

215310

JPRS 80907

26 May 1982

# Worldwide Report

ENVIRONMENTAL QUALITY

No. 353

**DISTRIBUTION STATEMENT A**

Approved for public release;  
Distribution Unlimited

19981203 125

**FBIS**

FOREIGN BROADCAST INFORMATION SERVICE

**DTIC QUALITY INSPECTED 3**

6  
54  
A04

#### NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [ ] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

WORLDWIDE REPORT  
ENVIRONMENTAL QUALITY

No. 353

CONTENTS

ASIA

INTER-ASIAN AFFAIRS

South Pacific Environmental Plan Seeks New Zealand Aid (THE NEW ZEALAND HERALD, 10, 11 Mar 82) .....	1
Regional Conference Proceedings Independent Environmental Plans Atlas of Coastal Resources	

INDONESIAN

Uncontrolled Logging Denuding Indonesia (ARABIA, Apr 82) .....	4
---	---

NEW ZEALAND

Environmentalists Hail Court Ruling on Geothermal Area (THE PRESS, 17 Mar 82) .....	6
--	---

PHILIPPINES

Merger of Environmental Agencies Noted (PHILIPPINES SUNDAY EXPRESS, 18 Apr 82) .....	7
Metro Manila Environmental Problems Noted (BULLETIN TODAY, 22 Apr 82) .....	8
Briefs Antimarine-Pollution Measures	9

LATIN AMERICA

INTER-AMERICAN AFFAIRS

Caribbean Environment Under Assault; No Help From U.S.  
(GUYANA CHRONICLE, 23 Mar 82) ..... 10

COLOMBIA

Rains Cause State of Emergency: 21 Dead  
(EL TIEMPO, 14 Apr 82) ..... 12

COSTA RICA

Deforestation Reaches 60,000 Hectares a Year  
(LA NACION, 4 Apr 82) ..... 16

TRINIDAD AND TOBAGO

Port-of-Spain Called 'Blight' Due to Development  
(Dennis Mahabir; SUNDAY GUARDIAN, 25 Apr 82) ..... 17

NEAR EAST AND NORTH AFRICA

EGYPT

Nile Pollution, Tourism Services Discussed  
(Nasr al-Qaffas; MAYU, 25 Jan 82) ..... 19

OMAN

New Regulations To Protect Environment, Combat Pollution  
(Mahmud Sami 'Abd al-Salam Interview; 'UMAN, 24 Feb 82) ..... 23

SUB-SAHARAN AFRICA

SOUTH AFRICA

Effect of Apartheid on Environment Reported  
(John Worrall; RAND DAILY MAIL, 20 Apr 82) ..... 30

Lack of Water Resources Development Threatens Future  
(THE CITIZEN, 11 May 82) ..... 32

ZIMBABWE

Matabeleland Officials Appeal for Food Aid (THE HERALD, 27 Apr 82) .....	33
Children's Feeding Scheme Hit by Drought, Says Minister (THE HERALD, 29 Apr 82) .....	34
Children Going Hungry, Says Report (THE HERALD, 30 Apr 82) .....	35
Commentary on Botswana's Plan To Tap Okvango (Editorial; THE HERALD, 4 May 82) .....	36
Drought May Force Nation To Import Beef (THE HERALD, 24 Apr 82) .....	37
Plans to Beef Up Drought-Hit West Reported (THE HERALD, 3 May 82).....	38
DDT 'Could Kill Lake Kariba,' Claims Thomson (THE HERALD, 29 Apr 82) .....	39
Briefs Drought Aid Plea	40

WEST EUROPE

BELGIUM

Expert Interviewed on Ecological Issues (Edgard Kesteloot Interview; SPECIAL/L'EVENTAIL, 26 Mar, 1 Apr 82) .....	41
--	----

FEDERAL REPUBLIC OF GERMANY

Bavarian Parliament Discusses Effects of Acid Rain on Forest (Roswin Finkenzeller; FRANKFURTER ALLGEMEINE, 1 Apr 82).	45
Briefs Widespread Forest Damage	48

SOUTH PACIFIC ENVIRONMENTAL PLAN SEEKS NEW ZEALAND AID

Regional Conference Proceedings

Auckland THE NEW ZEALAND HERALD in English 10 Mar 82 p 16

[Text] Rarotonga--New Zealand will be asked to contribute \$32,600 a year to the world's largest regional environment plan covering the South Pacific.

Details of the plan, now being discussed at Rarotonga by the South Pacific Commission and the South Pacific Bureau for Economic Co-operation officials, have shown a need for quick action.

An analysis shows that 65 per cent of all South Pacific nations have problems with erosion, 80 per cent with water pollution and 60 per cent have seen a rise in population which has seriously stretched resources.

A draft plan to tackle the problems has been prepared and, if accepted by delegates at the South Pacific regional Environmental Conference, will lead to new procedures in environmental management, national legislation and regional agreements.

### Designation

Among 12 points to which New Zealand officials will be asked to agree is designating areas as essential to protect traditional use of resources, a ban on nuclear waste dumping in the South Pacific and co-operating to combat oil spills at sea.

It is estimated that it will cost \$200,000 a year to set the plan in action by 1983. The regional scheme is part of a worldwide effort by the

United Nations to protect the environment.

The South Pacific scheme is the largest, covering more than 20 million square kilometres.

### Fine Balance

The deputy executive director of the United Nations environment programme, Mr Peter Thacher, says: "If the South Pacific cannot get on top of its problems, then there is little hope for mankind."

"In the coral reef, lagoon and coastal communities of small islands is found one of the most finely balanced ecosystems on this planet."

Mr Young Vivian, the secretary-general of the South Pacific's Commission, said South Pacific nations had been rather late in coming to grips with environmental issues.

Pollution problems had been less severe in the region but this had enabled Pacific nations to get onto the job early and plot a course to solve the problems.

### Outsiders

Too often, he said, the South Pacific had been considered from the outside and conclusions drawn up by outsiders.

The South Pacific's plan was probably the most comprehensive review of the region.

"Governments of the South Pacific clearly want to manage the environment wisely and well."

Later this week, delegates at Rarotonga are expected to tackle more contentious issues, such as French nuclear testing in the South Pacific and Japan's plans for dumping nuclear waste.

Some nations, notably France, have sent top-level diplomatic missions. But New Zealand, and many others, are represented by senior civil servants with technical expertise.

New Zealand's Minister of the Environment, Dr Shearer, who was to have attended, will now go instead to a full United Nations conference on the environment at Nairobi later this year.

At Nairobi, the South Pacific plan and about 20 other world regional plans will be discussed.

One senior United Nations official at the South Pacific conference said that many nations had a habit of censoring their own problems and this could affect their economies.

## Tourism

A case point, he said, was where pollution problems led to illness which could deter tourists.

He also said that many Third World nations had been "reluctant starters" when it came to environmental issues because they felt it meant curbs on industrial growth and "no more babies."

It was important that these nations saw the advantages of planned environmental controls and realised that environmental planning was part of national development.

## Independent Environmental Plans

Auckland THE NEW ZEALAND HERALD in English 11 Mar 82 p 20

[Text]

## Rarotonga

**New Zealand will not be part of the South Pacific Commission's environmental pressure group because both New Zealand and Australia have decided to produce their own environmental plans, taking an independent line.**

The position of the two major South Pacific powers was made clear yesterday by New Zealand and Australian delegates to the South Pacific Regional Environment Conference.

Draft declarations on the Pacific environment and a draft action plan — both of which are likely to be adopted this week — include some political issues of consequence relating to nuclear and oil pollution.

The plan, which is expected to be signed by 22 member-states of the South Pacific Commission, calls for a regional approach to the handling of internal South Pacific problems.

It also calls for a united stand on the part of commission members to combat pollution from nations outside the region.

### Involvement

Both Australia and New Zealand are full members of

the commission, and the New Zealand delegation, along with France, has been chosen as a member of the drafting committee to draw up the final proposals.

New Zealand's position, as explained by the Commissioner for the Environment, Mr K. W. Piddington, was that New Zealand as a developed country was expected to "look after its own thing."

"There is no bar on New Zealand involvement in the (regional) programme," he said.

It was not a case of New Zealand holding back but it did not want to take the aid which Island nations were likely to get for their own programmes.

### Active Roles

For that reason, New Zealand was the only South Pacific Commission member not to produce a report on

the state of its environment, he said. New Zealand, however, had the material to produce such a report, he added.

Both New Zealand and Australia have taken very active roles in conference deliberations and voiced support for the draft action plan which includes a strong stand over the dumping of nuclear waste.

However, as Australia and New Zealand will not geographically be included in the regional environment programme, the two major powers may not benefit from a block regional stand against pollution threats from nations beyond the South Pacific.

The role of France has been seen at the conference as that of a colonial power with responsibilities towards its Pacific territories.

Atlas of Coastal Resources

Auckland THE NEW ZEALAND HERALD in English 11 Mar 82 p 20

[Text]

New Zealand is prepared to help to compile a regional atlas of coastal resources throughout the South Pacific.

Addressing the South Pacific Regional Environmental Conference at Rarotonga, the Commissioner for the Environment, Mr K. Piddington, said a New Zealand atlas of coastal resources had already been produced and New Zealand's experience could be of value to Pacific Island nations.

"The original intention," he said, "was to have a document which would assist in the protection of important resources in the event of an oil spill on the New Zealand coast. Now that it has been completed, we find we have a tool for environmental management which can be used for far wider application."

He said that a Pacific atlas might commend itself when considering the importance of the coastal zone to everyone in the region.

Mr Piddington said New Zealand was also prepared to offer expertise in the preparation of baseline environmental studies.

CSO: 5000/9068

## UNCONTROLLED LOGGING DENUDING INDONESIA

London ARABIA in English No 8, Apr 82 pp 64, 65

[Text]

Like the other countries of Southeast Asia, Indonesia suffers from severe environmental problems, which are getting worse by the year. The situation is most serious on Java, the archipelago's most populous island, where the ecological balance has been alarmingly disturbed as forests have been depleted and soil and natural resources eroded.

Uncontrolled logging and the custom of cultivating a piece of land until it is exhausted and then moving on to do the same to another piece are two main causes of environmental deterioration. About a million Indonesian families are engaged in this form of agriculture, and the area of unproductive land is increasing dramatically as more and more families are being forced into this type of farming. Already 20 million hectares have been declared critical and the figure is increasing by 100,000 hectares a year.

At the same time, foreign logging companies, mainly American and Japanese, have been at work, cutting trees without replanting. Now, however, a new regulation, requiring all companies which export logs to pay a deposit of \$4 per cubic metre of timber cut, has been enforced. This money is returned if a company can prove that it has replanted, otherwise the government uses it to do its own replanting.

Other problems are being aggravated as Indonesia steps up its efforts to develop and industrialise. Rivers are being badly polluted by chemicals discharged by industry, and agricultural production has fallen off, requiring Indonesia to import up to three million tonnes of wheat and rice a year.

Policy makers argue that development and modernisation ought to be given priority over environmental concerns, but Indonesian

Minister for Development and the Environment, Emil Salim, differs. "This is a short-sighted view," he maintains. "Development must be seen in the long term. We cannot afford to neglect environmental issues now, because we will have to pay later."

Credit for spreading the environmental message must go mainly to Salim, one of Indonesia's most popular politicians. He had worked hard to make environmental issues an important part of the third development plan and the "national guidelines." Indonesia was one of the first developing countries to appoint a Minister for the Environment - back in 1978.

Salim has established quite an effective network. There is a representative from his department working in every other ministry to deal with the environmental aspects of new projects. "We write the rules and they do the implementation," says Salim. Special environmental units have also been set up at local level by the governors of the provinces. In addition, students and instructors are being trained in the 21 environmental study centres established in universities round the country. So much damage has already been done, however, that the main aim now is to prevent further deterioration. It is a long-term process, as Salim is well aware: "A harmonious relationship between man and nature cannot be created overnight," he says.

Priority, Salim believes, should be given to education, in order to develop understanding and awareness of the problems. Encouragement is given to public groups willing to take part in the environmental improvement drive. The Indonesian Environmental Forum, consisting of about 80 non-governmental organisations as diverse as the Boy Scouts and various women's groups, was established recently, with Salim's full support. He sets great

store in the role women can play in the problem. "Fetching water and collecting firewood is all done by the women," he explains. "so when you talk about the environment, they know exactly what you mean."

Poverty, Salim says, is one of the main reasons for environmental destruction, and he feels that unless steps are taken to improve the living standards of the poor, environmental programmes are unlikely to succeed. He finds the urban population least receptive to his message and settlement improvements in the major cities have become his priority.

Under these schemes, footpaths, water and drainage systems are being provided in the poorest urban sectors. These will be followed by training programmes to teach people to be more aware of their environment. By making contact through representatives chosen from the community, Salim plans to get the people to identify what they see as their most pressing needs, and the programmes will be conducted accordingly. "The only way one can reach the poorest of the poor is through those who are closest to them," explains Salim.

One settlement improvement scheme in Jakarta has already achieved international recognition as one of the 1980 winners of the Aga Khan Award for Architecture. It is to be hoped that future schemes will meet with similar success.

CSO: 5000/5738

## ENVIRONMENTALISTS HAIL COURT RULING ON GEOTHERMAL AREA

Christchurch THE PRESS in English 17 Mar 82 p 37

[Text]

PA Auckland  
An Auckland professor of physics has won a three-year legal battle to stop the Ministry of Works and Development drawing water from the Waimangu geothermal area.

A Court of Appeal decision in favour of Professor R. F. Keam, overturning an earlier decision by the Chief Justice, Sir Ronald Davison, has left conservationists jubilant and the Ministry worried about obtaining future geothermal water rights.

In 1979, Professor Keam appealed to the Planning Tribunal against the granting of water rights for the Ministry to investigate the energy potential of the geothermal-reservoir at Waimangu, near Rotorua.

The tribunal allowed his appeal, saying there was a danger of damage to Waimangu, and that the Ministry's test bore would yield little information at too great a risk.

In response to an appeal by the Crown, the Chief Justice overruled the tribunal in the High Court, saying that the tribunal should restrict itself to considering the impact of the bore on the water alone.

The Court of Appeal has now overruled the Chief Justice and restored the decision of the tribunal.

The Ministry is unable to draw water from Waimangu, and is concerned that the decision may make future geothermal water rights more difficult to obtain.

"This could have far-reaching consequences for other geothermal fields," said Mr Linus Constable, a senior engineer in the geothermal investigations section of the Ministry's Power Division.

"Our drilling programme could be downscaled if we encounter similar trouble from environmentalists over other water rights."

Mr Constable said the Ministry would decide within the next few weeks whether to contest the Court of Appeal's decision.

The Ministry might also apply again for water rights at Waimangu, he said.

Mr Gary Taylor, the executive officer of the Environmental Defence Society, which has supported Professor Keam in his battle, described the decision as "the most significant victory the courts have given us for many years."

"It is probably the most important victory in the society's 11 years of activity," he said.

Mr Taylor said the decision should prompt the Minister for the Environment (Dr Shearer) to set up a

committee of inquiry into geothermal matters.

"We need to sort out which areas should be developed and which should be preserved," he said. "We have provision to protect lands and rivers but not geothermal fields."

Professor Keam said he was "delighted and relieved" by the decision.

Waimangu was unique, he said, the only area in the world of intense surface thermal activity which had been formed in historic times.

He had been studying the thermal activity, including a lake that rises and falls 10 metres every six weeks, for 30 years.

Any drilling and removal of water, such as proposed by the Ministry, would have made it impossible to tell whether changes in the activity were due to natural causes.

"Waimangu cannot be developed for energy and retain its scientific value," he said.

Professor Keam joined the Environmental Defence Society in calling for the area to be made a national park or reserve.

MERGER OF ENVIRONMENTAL AGENCIES NOTED

Manila PHILIPPINES SUNDAY EXPRESS In English 18 Apr 82 p 4

[Editorial]

[Text]

**F**EW are probably aware of it but all public agencies, including government-owned or controlled corporations, and private firms are now required to prepare an Environmental Impact Statement for every proposed project and undertaking which would significantly affect the environment.

The EIS requirement, embodied in PD 1586, is a major indication of the government's concern over possible adverse effects of development projects on our surroundings. The creation five years ago of the National Environmental Protection Council marked the start of serious government efforts to institutionalize this concern for environmental protection and management.

The NEPC's anniversary celebration today, however, may be its last. There is a pending proposal to merge the NEPC and the National Pollution Control Commission into an Environmental Protection or Management Administration.

This is probably for the better since this would integrate into the current NEPC program the various activities and concerns of pollution control which are vital components in the implementation of a national environmental protection and management program. Five years of NEPC's commendable performance speak well of the government's determination to protect the environment as the country moves towards fuller development.

CSO: 5000/5741

## METRO MANILA ENVIRONMENT PROBLEMS NOTED

Manila BULLETIN TODAY in English 22 Apr 82 pp 1, 9

[Text]

Vice Gov. Ismael A. Mathay Jr., noting the deterioration of the environment in Metro Manila, urged consumer groups yesterday to direct complaints and reports on zoning and ecological violations to the Metro Manila commission (MMC).

Speaking before the Consumers Federated Groups of the Philippines (CFGP) on the occasion of its 19th anniversary, Mathay noted that rapid and uncontrolled development has led to the "near death and decay of the metropolis."

He said that problems of congestion, unbalanced population density, wasted land resources, irrational land uses, traffic jams, pollution, premature land use, breakdown in sanitation have made the metropolis an "almost inhabitable urban environment."

These problems are aggravated by the continuous migration of peo-

ple from the provinces at an alarming rate of 150,000 to 200,000 a year, he said.

The vice governor said the government has sought to alleviate these ills through zoning Metro Manila into specific land uses, such as residential, commercial, industrial, and institutional.

Brig. Gen. Guillermo Picache, national pollution control commission (NPCC) chief, bared environmental and health problems posed by some products in the market.

Picache noted the problem of disposing of plastic containers in the form of thin bags, saying that these non-degradable materials have clogged street canals and sewer lines, thus resulting in floods.

Burning these materials, he said, produces "phosgene," a very toxic gas which can kill a person exposed to it for

a long period.

Some cosmetics in the market, he said, have given rise to a series of strange disorders when wrongly chosen and applied. He cited reports showing that some facial cosmetics widely distributed in the country contain a mercurial compound while a certain brand of face powder for infants contains another highly toxic compound.

On pesticides, Picache said that pesticide residues finding its way in bodies of water that are consumed by fish have accounted for a number of food poisoning incidents.

He added alkyl benzene sulfonate (ABS), a non-biodegradable component of detergents in the country, that has long been banned in Europe and Japan, and DDT are among the health hazards today.

CSO: 5000/5741

## BRIEFS

ANTIMARINE-POLLUTION MEASURES--A team of United Nations (UN) officials are currently discussing with local officials measures to control marine pollution caused by ships carrying chemicals and oil. Terence M. Hayes, head of the team representing the Inter-governmental Consultative Organization (IMCO) during the weekend threshed out with Commodore Brillante C. Ochoco, Coast Guard commandant, the proposed anti-pollution measures with assistance from the UN. One possible measure being considered is the establishment of sub-regional marine pollution (Marpol) response centers along tanker routes. Hayes said that the proposed centers are envisioned to sweep the seas of chemical or crude oil pollutants spilled by typhoon-hit vessels. The Marpol response centers will also assist vessels in distress, and help in detecting vessels dumping their oily water wastes into the seas. Hayes was accompanied by Hugh D. Parker, an executive of the International Tanker Owners Pollution Federation, Ltd., an organization administering a program wherein tanker owners voluntarily settle the cost of oil pollution damage. Both Hayes and Parker visited the facilities of the National Operation Center for Oil Pollution (NOCOP) at the Farola Coast Guard Base at the mouth of the Pasig River. [Text] [Manila PHILIPPINES DAILY EXPRESS in English 3 May 82 p 4]

CSO: 5000/5744

CARIBBEAN ENVIRONMENT UNDER ASSAULT; NO HELP FROM U.S.

Georgetown GUYANA CHRONICLE in English 23 Mar 82 p 7

[Text]

KINGSTON (IPS) — This year the United States plans to give 350 million dollars in additional aid to the Caribbean Basin nations to combat a "threat of communism", but it has given nothing to an 8.2 million dollar environmental protection programme for the region except a verbal endorsement.

The "threat of communism" might be a moot issue: Oil pollution of waters and coastlines, vanishing forests, and soil degradation are real enough.

More and more of the 27 nations, territories and 'dependent' islands which form the wider Caribbean believe their environment is in danger.

Nearly a year after a special inter-governmental conference approved an environmental action plan, awareness about this subject is growing.

All of the 27 governments attending last April's conference on the Environment in the northern Jamaican City of Montego Bay approved the three-year environmental protection programme.

Some, including tiny Grenada and Saint Lucia, backed their commitment with cash.

One of earth's most ecologically diverse regions, the Caribbean is threatened by the vagaries of the very elements that contribute to its renewed beauty.

**OIL DAMAGE**

Gravel beaches, tidal flats, bays, lagoons, mangrove marshes, and particularly coral reefs and spawning and breeding grounds for fish and shrimp, sustain the most serious ecological damage from contact with large amounts of oil.

And oil spills cause dirty, unsightly beaches and reduced possibilities for aquatic sports — thus affecting tourism — an industry on which many Caribbean states are dependent.

According to the UN Environment Programme (UNEP), the various elements of Caribbean ecosystems — forests, soil and water, and the organisms that inhabit them, are 'like dominoes ready to topple the first domino that falls when a forest is cleared.'

For example, the Eastern Caribbean island of Barbados used to be covered with forest. Now, it is largely covered with sugar cane.

Of the island's total area of 42 000 hectares, only 16 hectares of original vegetation remain. The forests have gone, and with them much of Barbados' natural defence against hurricanes.

Throughout the Caribbean, forests are disappearing at an alarming rate.

Colombia is reportedly losing 800 000 hectares a year, Mexico 400 000 and Venezuela 250 000.

#### SMALL REPLANTING

Every year, nearly 1 800 000 hectares of Caribbean forest are destroyed, and only 34 000 are replaced by replanting, UNEP says.

Forests have shrunk from 221 million hectares in 1966 to 194 million in 1980. By year 2000 they will shrink further to 175 million hectares.

Soil erosion affects not only the fertile lands of large states as Mexico, Colombia, Venezuela and Panama but smaller islands as well.

Resources and levels of development are unevenly distributed in the wider Caribbean. The range is from small poverty-stricken

islands like Dominica and Haiti to oil rich Mexico and Venezuela.

There are huge unexploited hinterlands like Guyana and Suriname and large industrial areas on the Gulf coast of the United States.

Antiquated techniques for the use of land, in order to sustain export-oriented agricultural sectors, have resulted in loss of land and soil degradation.

The spread of urban centres has also led to loss of croplands.

Ships carry nearly five million barrels of oil through the Caribbean Sea each day.

At any one time, the region contains about 200 tankers 50 of them super tankers or very large crude tankers.

The wider Caribbean region now has 73 refineries with a total capacity of more than 12 million barrels per day.

UNEP says oil spillages in coastal waters from accidents, tank washing and operational discharges, amounted to over 76,6 million barrels in 1978, and

accidental spills of 30 000 barrels or more are expected to occur every 18

months as a result of blowouts, platform fires and natural disasters.

The Caribbean Action Plan adopted at the Montego Bay meeting is the cornerstone of the region's environmental protection efforts.

It took over four years to finalise.

Initially, its main focus will be on oil spill contingency plans, guidelines for managing watersheds, water pollution control improvements, better natural disaster risk assessments.

The plan also covers protection of coastal marine resources on renewable energy production, and environmental public education.

Until the next inter-governmental meeting in 1983, implementation of the action will be supervised by a monitoring committee of nine member states of the Economic Commission of Latin America (ECLA).

The hope is that by 1983, the Caribbean environmental treaty should be ready for signature by the states of the region.

RAINS CAUSE STATE OF EMERGENCY: 21 DEAD

Bogota EL TIEMPO in Spanish 14 Apr 82 p 1-B

[Text] A state of emergency was declared for several areas of the southeast and northeast parts of the country, due to the sudden return of the rainy season, which up until yesterday left 21 dead and more than 10,000 injured, according to a report from Colombian Civil Defense.

The meteorological department of Himat estimated that due to rain in the last few hours, a state of emergency was declared for areas such as Alto Cauca, middle and lower Magdalena.

But the principal fear, according to Civil Defense, is the increase in the level of the Magdalena River, which was threatening to overflow its banks in regions such as Barrancabermeja, Banco and Magangue, where the inhabitants were alerted by relief organizations.

#### Official Report

A government official revealed that the rainy season had left up to now more than 10,000 injured who inhabited the areas of Embalema, Honda, La Dorada, Puerto Salgar and Barrancabermeja, because of the overflow of the Magdalena, and the areas of Yotoco, Roldanillo, La Victoria, La Pintada and Yolombo, because of the overflow of the Cauca.

Mayor Julian Lizarazo, head of the information department of Civil Defense, told EL TIEMPO that up to yesterday, the number of dead due to the rainy season reached 21, also 10 persons are unaccounted for.

He informed that a state of emergency was declared in various towns such as Puerto Boyaca, Puerto Wilches and Gamarra, due to the high level of the rivers and dams.

The biggest floods took place in areas bordering on the departments of Valle and Cauca and have affected the towns of Toribio. Caloto and Candelaria, as well as Viejo Caldas, Armenia and Pereira.

The River Cauca raised its level in Caucasia, in the high and middle part of Cauca and in the next few hours serious floods are foreseen in Yotoco, Roldanillo, Cali, La Victoria, Caucasia, La Pintada and Bolombolo.

## Coffee Emergency

Neiva--The coffee growers' committee of Huila declared a state of emergency for the department's producing zones and warned of a drop in the "mitaca" crop attributed to low temperatures caused by the severe cold wave.

The president of the organization, Rodrigo Ocampo Ospina called the situation "a catastrophe and asked for assistance from the government and the federation to avoid a "collapse" in this sector of the economy.

He estimated a reduction of 20 percent in production as a consequence of the freezing temperatures registered principally in the areas of Algeciras, Garzon and Gigante.

Ocampo Ospina indicated that the major problem lies in highway infrastructure and announced that with the object of precluding shipping difficulties for the bean, the establishment of storage centers is projected in the eastern part of the department where several towns have been isolated.

## Highway Closed Down

The Neiva-Florencia highway which connects Bogota with the southern part of the country has been closed since yesterday as a consequence of the winter weather.

The vice minister of public works, Roberto Martinez Rubio, said that teams of that ministry and of the Huila highway district are working to resume motor transport and to free that rich region of Caqueta which provides food for Bogota and other cities. The blockage occurred in the Altamira-Cabinete stretch at Kilometer 24.

Another, but secondary road blocked, is the one between Boyaca town of Chiquinquira and Otanche.

Edgar Urrea, head of the maintenance division of the Ministry of Public Works, said that although there have been landslides and cave-ins of the banks on several highways, traffic has been able to get through on all of them.

One of the highways most affected in this way was the Bogota-Honda highway which yesterday had four landslides very near the municipality of Villeta. Traffic is moving. It was opened yesterday afternoon at five.

Also, a landslide was removed from the Manizales-Irra highway.

Another landslide was repaired on the La Virginia-Anserma road.

Yesterday, at noon, the Manizales-Fresno road where there had been a landslide at Kilometer 228, was opened.

## Santander

Barrancabermeja--The Magdalena River rose 5 centimeters from the flood level, and on breaking the retaining wall, started to spill over on towns and create

serious difficulties especially in the Cantagallo district south of the department of Bolivar. The Colombian Oil Company used teams to tamp the earth with refuse and reinforce the wall, so that 250 houses located on 1st and 2nd Streets would not be inundated by the waters.

The citizens of Cantagallo asked for assistance from relief organizations in Barrancabermeja to meet the emergency, but so far no casualties have been reported. The town of Cantagallo is 1.5 meters below the present level of the water.

On the other hand, Civil Defense in Barrancabermeja advised that along the road from Lucha to the banks of the Sogamoso River families lost their crops and homes due to the overflowing of that branch of the Magdalena.

In the districts of Cuatro Bocas and Bocas del Llanito, more than 100 families had to evacuate today. In Puerto Wilches the waters penetrated through the northern part to the Yariri marsh, leaving the town isolated and without public services of water and sewers. Forty families were evacuated.

It was announced that the river was just starting to flood the area from the municipality of Morales, south to Bolivar and the authorities have prepared an emergency plan in the towns of Riofrio, Regidor, and El Dique, which are the most affected.

#### Tolima

Ibague--Inhabitants along the banks of the Magdalena River were alerted about new floods in this most important Colombian river in the next few hours.

The director of Himat in Tolima, Hernando Perez delivered to Governor Gregorio Rudas a report in which the gravity of the situation in Tolima is evident due to the winter season as it is in different areas of the department.

A report from authorities of Flandes indicates that there are various towns flooded among them La Ceiba, La Paz, San Luis, Delicias, Libertad, Las Quintas and Ferroviarios. Also there were floods on roads in Colegio, Camala Topacio and Paradero.

#### Risaralda

Pereira--Twelve families were injured by the overflow of the Risaralda River, in the port of La Virginia.

Spokesmen of the Civil Defense and the police informed EL TIEMPO that before the cold wave which whipped the western part of the department, it was necessary to evacuate 12 families residing in the town of Caycedo.

Civil Defense reported that "the Risaralda River, very swollen, dropped its level on emptying into the Cauca, swelled again as has happened in former years and as a preventative means, it was necessary to evacuate the poor residents who ran the biggest risk."

## Antioquia

Medellion--The strong cold wave which affects the country continued playing havoc in Antioquia, when the rising of the Magdalena and Cauca Rivers threatened to flood other municipalities on the banks.

The Civil Defense made calls to the authorities of towns on the river banks for them to use the services of the organization and in this way, take full advantage of rescue efforts.

The regional director of Civil Defense said that isolated floods were feared in Apartado, in the Urada area, as well as in Amaga, Yarumal and Marinilla.

Meanwhile, today, various regional roads were blocked in Antioquia.

The Ministry of Public Works announced that the municipalities of Urrao and Caicedo in southeast Antioquia, became isolated because of the landslides and that it is feared that roads in the area of Uraba also are flooded by rain which has increased in the last few days.

9678

CSO: 5000/2107

COSTA RICA

DEFORESTATION REACHES 60,000 HECTARES A YEAR

San Jose LA NACION in Spanish 4 Apr 82 p 6A

[Text] According to a recent study of the National Planning and Economic Policy Office (OFIPLAN), deforestation in Costa Rica amounts to an average of 60,000 hectares a year.

Mr Wilburg Jimenez, head of that office, said that he is worried about that situation, since only 5,000 hectares are reforested annually, with the result that within 10 years Costa Rica will have to import approximately 1,000 million cubic meters of wood, in order to meet the needs of the lumber industry.

The official said that he has received reports that in the Atlantic area, chiefly in the vicinity of fields where oil exploration is going on, there is extreme deforestation.

He also said that in the Talamanca area there is no governmental control, and that therefore the quality of the future ecology of the area will be affected.

He added that in the northern region deforestation is being continued and that hydrographic river basins are being affected, with short-term repercussions on the supply of drinking water for cities.

Further, the official said that to deal with the problem, the Regional Development Council of the Huetar Atlantica area recommended immediate protection for hydrographic basins, chiefly the La Bomba, Siquirres, Guacimo, and Toro Amarillo ones.

To that end, it recommends that the extraction of wood and rocky materials be avoided and that uncontrolled farming and grazing be reduced.

Conservation of the Blanco River basin of that region was also requested.

8255  
CSO: 5000/2109

PORT-OF-SPAIN CALLED 'BLIGHT' DUE TO DEVELOPMENT

Port-of-Spain SUNDAY GUARDIAN in English 25 Apr 82 p 9

[Article by Dennis Mahabir]

[Text]

EVERY move towards saving Port of Spain seems to be encountered with resistance. As one who has tried to save it from the "couldn't care less" attitudes of the mutilators, I cannot now fail to recognise that Port of Spain has reached the lowest point in the aesthetic level and the taste for ugliness is now ingrained.

Years ago I proposed that Independence Square (then Marine Square, formerly Plaza del Marina) be laid out as a tropical garden with fountains and lawns from the Cathedral to Wrightson Road. A veritable showpiece and sanctuary in the shopping area. The threats and scoffs of car owners who got free parking were not the only opponents. So today the present Mayor's idea to beautify this area is one of renewed encouragement to try to save the city.

To most workers in this city, it is only a place where people earn their living, yet to others it offers great possibilities. If for the masses it is a place where they earn their chicken and chips, for the historically minded there is no part of it which does not offer a perspective into the remote past.

Yet those who work within this metropoli-

tan myth care little about preserving what exists from the past. Happily artists like John Newel-Lewis and Noel Vaocrosson have preserved for us in their paintings some of this.

How much of the present will remain? So much of the past has gone. More gigantic blocks of offices are going up and more will go up to destroy the present and they will be so designed that they will turn the streets into dark and gloomy canyons.

Yet when the artists' pictures of the present have disappeared, there may come again a civic resurgence, imagination caught up by possibilities of areas planned to illuminate the conception of a city which is more than a set of buildings — of sanctuaries, of open spaces, flowers and trees.

CIVIC PRIDE

The most popular means of destruction of the city has been the vandalism of open spaces, George V Park can still be saved. As a matter of interest, there was a resolution planned by the City Council, around 1966, declaring that no buildings should be erected in the park and that it should be kept as an open park. But the City Council today can do nothing to prevent the dreary heritage of destruction and sheer vandalism.

Civic pride has vanished with the emasculation of local government and is purely materialistic. Nobody cares that the greenery in

any city serves a purpose of relief or camouflage from size, squalor, traffic and crowds.

Fortunately for us, we do not have the pall of smoke in English cities that are enough to discourage any effort after beauty or joy in the visible aspect of life.

Can the time come again when more thought will be given to the amenities and to public welfare and less to a handful of people concerned only about themselves? We owe it to future generations to preserve these open spaces, to re-establish them as sanctuaries they were intended to be, retreats to which the harassed can flee from the congestion of offices and cars, learn to walk again, relax and contemplate.

The divorce from beautiful surroundings has been absolute in so many cases. The planning has been blind and negative and the city eaten away but causing no violent indignation.

Not content with this, where is business to end in the city? In almost every street, in

former said residential areas, there are now hair-dressing shops, real estate offices or agents for something or the other. The streets have evolved into an empire of car parks festering with commercialism by day and derelict in its ugliness by night.

Residential areas have given way to tawdry commercialism in oases of one-time grandeur. Sub-stations for electricity dot every place, adding to the discomfort of everybody. WASA huts in the Savannah remain, trees on Wrightson Road again destroyed, streets remain unsurfaced and problems become insurmountable.

The time has come when no poultices, salves, advertising incantations, public relations magic or quack mechanical remedies can save Port of Spain. The malaise is there, the paralysis is incurable, the permanent bolts and scars on the landscape frustrate any attempt to resurrect the city.

We have reached the lowest point in the aesthetic level and the taste for ugliness is thoroughly ingrained.

CSO: 5000/7535

## NILE POLLUTION, TOURISM SERVICES DISCUSSED

Cairo MAYU in Arabic No 52, 25 Jan 82 p 6

[Article by Nasr al-Qaffas: "Polluting the Waters of the Nile--Whose Responsibility? Studies, Recommendations and Conferences...Without Results; The Ministry of Tourism Asks: 'When Will We Exploit the Nile for Tourism?'" ]

[Text] Who drinks the waters of the Nile in Egypt returns. This sentence has been a well-known proverb among tourists all over the world and in songs by Egyptians at home and abroad. Things have changed. Conditions have altered, and the advice to all who visit Egypt now is: Don't drink the Nile water lest you be stricken with an intestinal virus!

In the past they used to say, "Egypt is the gift of the Nile." Recently many laws have been issued to protect the Nile and its waters from pollution. Conferences have been held. Studies were presented dealing with protecting the Nile from pollution and exploiting it for tourism, and recommendations were made. Officials have discovered the extent of the existing deleterious conditions. The danger of pollution still threatens the Nile, and the Nile still needs to be approached from the aspect of its value as a tourist attraction.

It began at the "Conference on Floating Hotels and the Protection of the Environment from Pollution" to which the Ministry of Tourism invited, and was attended by, those concerned with the problem of Nile water pollution and all kinds of health, tourism, irrigation, police, and economic officials, and other specialists. All of them concentrated on the importance and danger of the situation and the need to act quickly. A year has passed and nothing has happened and no progress made. All we have heard about it is that committees to study the situation have come pouring out of the conference. Still, more study!!

#### Twenty-Five Piaster Penalty for Whoever Pollutes Nile Water

What is surprising about the problem is that Law No 93 of 1962, which deals with Nile water pollution, stipulates in Article No 12 penalties ranging between fines of not less than 25 piasters and fine of not less than LE 10 but not exceeding LE 50, and an imprisonment for a term of not more than 3 months and a fine of not less than LE 50 for whoever pollutes the Nile waters. Despite

the aim of the penalty, in view of the great dangers, there has not been known to be a sentencing of a single person or agency for causing pollution, although they exist everywhere.

As Maj Gen Muhammed Mahmud Yusuf, the director of the Water Supervision Administration, says, the dangers of pollution will increase with the expansion of industry and the growth in population. What is required is a decisive and serious confrontation of this problem, especially since Egypt is a nation that relies primarily on the Nile for its drinking water as opposed to some advanced nations that rely on rainwater, artesian wells or aquifers not vulnerable to the effects of pollution.

Gen Muhammad Yusuf adds that if we confront the danger that threatens the health of thousands of human beings and economic losses following from the effects of pollution on animals, plants and fish resources with the penalty stipulated by law, the most extreme of which is 3 months imprisonment or a fine of 100 pounds, we will find that this does not satisfy the goal of protecting people and the economy from this harm. He points out that the law increased the penalties for drug crimes to include execution. The motive behind this was to protect society from health and economic hazards which result from taking narcotic substances. The victims of drugs, whom the legislation wants to protect are few and they engage in taking these poisons entirely of their own free will, while the victims of water pollution number a great many innocent people who are harmed through engaging in their daily activities and drinking contaminated water. Therefore, what the matter required--as requested by the chief of the Water Supervision Administration--is a review of the penalties for crimes like these. We must not be overcome by mercy or compassion for whoever commits crimes such as these, whether it be intentional or unintentional. [Yusuf] proposes a penalty of imprisonment for a period of at least 5 years. In case of a repeat offense, there would be a fixed sentence of hard labor.

#### The Causes of Pollution Are Clear

In order to eliminate the causes of Nile pollution, experts claim the necessity of eliminating the shacks standing on the Nile, scattered more or less from the Barrages to south of Cairo and eliminating the garbage heaps amassed under the bridges, especially the Imbaba bridge, and along the shores like the East Nile shore around Umm al-Khalij and Rawdah Island, by way of example. They mentioned the need to forbid the populace from washing or drying clothes, or spreading cloth along the banks, or washing vegetables, washing animals or bathing in the Nile. [They called for] cleaning up the banks and the main water course of the Nile of the weeds that grow there and float along the surface; building Nile watch stations to stop pollution; forbidding factories from emptying liquid wastes directly into the Nile without being treated chemically. This happens in Suhag, (al-Badrasin), al-Saff, Hilwan and other places. These are some of the causes of pollution. When will we act to protect the Nile from the danger threatening it and preserve the health of our citizens?

## The Danger Is Growing

The problem of Nile pollution is not the only one that needs quick action.

It is the most important problem at present. Another problem is developing from Nile tourism, especially after the increase in interest in recent years in setting up floating hotels and tourist boats for long and short cruises.

This problem was obvious to tourism officials. It was obscured by research and study, especially after events repeated themselves in the sinking of steamships in certain areas. They are aware of this and this is talk we have forgotten. But it was reviewed in detail in the same conference that warned of the dangers of Nile pollution, if we could return to a few months ago when this conference was being held and experts were speaking before the officials, especially after the sinking of the steamship, Bardis, which had caused a great outcry.

The Public Commission for River Transport submitted a short-term plan last April in which it announced the need to purify and deepen the shallows by drains, particularly in the areas of the tourist docks in Aswan and the area in front of Kommonbo Temple and the area near Edfu--the area in which these events reoccurred. The most recent of these was the burning of the steamship, Lotus, last December. Afterwards, the commission announced that its plan would be concluded in the middle of 1981 and would cost LE 300,000. Looking back to the beginning of the long-term plan we see there were committees researching the matter together with foreign consulting firms, the Ministry of Irrigation and the Ministry of Tourism. Study is expected to end in 1 year, after which the recommendations that the research committees have made will be carried out.

## The Plan Has the Solution

As mentioned, the decision of the Public Commission for Nile River Transport last April regarding maintaining the purity of the Nile was that the commission will construct three radio stations along the watercourse from Luxur to Aswan in order to connect [sections of] the Nile along this route.

The resolution indicated that the commission has purchased radar equipment and installed it on one of its motorboats and is directing it at the tourist boats at night during their passage, having placed reflectors on either side of the Nile. The commission has concluded a contract to build and provide a winch with a capacity of 100 tons to raise the boats submerged in the Nile so that they do not become an obstacle and so that the tragedy of the Steamboat Delta, which sank in the Nile south of the Edfu bridge will not be repeated.

Not everything the Public Commission for River Transport presented was beneficial, although its studies defined the negatives and positives, the methods and means of the solution in the plan and the resolution the conference passed. However, the submerged steamships still remain as they were, only now they number one more. No one was able to salvage it, and fires destroyed it completely. It is the steamship Lotus that we mentioned earlier. It was consumed by fire at the end of last December.

In April 1981 General Muhammad Yusuf spoke about the security procedures of the River Patrol, saying that they include expanding the police patrols with speedboats along the water areas in various parts of the country. Guards on patrol launches were appointed to supervise the flotillas of tourist yachts which bring together a large number of tourists. (These measures also include) increasing services in the archaeological tourist areas, especially along the course of the Nile in the region from Aswan to Luxur. And in December 1981 the steamboat Lotus burned, without anyone knowing about it. This time as well God prevented disaster. The question is, where are the guarantees which the officials are talking about for ensuring Nile tourism.

#### The Last Word

The problem of Nile pollution and ensuring its purity derives its importance from the effect it has on the health of Egypt's citizens and the desire to preserve Egypt's good reputation abroad among foreign travelers, especially after the national economy becomes dependent on tourism as one of its principal resources. There must be an appreciation of its importance and immediate action to work for providing a solution.

9614

CSO: 5000/5008

## NEW REGULATIONS TO PROTECT ENVIRONMENT, COMBAT POLLUTION

Muscat 'UMAN in Arabic 24 Feb 82 p 3

[Interview with Dr Mahmud Sami 'Abd al-Salam, Secretary General of the Environmental Protection Council, by "UMAN: "First comprehensive Law to Protect the Omani Citizen and Environment"; date and place not specified].

[Text] The first comprehensive law in the Sultanate to protect the environment and to fight pollution was issued recently. This law protects the country's natural resources and spares us from the side effects and damages that could possibly develop from the programs of industrial, agricultural and constitutional development. With this law, we will protect our country from the greatest danger the era faces, environmental pollution.

However, what regulations are contained in the new law that must be complied with in your life and business? How can they be implemented and what is the goal behind them? These and many other questions that have been asked by all of us are hereby answered in your newspaper, 'UMAN, through this journalistic investigation.

The rapid industrial progress in the world has eliminated great distances between countries. The danger that any nation faces today could be faced by us tomorrow. The worst danger is the danger of environmental pollution, which spreads rapidly from place to place, in the sea and in the air, causing considerable economic loss for nations, by causing cancer and heart and lung diseases for many of their citizens. It also causes considerable damage to antiquities. All of this occurs after haphazard industrial growth, which does not take the environment into consideration.

In order to protect the Omani environment and to provide the best health and social care for our citizens, in order to protect our natural wealth and economic resources, and in order to safeguard our historic and cultural heritage, the first comprehensive law was issued to protect the environment and fight pollution. By means of this law, the citizen himself protects himself, his environment and his natural resources. It was issued in order to avoid any damage or side effects which could happen suddenly, or in the long run, as a result of the industrial, agricultural or constructional programs.

However, what is in the new law? How can we protect our environment from pollution?

'UMAN met with Dr Mahmud Sami 'Abd al-Salam, secretary general of the Environmental Protection Council, and one of the few international anti-pollution exoarts, and asked him this question.

[Answer] In addition to the previous goals, the law is also aimed at protecting the country's natural resources and environment, and exploiting them under ideal guidelines that will return full value to the citizens without any harm to the quality of life in the sultanate, or in its economic waters, especially in regard to damage from pollution of the environment's basic systems, like the atmosphere, water, soil and sea, animal and vegetable resources.

[Question] But, how can the environment be protected by law? What is the most important obligation that must be adhered to when building a factory, stone-crushing facility or a production area?

[Answer] The law permits the council to take all measures that will ensure the safety of the Omani environment and improvement and development of its natural resources, for present and future generations, from the health, social and economic aspects, as well as to protect the various kinds of land and sea life for which the sultanate is noted, especially those threatened by extinction.

The law enjoins any person, governmental or non-governmental organization, source or area not to use the Omani environment for the disposal of environmental pollutants of the types and amounts that could result in harm to the environment and its natural resources, or to protected areas, or to the Sultanate's historic and cultural legacy.

The law also decrees that no person, governmental or non-governmental organization, source or work area shall be permitted to exploit areas of immunity, which are areas determined by the state to be pollution-free areas or areas surrounding work areas, in which the practise of any human activity that might be affected by pollution produced therein is prohibited.

The law also decrees that it is incumbent upon any owner to take the necessary measures to prevent environmental pollution, to safeguard land and sea life, gardens and other protected areas, whether by the use of pollution-preventive devices or by other means.

In accordance with the law, it is also impermissible to increase the degree of environmental pollution in the environmental systems and elements, or in protected areas, over and above the standards set by the council for all those areas.

#### Correct Disposal for Sources of Production

[Question] But, what about the factories whose waste products require disposal?

[Answer] The law forbids any owner to carry out, order or permit the disposal of any environmental pollutants at the final point or points of disposal pertaining to the source or work area, which falls under his responsibility, except within the limits that are equal to or less than the rate determined for the disposal specifications, which are set by the implementing regulations of this law, or within limits equal to or less than the rate determined for the specifications set for the owner, when he obtained the permit to build the source or work area.

The law excludes from its provisions disposal conditions that are intended to insure the safety of the source or work area, or imposed to save lives, or in the event of disposal occurring due to an unforeseen defect in operations, equipment or devices of the source or work area. This is on condition that the owner will have acted at once to take the necessary measures to repair this defect, informed the technical secretariat about it, and complied with what the environmental supervisor or expert decides. This exclusion will be issued by the council's deputy chief.

#### Notification Within 48 Hours

The law enjoins the owner to inform the technical secretariat of the Environmental Protection Council in writing within 48 hours of any disposal that violates this law or the regulations issued in accordance with it, or of any incident that might lead to environmental pollution, or that constitutes a danger to the environment, or of any event or condition determined by the technical secretariat in accordance with the regulations issued to implement this law, or which are stipulated as being permitted to the owner to practise his activities. The notification should also include a delineation of the causes and nature of the incident or the illegal disposal or event or condition, and the measures being followed to correct the situation, which should be in agreement with this law or the regulations issued in accordance with it, along with the period of time required to complete these measures.

The law makes it incumbent on every ministry or organization responsible for granting permits for sources or work areas to request approval from the deputy chief of the Environmental Protection Council on the environmental safety of the project for which the permit is requested, before the permit can be issued.

#### Council Approval

[Question] However, what are the conditions of council approval of new projects, in terms of environmental aspects, and what about currently existing projects?

[Answer] The law distinguishes between two types of activity affecting the environment. The first type is existing activity, producing and resulting in harm to the environment, and the second is projects in the implementation or planning stages. For the first type, existing projects, the law gives a 6-month grace period to the owners of these factories or production sources, to submit to the council the type of activity and its affect on the environment. This will be investigated.

As for the second type, projects in the implementation or planning stages, this is the most important. The law enjoins all project owners, whether individuals, organizations or government, of the need to obtain EPC approval before obtaining a permit from the ministry concerned. One of the conditions is the need to attach a statement of environmental impact, in the sense that it should state the waste products of its activities, and the amounts, and the measures to be taken to combat the pollution it produces, within the limits of the standards set by the council. Note that each project will be studied, and the necessary environmental protection standards set for it.

#### Environmental Standards and Specifications

[Question] What are the standards required for environmental protection?

[Answer] There are two basic kinds of standards required to protect the environment and to combat pollution. The first type is standards and specifications of sources of pollution. These vary from one source to another, depending upon the variety and number of sources located in one area, and the amounts and kinds of waste products produced from them, as well as the circumstances and conditions of future environments because of these waste products, and what forms of life exist. There is also another important factor, i.e., the extent of the availability of the techniques required to deal with the waste products emanating from the various sources and the control over the amounts.

This type of standards and specifications can be said to be fairly easy in light of what scientific and engineering research has achieved, carried out for this purpose in various nations of the world, especially the advanced nations.

The second type of standards and specifications are those compatible with the environmental systems found in the Sultanate and which ensure no injurious effects, over the short or long run, to the health of the Sultanate's citizenry, vital resources or natural wealth.

If we were to cite an example of that, we would find that America, the most advanced nation, has not drawn up final standards suitable for its environment, because that requires many field, physiological and economic studies. These studies are conducted continually, but they do not expect to complete them. Therefore, interim guideline standards are issued, and each year these standards are further refined, in light of new studies.

In Oman, we are working on guideline standards in light of the Sultanate's environmental land, sea and air characteristics, as well as in light of other nations' experiences, which we have previously used, from areas with environments similar to ours. We also take into account the variety of our sources of pollution, as to whether it is industrial, automobile, refuse or sewage, in addition to the type of pollution, i.e., whether it is residential, agricultural, maritime, industrial or professional. Each environment has its own standards and specifications, in light of previous factors. This is what we started last year.

After the interim standards are completed, we will begin to discuss them with the various ministries, because they are responsible for implementation, so they should become committed to them. They will then be issued, along with rules and regulations to implement the law over several stages, in accordance with the priorities of each source. The issuance of these regulations will begin in the next few months.

[Question] Is the environmental impact statement merely a request that the work area owner submits?

[Answer] So that we can assist the owners of projects, firms and production installations that cause pollution, and make the measures easier for them, the EPC will prepare the forms, which will finalize their statements, in order to clarify the extent of environmental impact of their projects.

[Question] What about monitoring implementation of the environmental protection instructions?

[Answer] The ministries that have laboratories will monitor their installations, in consultation and coordination with the council's technical secretariat. They will submit periodic reports to the council with the results of this monitoring every 3 months. For example, the Ministry of Commerce has a governmental laboratory and can continually monitor its sources, by means of this lab. Moreover, there are some large projects, such as the oil refinery, cement firms and copper factories, that have labs that can monitor pollution sources. With regard to small firms and factories that don't have labs, we will monitor and inspect them, through the council's technical secretariat. In each case, the technical secretariat will make surprise inspections of each production source. We will also prepare records from the reports we will be receiving every 3 months from the various production sources.

[Question] Does that mean that council branches might be established in the provinces?

[Answer] Naturally, we are inclined to establish branches and a central laboratory, and to provide the environmental experts and inspectors required for the council's business. I can say that the current number of experts are sufficient to cover all present requests. There are actions to appoint more experts.

[Question] Can you explain the new regulations to the citizens?

[Answer] With regard to applications, along with the environmental impact statements, submitted by a citizen who wants to establish a work area, the council will reach a decision within 60 days from the date it is registered in the council's files. In the event of disapproval, the applicant will be informed of the basis for the rejection, along with the standards and specifications required to comply with the law. The applicant is permitted to appeal the decision to the council within one month from the date he was informed, and the council must rule on the appeal within a maximum of 60 days.

The law also enjoins all owners of sources and work areas, as determined by the council, to purchase and operate disposal and pollution control devices for all sources and work areas under their responsibility, to maintain continual records of the results of these controls, and to send reports of these results every 3 months to the council's technical secretariat. The secretariat must specify the type of devices and controls required for each source and work area, including standardizing the type of devices and ways of analyzing pollutants on the Sultanate level.

#### Inspection and Control Authority

The law authorizes all environmental experts and monitors to have the right of inspection and control, to enable them to monitor all sources, work areas, and protected areas, and to maintain records with regard to disposal statements and environmental controls, as well as other statements required to implement the law. The environmental monitors have the right to take the samples required for their work from any work area at any time. They also have the right to write up violations.

#### Penalties to Protect the Environment

[Question] Does the law specify penalties to protect the citizens from environmental pollution?

[Answer] The law does in fact stipulate various penalties for this purpose. There are penalties for those who falsify or mislead in their environmental impact statements or in any application submitted to the council. The law also stipulates that anyone who violates any of the law's provisions must bear all the expenses stemming from dealing with the damages done to someone else or the sultanate, whether it was the direct or indirect result of this violation. The law also stresses that the punishment for unauthorized disposal can be shutting down the source, that is, the punishment is gradual, from a warning to closure of the source. Penalties vary from 6 months in jail and a fine to withdrawal of the permit. The law also gives the right of appeal with respect to violations, on condition that the violator submits his appeal within a week of the date he is notified.

#### Awareness of the Law

[Question] Are you undertaking to make the citizens aware of the law and its interpretations?

[Answer] Merely announcing the law makes it incumbent upon the citizens to read it. For our part, we are making all official and non-official levels aware of it, along with ministries, citizens and project owners. This will be done either by letter or by preparing a pamphlet about the law, which will be distributed among the various quarters. It will also be translated into English, printed and distributed for the benefit of non-Arabs. In addition, we will have a comprehensive program this year to make the citizens aware, through the media and publications, of environmental protection and anti-pollution campaigns.

Moreover, we will be holding training courses this year for those who work in environmental areas in the ministries.

Thus the law has been issued. We have given you a comprehensive explanation of all its provisions, but it remains for you to learn about this law that was only issued for your benefit and for your protection, and to protect your resources and the well-being of this country. You are the goal of development, and you are its means. You will bring progress to our country. Commitment to the law is protection for the present and the future.

7005

CSO: 5000.4707.

EFFECT OF APARTHEID ON ENVIRONMENT REPORTED

Johannesburg RAND DAILY MAIL in English 20 Apr 82 p 12

[Article by John Worrall: "How Apartheid Also Destroys SA's Environment"]

[Text]

NAIROBI. — How apartheid damages the environment in South Africa is the subject of a special report to the forthcoming governing council of the United Nations Environment Programme (Unep), meeting in Nairobi towards the end of May.

The report was commissioned by the council last year and was carried out by a senior consultant, who visited Zambia, Zimbabwe, Botswana, Lesotho and Swaziland, which he used as "windows" to observe conditions in South Africa. He did not visit the country.

The consultant "met and talked to black and white South African citizens and nationals of border states who had lived and worked in South Africa".

"Apartheid is a killer and by far the most dangerous on the South African veld — it kills not only people but their land and environment as well", was one of the conclusions of the study.

"Although the apartheid and bantustan policies of South Africa are generally regarded as strictly political matters, the very deep and extensive impact they have on the land and other natural resources and the uses to which they are put by man mean they have a direct and

important bearing on the environment, and hence the quality of life available to the people of South Africa", says the report.

Another conclusion was that because of the basic indivisibility of the environment apartheid also had serious impacts on the lives of the white population "that are often not intended or properly appreciated by the whites themselves".

The consequences of South Africa's racial policies had widespread repercussions in all the neighbouring African states whose geographical location, history, cultures and economic systems make it obligatory for them to maintain links with South Africa in many fields, including the export of their nationals into South Africa as migrant workers.

"Thus a large number of environmental impacts of South Africa's racial policies are transmitted to and felt by these countries, undermining vital sections of their economies, such as agriculture, and dissipating their human energies," the report says.

There was a need for greater understanding and appreciation of the impact of these policies on the human environment in more specific terms, such as land, natural resources, human settlements and habitats.

"Such appreciation and understanding are vitally necessary to understand the full dimensions of the damage which the apartheid and bantustan policies of South Africa have caused and still continue to cause to millions of people in Southern Africa."

The report draws attention to soil erosion and other forms of ecological degeneration evident in the homelands. Attention had been drawn to this by practically all the homelands' authorities in pleas to the South African Government for the release of more land to meet current and future needs and thus stem the tide of ecological damage and give people the chance of deriving a reasonable livelihood from their land.

It points out the South African Government was "not unaware of the serious environment problems facing the homelands although not much convincing evidence of its concern is available".

It refers to the celebrated 1954 report of the Tomlinson Commission which examined the socio-economic development of the black areas in South Africa, and proposed far-reaching measures for improvement.

One of the points made by the commission quite clearly was that land available in the reserves was inadequate in relation to the present and likely population.

The UN report says the appointment of the commission was a laudable step, "for which the South African Government must be given due credit, but the Government's failure over all these years to tackle most of the problems identified by the commission with regard to the soil and ecological conditions in the reserves raises serious doubts about its concern for the welfare of the African population".

On the slums and shanties in South Africa's human settlements the report says: "Admittedly South Africa is not the only country where slums, shanty towns and sub-standard dwellings are to be found but it is the only one where such conditions appear to exist and proliferate as a deliberate result of official policy and with the active support of the government".

CSO: 5000/5743

LACK OF WATER RESOURCES DEVELOPMENT THREATENS FUTURE

Johannesburg THE CITIZEN in English 11 May 82 p 4

[Text] South Africa's future would be sabotaged unless more funds were made available for development of water resources, Mr Harry Pitman, the Progressive Federal Party's spokesman on the environment said yesterday.

Speaking on the Vote of the Minister of Environment Affairs, Dr Nak van der Merwe, he said the population would reach some 70-million by the turn of the century and if their demand for water for agricultural, industrial and consumption purposes were to be met expenditure for development of water resources would have to rise at a real rate of six percent a year.

In the past eight years, despite the fact that some of them were boom years, there had been a decrease of six percent in real terms in expenditure on water resources development.

"Unless something is done to remedy this situation, we will face times of severe water restrictions," Mr Pitman said.

There were serious staff shortages in The Water Affairs section and a departmental committee should be established to find ways of attracting staff.

The rate of afforestation had continued to decline in recent years and there was an urgent need to rectify this immediately.

A large portion of South Africa's timber was in regions which were due to become independent sometime in the future, which meant the Republic would become dependant on foreign states and have to import timber to meet its own needs.

Mr Pitman also called for the establishment of a central State body to co-ordinate the activities of all other bodies presently monitoring pollution of coastal waters.

CSO: 5000/5745

## MATABELELAND OFFICIALS APPEAL FOR FOOD AID

Harare THE HERALD in English 27 Apr 82 p 1

[Text]

**MATABELELAND officials have appealed to the Government for urgent food aid for almost 900 000 people facing hunger after this season's disastrous drought.**

Announcing this yesterday, Mr C. M. Dungeni, an executive of the Matabeleland North provincial drought relief committee, said the situation was especially serious in Binga, where there was already evidence of severe food shortages in many places.

Altogether 882 723 people in Matabeleland North have applied for assistance. This includes 375 160 — almost the entire population — in Binga district.

Officials in Bulawayo said that so far the only district in Matabeleland South that had officially requested aid was Matobo, where over 11 000 people were seeking help.

But other districts in the south said they were still compiling lists of people needing food aid and would soon submit them to the provincial committee.

The appeal to the Government comes in the wake of an almost total crop failure this season.

Last week the national drought relief co-ordinating committee, headed by Mr Jairus Mutambikwa, Director of Social Services, visited Binga to assess the severity of the calamity at first hand.

Mr Dungeni said the co-ordinating committee had promised to submit the figures of the people affected to the Cabinet committee on drought relief.

The co-ordinating committee had emphasised that food relief would be a short-term measure only, and that district councils "were the key" to preventing widespread hunger.

The Medical Officer of Health for Matabeleland, Dr Alan Pugh, has also announced that the Ministry of Health's children supplementary feeding programme will be re-introduced and integrated with drought relief work.

● A Government-guaranteed price of 21 cents a kilogram will be offered for cattle classified as rejects at sales in drought-stricken communal areas, the Cold Storage Commission announced in Harare yesterday.

A spokesman said that because of the drought, the CSC had agreed to buy in every animal offered, even if it was below slaughter-stock grade.

CSO: 5000/5742

## CHILDREN'S FEEDING SCHEME HIT BY DROUGHT, SAYS MINISTER

Harare THE HERALD in English 29 Apr 82 p 1

[Text]

THE Minister of Health, Dr. Oliver Munyaradzi, says there is now a greater need to run children's supplementary feeding programmes in areas without them.

Speaking in Harare yesterday during a ceremony at which he was given three Landrovers and a report on the children's supplementary feeding programme in Zimbabwe, he said the drought this year had played havoc with the plans proposed by the report.

"We had anticipated a reduction in the number of children to be provided with supplementary food following the resettlement efforts. Our efforts were going to be largely in the encouragement of communal supplementary food production with funding from the Swedish International Development Authority," Dr. Munyaradzi said.

The evaluation report would help the Ministry of Health determine the direction the feeding programme should take, while the vehicles donated would enhance the ministry's existing fleet and facilitate greater imple-

mentation and supervision of the programme.

The Ministry of Health, he added, saw nutrition as an important integral part of primary health care and had accepted the challenge of continuing the child supplementary feeding programme through a grant from SIDA (Swedish International Development Authority).

But the feeding schemes were only a useful interim measure to assist vulnerable groups.

"We are much more concerned with developing long-term solutions to malnutrition in Zimbabwe because food handouts given on a continuous basis will ultimately destroy that spirit of self-reliance so common among the Zimbabwean people."

Dr. Munyaradzi said that when the communities receiving supplementary feeding began to ask for assistance to grow their own groundnuts and beans instead of continuing to receive handouts it had been decided to seek means of making available this assistance. This help would provide long-term solutions to the problems as well as facilitate the eventual phasing out of the feeding programme.

## CHILDREN GOING HUNGRY, SAYS REPORT

Harare THE HERALD in English 30 Apr 82 p 1

[Text] Up to 70 percent of the children in parts of the drought-hit Matabeleland and Victoria provinces are undernourished, says a report on the children's supplementary feeding programme.

The 87-page report has been handed to the Minister of Health, Dr Oliver Muniyadzi, who announced this week that a Cabinet committee on drought relief was being set up.

**The committee will work under the Ministries of Health, and of Labour and Social Services.**

Receiving the report this week, Dr Muniyadzi said that there was now a greater need to run children's supplementary feeding programmes in the areas where there were none.

The report says the country's border areas are most in need of the feeding programmes. It adds that at the height of the programme last year more than 100 000 children were fed under the scheme.

It stresses the dual nature of the programme — its immediate short-

term relief exercise together with a long-term educational component.

It also emphasises the importance of the use of locally-available foods and discusses the importance of various foods in providing a healthy diet.

The report sees energy foods as essential to a

healthy diet because undernutrition, previously attributed to a lack of protein, is often caused by lack of sufficient energy foods.

"As maize, the staple diet, is bulky, young children cannot eat sufficient quantities for their energy needs. Therefore nutrition supplementation should aim to increase the energy content of the staple by the addition of oil or oil-containing foods," says the document.

The survey on which the report is based, began in 1980 and the programme became effective in August that year. The scheme focused on children in the one-to-five age bracket who were assessed to be at serious risk of undernutrition.

It was decided to use a mid-upper arm circumference measure of less than 13 cm as an indicator of undernutrition. Well-nourished children in those ages have a circumference of approximately 16 cm or above.

The feeding exercise showed that on average, children getting supplementary meals put on weight at twice the rate of other children.

CSO: 5000/5742

COMMENTARY ON BOTSWANA'S PLAN TO TAP OKVANGO

Harare THE HERALD in English 4 May 82 p 6

[Editorial: "Tap the Water"]

[Text]

**BOTSWANA'S** plans to tap the water of the Okavango Swamps is significant not only to that country but to all other SADCC states. It shows that people can actually rise to higher levels of inventiveness and improve the quality of life for all.

There will probably be a clash with ecologists but that is likely to fizzle out once the Botswana government explains that it needs the water to nourish agriculture and improve the quality of coal for the benefit of the entire nation. Moreover, an eminent hydrologist has already assured that 10 percent of the Delta's water can be tapped without damage to ecology.

Though generally an arid country, Botswana is this year experiencing a serious drought which is taking a heavy toll on livestock and game. The steps that country is taking should open the eyes of other countries prone to the same vagaries of weather so that they may initiate methods of offsetting such setbacks.

At present some of these countries suffer similar hardships yet they have "Okavango Swamps" beneath their mountains and lands. Or during the rainy season they watch languidly while the water in rivers runs away to the sea.

With a little resourcefulness this water should be preserved in dams and used together with underground water for irrigation and drinking purposes.

## DROUGHT MAY FORCE NATION TO IMPORT BEEF

Harare THE HERALD in English 24 Apr 82 p 3

[Text]

**ZIMBABWE may be forced to import beef unless the drought ends soon, the Deputy Minister of Roads and Road Traffic, Mr Nelson Mawema, said yesterday.**

Opening a new branch of Sales House in Chiredzi yesterday he said: "If our national herd is significantly reduced as a result of this drought, Zimbabwe may find itself with not only increased prices of beef to the consumer but a national shortage of beef and perhaps a need to import beef."

He appealed to farmers in the Lowveld to help their fellow farmers, particularly communal farmers, by providing them with water and grazing land for their cattle.

"Both communal and commercial farmers are strongly advised to take all precautions against deliberate or accidental grassfires. In this year of drought, once the grass is burnt, one cannot hope for new grass to grow soon without the rains."

Although Mr Mawema

was pleased that 23 of the 29 Sales House branches were managed by blacks, he warned against promotion by creating supernumerary posts.

"It is not enough to just upgrade Africans to fancy sounding positions but which have no real authority in the decision-making process. Meaningful development occurs only when both the givers and beneficiaries are active participants in the process."

He said black managers, on the other hand, should not regard their new positions as "citadels" for oppressing and mistreating other less fortunate blacks.

"On the contrary the new African manager must regard his promotion as a golden opportunity to demonstrate equity and fairness in command, to train and uplift his fellow Zimbabweans."

CSO: 5000/5742

## PLANS TO BEEF UP DROUGHT-HIT WEST REPORTED

Harare THE HERALD in English 3 May 82 p 1

[Text]

**THE Ministry of Agriculture is considering how it can assist communal farmers to restock their lands with cattle when grazing and water are again available.**

A spokesman for the ministry said yesterday: "We obviously have to consider the eventual restocking of these cattle-denuded areas. I do not wish to enlarge on this at present, but obviously while communal farmers are being urged to sell their cattle, a problem has been created and a solution has to be drafted.

"It is a huge and complex subject and all factors would have to be considered."

Mr Don Collen, general manager of the Cold Storage Commission, said yesterday that cattle being moved from the drought-hit communal lands could not be returned to them after the drought, nor could food be moved to the cattle.

---

**BULAWAYO**


---

The cost of either proposition would be more than the country could stand. Further, the grazing and foodstuffs were not available for any other than the methods of cattle purchase the CSC had drawn up, he said.

Tens of thousands of cattle are being bought for immediate or later slaughter in a huge exercise to acquire them before they "die wastefully" of starvation.

Underpinning this exercise, the Government and other community leaders are urging communal farmers to sell their older cattle now, and so relieve pressure on their almost non-existent grazing while earning some cash.

There is no other way — and even so thousands of cattle will die in the communal areas in spite of the Government's recent decision to buy all rejects at a guaranteed price of 21c a kg.

## DDT 'COULD KILL LAKE KARIBA,' CLAIMS THOMSON

Harare THE HERALD in English 29 Apr 82 p 3

[Text]

**DDT could be the death of the Zimbabwean fishing industry and the continued extensive use of the chemical could mean the end of the tiger-fish and could leave Kariba as the "dead lake of Africa".**

The industry, producing 15 000 tonnes of fish for local consumption every year, is seriously threatened by the extensive use of DDT, according to a wildlife expert.

Writing in the Ziscosteel Review, Mr Ron Thomson, provincial warden of Mashonaland South, said tiger-fish were likely to be "hot candidates" for destruction as a result of DDT contamination of Lake Kariba.

"The chemical also inhibits photosynthesis in microscopic algae and kills aquatic insects at phenomenally low concentrations, and as these are the very foundations of all aquatic life support systems, all fish are likely to be adversely affected as a result of diminished food supply," he said.

"If one considers that the Zimbabwean catchment of Lake Kariba is a major agricultural, malaria and tsetse-infested area, then it will be appreciated that the prospects of Kariba becoming "the dead lake

of Africa' are very good indeed."

Mr Thomson said the import quota for 1982 indicated the country would use 1 000 tonnes of DDT — 400 tonnes in tsetse control, 300 tonnes in malaria control and 300 tonnes in agriculture.

This amounted to an overall application rate of one tonne to every 150 square miles — 96 percent of the average application rate in the United States during that country's "DDT heyday".

"Hopefully, the current controversy (over DDT use) will result in a drastic reduction of this projected usage," he said, referring to efforts being made to have DDT banned altogether or reduced in use.

The chemical is banned in many countries, including the United States, Britain, the Soviet Union and Japan.

He said analysis of 50 clutches of fish-eagle eggs, collected mainly in the Lake Kariba and upper Zambezi areas, showed there was a national contamination level more than twice as high as that in America of the bald eagle when that species started declining.

CSO: 5000/5742

## BRIEFS

DROUGHT AID PLEA--The Harare office of the European Economic Commission has forwarded a Zimbabwean request for drought relief aid, the EEC economic adviser in Harare, Mr Steffen Stenberg, said yesterday. He said the request, forwarded on Monday to Brussels, concerned aid for the Government's cattle programme and water programme. "Obviously we cannot pay for it all," said Mr Stenberg, "but our headquarters will see what can be done." Two Zimbabwe officials, now in Europe, would defend the case on Monday next week he said. The water programme involved drilling boreholes, drawing water out of dried up river beds and other emergency schemes, cattle programme--buying cattle and moving cattle--was expensive. [Text] [Harare THE HERALD in English 24 Apr 82 p 1]

CSO: 5000/5742

BELGIUM

EXPERT INTERVIEWED ON ECOLOGICAL ISSUES

Brussels SPECIAL/L'EVENTAIL in French 26 Mar/1 Apr 82 pp 7-9

[Interview with Edgard Kesteloot, head of the Department of Ecology and Nature Conservation at the Royal Institute of Natural Sciences, national president of the Nature and Ornithological Reserves of Belgium, and host of the RTBF broadcast "The Extraordinary Garden," by Chantal Schaller: "Protection of Nature -- Edgard Kesteloot: A Late Start for Belgian Ecology"; date and place not specified]

[Text] The protection of nature has not always been one of the major subjects of concern in our country. But today we are beginning to fill the gap through legislative texts and an as yet modest system of nature reserves. We have asked Edgard Kesteloot, head of the Department of Ecology and Nature Conservation at the Royal Institute of Natural Sciences, national president of the Nature and Ornithological Reserves of Belgium, and especially host of the RTBF [Belgian Radio Broadcasting and Television System - French Service] broadcast "The Extraordinary Garden," to take stock of the situation for us.

[Question] How far have we gotten in Belgium concerning the protection of nature? Is the situation alarming?

[Answer] As far as the environment is concerned, the situation is not good. In terms of the pollution of the waterways, for example, we are virtually nowhere. Thus, the oro-hydrographic basin of the Scheldt has been polluted for 20 years. And today, virtually nothing has changed. On the other hand, with regard to the fauna and flora, it can be said that a considerable effort has been made. As a matter of fact, Belgium is a country which is exceedingly rich in this matter: we have a coastal area, plains and low mountains. We are located on the large corridors, which have been running from North to South for millenia. Finally, the impact of man on the original environment has been considerable. It was even a positive one until the industrial revolution, because it was this impact which produced the large variety of biotopes which exist in our country (pastures, areas of water and heather are all artificial in origin). But we are in the process of losing this diversity through pollution, the abuse of chemical products and the use of mechanical methods. Today, everything is allowed to destroy and eliminate what was built over the

centuries. It is fortunate that, a short time before the first world war, an awareness developed of what nature represents. But this movement was restrained by the war, only to start up again better during the period between the two wars and to really take off after 1945, when a first reserve was created on the initiative of "Ardennes and Gaume." At that time, we were already two generations behind the Netherlands, whose first reserve was created in 1910. Very quickly, a second association was set up in 1951, entitled "Ornithological Reserves of Belgium," which would later become the "Nature and Ornithological Reserves of Belgium." Its first interest was in birds. As a matter of fact, it is significant to note that in most of the countries of the world, birds have provided the first awakening toward the protection of nature. Probably because they are likeable and close to us. Thus, by protecting the birds, one very naturally ended up protecting their habitat and then the fauna as a whole. In 1956 the state entered into the movement by setting up its first national reserves managed by the National Forestry Commission, so much so that today in Belgium we have a relatively important system of 150 reserves, covering an area of 10,000 to 15,000 hectares. Which, in the final analysis, represents only one tenth of what the Dutch have created in terms of reserves.

[Question] Are the authorities trying to make an effort?

[Answer] Not really, because the natural space is very dispersed and because, in the final analysis, we don't have much left to be placed in reserves. On the other hand, the hunting areas are much more extensive than the nature reserves. Even though one should not oppose the two entities too strongly. While the principle requires that no hunting take place in a reserve, it must however be managed in such a way as to maintain it in an optimal natural state. And this could imply a limitation of rabbits or crows when there are too many of them. This is nothing less than "fauna management."

[Question] Are questions of repopulation being studied in Belgium? Consequently, are there species which are seriously threatened?

[Answer] A species may disappear because its living conditions are no longer met or because the biotope has changed. If a species is becoming extinct in Belgium, it is also becoming extinct in the rest of Europe. Our country is too small to have endemic species, that is to say proper to Belgium. Having said this, there is currently a tendency to think that if a species is becoming extinct, there is no need to try to repopulate because the phenomenon lies within the scope of the natural order of things of nature. As a matter of fact, these attempts would have no chance of succeeding if the environment has evolved to such an extent that it becomes inhospitable to the species in question. What doesn't agree with that order, on the other hand, is the mass use of pesticides and of chemical products which destroy the habitat. Unfortunately, in Belgium people understand the problem only in a superficial way: they cry about the fate of baby seals or of birds which starve to death, but they forget to tackle the problem as a whole and in a reasonable manner.

[Question] What is currently being done to protect species?

[Answer] Nature reserves are developed to protect the vital space and legislative protection is assured by limiting or prohibiting hunting. However, legislation is not a guarantee. It is respected only if people are willing. Therefore, it must go hand in hand with making the people sensitive to this through the expedient of an education campaign. And it must be said that considerable progress has been made in this area relative to 30 years ago. Not a single young person is unaware anymore of what the protection of nature means. But schools are probably less responsible for this than the mass media and the youth movements. As for the authorities, it is probable that they currently consider the chapter of the protection of nature as a minor question within the context of the current crisis. It is fortunate that we already have legislative protection at our disposal, which allows us to deal with possible catastrophes.

[Question] How is it that in Belgium people are not sensitive to faraway operations to save the gorillas of Ruanda or the turtles of the Seychelles, whereas they are relatively more concerned about what happens in our country?

[Answer] We are not yet ready for this kind of thinking. We have only reached a first awareness of nature. But we must have the broad-mindedness to say to ourselves that when the equatorial forest starts to disappear, it is the heritage of humanity as a whole which is threatened. And we belong to that humanity. To think only of the situation that exists in our country is evidence of shortsightedness and of a lack of maturity.

[Question] How can we make up for the delay?

[Answer] By being continuously insistent. In Belgium everything is tied together and there is not one natural element in worse shape than any other. But it is obvious that the elements located at the end of the ecological chains are the most vulnerable. I mean the birds of prey and the large carnivores which are already extinct in our country. Currently, the badgers are the main victims of the campaign to gas the dens of foxes with whom they live, the otters because of river pollution...

[Question] But isn't there any acclimatization to pollution?

[Answer] We only grow accustomed to it thanks to an arsenal of medicines. And yet, isn't the upsurge of cancer due to a degradation of the environment? In fact, the only proven case of acclimatization is manifested among insects. And generally speaking, it can be said that the most resistant species adapt themselves whereas the most fragile are eliminated. This involves a phenomenon of reducing originality, which reduces the number of species but increases the number of individuals in a same species. Thus, among the birds, there are far too many gulls which have adapted themselves to the development of refuse deposits in the cities.

[Question] Is the influx of exotic animals in Brussels as harmful as it has been claimed?

[Answer] People who bring such animals back from their travels often do so out of love for the animals. But it is a misplaced interest because it

promotes poaching and illegal trading. While their motivation may be good, the practical result of it is bad. All the more so as they are misinformed about the survival conditions of these animals and as their attitude runs counter to the protection of nature.

[Question] What do you think about the polemic surrounding the existence of zoos?

[Answer] Twenty years ago, nobody objected to their existence. But today, because of the increase in travel, many people have seen wild animals in their natural environments and no longer consider zoos as anything but a caricature of reality. Even more, they believe that to deprive an animal of its freedom is the worst crime one could commit. But they forget that, if you put yourself on the level of scientific reality, a free animal is equally confined to a determined territory. So that his freedom is only a very relative one.

In fact, zoos have a scientific and educational mission. Specifically, they engage in breeding programs (the Antwerp Zoo has specialized itself in the reproduction of okapis, which it exchanges for animals raised in other zoos). Their experience makes it possible to develop scientific data and to draw conclusions on species which could not have been studied as thoroughly in the wild. On the other hand, zoos contribute to the preservation of endangered species. This is true for the European bison, which has completely disappeared in the wild, as well as for the Arabian oryx, whose breeding in zoos has made it possible to repopulate natural areas. It could thus be said that while a tiny minority of people have seen animals in the wild, the majority can, with the aid of zoos, have a direct knowledge of fauna, on an educational as well as biological, if not veterinary level.

8463

CSO: 5000/2098

BAVARIAN PARLIAMENT DISCUSSES EFFECTS OF ACID RAIN ON FOREST

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 1 Apr 82 p 7

[Article by Roswin Finkenzeller: "The Sick Forest in the Bavarian Parliament"]

[Text] Munich, 31 Mar--The parliamentarians at the foot of the speaker's desk were unanimous in the estimation of the damage incurred, and also unanimous in their distress over it. What Bavarian Minister of Agriculture Eisenmann, uninterrupted by any political opponent, had to say on diseased and dead forests sounded like a funeral oration approved by all. The Land's forest offices had just determined the latest figures, and now the provincial diet was hearing them. In northern and eastern parts of Bavaria almost one-third of all firs are dead wood. And 80 percent of the remaining two-thirds are also not healthy. In the Regensburg area 16 percent of the remaining two-thirds are also not healthy. In the Regensburg area 16 percent of the spruce trees are damaged, but neither is it going well for this tree in the area of the Burghausen "chemicals triangle," in the Bavarian and Upper Palatinate Forests, as well as in the Fichtelgebirge mountains. In addition, 7 percent of Bavarian pines show symptoms of disease, especially in the Nuremberg Imperial Forest and in that same "chemicals triangle."

The subject is not exactly new. Sulfur dioxide, "acid rain" and on the other side, the advantages of a strongly calciferous soil which, as in the Alps, better resists the harmful substances, have long since become general topics of conversation. The only thing that is new is the consensus among Bavarian parliamentary groups to view the forest as a patient. The forest is important for the Land. If it wanted to, Bavaria could meet its own requirements for wood. Naturally SPD representative Kolo cannot go too far and rhetorically ask the government if it also considers the situation "catastrophic," for then it can happen that State Secretary Nuessel will give a short quick shake of his head and Minister Eisenmann will perform a circular movement in the front of his head with the flat of his hand. But otherwise there is unanimity in the diagnosis.

Of course the CSU is accused of understanding the extent and significance of the damage only now, that is, too late. In this regard the CSU responds by saying that it was no slower in understanding its critics, and that several times it has taken a position on the problem. Taken a position, surely, is the retort from the opposition, but that position was always reassuring.

What is past is past. More important is what action the government is taking. To summarize quickly, it is spending DM 2.6 million to investigate causes. An end to the fact-finding process is still not in sight for there are "radical differences in the opinions of scientists," Eisenmann reports. The multitude of academic opinions comes down on the heads of the representatives with the impact of a scientific footnote: "Whereas some professors," reports Eisenmann, "see the cause mainly in the effects of emissions (Schuett/Munich and Ulrich/Goettingen), but so far without producing exact proof, others suspect more extreme climatic conditions (Rehfuss/Munich and Leibundgut/Zurich). Still other scientists are even of the opinion that it is not at all permissible and not justifiable to speak of a dying out of spruce trees (Schmidt-Vogt/Freiburg, Braun/Freiburg and Knabe/Duesseldorf). Prof Schuett, on the other hand, speaks of an environmental catastrophe of unknown proportions and of the upsetting of forest ecosystems.

What is the representative to believe? CSU Representative Niedermayer from voting district Regen, where trees are sick, remembers a "beautiful talk" by one of the mentioned professors, but no useful proposed solution, which is the reason why in the plenum he calls on good common sense: "I do not need to be a researcher or a professor: Everybody knows that the emission values are too high." And his colleague in the parliamentary group, Alois Glueck, finds that the politicians cannot afford to wait until "all research has reached a consensus."

But it seems as though the Ministry of Agriculture is hoping for this day. Eisenmann reported that at the University of Munich alone "five professorships" have dealt with the subject at hand. But that is not enough: At the same university "19 project groups in 9 professorships" studied the matter. The representatives almost forgot to mention the Experimental and Research Institute for Forestry, which is likewise not idle: According to Eisenmann, it has set up "37 observation areas for spruce trees and 9 observation areas for firs."

Nevertheless, the time appears to be ripe for some modest findings. FDP Representative Grosser rejected the "policy of high smokestacks," and Eisenmann also stated that "the pollution from high smokestacks is spread thousands of kilometers. Thus, imagine if you can, in Sweden emissions have been found originating in England and in the Ruhr area." This sentence, translated into politics, means that the Federal Government too, if not the EEC Commission as well, is responsible. In addition, it is obvious that northern and eastern Bavaria can thank Czech industry for part of the environmental damage, something that the Bavarian SPD is not eager to hear.

It is even less eager to hear something else, namely a plea for the "peaceful use of nuclear energy." Desulfurization systems, thinks the CSU, are fine--but would not the sick forest get immediate relief if the atom would take the place of oil and coal? That was precisely the conclusion reached by Hofmann, chairman of the agricultural committee at the beginning of the debate. Ms Pauschgruber from the SPD would like to have jumped in his face, indignant at the underhanded method of using environmental protection as a "vehicle" for the construction of nuclear power plants. But the relationship

between splitting the atom and splitting the SPD is well known. Social democrat Kick said somewhat timorously and under the derisive desk-pounding of the CSU: "We must rethink our position on nuclear energy."

Environmental Minister Dick announced the acid test. When the Gundremmingen nuclear power plant begins operation in 1983 or 1984, less than 100,000 tons of sulfur dioxide annually will be attributable to Bavarian power plants. Currently is is nearly three times that much.

9746

CSO: 5000/2099

BRIEFS

WIDESPREAD FOREST DAMAGE--Munich, 17 March--Deciduous forests in the FRG are now beginning to die out. On Wednesday forest specialists pointed out that in the past growing season all beeches in the deciduous forest areas of North Bavaria and Spessart were diseased. At a conference of the Academy for Nature Protection and Landscape Care in Riemerling near Munich the experts explained that the beech bark splits open and the so-called "beech blennorrhoea" reveals damage to the trunk from within. Within a very short time fungi and wood lice establish themselves, the beech becomes "white rotten" and dies within 1 year. According to the experts, in central Europe already 100 percent of the first are diseased, almost half of all spruce stands show signs of disease and 65 percent of all pines have lost almost all of their needles. Not all of the causes of this damage are clearly known. But it is certain that sulfur dioxide, heavy metals, acid rain and ozone are the main causes. Gases and acids damage the trees from the outside, and heavy metals attack the plants from within through the roots. These harmful substances are transported over 1000 km by means of high chimneys of the approximately 90 coal power plants in the FRG. Prof Peter Schuett from Munich University accused the industry of being responsible for the death of the forests. He claims that 86 of the 90 coal power plants do not have the necessary filtering systems. According to Heinz Schuettelkopf from the Karlsruhe Nuclear Research Center, the rural ecosystems are also being burdened with radiation. [Text] [Frankfurt/Main FRANKFURTER RUNDSCHAU in German 18 Mar 82 p 1] 9746

CSO: 5000/2099

END