

FIGHTING OVER WATER

It is not merely alarmist to recognize that water is something that countries are ready to fight over. Canada should do more to support the United Nations Environment Programme's efforts to resolve existing disputes and head-off new ones.

BY BOYCE RICHARDSON

THE UNITED NATIONS ENVIRONMENT Programme is not usually thought of as a peace-keeping organization. Yet it is quietly working away to create institutions whose purpose is to prevent nations from quarrelling over shared environmental capital. True, it has done little enough so far, but that is mainly because it has such limited means.

UNEP's budget for effective work in the field is a mere US \$30 million provided through voluntary contributions by member countries, and with that it has to collect information, monitor environmental changes around the world, propagate the environmental message and at least stimulate others to take some sort of effective action. With more money it could do more work, and much of it would be important for peace and security.

Take, for example, UNEP's programme, scarcely more than an acronym so far, called EMINWA, a programme for the environmentally sound management of inland waters, meaning rivers, lakes and aquifers. This programme is designed to bring together nations that share international river basins. It is important because it is not merely fanciful or alarmist to recognize that water is something that people are ready to fight over.

A map published in 1980 in the World Conservation Strategy (produced by UNEP and the International Union for the Conservation of Nature) shows that only five or six of the world's non-island nations are not touched by international river basins. (Canada has nine.) There are more than two hundred major international basins in all; more than a third are not covered by an international

agreement, and fewer than thirty have any co-operative institutional arrangements. This is no small matter for many countries: almost a quarter of all nations have their entire national territory as part of an international river basin, and therefore, at least in theory, whole nations are vulnerable to actions taken beyond their borders.

Last year the Brundtland Commission recommended that the development of "arrangements for the protection and sustained use of trans-boundary ecological systems" should be an international priority. This had also been suggested seven years before in the World Conservation Strategy (WCS):

"New . . . demands on water quantity have risen more or less simultaneously with a dramatic decline in water quality in most international basins . . . Forest clearance, hydro-electric installations, irrigation and water supply works, and pollution in one country can rob another of water, increase its costs of making water suitable for different uses, and destroy, degrade, or deplete its valuable ecosystems and species."

WCS added that failure to reconcile upstream and downstream use had already generated considerable political friction in many parts of the world.

THERE HAVE BEEN INTERSTATE basin commissions in some places for a long time – covering the Rhine and Danube, and the Great Lakes, notably – but the Strategy's warning that such arrangements are poorly adapted to the realities of water use in the modern world was certainly underlined by the

recent dramatic poisoning of the Rhine.

Early treaties regulating water use from international rivers have proved unsatisfactory. For example, after several American states have withdrawn water from the Colorado to meet the needs of the cities of Denver, Los Angeles and San Diego, and of irrigated agriculture, the river enters Mexico for its last one hundred and fifty kilometres on the way to the Gulf of California. A 1944 treaty between the US and Mexico guaranteed that at least twelve per cent of the river's water should cross the frontier in usable condition, but so intensively used is this water that on entry into Mexico it is already quite salty. The story seems to indicate that the fellow who is upstream holds the whip-hand.

Disputes over river water have occurred between countries using the Rio de la Plata and Parana rivers in South America, between India and Pakistan over the Ganges, between the countries of Indo-China over the Mekong, at various times between Egypt and the Sudan over the Nile, and in the Middle East over the Jordan, which forms the boundary between Jordan and Israel.

The danger of international conflict about water prompted President Carter's Global 2000 report, issued in 1980, to recommend that the US should take a lead in establishing "conflict resolution arrangements." Though this report was shelved by the Reagan administration, the problem has not gone away. EMINWA aims to do something about it, but so far on too limited a scale.

Though our knowledge of the workings of nature should not be exaggerated, at least we now know

after the many river control schemes built around the world that to make better use of water is not merely a question of withdrawing water from river courses, diverting it into canals, or building dams, but is a complicated matter involving many scientific disciplines. We have come by that knowledge the hard way.

Many of the major water control projects of recent years have shown only too clearly that hasty developments, not founded in a sound knowledge of the basin's ecosystem, can create terrible and unforeseen side-effects. The example cited most often is the Nile: though Egypt and the Sudan do now work together so that each might extract maximum benefit from the river's relatively small year-round volume, the hydro-power and freedom from seasonal flooding that the dam has brought Egypt has been attained at considerable cost. Fertilization of downstream soils through deposit of silt has been reduced, the off-shore sardine fishery destroyed, salinization and water-logging of the delta increased, and schistosomiasis (a debilitating parasitic disease) has exploded around the lake and irrigation canals. None of these effects was foreseen.

To deal with such problems UNEP drew up and recommended to the UN a set of principles that should govern states in conserving and utilizing shared natural resources. These principles emphasize the need for states to:

- co-operate in controlling, preventing, reducing or eliminating adverse environmental effects that may arise from use of shared resources;
- avoid environmental damage that could affect the use of a resource by another state;