

NOTES, NEWS & COMMENTS

Mediterranean Sea Becoming Cleaner

That the Mediterranean has never been more 'swimmable' was the view expressed recently by scientists and officials meeting in Athens, Greece, at the Mediterranean anti-pollution headquarters of the United Nations Environment Programme (UNEP). 'If you travel around the basin and take a good look, you see lots of progress in making the swimming waters, the sandy beaches, the shellfish and their breeding waters, cleaner, safer, and healthier', asserted Aldo Manos, the impressive Italian who directs the coordinating Unit of UNEP's Mediterranean Action Plan (MAP).

'Take municipal sewage, for example. At least 30% of it is now properly treated and piped out to sea where it does no harm. Indeed, it does some good as it feeds the fish. Only a few years ago barely 10% of Mediterranean municipal sewage received any treatment. Several major cities are currently constructing sizeable treatment facilities. For example, municipal authorities are building an immense sewage treatment plant on the island of Psitalia for the four million inhabitants of Athens and its suburbs. The city of Istanbul has launched a \$200 million project to clean up the once-glorious, now-inglorious, Golden Horn. This means preventing the dumping of raw sewage, industrial waste, and offal of slaughter-houses, into the sea.' Aldo Manos continued: 'Recently, UNEP sent a mission to Alexandria to explore ways and means of disposing safely and efficiently of the Egyptian city's sewage. One option is by very long pipelines out to sea, another is treatment on land and use of purified wastewater for irrigation to reclaim the desert.'

Further Examples of Improvement

Numerous other examples could be cited, reflecting a gradually-changing new mentality among the peoples of the Mediterranean. Almost a decade ago the town of Neum in southern Yugoslavia decided to build a complex of coastal hotels with 15,000 beds. Sewage was to be discharged in the middle of Mali Ston Bay at an estimated cost of \$1.5 million. But the magnificent resort of Dubrovnik, only 60 kilometres to the east, had been planning to breed shellfish in Mali Ston Bay, as the Romans did 2,000 years ago, and they opposed Neum's hotel-and-sewage plan. In April of this year, Dubrovnik and Neum signed an agreement, calling for a much longer, much more expensive, pipeline (17 kilometres in length and costing \$5 millions) that will cross the peninsula and, after treatment, discharge sewage into the open Adriatic. So, Neum will construct its hotels and Dubrovnik will increase its shellfish production to some 40,000 tonnes a year.

At last year's meeting in Genoa to commemorate 10 years of Mediterranean Action Plan (MAP) activities, Mediterranean governments pledged themselves, as a priority, to 'build sewage treatment-plants in all cities around the Mediterranean with more than 100,000 inhabitants, and appropriate outfalls and/or appropriate treatment plants for all towns with more than 10,000 inhabitants, during the second Mediterranean decade'. There are today around 90 Mediterranean coastal cities with a population exceeding 100,000, and approximately 600 with populations of more than 10,000.

Another of the Genoa meeting's '10 targets by 1995' is the 'establishment of reception facilities for dirty ballast-waters and other oily residues received from tankers and ships in ports of the Mediterranean'.

Some 300 million tons of petroleum are shipped across the Mediterranean to and from 18 oil-handling ports. Only

9 or 10 of them possess adequate reception facilities. 'Admittedly there's still a great deal to be done in the fight against Mediterranean coastal pollution, and talking about the next decade discourages some people because it seems such a long time', concedes Aldo Manos. 'All right, I won't defend the indefensible delays in implementing the Mediterranean Action Plan by saying that Rome wasn't built in a day. Yes, it is taking too long. We're all impatient, but we are definitely making progress.'

Some more examples of advances are that 'between 1983 and 1985, Spain spent 7 [thousand million] pesetas (about US \$40 millions) on beach protection or improvement, resort access roads, pedestrian paths, and other environmentally-sound projects. Almost five times that amount was expended between 1975 and 1985 on water-supply, sanitation, and sewage networks, for 181 Spanish Mediterranean communities. The vast majority now have adequate facilities. If you go to a beach in the south of Cyprus, you find at 100-yards' [91.4 m] intervals giant oil-drums, painted in attractive colours and converted into trash-barrels. No one has any reason or excuse to litter the beach. And they've installed proper toilet facilities: that's a *sine qua non* for beaches where families go for the whole day.'

The Senior Marine Scientist at the UNEP Mediterranean headquarters, Dr Ljubomir Jeftic, is also optimistic about the way things are going—even if he, too, is disappointed by the slowness of the action. 'For the first time, at Genoa last year, the Mediterranean governments finally agreed on temporary environmental quality criteria for their bathing waters. They adopted the World Health Organization (WHO)-UNEP standards based on a maximum [concentration] of faecal [coliform Bacteria]. True, the criteria may not be perfect but I consider going from no common standards to a common standard for safe swimming-waters a great leap forward for Mediterranean countries', said Dr Jeftic.

Eighteenth Mediterranean Coastal State Ready to Join?

Incidentally, for the past 10 years most stories about Mediterranean pollution meetings and activities have referred to the presence or the participation of '17 of the 18 Mediterranean coastal States'. Albania was never to be seen; but in Genoa last autumn, two Albanian observers were present. It is entirely possible that Albania will join its 17 'neighbours' in the Mediterranean anti-pollution... programme within the next year. Already a remarkable example of how environmental concern can overcome political conflict, the Mediterranean may soon offer an even more extraordinary picture of environmental unanimity.

Dr Jeftic, a Yugoslav scientist who has worked in Zagreb, the University of Warsaw, the University of Kansas ('where the nearest sea was one of wheat'), and the Brookhaven National Laboratory on Long Island (USA), pointed to the substantial development of national pollution monitoring programmes in the 17 MAP countries: 'Libya and Egypt have two new monitoring programmes. We expect to sign four agreements for programmes within six months with Greece, Turkey, Syria, and Tunisia. Seven countries (Algeria, Morocco, Cyprus, Malta, Lebanon, Israel, and Yugoslavia) have ongoing programmes. France, Italy, Spain, and Monaco, are preparing theirs. 'I think it is important to keep in mind that all these anti-pollution activities do not produce immediately visible results. It takes time for them to be seen and felt.'

'Another very important activity we have just agreed on is a 10-years' plan to assess all the substances on the 'black'

and the 'grey' lists of the treaty on land-based sources of pollution—not just to assess their sources, levels of pollution, and effects on people and marine life, but to propose concrete measures to do something about them. We are no longer merely furnishing facts. The substances I am talking about include, among many others, used motor oil, mercury, cadmium, radioactive ones, pesticides and other organic pollutants on the 'black' list and, on the 'grey' list, lead, zinc, tin, chromium, silver, crude oil, detergents, and pathogenic microorganisms.'

Shipping Industry Involvement

The European Community has been a very active participant in the Mediterranean Action Plan. Recently it sponsored a workshop on the shipping industry and the marine environment, in Athens, that was organized by the Hellenic Marine Environment Protection Association (HELMPEA). 'When we set out to interest shipowners, captains, and crews, in protecting the sea from pollution, I was very sceptical', admitted Dimitris Mitsatsos, Director-General of HELMPEA. 'Well, in only four years we have enlisted 400 ships, over 3,000 officers and sailors, and most Greek

shipowners. We have succeeded in very slowly changing the mentality of thousands of seafarers, and in getting through to their consciences. It is a measure of our success that the Athens workshop [in June 1986], under EEC auspices and with the participation of Beate Weber, the chairwoman of the Environmental Committee of the European Parliament, urged 'the general adoption and extension of HELMPEA's approach to merchant marines on a world-wide basis.'

The Director of UNEP's MAP, Aldo Manos, mentioned, as another indication of Mediterranean governments' seriousness, the ratification by Greece on 20 June of the treaty on Specially Protected Areas. This brought the number of ratifying countries to six *plus* the European Community, as a result of which the treaty will enter into force very shortly.

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Environmental Bankruptcy in Haiti

Christopher Columbus described Haiti as 'Filled with trees of a thousand kinds and tall'. But no longer is it so; indeed, if present trends continue, this small Caribbean island nation on the doorstep of the USA could be completely deforested within fifteen years.

Haiti is experiencing an environmental crisis as severe as are those of the African countries bordering the Sahara. Five years ago, FAO estimated that Haiti was losing the fertility of 6,000 hectares (*ca* 15,000 acres) of land each year. The rivers and streams are choked with mud, and far out to sea beyond the capital, Port au Prince, the water is stained brown with mud. Rapid population growth, hurricanes, and frequent droughts and flooding, have all contributed to the crisis, but the real blame lies with decades of neglect under the regimes of the Duvaliers, both father and son.

Evidence of that mismanagement is seen on the border with the Dominican Republic, where, on the Dominican side, there is thick forest, whereas on the other side the hillsides are bare. Neglect of investment in agriculture, forestry, and sources of energy, has left the vast majority of Haitians with no alternative other than to fell the trees and over-use the land. Haiti is one of the few countries where agricultural productivity is actually declining.

With fertile land becoming increasingly scarce, more and more villagers are turning to firewood collection. Virtually all the trees around the capital have been cleared, and the only significant stands left are in the remoter areas in the northern part of the island; but now these, too, are rapidly being felled. According to a World Bank Survey, the current 2.4 million cubic metres' deficit of firewood is destined nearly to treble by the turn of the century.

There are few energy alternatives. An American-built hydroelectric dam at Peligre in the mountains near the Dominican border is clogged with silt and operating at only one-quarter of its intended capacity. A recent expert survey concluded that it may have to shut down if siltation is not stopped.

Many villagers have no alternative other than to leave the land—the drift to the slums of Port au Prince has become a torrent. Virtually everyone you talk to in the slums is a recent arrival, their dream being to escape to the United States. The US Coastguard now keeps a permanent flotilla off Haiti, to intercept illegal immigrants who are prepared to make the risky crossing to Florida.

A massive relief effort is needed to help the post-Duvalier Government to begin the work of rehabilitation—by no means a hopeless task, as for example under a US AID \$8 million scheme, volunteer groups have encouraged villagers to plant 17 million trees in the past four years. Of those trees about 20% survive, which is a very respectable rate. But it is going to take more than tree-planting to rescue Haiti from such a long-term decline. According to UNICEF, 73% of all Haitian children of school age are suffering from some form of malnutrition. Sooner rather than later, the new Government will have to turn far more of its attention than currently to improving the lot of the vast majority of Haiti's poor, who must live with the day-to-day realities of environmental bankruptcy.

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New Northern Look

The Arctic Institute of North America, now of the University of Calgary, is updating its newsletter *Information North*, which it has published over the years as an informal

vehicle for keeping its subscribers informed. In the past, such newsletters tended to focus on membership matters, and accordingly to be cast in a chatty framework with sto-