"EARTH SUMMIT" CONCERNS AND VIEWS OF THE ICSF

Sebastian Mathew

Introduction

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

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

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

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

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

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

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

Environment and development: a general discussion

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

> ".. *the length of the biosphere as an inhabitable region for organisms is to be measured in decades rather than in hundreds of millions of years- This is entirely the fault of our own species. It would seem not unlikely that we are approaching a crisis that is comparable to the one that occurred when free oxygen began to accumulate in the atmosphere".*
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> The Biosphere,
> Scientific American, Sep. 1990

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

> "The ozone hole over Antarctica was such a surprise that scientists at first missed it altogether. Satellites had collected all the raw data that would have demonstrated its existence during the 1970s, but their computers had been programmed to discount as error any reading that were far outside "normal" parameters. British scientists who eventually discovered the ozone hole in 1982 did not publish their discovery until 1985 because it was so incredible that they wanted to verify it first."
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> The Hindu Survey of the Environment 1991

This revelation about the ozone hole came in the midst

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

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

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

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

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

One of the consequences of such a callous development process is water pollution. Not surprisingly, most affected are fishworkers who not only have to suffer the effects of this pollution, they are also victims of activities that displace them from their traditional fishing grounds.

Why are fishworkers concerned?

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

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

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

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

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

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

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

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

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

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

Nuclear power plants also pose threats. Chlorine and other antifouling chemicals used in cooling operations of nuclear electric power plants can build up in estuarine areas. The build-up of such chemicals has been implicated in large fish kills in the United States. Release of heat from nuclear plants into the coastal marine environment can adversely affect the flora and fauna in warm tropical waters, since these species already live dangerously close to their upper limits of temperature tolerance, particularly during the summer. Defoliation of mangrove areas, practiced in the preparation of sites for aquaculture, and use of fertilizers, lime and pesticides in aquaculture areas negatively influence the coastal fisheries. Destruction of mangroves not only destroys coral reefs and causes heavy siltation in the near-shore waters, but also exposes vulnerable coastal communities to the fury of cyclones in the Pacific and the Indian ocean. The clearing and sifting in of mangrove areas constrict the supply of nutrients to nursery grounds, and also reduce habitat area.

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

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

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

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

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

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

Fishworkers' right to livelihood

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

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

Do we have options?

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

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

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

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

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