

Effect of Synthetics on the Environment

by Tasneem Mosaddeq

ALl over the world there is a movement gaining momentum to save our planet from man-made pollutants that have reached catastrophic proportions threatening to destroy our environment. At home the growing trend is moving in the opposite direction. Bangladesh till recently, in spite of perpetual natural calamities had remained one of the few unspoiled natural niches. Around the turn of this century we have suddenly jolted into industrialization. Emulating the great industrial revolution of the early 1900's in the West, we are aiming at phenomenal growth for overall prosperity.

In our haste to modernise, we have been carried away, adopting a hectic and breathless pace. As such consumer requirements have also undergone, unprecedented changes. Exposure to commodities manufactured for domestic use in developed regions has contributed in creating the demand for inexpensive, versatile, reusable and easy handling items. Consequently, entrepreneurs big and small are competing with each other to introduce new products and in the process they have hit the jackpot — synthetics. The advent of synthetics in our local scene has completely revolutionised our lifestyle.

The benefits of products made from synthetic materials has received wide appreciation, yet we cannot overlook the environmental hazards resulting from its prolonged use. Ecologies, apart, the fact remains that synthetic materials

are not bio-absorbent. In simple terms these are indestructible in the usual process of decomposition. To the consumer it matters little as long as the commodities last longer. For the manufacturer it is a good news, as the discarded items can be recycled and new products marketed at a relatively low cost. And to the vendors, collecting the throwaways and selling these to factories at small price is a means of subsistence. A very comprehensible system functioning like clock-work and providing employment to more people. But have we ever thought, what happens to the bits and pieces that even the junk collector throws away?

Of all the synthetic products it is perhaps the indelible polythene shopping bag that has invaded our lives so completely. Even the beggars are seen collecting alms in it. The diversified utility of these bags are proved by its extensive use over any other type of carrying bag. And so, jute and paper bags have slowly lost popularity and market value. But any unchecked production has its negative effects. The rapid adoption of synthetic products over items made from natural raw materials has already started creating environmental pollution. The water logging of Dhaka city is a good example. It has been blamed on un-planned constructions over filled up canals and low lying areas. Dhaka WASA has chalked out an elaborate programme of re-excavating drainage canals to solve this problem. But very little attention is paid to the

basic problem of surface drains skirting the city, that get persistently clogged with floating debris of polythene bags and other synthetic wastes. Water has to pass through these drains first to reach the wide canals. Moreover, drain and sewerage waters are carried to the treatment plant at Pagla by WASA's 15 sewerage life stations. The method followed to treat the waste water is simple oxidation, before being discharged into the rivers. Experts comment that oxidation is not an adequate procedure to dissolve the synthetic wastes. As a result the rivers will gradually turn into reservoirs for the debris of synthetics. The tidal waters would then periodically deposit these wastes on the banks. And from the banks the debris of synthetic products would again end up in the drains.

Domestic animals, especially cows and goats choking to death after accidental intake of synthetic waste matter specifically, colourful polythene bags are not limited to a few isolated cases. The local vets operating on these animals often retrieve plastic pieces and torn shopping bags that are indigestible. Though humorous, the incidents, nevertheless have fatal results. On a larger scale, rubber tyres and other synthetic products are burned as cheap substitute to coal in the kilns of brick fields. The resultant smoke emanating from the chimneys pollutes the atmosphere around the brick fields, inducing acid rain. The area after Mirpur going

towards Savar remains covered with a layer of dusty greyish brown cloud throughout winter, the peak season for brick making. Not only the vegetation is being gradually devoured by the polluted air around that area but it is creating health hazards as well. Passing through the highway with brick fields on either side it is not uncommon to suffer from bouts of sneezing, choked throat and stinging eyes. Though, the present physical discomfort is temporary. But if strong measures are not taken against this sort of pollution, there will be serious consequences. A vast tract of agricultural land is being subjected to avoidable pollution, gradually turning it into a wasteland, unfit for habitation and plantation.

For regions where natural resources are limited, the use of synthetic becomes essential. But Bangladesh is basically an agricultural country. And for centuries her rich soil has not only provided food but natural raw materials as well for making finished by-products of every day use. There is bamboo, wood and the most precious jute. Though, it is not possible to dispense off synthetics completely. Nevertheless, we can slowly do away with polythene packaging, especially the flimsy shopping bags. The environmentalists in our country, of late, have discouraged the use of paper in packaging, as it may, they fear aggravate the already existing problem of deforestation. Yet, on the other hand, the mass circulation and manufacture of

synthetics has led to the neglect of jute, specifically its utility and versatility as a packaging material.

Furthermore, very little concerted research is taking place to tap the innumerable possibilities of the golden fibre. Now that the developed countries of the West have become aware of environmental pollution and are concentrating on the development of natural products, jute will hopefully receive wide promotion thereby benefitting us in two ways. Firstly, it will help in reducing the environmental pollution and secondly, the international marketing of jute and jute based products will earn the country foreign exchange so necessary for economic progress.

The 16 session of IJO Committee Of Projects and the International Jute Council, held recently, have assessed the competitive position of jute and synthetics. They will also work on improving the existing variety, higher yield and developing jute based packaging. Meeting and discussions, aside, we must learn from the mistakes of others and concentrate on our natural resources. We have to introduce more compatible jute products, that have the utility of the synthetics and is easily integrated with our present pace. Only then can we proceed to save the environment of our disaster prone country. Let us not forget the imitations of the Duke of Edinburg to take care of our planet, as it is the only one we have.

LAST BUSHMEN FIGHT FOR THEIR RIGHTS

For centuries the Bushmen of Botswana have lived a life tuned to the harsh wilderness of the desert. They are one of the last surviving groups of hunter gatherers in Africa. Now the government is forcing them out of their last refuge — the Central Kalahari Game Reserve. Gemini News Service reports that the Reserve, originally created as a home for both wildlife and Bushmen offers them little hope for the future. by Damien Lewis

THE Kalahari is many things to many people, and to those that live there, certainly not a desert. Their name for the Kalahari, Kgalagadi, means wilderness and the Kalahari, when compared to Namibia's harsh Namib desert, is well vegetated and teeming with wildlife.

It has long been the home and hunting ground of the nomadic Bushmen and other tribes, who collectively call themselves the ba-Kgalagadi — people of the wilderness. The Bushmen are known to the outside world as an ancient people, whose supreme skill at hunting and knowledge of the Kalahari's plants is second to none. But these people — recognised as the true experts of the Kalahari — are being forced out of the Central Kalahari Game Reserve (CKGR) — the last area where their traditional hunter-gathering lifestyle has survived the pressures of contemporary Botswana life.

Their are an estimated 75,000 Bushmen, over 40,000 of whom live in Botswana. There has been a long and painful history of erosion of their traditional lifestyle and loss of their ancestral lands. The Bushmen, who once inhabited all southern Africa, found refuge in the Kalahari, when the land they once called their own was taken over by the expansion of the other African people and the arrival of the Europeans.

In the early Seventies, 10,000 or so Bushmen still lived a nomadic lifestyle in the wilderness of the Kalahari. The men would hunt with the poisoned arrows, the women collect veldkos (wild insects, fruit, roots and tubers).

The highly mobile Bushmen would move frequently over a yearly range as large as 5,000 square kilometres. With southwest Africa, this was the last sanctuary where their traditional lifestyle still survived.

The 1,000 or so inhabitants of the CKGR are all that now remain of these traditional hunter-gatherer Bushmen. Their final demise has accelerated in the last few decades. In Botswana, a country that prides itself on its democratic tradition, the Bushmen have, in theory, complete legal equality and access to public services.

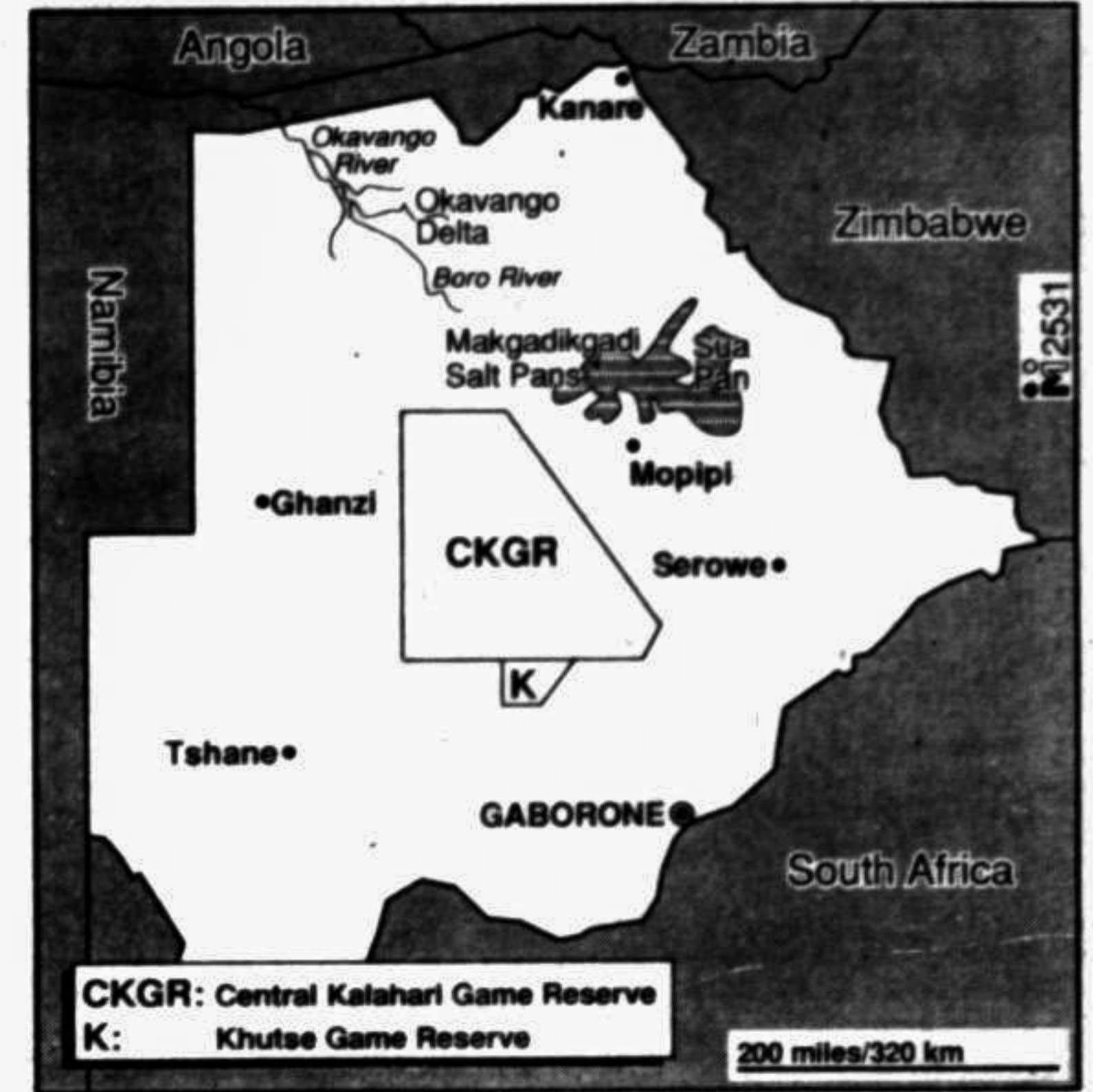
Yet government policies have been characterised by attempts to "gather these hunters together," settle them in villages and by a general denial of the Bushmen's rights to their land. In 1978, the main government legal body, the Attorney General's Chambers, said "the true nomad can have no rights of any kind except the right to hunting."

In a changing country, experiencing an explosion in large-scale cattle ranching, this was bound to force the Bushmen and cattle-men into conflict over land.

During the widespread expansion of ranching in the early Seventies, government surveys revealed large, highly mobile hunter gatherer Bushmen groups. In 1974, the Remote Area Development Programme (RADP) was launched to bring development

— in all its forms — to these isolated rural people. Most Bushmen were settled in villages, with schools and health clinics and encouraged to keep livestock and lead a "settled" lifestyle. The drought of the early Eighties, which forced many Bushmen to the brink of starvation and ushered in a highly effective government drought relief programme, resulted in many Bushmen becoming dependent on free government food handouts, or low-paid, labour-intensive government work programmes. By the late Eighties, the huge 52,347-square-kilometre Central Kalahari Game Reserve had become the last

soon as these are completed. "I would not say they are going to be move," says President Quett Masire. "I will say that they will move themselves." Despite an official government study, which concludes that moving the Bushmen is neither convenient nor feasible, and will increase reliance on government handouts, their resettlement has been sanctioned at the highest level. Why? The government says the integrity of the CKGR has been jeopardised by the activities of the Bushmen. As many Bushmen are now pastoralists and hunt with modern weapons on horseback, they deplete the wildlife in the Reserve.



Water Could Make or Break Middle East Peace

The Gulf war was fought over access to oil supplies. Now, some observers wonder if the next Middle East conflict will be fought over water, while others hope its scarcity will lead to regional co-operation. Water will be a decisive factor in the current round of peace talks. The region's water crisis, reports Gemini News Service, can only be resolved if all sides share the resource and use it efficiently. by Rula El-Rifai

WATER shortages could cause the next war in the Middle East — or secure peace in the region. As Arabs and Israelis sit down to work out territorial deals in current peace talks, the problem of water will loom large.

Only Turkey has more water than it needs — and now wants to sell its surplus to neighbours through a "Peace Pipeline". Iraq, Syria and Turkey have often been at loggerheads over the waters of the Euphrates, which they share. Shortages in Egypt — the Nile River not withstanding — are reaching crisis levels. In Libya, Moammar Gadhafi is spending a fortune to pipe water from beneath southern deserts to the coast.

But it is in Israel, Jordan and the Occupied Territories of the West Bank, Gaza Strip and Golan Heights that the conflict over water is most acute.

The first international conference on Middle East water was set to take place in Turkey in the first week of November but was rescheduled, partly because of the Madrid peace talks. (Arabs and Israelis could not meet to talk about water before first meeting at the US-Soviet sponsored Madrid conference).

A change of government in Ankara has put the water conference on hold, but the problem of water is not about to go away.

Fida Nasrallah of the Centre for Lebanese Studies at Oxford University, which hosted a major conference on Middle East water this summer, says: "The water problem is not to be belittled — there is a crisis in the areas."

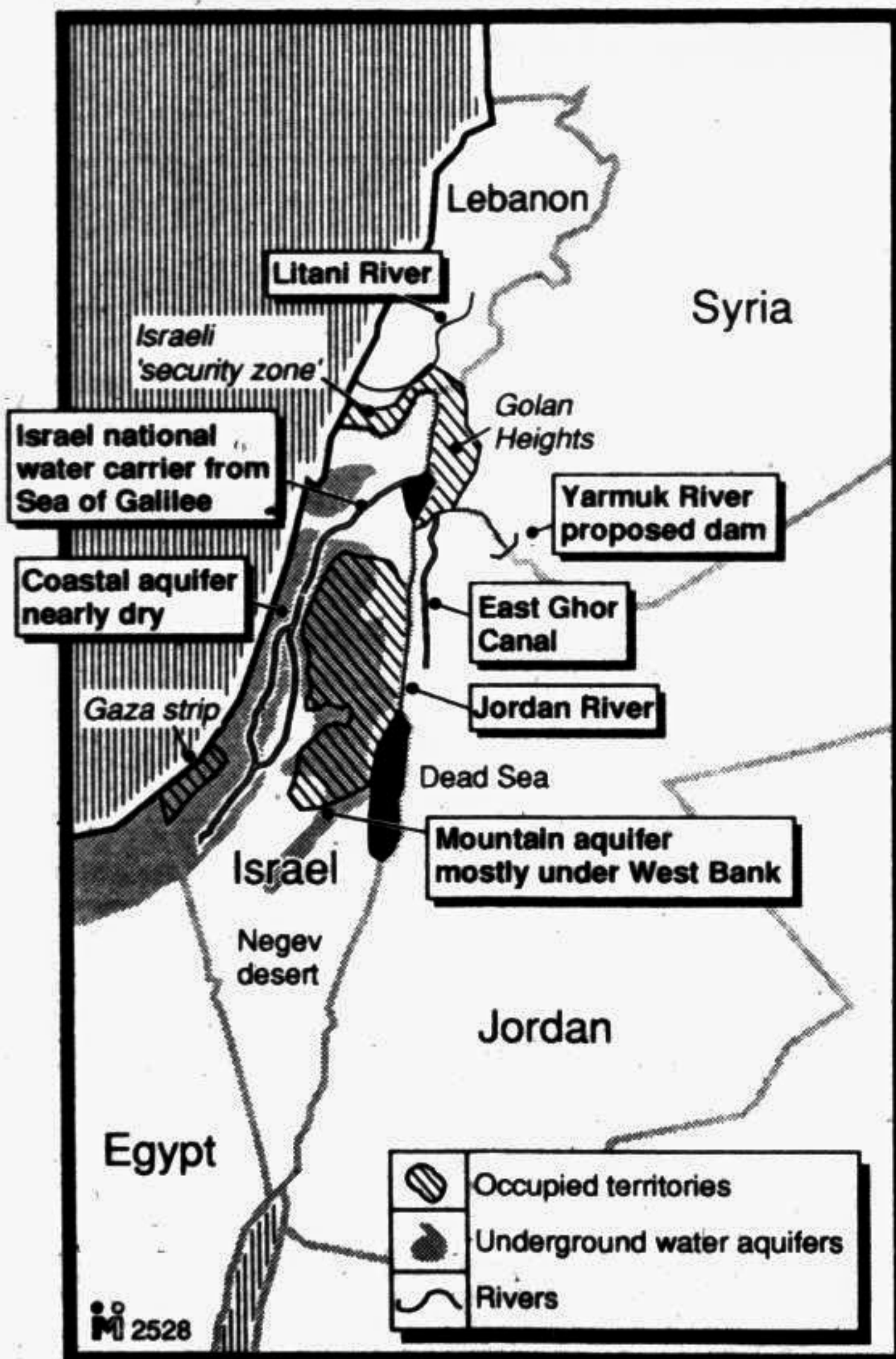
Some academics disagree. Nedim Shehadah, also at the Centre for Lebanese Studies, says the problem has been exaggerated. "There are fashions in problems. A few years ago it was fundamentalism — now it is water. If you take any figure and multiply it geometrically, you will reach doomsday."

Exaggerated or not, the scarcity of water certainly has the potential to lead to serious conflict — or peace.

Israel, Jordan, Lebanon and Syria share the same water system, a network of tributaries and aquifers linked to the Jordan River and Sea of Galilee.

Not long after its creation in 1948, Israel began planning a pipeline to carry water from the Sea of Galilee in the north through Israel to new farms in

Struggle for water



the southern Negev Desert. called the national Water Carrier, it was completed in 1964. From the outset, Arabs saw it as an unfair diversion of their water resources to Israel. The scheme to transport millions of gallons of water south to the desert has been widely criticised as an inappropriate use of regional resources. Tony Allan, a specialist in Middle East natural resources with the School of Oriental and African Studies in London, calls the water carrier an "ecological resource management nonsense."

The pipeline has reduced the flow of the Jordan River to a salty trickle. Jordan complains that it does not have equal access to a river it shares. Pumping too much water out of the river has also seriously reduced the supply of underground reserves.

For its part, Israel has claimed that Syrian attempts in the Sixties to divert water from the Yarmuk River were

intended to reduce water supplies available to the Jewish state. Israel makes the same charges today about joint Jordanian and Syrian plans to build a major dam on the Yarmuk.

The East Ghor canal in Jordan, which takes water from the Yarmuk River to the east bank of the Jordan River, was bombed by Israel during the 1967 war, but has since been completed.

The swift 1967 war which saw Israel capture the West Bank, Golan Heights and Gaza Strip did not start over water, but its end result was to secure Israeli access to the area's main water supplies. Israel's presence in the Golan Heights has given it complete control over the Sea of Galilee.

Palestinians complain that most of the water now extracted in the West Bank is used by Israelis, while Palestinians face severe restrictions on well-digging and water usage.

As early as 1978, then Israeli Prime Minister Menachem Begin made clear that any deal on Palestinian autonomy would have to guarantee Israeli access to West Bank water.

Underground reserves in the Gaza Strip and the Israeli coast now run dangerously low. Even Israeli hydrologists say over-pumping has caused sea salt to seep into the fresh-water aquifer. Moreover, severe droughts in Israel and Jordan caused the Sea of Galilee to drop to such a low level that pumping had to be virtually stopped this year.

Experts have criticised Israel's goal of food self-sufficiency, in which Jewish farmers in the Negev are supplied with generous quantities of subsidised water. Allan says many Middle eastern countries want to adopt similar policies. But he calls the idea a delusion which will only lead to further mismanagement of scarce water resources.

Both Israel and Jordan have recently cut back on irrigation programmes — moves applauded by scientists such as Allan. "The scarcity of water gives the opportunity for much more sensible political decisions to be made," he says.

There are a number of other solutions. Desalination of sea water is a possibility but would be a costly venture. Israel has been treating sewage water and distributing it to farmers. Some scientists say that slightly salty groundwaters could be suitable for irrigation.

But the ideal solution, says Oxford's Nasrallah, "is co-operation between neighbours."

An October study by Thomas Naff of the University of Pennsylvania shows that about 70 per cent of the groundwater on which Israel depends and more than one-third of its sustainable annual water supplies originate in the Occupied Territories. Settlements in the Occupied Territories and the influx of Soviet Jews to Israel have imposed further strains on the region's water supply.

Jordan and Syria are considering building a \$350-million dam on the Yarmuk to increase water reserves. The dam is opposed by Israel, which has threatened to destroy it if built.

Turkey, meanwhile, is promoting a \$17-billion engineering project it calls the Peace Pipeline. The scheme would see two pipelines head south from Turkey.

COPENHAGEN: The outlook for cleaner industrial development grew brighter at the conclusion here of the ministerial-level International Conference on Ecologically Sustainable Industrial Development (14-18 October). Organized by the UN Industrial Development Organization (UNIDO) and hosted by the Danish Government, it brought together some 400 delegates from 100 countries of the North and South.

Ministers laid most of the blame for world industrial pollution on the doorstep of the industrialized nations.

"Because the greater part of current emission of pollution into the environment originates in developed countries", their report states, "these countries bear the main responsibility for combating such pollution."

They called for international co-operation between all countries, especially between developed and developing countries, as essential to acquiring and using relevant scientific information and environmentally-sound technologies.

Government and industry were asked to work together in using existing, as well as establishing new mechanisms that promoted pollution prevention, waste minimization, cleaner production, energy efficiency and rational use of natural resources and in making these available to the Third World.

This would entail mobilization of financial resources and enhanced technical co-operation with developing countries, at bilateral and multilateral levels. At the same time, additional financial resources would have to be channelled to the South.

Acknowledging the fundamental interdependence between economic growth and environmental protection, ministers called for new approaches to industrialization that would allow industry to contribute to economic and social benefits for present generations without compromising the ability of future generations to meet their own needs and without impairing basic ecological processes.

Reduction of pollution intensity in all industrial activities through cleaner production was recognized as the key to achieving ecologically sustainable industrial development (ESID).

Emphasizing the central role of industry and industrial institutions in the transition to ESID, the Conference agreed on a number of initiatives that would be needed in this endeavour.

They included pollution prevention; integration of environmental awareness and responsibility at all management levels; adherence to environmental codes of conduct. Increased R+D activities for cleaner production; use of substitute materials; "cradle-to-grave" assessment approach to industrial products and projects; and application of cleaner industrial production processes and more rational use of natural resources; de-

Conference Calls for Industrial Clean-up

velopment, transfer and adaptation of environmentally-sound technologies, know-how and skills to meet the needs of other countries, particularly the South; mobilization of financial resources and development of human resources towards this end; and provision of information on environmentally-sound management and energy conservation.

Transnational companies as well as other foreign investors were encouraged to apply standards of environmental responsibility similar to those in their home countries to operations in their host countries.

Ministers encouraged non-governmental organizations representing all parties involved in the industrial process to carry out and participate in ESID activities.

Turning to government initiatives to achieve ESID, the Conference called on governments to review the environ-

mental impact of current and planned policies and build in environmental concerns. They were asked to establish new or strengthen existing procedures for reviewing industrial projects with potentially significant environmental effects; apply a balanced mix of regulatory and economic instruments; and design policies based on the "polluter pays" principle.

At an international level, Ministers recommended that governments increase international co-operation in mobilizing financial resources for achieving ESID.

Noting that transfer of techniques and technologies was one of the keys to pollution prevention and cleaner production, ministers agreed to encourage international co-operation in their transfer.

The Conference also called for international co-operation in addressing concerns about

linkages between the environment and trade in manufactured goods.

UNIDO and other United Nations organizations dealing with environmental issues were asked to co-ordinate their efforts. Because to the critical situation in the least developed countries, ministers saw the need for special measures to support their ESID endeavours.

UNIDO was asked to assist developing countries in a number of other ways, including building their scientific and technical capacity for pollution prevention and cleaner production essential to ESID; implementing international environmental conventions and protocols; determining the environmental soundness of industrial technologies; integrating environmental considerations into their industrial strategies and policies; and identifying financial resources to help achieve ESID.