the launch of the First Water Harvest Plan, in 2010. New lines of credit were created and the ceilings increased for industrial fisheries and aquaculture. On the other hand, there was increased inclusion of artisanal fishermen in the National Programme for Family Agriculture (PRONAF), the credit

MINISTRY OF FISHERIES AND AQUACULTURE, BRAZIL



The Pro-fleet programme in Brazil revolves around a credit policy to build vessels and establish a national fleet for the country's exclusive economic zone

NAÍNA PIERRI



The Third National Conference of Fisheries and Aquaculture was held in Brasilia in 2009. Aquaculture is the main fisheries development focus of the Brazilian government

system designed specifically to aid such producers, which suffers from many limitations and implementation problems.

Data on credit policy available with the MPA, show that an amount of R\$ 1,484,230,710.00 (around US\$ 811,055,033 at the 2010 exchange rate of R\$1.83 =US\$1) was applied over the years 2003 to 2010, in a total of 212,662 contracts. But this data does not differentiate between the beneficiaries and enable us to know how much was destined for each fisheries subsector, nor the amount destined for the purchase of fishing gears, vessels and/or motors.

The government had already begun to attach increasing importance to aquaculture, so that when the MPA removed the barriers set up by the environmental bodies and assumed the management function for regulating aquaculture, they undertook the demarcation of aquaculture parks as well as implementing local plans for mariculture development. From then on, aquaculture evolved into the subsector considered to be the most important for achieving productive growth and, therefore, was afforded the highest priority by governmental policy. The MPA is providing concessions for aquaculture areas that are either “paid or gifted”, effectively selling off and giving

away public waters for private cultivation. Meanwhile, proposals are afoot to make the production chain in aquaculture vertically integrated, through the development and adoption of technology packages.

Although the allocation of aquaculture ‘concessions’ is aimed at small producers and artisanal fishers, the policy encourages privatization of inland and marine waters.

Without a doubt, this will undermine artisanal fishers, by disposing off the spaces where they normally work. The government does not admit to this conflict, and continues to hide behind the claim that the artisanal fishers, thanks to its aid, can turn themselves into fish farmers. This, they say, would help remove the restrictions imposed by the resource crisis and will permanently improve their earnings and living conditions.

Aquaculture is the main fisheries development focus of this government. However, the future being programmed for artisanal fishers is not conducive for their remaining as fishermen.

It is important to highlight that, despite evidence to the contrary, since the creation of SEAP, the government discourse insists that its intention is to give priority attention to artisanal fisheries. The sectoral distribution of SEAP’s budget over the years 2003 to 2009, at first glance, seems to confirm this intention.

Thus, looking at Table 1, the overall numbers show that artisanal fisheries received the greatest amount of allocations (36 per cent), followed by the industrial sector, which received 26 per cent of the total, and aquaculture, which received barely 14 per cent, with the remainder destined for spending on administration and publicity.

Reversed distribution

However, if we take account of the number of people in each sector, who are the real beneficiaries of the allocations, the distribution is reversed. This shows that the 700,000 artisanal fishermen of the country receive much less compared to the few

thousand industrial entrepreneurs, considering that there are barely 5,000 vessels in this subsector.

In turn, recalling that over this period, SEAP had not yet removed the environmental barriers in order to be able to promote aquaculture on a massive scale, the amount destined for the latter also represents a relatively large amount. But, what interests us here, and what these numbers confirm, is that, despite the official discourse, artisanal fishers are not the main beneficiaries of government aid for the fisheries sector.

What then is the government's actual policy for artisanal fisheries? Starting with actions aimed at fish production, the main measure used by the government has been the increasing artisanal fishermen's access to credit under PRONAF. But the loans and complementary conditions encourage replacement of fishing equipment and not creation of new capacity. Input measures were targeted at ice distribution and fuel subsidies. However, implementation has been ineffective.

Other measures were aimed at optimizing the post-harvest phases of the fish production chain, such as through the distribution of kits for initial processing (cleaning, filleting, etc.) and the distribution of refrigerated lorries to facilitate transport of fish to commercial centres.

Lastly, at the level of consumption, the government has included fish in children's school meals, as a measure to

increase or secure a regular consumer market, as well as assured prices.

In parallel, in 2008, the National Plan for Technical Assistance and Fisheries Extension was launched, which, together with the boost given to create associations and co-operatives, would provide other measures to improve efficiency in the productive chain and reduce costs.

On the other hand, the government took other initiatives in education, such as literacy programmes and technical courses in fisheries and aquaculture, with contents and teaching methods designed specifically for fishermen.

But what stands out amongst the actions designed to improve incomes, is the so called 'closed season benefit' for artisanal fishing. This consists of a minimum monthly salary (around US\$ 340 at 2013 values) to artisanal fishermen during fishing ban seasons (for two to six months of the year), aimed at promoting reproduction and maintenance of stocks.

Initiated in 1991 as a fishery management tool, this policy was exponentially increased during the government under President Lula. SEAP facilitated access but did not apply the necessary controls, encouraging many fishermen who were not fishing for these species to receive these benefits. Even people who were not professional fishers, but mere relatives, were illegally registered as beneficiaries.

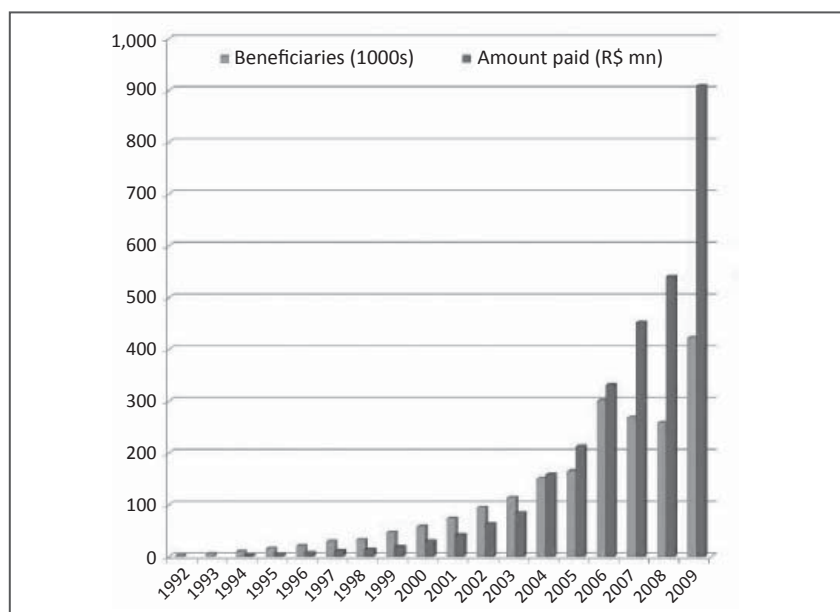
This tool for environmental management has become a very strong

TABLE 1. SECTORAL DISTRIBUTION OF THE SEAP BUDGET (2003-2009)

SECTOR	INVESTMENT (in R\$)	% (approx.)
Artisanal Fisheries	257.57 mn	36
Industrial Fisheries (includes Proflota/ Pro-fleet and diesel subsidies)	191.6 mn	26
Aquaculture	102.45 mn	14
Others: Publicity and Administration	171.16 mn	24
TOTAL	722.78 mn	100

Source: MINISTÉRIO DO TRABALHO E EMPREGO (MTE). Políticas públicas de emprego no Brasil: avaliação externa do Programa Seguro-desemprego. Brasília, 2010 and MINISTÉRIO DA PESCA E AQUICULTURA (MPA). Relatório de Ações Executadas no período de 2003 a 2010. Brasília, 2010.

FIG. 1: EVOLUTION OF THE AMOUNT GRANTED AND TOTAL NUMBER OF BENEFICIARIES OF CLOSED SEASON BENEFITS (1992 – 2009)



redistributive policy, conceived and facilitated by SEAP and the Fisheries Ministry, and financed by the Ministry of Work and Employment. Figure 1 shows the increase in the number of people registered as professional fishers and the even greater increase in the amounts of money paid as ‘closed season benefit’ during the period 2003 - 2009. This relative large increase in the amount paid is due to the increase in the national minimum wage (US\$ 77, in 2003; US\$ 291, in 2010).

These data indicate, then, that the main objective of government policy for artisanal fisheries is to reduce poverty through increasing artisanal fishermen’s income, mainly through improving the production chain and reducing the dependence on intermediaries. This, being both positive and necessary, is limited by the fact that none of these measures is either overarching or systematic in nature. Rather, its actions are piecemeal, dispersed and isolated, and are not capable of significantly changing the realities for fishing communities.

On the other hand, the volume of public money distributed as payments through the ‘closed season benefit’ to a large part of the subsector, makes this distributive practice the principal

action realized by the government as regards the artisanal fishery in the period under consideration. But this measure is also limited by not being a universal mechanism, and, even worse, for having procedural defects that call into question its legality, and, therefore, its continuity.

Overall, what stands out as a specific policy for the artisanal fishery, then, is a short-term distributive policy. Despite serving to reduce poverty and improve the quality of life for fishing communities for the time being, it is totally insufficient for addressing the fragile structural situation of artisanal fisheries in the medium to long term, as is necessary.

These characteristics of current fisheries policy are in line with the development model established by the federal government in recent years, which has been denominated ‘neo-developmental’.

Government action

This is characterized by a combination of strong government action to push economic growth, principally through large public infrastructure works and public credit provided through economic agents considered capable of distributing it, with a policy for distributing income, to a large extent made viable through

social benefits that are neither universal nor permanent; as of now, they stimulate consumption and strengthen the internal market, and create complacency in workers' sectors.

In the case of the fisheries sector, this model finds expression in the priority given to industrial fisheries, and, increasingly, to aquaculture, and in the predominantly social and distributive nature of the policies aimed at artisanal fisheries.

Large infrastructure projects like hydroelectric dams, ports, roads, public and private undertakings, like petrol extraction, shrimp ponds, mining and industrial complexes are impacting increasingly on artisanal fisheries.

But these do not have any kind of special protection that guarantees the permanence of artisanal fishermen's territories and their ways of life. The policy for the fisheries sector not only does not treat artisanal fishermen as privileged agents of government aid, but, even worse, the priority given for aquaculture implies privatization of waters, which has already started, and will end up making artisanal fisheries non-viable.

Taken together, government actions in recent years, behind a discourse of supposed social awareness and environmental responsibility, and despite the immediate reduction in poverty, has contributed to increase vulnerability and the situation of environmental injustice suffered by artisanal fishing communities.

Faced with this situation, a significant segment of organized artisanal fishworkers has adopted a position that is critical of the government. In 2010, this crystallised in the creation of a new national autonomous movement, calling itself the Brazilian Movement of Artisanal Fishermen and Fisherwomen (MPP).

In 2012, MPP launched the National Campaign for Regularizing the Territories of Traditional Fishing Communities, which had the main objective of getting a Citizens' Initiative Law approved, which

recognizes and demarcates areas of land and water on which these communities depend.

The recognition of the right to these territories and to the resources that are present within them, is considered to be a basic condition to guarantee the sustainability of artisanal fisheries and the maintenance of the traditional livelihood of their communities.

The struggle to obtain this

...a significant segment of organized artisanal fishworkers has adopted a position that is critical of the government.

constitutes an example of exemplary resistance of Brazilian artisanal fishers to the exclusionary development model pushed by the government in recent years. ❧

For more



dspace.c3sl.ufpr.br/dspace/handle/1884/29268

AZEVEDO, N. T. Política Nacional para o Setor Pesqueiro no Brasil (2003-2011), Tese de Doutorado. Programa de Pós-graduação em Meio Ambiente e Desenvolvimento. UFPR. Curitiba. 2012.

peloterritoriopesqueiro.blogspot.com.br/
National Campaign for Regularizing the Territories of Traditional Fishing Communities

For the Common Good

Faced with the difficult context of conflicts and over-bureaucratization, traditional fishing communities in Brazil have creatively built various strategies of confrontation and resistance

Artisanal fishing has guaranteed food and nutritional security for millions of fishing communities in Brazil. It is estimated that almost 70 per cent of the fish produced in the country comes from artisanal fishing. Besides economic importance, working men and women in small-scale fishing have, over the years, developed a list of 'know-hows' and 'how-to's' which represent cultural elements of indigenous and Afro-Brazilian roots, associated to lessons learned from a deep relationship with nature over the years.

The fact that artisanal fishing is an ancient activity means that fishermen and fisherwomen have established a very special relationship with nature. No doubt, the many strategies used by these communities ensured the preservation of their traditional territories, as well as their physical and cultural reproduction.

Brazil is internationally recognized for being a mega-diverse country, with many river basins and an extensive coastal zone, which together provide the basic fisheries resources for food security across the country.

Considered one of the oldest productive activities of humankind, fishing is an important source of income, generating employment and food. Artisanal fishermen and fisherwomen develop fishing for commercial, cultural or subsistence purposes, autonomously or in a household system. In Brazil, it is estimated that the activity involves approximately 3.5 mn people throughout the production chain and artisanal fishing accounts for approximately 70 per cent of the fish production of the country. According to the former Ministry of

Fisheries and Aquaculture (MPA), as of September 2011, 957,000 of the approximately 970,000 registered fishers are small-scale, 44 per cent are fisherwomen (128,427). Currently, these groups are organised into about 760 associations, 137 trade unions and 47 cooperatives. For fishers' movements, it is estimated that in Brazil there are over 1.5 mn 'men and women of the waters'.

The Brazilian neodevelopmentalist model has intensified conflicts and rights violations against artisanal fisherwomen and fishermen due to State policy. The government's action ignores the way of life of these

The fact that artisanal fishing is an ancient activity means that fishermen and fisherwomen have established a very special relationship with nature.

communities. Aimed at opening spaces for the advancement of large projects, predatory tourism, mining, water privatisation, land speculation, business aquaculture, construction of infrastructure for commodities flow, ranging from roads, railways, ports, mine ducts to ports, among other investments, which, encouraged in a disorganized way, are threatening the livelihoods of these traditional populations.

We can list the following aspects:

The plans of privatizing water bodies for aquaculture projects, be they marine or freshwater, have been ongoing since 2003; however, only in the last few years has it been possible to notice its effects in more obvious ways. In this context, the decree

*This article is by **Maria José Honorato Pacheco** (cppnacional@gmail.com), from Conselho Pastoral dos Pescadores (CPP), Brazil*

No. 4.895 was approved on 25 November 2003, which provides for authorizing the use of physical water body spaces of Union domain for aquaculture. There were many investments made by SEAP (Special Secretariat of Aquaculture and Fisheries) and MPA in order to make more flexible environmental laws or deregulate the laws protecting ecosystems. These bodies carried out heavy investments in infrastructure and development of technologies for aquaculture and there was a broad consolidation of alliances with business sectors interested in this market. According to the Ministry's own data, 900 ha of water surface were offered for this purpose in thirteen states in 2013.

Since 2013, numerous notices were published for the ceding of public water bodies so that their use could be regulated by local individuals or entities whereas, traditionally, the communities had been using them for tens or hundreds of years. The assessment of environmental and technical facilities was carried out through a process called Local Development Plan of Sea Culture

Shrimp farming has experienced a long period of bankruptcy, and shrimp crops have been decimated by viral diseases...

(PLDM) and did not take into account the views of the communities. The process of publishing the bid documents was done without consultation or seeking any consent, as provided under the ILO Convention 169 of which Brazil is a signatory, nor was there any public hearing. The intention of the recently wound-up MPA was to transform Brazil into one of the largest fish producers in order to meet the demands of the foreign market. This intensified conflicts over the use of water bodies. In this context, a legal basis was created to grant permission for private use of Union waters and to enable the deployment of marine

farms. The MPA, before its extinction, was attempting to influence the Civil House to further facilitate the privatization process through reducing the control exercised by environmental and administrative bodies such as IBAMA (Brazilian Institute of the Environment), ANA (National Waters Agency) and SPU (Union Heritage Department).

Another concern is shrimp farming, which has left an unsustainable trail worldwide and is one of the activities that most degrades the mangrove areas, and reduces the habitat of numerous species. This destruction of mangroves and other coastal ecosystems and inland waters is advancing, and it adds to a systematic violation of human and environmental rights of people in the waters of the sea, mangroves, lagoons, ponds and rivers. The shrimp farms use sodium metabisulphite and antibiotics in large quantities, which contaminates the water and constitutes a significant potential impact on human health. Shrimp farming has experienced a long period of bankruptcy, and shrimp crops have been decimated by viral diseases such as white spot and infectious myonecrosis due to the environmental and social unsustainability of the activity. Many ponds were abandoned, leaving environmental and social liabilities, which included approval of the State for writing-off of debts with public banks and non-accountability for environmental crimes. With the approval of the new Forest Code, this sector has, since the end of 2014, been reinvigorated, and the resumption of several conflicts with fishing communities, death threats, ban on fishermen's access to fishing areas, cutting extensive areas of mangroves and so on, is already evident.

Fishing statistics

In order to downplay the importance of artisanal fisheries, the MPA has stopped collecting fishing statistics which, although they did not account for the entire production of artisanal fisheries, were at least a minimum reference point for the country, and a tool for fisheries



Members and Supporters of Conselho Pastoral dos Pescadores (CPP) in Brazil. It is estimated that artisanal fishing activity involves approximately 3.5 mn people throughout the production chain

management. Scientists point to the losses suffered from lack of information for ten years, regarding the changing behaviour of species, which is politically irresponsible as it affects the production of knowledge and the future of the country's biodiversity. Thus, artisanal fishing, which, according to past statistics, once accounted for almost 70 per cent of fish production, now represents only 45 per cent, according to new data projections. The goal is to force an artificial growth of the aquaculture business in the same areas where thousands of fisherwomen and fishermen work.

The growth of mass tourism, through leisure package tours, represents a major cause of conflict. Big resorts, which took over the communities in order to give space to large hotels, have greatly advanced, especially in the northeast. In river areas, the government has encouraged amateur fishing, attracting a lot of 'fish and pay' enterprises who take away areas from the riparian communities in order to build guesthouses which cut off the

community's riverside access. This generates serious conflicts with sport fishers who, armed, are constantly threatening artisanal fishers.

Another conflict factor that has intensified in recent years and become visible is the creation and/or implementation of an integral type of protected area that does not allow human presence. Numerous communities, after the implementation of these usage plans, have been expelled and their traditional fishing activities and farming subsistence prohibited or they have been prevented from building houses and accessing goods and services such as electricity, housing and so on. The implementation of these units is contradictory as the government licenses widespread destruction of nature, but creates small conservation areas too, just in name.

Fisherwomen

The implementation of the projects has affected fisherwomen more violently. They are insecure and vulnerable with the arrival of many men from other territories, lured by

the promise of employment. They can no longer go to their work areas alone, particularly in mangrove areas. The number of cases of harassment and sexual violence has increased, generating a situation of fear among women. Prostitution and harassment of girls and trafficking in fishing communities have also increased. Women have complained of ailments linked to contamination by heavy metals and pollution of the workplace.

Allied to this pressure of territorial suppression by large enterprises, a series of measures that violates the rights of traditional fishing communities or imposes policies and specific regulations through ordinances and normative instructions aimed at reducing the rights of communities is observed. Throughout 2014 and 2015, fishing communities and their allies were in an intense process of retaliation to numerous measures intended to circumvent, reduce and remove labour and social-security rights, even interfering with the identity and self-determination of these communities, a right

Faced with such a difficult context, traditional fishing communities have creatively built various strategies of confrontation and resistance.

which is guaranteed in the Brazilian Constitution, and in legislation and international conventions and treaties signed by the Brazilian State.

The Ministry of Fisheries has adopted measures that reduce the access of fishermen and fisherwomen to closed craft insurance, which guarantees a minimum wage in the months in which fishing activities are paralysed due to the reproduction pattern of certain species and spawning in rivers. The measures taken by the MPA have increased bureaucratisation under the pretence of getting rid of the so-called false fishermen; thousands of work permits of real fishermen have been cancelled and they have lost their rights. By end 2014, there were 289,000 cancellations; the MPA

stopped issuing 200,000 new registrations in the years 2013 and 2014.

The counter-reaction of artisanal fishermen and fisherwomen in Brazil

Faced with such a difficult context, traditional fishing communities have creatively built various strategies of confrontation and resistance. The Movement of Artisanal Fishermen and Fisherwomen in Brazil (MPP)—the largest fishermen's movement currently existing in Brazil—is on alert and has focused strongly on the State and managed to reverse some processes.

The National Campaign for the Regularisation of the Traditional Fishing Communities Territory has strengthened the movement's capacity for critical analysis, incorporating concepts of territoriality, customary rights and identity. Constant analysis of the situation has enabled a rapid reaction to events. However, the difficulty of raising sufficient resources to mobilise communities and the difficulty of supporting some areas undergoing serious situations of conflict are of great concern for networking.

National Campaign for the Regularization of Traditional Fishing Communities Territory

In 2012, Brasília DF, in the presence of 2,000 fishermen and fisherwomen, the National Campaign for the Regularization of the Traditional Fishing Communities Territory was launched. The background for this campaign can be traced to the parallel conference, organized by many grassroots groups and entities in support of artisanal fisheries in Brazil, expressing discontent with the fake participatory processes of conferences held by the government. The parallel conference aimed at diagnosing the situation of fishing in Brazil and proposing outputs and public policies autonomously to present to the government.

Participatory discussion

This conference allowed fishermen and fisherwomen from 20 states to participate in a discussion process that began with communities and

states, through a base document, and culminated in a national debate covering numerous themes about artisanal fisheries. At the parallel conference, which brought together about 1,000 artisanal fishermen and fisherwomen in all thematic groups, the loss of, and threats to, territory appeared as the central issue. This led to the emergence of a new fishermen movement which, tired of cutting-edge methods, began to organize a grassroots movement. The most important battle call was for the defence of territory. A National Campaign for the Defence of Fishing Territories was proposed.

The movement invited consulting entities, universities and specialized professionals to build a participatory process for the campaign. In the context of the conservative Brazilian National Congress, it was felt that the best strategy would be to build a popular initiative for two reasons: (i) the difficulty to get any bill approved by a Congress dominated by agribusiness and other economically powerful sectors; and (ii) the possibility of making use of an instrument that would allow broader participation and mobilisation of fishermen and fisherwomen in a process that generates empowerment regarding existing territorial rights, strengthens the resilience of communities to defend their territories, makes visible the environmental conflicts that fishermen are subjected to, and seek the solidarity and support of larger society in defence of the territory.

So, caravans were built under the guidance of different leaders of various states and partners who walked through several Brazilian states presenting to the fishing communities the National Campaign in Defence of the Fishing Territories proposal. Many communities embraced this campaign with much enthusiasm.

Importantly, the popular initiative was built around the broad and autonomous participation of fishermen leaders who debated with experts such as anthropologists and lawyers, defending the way of life and worldview of artisanal fishermen

and fisherwomen and their communities. Once built, the proposal was circulated through the states where fishermen collectives validated it. On the eve of the campaign launch, a group of fishermen from several states welcomed the suggestions and questions, and closed the proposal after seeking legal advice for an appropriate formulation of the legislation.

Launch of the campaign and the beginning of the journey

...the popular initiative was built around the broad and autonomous participation of fishermen leaders ...

The launch of the campaign, which took place in Brasilia, was attended by 2,000 fishermen and fisherwomen, and was marked by many symbols, including songs and lots of fish, in order to present to Brazilian society, the wealth and diversity of artisanal fishing. Each state brought along their own symbols. The opening act featured fishers—men and women from various regions—authorities, representatives of Via Campesina, CNBB, and other important groups who spread the message of the campaign. There was also a public hearing where all states filed innumerable complaints to present to the public prosecutor, Deborah Duprat, together with representatives from the National Congress for the Committee of Human Rights and the Ministry of Environment. The launch of the campaign was highlighted by a parade that took over the roads of the federal capital.

Meetings called for deepening the knowledge of the proposed bill through workshops aimed at empowering fishermen and fisherwomen regarding the theses of the bill. Diverse groups visited five to six states during the year in order to expand the campaign.

The movement's plans to collect signatures in the states was marked by creativity, the hallmark of the process, with numerous events,

meetings, seminars and symposiums at universities and participation in popular, religious and cultural festivals as well as home visits at the end of each activity. One fisherman and his little son went through all of Ceará's beaches on a bike to collect signatures for the campaign, which was featured on TV and in radio programmes. Each day the campaign attracted more support and solidarity.

This process has led to many positive results for communities and artisanal fishers. Among them, we highlight the following:

- empowerment of fishermen and fisherwomen regarding the debate on territory and traditional communities,
- increased resilience in communities threatened by destructive projects,
- broadening the knowledge of fishermen and fisherwomen on public lands and the process of regularisation,
- increasing the number of complaints regarding land grabbing and territorial insecurity,
- highlighting how the campaign bill influences the construction of rules for land regulation, specifically for fishermen in the SPU (Union Heritage Department),
- increasing resistance to eviction from territories,
- making MPP's impact felt on the 6th Chamber and SPU through the campaign, by generating referrals to secure the land rights of communities,
- generating impact and visibility of the international campaign for land and water privatisation in the context of the struggle for territory in Brazil,
- encouraging communities to initiate a regularisation process in other countries,
- advances through local strategies for signature-gathering and discussion on the campaign, which has allowed MPP to strengthen and grow, and
- gaining grounds in social and other media, reflecting the communities' concerns and helping increase membership.

Finally, the campaign for fishing territories placed fishermen and fisherwomen at the centre of the national debate and has won the support of many groups, including universities. As a result, the number of academic studies on fishermen and fishing territories has expanded.

The good life and the guarantee of fishing territories.

A whole new debate on the defence of the common good, which is opposed to the mercantilist perspective of life and nature that deregulates the hard-won rights, is being articulated in Brazil. This 'common good' notion offers space for reflection and appreciation of the relationships established by the traditional communities—among them, fishing communities—as social practices and historically constructed knowledge which have guaranteed the maintenance of a set of tangible and intangible resources that are central to humanity (such as biodiversity, knowledge of natural systems such as water, atmosphere, genetic structures and so on). As a result, traditional populations and their extractive and peasant economies have been accorded a special role in discussions on the conservation of natural resources for the present and future generations.

Strengthening identities and participating in networking around key issues are among the major challenges for the coming years. The key challenge is how to advance the defence and guarantee of territory. 📌

For more

www.icsf.net/en/samudra/detail/EN/15.html?detpag=mapart

Invisibly yours: Gender: Women in Fisheries

www.fao.org/fi/oldsite/FCP/en/BRA/profile.htm

Brazil Country Profile

www.mpa.gov.br/

Ministry of Fisheries and Aquaculture, Brazil

A Strong, Cohesive Voice

The implementation of the SSF Guidelines in Brazil will need to be nested in local and territorial realities, with the participation of fishers and their communities as the main agents of change

Small-scale fisheries in Brazil are responsible for the livelihoods of over 1.7 mn people, accounting for more than 55 per cent of the total capture-fishery production, which, in 2011, corresponded to 553,670 tonne (gross figures from the now extinct Ministry of Fisheries and Aquaculture). In addition to food security, the history and culture of these people have significantly contributed to important aspects of the Brazilian coasts, lakes and rivers, spanning a rich variety of tropical and subtropical ecosystems.

However, since 2007, fisheries statistics in Brazil have been facing continuous setbacks among other important reversals in fisheries policies such as closed season insurance and muddled implementation of conservation policies for endangered fish species. Social movements' leaders involved in fisheries management and marine biodiversity conservation policies, therefore, have too often the feeling of living in a battlefield.

March 2017 will be remembered by the small-scale fisheries subsector's shout of despair, when over 200 small-scale fisheries organizations signed an Open Letter against one of the most recent backlashes to the hopes for a human rights-based approach to fisheries at the state level: the transference of mandate over fisheries policies to the Ministry of Industry, International Commerce and Services. More worryingly, these organizations claim that since 2015 cuts in public investments for social purposes towards fisheries have significantly affected local economies in several communities. There is also a general lack of specific government

programmes for health treatment and prevention of occupational diseases affecting fishworkers, as well as lack of access to documentation and information for the remaining social-security programmes. Furthermore, the country's regional fisheries-management forums—often waved by the government as success flags of participation, transparency and fisheries governance decentralization—are still mostly failing to operate in minimal conditions to show any signs of serious transition towards fisheries sustainability.

...the state of affairs remains one of unfortunate confrontation, with fisherfolks continuously struggling for very basic levels of participation and transparency.

Unfortunately, this arena is still characterized by the volatility of state commitments; the recurrent reshuffling of governmental structures and interlocutors disabling serious and rational progress in policy implementation; and the dominance of vested corporate interests and corruption scandals deeply rooted in the traditional political parties taking over fisheries-management mandates.

Confrontation

Overall, we are very sorry for having to admit that the state of affairs remains one of unfortunate confrontation, with fisherfolks continuously struggling for very basic levels of participation and transparency. The feelings are of governmental paralysis and inertia when it comes to safeguarding the

This article has been written by members of the Brazilian Artisanal Fisheries Web (TeiaPesca): Leopoldo Cavaleri Gerhardinger (leocavaleri@gmail.com), from the Oceanographic Institute of University of São Paulo, Beatriz Mesquita (mesquitabia@hotmail.com) from Fundação Joaquim Nabuco, Sergio Macedo Gomes de Mattos (smgmattos@outlook.com) from the Ministry of Planning, Development and Management, Jocemar Tomasino Mendonça (jocemar.mendonca@gmail.com) from São Paulo Fisheries Institute, Daniele Vila-Nova (daniele.avn@gmail.com) from the Brazilian Alliance for Sustainable Seafood, Adayse Bossolani (agbossolani@gmail.com) from the Ombudsperson of the Sea network, and René Scharer (fishnet@uol.com.br) from Instituto Terramar

rights of access and the sustainability of traditional artisanal fisheries territories, always having to start over and over again when it comes to public-policy building and dialogue with government.

Due to constant problems faced by the activity (for example, poor political organization, overexploitation of resources, conflicts between artisanal, industrial, game fishing and industrial aquaculture, piracy, poor labour conditions, and so on) many

Enforcement by Member countries now embrace the challenges of implementing the SSF Guidelines and how to use them to help regulate national policies and strategies for small-scale fisheries...

families are leaving the subsector and/or are becoming increasingly more reliant on non-extractive economic practices. The importance of small-scale fisheries is not just to preserve an economic activity, but to preserve a portion of the cultural and environmental heritage present in each corner of Brazil. And, while pressed to reinvent itself and adapt, traditional fishing identities are still suffocated by flawed socio-political structures for trying to represent such a wonderful culture on the grounds of Brazilian state bureaucracies. The small-scale fishing institutional framework and the civil society fishing organizations—or other types of autonomous organizations—are still politically fragile at a national level and, unfortunately, still frequently suffering from political misrepresentation at strategic policy-building debates.

The recognition of the unequal power relationships, between value-chain stakeholders and those vulnerable and marginalized groups, may require special support to enhance fisherfolks' associations to participate in decision-making processes. There are key elements to be considered: how to move forward to improve small-scale fisheries governance and sustainability, and how to foster the implementation of

international legal instruments while supporting the evolution of fishers' own socio-political institutions.

This sentiment inspired the formation of a 'network of networks' of small-scale fisheries stewards, including fisher leaders, researchers and extensionists in 2013 (the Artisanal Fishing Web—TeiaPesca) to jointly help improve inter-network technical-political organization, communication and learning. The artisanal fishing web was born at the same time of the process of construction of the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication—the SSF Guidelines—in which Brazil is often considered one of the three countries that contributed the most to its approval after over a decade of discussions held at the Food and Agriculture Organization of the United Nations (FAO) and bottom-up consultations in member countries. Ever since then, TeiaPesca has got involved to provide an opportunity tantamount to internalize the contents and issues of the SSF Guidelines.

The launch of the SSF Guidelines by Member countries in 2014 is not the endpoint of the historical collaborative process that building them turned out to be. Enforcement by Member countries now embrace the challenges of implementing the SSF Guidelines and how to use them to help regulate national policies and strategies for small-scale fisheries at national, regional and local levels. Without a clear recipe in hand, a major initiative towards the implementation of the SSF Guidelines was launched in Brasilia in June 2016. The five-day event, entitled "National Seminar on Capacity Building for the Implementation of the SSF Guidelines", was sponsored by the International Collective in Support of Fishworkers (ICSF) and the UN International Fund for Agricultural Development (IFAD), with contributions from the Too Big to Ignore initiative (TBTI) and other local funds. The seminar brought together over 40 fishermen and

women, community leaders, representatives from civil society organizations (CSOs), researchers and other SSF change agents alike, with the goal of promoting awareness and building capacities among stakeholders for the implementation of the SSF Guidelines in the country.

During the week, a preliminary version of the main outcome document was presented at a public event to stakeholders from both the government and the private sector, including representatives of FAO, federal attorneys, and government agents. Among the participants, were the ambassador of Costa Rica, NGOs and potential funders. The document is entitled “Vital Fisheries: Setting pathways for the implementation of International Guidelines for Small-scale Fisheries in Brazil” and includes a national strategy envisioned for each of the ten major themes of the SSF Guidelines. The Vital Fisheries report became a key policy instrument to help reform the complex legal and institutional framework of artisanal fisheries. A Working Group formed by small-scale fishers’ representatives

and technical supporters within TeiaPesca has been working for the implementation of the SSF Guidelines through co-design of a suite of ideas to raise the profile of SSF in the country.

This group met at the University of São Paulo (Research Centre on Human Population and Wetlands) in April 2017 to design a work plan on how to disseminate the SSF Guidelines to fishing communities, including the methods, strategies and capacity building needed to facilitate a widespread learning process. Hopefully, the outcomes of this strategy will integrate fishing communities, Brazilian society and the government agencies into a nationally distributed and bottom-up agenda of knowledge exchange and policy-building interactions.

In addition to the SSF Guidelines, the UN and Members states are now also reflecting about the implementation of the Sustainable Development Goals (SDG), particularly SDG-14 that deals with Life Below Water. Given the general close link between ocean health and the vitality of small-scale fishing

Table I: Relationships between propositions elicited by the Sustainable Development Goal # 14 (SDG) targets and the SSF Guidelines themes, with a focus on Brazilian policies (X = strong; XX = very strong) (MPA: Marine Protected Areas; MSP: Marine Spatial Planning)

SDG 14 targets vs SSF VG	1- International instruments	2A – Governance of tenure	2B – Resource Management	3 – Social development	4 – Value Chains	5 – Gender Equality	6 – Disasters & Climate	7 – Policy Coherence	8 – Information & Research	9 – Capacity development	10 – Implementation & Monitoring
14.1 Pollution			X				X	X			X
14.2 Marine Biodiversity		X	X	X			X	X	X	XX	X
14.3 Ocean Acidification							XX		X		X
14.4 Fisheries Management		XX	XX						XX	XX	X
14.5 MPAs & MSPs		XX	X	X				XX	X	X	X
14.6 Fisheries Subsidies			X	X	X				X		X
14.7 Developing & Island States			XX	X	XX	X		X			X
14.a Ocean Science							X		X	XX	X
14.b SSFs’ Economies		XX	X	XX	XX	XX		X			X
14.c High-Seas	XX						X				X

territories, commitment to several SDG-14 targets may also directly benefit the well-being and health of fishing communities in Brazil. Table I offers a preliminary exercise in depicting the strong relationships that exists between SDG-14 and the SSF Guidelines themes in the country, with a focus on the Vital

mining, aquaculture, transport). Brazilian fishers have their own agenda towards the sustainability of fishing territories, such as the ongoing national campaign for a new public policy to safeguard the formal recognition and designation of traditional fishing territories. Such ideas and their proponents must be urgently taken on-board in the early developmental stages of a national Marine Spatial Plan, an ongoing inter-ministerial ocean policy-building process led by the Brazilian Navy. Area-based approaches for marine conservation and Blue Growth must not reproduce the old-fashioned planning style; but there is a risk this is exactly what may happen under the current government and the corporate rationality dominating the Brazilian national legislative chambers.

Small-scale fishers are often the first to observe and/or directly bear the consequences of such large-scale environmental changes on the availability and health of fish stocks.

Fisheries report, highlighting that the synergistic field of action somehow encompasses all SDG-14 targets. Small-scale fisheries are one of the most important players in this new multi-level policy arena.

Amongst other activities, the upcoming United Nations Ocean Conference (New York, June 2017) will comprise seven Partnership Dialogues (PD), in parallel with eight plenary meetings, with the objective of setting recommendations to support the implementation of SDG-14. Below, we take Table I exercise forward by outlining an example of how a SDG-14 implementation narrative may interrelate with the implementation of SSF Guidelines in Brazil, and in what ways they relate to the upcoming PD I-7:

PD1 SDG-14.1: Various types of land-based (for example, domestic waste, sewage, plastic) and sea-based (ghost nets, small oil spills) marine pollution degrade the productivity of marine ecosystems and thus influence the availability of seafood.

PD2 SDG-14.2 and SDG-14.5: Brazilian fishers must be regarded as central players in the management, protection, conservation and restoration of marine and coastal ecosystems. It has passed the time to abandon the top-down designation of marine reserves, and the sectorial and technocratic planning approaches that favours ocean grabbing by private interests of big industry (energy,

PD3 SDG-14.3: Despite the sense of urgency flagged by some environmental and scientific circles, the minimization and address of ocean acidification remains a wicked problem, which is still not addressed by Brazilian public policies, especially when considering their co-ordination with, and practical engagement of, fishers across the huge Brazilian coastline. Small-scale fishers are often the first to observe and/or directly bear the consequences of such large-scale environmental changes on the availability and health of fish stocks. Sea-level rise and the intensification and increased frequency of extreme events (temperatures, winds, waves and tides) directly affect their infrastructure and workplace, summing up with the impacts of the displacement of fishing households from the shoreline already driven by urban, mass tourism, aquaculture and other powerful societal sectorial developments.

To counteract unsustainable developmental trends, large-scale collaborative and transdisciplinary initiatives need incentives from all sectors, to allow for adaptations in traditional/local ecological knowledge and livelihoods to emerge from the bottom up, as well as to help scientists and policymakers

understand and co-design more sensitive transformative sustainability pathways and processes at multiple levels. It is not at all fair that small-scale fishers bear the costs of the largely carbon-intensive lifestyles of global citizens living away from the sea.

PD4 SDG-14.4 and SDG-14.6: Making fisheries sustainable will require not only the recognition of traditional fishing territories (theme 2A) and seriously improving fisheries management (2B) but also actions that support social development through employment and decent work (theme 3), with consistent transformations on value chains, post-harvest and trade mechanisms and infrastructures (theme 4). It is critical to eliminate existing subsidies for industrial fisheries that remain in conflict with fisheries sustainability goals and the very existence of SSFs, and streamlining such policies to more rational and science-informed socioeconomic monitoring approaches (themes 2B, 3, 4 and 8).

PD5 SDG-14.7 and SDG-14b: In addition, the increase of economic benefits to SSFs through access to marine resources and markets requires a range of actions that

clearly interrelates with the above. Some examples include: responsible governance of fishing territories (theme 2A); acknowledging and empowering women's key role in all levels of the fish chain (theme 5); sustainable business development like community-based tourism enterprises (theme 4); education for empowerment and community development (theme 3); legislation adjustments; and support for technical adaptations in fish chains to improve homogeneity in quality, safety and handling practices, transport and packaging, to cope with strict sanitary and phytosanitary measures (theme 4).

PD6 SDG-14a: The implementation of the SSF Guidelines will also be largely reliant on more collaborative and transdisciplinary science, research and technology capacities. The quality of information, research and communication we collectively promote (theme 8), capacity development (theme 9) and renewed support for implementation and monitoring progress (theme 10) should advance with ever more participation and direct contribution of local ecological knowledge. Therefore, given the strong



Forty participants attended the National Seminar on Capacity-building for the Implementation of the SSF Guidelines, Centro Cultural de Brasília, 13-17 June 2016. The small-scale fishing institutional framework is still politically fragile at a national level

relationship between the condition of fisheries and the ocean's health, it is inevitable that the implementation of SDG-14 in Brazil will not overall succeed if fisheries-related data streams continue to be non-existent or collected in fragmented ways; or through insisting in single-species data-intensive stock assessment approaches that usually rely solely on the contribution of data experts such as scientists and technicians, amongst other external actors.

PD7 SDG-14c: Finally, actions to streamline Brazilian ocean

...there is a remaining challenge for fishers in Brazil, which is to unify the different movements ...

and fisheries governance with international law are paramount. In particular, we may refer to the fundamental and urgent need of the Brazilian Congress to ratify key international agreements (theme 1), such as the International Labour Organization (ILO) Work in Fishing Convention (C.188) and the 2016 FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, amongst others.

We would be delighted to announce any sign of consistent political commitment towards the narrative outlined above, but we cannot yet dare to enter the realm of an optimistic discourse. Given the present political crises in Brazil, the corruption allegations in the fishery sector, and given that small-scale fisheries largely depend on public policies to improve their livelihoods, the SSF Guidelines implementation process will need to be nested in local and territorial realities, with the participation of fishers and their communities as the main agents of change. Moreover, there is a shared perception amongst TeiaPesca members that the internalization of the SSF Guidelines in the country will need to rely on a bottom-

up approach that is (somewhat) independent from the government. However, there is a remaining challenge for fishers in Brazil, which is to unify the different movements in order to come together as a strong and cohesive voice when negotiating with the government. Also needed is dialogue with global fisher forums like the World Forum of Fish Harvesters & Fish Workers (WFF) and the World Forum of Fisher Peoples (WFFP) to be part of the international fishery policies within the FAO and other UN agencies like the United Nations Environment Programme (UNEP), ILO and others.

Small-scale fishers should be regarded as sustainability stewards and champions, pursuing means to reduce their own ecological footprint while inspiring other citizens to care for the ocean. As global citizens and stewards of ocean health, we are all responsible to help fulfil the expectations raised above and thus turn an holistic, human-rights-based moral perspective to social, environmental science and policy actions of the new standard practice for a sustainable Blue Economy.

Therefore, we look forward to learn about the evolution of an integrated SDG and SSF Guidelines agenda. At least two new policy forums are currently being set to foster the UN sustainable development agenda: a composite government + civil society National Commission for SDGs (eight members each) to monitor implementation and; an autonomous Civil Society Working Group for Agenda 2030, that is preparing a "Shadow Report" to highlight SDG implementation challenges and prospects to be launched in a meeting with UN commissioners in Brasilia and then to be widely publicized on 6 June 2017. 📌

For more



sites.google.com/site/ssfguidelines/brazil
IGSSF Implementation Google Site for Brazil Meeting

A Backbreaking Struggle

The abject working conditions of the shellfish fisherwomen on the Paraná coast of Brazil call for a revaluation of their work to guarantee them rights and benefits

Although women's work in fisheries is diverse and wide and differs by culture and region and between rural and urban areas, the common factor is that it is rarely seen as 'productive'; instead, it is normally seen as an extension of the 'domestic' space. Although 47 per cent of the total workforce in fisheries comes from women, their role is invisible, unrecognized, undervalued and under-represented. This often causes them a denial of labour rights since they are not recognized as professionals in artisanal fishing.

The situation is no different with artisanal shellfish fisherwomen working along the coast of Paraná in Brazil. They have faced difficulties in receiving recognition for their work and in gaining access to their rights. Shellfish fishing occurs mainly in the city of Antonina, but such activity is also found in the municipalities of Guaraqueçaba, Pontal do Paraná and Paranaguá as a means of subsistence for fishing communities. Shellfish extraction has been carried out by digging up the muddy shoals, accessible most of the time by paddle canoes. According to Albertina Batista de Paula, co-ordinator of the Acqua Forum Project (carried out by *Fundacentro*, the state agency of the Ministry of Labour and Employment), this manual digging, with the aid of hoes and shovels, involves the rapid movement of the upper limbs, always from a dorsal position. This repetitive activity places great stress on the muscles of the neck, shoulders, upper and lower back, limbs, and wrists.

According to experts, a shellfish fisherwoman performs approximately 10,200 repetitive movements during catching and 5,040 movements

during processing in a period of one hour, totaling an average of 75,000 repetitive movements in a working day. It has been observed that these figures are comparable to those described in industrial risk situations responsible for generating spinal injuries and repetitive strain injuries. The situation is aggravated if we include housework and the effort exerted in rowing the boat.

According to the Acqua Forum Project, these fisherwomen take about four to five hours to catch shellfish. Another seven hours are needed for

Although 47 per cent of the total workforce in fisheries comes from women, their role is invisible, unrecognized, undervalued and under-represented.

commuting between their homes and the shoals, for processing and storage of shellfish. These add up to approximately 12 hours of work per day. Once back home, they still have to carry out domestic activities, resulting in an essentially double working day. They do not have holidays or vacations (with the exception of religious holidays), since forgoing working would imply a decrease in the family income.

Precautions needed

Fundacentro recommends a series of precautions that shellfish fishers must adopt to ensure their health, such as protection against solar radiation and taking daily breaks of five to 10 minutes every hour. Although the fisherwomen work through self-management, which makes it possible to take short breaks, each

*This article is by **Ana Paula Rainho** (anap.rainho@gmail.com), a doctoral student at the Federal University of Santa Catarina, Brazil*


pause in a 12-hour workday would stretch their routine by a few hours, something that they cannot afford, since a second workday awaits them at home. The fisherwomen are thus forced to work even if they have symptoms of repetitive strain injuries or other occupational illnesses resulting from the socioeconomic conditions they are caught in.

It has been estimated that the average income of an Antonina shellfish fisherwoman is around Brazil real (R\$)520 per month. This amount might vary, since, in most cases, they need to hire more women to help them process the catch. After discounting the cost of hired labour, each shellfish fisherwoman earns a monthly income of R\$360, which is well below the Brazilian minimum wage (currently around R\$937 per month). As a result, shellfish fisherwomen are constrained to overwork to avoid hunger in their families. It has been noticed that they hold back from spending on health aid and medicines, neglecting to protect against well-known risks, and continue to work even when sick or in advanced stages of pregnancy—all in order to survive.

The shellfish fisherwomen say that experts from the National Social Security Institute (INSS) ignore their reports about diseases caused by fishing, thus denying them sickness allowances or retirement benefits due as disability compensation. They often face discrimination in INSS and regional labour offices, which deny them documents that would identify them as bona fide fishers. Since INSS experts are shoddy in cases where the medical examination involves a fisherwoman or a fisherman, the community is robbed of health, labour and social-security benefits, which are awarded on professional evidence. Such evidence is hard to come by in artisanal fishing, in general, and becomes particularly more difficult when it comes to women in fishing, whose work is often not recognized even within the fishing community itself.

This lack of recognition is apparent in the paucity of identification

documents that would establish their profession and guarantee their access to labour, social security and insurance rights. Only 30 women in the municipality of Antonina reportedly hold fishing identification documents, although 134 work in fishing-related activities, including in catching, processing and trading fish.

The issue of gender is central to the development of fair and equitable public policies in the fishing sector. Labour issues in artisanal fishing need to take into account the invisibility of women in this sector and its socioeconomic consequences, so that the prevalent framework can be reversed. It is necessary to value, and make visible, the work of fisherwomen so that they can access their rights equitably, and be guaranteed of benefits to compensate for the illnesses and disabilities that result from the occupational hazards of their risky work. 

For more

https://www.icsf.net/images/samudra/pdf/english/issue_26/15_art04.pdf

Invisibly Yours

<https://www.icsf.net/en/monographs/article/EN/36-social-security.html?start=20>

Social Security for Fishworkers in Brazil: A Case Study of Pará

<https://www.icsf.net/en/monographs/article/EN/40-artisanal-fishe.html?start=20>

Artisanal Fisheries in Brazil

<https://www.icsf.net/en/yemaya/detail/EN/1651.html?detpag=mapart>

Making their Voices Heard

<https://wif.icsf.net/yemaya/article/EN/47-2100.html?lang=en>

Gaining Ground

http://www.umanitoba.ca/institutes/natural_resources/canadaresearchchair/thesis/CarpenterMNRM2012.pdf

Livelihoods and Gender: A Case Study on the Coast of Southeastern Brazil

Endless Conflicts

The access of Brazil's fishers to coastal land and sea resources has, in recent years, been hampered by increased urbanization, tourism and construction of harbours

46

Q: In Brazil, do small-scale fishing communities have secure tenure rights—for their habitation, for shore-based activities, and for their fishing? Is there any conflict between different departments that regulate tenure arrangements?

A: In Brazil, all coastal land extends from the high-tide line up to 30 m, and it belongs to the Union. When fishers' land is situated in this area, fishers do not have any legal property right to the land, but usually they are not financially charged for the use of this land, particularly when such land is located outside urban areas.

In recent years, the Federal Government (through the Union Patrimony Service) has started a programme of officially granting this area for the use of artisanal fishers (for housing, as places to store fishing gear, etc.) for a longer period (20-30 years), which is renewable, as they belong to the social category of 'traditional communities'. As this programme was started by the previous (more socially oriented) government, we have no guarantee that it will be continued by the present government.

In recent years, due to the increase in urbanization, tourism and construction of harbours, some artisanal fisher communities have been (and are being) displaced; only some of them are receiving any kind of compensation, but frequently they lose access to traditional fishing grounds. In case they sell their land to outsiders, they also lose access to the beach and to places where their fishing gears are stored. Coastal waters within 12 nautical miles belong to the Union. In principle, no industrial boats or large trawlers are allowed to operate within 1.5 nautical miles from the shoreline, but the law is broken frequently, and there is no surveillance.

Access to fishing in coastal areas is entitled to those fishers (and vessels)

that are properly registered in fishing guilds (*colônias*) or associations. There is no area restriction along the entire coast for fishers (men and women) if they are regularly registered, except for marine protected areas. There is a special regime for the fishers' communities that belong to an officially recognized 'marine extractive reserve'. Only fishers residing inside this type of reserve can use the natural resources of the reserve that are administered both by a director belonging to the Chico Mendes Environmental Institute (IcmBio) and the fishers' association(s).

There are frequent conflicts between the Department of Fisheries under the Ministry of Agriculture, responsible for the fishing as an economic activity, and IcmBio responsible for the protection of fish species. An example of this conflict is the list of endangered fish species prepared by IcmBio, often without consulting the Ministry of Agriculture (Fisheries), resulting in endless conflict.

Q: Are there indigenous/tribal communities in Brazil that utilize the aquatic resources? Are their rights safeguarded? Have they suffered marginalization of any kind?

A: In Brazil, there are two kinds of what we call 'traditional communities': Indigenous (Indian) peoples and non-Indian traditional communities as *quilombolas* (ex-slaves) communities of artisanal fishers. Officially-recognized Indigenous peoples or coastal fishers have their rights over land and way of life safeguarded by the nation's Constitution. There are a few Indigenous fishers along the coast, as the majority of them live along the rivers and lakes in continental regions.

There is an increasing number of conflicts due to the construction of large dams, and expansion of agribusiness, particularly in the Amazonian rivers. There are also conflicts between the

This interview with **Antonio Carlos Diegues** (antoniodiegues69@gmail.com), Anthropologist, University of São Paulo, Brazil, was conducted by the ICSF Team (icsf@icsf.net)

establishment of non-use protected areas (National Parks) and Indigenous land. There is a tendency for government environmental institutions to take for granted that overall environmental restrictions in land use are applied also for Indigenous peoples, although Indigenous peoples' rights are guaranteed by the Constitution, which is the greatest source of rights, ranking above Government laws and decrees.

Quilombolas (descendants of African slaves) fishers also have their territorial rights guaranteed by the Constitution. There are already a number of *quilombola* communities that live along the coast and have got their rights over their territory. Again, there is a great pressure over these territories from harbour expansion, growth of tourism facilities, and coastal monoculture like sugarcane plantations; usually, these conflicts end up in court and take years to be resolved. There are many traditional non-Indigenous communities in Brazil; some of them are artisanal fisher communities that were recognized by the previous governments through decrees. However, territorial rights are only recognized to those living within some 30 Marine/Coastal Extractive Reserves.

Q: Are there instances when the government has granted fishing access to the disadvantage of the SSF? Are there fishing communities in your area displaced by development activities? Are they consulted before implementation of large projects?

A: The present Federal Government is openly favouring only private interests, privatizing important public firms (like ex-State-owned electricity firms), harbours, and so on. The fisheries sector, which earlier had a Ministry to oversee its development, is now in a downgraded status, with merely a Department in charge, first within the Ministry of Industry and now in the Ministry of Agriculture, totally controlled by agribusiness for export and commercial aquaculture.

Fishers' organizations, such as the Movement of Fishers and Fisherwomen (Movimento de Pescadores e Pescadoras), linked to the Catholic Pastoral for Fisheries (CPP) that was more active during the previous government's regime,

appear to be losing ground now. The Movimento is, however, the most active movement that has appeared in the last few years. The reaction to fishers' displacement by harbours and other tourism activities depends mainly on local movements/organizations, and do not have enough political support in a Congress dominated now by strong financial groups.

Local communities are rarely consulted about the implementation of large projects in coastal areas. They are displaced to places far from their fishing grounds, receiving only a plot to build their houses (mere shacks), as has occurred in the northern state of Maranhão, Espírito Santo, etc. Sometimes there is a project to 'recycle' communities into other non-fishing activities (usually construction work). Only few of those displaced return to their previous fishing activities. Fishing rights are being reduced drastically, particularly those related to social services (mainly, health and education).

Q: What is the role of women in Brazilian small-scale fisheries?

A: There is an increase in the participation of women in artisanal fisher associations/movements, particularly in some Northeastern States, such as Bahia, Pernambuco, etc. This increased participation has led to greater recognition of their rights until 2012. These rights, however, have been reduced since then. One example is a recent legislation in regard to women working in fish processing and marketing, who have lost their rights as 'fishers' and are now included under the head, 'fishing auxiliary activities'. As a result, they have lost access to the closed-season allowance (under the Seguro defeso pesca scheme, for example). There are also examples of processing projects where women are the majority participants (for example, in Rio Grande do Norte). In some Provinces (like Bahia), women are a majority in the shell harvesting subsector. In recent years, due to a dramatic increase in unemployment—Brazil has still around 12.5 mn unemployed people, mainly youngsters—fishing has become an important subsistence activity also for unemployed women, particularly in the Northeast of the country. 3

For more



<https://www.icsf.net/en/monographs/article/EN/99-Marine-Protecte.html>

Marine Protected Areas and Artisanal Fisheries in Brazil

<https://www.icsf.net/en/monographs/article/EN/40-artisanal-fishe.html>

Artisanal Fisheries in Brazil

Planning Blues

Tenure rights in Brazil's small-scale fisheries are fading in the shadows of irrational, poorly designed, and socially and environmentally unjust 'blue planning' processes

In a recent exposition of challenges facing small-scale fisheries (SSF) in Brazil, Gerhardinger and others (*SAMUDRA Report* No. 76, May 2017) outlined the dramas faced by fisherfolk leadership, and SSF research and extension agents. Their actions are muddled by a policy arena dominated by corruption at several levels of government, lack of coherent, clearly defined focal points and lasting constructive engagement with government, making them feel like losing the sustainability transition battle to a never-ending agenda of backlashes in civil rights. Ever since, these and other dramas remain, and the

tones of *Our Ocean, Our Future: [United Nation's] Call for Action*" (a new soft governance mechanism for liaising multi-lateral voluntary commitments) and the proclaiming of the *UN's Decade of Ocean Science for Sustainable Development (2021-2030)*. Large polluter countries such as Brazil (with over 4 mn sq km of exclusive economic ocean zone) are buying in these calls for action, but the slow pace of sustainability-oriented transformations before us is really frightening.

Make no mistake—we cannot simply wait for 2021 new year's party to kick-off our samba beats around the defence of fishing tenure rights. Meanwhile, the grabbing of customary fishing territories rocks and rolls over fishers' livelihoods and will only lead to further dismay and even complete loss of artisanal fishing identities for several communities. On that cheerful musical metaphor, there is a saying in Brazil stressing that those playing the drums (in a given policy and advocacy arena) are leaders who put the players (for example, small-scale fisheries change agents) to dance, providing their lives with rhythm and, hopefully, some change for the good. We now briefly illustrate how shadows in blue planning can be formed at a wide territorial level, and how the lights of reason and social mobilization can be used to clear the house and silence these wicked enemies.

Fisher guilds

The Babitonga Bay shelters the southernmost large mangrove ecosystem in the subtropical Atlantic (Brazil) and is surrounded by six coastal municipalities (population: around 1 mn) in the northern coast

Fragmentation in environmental licensing creates a perfect atmosphere for political speculation and unethical bargaining...

expectations are for continued growth in complexity and political turmoil, as the country enters an electoral year that tends to mirror other highly polarized and tense elections being witnessed with other democracies worldwide. For instance, amongst the suite of scandals, the Brazilian president is being investigated over taking part in a corrupted port development scheme in Santos city (coast of São Paulo state).

There is the shaping of a new international scientific and policy discourse on blue growth, blue planning or any other big blue solution that may be associated with the healing of human-ocean interactions through reasonable combination of scientific methods and local ecological knowledge. Consider the frisson generated by the optimistic

This article is by **Leopoldo Cavaleri Gerhardinger** (leocavaleri@gmail.com), Instituto Oceanográfico Universidade de São Paulo, **Fabiano Grecco de Carvalho** (fabianogreccodecarvalho@gmail.com), Universidade da Região de Joinville, **Letícia Haak** (leticiahaak@gmail.com), Universidade Federal do Paraná, **Dannieli Firme Herbst** (danniherbst@gmail.com), Universidade Federal de Santa Catarina, and **Renata Andressa Poderoso** (re_poderoso@msn.com), Coletivo Memórias do Mar, Brazil

of Santa Catarina state. Despite its national-level status of ecological importance, it is also intensively used by over 1,700 fishers, has already two large active ports, another port already authorized, and four others currently pursuing environmental licensing either under Federal or State-level environmental authority. Such fragmented processes do not assess the cumulative impacts on the social and ecological systems. They foresee public consultations only at the given city where port facilities are intended, but not the fishing grounds of fishers coming from almost every city. Nor do they take into account all the ecological impacts to marine biodiversity caused by explosions of submerged rocky reefs and huge levels of dredging in existing and new navigation channels, which could create a plume of contaminated material and affect several fisheries and critically endangered porpoises.

Hidden in the shadows sleeps a whole suite of wicked social, ecological and political effects. Once every single port infrastructure creates its own additional fishing exclusion areas, redistribution—and hence concentration of fishing effort in alternative grounds—would progressively increase already-existing conflicts amongst fisher groups, and

augment pressure to marine life. Fragmentation in environmental licensing creates a perfect atmosphere for political speculation and unethical bargaining—for example, lobbyists distributing gifts to gain support (such as gillnets to fishers, painting the local public school and church, donating equipment to the local Navy office, etc.)—and proliferation of fallacious information to manipulate fisher's perceptions of the risks before them. The president of one of the main regional fisher guilds (in São Francisco do Sul), for instance, deeply believes there is no future for fishers, an understanding that justifies a strangely intimate alliance he maintains with some private port investors.

Fortunately, at least two intersecting initiatives have been launched to shed light on these shadows. Firstly, we refer to a recent fisher's movements in Babitonga Bay around small-scale fishing territories, "*1st Congress of Babitonga Bay Artisanal Fishers in Defence of Fishing Territories*", co-produced by the Sea Memories Collective (a marine conservation network), the National Artisanal Fishers Movement, fishers' leaders from other affected guilds and associations, and financially supported by Instituto Linha D'Água.

WWW.BABITONGAATIVA.COM



Participants of the first congress of Babitonga Bay artisanal fishers in defense of fishing territories, March, 2016. The event enabled exchange of experiences and planning to come up with a united voice on the protection of fishing tenure rights

The event enabled exchange of experiences and campaign planning, gathering over 200 fishers to come up with a united voice on the protection of fishing tenure rights, which was materialized in a public statement, namely the “Letter of Itapoá”.

Another initiative relates to the Babitonga Bay project, led by the University of the Region of Joinville with several partners, a process maintained by the Public Ministry with funds derived from judicially deposited environmental fines. Since 2015, the project has been delivering a suite of social mobilization and strategic planning activities, co-ordinating dozens of governmental and societal organizations to co-design new multi-stakeholder coastal and marine governance platforms, as part of an inclusive marine spatial planning process for Babitonga Bay. A core objective has been to spatially identify and value critical ecosystem services to guide future negotiation of trade-offs in collective planning and zoning.

We present herein some of the project’s results derived from collaborative seascape mapping workshops with five resource user groups (fishing, aquaculture, aquatic transport, tourism and leisure, and sand mining) and over 177 people engaged in these workshops. We used an Overlap Analysis Model (InVEST software) to identify what areas are more important to each user group (methodological details about the project presented here can be found at the project’s website and reports). For instance, the Figure below depicts fishing use (crustaceans, molluscs and fishes) intensity in four graduated levels: high, medium-high, medium and low, and also depicts the intended location of every port being licensed, as well as already operational infrastructures. The figure shows the inner areas of the bay where overlapping use can be noticed. Only 0.33 per cent of the total area has a high fishing activity (red), and this is precisely where three new ports are being licensed. Areas with medium-high fishing

intensity represents 17.5 per cent of the total inner bay area, and those with medium and low intensity represents 44.1 per cent and 38 per cent, respectively. The map helps an integrated assessment of impact, something that is not being done by both Federal and State environmental agencies in charge of licensing. For instance, if all ports are authorized, 2.66 per cent of the inner bay area (87.73 per cent overlapping high-medium intensity fisheries grounds) will be claimed for navigation channels, turning into non-fishing zones customarily critical areas that currently support small-scale fisheries livelihoods.

Fishers and local environmental organizations are outraged. They are now entering a judicial battle to confront this largely asymmetrical and unjust power arena that is currently dominated by politically aggressive private investors and their lobbyists, such as manipulated fisher leaders and opportunistic technicians working in unethical consultancy companies. While the more proactive and positive agenda led by the Babitonga Ativa project promises the delivery of integrated governance decision-making processes, their results are still not being considered by environmental licensing authorities who claim lack of appropriate legislation and mandate for integrated assessment. In fact, some even doubt that they would ever take a firm step toward opening the windows of reason to illuminate an integrated, socially and ecologically just strategic environmental assessment without a thunder strike of justice, independent science and social mobilization hitting the playing field.

While our dearest dreams might resonate with the refreshing music of Sustainable Development Goals’ agenda and the coming of the Ocean Decade, it should not be a distraction to face head-on—and now—the shadows of poorly designed, socially and environmentally unjust blue-planning processes. In this brief article, we have provided an illustration of the solution-scape—small windows of opportunity—

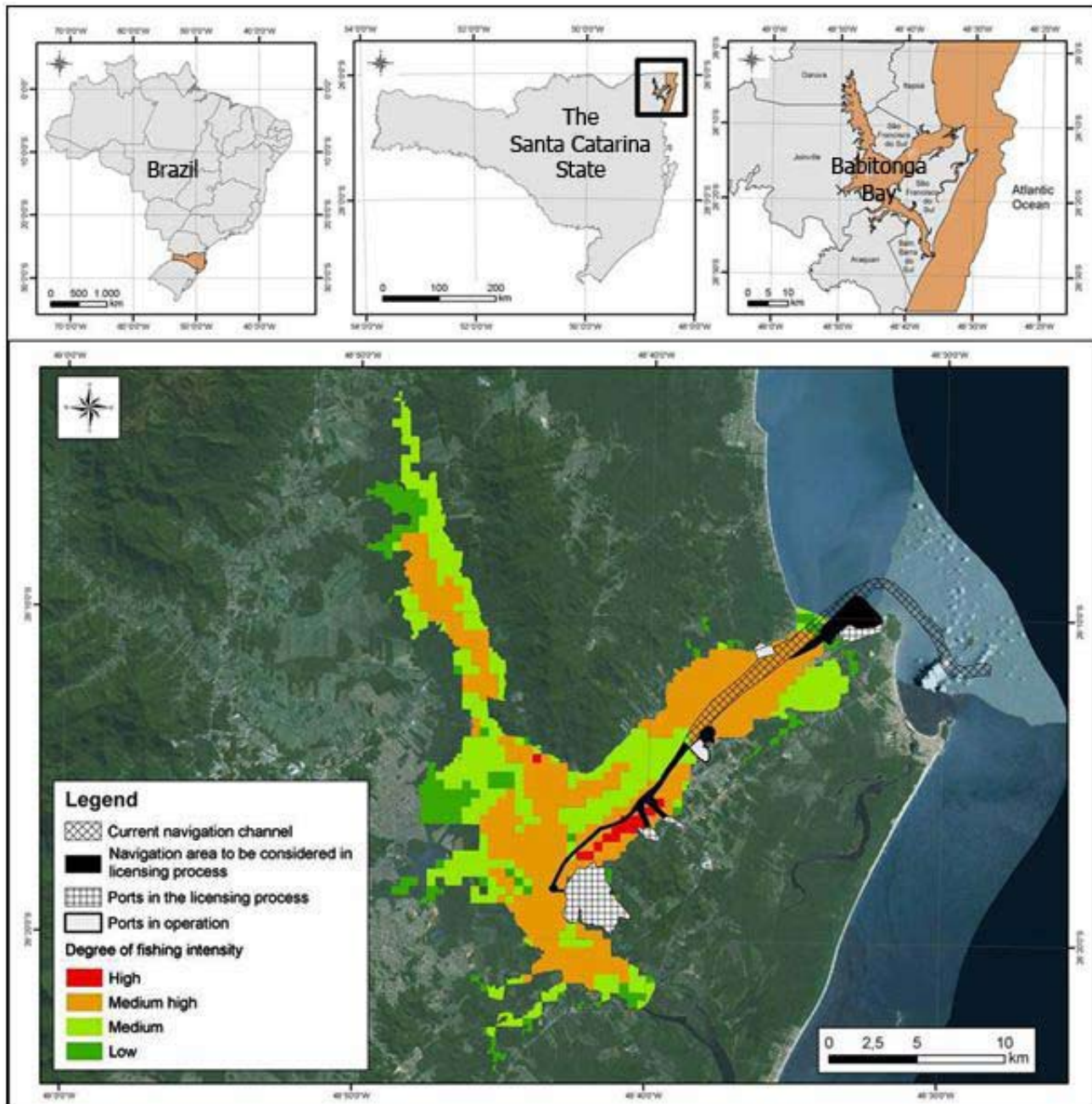


Figure: Spatial distribution of ports in operation, licenced or facing licensing process depicted against the level of fishing at Babitonga bay, Santa Catarina, Brazil

depicting how we ought to play the drums in science-policy arenas, to combat the viruses that thrive in the shadows of fragmented licensing processes.

Brazil and many other countries are already engaging in multi-year, national-level marine spatial planning processes. Social movements should seriously engage with concerned researchers and lawyers, as well as with conservation organizations. The pathological causations of such dreadful coastal planning, too often recorded at subnational levels, offer

us worrying hints of how national or transnational-level marine spatial planning ought to evolve. This year, several opportunities exist to strengthen the fight against ocean grabbing and empower fisherfolk leaders in national, regional and global debates. These include the World Social Forum (March, Brazil), the 3rd World Small Scale Fisheries Congress (October, Thailand), and upcoming developments in the structuring of a Knowledge-Action Network on Oceans by the Future Earth project, amongst others. ♣

For more

<https://www.youtube.com/watch?v=3xKqFCE7FPo>

Babitonga Urgente!

<https://www.babitongaativa.com/>

Babitonga Ativa

Staying Afloat

The experience with tourism-based boat trips in Caixa d'Áço Bay in Paraty, Brazil, highlights the problems of livelihoods in restricted-use protected areas

The concept of development has been discussed since the early stages of civilization and varies according to the epoch and philosophical currents. Although society has advanced in sustainability and human well-being issues, in practice development remains based on economic growth, capital accumulation and social inequalities. Dominant ideologies in development concepts are followed by an emblematic factor—the inability of an economy to generate decent employment and to provide access to resources at different levels.

Despite the process of decolonization, indigenous peoples and descendants of slaves in Latin America have been largely excluded from the process of development. With the economy unable to generate decent employment and provide access to resources at different levels, the search for informal jobs has become a common practice, especially among traditional communities in underdeveloped areas who, faced with the lack of formal employment opportunities, struggle to preserve their livelihoods. Part of these initiatives come from the social logic of promoting community ties and reinforcing solidarity and co-operation among community members.

Traditional communities living in protected areas are currently faced with the threat of restrictions in access to land and natural resources, forcing changes on patterns and sources of local livelihoods. Community empowerment and capacity building are essential to deal with this reality and to ensure fundamental rights, and social and cultural reproduction aligned to environmental conservation.

In this context, the efforts of the Association of Small-scale Fishermen and Boatmen of Trindade (ABAT) in Brazil to ensure local access to marine traditional territories and to maintain their livelihoods in a restricted-use protected area are worth examining.

The Caiçara community of Trindade is located in the municipality of Paraty, in the south of Rio de Janeiro, Brazil. Part of the traditional land is located inside the Serra da Bocaina National Park (PNSB), including Caixa d'Áço Bay, an important marine area for artisanal fishing and tourism. The PNSB is a no-take protected area established in 1971.

Despite the process of decolonization, indigenous peoples and descendants of slaves in Latin America have been largely excluded from the process of development.

Until the 1960s, families used to engage in artisanal fishing, small-scale agriculture and animal husbandry. Tourism has increased in Trindade as a result of federal development policies in the 1970s, and has become an important activity for the local economy since 1990.

Livelihood diversification

Due to the restrictions in the use of natural resources at the PNSB, a group of fishermen identified an opportunity to diversify their livelihood through the implementation of boat trips in three beaches: de Fora, Meio and Caixa d'Áço Natural Pool. The boats, which were until then used only for fishing activities, have since been also used to transport tourists. Boat trips were carried out individually

*This article is by **Natália C. F. Bahia** (natalia.fbahia@gmail.com), Community Development Consultant, Association of Small-Scale Fishermen and Boatmen of Trindade (ABAT), **Paula Chamy** (paula.chamy@gmail.com), Researcher Collaborator of NEPAM/UNICAMP and CGCommons/UNICAMP, **Iliel Teixeira Rosa** (abatrindade@gmail.com), President of ABAT, and **Lindonaldo da Silva Almeida** (abatrindade@gmail.com), vice president of ABAT, Brazil*

PAULA CHAMY



The efforts of ABAT fishermen and boatmen to ensure local access to marine traditional territories and to maintain their livelihoods in a restricted-use protected area are interesting

until 1996, when the boatmen and fishermen created ABAT, aiming to establish collective rules for artisanal fishing and community-based tourism. Fishing is the basis of the Caiçara culture and a fundamental activity for fishermen and boatmen. Of late, boat trips have become a substantial part of the local community members' income, being as, or more, important than fisheries. This tourism activity currently takes place inside the PNSB and nearby localities.

The formalization of tourism activities in national parks is in conformity with the objectives of the protected area category and involves a series of steps. To this end, ABAT has been carrying out numerous actions to ensure right of access, permanence and autonomy of boat trips inside the PNSB, with the support of universities, technical experts and funding agencies.

In 2010, the PNSB released a Letter of Intent (LoI) establishing rules and standards for the formalization of boat trips, including safety measures and training requirements for the boatmen. The LoI also attested that both PNSB managers and ABAT members are co-responsible for the boat trips inside the PNSB, characterizing the beginning of a legislative process of this activity.

Due to the impossibility of meeting all requirements, the LoI was not signed by ABAT members. The formalization process stagnated until

November 2012, when a working group was formed by PNSB managers, representatives of ABAT and partners. Since then, after discussions, an authorization term between ABAT and PNSB to regulate the boat trips has been introduced.

Among the legal instruments that regulate visits to protected areas in Brazil—authorization, permits and concessions—authorization is the most fragile since it can be suspended at any time. On the other hand, it is the most feasible for community-based enterprises that do not have funds to compete with large corporations attracted by the tourism potential of the region. As a result, there are social and labour exclusions in the area.

The demand for the authorization of boat trips encouraged two consultants (co-authors of this article) to support ABAT in the collective planning and execution of an outreach project carried out between 2015 and 2016. This project received financial aid from Casa Social-Environmental Fund and worked along three lines of action: institutional strengthening; basic cost-benefit analysis of boat trips; and capacity building focused on traditional people and tourism activities in laws pertaining to conservation.

All the strategies developed (four workshops to formulate the basic cost-benefit analysis, and four other workshops to discuss specific regulations) were based on combining local and technical-scientific knowledge. Institutional development activities included organization of documents and participation in ABAT meetings. The active learning cycle (planning-monitoring-evaluating) and collective learning space promotion were also important components of the methodology adopted.

Cost-benefit analysis

The basic cost-benefit analysis was adapted to a community-based enterprise, and allowed the boatmen and fishermen to consider the real costs and revenues of the activity as well as to reflect upon possible

ways of reducing costs and fostering innovations and improvements in the service provided to tourists. The use of informative and simplified language in the workshops made it possible for all participants to understand the regulations related to visiting in protected areas, and traditional peoples' rights.

Relevant issues, such as proposals to improve the boat trips, and alternatives to stimulate tourism in the winter season, were also identified to balance the objectives of environmental conservation, local economic development and visitor experience. Thus, the representatives of ABAT were able to plan together how to present community demands at PNSB advisory council and thematic meetings, and improve ABAT participation and representation in the meetings.

Although many steps of the action plan developed by the working group have already been carried out in the last five years, the formalization of boat trips is still an ongoing process. The delay in effectively establishing the partnership between ABAT and the PNSB, including institutional and structural limitations from the environmental agency, was one of the greatest challenges of the negotiation process. The search for preventive (rather than responsive) alternatives to deal with uncertainties and difficulties is necessary, as is continuous advancement in empowering local representatives towards a balance in power relations between the government and the community.


The fragility of the authorization term to regulate boat trips in the PNSB causes insecurity and apprehension among the boatmen/fishermen. The National System of Conservation Units (SNUC), the National Strategic Plan for Protected Areas (PNAP), and the guidelines for visiting protected areas are regulations committed to social inclusion. However, no legal instrument is adapted to formalize community-based enterprises in protected areas. Furthermore, those instruments that provide greater

guarantee of permanence of the activity do not allow the participation of traditional communities on equal terms, when compared to large corporations.

The current environmental policy adopts the concession of tourism services in protected areas to large companies as a solution to manage and reduce the costs of conservation by the federal government. However, community-based tourism enterprises are clamouring to be included in these initiatives.

At a meeting of the PNSB advisory council in November 2016, the managers of the PNSB presented a project proposal to bid for services to support visits. The project included the construction of the PNSB headquarters in Trindade; it, however, did not include the boat trips. The representatives of ABAT sent an official letter to PNSB managers to ask for clarification about the proposal; there remains the possibility of participating in the bidding process, perhaps restricted to consultation with the affected communities. Thus, guaranteeing the autonomy of local initiatives in relation to public power and capital and market networks remains a challenge.

The combination of local and technical-scientific knowledge was essential to promote collective construction, social participation and positioning of the representatives of ABAT in different decision-making moments. Gradual changes and social transformation have been observed over time. Collective resistance actions, such as those designed by the project, must be strengthened to ensure the access to rights, human well-being and environmental conservation.

Improvements in public policies and legal instruments with respect to local communities and community-based enterprises are necessary to promote autonomy and security to them. Tourism-related activities should be considered, in addition to economic aspects, as opportunities to adopt co-management approaches that mediate social conflicts in traditional territories overlapping protected areas. 

For more



<http://cercle.lu/download/partenariats/BarefootGuidetoOrganisationsWholeBook.pdf>

Barefoot guide to working with organisations and social change. Community Development Resource Association (CDRA)

<https://www.icsf.net/en/monographs/article/EN/36-social-security>

Social Security for Fishworkers in Brazil: A Case Study of Pará

Shoved Out

The Guaranis, indigenous people of Morro dos Cavalos in Brazil, are being displaced from their lands to satisfy the interests of politicians and businesses

4

The current Brazilian political situation is very worrying as far as the indigenous problem is concerned. It is even more worrying if we consider Brazil's ethnic diversity, with 305 ethnic groups that include 896,000 people declared as indigenous, according to the 2010 demographic census carried out by the Brazilian Institute of Geography and Statistics (IBGE). Besides the prejudice, injustice and the insufficiency of public policies, indigenous people must struggle every day to secure their lands. These struggles have become increasingly difficult because of the current government's political maneuvering. On 19 July 2017, a legal opinion issued by Attorney General Grace Mendonça

the rights of indigenous people over their lands are defined as original rights, which go back even before the formation of the State of Brazil. The land rights are original and, therefore, cannot be restricted to any "time reference".

The "time reference" is contrary to the Federal Constitution, as it breaks with the indigenous rights, requiring proof of indigenous possession over that territory, without considering the fact that many indigenous people were violently expelled from their lands and would not be occupying them before 5 October 1988. Opinion 001/2017/AGU – known as the "anti-demarcation opinion" by indigenist and indigenous people – opens the possibility of re-discussing the lands already demarcated, and expelling the indigenous communities from their lands, as well as hindering and paralyzing new demarcations. The cut-off date also contravenes the Union's duty to protect indigenous lands, as well as Article 231, paragraph 5, of the Federal Constitution, which forbids the removal of the indigenous people from their lands.

The Brazilian Public Federal Ministry, through a technical note (No. 02/2018-6CCR), requested the annulment of opinion 001/2017/AGU, stating that it is unconstitutional, being "a deliberate denial of rights enshrined in the Constitution of the Republic, in international human rights law and infra-constitutional legislation". In the note, the Federal Public Ministry also states that the opinion is used as an artefact to evade the rights of indigenous people to their territories, and implies a "paralysis of

Indigenous people have been in the area claimed for decades, including in 1988, and the demarcated land never ceased to have the indigenous presence.

(opinion 001/2017/AGU) was endorsed by President Michel Temer, which aims at reassessing indigenous land demarcations and restricting their land rights.

According to opinion 001/2017/AGU, the demarcated lands can only be considered indigenous lands if they are under the possession of indigenous people before 5 October 1988 – the day the Federal Constitution was promulgated. Despite the reference to the Federal Constitution, the "time reference" contradicts the premise of the indigenous rights in the Constitution, which states that

*This article is by **Ana Paula Rainho** (anap.rainho@gmail.com), Member, ICSF, and a doctoral student at the Federal University of Santa Catarina, Brazil*

the demarcations of indigenous lands, generating risks and legal uncertainty of repeal of acts already constituted, of potentiating conflicts between indigenous and non-indigenous (people)". The Federal Public Ministry mentions more than once in its technical note how the opinion violates international human rights law, which can lead to a risk of abrogating the international responsibility of the Brazilian State.

Contrary to the technical note of the Federal Public Ministry, the Minister of the Federal Supreme Court, Alexandre de Moraes, issued an opinion stating that indigenous Guarani lands in the state of Santa Catarina should be reviewed on a "time reference" basis. On 6 June 2018, federal and state deputies appealed to the Minister of Justice and National Indian Foundation (FUNAI) to request that they re-evaluate the demarcation of the Guarani indigenous lands, specifically the Indigenous Land Morro dos Cavalos, based on the "time reference" and on the opinion of the Minister, Alexandre de Moraes. However, the survey conducted by FUNAI shows the opposite: Indigenous people have been in the area claimed for decades, including in 1988, and the demarcated land never ceased to have the indigenous presence. According to the Guarani of the Indigenous Land Morro dos Cavalos, there have always been Guarani in this land, not only before 1988, but before the arrival of the colonizers in 1500.

On 19 April 2004, Brazil ratified the International Labour Organization Convention No. 169 (C169), through Decree 5051. However, the "time reference" does not comply with many of the fundamental points of the Convention. One of them is the emphasis on the participation of indigenous people in national and local policies that affect them directly. At no time were the indigenous people consulted during the formulation of opinion 001/2017/AGU. This opinion also grossly disregards the whole of C169 relating to land tenure, as mentioned in article 14, paragraphs 1 and 2: "1. The rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy shall

be recognized. In addition, measures shall be taken in appropriate cases to safeguard the right of the peoples concerned to use lands not exclusively occupied by them, but to which they have traditionally had access for their subsistence and traditional activities. Particular attention shall be paid to the situation of nomadic peoples and shifting cultivators in this respect. 2. Governments shall take steps as necessary to identify the lands which the peoples concerned traditionally occupy, and to guarantee effective protection of their rights of ownership and possession".

The "time reference" disrespects the C169 because it not only prevents new demarcations but also opens the way to re-discuss land that has already been demarcated. It thus fails to guarantee property rights and land tenure, and removes lands already demarcated and guaranteed for indigenous people. In article 16 of C169, it is mentioned that indigenous people: "... shall not be removed from the lands which they occupy" (paragraph 1), but under exceptional circumstances (paragraph 2), they may be relocated, with their free and informed consent. Thus, the decision of Minister Alexandre de Moraes not only violates the first paragraph of the above article 16 but also the second paragraph, since at no

JEKUPE MAWE



Guarani women and children. The Guarani of the subgroup Mbyá have lost access to sea fish when their boats were burned, but they can still fish in the river as long as they have their land guaranteed

time was the decision taken jointly with the Guarani indigenous people. They do not wish to leave their territory at all.

Besides all these happenings, the Guarani of the Indigenous Land Morro dos Cavalos resist, in spite of the strong pressures that they are suffering on their land, pressures that occur beyond the juridical front. In 2017, their boats were burned in a criminal fire that was never investigated. The intention was

The fish is responsible for nourishing the souls and raising the spirituality of the Guarani.

to set their villages on fire, but because of the direction of the wind, only some trees caught fire. The Guarani who inhabit the Morro dos Cavalos are of two subgroups: Mbyá and Ñandeva, which have as food source, fishing, hunting, and products derived from their fields. Unfortunately, they have lost access to sea fish when their boats were burned, but they can still fish in the river as long as they have their land guaranteed.

The guarantee of access to the river and the sea is very important for the Guarani people of the Indigenous Land Morro dos Cavalos. According to the anthropologist Martín César Tempass, the Guarani of the subgroup Mbyá present a very special relationship with the fish, since the fish serves as food, not only material but also spiritual. The fish is responsible for nourishing the souls and raising the spirituality of the Guarani. To attain such spirituality, which they call “soul perfection”, the Mbyá Guarani are dedicated to a series of rules established according to their cosmological foundations. The food rules are decisive to the construction of this spirituality they wish for. The fish are indicated for the construction of bodies and perfect souls, showing the importance of fish and fishing for the Mbyá Guarani people. However, to continue to have access to the fish, the Mbyá and Ñandeva need the guarantee of their land. Thus, opinion 001/2017/

AGU, together with the decision of the Federal Supreme Court Justice, puts them at risk of losing the Indigenous Land Morro dos Cavalos, denying these indigenous communities access to their food security and reproduction of their cultural, social and spiritual practices.

Opinion 001/2017/AGU aims to remove indigenous people from their lands to satisfy the interests of the wealthy agribusiness, mining interests and politicians, who, in the case of the Indigenous Land Morro dos Cavalos, have already consolidated their interests in building a railroad within the territory of the Guarani. This unconstitutional opinion seriously violates indigenous rights in accordance with national and international law. The current government has the distinction of demarcating the least number of indigenous lands in the history of the country since democratization; not only did it not demarcate, but it is also creating precedents, through the “time reference”, to do something that has never been done before – to remove the indigenous people from their already demarcated lands. However, the Guarani people are resisting and together with them, we will support the struggle for the rights of indigenous people. 3

For more

http://www.stf.jus.br/repositorio/cms/portalStfInternacional/portalStfSobreCorte_en_us/anexo/Constitution_2013.pdf

Constitution of the Federative Republic of Brazil 1988

https://www.socioambiental.org/sites/blog.socioambiental.org/files/nsa/arquivos/2017apib_report_indigenous_situation_brazil.pdf

Michel Temer's government acts to violate indigenous peoples' territorial rights

<http://www.agu.gov.br/atos/detalhe/1552758>

A legal opinion issued by Attorney General Grace Mendonça (Parecer nº 001/2017/GAB/CGU/AGU, dated July 19th, 2017)

Kickoff Time

Fishers from the Amazon region gathered to exchange ideas about common challenges and opportunities to sustain and develop indigenous fisheries in the light of the SSF Guidelines

Indigenous peoples of several Amazon regions came together in Manaus in Brazil on March 27-28, 2019, to learn about national and international small-scale fisheries policies at a seminar titled 'Indigenous Fisheries in Amazon State and the Voluntary Guidelines for Sustainable Small-Scale Fisheries (SSF Guidelines)'. The meeting also helped create bridges between indigenous and coastal-marine artisanal fishers' organizations that have already been consistently discussing the SSF Guidelines for years. Indigenous communities of Amazon had not been involved in previous co-ordinated discussions, even though the fishing activity is considered fundamental to hundreds of ethnic groups in the region.

Fish is a very important source of protein-rich food in interior watercourses. It is a core element of the cosmologies of various indigenous groups. For some, fishing commences with the careful manufacturing of traps. For others, fish are central to rituals of social exchange and for nurturing the spirit. However, several conflicts involving indigenous territories and associated fishing resources have been increasingly reported in relation to non-indigenous production sectors. Various sustainable fisheries initiatives are already under way, guided by a human rights approach, as recommended by the SSF Guidelines.

The Manaus seminar was co-organized by the International Collective in Support of Fishworkers (ICSF) and the NGO, Operação Amazônia Nativa (OPAN), with the support of the Food and Agriculture Organization of the United Nations (FAO), the NGO Social Environmental Institute (Instituto Socioambiental or ISA), in partnership with the National Indigenous Foundation (Fundação Nacional do Índio or FUNAI) and the

Sea Memories Collective network (Coletivo Memórias do Mar or CMM). The objective was to share the contents of the SSF Guidelines and to discuss fishing rights, including those derived from indigenous policies and beyond. The seminar also aimed at recording the reality of indigenous fisheries in the Amazon state, through oral reports of 25 participants from 16 ethnic groups. They included the Apurinã, Baniwa, Baré, Deni, Desano, Kambeba, Kanamari, Kokama, Kulina, Munduruku, Mura, Paumari, Piratapuia, Tenharim, Tikuna and Tukano.

Amongst other topics, the participants shared knowledge and experiences about their fishing and fisheries management practices in rivers and lakes for species such as the huge fish 'Pirarucu' (*Arapaima gigas*) and

Various sustainable fisheries initiatives are already under way, guided by a human rights approach, as recommended by the SSF Guidelines.

'Tambaqui' (*Colossoma macropomum*), and about fishing tourism. They also discussed and reported extensively on the array of threats to their traditional territories and livelihoods.

True partners

Representatives of various governmental and non-governmental social movements and indigenists' organizations were also present, and, as true partners of the seminar, contributed with their rich understanding of challenges and opportunities facing indigenous fisheries. Among them were FUNAI, the Secretariat of Aquaculture and Fisheries (Secretaria de Aquicultura

This article is by **Ana Paula Rainho** (anap.rainho@gmail.com), oceanographer and anthropologist, and Ph. D. candidate at the Federal University of Santa Catarina, Brazil; **Lorena França** (alorenafranca@gmail.com), anthropologist and Ph. D. candidate at the Federal University of Santa Catarina, Brazil; **Dafne Spolti** (dafne@amazonianativa.org.br), journalist at Operação Amazônia Nativa, Brazil; and **Leopoldo Cavaleri Gerhardinger** (leocavaleri@gmail.com), oceanographer at the Oceanographic Institute, University of São Paulo, Brazil

DAFNE SPOLTI



Indigenous peoples of several Amazon regions came together in Manaus in Brazil during 27 to 28 March 2019 to learn about small-scale fisheries policies at a seminar on 'Indigenous Fishers in Amazon State and the SSF Guidelines'

34

e Pesca) from the federal and state government, ISA, Centre of Indigenist Work (Centro de Trabalho Indigenista or CTI) and the Wildlife Conservation Society (WCS).

The seminar began with a presentation of the SSF Guidelines in the morning by ICSF Members and by the representatives of the small fishworkers' movement in Brazil (CONFREM and MPP). In the afternoon, four groups were formed with representatives of several Amazon

based tourism and aquaculture. All the participants greatly appreciated the opportunity to learn about the SSF Guidelines and acknowledged the need for additional seminars to advance their knowledge and actions on such matters.

On several occasions, one participant, Kora Kanamari, appealed for support to Javari's Valley (Vale do Javari), which is the largest indigenous land in Brazil where many indigenous peoples live, including recently-contacted and isolated groups in the frontier between Brazil, Peru and Colombia. This is one of the most critical hotspots of overwhelming violations, promoted by illegal fishing and other resources extractions and violent conflicts brought on by illegal timber felling, mining, oil drilling, and drug trafficking activities. "What makes us sad is that the government has everything in terms of budget, resources, but so many people in Javari's Valley are suffering", said Kanamari. One of the suggestions of indigenous participants was the organization of a seminar at Javari's Valley. At the end of Day One, Kanamari invited the seminar's organizing team to present the SSF Guidelines to his village.

Several demands were brought to the table, including the need to enable more opportunities for indigenous communities to participate in fisheries management, community-based tourism and aquaculture.

watershed basins present at the seminar. Supported by voluntary facilitators of participant organizations, every group discussed the problems, opportunities and demands of indigenous peoples in relation to fisheries. Several demands were brought to the table, including the need to enable more opportunities for indigenous communities to participate in fisheries management, community-

On the second day, participants worked in thematic groups around the most recurrently discussed issues of the first day, including fisheries management and commercialization; sport fishing; tourism; and aquaculture. A vibrant exchange of experiences and ideas followed throughout the day. The management of the 'Pirarucu' fisheries was one of the most highlighted issues during the seminar. Most participants chose to enrol in the fisheries management and commercialization working group, to exchange experiences and benefits, hearing and learning with their parents.

Fisheries management started to gain force in Amazon in the region of Tefé in 1999, in the middle of the Solimões river among riparian communities which gained technical advice from the Mamirauá Institute of Sustainable Development. Ana Claudia Torres, the Fisheries Management Programme Co-ordinator for the Mamirauá Institute, was present at the seminar. She explained that now other indigenous villages and communities are also developing fisheries management programmes in their lakes, with the support of OPAN and FUNAI. Fisheries management refers here to self-organized control of certain species in particular territories, including the observation of rules to achieve sustainable fisheries. Communities that opt for the management have to undertake the counting of Pirarucu populations, and to promote community vigilance of their territories to inhibit invasions that public authorities are not able to control. Other measures are also taken such as rules for minimum capture sizes and quotas that are assigned by the governmental agency for federal nature conservation and protected areas (Instituto Chico Mendes de Conservação da Biodiversidade or ICMBio).

Indigenous groups that had not yet enrolled in fisheries management schemes also took part in the working group, given their manifest interest to kick-off management processes in their own territories. "To us who are initiating Pirarucu fisheries management, the seminar, principally, was an opportunity to acquire more knowledge", said Rogério Fleuri Dutra Caldas, who lives in the Indigenous Land of Itixi-Mitari and is the regional co-ordinator of the Federation of

Organizations and Communities of Indigenous Peoples of Mid Purus River (Federação das Organizações e Comunidades dos Povos Indígenas do Medio Purus or FOCIMP). He highlighted the potential brought by the SSF Guidelines to support indigenous fisheries: "We believe that these (SSF Guidelines) can strengthen our reserves, through dialogue with prefectures, other governmental organisations, and also with NGOs."

OPAN's indigenist, Felipe Rossoni, a specialist researcher in participatory fisheries management, highlighted the existence of a direct link between Pirarucu management and the SSF Guidelines: "Food security needs to be put in first place—security in the sense of safeguarding access to food and securing food sovereignty so that you have the right to choose what to eat, involving cultural and ethnic issues," observed Felipe. He also mentioned other points of affinity between Pirarucu management and the SSF Guidelines, such as territorial rights, the value of traditional knowledge, self-esteem, conditions for gender equity and greater marketing autonomy. "Management is an example of citizenship," stressed Ana Claudia Torres of the Mamirauá Institute. She acknowledged the power of Pirarucu

Fisheries management refers here to self-organized control of certain species in particular territories, including the observation of rules to achieve sustainable fisheries.

fisheries management to activate collective action around cross-cutting issues affecting the livelihoods of local fisheries communities, such as the key role of women in organizing activities.

Pioneering regulation

The working group discussing sport fishing tourism activities in indigenous villages delved into the experience of the Baré people in the mid-Rio Negro region, downstream of the São Gabriel da Cachoeira settlement. They have initiated pioneering regulation of formerly illegal and destructive Tucunaré (*Cichla spp.*) sport fishing activities conducted by tourism boats in indigenous rivers.

Ever since 2014, an initiative facilitated by FOIRN, ISA and FUNAI have established contracts with interested companies, in order to generate income to local communities while respecting and abiding by social and ecological rules and norms. This process flourished to successfully inspire communities in other subsidiary rivers of Purus. During the working group discussions at the seminar, the indigenous Tenharim of the South Amazon state (Humaitá city) became interested in learning details of such regulations, given that they had already initiated some fishing accords in their territories.

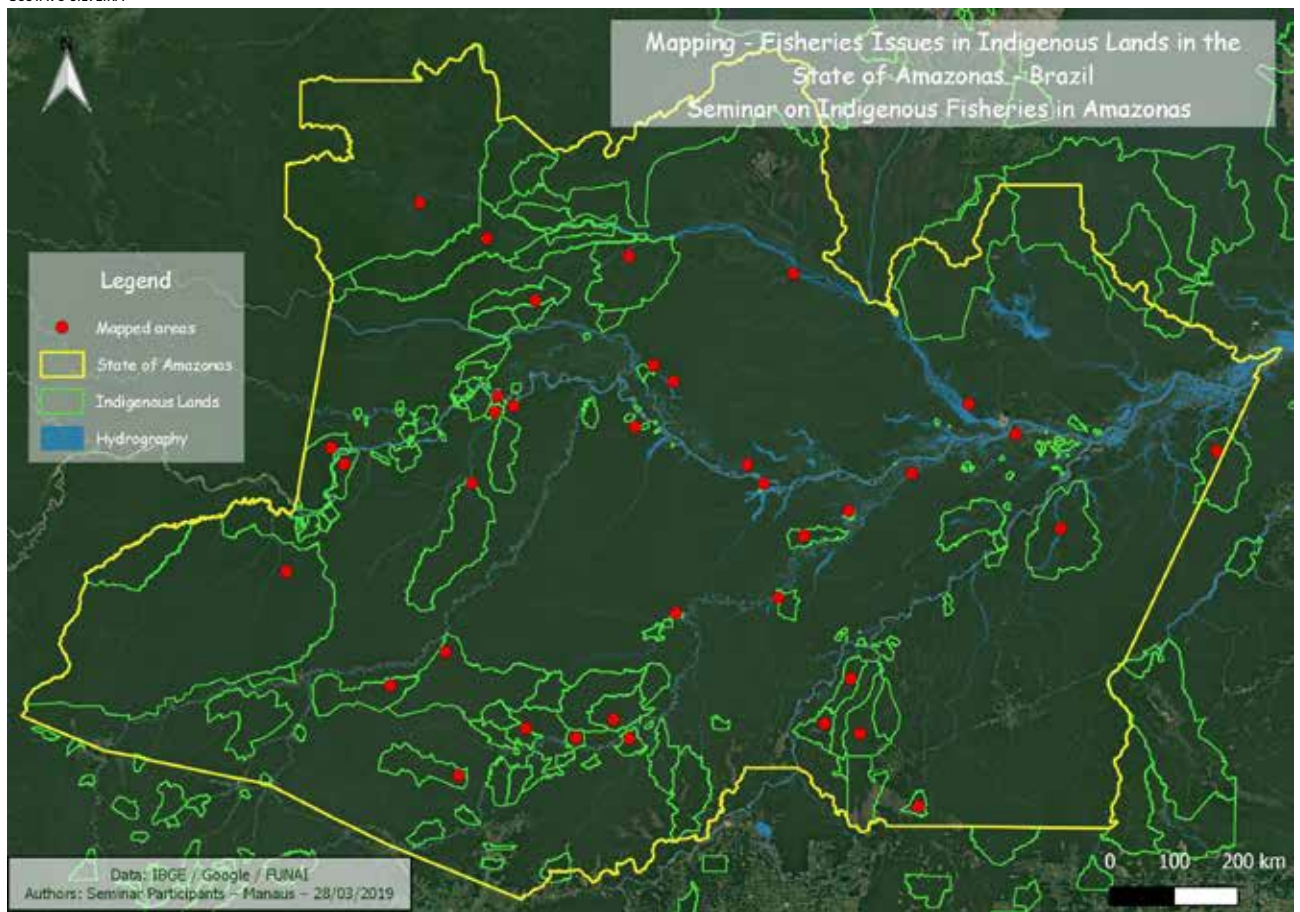
The aquaculture working group, in turn, started with criticisms of conventional commercial aquaculture, which is not friendly to indigenous communities' realities and demand a high dependency of external subsidies from non-indigenous institutions. Paulo Adelino de Medeiros, a researcher based at the Amazonian Federal Institute of Education, Science and Technology (Instituto Federal de Educação, Ciência e Tecnologia do Amazonas or IFAM) in

the city of Maués, shared his research findings on the viability of family-based aquaculture, which aims to support the demands of local and traditional communities. Paulo has been working with the Sataré-Mawé to develop a family approach to aquaculture that promotes low-cost production practices and minimum fish-food usage, with simple measures that can give communities higher autonomy from continuous technical advice. Participants of this working group were very enthusiastic in following up with discussions about the development of family aquaculture in other rivers, and agreed to build a participative project to take this opportunity forward.

Indigenous participants

At the end of the day, participants gathered in a final plenary to decide about future steps. At this stage, the Fisheries and Aquaculture Secretary of Amazon state showed up and talked about their interest to deal with the demands brought up by the indigenous participants at the seminar. A representative from the federal-level

GUSTAVO SILVEIRA



Map showing the territorial range of qualitative data recorded during the seminar



Presentation of the results of the working group of Purus River and Juruá River who believe that these (SSF Guidelines) can strengthen their reserves, through dialogue with prefectures, other governmental organizations, and also with NGOs

counterpart Secretary of Aquaculture and Fisheries said she would take the results of the seminar back to Brasilia where it would be discussed with her superiors in the context of fisheries policies for North Brazil. Participants expressed their desire for the conduct of other seminars to disseminate the SSF Guidelines. They also delineated a list of villages interested in fisheries management and family aquaculture. They highlighted the need for greater participation of women in events and issues related to fisheries in the region. They also expressed their desire to connect with international indigenous movements to discuss the SSF Guidelines.

As a first experience in bridging the world of Amazonian indigenous fishers with the principles and vision of the SSF Guidelines, the seminar revealed that while most participants had no background information about the Guidelines, places exist where sustainability measures are being taken up along the lines of the SSF Guidelines.

The leader of the National Fisherwomen Articulation, Josana Pinto da Costa, emphasized: "Indigenous and traditional communities already promote the Guidelines, but with

another name." Indigenous fishers also realized how their practices, such as Pirarucu management, already anticipate several of the objectives and principles of the SSF Guidelines. Nevertheless, considering that various peoples and regions live under unfavourable conditions, there is a great interest among indigenous fishers to know more about their rights. There is also a huge demand for expanding participatory fisheries management in regions with a lot of potential, but where access to information has been scant and/or collective action has not already been initiated.

Important instrument

Governmental and non-governmental organizations also did not know much about the SSF Guidelines, and they expressed their interest in taking information back to their own circles. Evidently, the SSF Guidelines can become an important instrument to strengthen the organization of fishers and empower indigenous movements to fully become sovereign agents in the promotion of fisheries resources sustainability and food security, and hence realize and reaffirm the very nature of their territorial rights. ♣

For more



<https://sites.google.com/site/ssfguidelines/brazil>

Brazil National Seminars - June 2016

<https://www.icsf.net/en/samudra/article/EN/80-4378-Roundup.html>

Organizational Profile: Operação Amazônia Nativa (OPAN)

<https://www.icsf.net/en/samudra/article/EN/77-4305-A-Backbreaking-.html>

A Backbreaking Struggle

<https://amazonianativa.org.br/>

OPAN-Operação Amazônia Nativa

Oil and Uncertainty

The latest Atlantic tragedy reaches thousands in Brazil and remains unsolved

Oil spill disasters in the ocean often devastate marine and coastal ecosystems, profoundly affecting fisheries resources and fishing communities. Urgent and early-warning actions are needed to avoid a tragedy in biomes and communities when such accidents occur. In late-July 2019, Brazilian fishers alerted the first oil slick reaching the coast of Paraíba, weeks before the recognition of the biggest-ever oil spill disaster ever recorded in Brazil, extending across the entire Northeastern coast of the country. Their early voices were not properly heeded but those signals escalated into a gigantic spread of petroleum slicks. Almost 1,000 different localities were affected, including beaches, mangroves, rivers and “protected” areas. All the nine

and mangroves. Their accomplishment was tremendous.

Nevertheless, the undertaking of some undoubtedly heroic actions was not always accompanied by an awareness of the harm from direct exposure to crude petroleum’s chemistry. Several hands-on actions were undertaken without the right protection and the contamination risk was not adequately prevented. In several cases, hands and skins were not protected from the oily contact; it was even more pronounced in peripheral or remote communities. The human effects of removing 4,000 to 5,000 tonnes of oil sludge from the beaches are still not known.

Besides the cleaning action, fisheries were not officially closed. Female shellfish fishers with children were found gathering crabs and shells for their livelihoods, this time exposing themselves directly to new toxicological risks, with the usual lack of diagnosis and proper health monitoring. Official laboratory reports on fish contamination were not shared widely, so both fishers and consumers felt – still feel - insecure about the safety of seafood. And how about the real outcome? There was almost half-a-year of unofficial buyers’ moratorium. Fishing communities were not prevented from fishing, but they could not sell their catch, which further aggravated their privation.

Vulnerable communities

In the face of such a major socio-environmental disaster, it took time for the Government to act. The first samples for environmental analysis in the affected locations started to be collected only 40 days after the arrival of the sludge, and due to strong social pressure. In addition, the first support to the most vulnerable

Official laboratory reports on fish contamination were not shared widely...

states of the region, encompassing a 2,300-km long shoreline, switched on a red light.

Since then, thousands of fishers from at least 130 municipalities were presented a peculiar gift from the sea: not more fish, but oil sludge on their shores. Such a tragedy could have been far worse but for the venerable people from the coastal communities who have been engaged in cleaning up the beaches and corals. They demonstrated to the world what collective action is all about. Social movements, fishers’ associations -- in some particular cases along with civil society and local organizations -- worked tirelessly and impressively along hundreds of beaches

This article is by **Cristiano W. N. Ramalho** (*cristianownramalho@gmail.com*), Professor, Sociology Department, Federal University of Pernambuco (UFPE), **Ormezita Barbosa** (*ormezita@gmail.com*), National Executive Secretary, Conselho Pastoral dos Pescadores (CPP, Fisher’s Pastoral Council), **Marcelo Apel** (*marcelo.apel@gmail.com*), Conselho Pastoral dos Pescadores (CPP, Fisher’s Pastoral Council), Ceará and Piauí Region, and **Maria A. Gasalla** (*mgasalla@usp.br*), Professor, Fisheries Ecosystems Laboratory (LabPesq/Oceanographic Institute), University of Sao Paulo (USP), Brazil

fishing communities was announced in December 2019, after pressure from social movements and academia. The support consisted of an assistance of about US\$ 200 per fisher for those living in municipalities directly hit by the oil spill, numbering about 60,000 fishers. The assistance was restricted to those fishers coming under the General Fisheries Registration (RGP) system, holding the Fisher's Card indicating that they work at sea.

The support was well received yet but there were serious problems. The last official registration on the RGP System was in 2012 - 2009 in some regions - so the number of fishers was seriously outdated and grossly underestimated. Also, several fishers registered in the system had not received identification cards, when they were last distributed in 2013. Several inland fishers had their communities, resources and production affected by the oil slicks, but they were denied support. In addition to the huge number of fishing households getting left out of the government support—possibly more than 100,000—the entire fishing economy of the region was disrupted and paralyzed as a result of the spill, including those municipalities unaffected directly.

The socioeconomic breakdown and in-practice exclusion of several families from the public emergency support have led both the Federal Public Defenders' Office and Ministry, with the support of social movements like the Conselho Pastoral dos Pescadores (CPP), to launch lawsuits seeking the inclusion of all members of fishing communities from the entire region in the monetary and legal support mechanism.

The fishing economy remains stagnant in several localities, and at best, functioning far below average historical income levels. Numerous traditional fishing communities are adversely affected economically and with no financial assistance. A large number of people are also not finding safe ways to sell their aquatic products.

The uncertainties along the value chain, on the levels of toxicity, the number of fishers affected, and on the protocol that should have been

FISHERS' PASTORAL COUNCIL / BRAZIL



Fishers from Sirinhaém removing oil from the beaches in order to protect their fishing and living places in Pernambuco, Brazil

followed to handle oil pollution and related developments, give an idea of what actions are still needed. Rather than emphasizing the heroic role of fishers we need to perceive their desperation towards the absence of the State in ensuring that the damage is contained.

At this point, the reader must be wondering who and how such an accident occurred, and who, and which particular industry, may be held responsible for the recent oil spill in Brazil. Unfortunately, the answer is not available yet, only the scale of the damage is emerging to the surface. The Brazilian federal police suspect a ship-to-ship transfer involving a Greek-flagged tanker around 8°S in the middle of the Atlantic Ocean for this disaster. The whole case remains unsolved, so does a calamity still facing a large number of people and ecosystems. 3

For more

<https://www.bbc.com/news/world-latin-america-50223106>

Brazil oil spill: Where has it come from?

<https://science.sciencemag.org/content/367/6474/155.2>

Brazil oil spill response: Time for coordination

<https://news.mongabay.com/2019/11/nearly-three-months-after-brazil-oil-spill-origins-remain-uncertain/>

Nearly three months after Brazil oil spill, origins remain uncertain

An Amazonian Wrangle

Apart from exposing vulnerable indigenous communities to infection, COVID-19 threatens a programme that provides livelihood to the vulnerable and helps conserve freshwater fish species

Indigenous people and rural communities in Brazil's Amazon region have been dramatically hit by COVID-19. A note issued on 10 June by the Coordination of Indigenous Organizations of the Brazilian Amazon (COIAB), in response to the Brazilian government, said the actions of the official agencies in response to the pandemic are regrettable: "So far the responses of the National Indian Foundation (FUNAI) and of the Special Secretariat of Indigenous Health (SESAI) to the COVID-19 have been slow, uncoordinated and insufficient. COVID-19 has entered Indigenous Lands, and it is spreading fast. We're on the verge of chaos...Masking the reality won't solve the problem!"

COIAB has recorded the pandemic's impact in its newsletters, following tireless efforts and surveys by the indigenous people's movement. As on 5 September, 22,486 cases of COVID-19 were confirmed among indigenous people, along with 682 suspected cases and 646 deaths registered among 96 indigenous groups.

These results take into account the SESAI data plus the data from COIAB's surveys, not included in SESAI's official surveys, such as death certificates and information obtained directly from indigenous leaders, indigenous health workers and organizations in the COIAB network. The Articulation of Indigenous Peoples of Brazil (APIB) is a forum that includes COIAB. It has an independent monitoring system for COVID-19. Its data showed that in total, 127 indigenous groups are affected by COVID-19 in the Brazilian Amazon, including the Warao, a refugee indigenous people from Venezuela.

Apart from the pandemic, the political crisis also concerns the indigenous representatives. COIAB's address to the Brazilian government

said: "We are struggling daily to survive not only COVID-19 but to survive the dismantling of indigenous policy, the lack of protection and demarcation measures in our territories, the rise of greed in our lands and lives, the murder of leaderships, and the anti-indigenous legislative agenda of the federal government. After resisting COVID-19, this is not the national 'normality' that we will accept!"

Indigenous groups

In Brazil, the officially recognized territories of traditional communities are composed of 'Indigenous Lands' inhabited by indigenous groups, the 'Quilombos' for traditional communities

We are struggling daily to survive not only COVID-19 but to survive the dismantling of indigenous policy, the lack of protection in our territories...

of African descent, and 'Sustainable-use Protected areas' that can be territories of riverine peoples, for *caiçaras* (traditional coastal communities) and extractive workers. These territories are historically considered to be the largest and most protected areas in the Amazon. The guarantee of traditional tenure of their territories, health and education are basic conditions for these groups to live with dignity, food sovereignty, social security, collective well-being and autonomy.

The external pressures to these territories in times of the pandemic present even greater threats and risks. Other than the environmental and social impacts of careless and illegal exploitation of natural resources, the invasions of these territories expose the indigenous, *quilombola* and riverine

This article is by Felipe Rossoni (felipe@amazonianativa.org.br), a fisheries management biologist and indigenist; Leonardo Kurihara (leonardo@amazonianativa.org.br), a biologist and project co-ordinator; and Gustavo Silveira (gustavo@amazonianativa.org.br), a social scientist and programme co-ordinator; Operacao Amazonia Nativa (OPAN), Amazonas, Brazil. Translated by Rodrigo Ferreira.

MARIZILDA CRUPPE / OPAN



The Paumari indigenous people of Brazil, travelling along the Tapauá's river in their traditional boat, prepare a meal with the fish they catch for their subsistence.

16

communities to COVID-19. It makes the pathogen penetrate deep into villages and communities, even the ones far from urban centres. Such places face no inspection by official agencies. The condition of health services in such remote areas is precarious, with poor infrastructure and very few trained and qualified personnel. Then there is the huge distances and geographic spread of the Amazon to consider. The collective customs of social interaction in indigenous communities—the sharing of meals, of accommodation and rituals favourable to gatherings—make for ideal conditions for the rapid contamination of large numbers of people, affecting whole villages and communities.

It might appear that indigenous groups in voluntary isolation or limited contact are more protected against COVID-19, especially since their territories are certified by the government. The truth is the exact opposite. These groups are immersed in a deep lack of territorial security to address the ceaseless invasions of illegal mining, logging and drug trafficking. The level of alarm is much higher in the vicinity of the Solimoes

river, known for the largest number of isolated indigenous groups in the whole world, and those who have been recently contacted.

In contrast to these territories in isolated areas, there are indigenous groups living in territories (certified or not) close to the cities. These groups are the most vulnerable ones, considering that there is generally more dependence on external products, and more social and commercial interaction with non-indigenous people. It is where a more significant flow of people entering and exiting the villages and towns can be seen, not often without conditions to apply the necessary individual prevention measures. Add to that the urban indigenous people who inhabit the towns of the interior of the Amazon, as well as the provincial capitals of Brazil—not often living in peripheral areas of the city in groups, communities or by themselves—generally facing strong social vulnerability.

Fishing, an age-old practice in the Amazon, portrays very clearly the complexity of COVID-19's impact. As an original source of livelihood in the Amazon region, fishing has

historically gained local commercial relevance, developing what is known today as small-scale fisheries (SSF), employing thousands of workers directly and indirectly, spread through the entire Amazon basin. Being a main source of livelihood in the Amazon, fishing provides food sovereignty and abundance for communities in their territories.

It also carries with it the risk of virus contamination in situations when the fishers have to expose themselves in the effort to sell the surplus production in the local market, something that happens frequently in indigenous and riverine communities that are closer to towns or other places. The flow of boats—from small canoes for short travel or big ships that undertake medium- and long-distance trips between municipalities—is the main conduit spreading COVID-19 in the Amazon. This has already reached remote areas. Of the 62 municipalities in the Amazonas state, only two have not registered confirmed cases of COVID-19 so far. Among them, only the capital, Manaus, has hospital beds with Intensive Care Units (ICUs).

The dangers of COVID-19 and of the environmental damages caused by invasions also surround the areas of community-based management of the fish species *pirarucu* (*Arapaima gigas*, among the largest freshwater fishes in the world) in the Amazonas. As a result of the engagement of local communities in partnership with non-governmental organizations (NGOs) and governments, the management of *pirarucu* has changed for the better the aggressive fishing practices that threatened its wild populations; the fish is commercially extinct in areas where fish management has not been applied.

Since the first initiative that undertook commercialization of managed fish 20 years ago, the community-based management of *pirarucu* has been recognized as an impressive economic activity, extremely effective to achieve biodiversity conservation and well-being of local communities. It is done in protected areas (Indigenous Lands, Extractive Reserves) or areas that have

legally recognized fishing agreements. More than 5,000 people (indigenous and riverine) are directly involved in *pirarucu* management, protecting millions of hectares of forest, swamps and natural aquatic environments.

Quota control

They generate around 3,000 tonnes of managed *pirarucu* annually under a regime of quota authorization and control by the responsible government agencies. This activity makes direct contributions to the Sustainable Development Goals (SDGs), including poverty alleviation; achieving food security and food quality; safer and healthier environments; inclusion of women and youth in economic activities; sustainable economic growth; fairer income distribution; access to high-quality food; protection of local livelihoods; and attenuation of climate-change impacts.

In the face of the COVID-19 pandemic, however, fishers' groups and supporting organizations have tough challenges ahead, with the coming

... community-based management of pirarucu has been recognized as an activity, extremely effective to achieve biodiversity conservation and well-being of communities.

of the fishing season in the period between August and November. The territorial protection of the managed areas is sustained by a surveillance system that is operational throughout the year, with intensified monitoring in the flooding season, when invaders have easier access, and, in the lean season, when it is easier to fish. These surveillance and monitoring activities are carried out by fishers themselves, with no specific pay, and with inherent costs such as fuel for transport and food for the surveillance teams.


On average, about 40-45 per cent of the costs of *pirarucu* management are incurred due to the maintenance this communal protection system. If the fishery management groups do not perform these tasks, there are bound to arise territorial invasions

aiming for the large stocks of *pirarucu* protected by the fishing communities. On the one hand, these invasions would result not only in the loss of fish illegally caught by invaders, but also in chasing away entire shoals of fish that flee to other areas, something that affects directly the fishing quotas of the management groups. This will translate into significant financial losses. On the other hand, to maintain this protection system, paid by the fishers themselves, it is absolutely necessary for them to perform the fishing of the authorized quota, so that a part of the financial resources arising from commercialization covers the surveillance costs.

Annually authorized *pirarucu* fishing requires a series of activities and operational procedures such as population counting, harvesting, processing and transportation to the purchaser, that can be either free markets, or large plants that will process the fish. These activities are conducted collectively. They involve planning workshops, team organization, infrastructure provisions for camps and expeditions to the managed lakes, fish capture, and transport and transit between communities to the closest municipality or to the final destination of the product.

Currently, indigenous and riverine communities, health workers and supporting organizations in Brazil are making collective efforts to provide attention and care...

Generally, representatives of the fishery management groups have to be present in all of these stages that are clearly adverse to the sanitary precautions currently being recommended to prevent the spread of COVID-19. Besides, the existing economic conditions present a severely affected market that cannot guarantee industry and market demand for managed fish, something that might affect the product prices, possibly bringing them down even lower than the values realized in 2019, which were already below reasonably profitable levels.

Currently, indigenous and riverine communities, health workers and supporting organizations in Brazil are making collective efforts to provide attention and care to community members who have fallen sick, and to prevent the spread of COVID-19 in the rural Amazonian communities. They aim to control and reduce as much as possible the serious impacts caused by this pandemic. 

For more

<https://www.devex.com/organizations/coordination-of-the-indigenous-organizations-of-the-brazilian-amazon-coiab-135182>

Coordination of the Indigenous Organizations of the Brazilian Amazon (COIAB)

<http://toobigtoignore.net/small-scale-fishing-community-mobilization-in-brazil-amidst-multi-faceted-challenges/>

Small-scale fishing community mobilization in Brazil amidst multi-faceted challenges

<https://www.telegraph.co.uk/news/2020/07/20/fears-brazil-health-workers-brought-covid-19-indigenous-communities/>

Fears in Brazil that health workers brought Covid-19 to indigenous communities

<https://www.nationalgeographic.com/history/2020/06/disaster-looms-indigenous-amazon-tribes-covid-19-cases-multiply/>

Disaster looms for indigenous Amazon tribes as COVID-19 cases multiply

<https://theconversation.com/indigenous-people-may-be-the-amazons-last-hope-130941>

Indigenous people may be the Amazon's last hope

COVID-19

COVID closures, embassy intervention strands hundreds of Lao fishermen in Malaysia

Hundreds of Lao migrant fishermen are stranded in Malaysia after the Lao Embassy in Kuala Lumpur took control of their return travel plans to arrange pricier flights, which had already been complicated by coronavirus restrictions, the fishermen told RFA.

Drawn by the prospect of well-paid work at sea, around 700 Lao migrants traveled overland through Thailand to Pahang state on the east coast of the Malay Peninsula, entering Malaysia on tourist visas, one of the men said.

"The company or the owner of the fishing boats made all the paperwork for us, including work permits and contracts, so we are all legal workers in Malaysia," the fisherman told RFA's Lao Service Monday on condition of anonymity. But the coronavirus threw a wrench in their plans to return home when the fishing season ended in November. After an inexpensive bus trip back to Laos through Thailand became impossible when borders between Malaysia and Thailand closed, about 530 of the fishermen negotiated

passage to Laos from Pahang with V Travel, a Malaysian tour company.

With expenses piling up and no money coming in, hundreds of the fishermen illegally entered Thailand in hopes of taking the overland route. On Tuesday, a group of about 20 of them were arrested in Thailand's southern Songkhla province. As of Tuesday, 463 remain in Malaysia and are still waiting for the flights. The Lao Embassy in Kuala Lumpur on Sunday said that flights chartered for the end of November were postponed because the Lao Prime Minister's Office suspended incoming flights.

"The embassy made a second request to the Lao National Taskforce Committee for Covid-19 Control and Prevention to reschedule the flights, one on December 12 and the other on December 17, 2020. Now, the request is being considered by the taskforce. So, please wait," the statement said.

<https://www.rfa.org/english/news/laos/fishermen-1208202013103.html>

ARTISANAL FISHERIES

World Fisheries Day: How the EU can support sustainable African artisanal fisheries

In this declaration on the occasion of World Fisheries Day, the Coalition for Fair Fisheries Agreements (CFFA) calls on the European Union (EU) to integrate the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) into all its policies that have an impact on this sector, particularly in the Blue Economy and Farm to Fork strategies and in its external action.

Therefore, we recommend:

-- That the EU systematically integrates the contribution to the implementation of the SSF Guidelines into its external action, both within the framework of its development co-operation policy and its CFP in its external dimension.

-- More specifically, that the European Commission, as

it has done through its new regulation on the sustainable management of external fishing fleets (SMEFF), integrate the implementation of the SSF Guidelines into its basic CFP regulation as well as into all other policies that have an impact on artisanal fisheries, such as the Blue Economy Strategy, or the "Farm to Fork" Strategy (F2F).

-- That the consideration, and implementation, of the SSF Guidelines be integrated as a specific objective of the Sustainable Fisheries Partnership Agreements (SFPAs), particularly as the guidelines are rooted in a human-rights approach.

-- And finally, that the EU encourages and supports the draft convention for an RFMO dedicated to the management of shared stocks in West Africa, being itself involved in the exploitation of these species.

The perspective of the year 2022 dedicated to artisanal fisheries is an opportunity to encourage the implementation of the SSF Guidelines to ensure that this sector fully integrates the strategic priorities for the development of fisheries in developing countries and that it is fairly integrated into the legal frameworks.

<https://www.icsf.net/en/samudra-news-alert/article/detail/61339-World-Fisheries.html?language=EN>

ORGANIZATIONAL PROFILE

The National Commission for the Strengthening of Extractive Reserves, Communities and Traditional and Coastal and Marine Extractive Communities

The National Commission for the Strengthening of Extractive Reserves, Communities and Traditional and Coastal and Marine Extractive Communities is an aggregator network involving 72 grassroots organizations. These include 32 Extractive Reserves (of which 28 are federal, one is at the state level and three at the municipal level), four Environmental Protection Areas (APAs) and 6 'other' maretorios—the fishing communities, activists working on coastal and marine extraction—located in the 17 states along the Brazilian coast.

Created in 2007, CONFREM Brazil's mission is to develop, articulate and implement collective strategies aimed at the recognition and guaranteeing of the subsistence and sustainable production of resources in the coastal marine territories.

Constant conflicts and threats to the fisher's way of life are common in these maretorios, alongside poor environmental management and political pressure for the reclassification of conservation units as 'Extractive Reserves'. The aim is to allocate these areas for tourism, oil and gas extraction



and large-scale food production, like shrimp farming. Recent events, such as oil spills and the spread of COVID-19, affected the entire production structure and its modes of organization.

CONFREM Brazil has sought to advance the agendas of fishing communities to national debates; develop and/or support capacities for intervention in social policies; strengthen the

fight to guarantee sustainability; and seek to give visibility to coastal and marine extractive maretorios, highlighting their ways of life and their relationship with the sustainable use of resources.

CONFREM Brazil has links with the following organizations: Mangaba Catadores Movement in the State of Sergipe; National Coordination of Traditional Communities Caiçaras; Network of Women in Fishing Communities in the South of Bahia; Network of Women in the Amazon Mangroves; APA Costa dos Corais Women Network; Parnaíba Delta Resex Women Network; and Articulations of Young Protagonists of Artisanal Fishing. CONFREM Brazil has also created synergies of action with fishers and their organizations in Latin America and Africa.

CONFREM Brazil participated in the creation of the 'Observatory Group on Coronavirus Impacts on Fishing Communities', created jointly with the Fishermen and Fishermen Movement of Brazil (MPP), National Fisheries Articulation (ANP), Fisheries Pastoral Council (CPP) and National Coordination of Traditional Caicaras Fishing Communities. The initiative brought together fishermen and artisanal fishers, researchers, health professionals and activists from almost all regions of Brazil who, since March 2020, have sought to monitor and collect data on the progress of the coronavirus in fishing communities.

- by Flávio Lontro (flaviolontro@gmail.com and confrembrasil@gmail.com), General Coordinator of CONFREM Brazil

SMALL-SCALE FISHERIES

Supporting Small-Scale and Artisanal Fisheries

This document summarizes achievements of FAO to support sustainable marine and inland small-scale and artisanal fisheries governance and development. It reports on progress under the FAO Umbrella Programme for the Promotion and Application of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) and related developments. It highlights the contribution of small-scale and artisanal fisheries to food system transformation in the context of the 2030 Agenda for Sustainable Development, as well as innovative efforts to improve technical capacities for data collection and analysis in small-scale fisheries. Finally, it presents preparations for the International Year of Artisanal Fisheries and Aquaculture (IYAFA) in 2022. Complementary and additional information is provided in COFI/2020/Inf.12 (Small-scale and artisanal fisheries: Progress on implementing the SSF Guidelines since the Thirty-third Session of COFI in 2018), COFI/2020/Inf.12.1 (Status update on the global study 'Illuminating Hidden Harvests. The contribution of small-scale fisheries to sustainable development'), COFI/2020/Inf.12.2 (Draft planning roadmap for the International Year of Artisanal Fisheries and Aquaculture 2022).

I. SSF Guidelines as a Tool to Support Achieving the SDGs

1. Small-scale fisheries play an important role in food security and nutrition and offer development pathways for poverty eradication and equitable development. The SSF Guidelines provide a framework to enhance the contribution of small-scale fisheries to food security, poverty eradication and sustainable livelihoods, and directly contribute to achieving the Sustainable Development Goals (SDGs), in particular SDG 14 and target 14.b, but also other

SDGs. As noted in previous paragraphs, and elaborated upon in COFI/2020/Inf.12, efforts of the SSF Umbrella programme support achievement of many SDGs, including 1 No poverty, 2 Zero hunger, 5 Gender equality, 12 Responsible consumption and production, 13 Climate action, 14 Life below water and 16 Peace, justice and strong institutions.

2. These efforts include working with partners to promote a human rights-based approach, social protection, gender equality, and value chain enhancement, in particular in the postharvest subsector, as well as efforts to address climate change and extreme poverty in small-scale fisheries. FAO is promoting sustainable food systems to increase the quantity and quality of fish products for human consumption by empowering women, and working to strengthen the mitigative and adaptive capacity to climate change of traditional fishers and fish workers, and supporting the integration of Indigenous Peoples' perspectives in the implementation of the SSF Guidelines.

3. Target 14.b of the 2030 Agenda calls on States to "provide access for small-scale artisanal fishers to marine resources and markets". Governments have an essential role to play in ensuring equitable access to resources and markets for small-scale fishers and fishworkers, and the SSF Guidelines contain valuable recommendations to support achieving SDG Target 14.b.

4. The governance and management of fisheries that recognize the participation of fishers, local stewardship, and shared decision-making, or co-management, empower fishworkers and balance rights and responsibilities between users and government authorities. Appropriate access to resources and secure tenure

or user rights, together with co-management, are fundamental elements of sustainable fisheries. FAO is working to complement recommendations in the SSF Guidelines with specific practical guidance on options and opportunities for fisheries stakeholders to consider how to implement co-management and facilitate the formalization of appropriate tenure, access and user rights in fisheries, noting that these are key elements for realizing sustainable access to resources, as well as the food security and the economic contributions of the small-scale fisheries sector. To date, regional workshops have provided recommendations for national marine fisheries in the respective areas of South East Asia and the Bay of Bengal, and Latin America and the Caribbean. The next workshop, Great Lakes and Inland Water Bodies of the World, will provide further recommendations for inland fisheries guidance. Additional workshops are planned to cover other regions of the world.

5. The COFI Sub-Committee on Fish Trade³ emphasized the importance of market access, value chains, post-harvest operations and trade to enhance the contribution of small-scale fisheries towards the achievement of SDG 14.b. A new FAO Technical Paper, "Securing sustainable small-scale fisheries: Showcasing applied practices in value chains, post-harvest operations and trade", examines good practices and successful initiatives consistent with the recommendations of the SSF Guidelines (included as COFI/2020/SBD.20) and can be used to inform future work by FAO.

II. International Year of Artisanal Fisheries and Aquaculture

6. The United Nations General Assembly in its Seventy-second session in December 2017 proclaimed 2022 the

"International Year of Artisanal Fisheries and Aquaculture". In its 33rd session, the Committee welcomed the International Year of Artisanal Fisheries and Aquaculture in 2022 (IYAFA 2022). FAO is serving as the lead agency for IYAFA 2022 in close collaboration with relevant partners and bodies of the United Nations system. Since 2018, FAO has begun planning in earnest for IYAFA 2022. To guide and focus its efforts, FAO has developed a draft planning roadmap and welcomes inputs and suggestions from the Committee.

7. Countries and partners are encouraged to actively engage in and support the observance of this auspicious international year. IYAFA presents an opportunity to promote the sustainable development of small-scale fisheries and aquaculture food systems; enhance global awareness about, understanding of, and action to support the contribution of small-scale fisheries and aquaculture to the global fisheries sector; and promote dialogue and collaboration between and among small-scale fishers, fish farmers, fish workers, governments and other key partners. These efforts will further contribute to sustainable development of small-scale fisheries and aquaculture and achievement of the Sustainable Development Goals (SDGs).

8. A summary of preparations to date for IYAFA 2022 and the draft planning roadmap are included in session information document COFI/2020/Inf.12.2 (Draft planning roadmap for the International Year of Artisanal Fisheries and Aquaculture 2022).

Source: Supporting Small-Scale and Artisanal Fisheries, Committee on Fisheries Thirty-fourth Session, 1–5 February 2021, Rome, Italy
<http://www.fao.org/3/ne712en/ne712en.pdf>

INFOLOG: NEW RESOURCES AT ICSF

Publications

The Human Relationship with Our Ocean Planet by Edward H. Allison, John Kurien and Yoshitaka Ota

<https://oceanpanel.org/sites/default/files/2020-09/Human%20Relationship%20with%20Our%20Ocean%20Planet%20Final.pdf>
By enhancing humanity's relationship with the ocean, bridging ocean health and wealth, working with diverse stakeholders and harnessing the latest knowledge, the Ocean Panel aims to facilitate a better, more resilient future for people and the planet.

Cast Out: The Systematic Exclusion of the KwaZulu Natal Subsistence Fishers from the Fishing Rights Regime in South Africa, by Jackie Sunde and Kira Erwin

https://static.pmg.org.za/201027Cast_Out_Policy_Document-2020.pdf

This report illustrates a process of systematic exclusion from the legal and policy regime for Durban fishers, who view themselves as subsistence fishers but are not legally recognized as such.

Guide for the implementation of the COVID-19 prevention and mitigation protocol in shrimp fishing and peeling work at the Barra del Colorado Association of Women Fishermen and Processors by ILO

https://www.ilo.org/sanjose/publicaciones/WCMS_764285/lang-es/index.htm

This guide is for people who work in fishing and peeling shrimp belonging to the association of women fishermen and processors of Barra del Colorado to whom the prevention and mitigation actions of COVID-19 will be directed.

My Fear is Losing Everything: The Climate Crisis and First Nations' Right to Food in Canada

<https://www.hrw.org/report/2020/10/21/my-fear-losing-everything/climate-crisis-and-first-nations-right-food-canada>

This report documents how climate change is reducing traditional food sources, driving up the cost of imported alternatives, and contributing to a growing problem of food insecurity and related negative health impacts for First Nations in Canada.

The Environmental Impacts of COVID-19: Perspectives from Fishing Communities

https://cobi.org.mx/wp-content/uploads/2020/11/COBI_Covid19-environmental-impacts-16nov20.pdf

This document suggests general strategies for the new normal in Mexico that would have to integrate environmental issues and challenges arising from the COVID-19 pandemic.

Ghost Fleet: Battling Slavery in Thailand's Seafood Industry

<https://www.aljazeera.com/program/witness/2020/12/2/ghost-fleet-battling-slavery-in-thailands-seafood-industry>

This program follows a small group of Thai activists who risk their lives on remote Indonesian islands to find justice and freedom for enslaved fishermen.

FLASHBACK

Cracking the Code for Small-scale Fisheries

Should the Code of Conduct for Responsible Fisheries (CCRF) of the Food and Agriculture Organization of the United Nations (FAO) be "opened up" to include a special Chapter on

small-scale artisanal fisheries? This was called for by the civil society organizations at the FAO's Global Conference on Small-scale Fisheries (4SSF) in October 2008. The call was reiterated by the civil society at the 28th Session of the FAO Committee on Fisheries (COFI 28).



However, several delegations to COFI 28 opposed opening up the CCRF, which, it was argued, could prove to be a "Pandora's Box". If opened up for small-scale artisanal fisheries, then why not for other interests? While there was consensus on the need to support small-scale artisanal fisheries, there was no consensus on the best way to do so.

To follow up on the mandate given by COFI, the FAO organized three regional workshops in Asia, Africa and Latin America, in October 2010. This enabled a large number of both governmental and civil society participants to provide their views on how small-scale artisanal fisheries can be best supported and enabled to fulfil their potential. All the three workshops recommended developing a new instrument, complementing the CCRF, to address small-scale and artisanal fisheries issues.

ICSF feels that there is a need for both an international instrument and a global programme. With the world gripped by concerns about overfishing, excess capacity, declining biodiversity and climate change, as well as the challenges of food insecurity and poverty, it is increasingly evident that sustainable small-scale artisanal fisheries within a human-rights framework offers the most viable solution. There is recognition today that the small-scale artisanal fisheries subsector is relatively more sustainable, energy-efficient and less destructive, even as it supports millions of livelihoods across the world, and supplies diverse populations, and particularly rural and remote populations in food-insecure regions, with a rich source of nutrition.

The potential of a new instrument to strengthen the social pillar of sustainable development and to effectively complement the CCRF within the framework of a human-rights approach was well recognized by the regional workshops. The onus is now on the 29th Session of COFI, to be held from 31 January to 4 February 2011, to respond in a manner in keeping with these recommendations. If it is not possible to open up the Code, COFI should agree to develop an instrument, along the lines of FAO's Right to Food Guidelines. This would go a long way in meeting the aspirations expressed in the 2008 civil society Bangkok Statement. We hope that COFI obliges and decides upon the most appropriate instrument for further recognizing small-scale artisanal fisheries

— from SAMUDRA Report, No.57, November, 2010

ANNOUNCEMENTS

MEETINGS

Thirty-fourth Session of the Committee on Fisheries (COFI), 1-5 February 2021, Rome, Italy
<http://www.fao.org/about/meetings/cofi/en/>

World Aquaculture and Fisheries Conference (WAC 2021), 19-20 May 2021
<https://www.worldaquacultureconference.com/>

World Fisheries Congress, 20-24 September 2021, Adelaide, Australia
<https://wfc2020.com.au/>

109th Session of the International Labour Conference, 7-18 June 2021
<https://www.ilo.org/ilc/ILCSessions/109/lang-en/index.htm>

MARE Conference People & the Sea XI, 28 June to 2 July 2021
<https://www.msp-platform.eu/events/mare-conference-people-sea-xi>

WEBSITES

Seafood Risk Assessment
<https://seafoodriskassessment.hk/>
Sustainable seafood is increasing in popularity around the world, yet much of the seafood popular in Asia

has not been assessed in terms of its sustainability. Over time, the Seafood Risk Assessment site aims to gradually fill that gap, by providing sustainability assessments of seafood for the Hong Kong market thereby ensuring that consumers have access to the sustainable seafood of their choice.

Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication
<http://www.fao.org/voluntary-guidelines-small-scale-fisheries/en/>

This website is about the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines). What makes the SSF Guidelines stand out is that they go beyond fisheries and highlight the rights of fishers and fishworkers. In sum, they are about people, not just about fish. The SSF Guidelines are aimed at all actors striving to secure sustainable small-scale fisheries, to end hunger and poverty, and strengthen human rights. They are a tool to guide dialogue, policy processes, and action at all levels, from local communities to global fora.

A Many-sided Munificence

A seminar discussed how the SSF Guidelines can help improve the management of a fish species in the Amazon rainforest territory

The fisheries in Brazil's state of Amazonas range from a multiplicity of fishing practices to a diversity of conflicts and realities. How indigenous fishers of varying ethnicities see their sector is not very well known. This emerged in fine detail in a seminar on indigenous fisheries in Amazonas and the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of

do Indio (FUNAI), the official Brazilian indigenist organ.

According to research conducted in 2016, the community-based management of the pirarucu has brought several social, economic and cultural benefits, such as local income generation, valorization of indigenous cultures, growing 'pride' in the community and the strengthening of indigenous villages. The authors of the study concluded that the management of the pirarucu is a rare window of opportunity that can harmonize the goals of sustainable management of natural resources with the reduction of poverty. The previous stock of the pirarucu increased by 427 per cent in the managed areas of the Mamiraua Sustainable Development Reserve, according to the Mamiraua Institute for Sustainable Development.

"The management of the pirarucu is an example of citizenship," said Ana Claudia Torres, fishery coordinator of the Mamiraua Institute, in an interview during the March 2019 seminar. "It started small, with just 42 fishermen who believed it was possible to work with a resource that was in a state of scarcity and to have this resource in abundance again by reexploring it through a sustainable perspective. When I see this sort of management being more adopted every day as a model that aggregates other values such as health, education and basic rights of the population, this reinforces even more the idea that management is an example of citizenship. Management has power; it's just one aspect of the whole, but through it we can discuss other things."

Relationships

Reports presented at the seminar showed how the renewed system

46 ...the community-based management of the pirarucu has brought several social, economic and cultural benefits...

Food Security and Poverty Eradication (SSF Guidelines); it was held on March 27-28, 2019. Participants spoke about conflicts, demands and opportunities in their territories. The subject that drew the maximum interest was the fishing management of the pirarucu species (*Arapaima gigas*, also known as the Amazon codfish). Its flesh has a soft flavour and it is as big as a codfish. It grows fast; a specimen can reach a weight of up to 250 kg and up to three metres in length.

The pirarucu's community-based management began in 1999 in the region of Tefe, in the middle of the Solimoes river, with the riverine communities. The Mamiraua Institute for Sustainable Development provided the technical support. Since then, the indigenous communities of the Deni, Paumari, Kokama, Tikuna and Kambeba ethnicities have developed their own management strategies, with the support of the non-governmental organization (NGO) Operação Amazonia Nativa (OPAN) and Fundacao Nacional

This article is by ICSF Member **Ana Paula Rainho** (rainho.anap@gmail.com) and **Lorena França** (alorenafranca@gmail.com), both PhD students in anthropology at the Santa Catarina Federal University (UFSC), Brazil; **Beatriz Mesquita** (mesquitabia@hotmail.com), also an ICSF Member and a SSF researcher in the Joaquim Nabuco Foundation, Recife-PE, Brazil; and **Dafne Spolti** (dafne@amazonianativa.org.br), a journalist at Operação Amazônia Nativa, Brazil



The 'Seminar on Indigenous Fisheries in Amazonas and Guidelines for Securing Sustainable Small-scale Fisheries' was held on 27 and 28 March 2019, in Manaus. The event was attended by 25 indigenous fishermen from 16 ethnic groups

of management of the pirarucu transformed relationships within the territory, allowing the community to exercise control over its lands, lakes, rivers and the fishing resources. This happened through the implementation of a system of vigilance, monitoring and care of these indigenous lands, rivers and lakes. The system also prevents the invasion of illegal fishermen and loggers into their lands. In the words of Rose from the Bare ethnic group: "Management makes possible guaranteeing our territory, especially when our lands have not yet been demarcated." Many indigenous communities do not have their lands demarcated; the new management of the pirarucu can strengthen the struggle for tenure rights.

The changes have also brought benefits to indigenous women, bringing up and promoting gender discussions. Women are present at all stages of fisheries management, from development and decision making, to monitoring and surveillance of the territory. To further encourage women's participation in the management of the pirarucu, the Mamiraua Institute has initiated the Edna Alencar Prize:

It rewards management projects involving incentives, recognition and the effective participation of women in their activities. During the seminar, Dione of the Apurina ethnic group said: "Management changes women's lives."

The seminar revealed how the pirarucu's management puts the SSF Guidelines into practice by meeting all the objectives: Improving the socio-economic status of indigenous fishers, securing the sustainability of the pirarucu fishery, and contributing to artisanal fisheries food security and to an economically, socially and environmentally sustainable future. In the words of the Bare leader Sandra Gomes: "The indigenous peoples were already implementing the SSF Guidelines but because we were not aware of them, we did not know that we were doing that all along."

Institutional level

In this regard, the implementation of the SSF Guidelines in Brazil does not necessarily need to be done exclusively through laws at an institutional level. How many practices performed by indigenous communities can have parallels with the premises of the SSF

Guidelines? This can be found out through the implementation of the SSF Guidelines in the Brazilian Amazon rainforest through an approach of indigenous communities; this will help better understand their demands, their practices and their struggles. This will make it possible to learn other practices that will help push the SSF Guidelines into action, all the while respecting the different cultures and their traditional practices in the process. As a result, the community governance processes should permeate formal instances until these get institutionalized as legislation.

Starting at the local level, the SSF Guidelines help dealing with a great challenge: the extension of the Brazilian territory. The Brazilian Amazon rainforest territory extends over 5 million sq km, covering eight states. In Brazil, fishery policies are implemented at the federal level and are applied in all regions of the country, each with its own peculiarities. The problem is that implementation exclusively at the federal level makes it difficult to fathom and incorporate the realities of ethnic diversity in the vast expanse of the Brazilian territory. It isn't that there is no need for policies at the federal level; rather what's needed is a broader perception of the local level. The local level also enables decision making on a community basis and encourages the decentralization of power.

The implementation of the SSF Guidelines can also give visibility to the practices of the indigenous communities, like the pirarucu fishery management. Despite the positive results brought about by the management of the pirarucu, there is not enough investment from the federal and state governments in some of the Amazonian lakes. The lack of funds is another challenge facing the country in implementing fishery management policies and the SSF Guidelines. However, increased visibility of indigenous practices on a larger scale during the implementation of the SSF Guidelines will make it possible to allocate resources to these practices.

Recommendations

The SSF Guidelines could also strengthen the struggle of tenure rights

that several indigenous communities are facing at this very moment. According to the SSF Guidelines, small-scale fishing communities need secure tenure rights over the resources that form the basis of their social and cultural well being. The defence of tenure rights is an urgent demand of the indigenous communities. This call in the SSF Guidelines opens a great window of opportunity for indigenous communities in the struggle for their basic rights that are often denied in Brazil. The authors of a book titled *The Small-Scale Fisheries Guidelines: Global Implementation* mention that the SSF Guidelines are an important moral support for the causes of indigenous peoples in securing sustainable fisheries, especially when their tenure rights are under siege.

The indigenous participants at the seminar noticed this opportunity and showed great interest in the SSF Guidelines. As a concluding recommendation, they proposed more seminars to inform other indigenous communities about the SSF Guidelines, so as to strengthen the dialogue. This is a great opportunity because it is the indigenous people who need to be the main beneficiaries of the implementation of the SSF Guidelines in the Brazilian Amazon and their participation is fundamental for the process to be successful. 3

For more

Seminar on Indigenous Fisheries in the state of Amazonas and the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines), which was held on 27 and 28 March 2019

<https://igsf.icsf.net/en/page/1082-Brazil.html>

Brazil: Kickoff Time

<https://igsf.icsf.net/en/samudra/article/EN/81-4392-Kickoff-Time.html>

Operação Amazônia Nativa (OPAN)

<https://amazonianativa.org.br/>

Indigenous Fisheries in Amazon

https://www.youtube.com/watch?v=pGFxr2ly_Wc

Woes Compounded

One year after an oil spill hit Brazil's Discovery Coast, the COVID-19 pandemic has worsened the lot of indigenous fishing communities

The biggest oil spill disaster in Brazil began in late September 2019. It extended along the coast, affecting 11 states, nine along the Northeast Atlantic and two along the Southeast Atlantic. About 3,000 km of the coastline was affected. The oil slick spread over beaches, mangroves and rivers, and reached also marine protected areas (MPAs) such as the Abrolhos National Park, one of the main coral banks and cradles of marine biodiversity in the South Atlantic.

5,000 tonnes of crude oil residues have been removed from beaches, coral reefs and mangroves. Most of this removal was possible thanks to the action of civil society volunteers—fishers, local communities and non-governmental organizations—along with city halls and government environmental agencies, who, even without adequate equipment, did the necessary work. There were several local initiatives, without initial central co-ordination, which hampered the actions.

The negative impact caused by the oil spill goes beyond the lasting environmental contamination of water and mangroves, putting at risk the life of birds, fish and corals, apart from the people who were exposed to the oil during the removal. There is also the socioeconomic impact, for example, on the tourism and trade value chains that mainly are focused on the region's fishing resources. It goes from those who manufacture fishing gear to the restaurants that buy the fish, significantly reducing income up and down the chain, from the fishing communities to the ultimate consumer.

The oil spill hit the Bahia state's southern coast just before the beginning of the high season in the summer, when profits should be higher. However, the opposite occurred and fishers made little money in the season; they depend on the fish trade for income to buy other items of daily sustenance, among other demands.

Demand reduction

The arrival of the COVID-19 pandemic in March 2020 reduced the demand for fish drastically, aggravating the socioeconomic consequences of the oil spill. The requirements of social

There was no income for 60 per cent of the respondents during the period of the oil spill.

The Brazilian government was criticized for the delay in taking action to contain the arrival of oil on the coast, as also for showing low commitment towards affected communities. The federal government has the responsibility of co-ordinating the response to sea oil spill cases. The National Contingency Plan (Decree 8127/2013) is the instrument for oil pollution risk management, falling under national jurisdiction. It determines the responsibilities of public and private entities in the event of a spill. The plan is supposed to be executed by a council chaired by the ministry of the environment. In Brazil, councils that were not created by law, like this one, were extinguished by Decree 9.759 of 2019. Thus, its involvement was not properly triggered.

Despite the poor co-ordination of the federal government, more than

*This article is by **Beatriz Mesquita** (mesquitabia@hotmail.com), ICSF Member and a SSF researcher in the Joaquim Nabuco Foundation, Recife-PE, Brazil and **Juliana Giusti** (juliana.vmelo@gmail.com), Fellow Research, Joaquim Nabuco Foundation, Brazil*

BEATRIZ MESQUITA



Oil on a beach in the Brazil Northeast, October 2019. Most of this removal was possible thanks to the action of civil society volunteers—fishers, local communities and non-governmental organizations—along with city halls and government environmental agencies

33

isolation hit the tourism sector that is intrinsically linked with beaches and seafood in this coastal region of the northeast. This further affected the income of families dependent on fisheries.

To gauge the impact of this disaster among the Bahia state fishing communities, a field survey was conducted a year later with fishers who encountered oil in 2019. A total of 40 fishers and shellfish gatherers were interviewed, half of them women, from three fishing communities in the municipalities of Porto Seguro and Prado, where the Corumbau Marine Extractive Reserve (Resex) is also located. Resex is a special Brazilian type of MPA that has territorial protection as an objective, besides conservation.

This region is called the Discovery Coast because the Portuguese arrived here first in the year 1500. It has indigenous communities that practice extractivism—fishing and hunting—at a subsistence level, though they also sell the surplus. In 1805, the *Pataxós* ethnic group began to concentrate in an area near Monte Pascoal. In 1861, they lived in a village called Barra Velha,

along with other indigenous groups: *botocudos*, *maxacalis* and *camacãs*. Further, in 1960, when the Monte Pascoal National Park (a protected area) was created, laws prevented the *Pataxós* from cultivating land in the territory. Living in the surroundings made them vulnerable to colonization processes. This changed both their way of working the land and its relationship with the environment, leading to the development of cocoa crops for export, and cattle rearing—practices unfamiliar to the *Pataxó*. The traditional practices of subsistence agriculture and fishing are still around, however, surviving through oral traditions.

Can the oil spill be seen as another impact of capitalist colonization? Are these communities paying the heavy price of progress? Or is it the price of their ‘backwardness’? This disaster has, no doubt, multiplied the injustices of the past: pollution, real estate speculation, monocultures and mass tourism, among others.

Oil spill damage

Of the survey respondents, 85 per cent said fishing is their main activity, in

BEATRIZ MESQUITA



34

Location of the municipalities of Porto Seguro and Prado in Bahia, Brazil. To gauge the impact of the 2019 oil spill among the state's fishing communities, a field survey of fishers in these municipalities was conducted a year later.

addition to tourism and handicrafts; 60 per cent were of Pataxó ethnicity; and 55 per cent had a government fishing register. As many as 95 per cent of the respondents said the oil spill damaged their fishing areas. A minority of respondents said the spill did not damage fishing areas, while 97.5 per cent said they stopped their regular fishing activities due to the oil spill.

A fisher who beach-trawled for seabob shrimp on the shore where the oil stains hit described the plight: "Our arms were in constant contact with the oil stain. Sometimes we would forget and touch our face with the hand, causing itching and irritation. There, at the mangrove forest, we removed the oil with our hands as we grabbed nets, handing it over to another person who put it in a bucket. The oil would cling to the mangrove roots, and the mud was full of oil and the crabs were all dead."

There was no income for 60 per cent of the respondents during the period of the oil spill. The remaining 40 per cent saw their income drop 50-70 per cent. Further aggravation ensued with the arrival of the COVID-19 pandemic, continuing to this day: Communication between fishers was reduced to zero since the meetings at the 'fishers associations' were cancelled. The pandemic brought disarticulation of the fishing community at a time when greater organization and unity was required to repair the damage.

Moreover, the Resex Council is the only governmental body where fishers have a representative and participate in decisionmaking related to their territory. It brings together all stakeholders from civil society and government for deliberation. The body has not met for more than a year due to a lack of access to an Internet connection or mobile devices for remote meetings.

Fishing activity

Last but not least, the locality was hosting tourists during the summer holiday months of January-February 2021, the period of the study. Despite the pandemic, there were signs of fishing activity and the tourists were consuming fish. Not all visitors were following World Health Organization recommendations like using face masks. External visitors have been the main vectors of the coronavirus for traditional communities in Brazil.

In general, municipalities that specialize in fishing are small, score poorly on the human development index (HDI), have low-income concentrations, high illiteracy rates, foster people with a reduced education level, have high infant mortality rates, a high dependency ratio, and limited health infrastructure. Communities with active tourism do not reflect the reality of the fisher community because the HDI indicators get masked. The unreliability of the data became apparent when the fishers' association president said that the city halls underreported the weight of oil sludge collected by volunteers; this was aimed at not driving away the tourists because the oil spill occurred during the peak tourism season.

In the course of the study, 75 per cent of fishers and shellfish gatherers said their income from fishing had recovered to what it was before the oil spill. Nevertheless, the country resumed strong restrictions and went back to the lockdown in March 2021 due to increasing cases and deaths from COVID-19. This had again reduced fish trade and tourism activity. This oil spill case demonstrates the resilience of traditional peoples and the environment in which they live, but the real impacts on the environment and the fauna will be known clearly only after studies are carried out to understand the true consequences of the disaster. That will open the doors to compensation and, most importantly, the means to prevent future disasters.

The communities continue to demand meetings to monitor active projects, such as a project approved by the state government to obtain salvage equipment for receiving tourists

on boats, as also the acquisition of beneficial equipment such as fishing nets, hooks and long lines. "After removing the oil, even the local fishers' associations got closed," said a fisher. "We had no more meetings, not even council meetings. This pandemic stopped everything. It has been like this for over a year now. Everything got slower. When we demand something, it takes a long time to get addressed."

This oil spill case demonstrates the resilience of traditional peoples and the environment in which they live...

The federal government suspended the investigation of the oil spill in March 2020, without any conclusions on how the disaster occurred. The fishers are frustrated by the lack of resolution of the tragedy. The causes remain unknown; lots of questions are begging for answers, including the matter of compensation for those affected. There is also the need to continuously monitor the environment and the health of the fish.

Digital inclusion

The affected communities need digital inclusion to make possible their communication and meetings. Only then will participatory decisionmaking and real democracy be possible for these communities.

For more



An Unsolved Case

https://www.icsf.net/images/samudra/pdf/english/issue_82/4408_art_Sam_82_art04_Brazil_Cristiano.pdf

A Many-sided Munificence

https://www.icsf.net/images/samudra/pdf/english/issue_84/4493_art_Sam_84_art12_Brazil_Ana_Paula_Rainho.pdf

Uniting for Change

https://www.icsf.net/images/samudra/pdf/english/issue_58/3571_art_sam58_art08.pdf

Staking Claims

https://www.icsf.net/images/samudra/pdf/english/issue_62/3743_art_Sam62_eng-art02.pdf

Ear to the Ground

How can spaces for dialogue between small-scale fisheries social movements, policymakers and scientists be revived when they remain unlinked in local policy and management?

The COVID-19 pandemic has tested the resilience of increasingly interconnected food systems and actors across the world. During this time, even as hunger increased significantly—including in rural areas of Brazil—the traditional practices of food production and sharing have secured the intake of nutrition among local communities. This, in the International Year of Artisanal Fisheries and Aquaculture (IYAFA 2022), is a chance to recognize the important role of small-scale fisheries (SSF) in food security and socioeconomic wellbeing.

The Food and Agriculture Organization of the United Nations (FAO) has identified seven ‘pillars’ or principles to guide actions in support of SSF communities as part of a Global Action Plan for governments, civil society and other stakeholders: environmental, economic and social sustainability; governance; gender equality and equity; food security and nutrition; and resilience. But the severe disconnect between fisheries social movements, science and policy presents major challenges to the strength of these pillars.

In Brazil, the pandemic somehow enhanced the interface between social movements and scientists in some cases, for example, in building solidarity networks, online debates, and observatories to address COVID-19 impacts on communities. Learning from such examples may help us collaboratively adapt to this unprecedented shock.

However, two factors threaten the future of fisheries livelihoods and the sector’s contributions to food security: overfishing and poor fisheries management, and the failure to establish mechanisms to ensure environmental justice for fishing

communities. In joint programmes between social movements and scientists, there is often a hidden tension between the need to protect fishing communities and to conserve biodiversity. But these actors recognize that novel governance arrangements are needed. It is also clear that investments of financial, social and intellectual capital are critical to meet those challenges.

This is where top-down approaches and institutions need to interact and co-operate with decentralized, community-based and self-organized mechanisms in small-scale fisheries. Brazil used to be at the forefront of community-based alternatives that encouraged local communities to be stewards of the environment and their territories. Can we recreate those

In joint programmes between social movements and scientists, there is often a hidden tension between the need to protect fishing communities and to conserve biodiversity

spaces of dialogue and co-operation, at the interface between science, policy and social movements, which seem to have failed?

There may be differing views as to whether such dialogue should be initiated at the top or from the bottom. In any case, we have an immediate collective goal to revive the conversation. There have been some successes, such as the endorsement of the FAO Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (the SSF Guidelines). Despite Brazil’s engagement in this process, and

*This article is by **Maria A. (Mary) Gasalla** (mgasalla@usp.br), a Professor of the University of Sao Paulo (USP), and Head of the Fisheries Ecosystems Laboratory (LabPesq/Oceanographic Institute)*

TEDD SANTANA



48

A fisherman rows to his boat at the mouth of the São Mateus River in Espírito Santo. Brazil used to be at the forefront of community-based alternatives that encouraged local communities to be stewards of the environment and their territories

sustained advocacy by civil society for its implementation, we are not taking advantage of the relationships between social movements, scientists and fisheries authorities—and momentum built over this period. Nevertheless, the process contributed to strengthen social movements, aided by scientific forums that tried to promote such integration.

What is clear is that we need to do our ‘homework’ at the national level by formulating our vision for small-scale fisheries policy and management. What is the use in fishers and fishworkers participating in more international discussions if there is no internal debate? Part of that homework is to participate in fisheries management councils; but it is also important to discuss why implementation is still at an impasse eight years after the SSF Guidelines were endorsed.

IYAFA 2022 presents a rare opportunity to start this internal debate about the needs and priorities of Brazil’s small-scale fisheries. The roadmap will

need to focus on all seven pillars that support SSF. Spaces of dialogue cannot be allowed to fail if we are to have policies that promote the resilience of the sector and of fishing communities. They will also help us prepare for future shocks, including those anticipated due to climate change.

The urgent task of initiating that dialogue at the national level cannot be swept under the carpet. The celebration may be global, but change has to begin at home. Let’s turn this international year into a local opportunity. **3**

For more



The vital role of aquatic foods in food systems transformation

https://prceu.usp.br/wp-content/uploads/2021/11/E-book_Poli%CC%81ticas-Pu%CC%81blicas-para-o-Combate-a%CC%80-Fome.pdf

Revealing small-scale fisheries

http://labpesq.io.usp.br/images/publicacoes/Livreto_pesca_Gasalla.pdf

A Script for Success

A group of Indigenous Peoples of the Western Brazilian Amazon have organized themselves around biodiversity conservation

The Paumari people of the Tapaua River are known as the ‘water people’. They belong to the Arawa linguistic family of the Western Brazilian Amazon, traditionally inhabiting rivers and lakes. Fishing is their strongest social and cultural representation. The Paumari’s aquatic skills have long been described in the literature, including their voracious spirit for water, fishing, catching turtles and manatees. Fishing is the basis of the Paumari people’s sustenance and self-reliance.

Historically, they inhabited the floodplains of the Purus river and its tributaries. They were also known as the ‘Purus nomads’ due to their navigational mobility in the middle stretch of the river and its tributaries. Their traditional dwellings, built atop rafts and sailing rafts, are called flutuantes.

The Paumari is among the few groups of Indigenous Peoples of the middle Purus river who managed to survive Brazil’s rubber booms without armed confrontations. The booms devastated other Amazonian peoples of the Purus in the mid-19th century. And in 1998, the Brazilian government demarcated the Paumari’s three Indigenous Lands (ILs) on the Tapaua River: Paumari ILs of Lake Manissua, Lake Parica and Lake Cuniua.

Commercial fishing stands out among the countless impacts of the non-indigenous world on the Paumari; artisanal small-scale fishing is intrinsic to their culture. But the informal trade system has pushed them deeper into exploitative relationships. The Paumari supplied their regional fish and other products to the Amazon’s urban centres. That, in turn, depleted their territorial fish stocks and jeopardized their food security.

By 2008 the Paumari were willing to upturn the predatory trade practices. They sought territorial management autonomy and asserted their rights. As part of this, they began to prepare the Territorial and Environmental Management Plan (TEMP); it was designed to sustainably manage the pirarucu fish (*Arapaima gigas*).

The underlining principle was environmental conservation. It required the community to organize itself. They also strengthened territorial surveillance in the following years. Such efforts have combined to increase the pirarucu stocks in the ILs by 631 percent over the past 15 years. It has been consolidated as a successful experience in productive areas due to good practices and investments in infrastructure to guarantee the quality of the fish.

The Paumari culture is traditionally closely related to fishing and aquatic environments. All the work that promoted the paradigm shift and a leap in socio-environmental development for the people evolved through pirarucu management. It leveraged social organization and the generation and distribution of income. The traditional capacity for social organization led them to create in 2019 the Indigenous Association of the People of the Waters (AIPA for Associação Indígena do Povo das Águas), providing them formal representation before the Brazilian government, expanding their capacity to act inside and outside the ILs.

The SSF Guidelines

Considering their values and their campaign, the International Collective in Support of Fishworkers (ICSF) stepped in to support the Paumari in 2022. In partnership with AIPA and the Operação Amazônia Nativa (OPAN), ICSF invited the Paumari to strengthen their campaign

Operacao Amazonia Nativa (OPAN)

OPAN is Brazil's first indigenist organization. For 52 years, it has worked to strengthen indigenous leadership in various locations among people facing multiple challenges. It values the indigenous cultures and models of social organization, encouraging them by training people on autonomous and sustainable management practices for their territories and natural resources. OPAN operates in the states of Mato Grosso and Amazonas. Since 2008, it has worked continuously with the Paumari people of the Tapaua River, supporting them in strengthening their territorial management and implementing sustainable management of pirarucu.

by implementing the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (the SSF Guidelines). It aimed to engage the youth to value traditional fishing by discussing the relationship between the SSF Guidelines, traditional fishing and the Paumari culture.

The training was held in the second half of 2022; it focused on instructing five Paumari in the 14-22 age group on audio-visual edu-communication. They produced audio-visual content related to the implementation of the SSF Guidelines and the Paumari culture. The training moved in three stages, two

of which were in-person and one was inter-modal.

The first stage introduced basic knowledge of equipment, terminology and planning for image collection. The inter-modal stage involved capturing images and sounds in the ILS, following the script established in the first workshop. The images were selected in the second in-person stage, after which began the editing. A professional technical team finalized the process later.

The training created an atmosphere for the young people to build awareness of concepts and practices related to planning activities, creating

ANA CATARINA / OPAN



The Paumari, Brazil. The Paumari is among the few groups of Indigenous Peoples of the middle Purus river who managed to survive Brazil's rubber booms without armed confrontations

ADRIANO GAMBARINI / OPAN



The Paumari fishermen traditionally practice bow fishing, dive for turtles, and use harpoons for fish and manatees

needs, difficulties and challenges. Strengthening the youth is essential for the Paumari communities' continuity and development. They are now participating considerably more in management work such as territorial surveillance and pirarucu inventory and fishing.

The youth are noticeably interested in online tools and social media. The Internet is more present in the communities' daily lives today. However, it is still new to them and they lack experience; the Internet often leads to weaker perceptions of their own world and of Brazil's political and social contexts. This highlights the need to enable dialogue to help understand audio-visual and internet communication tools.

A documentary film is the final product of the training and shows how the young underwent such a process. They posed their questions to delineate the Paumari fishing culture of the past and the present, addressing the social organization for the struggle for human rights within the Paumari ILS of the Tapaua River.

Collective fishing is a means for indigenous peoples in Brazil to fight to stay within the ILS and secure their rights. Indigenous populations are highly vulnerable and protecting their territories require complex strategies. Communication has also been identified as a powerful tool to equip the younger generation for the challenges that lie ahead. 3

an understanding of both individual and collective responsibilities. It also provided an opportunity for them to understand the elementary principles of audio-visual and cinematic terminology. Bringing new forms to document old practices also gave them a sense of pride in their customs.

The Paumari traditionally practice bow fishing, they dive for turtles, and use harpoons for fish and manatees. They also use nylon gill-nets incorporated from the non-indigenous world, depending on the interests and needs of the people.

Pirarucu management follows an annual schedule. It involves men, women and the young engaging in territorial surveillance, meetings and fishing activity. The principles taught during the sessions are already a noticeable part of the Paumari people of Tapaua. That training allowed the value of the Paumari people's culture and pirarucu handling to be seen, especially by the youth, who now face the great challenge of rural exodus. Paumari youth have increasingly seen the exodus as an alternative to a life in their region; many have left the territory in search of education and financial resources.

AIPA addresses everyone's present needs. It's devised strategies to increasingly involve young people in activities; it understands their

For more



The importance of Fisheries Management, Purus River, Labrea, State of Amazonas, Brazil

<https://www.youtube.com/watch?v=SeYuCqYY4B8>

Operação Amazônia Nativa (OPAN): OPAN

www.amazonianativa.org.br

Caught in the Deluge

The extreme flooding in South Brazil highlighted the vulnerability of small-scale fishers to climate-induced disasters

Rio Grande do Sul in Brazil suffered extreme flooding in the months of May and June of 2024. It has severely disrupted the livelihood of small-scale fishers who depend on the region's aquatic ecosystems (see Table 1). The flooding, driven by unprecedented climate change-induced rainfall, affected thousands of people and caused 147 deaths. It devastated infrastructure, including shops, factories, farms and essential services like transportation and electricity.

Record-breaking rainfall raised river and lagoon levels, particularly impacting Patos Lagoon, Brazil's largest coastal lagoon and a critical area for biodiversity and fisheries. The influx of freshwater from inland watersheds disrupted the saline balance, essential for species like shrimp. The sudden floods, following another major flood in 2023, exposed the need for better disaster preparedness and response.

This article reviews recent news and official data on the disaster in South Brazil. It includes insights from two leaders of artisanal fishing coastal communities in South and Northeast Brazil (see Table 1), who have also faced major floods. We identify key challenges, focusing on social, economic and environmental impacts on small-scale fishers. Additionally, we examine responses from support organizations and propose effective policy options. Our goal is to raise awareness to advocate for small-scale fisherfolk worldwide who are facing climate impacts.

The floods have displaced thousands, creating climate refugees and causing a humanitarian crisis. Many have lost their homes and face prolonged periods in temporary shelters, with uncertain futures.

The psychological and social toll is immense, with families separated and livelihoods lost. Returning residents find homes filled with mud, dead animals and ruined possessions. The loss of basic amenities like electricity and clean water worsens their struggle. In rural areas, destroyed homes and community infrastructure further isolate vulnerable populations, complicating recovery efforts.

The floods have amplified the existing injustice faced by traditional peoples and communities. Civil Defence data shows 450 municipalities affected, with 76,884 people in shelters, 538,545 displaced and 2,124,203

The floods have displaced thousands, creating climate refugees and causing a humanitarian crisis

impacted, overall. The disaster has left 125 missing and over 800 injured, pointing to environmental neglect and socio-political failures. Traditional communities, already facing precarious conditions and institutional racism, were particularly vulnerable.

Financial losses

Economically, the floods have closed major highways and airports, and caused widespread blackouts. The region, reliant on agriculture and fisheries, has halted economic activities, leading to significant financial losses. The artisanal and industrial fisheries sector, vital to the local economy, is severely affected. The suspension of fishing activities has led to millions in losses. Patos

This article is by Leopoldo Cavaleri Gerhardinger (leocavaleri@gmail.com) and Beatriz Mesquita Pedrosa Ferreira (beatriz.mesquita@fundaj.gov.br), members, ICSF

Table I: Interviews with artisanal fishers leaders in coastal communities increasingly affected by major floods in the Northeast (Marine Extractive Reserve of Canavieiras, Bahia state) and South (Patos Lagoon, Rio Grande do Sul state) Brazil.

<p>Lílian Santana Santos Fisherwoman from Canavieiras Marine Extractive Reserve (Bahia state, Brazil), coordinator of the Women Fisher Network from South Bahia state, and coordinator of the Mother Association of the Canavieiras Extractive Reserve.</p>	<p>Nilmar da Conceição A fisherman from the Patos Lagoon (city of Pelotas, Rio Grande do Sul state, Brazil), regional coordinator of the National Movement of Fishermen and Fisherwomen, and president of the Z3 Fishers Colony.</p>
<p>1. Could you share how your experience with the floods a few years ago was and how it impacted your life and fishing at that time? “The floods in consecutive years greatly impacted our lives. We live in a protected Extractive Reserve. Floods used to occur in normal cycles, as my grandparents and parents told us, bringing an abundance of freshwater fish. However, the floods of 2021 and 2022 were problematic, especially for us artisanal fishers. Chemicals and pesticides used in cocoa, eucalyptus, and coffee plantations contaminated our rivers during heavy rains, killing crabs, crustaceans, and fish. One example is the mussel beds, which almost disappeared due to changes in water salinity.”</p>	<p>1. How did the recent floods impact your daily fishing activities and livelihood? “We are from the Z3 Fishermen’s Colony, located in the south of Lagoa dos Patos, Pelotas, Rio Grande do Sul. There are about 13 communities like ours, totaling around 4,000 fishers and approximately 1,000 families. We experienced a flood in October 2023, and just as we were beginning to recover, another flood hit in May 2024. The impact on our fishing activities was enormous. About 70% of the community was flooded, including houses, fish markets, gear sheds, boats, and nets. This led to massive destruction of essential fishing equipment, such as freezers for preserving the fish. Fishing teams were affected, and many houses were destroyed. Our livelihood is severely threatened, and recovery will be long and difficult.”</p>
<p>2. What long-term strategies or measures were most effective in helping you and your community recover from that previous flood? “Our initial strategies included moving stranded riverine residents, family farmers, and fishers to higher ground. We organized food donation campaigns as fishers couldn’t fish due to fish die-offs and deteriorating aquatic vegetation. We distributed food baskets, hygiene products, mattresses, and blankets. For instance, we helped fishers from Curva do Leão, whose homes were flooded, and who had to build huts on the roadside. We are in dialogue with the municipality to provide subsidies and relocate these people to less vulnerable lands.”</p>	<p>2. What kind of support or assistance do you believe is most urgently needed for you and your community to recover and rebuild? “We received a lot of solidarity from society, both from within and outside the state and even from abroad, in the form of food, water, and medicine. From the government, only the army and civil defense helped us. Some NGOs, such as the National Movement of Fishermen and Fisherwomen, the Fishers Pastoral Council, and the Fisheries Council, also supported us. However, from the federal government, specifically the Ministry of Fisheries and Aquaculture, we only received food baskets. We requested two months of emergency aid in the previous flood but didn’t get a response. Now, in this second flood, we are again asking for emergency aid for the 4,000 fishers in the Lagoa dos Patos region. So far, we only have promises and media attention but no concrete benefits. We hope they fulfill the promises, but we know it’s not easy. The urgency is for the fishing families of Lagoa dos Patos. We urgently need cleaning supplies to resume fishing activities, repairs to homes, and replacement of fishing gear.”</p>
<p>3. Based on your previous experience, what recommendations would you give to fishers facing the recent flood? “My recommendation is to unite forces. Climate change is here, and its impacts will worsen. Fishers, farmers, and the entire community must seek public policies and pressure the government to create support programmes. We must relocate those living on riverbanks who are most impacted by floods and curb laws that ease pesticide use. Protecting our ecosystem and ensuring food security is essential. We should unite to seek government support, create support programmes, and pressure for the relocation of the most affected people, as well as curb the use of pesticides that harm our environment.”</p>	<p>3. What are your biggest concerns for the future of artisanal fishing in your region after this disaster? “The future is uncertain. The lagoon’s recovery will be long, with much debris, and we don’t even know what’s in the lagoon now. In October 2023, when we could have resumed fishing, we faced the first flood, and now another one has come. We urgently need material support to restart our fishing activities. The uncertainty about the continuity of artisanal fishing and the possibility of sustaining our families is a major concern. The lack of effective action from the authorities only increases this insecurity. Here is our appeal to partners, friends, and supporters: we need immediate help to overcome this challenge and ensure a future for artisanal fishing in our region.”</p>

Lagoon, supplying 30 per cent of Brazil's pink shrimp, is particularly impacted, as the operations of supply chains and markets nationwide have been disrupted. Agricultural losses are also significant, with many farmers unable to plant or harvest crops due to flooded fields. Infrastructure damage hampers transportation and logistics, compounding economic losses. The combined effects on agriculture and fisheries ripple through local businesses, reducing income and increasing poverty.

Environmentally, the floods have severely impacted ecosystems. Freshwater mixed with sewage and contaminants causes long-lasting damage to aquatic environments like Patos Lagoon. Pollutants and debris disrupt habitats, leading to potential long-term ecological damage. Estuarine ecosystems, the breeding grounds for numerous fish species, are particularly vulnerable. Contamination from urban run-off and agricultural chemicals threatens water quality and aquatic life, risking a decline in fish populations and affecting biodiversity and livelihoods.

Small-scale fishers around Patos Lagoon have been severely impacted by the floods. Boats, equipment and fishing grounds have been destroyed, halting fishing activities, especially shrimp fishing, due to disrupted salinity levels essential for shrimp larvae. This disruption during the crucial May-June season has led to significant economic losses, affecting both local and national markets.

The challenges thrown up are immense: prolonged economic hardship, loss of income, and uncertainty about the future. Many fishers cannot return home due to the destruction, and are struggling to access relief and support. The psychological toll is severe, as fears arise about the future of their profession. Fishing communities face the loss of essential gear and infrastructure like piers and storage facilities. Replacing these assets is costly, more so due to the immediate income loss. Contaminated fishing grounds also raise safety and marketability concerns, complicating economic recovery.

The Solidarity Network in Defense of Artisanal Fisheries in the Pampa Biome, along with other organizations, has requested a meeting with government representatives to discuss the impacts of the floods and assess possible federal assistance. The network stresses the importance of this hearing for the government to understand the dire situation, which ranges from income loss to community flooding and devastation. They aim to prevent a repeat of 2023, when artisanal fishing communities were left without assistance despite several reports on the impacts. However, as of 10 June 2024, the meeting has not taken place.

Fisher leaders emphasize the disconnect between political proclamations and tangible support, highlighting unfulfilled promises and the vulnerability of communities. They stress the need for genuine empathy, effective public policies and unity among affected communities. Floods are intensifying along Brazil's coast. Before Rio Grande do Sul, another artisanal fishing community in the Canavieiras Extractive Reserve (Resex) in Bahia was affected in 2022.

Local fishers and community organizations are proactively seeking support and implementing strategies to cope with the disaster's effects. These efforts include emergency relief and rebuilding initiatives, though gaps remain. Community leaders call for immediate financial assistance, essential supplies and long-term recovery plans. Organizations like the Landless Workers' Movement (MST) are instrumental in providing immediate relief, distributing food, water and other necessities, and advocating for government support and policy changes to address the root causes of such disasters.

Disaster relief

Various governmental and non-governmental organizations have mobilized to assist in disaster relief. The Ministry of Fisheries and Aquaculture and other entities are delivering emergency food parcels but these interventions are not enough. More substantial and co-ordinated efforts

are needed to address both immediate and long-term needs. Government responses include the Plano Rio Grande, a state initiative focusing on short-term social assistance, medium-term infrastructure rebuilding, and long-term economic development. Despite these efforts, many affected individuals report delays and bureaucratic hurdles in accessing aid, highlighting the need for streamlined and efficient disaster-response mechanisms.

There is no data on water quality yet, but the fishery will likely take more time to recover from the environmental impacts. Research and monitoring are needed in the mid- and long-term periods. Immediate relief measures should provide financial aid, rebuild infrastructure and meet the basic needs of the affected communities. They should include direct financial support for replacing lost equipment and covering living expenses. Emergency funds should rebuild critical infrastructure like piers and storage facilities to enable fishers to resume activities. Notably, the Brazilian government has not set aside any emergency fund for fishery impacts.

Short-term relief should include psychological support for affected individuals, including addressing mental health. Temporary shelters need upgrading for better living conditions, and efforts should focus on reuniting displaced families and restoring community cohesion. Capacity building, community-based resource management, and improved disaster preparedness are crucial. Fishers need to be trained on sustainable practices, developing early warning systems, and enhancing local disaster-response capabilities. Education and training can build community resilience to future disasters.

Mid-term strategies should focus on diversifying income sources for fishing communities, and reducing reliance on a single economic activity. This could involve promoting small-scale aquaculture, community-based tourism and other complementary activities to provide alternative livelihoods during crises.

Policies for climate change adaptation and resilience must be

integrated into fisheries management. This involves creating sustainable fisheries management plans that consider climate risks, promote alternative livelihoods, and invest in research to monitor and respond to environmental changes. Governments should work with local communities to develop policies that enhance the fisheries' resilience to climate impacts.

Long-term nature-based adaptations should include restoring and protecting natural habitats like mangroves and wetlands, which can buffer against flooding. Investments in infrastructure that can withstand extreme weather events, such as elevated buildings and flood-resistant roads, are essential for coastal community sustainability.

The community-led approaches should be integrated into adaptation strategies. Empowering local fishers to participate actively in decision-making processes ensures that their traditional knowledge and practices are respected and incorporated into climate resilience plans.

The extreme flooding in Rio Grande do Sul highlights the vulnerability of small-scale fishers in South Brazil to disasters induced by climate change. The profound social, economic, and environmental impacts require urgent, co-ordinated action from the government, NGOs and the international community. Integrating climate change policies with sustainable fisheries management is essential to enhance resilience and ensure the long-term viability of small-scale fisheries. This approach emphasizes unity, advocacy and policy change to address the challenges faced by artisanal fishers and the broader community. 

For more

Lula announces aid for Rio Grande do Sul flood victims

<https://brazilian.report/power/2024/05/15/lula-announces-aid-for-rio-grande-do-sul-flood-victims/>

Suspensão da Pesca Causa Prejuízo Milionário no Sul do RS. G1 Jornal Nacional, May 29, 2024. Accessed June 7, 2024.

<https://g1.globo.com/jornal-nacional/noticia/2024/05/29/suspensao-da-pesca-causa-prejuizo-milionario-no-sul-do-rs.ghtml>

Chuvas Extremas no Rio Grande do Sul Afetarão Safra da Tainha em SC, Alerta Pesquisador. NSC Total, June 2024. Accessed June 7, 2024.

<https://www.nsctotal.com.br/noticias/chuvas-extremas-no-rio-grande-do-sul-afetarao-safra-da-tainha-em-sc-alerta-pesquisador>

Vilela, Pedro Rafael. Em Pelotas, Pescadores Temem Crise Prolongada na Atividade Econômica. Agência Brasil, May 28, 2024. Accessed June 7, 2024.

<https://agenciabrasil.etc.com.br/geral/noticia/2024-05/em-pelotas-pescadores-temem-cri-se-prolongada-na-atividade-economica>

Seeking Common Ground

Artisanal fishing communities in the Brazilian Amazon are struggling to maintain their traditional ways of life in the face of threats to tenure rights

Discussing small-scale artisanal fishing in Brazil is a major challenge, considering the immense length of the coastline and continental water systems. The activity is a combination of numerous and complex characteristics, based on regions, biomes, landscapes and their people; then there are cultural, social, political and economic aspects. Even with this enormous diversity, common conditions, transformations and challenges emerge in the contemporary context. Several groups of Brazilian artisanal fishermen and fisherwomen struggle to maintain and reproduce their traditional ways of life.

In the environmental context, the degradation and imbalance of ecosystems, chemical contamination and the impacts generated by large enterprises are widely known. In the social context, the pressures on the natural landscape and the health of fish stocks add to the conflicts over territories, which are associated with land issues, tourism, fully protected conservation units, real estate speculation and major infrastructure initiatives.

On the coast, local artisanal fishing communities are facing the impacts of tourism, shrimp farming, industrial fishing, salt pans, wind farms and recent oil spills. They also struggle to hold on to their traditionally occupied territories because large hotel developments and luxury condominiums move forward with the support and incentives of local and State governments. The situation is similar in continental water systems; traditional communities, Afro-descendants (Quilombolas), riverside communities and Indigenous Peoples face environmental impacts and the advance of large infrastructure enterprises, such as hydroelectric dams,

in addition to territorial pressures. Regarding fisheries legislation, there is an urgent need to revise the regulations to modernize legal instruments and ensure that they respond more appropriately to local and regional conditions, to their specific realities.

Faced with this complex and challenging scenario, we seek to understand how small-scale fishing communities can guarantee their rights to remain in their territories,

Regarding fisheries legislation, there is an urgent need to revise the regulations to modernize legal instruments and ensure that they respond more appropriately to local and regional conditions, to their specific realities

with access to fishing resources and under appropriate social and cultural conditions that allow them to care for the environment, manage resources and social development based on their understanding and autonomy. In this context, we would like to offer some observations from the Brazilian Amazon, more specifically in the State of Amazonas, where we work directly with fishing communities belonging to Indigenous Peoples and riverine and extractive communities.

Need assessment

Guaranteeing the territorial rights of Indigenous Peoples and traditional populations is a *sine qua non* for the continuation of their ways of life. The historical struggle of Indigenous Peoples for the guarantee and recognition of their territories with the demarcation of indigenous lands is an example of this challenge, which began with the colonization of Brazil and the

This article is by Felipe Rossoni (felipe@amazonianativa.org.br), project coordinator of Operação Amazônia Nativa (OPAN), and Gustavo Silveira (gustavo@amazonianativa.org.br), Technical Coordinator of OPAN, a member of the Amazon Waters Alliance, Brazil

JOSÉ CÂNDIDO / OPAN



38

Deni Indigenous People fishing, Brazil. Indigenous lands are official demarcations (boundaries) of the Brazilian state for the exclusive use and enjoyment of the group(s) for which they were claimed

consequent processes of dispossession. Similarly, other social groups, such as the communities of African descent that make up the Quilombo territories and the extractivist and riverside communities, also make great efforts and risk clashes to protect what is most sacred and integral to their way of life, represented in their ancestral/traditional territories.

In Brazil, the formally planned protected areas are made up of different categories and decreed based on the analysis of various studies and perspectives that seek to consider human presence in areas of integral protection. Indigenous lands are official demarcations (boundaries) of the Brazilian state for the exclusive use and enjoyment of the group(s) for which they were claimed. Quilombos are processes of recognition and titling of the area for communities of African

origin. There are also conservation units, such as Extractive Reserves and Sustainable Development Reserves in the direct-use group; another group is that of full protection, where human presence is only allowed for research and environmental education. There are cases of these units being created in territories already occupied by social groups, leading to territorial conflict.

Different mechanisms

Legal recognition of the use and ownership of these territories, and land regularization are achieved through different mechanisms: for indigenous lands, the exclusive use and enjoyment of the people(s)/ethnicity(ies) is automatically recognized. For Quilombos, there is the recognition and subsequent titling of the area passed on to a formal representation of the social collective. In conservation units, this

recognition takes place through the Concession of Real Right of Use (CRRU) instrument.

Within the framework of public policies, these areas are managed through varying arrangements, depending on their nature and category. The officially demarcated indigenous territories are under the National Policy for Territorial and Environmental Management of Indigenous Lands (NPTEMIL), which was built with the participation of the indigenous movement and seeks to provide conditions for the peoples to have autonomy in the care of their territories. The management structure can take different forms, from Territorial and Environmental Management Plans (TEMPs), Life Plans, zoning and structuring of rules for use, monitoring and management plans, consolidation of partnerships, consultation protocols and other management instruments that can be drawn up and implemented in the different axes of the policy.

Along the same lines, in 2023 the mobilization efforts and work were resumed to build the National Policy for Quilombola Territorial and Environmental Management (QTEM). Conservation units fall under the National Conservation Unit System (NCUS) and, in the case of the state of Amazonas, a state system. The governance structure for the management of these units is based on a management council led by the official body. In the case of direct-use units, deliberative councils are set up, with representation from local residents, and in the case of integral protection units, advisory councils are formed. Management mechanisms are provided for in the unit's management plan, which can foresee, limit or prohibit activities based on studies and analyses of the situation.

Not enough

Despite these official structures for the management of protected areas, there are numerous challenges to the effectiveness of these mechanisms. The lack of dynamism in public processes, the shortage of professionals in official bodies, and low investment,

considering the scale of the demands, make the preparation of plans and their implementation time-consuming and unable to respond in sufficient time to the dynamics of the real-life challenges facing the territories and their social groups.

There are still a number of indigenous groups whose territories have been requested to be titled and no action has been taken. As a result, the indigenous movement in the Amazon and other regions have levelled harsh criticism against the current federal government, which has committed itself to the demarcations, pending resolution, in the wake of the previous government's environmental and social agendas. The same situation surrounds Quilombos, which are stagnating in formal land titling procedures. There are also social groups that have been, for years, demanding the creation of conservation units for use that involve their territories, but no action has been taken by the competent bodies.

As for the traditional communities living outside protected areas, they commonly report intrusions, illegal logging, predatory fishing, deforestation and threats. In this sense, the need for innovations that make it possible to recognize and ensure the territorial rights of these populations is urgent.

Directly associated with fishing, one management instrument that has become well known in the Amazon is the fishing agreement. As a legal instrument, it is structured to regulate fishing in a given area, under the condition that it is used by more than one social group and, in many cases, in conflict with each other. Through this mechanism, discussions for the management of fish stocks are initiated to reach agreement built on consensus, based on the users' knowledge of the conditions of the environments and strategies that are compatible with the local reality. These fishing agreements can be formalized for different protected areas and also encompass communities from open (non-protected) areas. This tool is recognized for generating social engagement and collaboration. It still needs to be developed to more effectively support social groups in a

participatory manner and strengthen the implementation of the necessary strategies and actions.

A forum has been set up in the Amazonas to discuss and seek a resolution to historical land conflicts in the state. It is made up of civil society, grassroots organizations, the Amazonas Federal Public Prosecutor's Office and the Amazonas State Attorney General's Office. In 2021, the Amazonas land law made provision for the concept of Common Use Territories (CUTs) for land regularization of populations on the margins of any kind of territorial security. The regularization of these non-protected areas is usually done through individual use concessions.

However, this regularization mechanism excludes the possibility of areas of common use that are fundamental to the reproduction of traditional communities' ways of life, such as forest extraction activities, subsistence hunting and small-scale fishing. In this way, the issuing of collective CRRU is an innovation in the application of legislation, to guarantee the areas are recognized as collective by the requesting social groups, both for conservation units and for communities located outside the boundaries of protected areas.

Biodiversity conservation


Another innovation that has been discussed under the Convention on Biological Diversity (CBD) is the concept of other effective area-based conservation measures, which aim to identify, recognize and strengthen conservation and management initiatives implemented by local communities, Indigenous Peoples, governments and the private sector. Although they are not yet institutionalized in Brazilian environmental policies, other effective area-based conservation measures are potentially good tools to complement the national system of protected areas and the other protected areas institutionalized at the national, state, and municipal levels.

Discussion has also been taking place in some of the countries that make up the Amazon basin, which could lead to cross-border arrangements of singular importance, especially for the

conservation of large migratory catfish species, which are of fundamental significance in Amazonian fisheries and depend on large areas for the development of their life cycles, as they cross borders of local territories, states and countries.

Connectivity is a central issue in the discussion of river basin conservation and the sustainability of Amazonian fisheries. Based on studies of the biology and ecology of fish species, fisheries and ecological processes, the need to maintain connectivity in the large Amazon basin system is clear. This connectivity must be guaranteed longitudinally, from the connections between the smaller tributaries to the channels of the large tributaries, and laterally, guaranteeing the flooding dynamics of the river floodplains.

In this same context, we understand that connectivity must also be recognized, fomented and guaranteed in a social sense, by promoting the role of Indigenous Peoples, traditional communities and fishing groups living in Amazonian cities. Strengthening local governance structures and recognizing the essential role of small-scale fisheries for food security, managing fisheries resources and conserving fish species are urgent tasks for governments at various levels.

Discussions on drafting fisheries legislation and public policies should also be brought closer together to achieve greater popular participation, and resolutions should be structured to be more appropriate to local realities. Investing in infrastructure and qualification processes to modernize small-scale fishing value chains is also a basic need today to promote the Amazon's socio-biodiversity to achieve its fullest potential. 

For more

A Script for Success

https://www.icsf.net/wp-content/uploads/2023/08/Sam_89_art06_Brazil_A-Script-for-Success.pdf

Woes Compounded

https://www.icsf.net/wp-content/uploads/2021/10/4513_art_Sam_85_art08_Brazil_BeatrizMesquita.pdf

The contribution of fishing to human well-being in Brazilian coastal communities

<https://pdf.sciencedirectassets.com/271824/1-s2.0-S0308597X22X00146/1-s2.0-S0308597X23000489/am.pdf>

Fisheries as a way of life: Gendered livelihoods, identities and perspectives of artisanal fisheries in eastern Brazil

https://www.researchgate.net/publication/283344206_Fisheries_as_a_way_of_life_Gendered_livelihoods_identities_and_perspectives_of_artisanal_fisheries_in_eastern_Brazil