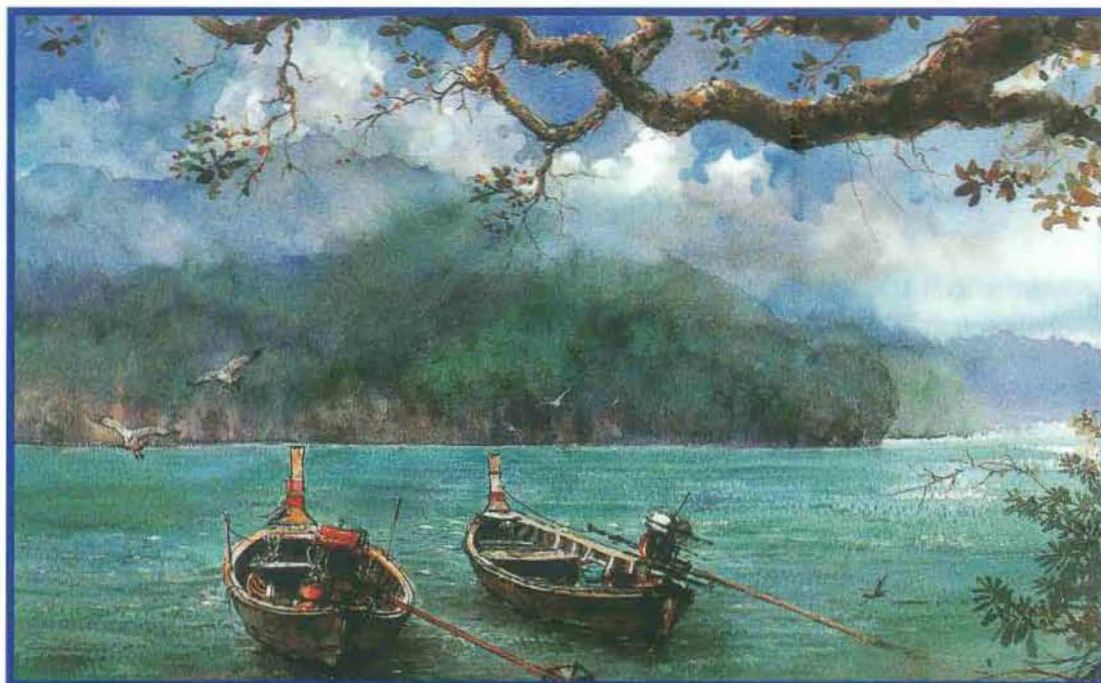


No. 37 March 2004

SAMUDRA

REPORT

INTERNATIONAL COLLECTIVE IN SUPPORT OF FISHWORKERS



CONVENTION ON Biological Diversity
Fish Shelters in Nigeria
Women in African Fisheries
Persistent Organic Pollutants
Marine Stewardship Council
World Social Forum 2004
Marine and Coastal Protected Areas
News Round-up

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Deal with hunger and poverty first

The discussions and decisions on Agenda Item 18.2 on marine and coastal biological diversity at the recently concluded Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP7) are highly relevant to the over 200 million artisanal and small-scale fishworkers, most of whom are from the developing world.

Coastal and indigenous fishing communities undoubtedly have a long-term stake in the protection and sustainable use of biodiversity, given their reliance on coastal and marine biodiversity for livelihoods and income. It should not, therefore, come as any surprise that several decades before issues of conservation and sustainability of coastal and marine resources became part of the international agenda, fishworkers in many countries of the developing world were drawing attention to, among other things, the negative impacts of pollution, uncontrolled expansion of industrial fisheries and aquaculture, and technologies such as bottom trawling for shrimp, both on coastal biodiversity and on their livelihoods.

Against this backdrop, the commitment by governments to promote the implementation of the objectives of the CBD and significantly reduce the current rate of loss of marine and coastal biological diversity by 2012 can only be welcomed.

Equally to be welcomed is the stress on participation of indigenous and local communities, on protecting the preferential access of artisanal and small-scale fishworkers to traditional fishing grounds and resources, and on ensuring that the programme of work directly contributes to poverty alleviation (see page 42).

For artisanal and small-scale fishworkers, this could well mean opportunities to address issues relevant to both their livelihoods and biodiversity protection. More concretely, it could mean an opportunity to draw attention to, and regulate, the pollution of inshore waters caused by effluents and tailings from industries, mining activities and fishmeal plants. It could mean the opportunity to strictly regulate bottom trawling, particularly in tropical, multispecies fisheries. It could mean opportunities to regulate the destruction and pollution caused by industrial forms of aquaculture. It could also mean that the initiatives taken by fishworkers to regulate and manage their resources are accorded due legal, institutional, financial and other forms of recognition.

All this will, however, remain in the realms of wishful thinking if governments do not put in place an enabling legal framework that recognizes, protects and strengthens the rights of coastal fishing communities to access and use biodiversity in a responsible manner, to pursue sustainable livelihoods and to participate in decision-making and resource management processes at all levels.

The very real danger of imposing prefabricated models of marine protected areas, which do not take into account local histories and knowledge systems, needs to be avoided at all costs. There is enough available experience to indicate that non-participatory conservation initiatives, which do not draw on and recognize local knowledge and management initiatives, are counterproductive not only in terms of protection of biodiversity, but also from the point of view of avoiding further exacerbation of poverty in communities well known for their economic and social vulnerability. As celebrated Canadian geneticist and environmentalist David Suzuki stressed in his keynote presentation to COP7, "If we don't deal with hunger and poverty, we can forget the environment; people have other priorities".



Sheltering the fish

The construction of fish shelters is a traditional technique to enhance fish production in Nigeria

With an estimated population of 129 million in July 2002, Nigeria is Africa’s largest consumer of fish and fish products. It has a coastline of 853 km, bordering the Gulf of Guinea. It is also richly endowed with large water bodies, including rivers, lakes, reservoirs, creeks, lagoons and estuaries, which have a total surface area of about 12.50 million hectares.

Fish aggregating devices or fish shelters, as they are called in Nigeria, have been recognized as one of the potent techniques for significant increases in productivity and stock size. Refined and environmentally friendly fish shelters can increase fish production in shallow water bodies so as to meet the shortfall in fish demand. Fish shelters account for over 35 per cent of the total fish produced in the Lagos Lagoon, which, at 208 sq km, is the largest of the lagoon systems in the West African subregion.

Fish shelters that create artificial habitats are used nationwide, with various degrees of intensity. Three main groups of fish shelters have been identified:

- brush parks constructed with plant parts in both fresh and brackish water bodies. The plants used include mangrove plants (*Rhizophora racemosa* and *Avicennia* sp.) or other shrubs as well as fronds of oil palm (*Elaeis guineensis*) that are staked in shallow (1-5 m depth) and relatively calm waters. Worn-out automobile tyres and weighted plastic or polyvinyl chloride (PVC) pipes can also be added to provide crevices for fish to hide.
- floating aquatic weeds, consisting mainly of luxuriant water

hyacinth (*Eichhornia crassipes*) and duck weed (*Pistia stratiotes*), are also staked and stationed in one place and prevented from drifting with the tide or current.

- floating logs that form mats of shelters, mainly in fresh and brackish water systems in the rain forest region, where they are transported from one location to the other.

An overview of fish shelters worldwide shows that there are no general rules for the design and construction of the refined shelters. However, some major principles should be seriously taken into consideration to optimize productivity.

Considerations for design and placement of materials should cover various aspects, including the following: (a) the amount of materials used; (b) the area/volume covered; (c) the vertical relief, which is important in deep waters, and the complexity of the structures in relation to the spatial arrangement, number of chambers, spaces and crevices for fish prey to hide from predators; and (d) the texture and composition of materials and their capability of withstanding decay, rot or rust in the aquatic environment.

The structures are meant to provide shade and shelter from strong currents, hiding places for prey from predators, firm substrate for attachment of sessile life forms like *Crassostrea gasar*, source of food such as plankton, algae, invertebrates and small herbivores, and also spawning or breeding and nursery area.

Categorization

Fish behaviour and orientation can be categorized according to the stimuli provided, as follows: (a) rheotaxy—



orientation with respect to the current direction; (b) geotaxy—orientation with respect to the beach or the coast or the shoreline (c) thigmotaxy—physical contact with the structure; (d) phototaxy—response to light; (e) chemotaxy—response to olfactory stimulus; and (f) hydro-acoustics—auditory response to sound in water.

The area around the structures where fish species aggregate and are caught is referred to as the 'enhanced fishing zone'. It ranges between a few meters to about 100 m. The zone may not be symmetrical around the installation because fish tend to congregate either up or down current in response to availability of food or any of the stimuli indicated above.

The structures can be harvested partially or completely. Gillnets, traps, hand-lines, and longlines can be used for partial harvest of the structures. Cast-nets can also be operated superficially to capture fish in some of the shelters. The encircling gillnet and the seine-net can be used for total harvesting. The net is used to encircle the structures and all the debris within the shelter are removed.

It has been observed that fish shelters produce more fish (by weight) than the open waters, which contain more fish diversity. In the brush parks in the Lagos Lagoon, for instance, a few fish species,

including tilapia (*Sarotherodon melanotheron*), catfish (*Chrysichthys nigrodigitatus*) and mullets (*Liza* spp.) constitute the main fish composition. As much as 8 tonnes of fish per hectare per year has been recorded in some fish shelters. The amount of fish caught correlates positively with the size of the shelter, the density of materials and the duration of installation.

The management measures needed to maintain optimal fish production should include:

- unravelled polypropylene rope streamers, which are synthetic materials attached to promote the growth of juvenile fish. These are colonized quickly by algae and invertebrates, which serve as food for the fish.
- the use of streamers and other rot- and rust-free materials, such as worn-out tyres, which minimize water pollution.
- the minimized use of plant materials so as to prevent deforestation and erosion of the mangrove area as well as the destruction of the spawning and nursery grounds of some of the economically important fish species.

- building, at a time, a pair of shelters, one for fishing and the other for habitat improvement to induce fish recruitment. Flags with different colours can be placed to easily distinguish the different shelters.
- allowing fish shelters, especially brush parks, to lie fallow for a period of time (say, three to four months) to allow for better growth of fish.
- the continuation of fisheries laws and regulations to prevent, for example, destructive fishing.
- communal or joint ownership of brush parks to minimize conflicts arising from multiple ownership claims.
- regulations to limit the number (or area) of fish shelters, so as to prevent stress on the resources and avoid conflicts with other users of the aquatic environment.

It is imperative that major modifications should involve the use of environmentally friendly materials such as synthetic netting and plastics to replace the plant parts, especially the mangroves that are used for the construction of fish shelters. This should help reduce the destruction of the mangrove belt, which serves as the nursery and breeding grounds of commercially important fish species. The construction of fish cages and pen enclosures in relatively shallow and expansive water bodies should also be encouraged. Materials for the construction of cages and pen enclosures that have been tested and proven to be efficient elsewhere, especially in tropical waters, should be identified and utilized.

This article is by B. B. Solarin (bolusolarin@yahoo.com) of the Nigerian Institute for Oceanography and Marine Research, Lagos, Nigeria

A room to stretch out in

A recent workshop discussed the challenges of gender and coping strategies in African fishing communities

Despite the many studies that have been conducted on African fisheries, much of the work performed by women and the social spaces they occupy have remained invisible. The lack of documentation on women's role in the sector can be explained by a number of factors. Firstly, production goals (traditionally, a 'male' space) continue to dominate national policy agendas rather than the processing and marketing sector (a 'female' space). Secondly, research is often gender-blind and fails to see the bigger livelihoods picture — women are often excluded from the decisionmaking process for cultural reasons. And thirdly, at the national level, there is no desegregation of data along gender lines, making it doubly difficult to extract information pertinent to the fisheries sector in general, and to gender in particular.

Since the mid-20th century, economic reforms, environmental degradation and increased globalization have forced fishing communities to continuously develop coping strategies to secure their livelihoods. The key to understanding how communities deal with shocks to their livelihoods is by obtaining a clear picture of how men and women interact and how gender defines their room to manoeuvre within a changing environment.

In December 2003, a workshop entitled *Room to Manoeuvre: Gender and Coping Strategies in the Fisheries Sector* was organized in Cotonou, Benin to contribute to the debate on the role of gender in fisheries. The workshop was funded by the European Commission and organized by IDDRA UK and the Sustainable Fisheries Livelihoods Programme (SFLP), based in Cotonou. The workshop brought together 14

participants from Europe (France and Madeira) and Africa (Guinea, the Gambia, Benin, Niger, Nigeria, Sao Tome and Principe, and Tanzania), representing fisheries organizations, universities, research, administration, development, and non-governmental organizations.

The workshop had two objectives: bring into the open knowledge on the roles and social spaces occupied by women in the fisheries sector and explore how coping strategies are formed and how they have evolved in African fishing communities. The output of the workshop was a series of recommendations on how policy could be adapted to empower women and men in fishing communities to meet the ever-increasing challenges they face today. The approach adopted was to examine the challenges faced by fisheries-dependent communities, and identify the coping strategies devised by women to confront them.

The workshop recognized that fishing is a precarious occupation, and success is often dictated by elements beyond the control of the community (weather, fish stock status, and so on). Yet, the present generation believes it is facing more challenges of greater magnitude than their forebears. For the most part, the worsening social and economic conditions impact negatively on gender relations in fishing communities.

New challenges

The challenges identified by the workshop were: globalization, which is bringing benefits to some quarters, but is also pushing the cost of fish beyond the reach of many household budgets; increased demand for fish as a result of population explosion/forced migration, which reduces women's negotiation capacity during lean seasons, as well

household food security; lack of control over assets and space (Though access to assets was not a problem, many cited the problem of men moving into traditional ‘female’ spaces as profits from trading rose); environmental problems such as pollution, floods, drought and coastal erosion; bad fishing practices (illegal gear, fishing in shallow waters, and so on) fully addressed by the FAO Code of Conduct for Responsible fisheries for some time now; and health issues, especially HIV/AIDS, a recently recognized phenomenon in the fishing communities where SFLP is currently working in Benin and Congo.

These challenges almost invariably impact upon the ability of households and communities to create sustainable livelihoods. Most of these challenges are not peculiar to Africa. Fishers’ wives in Brazil also have difficulty putting food on the table, and those who do fish to provide food for their family are not acknowledged as fishers. The idea that women could fish for commercial gain is anathema to their husbands and male relatives. The result is that these women have difficulty organizing themselves officially around their fishing activities, which are considered part of their household chores rather than a serious economic venture. Fishing-dependent communities in West Africa have adopted a wide variety of methods of coping with these new challenges, and it was clear that most challenges could be better tackled

through a gender perspective whose strategic role is largely ignored or underestimated to date.

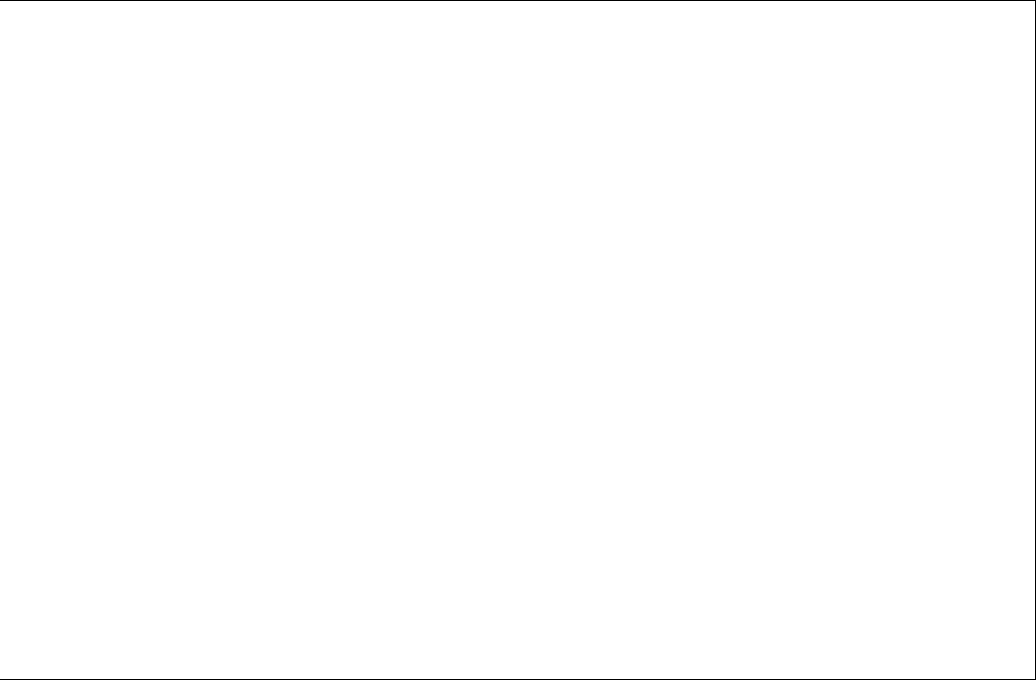
Women were seeking to improve their knowledge base so that they can run their businesses better. They are trying to gain improved access to the fisheries management decision-making process, to strengthen their support institutions, and improve literacy and numeracy skills. Credit schemes are being widely used to ease the burden of dips in income streams, but they are still difficult to access and unreliable.

Setting up alternative businesses was widely mentioned at the workshop. The case study from Niger was particularly interesting. An ecological challenge (drought) forced a radical change in fishing practices (from catching to aquaculture) in Tafouka, a fisheries community not far from Niamey. In implementing a community project on aquaculture financed by the SFLP, women and men were forced to collaborate more closely. Today, women’s participation in decision making in the community has improved significantly, and the financial benefits now shift between the men and women’s groups.

Financial barriers

But many West African communities face structural and financial barriers—limited access to credit and lack of institutional





support for women’s organizations—that prevent effective development of coping strategies. These were the two obstacles most frequently mentioned by participants.

Another very relevant strategy that was common to Africa and Brazil was prostitution. In desperate financial straits, after being abandoned for months on end by their husbands, some Brazilian fishers’ wives have been known to trade sexual services to guarantee fish supply. In other instances, women are employed on fishing vessels for menial tasks and as prostitutes for the use of the crew. Whether this was a strategy or just a desperate measure remains a highly debated point.

One of the key themes that ran throughout the workshop was the need for improved institutions. Women’s institutional organizations vary widely throughout the region.

Some countries had good institutional structures that were, however, poorly supported (Senegal, for example) and others had poor organizations or none at all (The Gambia and Guinea, for example). Organizations are often an important entry point for development initiatives and the degree of capacity of the organizations will have an impact on the success of any development initiatives and their uptake.

To make gender coping strategies more effective, policymakers have to be aware of the problems and know how to help remove constraints. But, for this to happen, the workshop recommended that some basic baseline data be first collected. The level and quality of data on gender in fisheries communities needs to be improved too. Through participatory gender diagnostics, more disaggregated gender and fisheries data needs to be collected.

Secondly, information on the extent of gender-based institutions needs to be collected. Little is known, at the moment, about the number of women’s institutions or the remit of these institutions. Thirdly, evaluation and monitoring tools for gender-based projects are required to ensure a more efficient lesson-learning and experience-sharing system. Fourthly, the development of a database on social and gender aspects of livelihoods at the ministerial level was considered very important in ensuring that real progress is made towards the integration of gender in livelihoods development.

Gender focus

Finally, the importance of promoting a gender focal point at the ministerial level was highly recommended, as was the creation of forums at the national level to raise awareness on gender equity and its relevance in the achievement of development goals.

Limited in time, there was only so much that the workshop could achieve. What it has done, however, is to lay the foundations for future work in this area. The workshop clearly demonstrated that gender does matter to the development process. Although many of the problems discussed (inequity, injustice, access to resources, control of benefits and so on) are not unique to gender or to fisheries, it would be a mistake to discount them from the fisheries policy framework. All these problems can be usefully tackled from a gender perspective that has at its foundation the goal of solving inequities. Such a methodology may not solve the problem overnight, but it will surely go a long way to uncovering some of the root causes of poverty in fishing communities. There is considerable political will to take these issues forward and if networks, such as those set up by the workshop, can mobilize coordination and cooperation among those working on the ground, great progress will be made in this area of West Africa.

Further information on the workshop can be found in the SFLP Bulletin (www.sflp.org/eng/007/pub1/index.html). For more information on the work of the SFLP, visit www.sflp.org.

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POPS

From sea to toxic sea

This article discusses how persistent organic pollutants are disrupting the marine ecosystem

“As crude a weapon as a cave man’s club, the chemical barrage has been hurled against the fabric of life.” — Rachel Carson

When Rachel Carson sounded the alarm about the impact of DDT on wildlife in her book *Silent Spring*, she didn’t mean to start a movement against persistent, fat-soluble toxicants such as pesticides that build up in the food chain. Rather, she felt a responsibility to clue in the rest of the world to what she had discovered: the vulnerability of nature in the face of human intervention. Carson’s work led to increased scrutiny of the impact of pesticides and other chemicals on nature and wildlife. Before she became engrossed in pesticides, Carson began her career by speaking for the oceans. She began as a junior aquatic biologist for the US Bureau of Fisheries in Washington, DC and later worked for the Fish and Wildlife Service. Her 1951 book *The Sea Around Us* dealt with the latest science and understanding of the oceans.

“Carson sounded the alarm about toxicants on behalf of wildlife, but here we are 40 years after *Silent Spring* and we still can’t get governments and regulatory agencies to take seriously the impact of these chemicals on the health of the fish, whale or bird populations. It seems their concern wanes when only wildlife appears threatened,” said Rick Hind, legislative director for Greenpeace’s Toxics Campaign. “But ignoring the impact of these toxicants on the birds, fish and other wildlife means ignoring the health of our own food chain. By allowing them to be poisoned, we only continue to poison our own bodies.”

Hind has been working on the impact of chemicals on the food chain and, by extension, human health, since 1979.

“Luckily, we were able to shift the debate from wildlife to human health in the 80s,” he says. “By focusing on human health, we were finally able to get the governments’ ears. But that doesn’t mean we are no longer concerned about what these toxicants are doing to the health of wildlife. By tracing the sources of contamination in humans, regulators now see that the poisoning of humans is also due to the contamination of human food sources, which include wildlife.”

Hind and others believe as fishermen work to do their part in restoring fish populations, it’s important to ensure that all other hurdles threatening marine wildlife are also identified and removed. Environmental pollutants comprise one of the major hurdles the marine food web is facing today.

Some government agencies, such as the Environmental Protection Agency, regularly issue fish advisories warning the public to limit their intake of certain fish because they contain high levels of certain chemicals. However, government agencies responsible for managing marine species have taken little or no action to exclusively protect fish or other marine animals from pollutants. Considering the money and time invested in rebuilding fish, whale, dolphin and other marine animal populations, ignoring the impact of toxicants on these animals seems a clear oversight to some.

Declining stocks

“As a fisherman, I am not saying we shouldn’t do our part to address our role in the decline of some marine animals,” said John Pappalardo, fisherman and member of the New England Fishery Management Council. “However, it seems that while working on making sure the fish, whales or other marine animals

come back, we need to make sure we are not dumping chemicals into their environment that could affect their reproductive system and compromise their life cycle.”

In 1996, during the reauthorization of the Magnuson Stevens Fishery Conservation and Management Act, amendments were introduced requiring the National Marine Fisheries Service and the regional fishery management councils to take action on non-fishing actions—such as pollution—that could compromise the marine ecosystem. Shortly before the Act was adopted, provisions holding non-fishing activities accountable for their impact on marine species were gutted, thanks in part to intense lobbying by parties who suddenly found themselves in the midst of a fish fight.

Meanwhile, studies suggesting a connection between the health of certain marine animals and toxicants continued to mount. According to one such study by Canadian and European scientists, an “unexpected cause of the near extinction of [wild] Atlantic salmon might be the use of an insecticide used to combat spruce budworm.” The study holds the chemical nonylphenol responsible for disrupting the endocrine process of the salmon, interfering with its ability to mature physiologically. The study states that

“exposed to nonylphenol, they [salmon] cannot switch their osmoregulatory system from fresh water, where they hatch, to salt water, into which they migrate in the first fall of their life.” It appears the nonylphenol disrupts the switch by mimicking the hormone estrogen; thus, when the smolts reach the ocean, they die.

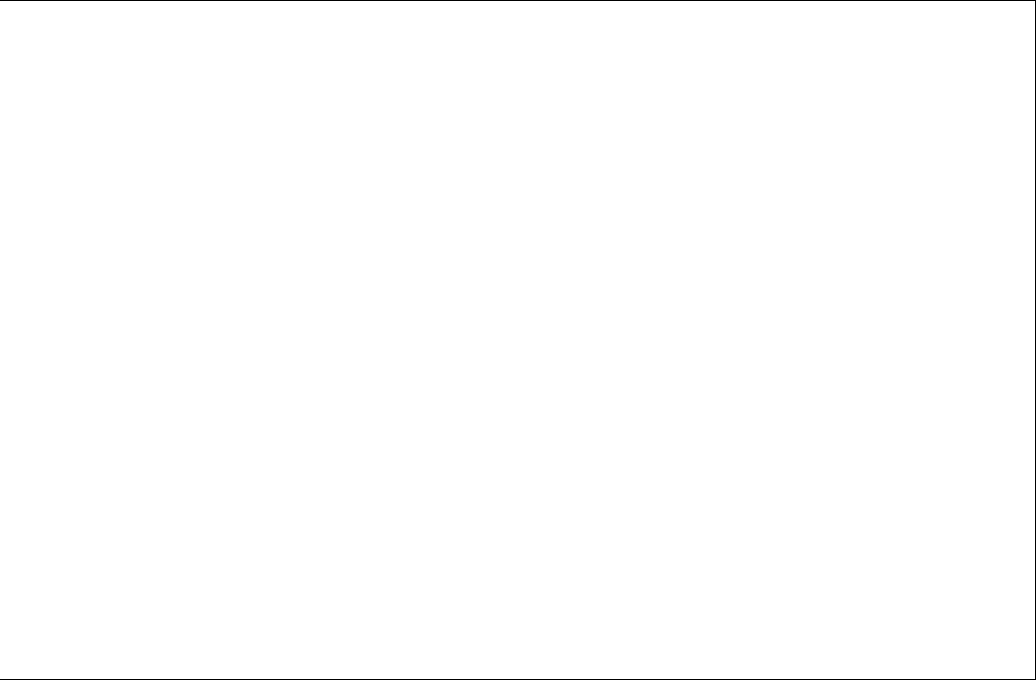
Other studies suggest that exposure of eggs to chemicals that disrupt the endocrine process in various ways, including mimicking estrogen, can cause complete sex reversal of males to fertile females in some fish. Yet another study points to the same class of chemicals for altering “the sex ratio of oysters, causing some to become hermaphrodites and dramatically impair survivorship of offspring.”

Endocrine disruption—or hormone disruption—is one of the characteristics of a particularly worrisome class of chemicals known as persistent organic pollutants (POPs). According to the United Nations Environmental Program (UNEP), POPs are highly toxic, synthetic chemicals that are found in everyday products or created as a byproduct of some manufacturing processes.

Toxicity

Once released into the environment, POPs can travel vast distances across air and sea





currents. POPs are extremely toxic even at very low concentrations and build up—or bio-accumulate.

POPs don't dissolve readily in water but do dissolve easily in fats and can build up in the fatty tissues of animals or humans. As they travel up the food chain, POPs multiply by factors of thousands. Big fish eating little fish is one way POPs move up the food chain.

By disrupting hormones, these chemicals break the communication channels of the body, sending mixed or incorrect signals that could result in cancer, birth defects, and reproductive and immune system problems. In 1998, an Environmental Protection Agency advisory group suggested the review of some 80,000 chemicals for their endocrine disruption potential.

Early studies of POPs suggest that these chemicals impair the hormone and reproductive systems of wildlife. POPs have been incriminated in a host of diseases and reproductive problems associated with animals, from bald eagles to belugas.

One thing we do know is that persistent bio-accumulative chemicals are present in the marine environment. Recent studies show high levels of polychlorinated biphenyls (PCBs)—one of the more notorious POPs, which were

banned nearly 30 years ago—in farmed Atlantic salmon.

Although finding PCBs in farmed salmon is alarming, it's important to note that the PCBs were found also in the feed used by salmon farms.

Aquaculture industry representatives such as Salmon of the Americas, an organization representing the salmon aquaculture industry in Chile, Canada and the US, claim that much of the feed that is testing high for PCBs is coming from the Baltic and North Sea regions, where pollution levels are high. They believe the problem can be solved by getting pelagic fish from other parts of the world, such as the coast of Peru, where levels of PCBs and other toxicants are lower.

Finding PCBs in the salmon feed suggests levels of PCBs in the small pelagic fish that constitute the base of the marine food chain—a troubling prospect for those whose job it is to monitor the state of the marine environment.

High levels
“Regarding the forage base of the ocean, we need to be careful about what it is we are pouring into the oceans and our environment,” says John Sowles, Maine’s Director of Ecology. “Although levels of PCBs in the Gulf of Maine have gone down, it’s disturbing that after being banned for nearly 30 years, PCBs are still around. This

really speaks of the persistence of these kind of chemicals”

Small pelagic fish aren’t the only victims of POPs. It is not clear what impact PCBs can have on the top predators of the ocean. Many species of commercially valuable fish such as cod, haddock, bluefin tuna, swordfish and striped bass eat small pelagic fish as part of their regular diet. Seabirds, whales, dolphins and other marine mammals also feed on these small fish that are usually available in large quantities.

In 2000, the European Union received a report from its Scientific Committee for Food warning of high levels of dioxin, the most dangerous chemical known to science and one of the most notorious POPs, in both farmed and wild fish. In 2001, according to the Russian news agency Rosbalt, Sweden wanted to sell to Russia and other Baltic countries fish with dioxin levels above the country’s maximum allowable limit. Of all the species caught by the Swedish fishermen, only cod passed the dioxin muster.

Efforts are on at the local, national and global levels to eliminate POPs. Much of the work is focused on replacing these chemicals with safer substitutes.

Through UNEP, the international community has agreed to eliminate POPs from the environment. They have prioritized a list of 12 particularly potent POPs—referred to as the “dirty dozen”—as needing urgent action. The result is the Stockholm Convention, an international treaty that targets the dirty dozen for elimination. The treaty, which has been signed by more than 100 countries, recommends using alternative processes and materials to prevent POPs forming in the first place. The US was one of the countries that tried to dilute the Stockholm Convention and has not yet ratified it.

“PCBs represent a legacy we need to be aware of, as we move forward to replacement chemicals,” says Sowles. “It makes all the sense in the world to replace these things with safer alternatives.”



This article, which is reprinted from the January 2004 issue of *Fishermen’s Voice*, is by Niaz Dorry (niazdorry@earthlink.net), a freelance writer and activist based in Gloucester, Massachusetts, USA, who focuses on oceans and toxics issues

Remoteness and alienation

The “democratic deficit” in European fisheries management is a problem that cannot be wished away

European fisheries management suffers from “democratic deficit”: the problem of remoteness and alienation that arises from decisions being transferred to a European level

The fisheries of Europe display an enormous diversity with regard to socioeconomic, cultural and political-institutional characteristics and histories. The situations in the Black Sea, the Mediterranean, the Biscay, the North, the Baltic and the Barents Sea—to name a few of the regional seas—differ vastly, except for the fact that fish resources in all these settings are under heavy pressure and have been pushed beyond safe biological limits. Each country has its own management system, based on its institutional traditions.

Public-private management or co-management as a new governance model in fisheries is not a very hot issue in European countries, although it is at least a topic of debate. It would also be an exaggeration to say that it is at the top of the agenda of the European Union (EU), but it is a theme that is gaining growing attention in Europe as in other parts of the world.

The EU constitutes an attempt to build stronger and more cooperative relations among countries along social, economic and political dimensions. This raises very complex demands of governance that have taken years to address and which are still changing, particularly now as a number of States of central and eastern Europe are becoming new members.

My own country, Norway, is not part of the EU. Neither are Iceland and Russia—which are, along with Norway, major fisheries States. However, Norway and Iceland have both negotiated

extended economic agreements with the EU, which, to a large extent, make them members of the common market.

It is only to be expected that integration along all these dimensions will influence the way governance is organized and exercised at both EU and member State levels. Integration has certainly made it more complicated for member States to agree on common policies, for instance, in fisheries, and there is every reason to assume that new obstacles will surface in the future.

European integration is a long process, which has so far taken four decades, and will certainly take many more. Problems that have arisen have been met with a varying degree of success. One problem that has yet to be resolved is the so-called “democratic deficit”: the problem of remoteness and alienation that arises with respect to citizens’ involvement and influence when decisions are transferred from a national to a European level.

When the EU members adopted the so-called “subsidiarity principle”, they expressed the ambition that there should not be any unnecessary centralization of decision-making power and that decisions should be taken at the most appropriate level. Precisely what this should mean for the many dimensions of integration and for different policy areas such as fisheries has proven difficult to determine.

Highly contested

The principle is highly contested as countries and political groups tend to regard subsidiarity in their own ways in concrete situations. Does it apply only to the relationship between the EU and member States? Or should it also be applied within member States? What



exactly does it entail for a sector like fisheries?

The democratic deficit is generally perceived as a problem in most member States. It was also one of the issues that made a majority of my Norwegian fellow citizens reject membership of EU in two referendums—in 1972 and in 1994. In both instances, the fishery issue was the trickiest one and the one that tipped the vote negatively. In the eyes of the average EU citizen, the current policy-making process in the EU is not transparent and participatory. The Commission, which is the most powerful EU body, is not a representative institution, elected by EU citizens. The popular impression also holds that special-interest lobby groups have too much power, and civil society is not involved as fully as it should be. As a consequence, the democratic deficit undermines the legitimacy of EU policies, which are often highly disputed. The Common Fishery Policy (CFP) is no exception to this rule.

It must be emphasized that the situation is not static. Increasingly, attention seems to be directed toward the political process and not only to outcomes. For instance, in a 2001 White Paper on European Governance, delivered by the Commission, non-governmental organizations are viewed as positive contributors to the definition and

implementation of European policies. Their involvement is seen as a way of broadening the debate on EU policies and getting citizens more actively involved in the political process. The same attitude is articulated in the Nice Treaty, which talks about the input of “organized civil society” (Article 257). The ideas of forming “regional advisory committees” of stakeholders in policy making and of decentralizing certain management responsibilities in order to address local and emergency situations, as was expressed in the 2001 “Green Paper” on the future of the CFP, are tangible expressions of such a public-private governance model. For those who believe in public-private partnerships as a governance model, these developments are positive.

Subsidiarity principle

It could be argued, however, that public-private management or co-management is nothing new in European countries. Neither was it (and the subsidiarity principle) invented by Eurocrats. In most countries, fisheries management is an interactive process between government authorities and fishing industry organizations. Some of these arrangements have a very deep history, such as the Spanish *Confradías*, the French *Prud’hommes*, and the Polish *Mazoperias*. Also, more recent public-private management systems can be found, such as the British Producer



Organizations, the Sea Fisheries Committees in England and Wales, the regulatory advisory boards in fisheries in Scandinavian countries, and the Biesheuvel groups in the Netherlands.

These co-management systems vary from country to country—and sometimes within countries—with respect to the kinds of relations that shape the public-private dyad. Some fall short of being described as truly co-management. Thus, real co-management in European fisheries exists but in a limited and patchy form. These examples do suggest, however, that a EU policy aimed at strengthening stakeholder involvement has some concrete experiences to build on. Public-private partnership (and co-management) is thus not an abstract concept, but an idea that mirrors a certain reality. There is no doubt, however, that many of these systems could be much improved: that they could become more coherent, representative, transparent and effective. Stakeholder participatory democracy through public-private arrangements does represent a challenge to the representative democracy of citizens. It is important to make sure that partnership arrangements do not compete with, but become an addition to, citizen democracy, thus broadening and deepening the democratic process as a whole. This is no less important in fisheries than in other sectors of society.

There is no doubt, however, that European countries have a long way to go in order to live up to the subsidiarity principle that they have committed themselves to. This is true for fisheries and for other sectors of society. Thus, the democratic deficit is likely to persist for years to come.

3

This article is by Svein Jentoft (sveinje@nfh.uit.no) of the Norwegian College of Fisheries Science, University of Tromsø, Norway

Littering the seas

As a source of ecological problems, marine debris needs to be tackled through the simplest and most effective way of prevention

Marine debris is trash that gets into the marine environment as a result of careless handling or disposal. Marine debris includes all objects found in the marine environment that do not naturally occur in the ocean. Although items such as tree branches and the bones of land animals can be considered marine debris, the term generally refers to trash (articles that have been made or used by people and discarded). The most common categories of marine debris are plastic, glass, rubber, metal, paper, wood and cloth.

The two main characteristics of marine debris are buoyancy and degradability. Buoyancy means the ability to be blown around; degradability refers to how long the trash will remain in the marine environment. The longer a piece of trash remains in the marine environment, the greater the threat it poses to people, wildlife and vessels.

There are several sources of marine debris, both in the ocean and on land. Any trash that is improperly disposed, as well as any materials that are improperly transported or stored, can become marine debris. The main sources of marine debris are: beach-goers, trash improperly disposed on land, stormwater sewers and combined sewer overflow, ships and other vessels, industrial facilities, waste disposal activities, and offshore oil and gas platforms.

Thousands of people visit beaches every year throughout the world. Many of them leave behind materials that become marine debris, such as food wrappers, cans, cigarette butts, and toys like shovels, pails and beach balls. This trash can be blown into the ocean, picked up by waves or washed into the water during rains. Stormwater runoff (the water that flows

along streets or along the ground as a result of a storm) can carry street litter into sewer pipes, which flow to the ocean. At the sewage treatment plant, sewage is separated into sludge (solid waste materials) and water. The sludge is dried and either disposed in a landfill or treated and sold as a fertilizer. The treated water is discharged into a river or other nearby waterway, free of solid waste.

Industrial facilities contribute to marine debris through the improper disposal of waste items generated by industrial processes on land. Finished products can also become marine debris if they are lost during loading and unloading at port facilities or when they are transported through waterways or over land. Waste disposal activities can cause a problem when trash is lost during collection or transportation, or when trash blows or is washed away from disposal facilities.

Boats are also sources of marine debris. Sometimes, trash is purposefully thrown overboard. One major reason for the overboard disposal of trash is the limited storage space aboard these vessels. Most of the time, however, trash is disposed into the ocean by people who are unaware of the problems that they can cause. Trash can also accidentally fall, blow or wash off vessels into the water. In addition, fishing nets and lines, and other types of equipment, can be lost at sea and become marine debris.

Sources of debris

Once debris has found its way into the ocean, it is very difficult to trace the source of the debris. A plastic cup, for instance, could have been left by a beach-goer, littered in a city street and washed into a storm sewer and out to sea, blown off a recreational boat, used on a shipping vessel and disposed of overboard, and so

on. Clearly, marine debris is a complex problem whose solution will require that many sources of marine debris be controlled simultaneously.

The two primary problems that marine debris poses to wildlife are entanglement and ingestion. Entanglement results when an animal becomes encircled or ensnared by debris. Entanglement can occur accidentally, or when the animal is attracted to the debris as part of its normal behavior or out of curiosity. For example, an animal may use a piece of marine debris for shelter, as a plaything, or as a source of food (if other plants and animals are already trapped in the debris or if the debris resembles prey that is a normal part of its diet). Entanglement is harmful to wildlife for several reasons.

Not only can entanglement trap the animal, but it can also cause strangulation or suffocation. In addition, entanglement can impair an animal's ability to swim, which can cause drowning or difficulty in moving about, finding food, and escaping predators. Ingestion occurs when an animal swallows marine debris. Ingestion sometimes happens accidentally, but, generally, animals feed on debris because it looks like food.

Ingestion can lead to starvation or malnutrition if the ingested items block the intestinal tract and prevent digestion, or accumulate in the digestive tract and make the animal feel "full", lessening its desire to feed. Ingestion of sharp objects can damage the digestive tract or stomach lining and cause infection or pain. Ingested items may also block air passages and prevent breathing, thereby causing death.

Marine plastic debris can harm fish species and other aquatic organisms that use the coral reefs by continually rubbing against them or smothering them. Floating plastic is just like a poison pill, which is regarded as a potential endocrine disrupter. Most of the plastic floating on the surface of the ocean are mistakenly ingested by marine turtles. This may be a potential hazard to turtle populations that are regarded as endangered. Another major ecological problem contributed by marine debris is

the movement of invading species. Debris floating in the sea can carry many organisms such as crustaceans, plankton, algae, bacteria and fungi. A raft of debris can even colonize some land-based species. When organisms from one environment are carried to another part of the world, significant problems can arise.

Wildlife is also affected when marine debris disturbs its environment. For example, lost or discarded fishing gear and nets can drag along the ocean floor or through coral reefs, disrupting the animals and plants that live there. Fish and crustaceans such as lobsters and crabs are frequently caught in lost or discarded fishing gear, in a phenomenon known as "ghost fishing". Lost traps also continue to attract fish and crustaceans, which enter them in search of food or shelter.

Nearly a million seabirds are thought to die from entanglement or ingestion each year. Since most seabirds feed on fish, they are often attracted to fish that have been caught or entangled in nets and fishing lines. As many as 100 birds have been found in a single abandoned net.

It is estimated that approximately 100,000 marine mammals die every year from entanglement or ingestion of marine debris. Of the different types of marine mammals, seals and sea lions are the most affected because of their natural curiosity and tendency to investigate unusual objects in the environment.

Recycling—the collection and reprocessing of materials so they can be used again—is one way to reduce trash. Before materials can be processed for reuse, they must be separated into different types (such as plastic, glass and metal). Although recycling has become widespread, not every type of material can be recycled.

Recycled waste

Paper is the most frequently recycled type of trash. Three types of paper are recycled: high-grade paper (such as computer paper), newspaper and corrugated cardboard. Metals are also commonly recycled, particularly aluminum cans. All types of glass, except light bulbs, ceramic glass, dishes and plate glass, can currently be recycled. Overall,

very little plastic waste is recycled, with the exception of plastic milk jugs and soft drink bottles.

Even better than recycling is adopting pollution-prevention strategies that produce less waste in the first place. Ways to produce less waste include reusing materials, using reusable items rather than disposable ones, and reducing the amount of packaging we use.

We can also take steps to keep waste from getting into the ocean. Most importantly, littering should be prevented. Boaters and beach-goers should ensure that trash and other items are not blown or washed away. Before trash is left out for collection, it should be tightly secured in bags or trash cans to ensure that trash stays in its proper place.

Marine debris has created many ecological problems throughout the world. Many governments and private organizations have become increasingly active in combating marine debris, but individual initiative remains one of the best ways to tackle ocean pollution. Since prevention is the simplest and most effective way to reduce marine debris, individuals can begin by examining their lifestyles, considering how much garbage they generate, and where it all ends up. ♻️

This piece is by Santosh Metar (santoshmetar@rediffmail.com) and Pranaya Parida (pranaya@indiatimes.com), doctoral scholars at the Central Institute of Fisheries Education (CIFE), Mumbai, India

Green fisheries in crisis

The Marine Stewardship Council is under fire for flawed certification of fisheries

The world's only label to certify sustainable and well managed fisheries, the London-based Marine Stewardship Council (MSC), lacks credibility and will collapse unless drastically reformed, say confidential reports compiled for its funding organizations.

A crisis meeting of the MSC board is being held on Monday and Tuesday to discuss reports that urge the former Conservative environment secretary John Gummer to stand down from the chairmanship. There are also demands for a widening of the membership and expertise of the management to regain the trust of conservation and environmental groups.

Fish from across the world sold in British supermarkets carry the MSC logo, but claims that the fisheries it certifies are sustainable should be dropped because consumers are being duped, say the reports obtained by the *Guardian*.

The investigation into the MSC was ordered by five large US foundations that fund conservation work. They were concerned that despite the MSC's high-profile support from the Prince of Wales and Queen Noor of Jordan, the certification given to some fisheries was unjustified.

Four special investigations into fisheries the MSC has certified were carried out and researchers said none was flawless. They were the New Zealand hoki, Alaskan salmon, the South Georgian toothfish, and Aleutian Islands pollock fisheries in Alaska, the largest fishery in the world, from where most of the white fish in McDonald's and other fast food restaurants comes. The hoki fishery failed to comply with the New Zealand fisheries act, which requires action be taken to

avoid adverse effects on the aquatic environment.

The Patagonian toothfish, also marketed as Chilean seabass, has been drastically overfished by pirate boats across the southern oceans and to certify one small part of the fishery in South Georgia was felt to be an encouragement to the illegal trade. The MSC certifies only 4 per cent of the world's wild fish, but is widely accepted in British and European markets and is seen by governments and the industry as good for sales.

Many more fisheries are going through the preliminary stages of getting certified and the MSC is growing fast.

But both reports believe that without the backing of environmental and conservation groups the credibility of the organization will be terminally undermined. The most stinging criticism comes from an independent Wildhavens consultancy, which interviewed conservation groups, the fishing industry, retailers and MSC staff.

Its main recommendation is that the board of trustees should recognize it had reached a "critical tipping point" and must act speedily "to restore its credibility and prevent the organization's failure". The burden of proof to show that certification will enhance the marine environment was with the MSC and it must show that it did not provide an undeserved "green shield" for inadequate fisheries management.

Management changes

The report also called for management changes, including Mr Gummer handing over the chairmanship, although it suggests he stays on the organization's board. There are also criticisms of staff



leadership, which is regarded as an attack on the chief executive, Brendan May.

Mr Gummer said he had no intention of resigning. The MSC had cooperated in both inquiries, he said.

The organization had the difficulties of operating a certification system acceptable to industry, governments and the environmental movement. Some of the criticisms were from a particular American viewpoint, which took an absolutist view on what was “sustainable”.

Mr May said both reports were helpful and constructive and many of the changes suggested would be implemented. Some were already under way. He did not think the criticisms threatened his position as Chief Executive.



This article by environment correspondent Paul Brown first appeared in *The Guardian* of 21 February 2004

Committed to all stakeholders

The following statement was released by the board of the Marine Stewardship Council (MSC)

The latest MSC Board meeting took place on 23rd and 24th February 2004. At this, their quarterly meeting, MSC trustees had the opportunity to review and discuss two recent evaluation reports on the organization compiled by the Bridgespan Group and Wildhavens Consultancy on behalf of several conservation funders.

The Board invited authors of both reports to join part of their deliberations, not least because MSC board members and staff had actively participated in the reviews.

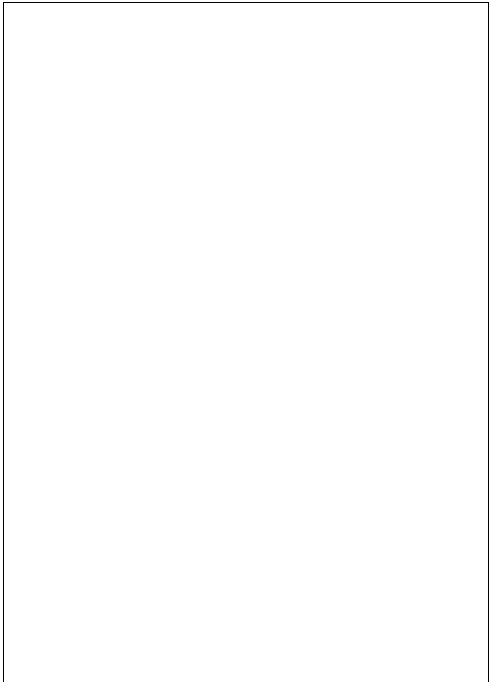
The MSC Board welcomes these evaluations. The recommendations provide constructive and helpful advice on how the organization can continue to build its global credibility as the organization grows and as more fisheries, processors and retailers embrace the MSC programme. The MSC is a fast developing organization and many of the recommendations tabled by the evaluators reflect the new challenges that MSC faces as it grows. Particularly, this is important in ensuring consistency of approach in certifications, better oversight of corrective actions in certified fisheries, and strengthening the involvement of stakeholders in the MSC's governance. Indeed, many of the changes put forward had already been proposed within the organization and are in stages of review and implementation by its key governing and technical bodies.

Having discussed in some detail the contents of both reports, the MSC Board grouped the many recommendations into categories and also assigned priority to examining further the following issues:

1. The Board and Chief Executive will work actively with the TAB, Stakeholder Council and key

stakeholders outside the MSC's formal structure to address some of the detailed technical recommendations relating to the Principles and Criteria (MSC standard) and certification process. In particular, this work will focus on scoring indicators, the tracking of specific progress on corrective actions and ensuring that tangible environmental improvements arise from fishery certifications in a manner which can be measured and communicated.

2. The MSC will give added impetus and attention to its existing projects designed to ensure quality and consistency of fishery assessments and the enforcement of corrective actions.
3. The MSC will examine, through its formal governance structure and beyond, some of the detailed proposed amendments to the MSC standard, particularly on Principle 3.
4. The MSC will engage in discussions on how better to involve key stakeholders in the organization. Specifically, a working panel will be created to look at how engagement between the Board and Stakeholder Council can be improved.
5. The MSC will produce a workplan outlining proposed efficient and consultative action on the key recommendations made by the evaluators. This plan will be published at the end of March. The MSC will also seek input on the detail of the work proposals when they emerge. This project will not



be cost-neutral, and the MSC will need to secure funding in order to implement this programme of action.

Broad spectrum

The MSC includes a very broad spectrum of global opinion across the industry, governmental and NGO sectors. In the interests of transparency, the MSC will ensure that any changes which are made as the programme continues to evolve are the subject of due scrutiny by all those with a stake in the continued success of the organization. The Chairman and Chief Executive are absolutely committed to working with those who have asked for further changes to the organization and its programme and with the entire MSC board hereby commit themselves to working with all stakeholders to consider these matters in a serious and timely fashion.



The MSC Board of Trustees issued this communication on 24 February 2004

Recognize rights

The following statement was issued at the recent meeting of the Conference of the Parties to the Convention on Biological Diversity

We welcome and support the attention being given by the Seventh meeting of the Conference of Parties to the Convention on Biological Diversity towards development of the elaborated programme of work on marine and coastal biological diversity.

Over 200 million people worldwide are estimated to depend on inland and marine fisheries and fish farming for a livelihood. Most of them are in the artisanal and small-scale sector in the tropical multi-species fisheries of the developing world. While the artisanal and small-scale sector contributes significantly to the economy and to food security, there is enough evidence to indicate that a high proportion, especially in developing countries, continue to be among the poorest and most vulnerable sections of society.

Coastal and indigenous fishing communities have a long-term stake in the conservation and protection of biodiversity, given their reliance on coastal and marine biodiversity for livelihoods and income. Generations of close interaction with the coastal ecosystem have led to well-developed traditional ecological knowledge systems (TEKS). This knowledge is manifested in numerous ways, as in the diversity, selectivity and ecological sophistication of the craft and gear used, in the intimate knowledge of weather and climate-related factors, and in the varied ways in which coastal resources are used for medicinal and other purposes. Such TEKS have contributed to sustain both the livelihoods of these communities and the integrity of the ecosystems.

Today, however, coastal and marine biodiversity, including mangrove forests,

are under serious threat from various sources, important among which are the uncontrolled expansion of industrial fisheries and the use of non-selective and destructive fishing gear and practices such as bottom trawling, push-nets, dynamiting and cyanide poisoning, particularly in tropical multi-species fisheries. Unregulated forms of industrial aquaculture and pollution from land and sea-based sources also exacerbate this threat.

For coastal fishing communities, the implications of these developments are severe. As “beacons of the sea”, they have, in recent decades, been consistently drawing attention to such negative developments and, in many cases, have taken up resource management initiatives to nurture and rejuvenate their ecosystems.

Coastal fishing communities can be powerful allies in the efforts to conserve, restore and protect coastal and marine biodiversity. Critical to this involvement, however, is the need to recognize, protect and strengthen their rights to access and use biodiversity in a responsible manner, to pursue sustainable livelihoods, and to participate in decision-making and resource management processes at all levels.

Biological diversity
Recognition of these rights would provide an enabling framework for coastal fishing communities to fulfil their responsibilities towards biodiversity conservation and its sustainable use, and would contribute to the overall objectives of the CBD, namely, the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising from the utilization of genetic resources.

Moreover, protecting and supporting sustainable livelihoods in the artisanal and small-scale fisheries sector—a sector known for its high levels of vulnerability and poverty—would also help achieve international commitments on poverty alleviation outlined in the Millennium Development Goals. It is well accepted that eradication of poverty is an indispensable prerequisite for sustainable development.

In view of the above, we urge the Parties, other governments and relevant organizations to pay special attention to the following aspects while developing the elaborated programme of work on marine and coastal biological diversity:

(1) Recognize the preferential access rights of coastal fishing communities

The preferential rights of coastal fishing communities to responsibly and sustainably use and access coastal and marine resources, should be recognized by putting in place systems that promote legal security of tenure. This would also be in keeping with Article 6.18 of the FAO Code of Conduct for Responsible Fisheries that encourages States to “...appropriately protect the rights of fishers and fishworkers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure and just livelihood, as well as preferential access, where appropriate, to traditional fishing

grounds and resources in the waters under their national jurisdiction.”

(2) Recognize the use of sustainable traditional fishing gear and practices

Traditionally, coastal fishing communities have used a range of selective fishing gear and practices to target fisheries resources, including highly migratory fish stocks. The use of such gear and practices has been consistent with the principles of sustainable use of biodiversity. The rights of artisanal and small-scale fishworkers to pursue their livelihoods using such forms of selective gear, under effective management systems, including in all categories of protected areas, should be recognized, as a means of attaining the objectives of the Convention. This would be consistent with Article 10 (c) of the Convention that highlights the need to “protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.”

Further, positive incentives should be provided to promote the use of selective gear and practices, as through social labelling and ecolabelling. Alternative livelihood opportunities, including community-based tourism, should be promoted with a view to phasing out destructive fishing practices and gear.

(3) Prioritize the livelihood interests of natural-resources-dependent communities

The importance of stakeholder participation is well recognized in the Convention and in its programmes of work. It is, however, imperative to recognize and prioritize, in all management initiatives and decision-making processes, including in the establishment and management of protected areas, and within the framework of sustainable resource use, the interests and participation of traditional and local communities who depend on the natural resource base for a livelihood.

(4) Recognize and support community-based management initiatives and their diversity

Coastal fishing communities in several parts of the world have traditionally been

regulating use of coastal and marine resources. In more recent years, in view of the degradation of coastal and marine ecosystems, coastal communities have taken up diverse initiatives, such as setting up zones of strict protection, for managing coastal and marine resources, through the establishment of community conserved areas. The plurality within traditional and other community-based management initiatives must be documented and accorded legal, institutional, financial and other forms of recognition.

We draw attention to the fact that the work on marine and coastal protected areas is considered as an integral part of the Convention's work on protected areas, and urge Parties to incorporate programme element 2 of the programme of work on Protected Areas on Governance, participation, equity and benefit sharing into programme element 3 under the programme of work on marine and coastal biological diversity.

The integration of the above aspects into the Decisions and programme of work on marine and coastal biological diversity would be effective in meeting both the objectives of the Convention and the livelihood interests of coastal fishing communities. It would ensure that coastal and indigenous fishing communities become powerful allies in conserving, restoring and protecting coastal and marine biodiversity.

Signatories

- World Forum of Fisher People's (WFFP)
- National Fishworkers' Forum (NFF), India
- Tambuyog Development Centre, the Philippines
- JALA, Advocacy Network for North Sumatra Fisherfolk, Indonesia
- Penang Inshore Fishermen Welfare Association (PIFWA), Malaysia

- Masifundise Development Organization, South Africa
- CeDePesca, Argentina
- Yadfon Association, Thailand
- Sustainable Development Foundation, Thailand
- Southern Fisherfolk Federation, Thailand
- Instituto Terramar, Brazil
- National Fisheries Solidarity (NAFSO), Sri Lanka
- Bigkis Lakas Pilipinas, the Philippines
- Asian Social Institute (ASI), the Philippines
- Fisheries Action Coalition Team (FACT), Cambodia
- JARING PELA, Indonesia
- CNPS, Senegal
- International Collective in Support of Fishworkers (ICSF)
- Kalpavriksh, India
- Forest Peoples Programme, United Kingdom
- AWARD, India

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This statement was made at the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP7), 9 to 20 February 2004, Kuala Lumpur, Malaysia, Agenda item 18.2: Thematic Programme of work: marine and coastal biodiversity

Indigenous peoples

Uphold traditional fishing rights

This statement of the International Indigenous Forum on Biodiversity was made at the recent CBD meet

Thank you, Mr. Chair. I am pleased to present this statement on behalf of the International Indigenous Forum on Biodiversity.

For indigenous peoples, lands and seas are interconnected. The seas and coastal areas are not only culturally and economically important, but also have deep spiritual significance. Often the sea and marine species are considered ancestors. Coastal indigenous peoples still practise ceremonies, and use sea water and marine life for medicinal purposes, navigation and many other purposes.

Indigenous peoples are rights holders to our lands, waters and resources in coastal territories and marine areas and are concerned about actions taken by States to attempt to extinguish the rights of indigenous peoples to the foreshore and seabed. Our traditional fishing rights extend into the high seas and are not limited to legally defined national boundaries.

For the programme of work to be meaningful at all, the elements, operational objectives, activities and policy development must include the full and effective participation of indigenous peoples. There must be promotion of the wider application of indigenous knowledge regarding the customary use of biological resources compatible with conservation and sustainable use in accordance with Article 10(c).

Indigenous peoples welcome the basic principles for the programme of work that are consistent with Article 8(j). Recognizing the Secretariat's efforts to create a roster of experts, we look forward to the significant inclusion of regional indigenous experts from communities

whose lifeways are dependent on marine and coastal biodiversity.

We support the use of human and social indicators in the development of guidelines for ecosystem evaluation and assessment, with particular focus on the impacts on indigenous peoples. In particular, we encourage holding regional workshops in Small Island Developing States with the ways and means provided to make these meetings accessible to indigenous peoples from those States.

Reference is made to deep-sea genetic resources beyond the limits of national jurisdictions. Although States may consider areas outside their Exclusive Economic Zones as beyond their national jurisdiction, indigenous peoples have never relinquished our rights to these areas. The UN Convention on the Law of the Sea has failed to uphold the rights of indigenous peoples.

Indigenous peoples have consistently called for a moratorium on bioprospecting until rights to our genetic resources and indigenous knowledge are recognized. Thus, we cannot support activities to share information that will prejudice our rights in this respect.

Marine protected areas

Indigenous peoples fully appreciate the need and value of marine protected areas. Indeed, we have created our own marine protected areas according to our customary law for millennia. These customary marine protected areas should be respected, protected and promoted.

The vast majority of coasts are, or were, at one time, under traditional marine tenure. In no way can marine protected areas, established in the name of conservation, prevent access to the very peoples who

have conserved and sustainably managed these areas. In particular, our customary rights to harvest mammals for subsistence and economic purposes in a sustainable manner must be recognized and protected. Policies for marine protected areas must be consistent with international human rights laws and standards.

We would like to see a stronger linkage between the programmes of work on marine and coastal waters and that on inland waters. Habitat fragmentation must be avoided in order to recognize the interrelationship between those species that depend upon marine and inland waters and terrestrial areas—an understanding that indigenous peoples have recognized for generation and generations.

We look forward to participating in further work under this thematic programme. Thank you, Mr. Chair. 🙏

This statement on marine and coastal biological diversity was made by the International Indigenous Forum on Biodiversity (IIFB) under Agenda Item: 18.2 at the COP7, Kuala Lumpur, 9-20 February 2004

Fisheries training

Towards participatory management

A forthcoming training programme in the Netherlands offers an opportunity to learn about successful participatory fisheries management

In most parts of the world, the mandate to manage aquatic resources has, in the past centuries, been placed in the hands of the government. For decades, a top-down approach was followed. The track record of this approach in both developed and developing countries is a mixture of some successes and many failures (or something in between). The growing pressure on aquatic resources, resulting from technological developments, expanding fleets, increased coastal populations as well as claims from other users of the coastal area, has made fisheries management more complex.

In the past decade, the realization has spread that natural resource management can only seldom be undertaken by central or local governments alone. Especially in developing countries, government departments often lack the staff and resources needed to manage fisheries effectively, particularly of small-scale fishers, who are more numerous, more widespread and remote, and are often more difficult to monitor and control.

It is also increasingly realized that compliance is better when those expected to obey the rules have a say in their creation. Combining the knowledge, skills and expertise of both government staff and fishers has, in many places, led to a better management set-up. Fisher organizations and their supporters are increasingly willing to play a role in resource management, but cooperation (co-management) between parties that had a tense relationship in the recent past does not come overnight. Possible obstacles are wide differences in educational background, experience, culture and understanding of natural processes as well as a reluctance to share

power. An enabling legal framework is necessary, but often not in place.

The training programme *Towards Participatory Fisheries Management* of the International Agricultural Centre (IAC) is designed to discuss these issues and the various approaches to fisheries management. The programme will be held from October 4 to November 19, 2004, in Wageningen, the Netherlands, and consists of two courses that are held in sequence.

The first course, *Fisheries Management: Perspectives, Information and Co-management*, (duration: three weeks), is more analytical in character and covers various approaches to fisheries management, analysis of catch and effort information and collaborative management (cases, lessons learned).

The second course, *Tools for Fisheries Management*, (duration: four weeks), is more practical in character and discusses the toolboxes available for fisheries managers and a number of methods to collect information from resource users. The sharing of participants' experiences is an important component of the course.

Fisheries management

The training programme is open for staff of NGOs and government agencies involved in fisheries planning and policy making, researchers and lecturers working in the field of fisheries management, programme officers responsible for the implementation and monitoring of fisheries management and development projects, staff involved in capacity-building activities in fishing communities and leaders of fisher organizations. Requirements are: competence in the English language, an educational background at the B.Sc. level

in a relevant field and several years of work experience.

More information and application forms can be requested from: The International Agricultural Centre (IAC), PO Box 88, 6700 AB Wageningen, Netherlands (email: training.iac@wur.nl, website: www.iac.wur.nl)

This notice comes from Peter G.M. van der Heijden (peter.vanderheijden@wur.nl) of the International Agricultural Centre, Department of Sustainable Management of Natural Resources, Wageningen, Netherlands

A carnival of rights

The recent World Social Forum 2004 was an occasion for strengthening alliances and exposing injustices

Held for the first time outside Latin America since its inception in 2001, the World Social Forum (WSF) met at the NESCO Grounds, Goregaon, Mumbai, India from 16 to 21 January 2004.

The meeting brought together many movements with localized perspectives in a forum that sought to strengthen issues of concern that cut across geographical and national boundaries. It was a space for strengthening alliances. The atmosphere at the venue was almost carnival-like, but also fiercely political.

WSF 2004 was marked by spontaneous marches against many social injustices by disadvantaged and marginalized groups: landless labourers, eunuchs demanding gender equality, occupied peoples, child labourers, migrant workers from Korea, Tibetan yak dancers, those affected by the Bhopal gas tragedy, people living with HIV/AIDS, free thinkers, feminists, sexual rights activists, sex workers, homosexual performance artists, and so on.

The sustainable tourism debate focused on the impact of tourism on marginalized communities and resources, and community involvement in decision-making mechanisms. The Pakistani Fisherfolk Forum (PFF) organized an event on South Asia fisherfolk and workers' solidarity.

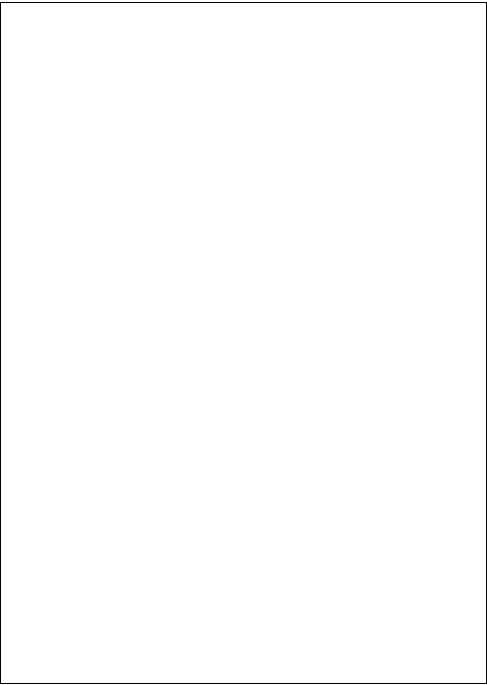
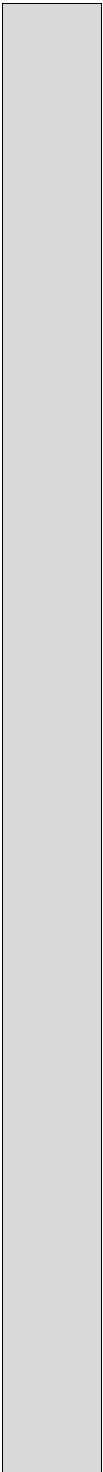
The Fishermen Movements' Coordination of Tamil Nadu discussed issues related to fishing rights in international waters. Many fishermen leaders from Rameswaram participated in the discussion. The Tamil Nadu Meenavar Munnetra Sangam organized a discussion on effluents degrading the sea. Fishers' livelihood options were discussed under the session on Development Induced

Displacement: Perspectives and Strategies. The event was organized by the National Alliance of People's Movements, India; the Brazilian Movement of Dam Affected People (MAB), Brazil; the Anti-Privatization Forum, South Africa; Focus on the Global South, the Philippine; and a number of other organizations. One of the speakers, Harekrishna Debnath, Chairperson of the National Fishworkers Forum, India, highlighted the fact that during the last two decades, tourism in countries such as Malaysia, Indonesia, Thailand and India has displaced thousands and thousands of fishermen from their lands, which have been given to big industry. Others who spoke during the discussion also pointed out that this type of development constitutes a major threat to numerous communities throughout the world.

The message was clear: there is a need to prioritize the development needs of marginalized communities against the background of liberalization, water privatization and dumping of genetically modified seeds by multinational companies. Many questioned the liberalization methodology.

Powerful governments

The Bolivian indigenous people's leader Evo Morales talked about the need to protect the rights of local communities. Economist Joseph Stiglitz urged people to protest wrongs and celebrate opportunities. Participating in a discussion, Mary Robinson, former Irish President and UN Commissioner for Human Rights, pointed out that the world's most powerful governments were also the world's biggest arms suppliers. Iranian peace activist and Nobel Prize winner Shirin Ebadi said that the reform process needed to be continuously recharged with new orientations. She said



that this was the lesson learnt from the Iranian Revolution.

Underlying the plurality, however, was a shared vision embodied by the WSF slogan “Another world is possible”. Despite the broad agreements of the delegates on many issues, an alternative forum was set up opposite the WSF venue by leftwing groups. The “Mumbai Resistance 2004”, as it was called, opposed the WSF and argued that non-governmental organizations (NGOs) have grown most in those States where the government has rapidly withdrawn from education and health services.

A film produced by the International Collective in Support of Fishworkers (ICSF), *Under the Sun: the Transient Fisherfolk of Jambudwip*, directed by Rita Banerji was screened in the session “Other Worlds are Breathing: WSF Film Festival 2004”. Rita Banerji participated in the panel discussion that followed. Some of the other important films shown in the festival were *Choropampa, El Precio del Oro (Choropampa, The Price of Gold)* from Peru by Ernesto Cabellos and Stephanie Boyd, about how a quiet Peruvian village turned into a hotbed of civil resistance when 151 kilograms of liquid mercury spilled along the main road passing through Choropampa and two other villages. Despite claims by the mining company that the situation was resolved, this documentary reveals a starkly

different reality—the health of the villagers is worsening and medical treatment is not available.

The film *Words on Water* by Sanjay Kak of India contrasted urban excess in the form of refrigerators, televisions, microwaves and water parks with images of impoverished rural people pumping groundwater from a dried river bank. Kak used several pictorial contrasts to illustrate how those who have been displaced have had their rights violated without any regard.

Inheritance: A Fisherman’s Story by Peter Hegedus, an Australian/Hungarian co-production, portrayed how the Hungarian river Tisza was flooded with tons of cyanide from an Australian-Romanian gold mine in 2000. Fishermen like Balazs Meszaros struggled to survive. In an effort to save his people and their way of life, Balazs travelled to Australia to confront the mining company responsible for destroying his livelihood. *An Evergreen Island* by Amanda King and Fabio Cavadini from Australia was also shown. 3

This report has been filed by N. Venugopalan (icsf@vsnl.com) of ICSF’s Documentation Centre

Marine and coastal protected areas

The following is the draft decision on marine and coastal biological diversity taken at the recent CBD meet

Draft Decision Submitted by the Chair of the Working Group I on Marine and Coastal Biological Diversity

Review of the programme of work on marine and coastal biodiversity

The Conference of the Parties

- 1. *Takes note* that progress has been made in the implementation of the programme of work at the national, regional and global levels and that facilitation of implementation has been undertaken by the Secretariat;
- 2. *Recognizes* that the programme of work on marine and coastal biological diversity must incorporate a diverse range of tools and approaches and address the three objectives of the Convention, and notes the need to ensure integration between the programmes of work on protected areas and on marine and coastal biological diversity, and in particular the programme element on MCPAs, to ensure effective coordination in their implementation;
- 3. *Agrees* that the programme of work on marine and coastal biological diversity should be applied and interpreted consistently with national law, and where applicable, international law, including the United Nations Convention on the Law of the Sea;
- 4. *Decides* that the programme elements of the programme of work still correspond to global priorities, which are not fully implemented, and therefore *extends* the time period of the programme of work by an additional six years, taking into account the multi-year programme of work of the Conference of the Parties up to 2010;

- 5. *Notes* that the programme of work has been refined to take into account recent developments and new priorities and *endorses* for the guidance of Parties and any other relevant organizations or bodies the elaborated programme of work as presented in annex I to the present decision and its appendices 1-5, noting that Parties will implement those suggested activities that are consistent with their national priorities.;
- 6. *Welcomes* the entry into force of the Agreement on the Conservation of Albatrosses and Petrels, and *notes* the adoption of the International Convention for the control and management of ships' ballast water and sediments under IMO and *encourages* Parties to the CBD and other governments to consider ratifying these conventions.
- 7. *Agrees* that further technical advice is required to support the implementation of the programme elements related to sustainable use and to support the work of developing countries in achieving sustainable use of their marine and coastal areas, including in relation to tourism and fishing, and *requests* the Executive Secretary to work with the Food and Agriculture Organization of the United Nations (FAO) and other relevant organizations to develop that advice and support;
- 8. *Taking into account* the AHTEG report on biodiversity and climate change and the recommendations of SBSTTA at its ninth meeting and the decision of the Conference of the Parties at its seventh meeting on biodiversity and climate change, agrees that the programme of work on marine and coastal biodiversity should address issues related to biodiversity and climate change, and

<div>Document</div>	<p>further encourages Parties to make use of it as relevant source of useful information and take measures to manage coastal and marine ecosystems, including mangroves, seagrass beds and coral reefs so as to maintain their resilience to extreme climatic events;</p>	<p>declining or being lost. One of the reasons for this level of threat is the very low level of development of marine and coastal protected areas;</p>
	<p>9. Recognizing the particular significance of this programme of work to small island developing States, <i>invites</i> the Global Environment Facility, other funding institutions, and development agencies to provide financial support for the implementation of the elaborated programme of work on marine and coastal biodiversity; and its annexes and appendices</p> <p>Marine and coastal protected areas</p> <p>10. <i>Welcomes</i> the report of the Ad Hoc Technical Expert Group on Marine and Coastal Protected Areas (UNEP/CBD/SBSTTA/8/INF/7), / <i>expresses its gratitude</i> to the Governments of New Zealand and the United States of America, and the World Conservation Union (IUCN), for their financial, organizational and technical support for this work, and <i>expresses its gratitude</i> to the Chair and members of the Ad Hoc Technical Expert Group for their work;</p> <p>11. <i>Notes</i> that marine and coastal biodiversity is under rapidly increasing and locally acute human pressure, such that globally, regionally and nationally marine and coastal biodiversity is</p>	<p>12. <i>Notes</i> that marine and coastal protected areas have been proven to contribute to:</p> <ul style="list-style-type: none"> (a) Protecting biodiversity; (b) Sustainable use of components of biodiversity; and (c) Managing conflict, enhancing economic well-being and improving the quality of life; <p>13. <i>Notes</i> that there are increasing numbers of marine and coastal protected areas, but in many cases they have not been effective because of problems related to their management (including as a result of lack of resources), size and habitat coverage;</p> <p>14. <i>Notes also</i> that according to available data, marine and coastal ecosystems are severely underrepresented as protected areas, and these protected areas probably protect a very small proportion of marine and coastal environments globally and consequently make a relatively small contribution to sustainable management of marine and coastal biodiversity;</p> <p>15. <i>Takes note with appreciation</i> of the joint note of the International Coral Reef Initiative and the Convention on</p>

Biological Diversity (UNEP/CBD/COP/7/INF/26) on the ICRI resolution on small island States (see annex 1) and on cold water coral reefs (see annex 2) of the document. This is proposed pursuant to decision VI/3 of the Convention on Biological Diversity;

Goals of marine and coastal protected areas

16. *Agrees* that marine and coastal protected areas are one of the essential tools and approaches in the conservation and sustainable use of marine and coastal biodiversity

17. *Notes* that there is an international body of evidence demonstrating that those marine and coastal protected areas where extractive uses are excluded have benefits for fisheries in surrounding areas, and in many cases for communities, and for sustainable tourism and other economic activities within and outside the marine and coastal protected area;

18. *Agrees* that the goal for work under the Convention relating to marine and coastal protected areas should be:

- The establishment and maintenance of marine and coastal protected areas that are effectively managed, ecologically based and contribute to a global network of marine and coastal protected areas, building upon national and regional systems, including a range of levels of protection, where human activities are managed, particularly through national legislation, regional programmes and policies, traditional and cultural practices and international agreements, to maintain the structure and functioning of the full range of marine and coastal ecosystems, in order to provide benefits to both present and future generations.

19. *Notes* that the World Summit on Sustainable Development Plan of Implementation promotes the conservation and management of the oceans, and agreed to develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive

fishing practices, the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks, by 2012, and time/area closures for the protection of nursery grounds and periods, proper coastal land use; and watershed planning, and the integration of marine and coastal areas management into key sectors; and *agrees* to adopt this approach for the work of the Convention on marine and coastal protected areas, and to develop a strategy to meet this goal, including indicators of progress;

20. *Aware* that MCPAs should be part of a wider marine and coastal management framework, urges Parties and other governments, as appropriate, to make efforts to adopt, as a matter of high priority (while taking into account the resource limitations of small island developing States), such a framework, taking into account Appendix 3 of Annex I.

National framework of marine and coastal protected areas

21. *Agrees* that an effective marine and coastal biodiversity management framework as set out in appendix 3 to annex I to the present decision would comprise sustainable management practices and actions to protect biodiversity over the wider marine and coastal environment, including integrated networks of marine and coastal protected areas consisting of:

- (a) Marine and coastal protected areas, where threats are managed for the purpose of biodiversity conservation and/or sustainable use and where extractive uses may be allowed; and
- (b) Representative marine and coastal protected areas where extractive uses are excluded, and other significant human pressures are removed or minimized, to enable the integrity, structure and functioning of ecosystems to be maintained or recovered;

22. *Agrees* that the balance between category (a) and (b) MCPAs in paragraph 21 above would be selected by the country concerned.

<p>Document</p>	
	<p>23. <i>Notes</i> that the Ad Hoc Technical Expert Group on MCPAs advised that certain objectives of MCPAs, such as scientific reference areas can only be accomplished through the establishment of category (b) MCPAs, and encourages Parties to take this advice into account when determining an appropriate balance between categories (a) and (b);</p> <p>24. <i>Notes</i> that there are some benefits of the framework that can be provided with any degree of certainty only by including highly protected areas, and that to achieve the full benefits a network needs to include representative and distinctive areas and contain a sufficient area of the coastal and marine environment to be effective and ecologically viable;</p> <p>25. <i>Agrees</i> that key factors for achieving effective management of marine and coastal protected areas include effective governance, clear national legal or customary frameworks to prevent damaging activities, effective compliance and enforcement, ability to control external activities that affect the marine and coastal protected area, strategic planning, capacity-building and having a sustainable financing for management;</p> <p>26. <i>Urges</i> Parties to urgently address, through appropriate integrated marine and coastal management approaches, all threats, including those arising from the land (e.g. water quality, sedimentation) and shipping/transport, in order to maximize the effectiveness of marine and coastal protected areas and networks in achieving their marine and coastal biodiversity objectives taking into account possible effects of climate change such as rising sea levels;</p> <p>27. <i>Agrees</i> that the full participation of indigenous and local communities and relevant stakeholders is important for achieving the global goal, and for the establishment and maintenance of individual marine and coastal protected areas and national and regional networks in line with decision VII/—on protected areas;</p> <p>28. <i>Notes</i> the technical advice provided by the Ad Hoc Technical Expert Group, contained in annex II to the present decision and in its report, relating to marine and coastal protected areas within national jurisdiction, and <i>urges</i> Parties and Governments to utilize that advice in their work to establish marine and coastal protected areas networks;</p> <p>Marine protected areas in areas beyond national jurisdiction</p> <p>29. <i>Notes</i> that there are increasing risks to biodiversity in marine areas beyond national jurisdiction and that marine and coastal protected areas are extremely deficient in purpose, numbers and coverage in these areas;</p>

30. *Agrees* that there is an urgent need for international cooperation and action to improve conservation and sustainable use of biodiversity in marine areas beyond the limits of national jurisdiction, including the establishment of further marine protected areas consistent with international law, and based on scientific information, including areas such as seamounts, hydrothermal vents, cold-water corals and other vulnerable ecosystems;

31. *Recognizes* that the law of the sea provides a legal framework for regulating activities in marine areas beyond national jurisdiction and *requests* the Executive Secretary to urgently collaborate with the Secretary-General of the UN and relevant international and regional bodies in accordance with their mandates and their rules of procedure on the report called for in UNGA resolution 58/240 paragraph 52 and to support any work of UNGA in identifying appropriate mechanisms for the future establishment and effective management of marine protected areas beyond national jurisdiction.

Assessment, monitoring and research priorities

32. *Notes* that the research priorities and pilot projects set out in appendix 4 to annex I to the present decision would provide important assistance to national and, where appropriate, regional efforts to establish and maintain marine and coastal protected areas and national and regional networks, and that research programmes on the conservation of marine and coastal biodiversity resources are needed while setting up national biodiversity research priorities;

33. *Agrees* to incorporate the research priorities and pilot projects contained in appendix 4 to annex I to the present decision into the programme of work in marine and coastal biodiversity, and *requests* the Executive Secretary to identify partners to adopt the research priorities and undertake these projects as a matter of urgency;

34. *Notes* that it is necessary to develop research programmes on the conservation of marine biological diversity resources beyond marine and coastal protected

areas, with a view to establishing protected-area networks;

International support for the creation of networks of marine and coastal protected areas

35. *Urges* Parties, other Governments and relevant organizations to provide active financial, technical and other support for the establishment of a global system of marine and coastal protected area networks and the implementation within it of relevant provisions contained in this decision, including identification and removal of barriers to the creation of marine and coastal protected areas, and removal of perverse incentives for unsustainable activities in the marine and coastal environment, pursuant to decision VI/15, on incentive measures, within the framework of relevant marine-related international law;

36. *Decides* to examine the need for support through the financial mechanism to developing country Parties, in particular the least developed and small island developing States among them, for country-driven activities aimed at enhancing capabilities for activities relating to the establishment and maintenance of marine and coastal protected areas and networks of marine and coastal protected areas and in particular to assist Parties to develop systems to make their marine and coastal protection area networks self-sustaining in the medium to long term;

37. *Notes* that further technical advice related to network design and in particular ecological coherence of networks may be needed to assist Parties in implementation work, and request the Executive Secretary, in consultation with the Bureau of Subsidiary Body on Scientific, Technical and Technological Advice, to identify appropriate mechanisms for developing this advice.

Monitoring progress toward the global goal

38. *Invites* the UNEP-WCMC (World Conservation Monitoring Centre of the United Nations Environment Programme), in collaboration with relevant organizations and authorities, to provide and maintain up-to-date information on marine and coastal

protected areas, in line with the proposed categories for inventory and contextual information set out in annex III below, to provide a basis for the assessment work under the Convention;

39. *Requests* the Executive Secretary to provide an assessment of progress toward the global goal, as part of reporting on the programme of work on marine and coastal biological diversity;

Mariculture

40. *Welcomes* the summary report of the Ad Hoc Technical Expert Group on Mariculture (UNEP/CBD/SBSTTA/8/9/Add. 2) and the full report of the Group as presented as an information document for the eighth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/8/INF/6);

41. *Expresses its appreciation* to the Food and Agriculture Organization of the United Nations (FAO) for the technical support and meeting facilities provided for the meeting of the ad hoc technical expert group on mariculture;

42. *Takes note* of the negative biodiversity effects of mariculture, as described in section II of the summary report of the Ad Hoc Technical Expert Group on Mariculture, and of the methods and techniques available for their mitigation,

as described in section III of that summary report;

43. *Notes also* that the AHTEG in section IV of the summary report identified some positive effects for biodiversity of some forms of mariculture with native species.;

44. *Urges* Parties and other Governments to adopt the use of relevant methods and techniques for avoiding the adverse effects of mariculture on marine and coastal biological diversity, and incorporate them into their national biodiversity strategies and action plans;

45. *Recognizes* the complexity of mariculture activities, the highly variable circumstances of different geographical areas, mariculture practices and cultured species, as well as social, cultural and economic conditions, which will influence mitigation options, and, accordingly, taking into account the special needs of and the difficulties faced by stakeholders in developing countries, *recommends* that Parties and other Governments adopt the use of the following specific methods, techniques or practices for avoiding the adverse biodiversity-related effects of mariculture:

- (a) The application of environmental impact assessments, or similar assessment and monitoring procedures, for mariculture

- developments, with due consideration paid to the scale and nature of the operation, as well as carrying capacities of the environment, taking into account the guidelines on the integration of biodiversity considerations in environmental impact assessment legislation and/or processes and in strategic impact assessment, endorsed by the Conference of the Parties in its decision VI/7 A, as well as the recommendations endorsed in decision VI/10, annex II, on the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities. There is a need to address the likely immediate, intermediate and long-term impacts on all levels of biodiversity;
- (b) Development of effective site-selection methods, in the framework of integrated marine and coastal area management, taking into account the special needs and difficulties encountered by stakeholders in developing countries;
 - (c) Development of effective methods for effluent and waste control;
 - (d) Development of appropriate genetic resource management plans at the hatchery level and in the breeding areas, including cryo-preservation techniques, aimed at biodiversity conservation;
 - (e) Development of controlled low-cost hatchery and genetically sound reproduction methods, made available for widespread use, in order to avoid seed collection from nature, where appropriate. In cases where seed collection from nature cannot be avoided, environmentally sound practices for spat collecting operations should be employed;

- (f) Use of selective fishing gear in order to avoid or minimize by-catch in cases where seed are collected from nature;
- (g) Use of native species and subspecies in mariculture;
- (h) Implementation of effective measures to prevent the inadvertent release of mariculture species and fertile polyploids, including, in the framework of the Cartagena Protocol on Biosafety, living modified organisms (LMOS);
- (i) Use of proper methods of breeding and proper places of releasing in order to protect genetic diversity;
- (j) Minimizing the use of antibiotics through better husbandry techniques;
- (k) Ensure that fish stocks used for fishmeal and fish oil are managed in such a way as to be sustainable and to maintain the trophic web;
- (l) Use selective methods in industrial fisheries to avoid or minimize by-catch.
- (m) Considering traditional knowledge, where applicable, as a source to develop sustainable mariculture techniques;

46. *Urges* Parties and other Governments to adopt relevant best management practices and legal and institutional arrangements for sustainable mariculture, taking into account the special needs and difficulties encountered by stakeholders in developing countries, in particular through implementing Article 9 of Code of Conduct on Responsible Fisheries, as well as other provisions in the Code dealing with aquaculture, recognizing that it provides necessary guidance to develop legislative and policy frameworks at the national, regional and international levels;

47. *Requests* the Executive Secretary to undertake a comprehensive review of relevant documents on best practices

<p>Document</p>	<div> <div>Annex I</div> <div> Elaborated Programme of Work on Marine and Coastal Biological Diversity </div> <div> <div> <p>Para 6,7 and 8 under Basic Principles are relevant to fishworkers.</p> <p>6. The involvement of all relevant stakeholders in implementation of the programme of work should be promoted. The role of the Secretariat is to promote and facilitate the implementation of the programme of work.</p> <p>7. The implementation of the programme of work should be carried out with the full and effective participation of indigenous and local communities as appropriate and respect of their rights under domestic and applicable international law. In this context, Article 6.18 of the FAO Code of Conduct for Responsible Fisheries that highlights the need to protect the preferential access rights of fishers and fishworkers, particularly those engaged in subsistence, small scale and artisanal fisheries, to traditional fishing grounds and resources should be noted.</p> <p>8. In accordance with the Millennium Development Goals, the implementation of the programme of work aims to make a direct contribution to poverty alleviation. Its successful implementation will require national and regional capacity-building and financial resources for developing country Parties, in particular the least developed and small island developing States among them.</p> </div> </div> </div>
	<div> <div> <p>relevant to mariculture, and to disseminate the results, as well as relevant case studies, through the clearing-house mechanism prior to the tenth meeting of the Subsidiary Body;</p> <p>48. <i>Agrees</i> to incorporate the research and monitoring priorities identified by the Ad Hoc Technical Expert Group on Mariculture as outlined in appendix 5 to annex I to the present decision into the programme of work on marine and coastal biological diversity;</p> <p>49. <i>Recommends</i> that the Executive Secretary, in collaboration with the Food and Agriculture Organization of the United Nations and other relevant organizations, explore ways and means for implementing these research and monitoring priorities, including an evaluation of means through which mariculture can be used to restore or maintain biodiversity;</p> <p>50. <i>Recommends</i> that the Executive Secretary, in collaboration with the Food and Agriculture Organization of the United Nations and other relevant organizations, harmonize the use of terms in regards to mariculture by further developing and adopting the glossary of the Food and Agriculture Organization of the United Nations;</p> <p>51. <i>Expresses its support</i> for regional and international collaboration to address transboundary impacts of mariculture on biodiversity, such as spread of disease and invasive alien species;</p> <p>52. <i>Decides</i> to promote technical exchange and training programmes, and transfer of tools and technology;</p> <p>53. <i>Decides</i> to examine the need for support through the financial mechanism to developing country Parties for country-driven activities aimed at enhancing capabilities to mitigate the adverse effects of mariculture on biological diversity;</p> <p>Conservation and sustainable use of deep seabed genetic resources beyond national jurisdiction: arising from the study of the relationship between the Convention on Biological Diversity and the United Nations Convention on the Law of the Sea</p> <p>54. <i>Requests</i> the Executive Secretary, in consultation with Parties and other Governments and the International Seabed Authority, and in collaboration with international organizations, such as the United Nations Division for Ocean Affairs and the Law of the Sea, the United Nations Environment Programme, and the Intergovernmental Oceanographic Commission of the United Nations</p> </div> </div>

Educational, Cultural and Scientific Organization, if appropriate, to compile information on the methods for the identification, assessment and monitoring of genetic resources of the seabed and ocean floor and subsoil thereof, in areas beyond the limits of national jurisdiction; compile and synthesize information on their status and trends including identification of threats to such genetic resources and the technical options for their protection; and report on the progress made to the SBSTTA

55. Welcomes the United Nations General Assembly’s resolution 58/240 and *invites* the Parties to raise their concerns regarding the issue of conservation and sustainable use of genetic resources of the deep seabed beyond limits of national jurisdiction at the next meeting of the General Assembly and further *invites* the General Assembly to further coordinate work relating to conservation and sustainable use of genetic resources of the deep seabed beyond the limits of national jurisdiction.

56. *Invites* Parties and other States to identify activities and processes under their jurisdiction or control which may have significant adverse impact on deep seabed ecosystems and species beyond the limits of national jurisdiction, in order to address Article 3 of the Convention.

Conservation and sustainable use of biological diversity in marine areas beyond the limits of national jurisdiction

57. *Recalling* paragraph 32(a) and (c) of the Johannesburg Plan of Implementation from the World Summit on Sustainable Development, that calls on the international community to “maintain the productivity and biodiversity of important and vulnerable marine and coastal areas, including in areas within and beyond national jurisdiction”;

58. *Notes* that United Nations General Assembly in its resolution 58/240 of 23 December 2003, paragraph 51, has reiterated “its call for urgent consideration of ways to integrate and improve, on a scientific basis, the management of risks to the marine biodiversity of seamounts, cold water coral reefs and certain other underwater features”;

59. *Recalls* paragraph 52 of the above-mentioned UNGA Resolution that “invites the relevant global and regional bodies, in accordance with their mandate, to investigate urgently how to better address, on a scientific basis, including the application of precaution, the threats and risks to vulnerable and threatened marine ecosystems and biodiversity beyond national jurisdiction; how existing treaties and other relevant instruments can be

used in this process consistent with international law, in particular with the Convention, and with the principles of an integrated ecosystem-based approach to management, including the identification of marine ecosystem types that warrant priority attention and to explore a range of potential approaches and tools for the protection and management”;

60. *Concerned about* the serious threats to the biological diversity, *stresses* the need for rapid action to address these threats on the basis of the precautionary approach and the ecosystem approach, in marine areas beyond the limits of national jurisdiction, in particular areas with seamounts, hydrothermal vents, and cold-water corals, other vulnerable ecosystems and certain other underwater features, resulting from processes and activities in such areas;

61. *Calls upon* the United Nations General Assembly and other relevant international and regional organizations, within their mandate, according to their rules of procedure, to urgently take the necessary short-term, medium-term and long-term measures to eliminate/avoid destructive practices, consistent with international law, on scientific basis, including the application of precaution, for example, on a case by case basis, interim prohibition of destructive practices adversely impacting the marine biological diversity associated with the areas identified in paragraph 60 above.

62. *Recommends* Parties to also urgently take the necessary short-term, medium-term and long-term measures to respond to the loss or reduction of marine biological diversity associated with the areas identified in paragraph 60 above. ¶

This draft decision on the review of the programme of work on marine and coastal biological diversity (Agenda item 18.2) was submitted by the Chair of Working Group I of the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity on 20 February 2004 at Kuala Lumpur

Governance, participation, equity, benefit sharing

Programme element 2 in the Annex on programme of work on protected areas under Agenda item 24 is relevant to fishworkers

Draft Decision Submitted by the Chair of Working Group I on Protected Areas (Articles 8(A) to (E))

Annex: Programme of work on protected areas

Programme Element 2: Governance, participation, equity and benefit sharing

Goal 2.1 To promote equity and benefit-sharing

Target: Establish by 2008 mechanisms for the equitable sharing of both costs and benefits arising from the establishment and management of protected areas.

Suggested activities of the Parties

2.1.1. Assess the economic and socio-cultural costs, benefits and impacts arising from the establishment and maintenance of protected areas, particularly for indigenous and local communities, and adjust policies to avoid and mitigate negative impacts, and where appropriate compensate costs and equitably share benefits in accordance with the national legislation.

2.1.2. Recognize and promote a broad set of protected area governance types related to their potential for achieving biodiversity conservation goals in accordance with the Convention, which may include areas conserved by indigenous and local communities and private nature reserves. The promotion of these areas should be by legal and/or policy, financial and community mechanisms.

2.1.3. Establish policies and institutional mechanisms with full participation of

indigenous and local communities, to facilitate the legal recognition and effective management of indigenous and local community conserved areas in a manner consistent with the goals of conserving both biodiversity and the knowledge, innovations and practices of indigenous and local communities.

2.1.4. Use social and economic benefits generated by protected areas for poverty reduction, consistent with protected-area management objectives.

2.1.5. Engage indigenous and local communities and relevant stakeholders in participatory planning and governance, recalling the principles of the ecosystem approach.

2.1.6. Establish or strengthen national policies to deal with access to genetic resources within protected areas and fair and equitable sharing of benefits arising from their utilization, drawing upon the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization as appropriate.

Goal 2.2 To enhance and secure involvement of indigenous and local communities and relevant stakeholders

Target: Full and effective participation by 2008, of indigenous and local communities, in full respect of their rights and recognition of their responsibilities, consistent with national law and applicable international obligations, and the participation of relevant stakeholders, in the management of existing, and the establishment and management of new, protected areas.



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Suggested activities of the Parties

2.2.1 Carry out participatory national reviews of the status, needs and context-specific mechanisms for involving stakeholders, ensuring gender and social equity, in protected areas policy and management, at the level of national policy, protected area systems and individual sites.

2.2.2 Implement specific plans and initiatives to effectively involve indigenous and local communities, with respect for their rights consistent with national legislation and applicable international obligations, and stakeholders at all levels of protected areas planning, establishment, governance and management, with particular emphasis on identifying and removing barriers preventing adequate participation.

2.2.3 Support participatory assessment exercises among stakeholders to identify and harness the wealth of knowledge, skills, resources and institutions of importance for conservation that are available in society.

2.2.4 Promote an enabling environment (legislation, policies, capacities and resources) for the involvement of indigenous and local communities and relevant stakeholders in decision making, and the development of their capacities and opportunities to establish and manage protected areas, including community-conserved and private protected areas.

2.2.5 Ensure that any resettlement of indigenous communities as a consequence of the establishment or management of protected areas will only take place with their prior informed consent that may be given according to national legislation and applicable international obligations.

Suggested supporting activities of the Executive Secretary

2.2.6 Make available to Parties case-studies, advice on best practices and other sources of information on stakeholder participation in protected areas.

2.2.7 Promote, through the CHM, technical publications and other means, the international sharing of experience on effective mechanisms for stakeholder involvement and governance types in conservation in particular with regard to co-managed protected areas, indigenous and local community conserved areas and private protected areas.

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This draft decision on protected areas (Agenda item 24) was submitted by the Chair of Working Group I of the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity on 20 February 2004 at Kuala Lumpur

Sustaining livelihoods

This is a brief account of the discussions at the recent CBD meet on Agenda Item 18.2 on marine and coastal biological diversity

Agenda Item 18 on the *Thematic programmes of work—review, further elaboration and refinement: biological diversity of inland water ecosystems and marine and coastal biological diversity* was first discussed at the Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity on 13 February 2004 at Kuala Lumpur.

Several delegates, particularly from Small Island Developing States (SIDS), pointed to the high social, economic and cultural dependence of their States on marine and coastal biodiversity, and highlighted their extreme vulnerability to the impact of coral bleaching and climate change. They made a strong plea for a target and action-oriented work plan for increasing resilience to coral bleaching and stressed the importance of close coordination with the United Nations Framework Convention on Climate Change (UNFCCC) and the Ramsar Convention.

The discussion on marine and coastal protected areas (MCPAS) was lively. Several delegates, including Japan, Tanzania and Senegal, pointed to knowledge gaps, and requested that the establishment of MCPAS be science-based. Iceland and Chile stressed the principle of sustainable use *vis-a-vis* protected areas, the fact that several approaches are available for conserving marine biodiversity, and that MCPAS need not be an *essential* tool, but one among the many that could be used. Several States, including Iceland, the European Union (EU), New Zealand and Norway, stressed the importance of adopting an ecosystem approach.

Many delegates and NGOs present stressed the importance of conserving high-seas biodiversity, proposing urgent

action to prevent the degradation and destruction of seamounts, cold-water coral reefs and other vulnerable and threatened ecosystems and resources. Some delegates called for a moratorium on deep-sea trawling. Most delegates stressed the need for consistency with international law, particularly the United Nations Convention on the Law of the Sea (UNCLOS), regarding biodiversity protection in marine areas beyond national jurisdiction and called for better regional cooperation. Some delegates opposed addressing areas beyond national jurisdiction and establishing a global network of MCPAS, noting that this falls under the scope of UNCLOS.

Several delegations, including Thailand, highlighted the role of community-based conservation, the importance of local knowledge and local and traditional practices. Several States stressed the importance of community participation, and Palau and the Philippines highlighted the need to apply programme element 2 of the programme of work on protected areas on *Governance, participation, equity and benefit sharing*, to work on marine and coastal biological diversity.

Trawling

Kiribati stressed the importance of community-based management approaches and the need to recognize sustainable fishing practices, including the use of traditional gear. Maldives pointed to the selectivity and sustainability of their traditional fishing practices and stressed that the main threat was from illegal industrial fisheries. Ghana pointed to the negative impact of trawling in the Gulf of Guinea, and its negative consequences on local fishermen, calling for a moratorium on the same. Russia opposed such a moratorium, pointing out that trawling may not be

harmful in all contexts. Thailand was of the view that greater emphasis was required on issues related to poverty alleviation, as outlined in the Millennium Development Goals. The EU emphasized the importance of socioeconomic considerations and of sustainable livelihoods in the context of indigenous and local communities.

The Philippines, drawing on its own experiences with community-based resource management, highlighted the importance of protecting preferential access rights of fishers and fishworkers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to traditional fishing grounds and resources.

Argentina favoured removing references to the positive effects of mariculture, a position that was opposed by Russia. Many delegates, including the Philippines, stressed the urgency of addressing Invasive Alien Species (IAS) from ballast water, while some others highlighted the importance of adopting Integrated Coastal and Marine Area Management (ICMAM) approaches.

Several delegates, particularly from developing countries and SIDS, called for enhanced financial and technical support to implement the work programme.

Several other organizations, including IUCN-The World Conservation Union, the International Indigenous Forum for Biodiversity (IIFB), Greenpeace, ICSF and UNESCO also made interventions.

This piece by Chandrika Sharma (icsf@vsnl.com), Executive Secretary, ICSF, is not a comprehensive summary of the discussions on Agenda Item 18.2, since it covers only the first day. For the final decisions, please visit the CBD site at www.biodiv.org

News Round-up

Shrimp crimped

The United States is determined to go ahead with its antidumping case against six shrimp-exporting countries. The US International Trade Commission (ITC)



recently said there is reason to believe that the US industry is materially injured by imports of certain frozen and canned warmwater shrimp and prawns from **Brazil, China, Ecuador, India, Thailand, and Vietnam** that are allegedly sold in the US at less than fair value.

The US Department of Commerce will continue to conduct its antidumping investigations, with its preliminary antidumping determination due on or about June 8, 2004.

The US Southern Shrimp Alliance filed a complaint late last year with the US Department of Commerce and the ITC against

farm-raised shrimp originating in these countries.

The alliance claims that imports from the six countries had been sold in the US at unfairly low prices for years, causing domestic shrimp sales to drop to US\$559 million in 2002 from US\$1.25 billion in 2000.

All the six countries have decided to legally challenge the US decision. The Indian government, for instance, has officially said it will fight out the US trade panel's decision giving preliminary approval for imposition of anti-dumping duties on imports of shrimp from India. "We will fight it out...We are all geared up to fight the case and industry has already hired lawyers for this," Special Secretary, Ministry of Commerce, S.N. Menon, said. Observing that New Delhi had a very strong case, Menon said India was mainly exporting "tiger shrimps", which are not found there and that too in unprocessed frozen form. The Seafood Exporters Association of India has appointed the US law firm, Garvey

Schubert and Barer, to fight the suit.

Major shrimp producers in China, who export some US\$800 million worth of shrimp each year, have hired lawyers to fight the case, said officials with Zhejiang Zhoushan Aquatic Export Association.

Ballast blast

The International Convention for the Control and Management of Ships Ballast Water and Sediments was adopted by consensus at a Diplomatic Conference at the International Maritime Organization (IMO) in London on 13 February 2004.

The Conference was attended by representatives of 74 States, one Associate Member of IMO and observers from two intergovernmental organizations and 18 non-governmental international organizations.



Under Article 2 (General Obligations), Parties undertake to give full and complete effect to the provisions of the Convention and the Annex in order to prevent, minimize and ultimately eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments.

Park here

A consortium of Latin American countries, conservation groups and United Nations agencies has announced its intention to create one of the world's largest marine parks.

The creation of the Eastern Tropical Pacific Seascape was announced during last weeks' 24th Symposium on Sea Turtle Conservation and Biology, which took place in San Jose, **Costa Rica**, assembling together around 1,000 experts from 80 nations.

This new reserve will span 211 million hectares of ocean, linking and expanding existing marine reserves and consolidating current and planned conservation efforts in the region to provide greater protection to many ocean species found there, including sperm whales, dolphins, tuna,

sharks and turtles, reports National Geographic.

The four-year project will involve a USD 3.1 million investment, USD 1.5 million of which will be provided by the United Nations Foundation, and the rest will come from the environmental group Conservation International as well as other donors. Twelve percent of the Earth's surface currently falls under some kind of conservation protection, but just one per cent of this area extends to the oceans.

Debate abate

After having approved the creation of the National Commission for Fishery and Aquaculture (CONAPESCA) within the framework of talks on the new Law of Fishery and Aquaculture, the National Assembly of Nicaragua resolved to suspend the parliamentary debate without announcing a date for its reinstatement.

Though the country's fishery sector is happy with the creation of the new organization, it has criticized the postponement of the plenary discussions, which, according to local news sources, was due to the prevalence of political interests.

The enactment of the Fishery and Aquaculture Law has been delayed for various years in the National Assembly, though it was approved in 1996. It was later returned to the Environment Committee for review of specifics.

Bill will



A new bill to be presented by the government of Zambia is expected to help develop the country's fishing industry.

The bill is asking for the review and modification of the current fisheries policy in order to finally tap into the potential of the industry, reports the *Times of Zambia*.

The proposed amendments to the fisheries policy includes the employment of overseers to control rivers and lakes in a particular area, the introduction of scales for weighing fish, the implementation of proper export procedures, and the introduction of training programmes for fishermen and traders.

The government, intending to create support for Brazil's fishery trade, last Friday forged a heterogeneous work team made up of experts from the Special Secretariat of Aquaculture and Fisheries (SEAP) and the National Company for Foodstuffs (CONAB) representing the private sector.

Gratified

Though Thailand signed the Convention on Biological Diversity (CBD) on 12 June 1992 at the Rio Conference on Environment and Development (UNCED), it ratified it only on 29 January 2004. According to observers, many Thai NGOs and civil society groups have lobbied the country's parliament against it, saying that the instrument encroaches on Thai sovereignty.

Fishy standard

The 92nd Session of the International Labour Conference of



the International Labour Organization (ILO), to be held during 1-17 June 2004, will address the issue of adopting a comprehensive

standard (a Convention supplemented by a Recommendation) on work in the fishing sector. The new standard will revise the existing seven ILO instruments that apply to persons working on fishing vessels. It is also expected to provide protection for workers on both large and small fishing vessels.

New dossier

ICSF has just published a new dossier on safety at sea, titled *Dangerous Calling*. A compilation of articles published in *SAMUDRA Report*, the dossier documents the hazards of what is arguably the world's



most dangerous vocation. As fishermen are forced to move farther away from shore in search of declining stocks, they have to confront several dangers: bad weather, rough seas, flooding, fire, poor vessel design, mechanical problems, and so on.

These problems are made worse in developing countries, as the dossier reports. The dossier can be accessed at www.icsf.net.

We lying by seasand

We lying by seasand, watching yellow
And the grave sea, mock who deride
Who follow the red rivers, hollow
Alcove of words out of cicada shade,
For in this yellow grave of sand and sea
A calling for colour calls with the wind
That's grave and gay as grave and sea
Sleeping on either hand.
The lunar silences, the silent tide
Lapping the still canals, the dry tide-master
Ribbed between desert and water storm,
Should cure our ills of the water
With a one-coloured calm;
The heavenly music over the sand
Sounds with the grains as they hurry
Hiding the golden mountains and mansions
Of the grave, gay, seaside land.
Bound by a sovereign strip, we lie,
Watch yellow, wish for wind to blow away
The strata of the shore and drown red rock;
But wishes breed not, neither
Can we fend off rock arrival,
Lie watching yellow until the golden weather
Breaks, O my heart's blood, like a heart and hill.

— Dylan Thomas



ICSF is an international NGO working on issues that concern fishworkers the world over. It is in status with the Economic and Social Council of the UN and is on UN's Special List of Non-Governmental International Organizations. It also has Liaison Status with FAO. Registered in Geneva, ICSF has offices in Chennai, India and Brussels, Belgium. As a global network of community organizers, teachers, technicians, researchers and scientists, ICSF's activities encompass monitoring and research, exchange and training, campaigns and action, as well as communications. SAMUDRA REPORT invites contributions and responses. Correspondence should be addressed to the Chennai office.

The opinions and positions expressed in the articles are those of the authors concerned and do not necessarily represent the official views of ICSF.

SAMUDRA REPORT can now be accessed on ICSF's home page on the World Wide Web at <http://www.icsf.net> or <http://www.icsf.org>

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From a Thai painting

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