## **ALTERNATIVES BEGIN TODAY**

CARIBBEAN HOPES FOR DEVELOPMENT WITHOUT DESTRUCTION

## STELLA DE FEFERBAUM



Fishing in Haiti: industry and fragile marine ecosystems are crowded side by side.

artagena of the Indies, pride of Colombia, the port city that was protected by the forts and walls of the Spanish crown during the colonial era, the unattainable object of the greed of the pirates of other days, again made history this spring. The signing of the Convention for the Protection and Development of the Sea Environment in the Region of the Wider Caribbean at Cartagena marks the beginning of a new era to "prevent, reduce and combat pollution . . . and to ensure a rational management of the environment."

Putting aside their differences, the 27 countries involved have joined, for the first time as a group, to act in favour of a common inheritance — the sea.

The area of the wider Caribbean is an enormous social, vegetal and animal mosaic. It encompasses 207 million human inhabitants in the states and territories with coastlines on this sea. The Bahamas, the Northeastern part of South America (from Colombia to French Guyana), Panama, Central America (with the exception of El Salvador), Mexico, and the United States (Texas, Mississippi, Louisiana, Alabama and Florida) form part of this mosaic.

Clearly, the region encompasses a wide political and economic diversity as well. But, as Colombian president Dr Belisario Betancur C. noted when he addressed the participants, "we must not allow either ideological or political problems to divide us." With the signing of the conventions, the Caribbean countries as a whole seem

decided to safeguard their common sea and are conscious of its vulnerability.

Although never as contaminated as the Baltic or the Mediterranean, the Caribbean already suffers from environmental problems that are beginning to affect its vulnerable peoples and economies.

Eighty percent of the waters of the wider Caribbean are more than 1800 metres deep, and half are more than 3600 metres deep. According to recent research there is little renewing of the deepest levels, and as a consequence, contaminants that reach those levels are not easily eliminated. Nor does the current knowledge of the fragility of the deep water systems of the Caribbean allow accurate calculation of its capacity to assimilate wastes.

Two of the longest and largest rivers of the world, the Mississippi and the Orinoco, flow into the Caribbean. These rivers, and in particular their sediments. are potential carriers of a considerable amount of contaminants. Data collected in 1974 indicated that less than 10 percent of wastewaters in the Caribbean went through treatment installations. It was also estimated that wastewaters generated by 30 million people were dumped into the sea without any prior treatment. The treatment plants for wastewaters in many vacation centres often cannot cope with the volumes of use. Maintenance is often inadequate.

The most serious concerns are the destruction of tropical forests; the disruption of the fragile ecosystems of

the islands, the coral reefs, swamps and mangrove forests, seagrass meadows and the spawning grounds for fish and shrimp; and the scarcity of drinking water and energy in parts of the region.

One of the greatest environmental dangers for the Caribbean is oil. The region is not only one of the most important oil-producing areas of the world, an enormous quantity of hydrocarbons is afloat on its waters: 4 700 000 barrels of oil per day, some in ships with a capacity of 200 000 tonnes. As many as 25 large oil tankers and 75 smaller ones may be crossing the Caribbean at any given time. In 1978, more than 76.5 million barrels of oil were discharged in the sea due to accidents, flushing of tanks or other operations. This quantity may increase in future. Meanwhile, the region has only developed a limited capacity for action in case of oil spills.

## DECLINE IN FISHING

The serious destruction of reefs and mangrove forests affects marine life. and at the same time the economy and well-being of the region. The coral reefs, for example, are a focus for primary production, supplying organic and energy-producing substances to the food chain of the ocean and contributing to the fishery resource. The mangrove forests protect the coastline from erosion and provide a haven to a great variety of marine life. These vital sources are threatened by polluting effluents of agriculture-based industries, such as sugar refineries or rum distilleries; the sedimentation produced by bad erosion from poor land use; and the wastewaters of the enormous tourist industry.

In some areas, sediments have already started to destroy the coral as far out as two kilometres into the sea. Those most hurt by this damage are the poorest — the coastal inhabitants who depend on the sea for their livelihood.

Nevertheless, development continues to be a challenge and a necessity for the countries of the Caribbean. The work that for over four years has been carried out by the United Nations Environment Programme (UNEP) and the Latin American Economic Committee (CEPAL), is trying to ease the road to an integrated and sustained development of the Caribbean, one that would be based on appropriate environmental practices and on the rational management of resources. The basic objective is to obtain a real improvement in the quality of life of the peoples of the region by means of "development without destruction," following the basic maxim of UNEP. Because as Colombian president Betancur pointed out, "the alternatives begin today, right now."

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