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Law of the Sea: strong IUCN statement

IUCN is making a determined bid to inject environmental realism into the UN treaty dealing with international sea law. The Third UN Conference on the Law of the Sea (UNCLOS III) is now meeting in Geneva and IUCN has sent a very full and thoroughly researched statement to the foreign ministries of all participating states and to the heads of all delegations.

The statement is a strong one. Yet it seeks to build on foundations already laid by the Conference and has been drafted with all due regard for political realities. It records IUCN's “ disappointment at the lack of a systematic and coherent approach to the environmental management of the world's oceans ” and spells out the ways in which IUCN would like to see the relevant passages in the draft treaty strengthened.

“ Due apparently to the need for political compromise ”, the statement says, “ the provisions on the conservation and management of living resources are generally vague, often inconsistent and sometimes scientifically unsound. ” The draft text

- does not provide the environmental safeguards essential for the health of the seas in the face of current and prospective technologies;
- has failed to develop the conservation duties and responsibilities of coastal states despite an enormous expansion of their rights and powers;
- lacks coherent and comprehensive criteria for the use and conservation of marine living resources;
- does not provide adequate means of managing disputes.

As the present UNCLOS III text stands, coastal states would continue to be legally free to over-exploit species and to destroy the habitats on which they depend.

Background to IUCN statement

Following the 1977 session of UNCLOS III, an IUCN team of lawyers and scientists set about analysing in detail those Articles of the draft text which purport to deal with conservation issues. The analysis exposed several glaring environmental deficiencies.

IUCN recognizes that at this advanced stage of the Conference (the first session was in 1973), major textual changes, however desirable, are not a realistic goal. At the same time, though, IUCN believes that certain adjustments to the present text could result in a very much more effective treaty on conservation matters, and one to which no nation could reasonably object on other grounds. Accordingly IUCN has put forward certain revisions of the draft treaty, principally in those sec-

tions dealing with the “ Protection and preservation of the marine environment ” and the “ Conservation of the living resources of the seas ”. In the IUCN critique some existing Articles have been amended and a number of new ones added.

Current and prospective technology

An energy-hungry world is turning to the oceans to satisfy its needs. Already oil and gas are being extracted from the seabeds. In the coming years this use of the seas will increase while the harnessing of waves, wind and tides and the possible siting of nuclear plants on artificial islands will involve new technologies and, in their wake, new hazards to the marine environment.

While these and many other prospective uses of the oceans (deep-sea mining of

hard metals, for instance) are of great potential value to mankind, the draft treaty does not lay down sufficiently stringent environmental safeguards. The “ problem ” of new technologies is not addressed.

Similarly the use of many new species of marine life for purposes of medicine or food may result in shifting perceptions of what constitutes a “ natural ” ecological balance. Future benefits must not be won by endangering the survival of animal or plant species—even where man has no present use for them.

The bane of sovereignty

Underpinned by a myopically self-seeking concept of sovereignty, the new law of the

(Continued on back page)

Antarctica: gold mine or landmine?

How are the frozen assets of Antarctica to be apportioned? The 13 Antarctic Treaty powers hope to arrive at a decision on this potentially explosive subject by the end of the year. But will they do so? And if they do, will the world at large benefit? On both these scores there are doubts.

At a 3-week meeting in London last September the Treaty powers postponed coming to grips with politically sensitive issues. Members agreed to make no claims to minerals or fish and not even to indulge in mineral exploration—pending further research and the drawing up of rules as to who gets what.

But the London meeting did record a highly important change of direction. No longer will the Antarctic Treaty be exclusively concerned with scientific research for strictly scientific ends. Treaty members declared their intention of concluding a conservation regime by the end of 1978 which will permit the harvesting of living resources in the fish-rich Southern Ocean—with a minerals' regime to follow.

A meeting to further this aim was held in Canberra in February/March but it seems that progress was not smooth. Although a draft convention now exists not a single Treaty member has so far signed it, and another meeting is now scheduled for Buenos Aires in July to clear the way for the final (?) session in Canberra in December. The nearer the goal, the tougher the going is likely to get. For reasons of politics—and history.

All territorial claims frozen

Between 1908 and 1946 various countries took nominal possession of different parts (and sometimes the same part) of the Antarctic land mass. All but 17% of it is now claimed on one pretext or another—of which perhaps the flimsiest relies on resurrecting a rather generous edict of a 15th century Pope. The seven claimants are New Zealand, Australia, France, Norway, UK, Argentina, Chile. The claims of the last three of these overlap and are disputed. Furthermore some of the claimants have notionally extended their land claims 200 miles seawards. To add to the confusion none of these claims is recognized by the other six treaty powers—the

US, the USSR, Japan, Belgium, South Africa and (since 1977) Poland.

In 1959 the Antarctic Treaty came into force. One immediate effect was the suspension (for the time being) of all territorial claims. The treaty also lays down that Antarctica is to be used for peaceful purposes only, that scientific plans, findings and personnel are to be freely exchanged and that appointed observers have the right to inspect any national scientific station at any time and without forewarning. It is in many respects a model treaty and its provisions have been scrupulously adhered to. Although many of the treaty nations are ideologically poles apart, political wrangling has been refreshingly absent—so far.

But the testing time is coming. And coming very soon by wish of the treaty powers themselves. Why the rush? The short answer is *Euphasia superba*—or krill. Some estimates suggest that the annual catch of this protein-rich, shrimp-like crustacean could equal the world's total fish catch (around 60 million tons) without depleting stocks or disrupting the ecosystem. Already at least eight countries—Chile, Japan, Norway, USSR plus the non-treaty countries of South Korea, Taiwan and East and West Germany—have begun to harvest krill on an exploratory basis while others are showing keen interest.

The draft agreement recognizes that krill is the chief link in a food chain reaching up to the great whales and down to the diatoms, the marine plants on which krill largely subsist. It also recognizes that once massive capital is invested in krill, the conservation case is likely to go by default. The treaty powers therefore wish to set a low limit to the annual catch to start with (5 million tons is a figure that has been quoted) in order to monitor the effects on the Southern Ocean ecosystem.

Will fine precepts make fine deeds?

All this is laudable enough. But can these fine precepts be converted into action? Whether the present accord among the treaty powers will hold once the treasure chest of the Antarctic has been prised

open is anybody's guess. Although oil and gas have not yet been discovered the odds are that they soon will be—and in vast quantities. From their geological surveys the Americans believe that huge gas fields exist and that recoverable oil will amount to tens of billions of barrels. For its part the Soviet Union thinks that Antarctic oil reserves may exceed those of Alaska.

If and when rich strikes are made, the treaty will be under tremendous strain. Territorial claims have been put into cold storage, they have not been renounced. And some of the claimants—Argentina, Chile and maybe Australia—are likely to take a tough line.

Then what about the rest of the world? Even if the treaty powers can agree among themselves on some cosy carve-up, can "outsiders" be expected just to stand by uncomplaining? Grumbling noises are already being heard.

Biological issues loom large

There are also a great many unresolved biological problems. As commercial exploitation gathers pace these will loom large. The treaty nations abide by the very comprehensive "measures for conservation of Antarctic fauna and flora" agreed in 1964 by the Scientific Committee on Antarctic Research. But these measures have no legal sanction. They are not in force because certain of the treaty powers have not yet ratified them.

While it is reassuring to hear that the proposed new conservation regime requires whale populations to be restored to a healthy level, krill fishing is scarcely going to be an aid. It cannot be assumed that with far fewer krill-eating whales, there must now be a surplus of krill which can "safely" be fished. Despite protection the populations of blue, fin and humpback whales show no sign of increasing—possibly because the krill "surplus" is being taken up by the very plentiful crab-eating seal and the fast-growing fur seal (which is recovering from its near destruction in the 1930s).

But whether there is a current surplus of krill or not, even the present depleted whale stocks are thought to consume an annual 33 million tons. As the krill industry grows, whales are all too likely to be seen as competing with man. The task of whale protection could then become impossibly hard.

Another point is that fishing in these latitudes lasts only three months a year. So what will the expensive new krill trawlers do in the other nine months? They are hardly likely to stay in port killing time. They will be out at sea killing fish. But which and where?

Is malnutrition due to lack of protein?

Some people may contend that all these arguments miss the fundamental point that krill, weight for weight, contains as

Wildlife wardens—a "threatened species"

In many parts of the world the professional protectors of wildlife are themselves "threatened species". Part of their job is to arrest poachers and this can sometimes be a most risky undertaking requiring no little courage.

Rare animals have a high market value. So poachers move in. So rare animals become still rarer and market values rise still higher. So—the circle gets ever more vicious and those who come between poachers and their prey do so at great personal risk.

The *Bulletin* wishes to hear from wildlife officers and national park managers with details of dangerous and maybe tragic incidents involving poachers. Animal-poaching and timber-poaching are both on a disturbingly large scale and much of it is the work of armed gangs. We wish to build up a worldwide picture of the present situation and to learn how wardens in different lands are combating this menace.

much protein as beef steak and that a hungry world cannot in equity be denied this food. But is there a world shortage of protein? It is argued that most protein malnutrition is caused by diets deficient in carbohydrates and fats. In any case, as Sidney Holt has pointed out in a recent paper (FAO, 1977), very little marine protein at present reaches underfed people. How would this state of affairs be changed?

There is the further point that little will be gained by a protein feast tomorrow if it is followed by a protein famine the day after. During the '50s and '60s huge numbers of whales were caught, heedlessly decimating their populations. And so today few people anywhere—and very few of those most in need—can enjoy the nutritional benefits of whale meat.

Then there is the classic case of anchoveta, a tiny fish that makes excellent feed for livestock and lives off the coast of Peru. Until the 1950s anchoveta was

scarcely known, but once discovered it soon constituted one-sixth of the world fish catch. Supplies were thought to be limitless and in 1967 the catch was nearly 10 million tons. By 1972 the fishery had virtually collapsed from gross overfishing and stocks are only now slowly building up again. Will krill go the same way as anchoveta?

Oil spills would be devastating

Oil exploration in Antarctica can be expected to start in four or five years time. The urgent need is for proper research *before* then into the likely impact of oil on Antarctic ecosystems. With a particularly deep continental shelf and the ever-present menace of massive icebergs and persistently diabolical weather, drilling in Antarctica is sure to prove a uniquely difficult and hazardous venture. At the same time any spills or blow-outs are likely to be extremely damaging. In these

icy seas oil would degrade only very slowly.

As things stand the treaty powers are laying claim to a slice of the world which lies beyond the *recognized* bounds of national jurisdiction. This does not seem very equitable and is likely to be challenged. But one way or another Antarctica is to be developed—the idea that it should become a UN “world park” stands no chance of being accepted. The important thing therefore is to ensure that before large-scale development begins, solid ecological safeguards are agreed and political landmines are, so far as possible, defused.

A solution that equally serves the interests of conservation and justice is unlikely. But if conservation is sacrificed the whole world will lose out—which may be equitable but is not useful. Better a restricted and sound regime than an unrestricted free-for-all, the environmental cost of which would certainly be very steep.

IUCN's two Southern Ocean projects

At the meeting of IUCN's Marine Steering Committee in February two projects dealing with the Southern Ocean were accepted and now form part of the marine programme. A study entitled “Living resource management in the Southern Ocean” is being undertaken by the International Institute for Environment and Development (IIED). In a complementary study Dr John Beddington is conducting an “Analysis of the Southern Ocean ecosystem”.

For the past 18 months IIED has been researching into the political and legal structure of resource exploitation in the Antarctic—with the focus increasingly on living resources. IIED's brief in its work for IUCN is to outline a policy of development that protects both the Southern Ocean ecosystem and the interests of the international community.

First there will be a broad analysis of the likely economic future for the krill fishery—in terms of fishing effort, product processing and marketing. Second there will be an analysis of the impact of krill fishing on other fisheries and products. The study will then address the problem of how developing countries can benefit. Finally there will be a policy document setting out management options.

IIED's project team is aware that with the treaty powers hoping to conclude an agreement by the end of the year, speed is of the essence. It is important that, so far as possible, treaty delegates are made aware of IUCN's overall position (even while it is still evolving) and of particular doubts or objections with regard to the conservation regime while it is still in draft form.

Southern Ocean model

At the same time John Beddington and his team will be constructing and testing a mathematical model of the Southern

Ocean ecosystem. The model is being designed to answer two questions. One, how will the ecosystem respond to human incursions—e.g. various levels of whaling and krill fishing? Two, what precisely are the interactions and processes involved? The model will be revised and refined as information is gathered. The aim is to make it a predictive tool that warns of problems before they arise.

The first fruits of this project take the form of comments given to the US State Department on the American “draft environmental impact statement for a possible regime for conservation of Antarctic living marine resources”. This draft was prepared for the March meeting of the treaty powers. The US has established—with the strong support of President Carter—a Commission on World Hunger and is keen that international community interests in krill be protected. It is therefore pertinent to ask whether the policy outlined in the draft statement adequately safeguards these interests. Although the comments as given to the State Department do not specifically address this issue, it would seem that the answer is No.

It is pointed out that krill fishing is an intrusion into a *dynamic* ecosystem that has already been severely disrupted by the decimation of the baleen whales. Any krill fishery must take this fact into account; otherwise repercussions are likely to be serious. Sea mammals are long-lived and will not quickly adjust their populations to reduced availability of krill. At the same time it has been shown that for whales even a small reduction in food intake (or the need to travel further for the same intake) can appreciably lower breeding efficiency. Furthermore if present predation—by whales, seals and seabirds—is keeping krill at or below MSY level, any additional catch may lead to a changed equilibrium within the ecosystem which will not be

detected in time to reverse it and which will finally support both fewer krill and fewer whales than intended or predicted.

For the baleen whales the timing and location of commercial krill fishing may also be critical. The whale's pattern of migration would seem to be finely tuned to the krill's life cycle and chief areas of concentration. Fishing for krill in these same areas could thus have a damaging effect out of all proportion to the actual catch.



New title

Some outstanding landscapes

by IUCN Commission on Environmental Planning

IUCN, 94 pp, 40 maps, \$5.00

This latest IUCN publication covers 40 outstanding landscapes from nine European countries: Czechoslovakia, Denmark, German Federal Republic, Greece, Ireland, Netherlands, Spain, Sweden, Yugoslavia. While very diverse in character, what these landscapes do have in common is vulnerability to man-made change. Very few of them are protected in any way.

The aim of the book is to encourage the conservation of natural areas which are of global as well as national significance. The selected landscapes are described, threats to them are listed and specific suggestions are made as to how their values—cultural, recreational and ecological—should be safeguarded.

Commissions meet in Portugal

The Survival Service Commission and the Commission for National Parks and Protected Areas met in Faro, Portugal, for five full working days in February at the invitation of the Portuguese government. The purpose was to plan the activities of the two Commissions in the months leading up to Ashkhabad. While Commission activities are separate and distinct, spheres of interest naturally overlap. Some of the time was therefore spent in joint sessions.

During the meeting IUCN's Director General, David Munro, presented the overall policy and objectives of IUCN in the context of the *World Conservation Strategy*. The secretariat's regional officers, Wee Lek Chew (Asia), John Kundaeli (Africa), Pierre Hunkeler (Europe and North Africa), Felipe Matos (Latin America), Mats Segnestam (Marine Programme), Alfred Hoffmann (Environmental Education), then briefly spoke of their own activities. A number of Portuguese scientists and government officials also attended and gave a fairly detailed

report on the status of conservation in Portugal.

Following the conference an IUCN representative had a meeting with Portugal's Minister of the Environment. Portugal is preparing a nation-wide conservation plan with which IUCN will be associated.

Ban on Thai teak exports... and death for illegal logging

The Thai government is taking stern measures to save the country's remaining forests. The export of teak is now forbidden and the penalty for illegal logging is death. These measures were sparked by American satellite photography which revealed a 35% decline in Thailand's forest area in the past 20 years.

Yachts are the principal users of teak and the ban will hit western boat builders hard. Not much of Burma's teak reaches western markets, while this "gemstone among woods" is of a lesser quality in India, Indonesia and Central America.

Demand for Thai teak remains strong. American wholesale prices doubled in 1977 (before the ban) and a black market in teak logs is now said to be operating in Hong Kong.

Japan funds logging in Burma

An agreement has been signed between the Timber Corporation of Burman and Japan International Cooperation Agency. The Agency will fund a \$4.5 million cable logging project in Chaungtha Forest Reserve, Arakan Yoma. It is the first time this method of timber extraction has been practised in Burma and the funds will be used to buy machinery and equipment from Japan and to bring over Japanese technical experts in order to train the Burmese workers. The project is scheduled to last four years and will be completed in 1981-82. Chaungtha is a hardwood forest and is considered the most suitable in Burma for cable logging.

More wetlands from Italy

Italy ratified the Convention on Wetlands of International Importance especially as Waterfowl Habitat in December 1976. Since then Italy has added two more wetlands to the original list of 18. None of the other 20 parties to the convention has so far followed this example.

Tropical sea fish—are aquariums taking too many?

Fears have been expressed that too many tropical sea fish are being caught for aquariums. Certainly the trade needs watching. In the first six months of last year Singapore imported 192,000 sea fish bound for aquariums and exported 290,000. Most of these fish must have come from island reefs, and with the aquarium business now booming in a great many countries some of these dazzlingly coloured marine species may soon be under heavy pressure.

Environmental education seminar

A 2-day seminar on Environmental Education in the European Community will be held at the Manhattan Center, Brussels, on 15-16 June. Organizers are the European Environmental Bureau. The aim is to promote a broader understanding of the Community's environmental policy.

Participation is restricted to professionals and the number may not exceed 35. Working languages will be English, French and German but participants can also make contributions in Dutch and Italian. Travel and living expenses will be paid by the EEB. Further information from: *European Environmental Bureau, Vautierstraat 31, B-1040 Brussels.*

Law of the Sea (Continued)

sea is not keeping up with evolving principles of international environmental law whereby a state may in certain circumstances be liable for environmental damage to another.

In recent years national jurisdiction over coastal waters has grown from 3 miles to 12 miles and now to 200 miles. The draft treaty faithfully reflects the acquisitive nature of this exercise by providing for extensive new rights and powers of coastal states without a commensurate increase in duties and responsibilities. The fisheries of one country may thus be damaged with impunity by another either by over-fishing or by degrading or destroying breeding, feeding or nursery grounds. As things stand there is to be no legal redress.

Under the regime of *internal waters* unqualified territorial sovereignty will still prevail. Under the regime of the 12-mile *territorial sea* almost unqualified territorial sovereignty will still prevail. Under the new regime of the 200-mile *exclusive economic zone* (EEZ), the concept of sovereign rights is uneasily coupled with not very rigorous or, for that matter, scientific constraints on fishing.

"Truly deplorable"

IUCN comments on these regimes—"Scientifically, the lack of explicit conservation duties and responsibilities in internal waters is truly deplorable. It is these waters, including estuaries, lagoons, mangrove swamps and many coral reefs, that are of primary biological importance as the habitat of innumerable coastal species and as the nursery grounds for countless other species that spend their

adult life in deeper waters. This matter is also of considerable *economic* significance to the coastal state, since many of these species, coastal and non-coastal, have a high social value in the market-place and in the life of the coastal communities.

"As the text stands coastal states would be allowed to "develop" their fisheries even to the point of damaging their own interests. Equally serious, many of these species migrate to the high seas or to waters under the jurisdiction of another state, where effective resource management is not possible if no effort is made to preserve the critical habitats in the waters of origin. The same comments apply *mutatis mutandis* to the 12-mile *territorial sea*, which has much the same ecological significance as internal waters."

With regard to the EEZ the statement points out that overexploitation "is supposed to be avoided by measures designed to produce maximum sustained yield, a concept which is now regarded as outdated or even harmful in the field of fishery management. To make matters worse, the objective of MSY is qualified by a series of totally different, and even incompatible countervailing considerations. How these various factors are to be reconciled and weighed is left entirely to the unfettered discretion of the coastal state".

The degree of hazard to world fisheries posed by this obeisance to sovereignty-without-responsibility is put into stark focus by the following sentence from the Marine Overview of the *World Conservation Strategy*. "98% of the world catch is now taken within 200 miles of land, and more than half of the total biological production of the ocean takes place within that zone."