

# Past, Present and Future of Environmental Assessment in Bangladesh

by Dr Saleemul Huq

ENVIRONMENTAL Assessments (EA) are dealt with here as a broad range of activities ranging from more formal assessments such as Environmental Impact Assessments (EIAs) and Initial Environmental Examinations (IEEs) to more general environmental assessments as parts of development projects, new industries, regional or national development plans, funding strategies or any other donor, government, private or NGO activity. The general level of environmental awareness also has an important bearing on the more formal EA requirements such as by the international community, governments, industries, NGOs or funding agencies.

## The Past

Environmental awareness as it is recognized today can be traced to the realization of the unintended ill effects of pesticide use as well as the dumping of toxic chemicals in places like Love Canal in the United States in the sixties. The environmental damage associated with technological development were highlighted in seminal publications such as the "Silent Spring" by Rachel Carson and "Limits to Growth" by the Club of Rome. These and other similar incidents and publications raised international awareness and culminated in the first world Summit on Environment held in Stockholm in 1972 which led directly to the creation of the United Nations Environment Programme (UNEP) with its headquarters in Nairobi, Kenya. During the seventies this agency then began to institutionalize global programmes on environmental issues including the creation of international data bases such as INFOTERRA and GEMS. It also helped in setting up national focal points in all countries including developing countries. At that time the government of Bangladesh took the first steps towards formalising environmental concerns and activities by the passing of the Environment Pollution Control Ordinance and the creation of the Department of Environment Pollution Control (DEPC) in 1977. This agency was given the responsibility of monitoring pollution and also acting as the national focal point for UNEP.

The DEPC was manned by a few technical people including some chemists and engineers and set up offices and laboratories in Dhaka, Chittagong, Bogra and Khulna. Although

the department carried out monitoring of pollution and identified and quantified polluting industries in various places it was almost totally unsuccessful in enforcing any compliance to regulations. This was mainly due to its lack of authority being a relatively low powered department located within the Ministry of Local Govt. and Rural Development (LGRD) who neither knew much about the functions of the department nor were they interested in supporting it.

This pattern began to change towards the mid to late eighties as international interest in environmental issues took on a new dimension in such truly global environmental problems such as the depletion of the Ozone layer, global warming due to greenhouse gas emissions and loss of biodiversity. These were for the first time problems at the planetary level requiring solutions by concerted actions of all nations.

This international concern was mirrored in Bangladesh by a watershed event (in more ways than one), namely the floods of 1988, which unlike most previous floods (e.g. 1987) were not associated with heavy rainfall within Bangladesh (indeed satellite photographs of that period show almost a cloud free Bangladesh which is highly unusual during the monsoon) but rather with high river flows coinciding unusually in the Ganges and Brahmaputra rivers. This caused a realization of the connection between activities upstream such as deforestation in Nepal and embankments in India causing increased likelihood of flooding downstream. This seminal event brought on a public awareness of environmental issues expanding well beyond the hitherto perceived notion of industrial pollution only, and brought to the fore the need to question the environmental consequences of development interventions which had been so far assumed to be totally beneficial.

## Government Response

The institutional response of the government was the creation of the Ministry of Environment and Forests (MOEF) and the creation of the Department of Environment (DOE) by upgrading the DEPC.

and greatly expanding its manpower, resources and mandate. The newly created Ministry and Department immediately set about developing a National Environment Policy, an Environment Management Action Plan and new Environmental Legislation.

The government's efforts were not confined exclusively with the MOEF and DOE but other Ministries and Agencies also started to make serious efforts on developing environmental guidelines for their own sectors. Notable amongst those are the efforts of the Ministry of Agriculture to develop environmental guidelines for agricultural sector projects and the Flood Action Plan to develop environmental assessment guidelines for water sector projects through the USAID funded FAP 16.

## Donors

Parallel with the government's increased awareness and action of the environment from the different bilateral and multi-lateral donor agencies such as the World Bank, Asian Development Bank, USAID and others began to take a much more serious view of the need for environmental assessments in their development interventions. A number of them developed environmental guidelines for funding projects and several (including USAID, DANIDA, SIDA and NORAD) carried out specific environmental assessments of their aid programmes in Bangladesh.

## NGOs

In the NGO sector also there had been a similar increased awareness of environmental issues as manifested by the development of specialist environmental NGOs such as Bangladesh Centre for Advanced Studies (BCAS) and others as well as the inclusion of specific environmental activities in the mainstream NGOs like BRAC and Proshika. There was also a greater degree of cohesion amongst the NGOs through the Environment Committee of the Association of Development Agencies of Bangladesh (ADAB) which developed common NGO positions on environmental issues such as the Flood Action Plan and the NGO Environmental State-

ment for UNCED.

## The Present

The major international event in the field of environment lately which has had substantial impacts in Bangladesh has of course been the Earth Summit or United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil in June 1992 which was attended by over 100 Heads of State and Government and 170 Ministers of Environment. Three major documents were signed at UNCED, namely (i) Agenda 21, (ii) the Framework Convention on Climate and (iii) the Biodiversity Treaty. This conference gave global environmental concerns the highest international profile they had ever received. Although the Prime Minister of Bangladesh failed to go to the Earth Summit, the government was represented by a large delegation including the Ministers for Foreign Affairs as well as Environment who signed all 3 documents on behalf of Bangladesh. There was also a large NGO presence in the parallel meetings in Rio called the Global Forum. There was a good interaction between the Bangladeshi NGO and government representatives in Rio.

The net result of UNCED and Bangladesh's participation in it has been a stronger emphasis on environmental issues in the country in both the government and non-government sectors, the creation of a National Environment Council with the Prime Minister as the Chairperson and representatives from both government and outside government. At the same time the Environment Assessment Guidelines for Water Sector Projects has been developed and finalized by FAP 16 and the different bilateral and multi-lateral donor agencies have begun to require and implement environmental assessments in some of their projects. Some examples include the National Minor Irrigation Project in the agriculture sector, the Jamuna Multipurpose Bridge in the transport sector and the KAPCO Fertilizer Factory.

## The Future

In the immediate future it is likely that more and more development as well as industrial projects will require environ-

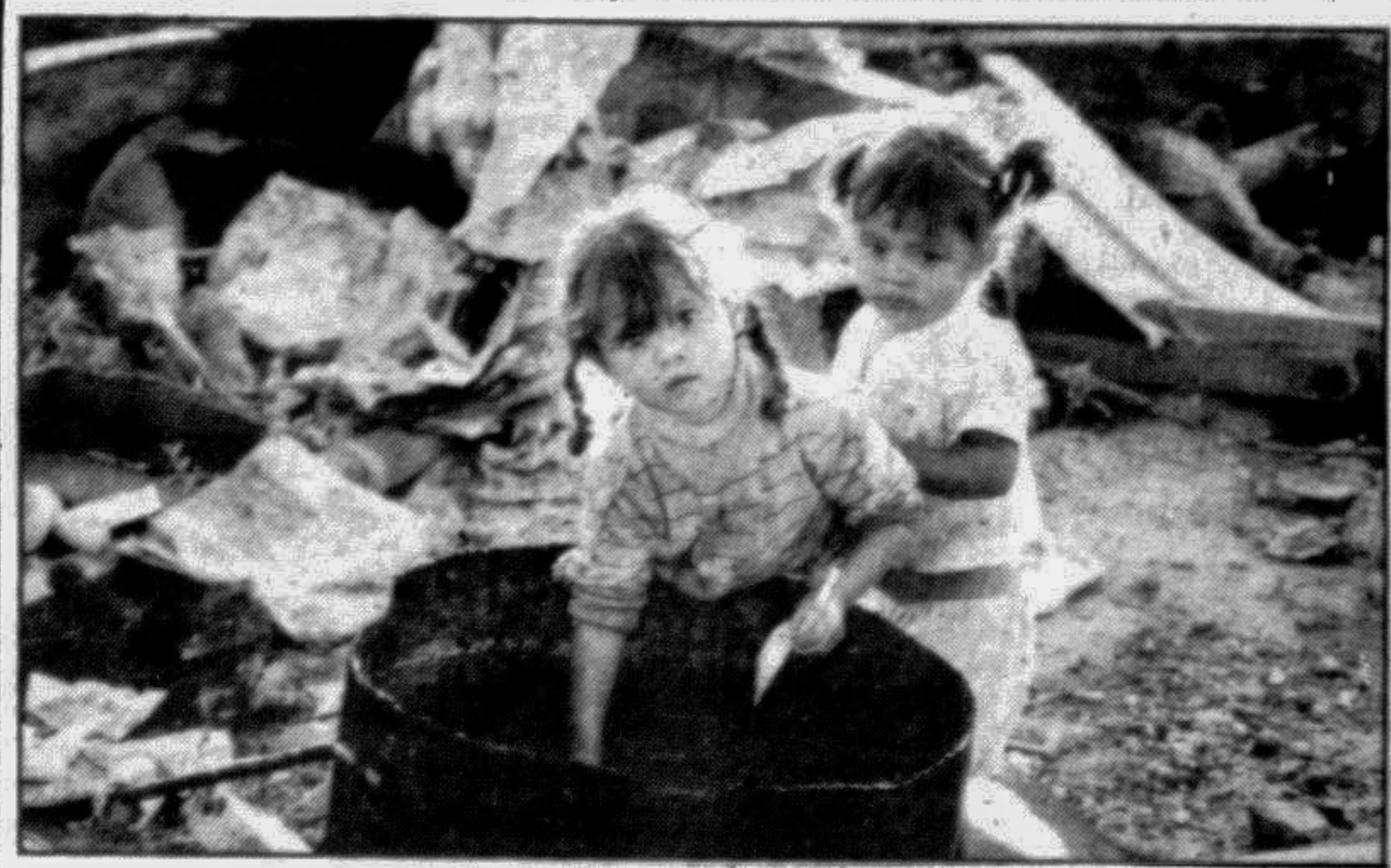
mental assessments of one kind or another either due to Govt. regulations or donor requirements. Therefore, the need for developing the capacity to carry out such environmental assessments has to be developed along with the capacity to recognize what kind of environmental assessments are needed and to interpret and assess the results of such environmental assessments. This will require among other things the following:

- A training capacity for teaching environmental assessment methodologies and techniques to professionals who will then carry out such assessments.
- An awareness and sensitization of relevant government agencies and planners about the need for environmental assessments, their usefulness and how to make the most of them.
- An awareness amongst the general public about major environmental issues.
- A professional capability to carry out thorough and credible environmental assessments of projects and plans.
- Strengthening of the government's capabilities to monitor the carrying out of environmental assessments.
- Need for NGOs to include environmental assessments in their own plans and activities.
- Need for donor agencies to apply their own environmental guidelines more seriously than they have due in the past.

In my own view it is necessary for Bangladesh to not only take into account environmental concerns about development plans and projects which is definitely happening but we should, and can be, at the frontier of developing suitable appropriate methodologies and guidelines for carrying out environmental assessments under the conditions of developing countries like Bangladesh. We have to develop our own environmental guidelines appropriate to our conditions and it is by doing so, that I believe Bangladesh can make an important contribution to the methodology of developing environmental guidelines under conditions of underdevelopment and poverty where people's participation can be assured. This is an opportunity that should not be missed.

The writer is Executive Director, Bangladesh Centre for Advanced Studies

## Environment, Race and Justice



El Paso, Texas: Family's drinking water is stored in an old chemical drum.

WHEN groups of people are discriminated against socially and economically, the chances are they will be discriminated against environmentally as well. In the United States, chemical companies have dumped their toxic wastes in communities they believed were too powerless to object. In India, the native lands of disadvantaged groups are frequently selected for environmentally destructive development projects such as large mines. Even sovereign states are discriminated against if they are non-white, and are especially vulnerable if they are also small. Caribbean countries, for example, have had to contend with the fact that policies controlling toxic dumping and the contents of ocean-going cargo are all too often ignored by rich nations.

Groups campaigning for social justice are learning to talk about their struggles in the language of environmentalists, who are often white, to help them understand that the issues are inextricable. In South Africa, for example, black activists are forcing white environmental movements to take account of black concerns. In the United States, minorities fighting discriminatory dumping have helped put environmental justice onto the national political agenda.

Liberal members of mainstream Northern environmental groups generally consider themselves non-racist and so do not feel they need to give the matter further thought. As a result, they may fail to recognise racism embedded in their perceptions. Only a few years ago, the big US environmental groups felt that minorities were not interested in environmental matters, simply because few African Americans belonged to their organisations. Yet tens, if not hundreds, of local groups with strong minority membership had been campaigning locally against toxic dumping and other environmental malpractices.

This blindness to what was happening outside the mainstream environmental movement is akin to the discrimination which assumes that the ways of the North are automatically correct and desirable. This discrimination uses words such as undeveloped, backward and primitive to describe societies which are less industrialised and monetised, even when such societies practise lifestyles that are relatively sustainable.

We asked activists in the North and South to state their case against environmental racism, and cite a few examples. They describe, for example, the way a society's best and brightest are co-opted by "white science" and turned against their own culture's traditional practices, and how the appointment of white "experts" — who frequently do not understand the lives they are influencing — has led to injustices carried out in the name of conservation. To deny the validity of knowledge which originates outside the North — or outside establishments, such as universities and governments, organised on Northern lines — is as racist as is discharging toxics near the homes of black people.

— PANOS

## Pest that is Munching All the Leaves Away

by John Richardson from Auckland

WHEN the opossum was introduced from Australia to New Zealand for its fur 150 years ago, it looked like a good idea. It wasn't. Today New Zealanders cannot shoot, trap or poison them fast enough.

The mammal threatens the country's vegetation and livestock. It is estimated that one opossum munches 400 kilograms of leaves a year.

New Zealand contains between 50 million and 100 million opossums, so up to 30 million tonnes of leaves from 70 plant species are destroyed every year — more than the trees can produce.

Vegetation damage will become more severe because opossums produce up to 20

Taupo, in New Zealand's North Island, to work out a strategy to fight all the country's mammal pests. These include deer, wild pigs, rats and rabbits but opossums were at the centre of the talks.

Secretary for Environment Dr Roger Blackley admitted that present controls were inadequate. Long-term conservationist Guy Salmon, the Chief Executive of the Maruia Society, agreed.

Experts say biological control is the only way, although Salmon also advocated massive use of a naturally found poison, sodium monofluoroacetate — sold under the trade name 1080.

The poison has been applied in isolated areas, but conserva-

South-Westland.

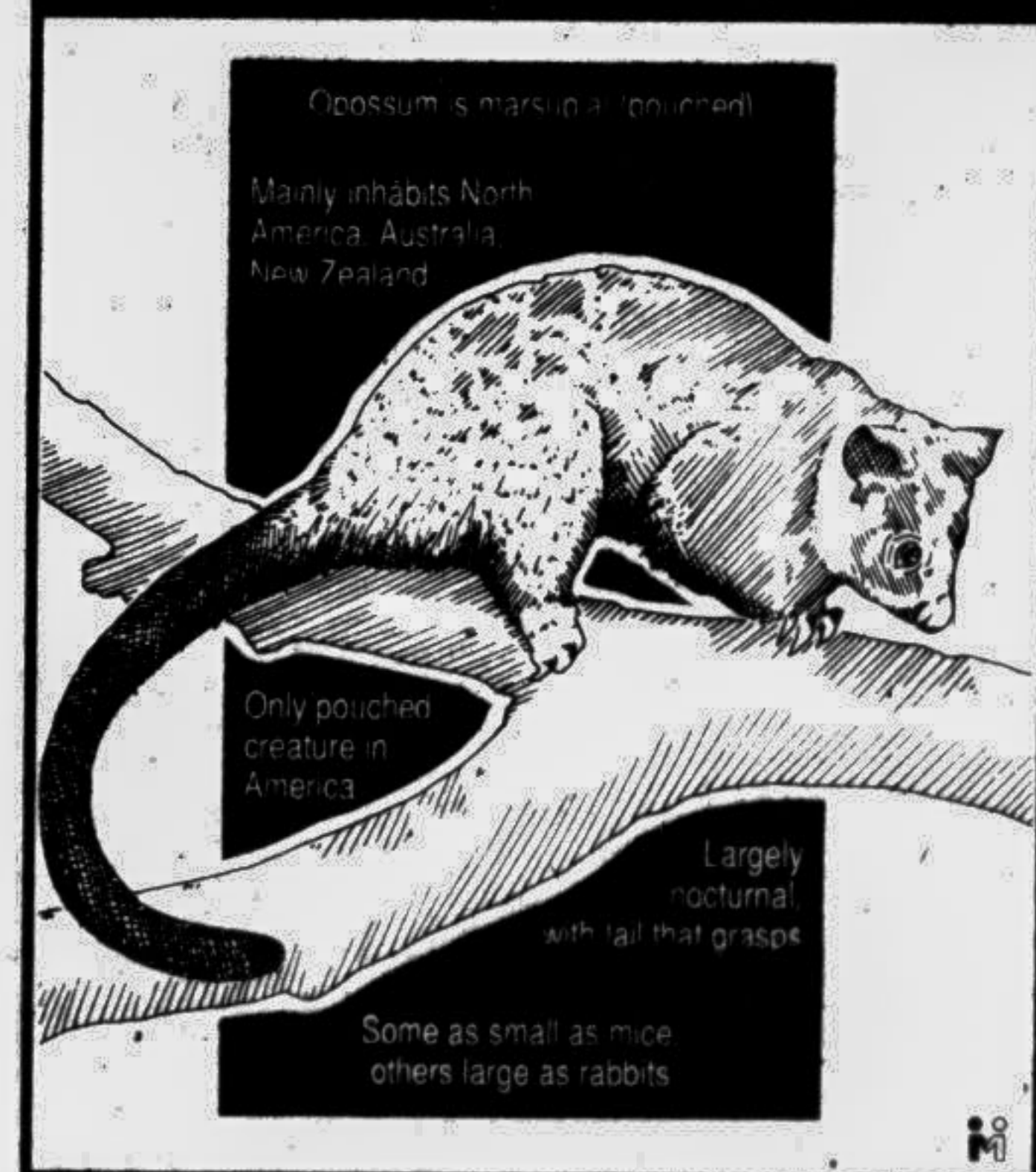
After the conference one thing became clear: a nationwide approach is needed to deal with the opossum. Even if the hunting industry is thrust back to top gear it would not provide the real answer.

In target areas the 1080 has killed up to 90 per cent of the opossum population. But its use will always draw resistance from people opposed to cruelty against animals.

The Taupo conference explored biological control. A research project is trying to find a contraceptive vaccine. The biggest forestry operation in New Zealand, Tasman Forestry, is helping fund research by three agencies — Landcare Research and Agcare Research

Opossums are marsupials that climb, dangle or sleep in trees in incredible postures and have outstanding ears and wide-awake beady eyes. They are nocturnal and when awake they munch their way through so many leaves they are stripping New Zealand. The opossum was imported from Australia. Now it has become a pest and New Zealanders wish they had never set eyes on the creature

## Terror of New Zealand



million young a year.

"It is something is not done soon," says pessimists, "within two or three decades New Zealand won't have much native bush to be proud of." They want radical measures because the mammal has no competitor for food in the wild and will go on multiplying.

In Australia, the opossum is a protected species. In New Zealand it threatens the livestock industry because it carries bovine tuberculosis.

A conference of 250 delegates has just been held in

tionists fear it will endanger other wildlife. Scientists say it will not.

Salmon attacked what he called ambivalence in the conservation movement. "If opossums were owned by an American company and used chain saws instead of teeth there would be a great fight against them by conservationists."

He said the poison 1080 had no lasting effects on the environment, unlike opossums which have killed 20 per cent of all canopy trees in central

in New Zealand and the University of Newcastle in Australia.

Tasman Forestry has just recruited Dr Janine Duckworth to research opossum reproduction. She and reproduction physiologist Dr Simon Jolly are investigating opossum sperm.

If the sperm can be made to be rejected by the creatures' immune system, it will provide a cheap, humane and reliable method of controlling the growth of the opossum population.

It is no easy task. Such a contraceptive method must be applicable to opossums only. It must also be benign. It will take years to perfect a biological control potent enough to deal with the problem but also specific enough to avoid any complications with New Zealand's trading partners.

Even if a vaccine is found, administering it would pose problems. Applying it to bait would not affect a large population fast enough. And opossums that missed the bait would carry on multiplying.

A possible avenue would be use a natural parasite found in opossums, such as nematode, and applying genetic engineering to make it administer the vaccine.

Once inside the opossum's system, the vaccine would create antibodies which would attack the reproductive proteins. Using a natural parasite would spread from one opossum to another so that the population would die out naturally.

Unless the world price for fur suddenly rises, New Zealanders would be happy to see the opossum go into extinction.

— Gemini News

## Prince Charles Becomes a Gentleman Organic Farmer

AP reports from Tetbury, England

EVEN in the grip of winter, the gardens at Highgrove estate lend grace to the gray stone house where Prince Charles makes his country home.

A hedge of dark green yew encloses the lawns, terrace and flower borders nearest the house. In the brick-walled kitchen garden, cabbage and parsnips grow in carefully tended plots among espaliered fruit trees and beds of herbs.

A fiery sun settling on the horizon paints a pink and gray backdrop for a meadow dotted with grazing sheep.

A rich man's idyll? Perhaps. But the sheep and the black cattle nearby are not there for decoration.

Highgrove is a royal laboratory for organic gardening and farming, reviving the farming methods of England before the agricultural revolution and bringing back the wildflowers, hedgerows and wildlife of the classic countryside.

"We are in severe danger of removing the last vestiges of our cultural foundations in Britain by driving the smaller farmers off the land. The book, in which Charles and journalist Charles Clover write separate chapters, was a best seller in Britain and now has been published in the United States by Simon and Schuster.

Although stuffed with color photographs, it is not the usual coffee table extravaganza. Much of the text concerns the organic experiment.

It is not a sentimental backward look, but a description of a pragmatic attempt to meet modern demands with traditional farming methods.

"I appreciate only too well how fortunate I am to be able to develop my ideas at Highgrove," the prince writes, "but, even so, it will be many years before any firm conclusions can be drawn."

The estate is perhaps the most practical expression of the future king's diverse concerns, which range from the environment and architecture to creating jobs for inner-city youth.

About a mile (1.6 kilometers) down the road from Highgrove, at the home farm, manager David Wilson raises the offspring of Highgrove's Aberdeen Angus cattle and Highgrove lamb for the organic meat trade.

He also produces organic wheat and oats for the tasty,

preservative-free Duchy Originals cookies that went on the market last year, and a ginger variety the Prince launched this autumn. Profits from Duchy Originals go to a charitable trust.

Highgrove and the farm of more than 1,000 acres (405 hectares) belong to the 650-year-old Duchy of Cornwall, a scattered landholding of 130,000 acres (52,610 hectares) largely in the southwestern England.

Prince Charles is Duke of Cornwall, among his many titles, and derives his income from the duchy. Charles, his

and the conversion is three-quarters completed.

Neither the Prince nor Wilson, his farm manager, pretends to have all the answers for 21st century agriculture.

Less than 1 per cent of Britain's land is farmed organically. Clover writes that most of the agriculture establishment still regards organic farmers as "a bunch of holy fools."

Taking acreage off the pesticide and synthetic-fertilizer regime is a lengthy process.

"Because it's a rotational system, you have to plan things forward and follow the plan,"



estranged wife, Diana, and sons William and Harry do not receive government money as do other members of the royal family. So farming is a business for Charles, not a hobby.

The duchy bought Highgrove in 1980, just before Charles and Diana married. One of his first projects, he writes, was to plant a hedge-screened rose garden to shield him from "the persistently prying eyes of pressmen armed with binoculars and obscenely large telephoto lenses to their cameras."

In 1985, the duchy added nearby Broadfield, which became the base for the home farm. In 1990, Charles decided to make the farm fully organic,

Wilson said during a tour of the farm. "There's no way of escaping it. With conventional farming, if the wheat price is good, you just grow another field of wheat."

But there is a savings on chemicals that need not be bought.

"An acre (0.4 hectare) of conventional wheat, for example, will cost about 100 quid (dls 150) to grow," Wilson said. "It costs us about 20 pounds (dls 30), so immediately we've gained something."

The organic yield can be as much as 50 per cent less, but the market pays premium prices for organic food.

## Asia's Garbage Crisis

WITH their tattered rattan baskets slung over one shoulder and rickety pushcarts, Asia's armies of scavengers and junk dealers who make a living out of recycling the piles of rubbish in the region's megacities have long been seen as eyesores by authorities.

But a United Nations agency says they may be a vital ally in the increasingly desperate struggle to cope with Asia's growing garbage crisis.

As matters stand, city governments are being bled dry by the job of collecting and disposing of refuse, says Arcot Ramchandran, executive director of the United Nations Centre for Human Settlements (Habitat).

Garbage disposal operations eat up 30 to 50 per cent of city budgets, Ramchandran told participants at a regional workshop on solid waste recycling held here early February.

"In some countries, solid waste disposal costs have jumped six-fold in the last decade," Ramchandran said. "These costs are likely to double or treble by the end of the century."

For all that, the results are still unsatisfactory. At best, only 70 per cent of the garbage is collected. But in very poor countries, the same percentage of trash is uncollected. Trends indicate the problem will become even more massive.

Participants in the Manila workshop, which included officials from Karachi, Kanpur, Bangkok, Jakarta and Manila, said that without controls, the amount of domestic solid waste will grow by 10 per cent a year and double by the end of the decade.

A Habitat study on waste recycling practices in these five Asian cities showed that the garbage problem grows as countries become more prosperous and urban populations increase.

Bangkok's garbage, for example, rose from about 3,200 tonnes in the first half of the 1980's to about 5,000 tonnes in the second half just when the Thai economy took off for a sustained boom period.

"Poor solid-waste disposal is increasingly emerging as the most significant cause of urban environmental degradation," said Ramchandran.

To check such dire trends, Habitat is urging governments to adopt an "integrated approach" that includes pro-

grammes to minimise waste production and to maximise waste recycling.

These measures reduce the volume of garbage that eventually have to be dumped in increasingly scarce landfills or burned in costly incinerators.

Recycling, in particular, seems to offer much promise for Asian cities. Current estimates show that only eight per cent of the waste in the five Asian cities covered by the Habitat study is recycled.

Potentially up to half of the waste generated by cities in developing countries — mostly paper, glass, plastics and various organic matter — can be recycled, the Habitat study said.

But in most Asian cities, waste recycling and reprocessing is almost entirely in the hands of junk merchants and street scavengers who together make up a complex network that collects, sorts out, reprocesses and distributes waste materials.

In Karachi, for example, young illegal immigrants from Pakistan's neighbouring countries make up 80 per cent of the city's small army of scavengers.

Earning US\$3 or less a day, scavengers pass on their collections to street peddlers who sell these off to middlemen who deal with manufacturing firms that use recycled materials to cut production costs.

"Almost 70 to 80 per cent of the material recovered (for industrial use) is reprocessed through small-scale cottage industries, typically employing less than 10 people," says the Habitat study. "These industries are scattered all over Karachi, mostly in low-income residential and squatter areas."

Materials reprocessed include bones, glass, plastics, metals, rubber, waste oil and grease, wood and household appliances. This description, pretty much matches the situation in many other Asian cities.

Authorities often consider waste collectors a nuisance. They say scavengers spread litter, pose a health hazard and interfere with the operations of government garbage collectors.

But Habitat says authorities should support the waste recycling activities of these small 'underground' enterprises by, for example, providing them with sites for sorting recyclables.

—IPS