

convention, as most developing countries are more interested in immediate benefits which are seen to lie in their economic zones than more distant and less identifiable goals. No agreement on the economic zone will mean no convention. So far, however, the land-locked countries, which consist of two factions — those from Europe (like Switzerland and Austria) and the dozen or so from Africa—and the geographically disadvantaged states, consider that their interests have not yet been sufficiently taken into account.

Far more sinister are the activities proposed in the negotiating text for an International Seabed Authority. For instance, under a paragraph entitled "Contracts for Associated Operations", it says, "the Authority may enter into a contract, joint venture or any other such form of association, for the conduct of scientific research, or for the carrying out of a general survey or exploration of the Area . . ." It seems that under these plans the authority would have the right to deny access to the sea bed or to charge heavily for it. The structure proposed in the draft articles for the authority would be large and costly; in fact, it would virtually amount to the setting up of another new UN body which, in the present economic climate, many countries are determined to avoid. Certain of these countries would be prepared to see an authority formed provided it was self-supporting; that is, if its costs were covered by its income from contracts and exploitation licences. The most optimistic estimates are only for three or four contracts a year in the international zone for the foreseeable future and this would certainly not maintain an authority of the size envisaged. Almost certainly the conference will soon start to look to the existing UN bodies, to see if one of them, such as the Intergovernmental Oceanographic Commission (IOC) or the Intergovernmental Maritime Consultative Organisation (IMCO), could be expanded to take on additional tasks or if a new grouping could be formed.

It is clear from the Geneva manoeuvres and deliberations that the chief interests of the developing countries lie, quite rightly, in the exploitation of living and mineral resources in the economic zone and in Transfer of Technology. Marine scientific research, instead of being called for urgently, is looked on with suspicion by countries who should know better and is being lumped with such matters as Coastal State Control of Ship-generated Pollution, the setting up of the International Sea-bed Authority for the International Zone, and numerous other matters of lesser interest which will be used as bargaining counters for immediate benefits. □

KENNETH MELLANBY



Weather vein

It is a common experience that when a subject which has previously caused us little concern comes to our serious notice, we seem to find ourselves hearing about it repeatedly. In my own recent experience, climatology is such a subject. In February this year I went to the island of La Gomera in the Canaries, to advise on possible agricultural and other developments. My remit was that developments should not adversely affect the ecology of the environment and should, if possible, encourage native flora and fauna.

La Gomera is nearly circular, some 12 miles in diameter, and it rises sharply to a height of nearly 6,000 feet in the middle. The highest land is covered by the remains of the original forest, most areas have been terraced and cultivated (though many farms have been abandoned) and the population is decreasing. For some years the weather has been unusually dry, and this February—at the end of what should have been the wet season, though little rain fell—the land was parched except where there was irrigation and the tanks, intended for use during the dry summer, were empty.

There are undoubtedly substantial water deposits on the island, but we do not know their capacity, nor how long they will be able to continue to supply fresh water before this is seriously contaminated with salt from the surrounding and underlying seawater. With a good rainfall, such as occurred fairly regularly until recently, the deposits were recharged.

A local consultant is optimistic, claiming that the sunspot cycle will ensure adequate rain in the next 18 months. Other experts are not so sanguine, however. To make a rational plan, climatological information is desperately needed. On it depends the future for the local farmers as much as that for those concerned with a very interesting and unusual development. La Gomera is only a tiny island, but it does epitomise a problem affecting vast areas in many continents, not least those of the Sahel

area in adjacent Africa.

I had this example in mind when I attended a recent forum on "Neglected Research", where I heard how the pioneer work of Professor H. H. Lamb's Climatology Unit in the University of East Anglia had been completely denied support from any of the research councils. Yet when I was working on the water problems of La Gomera, I found that expert opinion, not only in Britain but also in other countries, always came back to the recognition of our current ignorance, and to the long-term importance of the work being tackled at Norwich by Lamb and his colleagues. It is difficult to understand why support is denied to a unit concerned with such an important and practical problem area, in which there is a good chance of some success.

It is generally believed that we in Britain have evolved the fairest and least corrupt method for sharing out research funds, even if it is so time-wasting. Many of our most eminent scientists sit day after day on the committees which make the recommendations on how grants should be given or withheld. This thankless task is carried out with care and, if possible, without undue bias. It would be cynical to suggest that those who give up so much of their time do so, partly, because this increases their chances of securing a substantial sum for their own work or for that of their department. It is true that we read in the minutes—"Professor Blank retired during the discussion of this item"—and then, surprise, surprise, follows the announcement that Blank's application for £50,000 has been successful. After all, Blank was put on the committee because of his expertise, and he would obviously not put forward a silly proposal! And occasionally a member's application is turned down. Yet the Lamb incident shows that our situation is not perfect. Even more serious, many unsuccessful and trivial research proposals do receive substantial support, and there is little to show for it.

In a field like research where chance plays so large a part, the very care with which we approach the problem may be a cause of its imperfections. I know, from my own experience, that one of the most substantial grants which led to marked research productivity was given on the whim of a minister and not on the advice of an expert committee. The trouble today is that such large sums of money are involved that we tend to build in complications which may waste much of that money. We forget that original research was once comparatively inexpensive. A plea for more small grants for unfashionable studies might produce unexpected results. □