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# Worldwide Report

ENVIRONMENTAL QUALITY

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WORLDWIDE REPORT  
 ENVIRONMENTAL QUALITY

No. 359

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INDIAN DELEGATE ADDRESSES NAIROBI MEETING

Calcutta THE STATESMAN in English 15 May 82 p 5

[Article by Chander Mehra]

[Text] NAIROBI, May 14--India made an impassioned plea today for frankness in discussing the financial constraints facing the United Nations Environment Programme.

Addressing the UNEP governing council's session of a special character here, the head of the Indian delegation said it would be unrealistic to discuss the organization's plans unless a solution was found to the problem of funding. "The matter is so important that it must be discussed in detail and with complete frankness," said Mr B. B. Vohra. Inflation was not the only reason for the present state of affairs he said, suggesting that some of the activities of the UNEP lacked the credibility required "to persuade donor countries to come to its rescue."

"This is not a matter to be merely mentioned in passing and then swept under the carpet," Mr Vohra said drawing attention to the UNEP cutting back half its programmes and referring to the assertion on the opening day of the conference on Monday of the executive director, Mr Mostafa Tolba, that no organization could be expected to plan effectively when it did not know when or how much funding would be provided to it.

The UNEP should not draw up an overly ambitious programme, but confine its activities only to areas of priority unless the question of funding was resolved. This would help the organization improve its credibility and prevent the frittering away of limited resources on a variety of activities, Mr Vohra said.

The UNEP, he added, could have accomplished much more than it did in the past 10 years since the Stockholm conference, if it had been more selective in determining its priorities. "But mistakes of the past should not be repeated while planning for future," he said.

Suggesting India's priorities, Mr Vohra said the most important environmental problem concerned the damage to and degradation of natural resources in the developing countries.

The problems of land degradation, soil erosion, deforestation and desertification were of the most crucial importance and should be treated as such if "the very basis of economic development is to be sustained and ecological disaster avoided"

Continued land degradation had the same effect on a country's economy as an unchecked haemorrhage on the health of a human body, he said, adding that it was the most serious threat to the environment and to the very survival of many developing nations.

The need to arrest desertification, deforestation and land degradation was a matter of life and death for developing nations. "The countries have no hope of conquering poverty and lifting their growing populations from a sub-human level of existence unless their degraded land can be saved from further deterioration and brought back into production," Mr Vohra said.

He also called for the need to preserve the threatened species of flora and fauna in tropical and sub-tropical forests and for controlling industrial pollution of water, land and air.

Mr Vohra concluded by saying that there was no reason for the UNEP to feel diffident about its future, provided it took account of the present realities, reordered its priorities and spoke out boldly in the cause of the environment.

AFP adds: In a move to attract world attention to the widespread problem of deforestation, which has reached the rate of 14 hectares a minute, the Kenyan Environment Minister and chairman of the 10th anniversary conference of the UNEP, Mr Peter Oloo Aringo planted a number of trees outside the conference centre, here yesterday.

CSO: 5000/7058

BANGLADESH DELEGATE SPEAKS AT NAIROBI MEETING

Dacca THE BANGLADESH OBSERVER in English 19 May 82 p 1

[Text]

NAIROBI, May 18:—Bangladesh has strongly proposed for effective environmental laws to ensure undisturbed flows of international rivers at the special session of the Governing Council of the United Nations Environment Programme (UNEP), reports BSS.

Mr A.M. Rashed Chowdhury, Bangladesh representative at the nine-day session which concluded today stressed that the laws must also be enforced to protect the environmental and ecological balance through regional and international co-operation and help minimise the human sufferings caused by man made activities.

The UNEP session was inaugurated by the President of Kenya Mr Daniel T. Arap Moi on May 10 at the Kenyatta International Conference Centre in Nairobi. Representatives from member nations including four heads of state and a number of Ministers responsible for environmental activities participated in the session.

Over 80 representatives from leading Non-Governmental Organisations (NGO) on environment from different regions of the globe and the representatives from various United Nations International Land Inter-governmental organisations were also present at the session as observers.

The objective of the session was to take stock of the achievement made in implementing the Stockholm plan of action programme during the last ten years in predicting protecting land promoting the world environment and identifying the major environmental trends and problems to be discussed by the U.N. systems and work out future plan of action for the coming decade.

The Bangladeshi representative said that since all the major rivers in Bangladesh originated across the border they were subject to pollution

besides disruption of water flows in the upstream because of diversion and other activities.

He said that this diversion of water in the upper reaches took an acute shape during the past decade which adversely affected the economy ecology and overall environment of the country.

Mr. Chowdhury said that river water was the life and death question for the people of Bangladesh and unless immediate attention was given to the problem one-fourth part of the country would soon convert into deserts with serious environmental and ecological consequences.

He said that already there had been signs of mushrooming desert patches in the Ganges basin in Bangladesh which originated in Nepal and flows through India and Bangladesh before falling into the Bay of Bengal.

Referring to the recent UNEP surveys bearing out the above facts the Bangladesh representative expressed his gratefulness for including the country in UNEP regional programme to combat desertification caused by upstream diversion of the Ganges.

He said that withdrawal of water in the upstream during the dry season also disrupted navigation, irrigation, forest fisheries and affected food production in the country. This also affected ground water level and availability of drinking water he added.

Terming poverty as the single largest factor responsible for the degradation of the environment in Bangladesh Mr. Chowdhury said that despite the best efforts of the Government it could not provide the minimum requirements in terms of housing sanitation and drink-

ing water and education to its teeming population. He suggested that this situation could only be solved through a comprehensive and intensive development which would be environmentally sound and suitable.

The Bangladesh representative said that unless the economic condition and self-sufficiency of the people could be developed it would be very difficult to check the adverse environmental trends in the country.

Lauding the role of UNEP as a catalytic agent Bangladesh proposed for decentralisation of its activities on the basis of regional programmes for a greater involvement of the people concerned in solving their problems peculiar to them.

Expressing the commitment of Bangladesh for a better future and better environment for the mankind he said that this could only be achieved through the cooperative efforts of all nations and communities in the world.

Mr. Chowdhury pointed out

that on the contrary countries were competing each other in the research production and use of armaments and harmful chemicals in various perverted forms to have an edge over the other as the killer of mankind. He expressed concern if the world community has the will and power to stop this competition and translate the concerns and fears of global environmental problems into reality.

Briefing the environmental activities in the country during the last decade he referred to the promulgation of Water Pollution Control Act in 1973 and the Environment Pollution Control Ordinance in 1977 for the protection preservation and conservation of the overall environment.

Mr. Chowdhury also lauded the role of the NGO's and the Press for creating mass awareness about the need of a clean environment and making the Government campaign a success.

CSO: 5000/7059

## AGGRESSIVE REAFFORESTATION PROGRAM URGED

Bombay THE TIMES OF INDIA in English 8 May 82 p 8

[Article by V. P. Agarwala]

[Text]

**I**NDIA is at present faced with the most serious threat it has ever known. It is a threat not from without but within. To put it bluntly, large parts of this country will become a desert within half a century at most if we do not put a stop to the damage we are ourselves inflicting year after year on the ecosystem. Out of the total reporting area of 305 million hectares of land, about 145 million hectares are assessed to be suffering from varying degrees of soil erosion and degradation. At least five million hectares of forest land has been lost during the last 30 years to agriculture, the rehabilitation of persons displaced on account of the construction of multipurpose dams and other uses. Much, much more has been wholly or partially denuded by illegal felling. Regeneration is failing miserably to keep pace.

The pressure on the land has reached frightening proportions. The human population of the country has virtually doubled from 35 crores in 1949 to 68.4 crores in 1981. The cattle population has also increased greatly. For instance, the goat population has increased to 68 million in 1972 from 47 million in 1951.

Forests are a powerful ecological factor affecting the environment in India, as elsewhere, in the world. The moderate extremes of heat and cold, increase local precipitation, enrich the soil with fallen leaves and debris and increase its depth, porosity and water storing capacity. In hilly areas forests retard the run-off of water, feed the underground springs, promote a perennial instead of a seasonal flow in the streams, and tend to prevent sudden and violent rises in the water level in the rains. Thus forests help to prevent soil erosion, landslides and silting and the consequent danger of floods. They also arrest shifting sands.

The destruction of the forests reverses all the above beneficial effects and this is just what we have been witnessing in the last four decades.

In our hilly areas we have destroyed the forests, cultivated fields for a short time on steep slopes until rains have swept away the soil, and allowed flocks of sheep and goats to browse and graze on hill-sides without restrictions, until the vegetation has been destroyed and the earth and rocks have been laid bare. Now nature is taking a terrible revenge. Soil erosion is a creeping death. Mr. B. B. Vohra, at present chairman of the national committee on human environment, who has closely studied land problems in India over a long period has rightly expressed the view that for a major economic and environmental transformation in the country, at least 50 million hectares of land should be afforested as early as possible.

### Important Function

The other important function of the forests is to produce wood and other forest products. In India an impending firewood famine stares millions of our people in the face. The rural poor have traditionally picked dead branches and twigs from the forest floor to meet their fuel needs. But as the forests have dwindled, they have faced increasing hardship. One way to meet their needs is to plant fuelwood trees. But since 40 to 50 per cent of any tree can only be used for firewood, a more basic requirement is to increase the area under trees irrespective of whether it is for fruit, timber or fuelwood.

Although India has, theoretically, 75 million hectares of forest, the productivity of these in most cases is very low. The India indicative plan for forestry (1965) presented by the ministry of food and agriculture envisaged a production of 32 million cubic metres of industrial wood by 1985 including 12 million cubic metres from man-made forests. Unfortunately, there are no signs at all of even approaching this figure, and production has stagnated around 10 million cubic metres upto 1979-80. The low

productivity of forests can be typically illustrated by the west Dehra Dun forest division of U.P. The Dehra Dun forests which have been scientifically managed for 120 years should have been the model for forest management. Despite this the current working plan for west Dehra Dun division for the period 1979-80 to 1983-89 for an area of about 48,000 hectares with excellent soils and high rainfall prescribes an yield of less than 0.2 million cubic metres per hectare! The potential is at least 20 times this figure. The main reasons for this are that regeneration has failed and Lantana—a weed imported into this country from Australia during the last century—covers extensive areas, stifling the growth of new saplings.

Vital information on the growing stock in our forests, on the annual increment and losses, and on potential increment is lacking and what is available is often inconsistent. But tentatively, the total growing stock in the Indian forests is estimated at 2,400 million cubic metres valued at Rs. 96,000 crores at the present level of prices. The annual increment in our forests is estimated at 60 to 70 million cubic metres. But with optimal inputs this is capable of being increased several times over. A forest survey of India already exists and it is essential that the ministry of agriculture submits an annual report to parliament based on scientific forest surveys, the forest area and the total growing stock and the increment by states. In the absence of such a report management will remain a game of blind man's buff.

An aggressive programme of re-afforestation can not only reverse environmental damage, and meet the country's need for fuel, timber, paper and other products, but also solve the rural unemployment problem. It is estimated that forests now provide employment to above five per cent of India's population. Major plantation programmes will increase this dramatically. For example, one million hectares of social forestry using coppice planting of quick maturing trees can generate 3.4 million man years of employment in the establishment phase and 2,20,000 permanent jobs every year.

### Unbelievable Figure

In view of these manifest advantages, what is truly surprising is the way in which our country has lagged behind in embarking on a massive reafforestation programmes. But other countries have not. Under a massive afforestation programme in China almost unbelievable figure of 70 million hectares have been reafforested between 1950 and 1970. (Compare this to the total area, theoretically

under forests in India of 75 million hectares.)

Outstanding afforestation work has also been done in the 1970s by South Korea under a different form of government. The government devised a prominent new forest policy and law. Village Forestry Associations (VFAs) were formed all over the country. The VFAs are a part of a nationwide non-governmental network—the Korea national federation of forest associations with its headquarters in Seoul.

In India by contrast the picture remains gloomy. But the one bright spot is the sea-change that has occurred in the last four or five years in the attitude of the state governments towards their dwindling forest wealth. Nowhere is this more apparent than in the social forestry programmes that are just beginning to get under way. In 1982, the country plans to plant 1.9 billion (190 crore) trees under the various social and commercial forestry programmes! The forest nurseries in various states are flush with plants. Assuming that 2,000 trees are planted per hectare, this will amount to raising forests on 9.5 lakh hectares of land. Of this 190 crores, 79 crore plants are being distributed to villagers and village panchayats for planting on field bunds, in their compounds, on village common lands and in block plantations.

Among the various species of trees being raised in the nurseries today are fruit trees like *Kathal*, (jackfruit), mango and guava; oilseed trees like *mahua*, *karanj* and *neem*; timber trees such as eucalyptus, teak, sisso, chir and deodar; and finally, fuelwood trees such as *casuarina*, *Acacia auriculiformis* and *protopis* and fodder trees like bamboo and subabul (*ipil-ipil*) which is one of the fastest growing trees in tropics and excellent not only for fodder but also for timber.

If this massive plantation programme is accomplished, this will herald the start of a new revolution in the countrywide. Social forestry programmes are already making headway in the states of Gujarat, U.P., West Bengal, Bihar, M.P. and Tamil Nadu and are likely to be launched in Jammu and Kashmir, Karnataka, Maharashtra, Haryana and other states. As Erik Eckholm has pointed out, social or community forestry is not a technology but it is a process of social change that requires the continuous participation of whole communities in planning and problem-solving. Government and voluntary agencies can help to create a public consciousness of the need and indeed profitability of successful tree-raising and thus help to improve the environment and the finity of life.

## INDUSTRIAL POLLUTION, OVERFISHING SAID TO RUIN GULF OF THAILAND

Bangkok THE NATION REVIEW in English 19 Mar 82 p 6

[Text]

A SENIOR United Nations marine environment expert said yesterday that industrial pollution in the upper Gulf of Thailand is so bad that if nothing is done by the end of the century the Gulf will turn into a "dead sea."

"The way things are going as it is, the upper Gulf of Thailand is likely to turn into a dead sea by the end of century," said A.H.V. Sarma of the Environmental Coordination Unit of the Executive Secretary of ESCAP.

Sarma said that the biggest cause of water pollution in Thailand is urban pollution in Bangkok as domestic waste is deposited into the city canals, which is in turn dumped into the river.

Sarma, speaking at a seminar on environment at ESCAP, urged the Thai Government to take immediate steps to improve the situation.

"If anyone in Thailand is dreaming of cleaning up the upper Gulf of Thailand, he should start it right here at Chao Phya River," Sarma

told the audience.

Sarma blamed the government directly for not taking immediate actions to curb the pollution of the river, citing bureaucracy among the various departments.

"The government has commissioned a lot of consultation studies, but has not implemented any programme to improve the situation," said Sarma. "I don't think those programmes have been properly evaluated."

"There used to be a joke that the oceans are the waste paper baskets of land, but the sad thing is that it is no longer a joke," he told the participants. "We don't have to be told again that tons of domestic wastes are being dumped into the oceans. "And there is no exception for the Chao Phya River."

He said industrial waste, agriculture waste and fertilizers dumped into the water produce a dirty effect as a whole on the environment and, in particular, destroy oxygen.

"When you don't have oxygen you start reporting about the dead fish," he

said.

Citing the findings of the United States National Science Academy, he said that over two million tons of DDT has been produced since it was discovered in the early 1930s. Some 25 per cent of this has been collected in the oceans."

Sarma said years of study indicated that in Thailand the river that flows down from the north to up till Ayudhya province is "so clear you can drink the water," but from Ayudhya down to Chao Phya River it is completely devoid of oxygen.

He said Thailand, the Philippines and India have the worst industrial pollution in their rivers.

"Chao Phya River, Laguna Bay (in Manila) and the Hoogli River (in India) are competing for a first prize in terms of the most polluted river," said Sarma, adding that for his money Chao Phya River is easy winner.

"Industrial pollution, detergent and domestic waste poses the most serious threat to our marine environment," said Sarma.

The six-day seminar on environment — with special emphasis on the marine environment — is currently being held and participated by journalists from Indonesia, India, Sri Lanka, Bangladesh, the Philippines and Thailand.

Sarma said fishing in the Thai rivers has substantially dwindled since the introduction of mechanization in 1960. In 1960, he said, local fishermen caught over 60,000 tons of fish while the number increased to over a million in 1971.

He said degeneration of marine pollution is such that in 1972 an average catch was 100 kilogrammes per hour.

"Now it is down to only eight kilogrammes per hour, not enough to pay for the gas," Sarma said.

According to him, world consumption of fish is put at 12 kilogrammes of fish per year per capita, with Japan at 120. "In Thailand the official figure is 60, but I think it is down to 30."

The situation has become so serious that Thai fishermen

now are fishing elsewhere, such as Bangladesh.

"Fishing in Thailand is not viable anymore," said Sarma. He also blamed "overfishing" as one of the reasons for the problem.

One of the solutions Sarma offered is the blocking of the city canals to stop flows of domestic waste into Chao Phya River. He said this could be done easily as there are not over 40 canals in the city.

The seminar also briefly engaged in a somewhat heated debate whether it should be the role of the government or an international agency to help alleviate the environment problems in cities throughout the region.

In response to a question posed by Ruben Pasqual, a reporter from the Manila-based Business Daily who asked why ESCAP had not done much in the area of environment in spite of knowing the problem exists, Sarma

said cities in the region should not rely heavily on outside help.

"Why don't you do it yourself?" he snapped. "Why you have to rely on outside agency to work for you?"

"Well, what happen to the action plan adopted by the ministerial meeting in Manila?" Pasqual, not budging an inch, shot back.

"The action plan adopted during the meeting in Manila is still on paper and being worked out," Sarma replied. "How do you expect the action plan which is on the paper and not put together to work?"

Sarma was referring to the action plan for environmental programme adopted during the ASEAN Ministerial meeting in Manila in April, 1981.

Other panelists taking part in the seminar included Dr Surapol Suda of the Department of Marine Sciences, Chulalongkorn University, and Dr Surin Setamanit, Director, Institute of Envi-

ronmental Sciences, Chulalongkorn University.

The panelists spent considerable amount of time discussing who locally should bear the responsibility to effectively carried out the environmental issue, though none of them came to any conclusion.

In addition to their repeated attempts to seek the media support, they more or less concluded that a strong political base is needed to effectively launched a nationwide environmental issue to alert the public about the threats of environment.

Dr Sunit, who said little during the discussions and preferred more to listen, perhaps delivered the most touching remark at the conclusion of the seminar.

He said: "Environmentalists must be more careful and they have to be very adapting to the environment issues, just like the environment itself."

## EGAT DAM COULD DAMAGE FOREST AREA

Bangkok BANGKOK POST in English 10 May 82 p 5

[Article by Wirasak Salayakanond]

[Text]

**THE state-owned Electricity Generating Authority of Thailand (EGAT) is under heavy fire from environmentalists for advocating the construction of more dams as a way out of the energy squeeze.**

"EGAT is acting like a commercial contractor. It is trying to obtain more projects for its own survival as a state corporation," Pairoj Suwannakorn, chief of the Wildlife Conservation Division of the Forestry Department, said.

He said that more dams mean more jobs for EGAT personnel. "Naturally, contractors are eager to get a government contract, and the EGAT is obliging them," he charged. Three huge dams are now in operation with two more under construction.

A leading Thai environmentalist, Mr Pairoj blames the dams for the massive destruction of virgin forests. He claims that unbridled forest destruction has already caused the denudation of 419 square kilometres of forest land in Kanchanaburi Province within the Srinakarin Dam site. Also endangered by the Khao Laem Dam is an area totalling 353 square kilometres, including the whole Sangkhlaburi District, also in Kanchanaburi.

If pushed through, the Nam Choan Dam will result in the destruction of 137 square kilometres of conserved forest area. Not only are the areas above the dams inundated but the forests surrounding the reservoirs are also cut down.

Mr Pairoj said that EGAT has already started building a road from Srinakarin Dam to the proposed site of the Nam Choan Dam on the upper Kwae Yai River. The 140-kilometre

highway is needed for transporting heavy equipment and construction materials needed for the Nam Choan Dam.

### COMPLAINT

By building the road through a forested area, EGAT has opened the floodgates to an army of forest poachers, who have entered the Erawan National Park, the Srinakarin National Park and two forest replanting areas, according to Mr Pairoj.

The Wildlife Conservation Division of the Forestry Department, a leading opponent of the road-building project, complained that EGAT started felling down trees although the Nam Choan project has not yet been approved by the National Economic and Social Development Board nor by the Cabinet.

The campaign against the Nam Choan Dam project has forced the Cabinet to issue a work suspension order pending a government review of the project.

But environmentalists predict that the Cabinet action has only created a "lull before the big storm." The "illegal loggers have already found their way into the forest reserve and there's no stopping them from smuggling out logs," they added.

Thailand's forested area totals 29 million hectares, or about 25 per cent of the country's total land area. But the onslaught on the forest is going on at an alarming pace. Last year, the United Nations Environment Programme reported that about 1.4 million hectares of timberland in Thailand is destroyed every year. If

this rate of destruction is unchecked, the country's forest reserves would be totally depleted in 21 years.

Said Mr Pairoj: "We are not against building dams *per se*. What we are against is the destruction of forests. In building dams, we must carefully weigh the advantages and disadvantages of the projects, particularly in relation to the damage it inflicts on forest and other natural resources."

He explained that even the Forestry Department was opposed to the construction of several dams in Kanchanaburi after its own survey showed that the resultant damage to the environment was far more serious than EGAT had projected.

"You just don't assess the harmful effects of massive tree-cutting on the environment by the number of trees that would be destroyed by the construction of dams in Kanchanaburi, as EGAT has done. You have to consider the possible adverse effects of these projects on the whole ecological system," Mr Pairoj said.

To function properly, the dams must receive enough water. In the case of the Kanchanaburi dams, the water comes from "catchment areas" or watersheds. Ironically, many dams in Thailand were constructed far from "catchment areas." As a result, the volume of water that flows into these dams is not even adequate for irrigation purposes.

The catchment area for the proposed Nam Choan Dam is situated

partly in Umpang district of Tak Province and partly in Uthai Thani Province. But the forest cover of the entire catchment area has been destroyed.

## WARNING

Forestry officials have warned that it would take several years for the proposed dam to store water enough to generate electricity. But EGAT officials dismiss the dangers posed by the destruction of forest covers as exaggerated. They insist that the country's long-range requirements for electricity far outweigh the problems that would be created by the resultant destruction of forested areas.

At present, the total generating capacity of EGAT is 4,980 megawatts. Of this, 1,379 megawatts come from hydropower plants generated by dams. Over 2,400 megawatts come from oil and gas-fed power plants.

No clear winners — only losers — are expected to come out of the raging controversy over EGAT's projects. Whatever happens, Thailand would be denied vast sections of an already dwindling forest reserve. And, as environmentalists claim, this could create a bigger problem than the benefits the dams are supposed to generate.

## ENVIRONMENTAL PROTECTION DISCUSSED, GUIDELINES PROPOSED

Hanoi TO QUOC in Vietnamese Apr 82 pp 19-22

[ Article by Dao Ngoc Phong, M.S.: "The Environmental Pollution Situation in Our Country Today" ]

[ Text ] The environment--the framework within which each person works and relaxes--is a unified entity encompassing the soil, water, air and plant and animal life (from the blades of grass and branches of trees to man) that is closely related to the technological factors created by society that have an impact each minute of each hour. This impact is seen in the fact that whenever a change occurs in a factor, it immediately influences the other factors and leads to subsequent changes. This is the result of natural processes but it is primarily the result of the activities of man. At a time when practically every developed capitalist country is facing the real danger of witnessing the destruction of the natural balance through the misfortune of being caught between the pincers of the severe vestiges of history, including the serious destruction of the natural environment and the increasingly harmful consequences of industrialization and urbanization, we are discussing environmental pollution in our country, a socialist country with many special characteristics. To begin with, we must mention the past in which the colonialists and feudalists left behind and from which we have inherited a brutally exploited natural environment, an environment plundered of its natural resources, an environment covered with gloom by very long periods of biological pollution and malnutrition (diseases, death and starvation), an environment which, although not hit by the waves of urbanization and industrialization, is not without waste matter from the cities (the pitch black To Lich River, the dark plumes from the smokestacks of cement plants and so forth) and from the vast rural areas (first the prince, second the...). On top of this came the serious destruction caused by the U.S. imperialists in recent decades, concerning which we are unable to determine the full magnitude of the tragedy caused by the poison agent orange and the B-52 bomb craters across our beloved land, especially in the South. Today, our country is totally unified and independent. We are building socialism but the fact that our methods of exploiting the natural environment as well as organizing production are not truly modern is also a cause worth mentioning when examining environmental pollution in our country.

Generally speaking, a comprehensive view of reality is seen in the following results of an investigation into the disease situation in Vietnam:

For every 100,000 persons, there are 23.12 cases of cholera, 4.66 cases of typhoid and paratyphoid; 159.16 cases of amebic dysentery; 978.98 cases of diarrhea and intestinal diseases; 130.08 cases of tapeworms and other worms; 916.69 cases of other infectious diseases and parasites; 1.87 cases of leptospirosis; 1.94 cases of plague; 2.15 cases of diphtheria; 8.95 cases of viral meningitis; 137.78 cases of hemorrhagic fever; 299.81 cases of malaria; and 31.40 cases of fungus related diseases. Thus, infectious diseases and parasites are still widespread throughout the country. These diseases are closely related to living conditions, economic conditions and social conditions (the pollution of the surrounding environment, land, water and so forth).

As regards occupational diseases in our country between 1976 and 1980, diseases caused by Silicose dust accounted for 94 percent while illnesses resulting from noise accounted for 4.27 percent and illnesses caused by chemicals constituted 0.82 percent of the nearly 2,000 cases. These facts show that occupational diseases have begun to appear in our country.

The disease situation mentioned above is due to the fact that the surrounding environment (soil, water, air and vegetation) and the work environment within industry are being polluted.

The soil is most seriously polluted in the rural areas. Research of soil samples by Le Vi Hong and colleagues showed the following: of the total number of samples, very dirty and dirty samples constituted a high percentage, 70-81 percent (the ratio of N. albumin over organic N.); samples highly polluted by worm eggs constituted 71.7 percent, with 60 percent of them coming from building foundations.

The soil around privies contained intestinal tract phage (+) with E. Coli 0111, Sh. Typhi, Sh. Flexneri, Sh. Bcydi and Sh. Sonnei.

Water is also polluted, especially water sources in the countryside.

Virtually none of the effluence of factories and enterprises are treated before being dumped into rivers, thereby creating serious pollution. The effluence of the majority of factories and enterprises contains substances that cannot be easily broken down by biological organisms, as seen in the very high level of oxygenization (DCO), 92-1,440 mgO<sub>2</sub>/l, and the low need for oxygen in a 5-day period (DBO<sub>5</sub>), namely, 0.8-120mgO<sub>2</sub>/l. The biological pollution of river water, such as the Red River, is also high in spots, especially during the flood season (aerobic bacterium: 1,000/lcc; Coli Index: 11,100/l; Melchii: 10/10cc).

Especially deserving of attention is the air pollution in a number of industrial cities, such as Haiphong, Viet Tri and Hanoi. Through a survey conducted in

Hanoi, we have found that the level of SO<sub>2</sub> in the industrial area is 14 times higher than the standards permitted for residential areas, the level of CO<sub>2</sub> is 2.7 times higher and so forth.

At 68 positions where measurements were taken, the dust and noxious gases from 16 typical factories in the chemical sector exceeded permissible levels.

In addition to the pollution of the ground, water and air in the surrounding environment, new factors are now emerging in our country that also cause pollution:

Noise pollution in the major cities has reached the alert level. The Institute of Housing and Public Project Design investigated the level of noise in the housing areas and child care centers of Vinh and Hanoi in 1977 and found that noise levels range from 55 to 68 dBA (the tolerable limit is 60 dBA).

Another form of pollution is radioactive substances in the air at a number of installations that use sources of radioactivity. Although the surface background at these installations is approximately the same as the natural background (0.02 R per hour), in areas in which radioactive sources are located and mixed, the level of pollution is high. In a number of industrial complexes, such as Viet Tri, Hanoi and Haiphong, surveys have also been made for radioactive pollution resulting from the burning of energy in match factories and so forth as well as pollution of water sources.

In particular, within agriculture, we are using a very large quantity of insecticides and chemical fertilizers, such as Psudin, Kitasin, DDVP, Methyl-Parathion, Metaphos, Parathion, HCN, 2,4D, DDT, Zineb, Futadan, Bassa, SeWeng, ZnP, etc. In the two insecticide warehouses and 14 insecticide production units in Tien Giang, we found that 100 percent of the persons checked who have come into direct contact with pesticides have undergone physiological changes (such as a reduction in the level of the hormone Cholinesterase). The embryologic genetic effects of insecticides and herbicides have been studied by Trinh Van Bao and colleagues in humans and animals, especially among agricultural workers (abnormalities in the number of chromosomes are 4.19 percent  $\pm$  0.16 while abnormalities in chromosome structure are 2.68  $\pm$  0.5). Pham Thi Kim Cuc has studied the DDT content of mother's milk and fat tissue in a number of areas in the North (DDT in mother's milk averages 6.05  $\pm$  1.32mg/1DDT; in fat tissue, it averages 22.3 ppm).

The DDT content in the living environment is as follows:

<u>Test Sample</u>	<u>ppm</u>	<u>Test Sample</u>	<u>ppm</u>
Well water	0.2	Tomatoes	0.02
Hog Fat	1.5	Beets	0.01
Pork	0.60	Spinach	0.01
Kohlrabi	0.20		
Seed Paddy	0.08		
Rice	0.05		
Western Potatoes	0.05		

Le Dinh Cong has studied the concentration of Metaphos in the air around persons spraying this insecticide and found that the concentration was two times as high as the permissible standard (0.232 per cubic meter) and found a marked impact upon the health of persons coming into direct contact with it (headaches, anxiety, dizziness and a complete reduction in the level of Cholinesterase).

Harmful effects to the environment caused by the chemical poisons spread by the United States in South Vietnam have been detected in our country. Vo Qui and colleagues have presented new, specific data gathered in the different jungle areas on which poisons were spread from a few times to many times, such as Nam Can, Ca Mau, Black Virgin Mountain and Tan Bien (Tay Ninh), the Ca Pass (Phu Khanh) and A-luoi (Binh Tri Thien). The permanent harmful effect of the chemical poisons of the United States upon the vegetation, the soil and the animal kingdom in the different types of jungle as well as in the body of man are clear.

In general, the disease situation among our people at this time basically falls within the disease model of the developing countries, although they differ in degree; at the same time, we also see a number of diseases that fall within the disease model of the developed countries. One of the primary causes of the disease model presented above is living, economic and social conditions (including the environment). The universal infectious diseases are the result of the pollution of the surrounding environment (the soil, water and so forth). The fact that diseases related to industrialization and urbanization have begun to appear means that the living environment is being harmed, even though only on a small scale now.

We completely endorse the opinions expressed by Minister of Public Health Vu Van Can when summarizing the work of the sector: "We must quickly develop beyond the stage of preventing and combating infectious diseases, parasites and malnutrition and reducing the population growth, which are characteristics of a developing country; at the same time, positive and effective steps must be taken to prevent the diseases encountered in the developed countries that are beginning to appear. One of the basic measures is fighting environmental pollution. We must organize sanitation control, protect the soil, water and air, formulate sanitation regulations and sanitation standards in construction, in industrial development, agricultural development and the clearing of wilderness. At the same time, we must take measures to prevent and combat, manage and extinguish epidemics and administer mass vaccinations in accordance with a unified schedule in order to widely immunize the people. We must take scientific, systematic and truly thorough preventive measures in order to develop beyond the stage of illness of the underdeveloped countries."

In our opinion, in addition to preventive medicine, we must realize that the persons and tasks involved in resolving the problem of environmental pollution are clearly related to many sectors. All of the various degrees of research, from discovering theory to applying technology, require the combined efforts of many scientific sectors, especially ecology and geography. Besides this, it is

necessary to intensify the management of the environment in our country. The first stage is hygiene management, the most important aspects of which are observing the state of the environment and evaluating its harmful effects upon man. To begin with, efforts must be focused on observing the environment at densely populated places and in population areas of greatest activity. Then, we must coordinate with related sectors to manage geographical systems (agricultural technical systems, the environment of the industrial areas, the urban environment, etc.). In this effort to observe the environment, we must give attention to the special natural characteristics of our country and the ability of its environment to cleanse itself (the hot, humid tropical environment rich in solar radiation). Through this, we will see that unique aspects are involved in preventing and combating environmental pollution in our country, ones that are quite different from many other countries of the world. Only then will we enter the stage of managing the biosphere and control, inspect and predict the changes that might occur in larger areas of an international nature.

In the strategy for combating environmental pollution today, we must, in the immediate future, transform the environment in the countryside and cities and eliminate the diseases caused by biological pollution that frequently occur in the underdeveloped countries. Besides this, we must give our attention to measures (even in the planning stage) for preventing and combating pollution in industrial areas and newly constructed urban areas if we want to quickly prevent chemical pollution (from causing diseases such as those being suffered in the developed countries at this time). Finally, our permanent task is to protect the biological balance by means of making reasonable use of our country's natural resources. The work of the public health sector is to improve the working conditions, housing and relaxation of the people at places where people have long lived and in newly opened and constructed areas. It is necessary to treat the effluence of industrial zones in order to avoid polluting rivers, the soil and the atmosphere. Essential products must be free from chemical and biological pollution. Attention must be directed toward curbing the indiscriminate use of pesticides and taking steps to protect the safety of persons who spray pesticides. Education and agitation regarding protecting the environment must be more widely organized; environmental protection councils of the masses must be established and programs for teaching environmental pollution must be incorporated at schools. The state must promulgate laws and directions concerning environmental protection; establish specialized agencies that have the authority to investigate, control and protect the environment; and gradually establish local pollution observation stations in the form of a widespread network so that we can forecast changes in the environment and their possible harmful effects in special situations.

The practical objective of this effort is not to protect, but to guide the correct development of the reciprocal relationship between man and nature. Man is dependent upon the surrounding environment and is formed within this environment; therefore, protecting the living environment is protecting its balance. The ultimate objective of environmental protection measures is to create favorable conditions for man to lead a wholesome material and spiritual life.

## HIGH COSTS HAMPER ENVIRONMENTAL PROTECTION

Hanoi TAP CHI HOAT DONG KHOA HOC in Vietnamese Apr 82 pp 10-11

[Article by Nguyen Khue: "The Chemical Industry and Environmental Protection"]

[Text] Protecting the environment is a pressing need of our planet at this time, the importance of which goes beyond the borders of nations and regions. Our party and state have attached appropriate attention to protecting the environment; this concern is most importantly and clearly evident in each related policy, especially in the policies regarding economic construction, in the regulations governing capital construction...

However, this is not to mention the serious destruction of the environment in the wars waged by the U.S. imperialists and the Chinese expansionists or the fact that many problems still exist in industrial construction and production that adversely affect environmental protection, which, if not promptly resolved, will cause even greater harm.

In the first years of building the North, we lack the conditions, time and experience needed to completely plan industrial and population areas and lack much basic investigative data as well as long-term plans for building each industrial complex. Advancing from a poor agricultural country ravaged by continuous war, we must urgently build a number of the most necessary industrial installations in order to meet minimum national defense and national economic needs. Because our capital and supplies are limited, but capital investments in environmental protection sometimes constitute a very large percentage of the total investment in capital construction at a time when our environmental protection technology does not meet requirements, it is unavoidable that the environment is affected at one time or place or another.

Worth mentioning is the fact that, in view of the specific conditions of each enterprise, some places have done a good or very good job of protecting labor and improving the environment while, on the other hand, some places, due to lax management or a lack of knowledge, have failed to correctly implement technical regulations in production, not complied with the regulations governing

labor safety and environmental protection under permissible conditions and even operated in a careless, sloppy manner, thereby affecting the health of workers and partially polluting the environment of the surrounding area.

The chemical industry, which is in the same general situation as the rest of our country's industrial sector, must pay even greater attention to protecting the environment. In all the regulations the state has ever had regarding capital construction, importance has been attached to environmental protection at the very outset, from the selection of construction sites and production methods to the establishment of permissible levels of toxic substances and effluence, with the participation of public health agencies and the various levels participating in the approval of designs and testing. The various leadership levels of the chemical sector have always been concerned with environmental protection. The technical management agencies of the sector are increasingly adopting plans for closely guiding compliance with production regulations and adopting environmental protection regulations. The chemical industry's Institute of Project Planning, which has designed chemical projects within the scope of its function and as permitted by specific circumstances, has applied labor safety and environmental protection technology in its design projects, such as installing ventilation to remove dust, treating air and water emissions and enclosing equipment; as a result, increasing advances have been made in this area of design projects. However, there are still many shortcomings in our design work, shortcomings that have had a certain influence upon a number of projects as a result of the following:

--Industrial regulations and methods are incorporated in designs without the necessary data, consequently, due to the actual changes occurring in production, environmental protection equipment is not consistent with actual conditions.

--The permissible residues of effluents are usually very small; industrialists generally only supply to the design agency information on the industrial conditions surrounding the production of main products but usually have no data on effluents or methods of industrial treatment.

--The technology involved in treating effluents is frequently very complex and costly; however, there is no agency specializing in this technology and design agencies still do not have an environmental protection testing laboratory or pilot project plant in order to conduct research and obtain design data, consequently, they are unable to test newly designed equipment.

--The cadres who design chemical equipment still lack experience; the technology involved in the manufacture of equipment and the technology involved in enclosing equipment do not meet strict requirements regarding tightness, pressure and temperature.

--The capital we have to invest in the construction of projects is limited and investments in environmental protection sometimes constitute a very high percentage, consequently, we are unable to fully implement the desires of the design agencies.

--Because specific conditions require that we employ simple industrial methods, we have not been able to establish closed cycles for the purpose of consuming effluents.

--Our scientific-technical information and our contacts with modern industrial environmental protection technology are limited, consequently, difficulties are involved in learning and effectively applying the latest technological achievements.

--The review of the experiences and strongpoints in design work has not been thorough and the specialized design groups, such as those designing ventilation systems, dust removal systems, systems for treating air and water emissions and technologies for enclosing equipment, do not have highly trained cadres and have not been strengthened.

Despite the obstacles mentioned above, because we understand the importance of environmental protection and in order to prepare for the future, the institute has, to the degree possible, cooperated in the successful research of a number of items, such as the following:

--Researching the mass conversion and heat dispersion effects of a number of types of catalysts that create ignition and diffuse high temperature heat over a mesh in the form of a honeycomb to remove the gases CO and NOx and various types of hydrocarbons.

--Researching the removal of phenols by means of activated mud from the To Lich River in Hanoi (a biological method) in order to remove phenols from the waste water of coke refining plants, synthetic paint factories, etc.

At present, the institute is researching the adsorption of paint solvent in the air (which is part of the state level program of the Labor Safety Science and Technology Research Institute, the Vietnam Confederation of Trade Unions).

Recently, the chemical industry Institute of Project Planning accepted the task of establishing an industrial technical research component (industrial processes and chemical equipment) which will include environmental protection technology. This is a very large task. The greatest difficulty at this time is the lack of material bases with which to equip laboratories as well as organize cooperation and environmental protection within the chemical industry regarding certain problems that exist under our country's tropical conditions. We must research the application and development of the scientific achievements of the world in a manner consistent with conditions in our country.

The concept of protecting the environment is increasingly penetrating the thinking of managers and the persons directly engaged in production. In coordination with the increasing improvement of the legal regulations of the state and increasingly close cooperation (both domestic and international), many advances will surely be made in our protection of the environment.

USE OF WATER FROM ICEBERGS CONTEMPLATED

Johannesburg THE STAR in English 22 May 82 p 3

[Article by Rob Soutter]

[Text] Icebergs from Antarctica may have to be tapped to provide South Africa with fresh water in the next century.

"There is no fear of South Africa running short of water," says a Government expert, "but some unusual and expensive sources may have to be exploited to ensure adequate supplies.

"These could include towing icebergs from the Antarctic, cloud seeding and digging canals to link South African rivers with the Okavango Swamps, said Mr Bill Alexander, manager of scientific services with the Department of Water Affairs.

"The number of schemes that can provide water economically is limited. After they have all been commissioned we will have to look to other sources."

Icebergs could be moored 50 km off the coast and quarried for water, said Mr Alexander.

Problems include the deep draught of the iceberg, and the difficulty of melting the frozen water and conveying it to land.

With water resources becoming scarcer they will unavoidably become more expensive, and this will help make many presently uneconomic schemes more attractive.

Recycling will assume an increasingly bigger role in providing water. On the Witwatersrand, between 60 and 75 percent of water delivered to users is returned to sewage purification works.

"South Africa is one of the world leaders in the field of treating sewage effluent to produce clean water.

--Importation of water from states to the north of South Africa. The problems are political and economic not technological.

--Desalination of sea water. The oceans are the only unlimited source of water and techniques for desalination are well known.

--Weather modification. The Department of Water Affairs is researching this process in co-operation with the weather bureau, at Bethlehem in the Orange Free State.

CSO: 5000/5760

DESTRUCTION OF GEORGE/KNYSNA WILDERNESS DEPLORED

Johannesburg THE STAR in English 22 May 82 p 5

[Article by Graham Ferreira: "The Fate of the Wilderness--Bulldozers, Pollution Have Started the Destruction"]

[Text] The George/Knysna/Wilderness area is being threatened by environmental blunders, which, say conservationists, are turning the Garden Route into "the garbage route." Graham Ferreira reports.

A four-lane highway divided by a traffic island will slash through tranquil Wilderness village turning one of South Africa's showpiece seaside retreats into a thoroughfare for convoys of heavy trucks and cars.

The plan to "upgrade" the existing road which winds through the picturesque Kaaimans River gorge and over the peaceful Touws River estuary at Wilderness was struck on as an alternative for the stretch of the coastal freeway between George and Sedgefield and requested by Prime Minister, P W Botha, himself a resident of Wilderness Village.

But the four-lane alternative now before the George Divisional Council was described by residents, scientists, hotel-owners and environmentalists as "the worst possible option."

And the controversial "upgraded road" is just one of a series of environmental blunders which one of the leading conservation figures in the area, Mr Time Balchin, says is turning the Garden route into "the garbage route."

On the other side of the coin are those who believe that all is rosy in the garden and many who believe that "Pee Wee" would not allow things to go wrong.

The stern presence of the Prime Minister hangs heavily over the little towns, villages and hamlets which dot the country and seaside and many of his followers have blind faith that their leader will "see everything comes right."

But the facts indicate otherwise. It will take more than just the pervasive influence of the Prime Minister to put things right along the Garden Route.

## 'Sensitive'

The area is described by ecologists as extremely sensitive, and is being subjected to devastating environmental degradation. Many long-time residents told me that "Wilderness just isn't like it used to be" and things are not getting any better. Other developments and activities which will result in major environmental degradation to the world-famous coast include:

--An "unnecessary" section of the new freeway which has cut through the Bloukrans Forest dividing the forest in half and destroying more than a million cubic metres of top-grade indigenous wood.

--The controversial Kleinkrantz housing development said to be the most expensive of its kind anywhere in the world. It necessitated the flattening of half a million cubic metres of sand dunes.

--The dredging of the lagoon system at Wilderness which is destroying the adjacent reed beds, a vital nursery area for fish.

--The large-scale theft of ferns in the Knysna Forest by unscrupulous operators working on permits, given without apparent screening by the Department of Nature Conservation. The permits are supposed to be for picking ferns on the permit holder's own land, but at night the operators work illegally in State forests.

--A virtual lack of control over the taking of prawns and other bait species in the Knysna Lagoon, which the Mayor of Knysna, Brigadier Doug Campbell, says, is devastating the prawn banks, vital to the estuary's ecosystem.

--A build-up of pollution from human sewage in the Wilderness lake.

--A serious problem with invasive alien vegetation especially blackwood, black wattle, and acacias which are threatening the indigenous forest.

--So-called "creeping development" whereby a major project which would not be allowed in its entirety is "slid past" local authorities by the developer applying for permission to develop bit by bit, each piece of the development appearing in itself innocuous.

--Development decisions by local authorities who have no concept of the impact of the developments which are proposed.

## Unanimous

Almost all of the 20-odd people whom I interviewed during a recent visit to South Africa's "Lake District" were unanimous that there was still enormous potential for the Garden Route. It was still one of the most beautiful scenic areas on the continent but injudicious development, greed, ignorance, political experience were taking a grave toll on the natural beauty of the area.

For the Garden Route the writing is on the wall. Unless the warning signs are heeded, Mr Balchin's prediction will become reality soon.

In the words of a leading environmentalist, the lakes, estuaries and vleis of the Garden Route between George and Knysna are "dying slowly from benign neglect."

In order to keep the Touws river estuary deep enough for all-year-round boating, a dredger has been installed near the mouth, but according to an ichthyologist, the dredging, carried out with little or no thought for the environmental consequences could have disastrous consequences.

Mr Alan Whitfield is studying aspects of the aquatic ecology on nearby Swartvlei, one of the lakes of the Wilderness system.

"If you notice that the sand being pumped to shore during dredging is building up over the reed beds on the flood plain next to the river, it becomes apparent how stupid the dredging is," he said.

"That sand is mainly of marine origin. It's being brought in by the sea, and it's just going to keep on coming. Meanwhile the reed beds are being destroyed and they are vital to the ecology of the estuary.

"The reeds provide the detritus (decomposed vegetable matter) which feeds the little invertebrates on which the juvenile fish feed.

"Contrary to a popular fallacy most fish species don't breed in lagoons, but in the shallow inshore protected areas. At a very early stage of the development the juvenile fish enter the estuaries which provide them with ideal nurseries in which to grow to maturity.

"Nurseries are the most productive of all ecosystems, and are vital to several of our best-known species such as white steenbras, leervis, stumponose, and grunTERS."

As an example of what can happen when the ecosystem changes--even naturally--Mr Whitfield explained his current line of research.

A type of watergrass called potamogeton lives in the shallow areas of Swartvlei. The plant provides shelter and food for countless little crustacea and other invertebrates on which the juvenile fish feed.

Recently, because of a dry period, the salinity of the lake rose and the potamogeton died off.

Scientists found an immediate drop of 70 percent in the mass of fish in the surrounding waters.

This illustrates how disastrous the destruction of the riverside reed beds by dredging could be.

Besides killing off the reed beds in the river flood plain, the dredging has destroyed numerous prawn beds in the river and lagoon itself. I watched as hundreds of prawns were spewed out on to the bank along with sand, golf balls, old shoes and other objects dredged from the lagoon.

Another problem facing the lakes is pollution from human sewage. In the Wilderness areas, some developments such as the caravan park lie very low, in fact below the flood level.

This causes problems with sewage disposal, and recently there has been concern about the build-up of dangerous bacteria found in human excreta.

In order to counter this threat the Outeniqua Divisional Council agreed unanimously about 18 months ago to introduce the so-called pasveer system for, among others, the caravan park.

Understandably the residents required to buy this system were worried as it appeared that it was expensive. But subsequent questioning showed that not one of the councillors who had voted for the system had the vaguest idea what the system entailed. When the chairman asked if anyone could explain what the system looked like, or how it operated, councillors admitted they did not know. The idea was scrapped, and the problem with sewage remains unsolved.

To add to the other environmental problems of the lake system the overexploitation of bait organisms such as mud prawns in the area is causing a lot of official head-scratching.

According to the mayor of Knysna, Brigadier Campbell, the mud prawns and bloodworms which are a vital part of the ecosystem of the lagoon are coming under heavy deprecation by people taking more than the limit.

On an optimistic note however, he concluded that many people in the area were environmentally aware, and acted as watchdogs. "That does help us to keep control."

Kleinkrants: Who Will Benefit?

The first houses of the controversial Kleinkrantz housing scheme are to be started this week. The scheme, situated next to the national road near Wilderness, has been described by a developer as the most expensive of its kind anywhere in the world. The question environmentalists in the area are asking is who, if anybody, will benefit by the scheme?

In CSIR's report on the Cape coast commissioned by the office of the Prime Minister six years ago, Dr Alan Heydoorn and Dr Ken Tinley said that the Kleinkrantz site was "open to question."

The gross disturbance of a sensitive dune barrier system is a matter for deep concern and the danger of severe sandblows which will threaten the national road between George and Knysna is very high indeed.

Added to this, the report notes that sociologically the site is in the middle of a prime tourist area. A large part of the scheme is sub-economic and will house working people. The locals point out that at present there is no suitable transport to the only towns with job opportunities in the area, George and Knysna--both many kilometres away from Kleinkrantz.

During a recent visit to the area, I spoke to a source close to the company engaged in the development. A photographer and I were taken on to the site.

The sand dunes have been bulldozed aside, scooped up by enormous sand-moving vehicles, and deposited somewhere else, to level the area.

It is an impressive development requiring sophisticated technology and planning.

According to the source it is the only place in the world where such a huge expanse of sand dunes has been flattened for a housing development.

"The cost is astronomical," he told us.

I was also told that the Department of Community Development, which is footing the bill, broke records to get the scheme under way.

"It was go, go, go, from the time the contract was out to tender until the work began. That must have been some sort of speed record," the source told me.

We watched as two mechanical scoops worked in tandem to dig out a trench more than 8 m deep to lay the sewage pipes.

According to the source the area will be completely grassed and paved preventing sand blowouts.

"There's been a lot of bad publicity about this scheme, but it's going to be a wonderful development. One of the positive aspects is that the developers have agreed to have tiled roofs instead of the original plan for corrugated asbestos. That really makes a big difference aesthetically," said the source.

However successful the developers might be in reducing sand blowout, the site chosen for the controversial scheme remains "open to question."

And the question being asked at Wilderness is: "Who made the decision and who stands to gain?"

CSO: 5000/5760

## RIVERS DRY UP AS DROUGHT GRIPS MIDLANDS

Harare THE HERALD in English 28 May 82 p 6

[Text]

GWERU.

WATER supplies, grazing land and the condition of cattle are deteriorating in the Midlands, according to reports to the province's drought relief committee on Wednesday.

Extension officers and district administrators painted a grim picture of small rivers drying up and dam levels falling.

In the Zvishavane district "small rivers are drying up and dams are below 50 percent", an Agritex officer told the meeting. "The grazing is still good but that is because arable land has been opened up to grazing.

"Cattle are in a fair to good condition, but will deteriorate as the year progresses."

A district administrator in Shurugwi reported that some dams in his area were down to 25 percent.

Grazing land was one of the main problems facing the Midlands, with some areas having poor or no grass.

The chairman of the committee, Mr Vaughan Evans, said: "We had planned to use resettlement land for grazing but the Ministry of Lands, Resettlement and Rural Development has rejected this."

"In Kwekwe people have opened up their arable land for grazing but in the long run the situation is going to get worse," the district administrator from the area said.

There had been plans to use the Sebakwe National Park and the Katanga bombing range in the Kwekwe district, but permission had been denied by the authorities.

"They denied the use of the national park because there are no dipping facilities and the bombing range because there are still unexploded bombs there," he said.

An extension officer from Gokwe said water was going to be the most crucial issue.

"People are unwilling to sell their cattle in Gokwe because the Cold Storage Commission estimates the weight of the cattle — the scale has broken down," he said.

"It is the duty of Agritex to encourage people to sell cattle in the communal lands but district administrators and councillors should also assist in this matter," Mr Evans said.

It was agreed that Agritex extension officers should attend district council meetings to brief councillors on the sale of cattle.

The CSC representative, Mr D. Duff, said: "It is your duty as district administrators to urge

people to sell their cattle now. In six months' time it will be too late."

Mr James Hampton of the Ministry of Water Development said that 12 drills had been imported from Malawi and nine were being provided from British aid.

Three were destined for the Midlands but they "will not be able to fulfil the programme we have mapped out for the next six months", he said. — Ziana.

CSO: 5000/5761

## WATER RESOURCES MINISTER DISCUSSES DROUGHT, SUPPLY SCHEME

Harare THE HERALD in English 27 May 82 p 4

[Text] "WE are living in two different worlds: The urban people's world and that of the rural people. And the urban people are taking everything for granted, while the rural people are suffering. This is not right and my Government is determined to correct the neglect of the past."

This was said yesterday by the Minister of Water Resources and Development, Mr Cephas Msipa, and the place was a tree-shaded spot in the middle of the Aberfoyle village water supply scheme in the Silobela communal lands.

Gathered around the minister, his deputy, Mr Joseph Laparadza and the Provincial Water Engineer, Mr Howard Lemer, were members of the Mashambazhou District Council, village elders and some womenfolk.

They were lucky in that they had got a piped supply but even so the aridness of the land, the dearth of grass and the swirling dust showed how ravaged land can become through drought and how much worse it must be where there is just no water at all.

Last week the minister made a fact-finding tour of Matabeleland's drought-hit areas. This week it is the Midlands where Mr Msipa will spend at least three days.

He told the small but serious crowd, who listened intently to his every word: "We are going to try to make sure that the people in the

rural areas get water, clean water, as they get it in the towns. And it must be close to their homes. It is wrong that people should have to walk 6 km and 7 km just to get water.

## ACCEPT

"As a Government, we accept that water is a prerequisite to any development and we will leave no stone unturned to see there is enough water for people and animals to drink and we are also looking into the possibility of creating more irrigation schemes in the rural areas.

"The Prime Minister would like to see people growing at least two crops a year and they can only do that if they have enough water."

He said his ministry was surveying for underground water and his officials were looking at possible dam sites.

The minister said that co-operation and communication was the keynote. His ministry wanted to work with the district administrators and with the district councillors.

"I emphasise to the people and to councillors: We want your complete co-operation. It is your water and it is in your interests that your areas be developed."

Mr Msipa said he was disturbed at reports he had received of water pipes being vandalised in some areas. "We deplore this," he said. "They must be taught that this is their own property and that if they interfere with or damage it they are interfering with their own progress."

There were many things the people could do for themselves and they should commit and involve themselves in this work.

"In future we want the digging of trenches for the pipes to be done by the local communities," he said. "The war taught us self-reliance and we must continue that now on a larger scale."

The minister said later that the Cabinet regards the drought as a national disaster and the reason he and his colleagues were touring the country was that they could get a first hand picture to present to the Cabinet for action.

He warned people not to be too parochial about their drought troubles but to "think nationally".

From his tour would emerge the facts: Which areas were more seriously hit than others. "We shall go first where the most

suffering is being caused," he said. "The other areas will have to accept that and will have to be patient."

### **STILTED**

The Aberfoyle scheme consists of two large stilted tanks 4 km apart, fed from wells and with a line of pipe between them. At intervals of about 200 m along the pipe there are stand pipes — drinking, washing and cattle points along the line of villages.

Urbanites would turn up their noses, for they've been spoiled. But to the villagers — even though the water tastes a little bitter, even though they sometimes have to queue for it, and even though drawing it is a long business — it is comparative heaven. It's water.

On leaving Aberfoyle, the minister and his party went to Fatima School where some Danish engineers of the People-to-People Organisation were drilling wells. In the afternoon they visited the Segwala and Njini villages water supply schemes in the lower Gweru area.

Today they will visit the Tokwe resettlement scheme and the Mtorohuku irrigation scheme in Chitwundura. Tomorrow they will go to the Palawan dam and from there to the Mabwematema irrigation scheme in the Runde communal lands.

CSO: 5000/5761

## FARMERS LAUNCH CATTLE RELIEF PLAN

Harare THE HERALD in English 27 May 82 p 4

[Text]

NYANDA.  
FARMERS of Nyanda Central commercial area have embarked on a "grazing relief programme" in an effort to preserve the country's national herd in the light of this year's severe drought.

This was said here yesterday by an under-secretary (development) in the Ministry of Local Government and Town Planning, Dr Edison Munjanganja.

In an interview, Dr Munjanganja said that after a meeting with the Nyanda Central commercial farmers, Gutu and Masvingo district councillors, and villagers at the River Popoteke it was agreed to pool resources for the development of the country.

As a result, communal farmers from Gutu and Zimuto areas would be

able to graze their cattle on commercial farms without payment. "This kind of working relationship can only go a long way towards further promotion of our country's economic development," he said.

Dr Munjanganja appealed to other commercial farmers to do likewise as this would not only foster better relations but also preserve the country's national herd.

One of the commercial farmers who did not want to be named said that the decision had been taken to provide adjacent communal farmers with grazing as their pastures were "virtually dry".

On how the cattle would be distributed to each farmer, he said this would be done with regard to the carrying capacity of each individual. — Ziana.

CSO: 5000/5761

## BRIEFS

RELIEF TO MATABELELAND--Ten seven-tonne trucks will leave here today with 850 bags of maize for delivery to drought-relief distribution points all over Matabeleland. The delivery--the first to cover the province since food-relief deliveries started with Binga and Beitbridge earlier this month--was announced last night by the chairman of the Provincial Drought Relief Committee (PDRC), Mr Jacob Mudenda. Mr Mudenda said the committee met yesterday to speed up delivery of relief to drought-stricken areas of Matabeleland. "We have already delivered 20 tonnes to Binga and 10 tonnes to Beitbridge," said Mr Mudenda. Today's shipment would complete the first cycle of deliveries to the affected areas. The committee's operations managers, Mr B. C. Charlesworth and Mr P. G. W. Ball, would carry out an on-the-spot check on distribution and report to the committee. "The committee hopes to follow this up with deliveries of beans and groundnuts next week," said Mr Mudenda. Today's deliveries go to Inyathi (70 bags), Tsholotsho (140 bags), with 80 bags to Lupane, Nkayi, Hwange, Plumtree, Kezi, Esigodini, Filabusi and Gwanda. Christian Care has given 500 bags and others have been bought by the Government. [Text] [Harare THE HERALD in English 27 May 82 p 1]

DROUGHT NO DANGER--Cattle feed expert Dr Dick Elliott is not worried by the effect of the drought on the national herd. He said yesterday that there was little historical evidence to suggest that the drought would have a crippling effect on the national herd. Dr Elliott, a cattle feed consultant, was speaking on rebuilding the national herd to farmers at the Agri-foods winter beef symposium at Harare Showgrounds. The effect of the drought had been to redistribute cattle within the country, Dr Elliott said. He felt farmers could probably discount the present drought as unlikely to have much lasting effect on the national herd. Present estimates were that there were five million head of cattle in Zimbabwe. Assuming that a growth rate of 5 percent annually could be attained under favourable conditions, Dr Elliott estimated that it would take at least six years to regain the 1977 peak of 6,5 million head. [Text] [Harare THE HERALD in English 27 May 82 p 8]

EFFECT OF DROUGHT ON HERD--The effect of the drought on the national cattle herd is increasing and the Cold Storage Commission continues to be "hard pressed" to cope with slaughter and feedlot space, according to THE FARMER magazine last week. A report in the publication said that the kill for the first three months of this year was 96 600, as against 86 000 for the same period last year. But bookings for April/May/June have now risen to 117 750 head of cattle, and applications for July to October are 145 000 head. These are almost entirely from the commercial sector. The report said that the response from the communal sales has so far been

disappointing, with about 25 000 in the first three months as against 13 000 last year. "It is still anticipated that as many as 200 000 will have to be handled by the end of August, which will obviously now provide severe logistical problems." Feedlot bookings have already topped the figure of 30 000 from the commercial sector and these will be accommodated, said the report. It added that the Cattle Finance Scheme for 1982 has now been adequately funded to cope with normal applications as well as the drought-relief purchases. [Text] [Harare THE FINANCIAL GAZETTE in English 21 May 82 p 3]

CSO: 5000/5761

FORESTRY INTERESTS WANT GOVERNMENT TO ALLOW AERIAL SPRAYING

Helsinki HELSINGIN SANOMAT in Finnish 13 May 82 p 11

[Article by Martti Heikkinen: "Forestry Companies Want Aerial Spraying"]

[Text] Kuopio--The forest companies and also some of the private owners of forests want the aerial spraying of forests once again next summer. In spite of delaying tactics in the Ministry of Agriculture and Forestry the companies have acquired permits for the aerial spraying of foliage over thousands of hectares. Also aerial spraying has been requested in private forests at least in Central Finland.

The Association of the Forest Industry has stated that the companies have considered aerial spraying over a total of approximately 5,000 hectares. Applications for permits have not been made for the total area, but in any event aerial spraying will be considered inevitable over extensive wilderness areas.

Last summer no aerial spraying was conducted at all in Finland. The Forest Administration has announced that it has given up aerial spraying in its entirety for next summer also due to the furor it has aroused.

After many delays and differences of opinion a new law concerning the spraying of foliage is finally being considered. The present law leaves the final decision to the Ministry of Agriculture and Forestry, in which it is expected that decisions concerning several local governments will be made in the near future with regard to next summer's aerial spraying.

"We have received the first request for a ban on spraying from Ruokolahti, and also the local government in Ilomantsi is requesting that all aerial in its area of jurisdiction be prohibited. I would think that in the very near future we will know whether underbrush will be sprayed from the air this summer," stated Section Chief Tapio Korpela of the Ministry of Agriculture and Forestry.

Spraying by Tractors Instead of Aerial Spraying

Korpela's work group, which has deliberated the issue of herbicide spraying, completed its report in March. In it the work group leaned toward supporting

the continuation of aerial spraying. In the opinion of the work group considerably more benefit than harm will come from aerial spraying for the forest economy.

"We in the ministry have the understanding that the forest companies are striving to limit the chemical spraying of underbrush as much as possible. The work group's report has not yet been submitted to the ministry, but first the statements of groups and factions will be appended to it. After that, we expect a decision on the future of spraying," states Korpela.

Forester Matti Oksanen of the Association of the Forest Industry states that the applications submitted by the companies for resuming the aerial spraying of forests are concentrated in the areas of Northern Savo and Northern Karelia as well as in Central Finland and Kainuu. In Oksanen's opinion the spraying of chemical herbicides cannot be given up completely.

The Central Forestry board in Tapio estimates that the private owners of forests would like to have aerial spraying next summer in an area less than 1,000 hectares. This is only a small percentage of the total forest area to be sprayed.

"For example, spraying accomplished by tractors will be conducted over a much larger area, and because of its accuracy it is expanding forcefully. The substances used are the same as in aerial spraying, but a completely incorrect impression of the danger of these chemicals has been given to the public," explains Forester Eero Hyvarinen from Tapio.

#### A Strict Ban From Ilomantsi

Statements have been collected in Tapio from the district forestry boards with respect to the necessity of chemical spraying. In the opinion of the forest owners the work group was too cautious in its recommendation to continue aerial spraying. The members of the board had serious doubts as to whether local governments could even reasonably deliberate the approval or rejection of aerial spraying after the furor of recent years.

The local government in Ilomantsi hastened to petition a ban for next summer from the Ministry of Agriculture and Forestry. Enso-Gutzeit would have wanted to conduct aerial spraying in the area of Ilomantsi over a full 200 hectares in especially dense and remote forests.

The authorities in Ilomantsi, which received considerable attention from the Hattuvaara incident, stated unanimously that the environment must be protected from poisons and even Enso can eliminate underbrush by safe means -- even at a reasonable cost.

"We have been opposing the aerial spraying of underbrush since 1974, and our position has only become more firm. We are greatly amazed that the forest companies can once again ask for permits for aerial spraying. A new law has still not been enacted, and it is on this very basis that aerial spraying was abandoned last summer," states Ilomantsi Town Supervisor Onni Ikonen.

In Enso-Gutzeit's district office in Joensuu the negative decision in Ilo-mantsi is considered to be exceptionally unfortunate and also expensive because of its consequences. Forester Ahti Aikas pointed out that remote forest areas will remain as unproductive thickets.

All in all, Enso is requesting permission to spray approximately 400 hectares in Northern Karelia next summer. In the company it is calculated that the two-time spraying of a comparable area of forest mechanically with manual labor would cost at least 300,000 markkas more than aerial spraying. If, on the other hand, these wilderness areas remain overgrown with underbrush, the damage is calculated in millions of markkas.

In the opinion of the work group, which has been deliberating the spraying of herbicides, the interests of the forest economy would require aerial spraying over approximately 32,000 hectares on corporation, private, and state lands. Correspondingly, chemicals should be spread by tractors over an area of 10,000 hectares.

#### Association of Agricultural Producers Demands Compensation for Spraying Limits

The MTK [Association of Agricultural Producers] is demanding compensation for private forest owners if, for example, limitations on spraying causes additional expenditures for them.

If the chemical spraying of underbrush is limited significantly, the goals and objectives of our forest economy will have to be set at a lower level than at present, notes the MTK in a statement from a report of the Agricultural and Forestry Ministry's underbrush work committee.

In the opinion of the MTK issues connected with the chemical spraying of underbrush have been exaggerated in recent years and public opinion has been led astray. The association considers that present regulations have in practice turned out to be relatively effective.

The ministry's work group was of the opinion that regulations concerning the chemical spraying of underbrush should on the whole be retained as they are. According to the proposal of the work group local governments would be given an opportunity to prohibit or limit the aerial spraying of herbicides in their own areas of jurisdiction. A decision to prohibit or limit would be made subject to the approval of the Ministry of Agriculture and Forestry.

The MTK supports this procedure. It particularly emphasizes the work group's position according to which a local government should obtain a statement from a district forest board in considering a decision to prohibit or limit spraying.

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CSO: 5000/2117

## CONSERVATIVE MP DISCUSSES MOVE FOR AN ENVIRONMENT MINISTRY

Helsinki SUOMEN KUVALEHTI in Finnish 14 May 82 pp 30-31

[Report on interview with Conservative Member of Parliament Matti Pelttari by Leena Hayrinen: "Finland Ripe for Conservation"; date and place not given]

[Text] In 10 years time Finland has gotten ripe for the formation of an environment ministry. These past few weeks sometimes broad and sometimes narrow compromises have been sought in the Constitution Committee. The Conservative Party is assuming the role of arbiter. Our interviewee is a Conservative Party member of the Constitution Committee, lawyer and Member of Parliament Matti Pelttari of Pori, known for his interest in environmental affairs as early as the debate on the Gravel Law.

"The land does not belong to man, rather man to the land."

In the careful enunciation of the former narrator, Center Party chairman Paavo Vayrynen read Indian chief Seattle's ideas from the parliamentary rostrum. The old Indian's profound, now classic speech on the connection between man and the land is very appropriate to the discussion on the environment ministry soon to be established in Finland.

How well Seattle's ideas agree with the position adopted by the Center Party and particularly the stance the Agricultural Producers Association (MTK) has taken with regard to management of the environment is another matter. We may ask whether the present-day, nearly industrial farmer or lumberman is any longer that brother of the streams, wind and animals who says: "What happens to the land happens to the sons of the land. No man has woven the fabric of life; man is only its fiber. What he does to the fabric he does to himself."

## Conservative Party Decides

The proposal for an environment ministry, which after having been discussed in Parliament last week on the basis of a government report, has been passed on to the Constitution Committee.

Ten years of shilly-shallying and backtracking are producing results. At the same time an interesting social situation has been clarified. The Left has lined up behind the broad plan for an environment ministry. The Center Party

is promoting an alternative whereby, for example, environmental protection and construction and planning functions would remain outside the province of the ministry. The MTK, in whose opinion the country does not yet need any kind of environmental management, has publicly adopted an even tougher stance than that.

The MTK has officially announced that it is opposed to increasing the bureaucracy. Behind its uncompromising positions, however, may be the fear that interest in the environment might affect [land]owners' interests in a damaging way, for example, planning and construction activities.

The magnifying glass of an environment ministry could also in an annoying way shoot down the myth that farming in particular is the livelihood that conforms best to nature and that all pollution stems from industry. It has already been recognized, for example, that there are actual cases in the Aura River watershed in which farming plays the role of polluter. Poisons used in food-production farming have so far been seldom discussed and have, for example, remained under the cover of underbrush poisons. But what would happen if there were an energetic environment ministry in this country?

The Conservative Party is playing the role of arbiter in this situation. From the pinnacle of the temple can be seen speculating housing construction contractors, homeless liberals kindled with the flame of gentle values, ministerial posts and the indisputable values of the Finnish way of life that are so close to nature; yes, from it can be seen almost anything from factory owners to conservationists.

Now does the Conservative Party's sense of responsibility carry any weight in this situation in terms of environmental issues?

"Not only the Conservative Party's, but every member of Parliament's. Environmental affairs have become so all-pervasive that they affect just about everything," Conservative Party member of the Constitution Committee and Member of Parliament Matti Pelttari replied.

#### Fighting over Planning

Matti Pelttari is recognized as a member of Parliament who is interested in environmental issues and who, in connection with the handling of the Gravel Law, earned himself the reputation of being "a progressive Conservative" even among opponents.

The Conservative Party is usually divided on environmental issues and recently — for example, in the handling of the Soil Element Law — even in part overtook the center from the Left. According to Pelttari, this is part of "the role of the second largest general party": "Supporters and representatives too come from so many different places and the discussions engaged in are so multifaceted. However, with a sense of responsibility we strive to achieve a common view of things. Of course, the Social Democrats discuss these matters among themselves too, but they are used to coming up with only one view.

"The fact that the time for creating an environment ministry is now everywhere regarded as being ripe is a very positive factor. The environment is so important that there should be a minister for that domain in the Council of State."

In limiting the field of activity of the future environment ministry, perhaps a bigger controversial issue is involved in working out the incorporation of the construction and planning fields, which the Left feels to be a basic issue. According to Pelttari, the Conservative Party is "at this point hardly" prepared for this:

"The incorporation of construction and planning would vastly enlarge the new ministry. Doubts have arisen that everything else would be buried under it....

"To be sure, in at least two Conservative speeches the opinion was expressed that planning should be included. In my opinion, the ministry should first of all be created now and in a couple of years we could again prepare a report for Parliament and see how the ministry has performed and how it should be improved."

Could planning then be incorporated?

"At that time we could see whether the conditions for it exist."

However, is not planning an absolutely basic issue from the standpoint of the environment?

"The creation of an environment ministry does not mean that environmental viewpoints can be forgotten in all other activities," Pelttari replied. "But if we now lump together everything that affects the environment, we will soon need nothing else but an environment ministry. Everything else would constitute departments subsidiary to it."

Pelttari specified, however, that planning at the local level would sooner or later probably fall within the province of the environment ministry, whereas the planning of stations and construction might remain under communal control, this despite the fact that planning experts regard plans at different levels as an integrated whole within which everything affects everything else. According to Pelttari, in drawing up plans environmental viewpoints are even now scrupulously taken into consideration.

#### Good and Bad Conservation

Another difficult question is conservation, which the Center Party would like to keep under the control of the Ministry of Agriculture and Forestry. The Conservative Party has not yet taken a firm stand on this.

"Just looking at the issue without thinking, it would seem natural for conservation too to be included in the province of the environment ministry," Matti Pelttari said. "But once the Constitution Committee has listened to all of the 50 experts, I'll be able to give you a better answer."

Conservationists claim that, when production and conservation conflict with one another, the interests of production always win out. Is this true?

"Unfortunately, often so. But no one comes to the aid of a business or even a farmer if it or he suffers an economic loss because of a sensible decision in terms of conservation.

"On the other hand, attitudes have greatly changed. About 10 years ago, the management of Kemiran Vuorikemia notified the municipal government of Pori, with a straight face maintaining that seawater is actually improved through the dumping of sulphuric acid into it. Nowadays no responsible industrial leader would make such a claim. Nor would that plant have been built at Yyteri near Pori with today's knowledge of the situation."

In discussing the environment ministry, the notion has been raised that conservation has been handled well in Finland. Do you agree with this?

"Thinking in international terms, it has been handled well. But if we think in terms of our starting point, it has been handled badly. Of course, this is to a certain extent hindsight. When the wood conversion industry was built up along waterways and at river mouths, they had no idea that in the decades to come it would pollute the water.

"We are certainly still in a fortunate position: Our air is clean and we have an abundance of greenery and a natural environment to live in. We are outright envied because of all this. But do we know how to use this good fortune of ours? Some cold-blooded technocrat may feel that there is still enough of it to squander, but that is not true. There is a chance for us to be selfish enough to not deliberately squander our natural environment."

#### Emotionally Based Attitudes

When he took the floor in Parliament, Member of Parliament Matti Pelttari wondered at the MTK's lack of feeling for social responsibility.

"In my opinion, it is really fitting to wonder at this. In this matter the MTK represents a typical narrow-minded special interest group mentality. It feels that the organization's mission is to promote only the interests of its members without any regard whatsoever for its effect on the society as a whole.

"It is irresponsible of them to fear that so and so many people will be working in this ministry with the sole mission of making life difficult for farmers. This one-eyed, emotionally based attitude reminds us of the way this businessmen's organization reacted to the job security issue: It did not at all want to regard it in any other way than in terms of the interests of its own members.

"Actually, it is more a question of simplifying the present jungle of licenses than of adding to the bureaucracy. There would otherwise be no point of conflict between the society and the farmers."

As Pelttari sees it, the poison issue is not behind the MTK reactions at all, although the matter is a serious one:

"Nowadays, in every bite of food we eat there are substances foreign to nature, whose long-term effects on our children and grandchildren are unknown to us. We just have to keep our hopes up...."

Can a responsible politician act dependent on hope?

"What other way is there? Otherwise, all food would have to be banned. We are learning more about these things all the time. Apparently, for example, the increase in the number of allergies is the result of the use of added ingredients. There is no other way but to reliably determine the effect of these substances."

Couldn't an environment ministry play a central role in this endeavor?

"One way would be to concentrate research activities and power resources in the new ministry. Just bringing together the at present scattered research resources speaks for the organizing of an environment ministry."

Nature Belongs to City Dwellers Too

"There is a big mistake in our thinking if we base it on the assumption that only environmental affairs pertaining to the cities belong to city dwellers" Matti Pelttari said.

"Finland's natural environment certainly belongs to all Finns."

Should society reward someone for agreeing not to harm the environment?

"The idea seems strange.... In connection with the Gravel Law, this was discussed. But expressed in this way, the idea seems impossible."

"Our next law will certainly be the same kind of environment limiting law there already is in many other countries and in it we will define the concept of crime against the environment."

In Pelttari's opinion, the environment issue can be likened to the peace issue. Both are gentle issues that offer hope for the future and which Finns too can now devote themselves to, since they have an opportunity to also ponder the quality of life instead of just work and making a living.

Of his own "progressiveness," he commented:

"I feel that in any matter one should be ready to consider whether something can be done better, whether some solution advances the cause of people."

"And then when you want to do something in another way, you may also hurt someone's feelings. But that is why we receive a salary from the taxpayers, so that we are ready to assume our responsibility."

And what if — say, in environmental issues — the sting is directed against some traditional Conservative supporter, say, a member of the so-called proprietary group?

"It is a matter of mutual compatibility... is one person's interest to be placed before that of many...."

Is it?

"It depends on the case in question. It is a matter of joint social responsibility."

Who Will Be the First Environment Minister?

According to the Constitution Committee timetable, 50 experts have been heard and deliberations will be over by the second week of June. By Saint John's Eve [summer solstice festival] Parliament will probably receive the justified statement to take up the agenda for discussion. Thus in August, within the framework of thrashing out the budget, the government will have the requirements for appropriating budget funds for the establishment of the environment ministry and by 1983 the environment ministry will be in operation in the country.

And are there any eager and gifted ministerial candidates who are familiar with the field in sight?

"It would be appropriate to ask that question after the March elections," Pelttari laughed.

11,466  
CSO: 5000/2120

## BRIEFS

ANTIPOLLUTION GAS SWITCH--The government has reached the final decision to close down the coal gas factory on Piracus Street, and replace it with two natural gas units to be built in Aspropyrgos, Industry and Energy Minister Anastasios Peponis said in a press conference yesterday. Peponis said the coal gas factory, which is blamed for its polluting effects, will stop operation by the end of 1983. The construction of the two natural gas factories will begin in September. The two units are expected to be ready for operation before the end of 1983. The Minister said the solution chosen not only contributes to reduction of pollution, but also lays the groundwork for the introduction of natural gas in Greek industry. When natural gas replaces coal gas, he said, industries, not fuelled by coal gas will have the option of either switching to natural gas, or relocating outside the Athens area. Athens Mayor Demetris Beis said a natural gas distribution network be gradually created. The Plaka neighborhood, on the foot of the Acropolis, would have priority in this regard the Mayor said. Atmospheric pollution from apartment building heating units using heavy oil has become a serious threat to the Acropolis monuments, and the previous government had already issued special ordinances banning the use of low-grade oil, with a high sulphur content, in apartment buildings near the Acropolis. [Text] [Athens ATHENS NEWS in English 4 Jun 82 p 4]

CSO: 5000/5331

STUDY SHOWS 1970 BAN ON DDT EFFECTIVE IN SAVING BIRD LIFE

Stockholm SVENSKA DAGBLADET in Swedish 12 May 82 p 14

[Article by Lennart Lundegardh]

[Text] The 1970 ban on DDT saved several species of birds of prey that were becoming endangered. DDT is poisonous, but perhaps the most serious effect is that the shells of bird eggs become thin and, in the worst case, they may be crushed during brooding.

Curator Tjelvar Odsjo of the National Gallery has studied DDT levels in fish hawk and marsh harrier eggs in relation to the success in breeding and the increasing numbers of these birds.

On Friday he will defend his dissertation on this subject.

He gathered his material at several locations in southern and central Sweden. Each year for several years he visited about 140 fish hawk nests of which about 100 were active, i.e. a breeding pair of fish hawks was present.

By comparing the number of fledged young in the nests with information extrapolated from journals from 1938 to 1946, Odsjo discovered that Sweden's fish hawk population declined gradually in the early 1970's.

Protection for Birds of Prey

It was not as strongly pronounced as in the United States during the 1950's and 1960's, nor did it continue during the 1970's.

"An actual decrease in the number of young birds leaving their nests may have been compensated by legal protection for a number of species in Europe beginning in the 1970's," Tjelvar Odsjo said. Previously, it was frighteningly common for fish hawks to be shot during their first flight south.

Measurements of unhatched fish hawk eggs and shell remains in and around nests revealed a decrease in shell thickness by an average of 11 and 15 percent, respectively, compared to museum material from before 1946.

"This seems to be a critical limit," Tjelvar Odsjo said.

"Investigations show that the situation probably was worst between 1965 and 1975. New measurements which we made in 1978 indicate an average increase in shell thickness of 7 percent. We hope to take new samples next year," he added.

It is estimated that there are about 2,000 fish hawk pairs and about 500 marsh harrier pairs in Sweden. The marsh harrier, which also lives along rivers and streams, but finds its food on land, is also producing eggs with thinner shells, to an even greater extent than the fish hawk.

"The decrease averaged 14 percent in the material from the early 1970's," Tjelvar Odsjo said.

But while fish hawk populations remained the same during the difficult years in which the poison was used, the marsh harrier population has increased in three consecutive nationwide counts from 150 to 175 pairs in 1958, to about 200 pairs in 1969, up to the latest figure of about 500 in 1979.

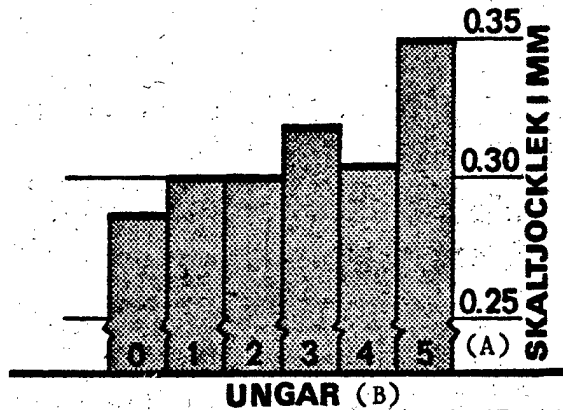
On paper the figures do not seem to add up, but it appears that the marsh harrier, despite doses of DDT, has experienced various factors that have permitted it to increase.

"The increase during the first 10-year period was not especially great," Tjelvar Odsjo said. The entire increase occurred in regions where the marsh harrier already was relatively numerous.

The ban on DDT has had and is having a positive effect, but the substance has not disappeared yet. There is also concern that its replacements may be just as dangerous or worse.

Researchers have begun to find a substance called toxaphene in biological systems. It is not used in Sweden, but it is used elsewhere throughout the world--and in considerably greater quantities than DDT ever was used. Both may be spread throughout the world.

Researchers at the National Gallery and others must keep an eye on these substances.



Key to chart:

A Shell thickness, mm

B Young

A marsh harrier egg crushed by brooding from Kvismaren in Narke--the shell thickness is 0.27 mm. Before DDT the average thickness (according to museum collections) was 0.35 mm. After the ban on DDT, the shells began to become thicker again. The figure shows how breeding results (number of fledged young) among marsh harriers become worse as the shell thickness decreases.

9336

CSO: 5000/2121

FISH FARMING SEEN HARMING WATERS WITH PHOSPHOROUS WASTE

Stockholm DAGENS NYHETER in Swedish 22 May 82 p 15

[Article by Eric Dyring]

[Text] A new conflict of interest has arisen between ambitions to develop Swedish industry and to protect the environment. The Environmental Protection Board's strict regulations for obtaining permission to practice fish farming in net cages is threatening Swedish efforts in this field.

Last week it became clear that the water farming steering committee and the Environmental Protection Board were on a collision course. At that time the committee presented the first reports from the Water Farming Project in Sweden.

The committee, which includes representatives of the Natural Resource Commission of the Coordinating Board of the Swedish Research Councils and representatives of the Ocean Resources Commission, wants Sweden to invest in the systematic and rational cultivation of fish, shellfish, and algae in lakes, streams, and along the coast. They want Sweden to participate in the rapid development that is occurring abroad. Compared to the land utilization in forestry and agriculture, water farming is merely in its infancy when it comes to utilizing all the possibilities of the water. It could be highly productive if properly cultivated.

The Environmental Protection Board has nothing against water farming. It is considered a positive step, but the board is the primary authority for protecting our environment. For this reason, it cannot ignore the negative aspects, according to the board.

Obstacles from Board

The board has examined the environmental effects of fish farming with great care and established strict rules for granting permits.

Fish farming is not permitted to disturb landowners or recreational areas, but it is the biochemical effects that are at the heart of the conflict.

The steering committee for water farming, like the Environmental Protection

Board, believes that the environmental questions are extremely important and has published a special report on this subject, but it also believes that the board has been unnecessarily severe in its evaluations.

"The board's recommendations are an obstacle to the development of water farming in Sweden," chairman of the steering committee Prof Hans Ackefors told DAGENS NYHETER.

He also believes that the Environmental Protection Board has locked itself into its present position by publishing a report on fish farming together with the Board of Fisheries 3 months before the steering committee's report.

#### Phosphorus Formed

The debate is over fish farming in cages. They are special enclosures in the water where fish are raised in dense schools.

The fish are given food. Most is eaten by the fish, but some sinks to the bottom. The excrement of the fish also ends up there and a sediment is formed. It contains nutrient salts, especially phosphorus. The fish also give off phosphorus through their interaction with the water.

Phosphorus is a fertilizer. Too much phosphorus initiates intense biological activity. Lakes and streams can become overgrown causing an oxygen deficiency. This is the same process that occurs when we release waste into the water through sewers and from industry.

Both sides agree on this. There is disagreement, however, over how serious the effects can be.

The Environmental Protection Board bases its position on theoretical calculations made by director Lars Karlgren just over 1 year ago. Karlgren is a water chemist and not a biologist.

#### Much or Little?

A key question is how much of the phosphorus in the sediment goes into the water. Karlgren maintains that sooner or later almost all of it ends up in the water, while others believe that a large portion can be kept in the sediment on the bottom.

The steering committee maintains that phosphorus from fish farming must be compared to other phosphorus emissions throughout the country.

"The additional phosphorus from fish farming is extremely little," Hans Ackefors said.

"Even small quantities of phosphorus in the water can have serious effects," Lars Karlgren said.

By way of comparison, the steering committee pointed out that the municipalities of Landskrona and Hoganas release 160,000 kg each year into Oresund from industry, agriculture, and sewers. An extremely large fish farm would release only 1/100 of this amount. One ton of fish production causes 10 kg phosphorus to be released in 1 year, which corresponds to the waste from about 15 persons during the same period.

#### Locked Positions

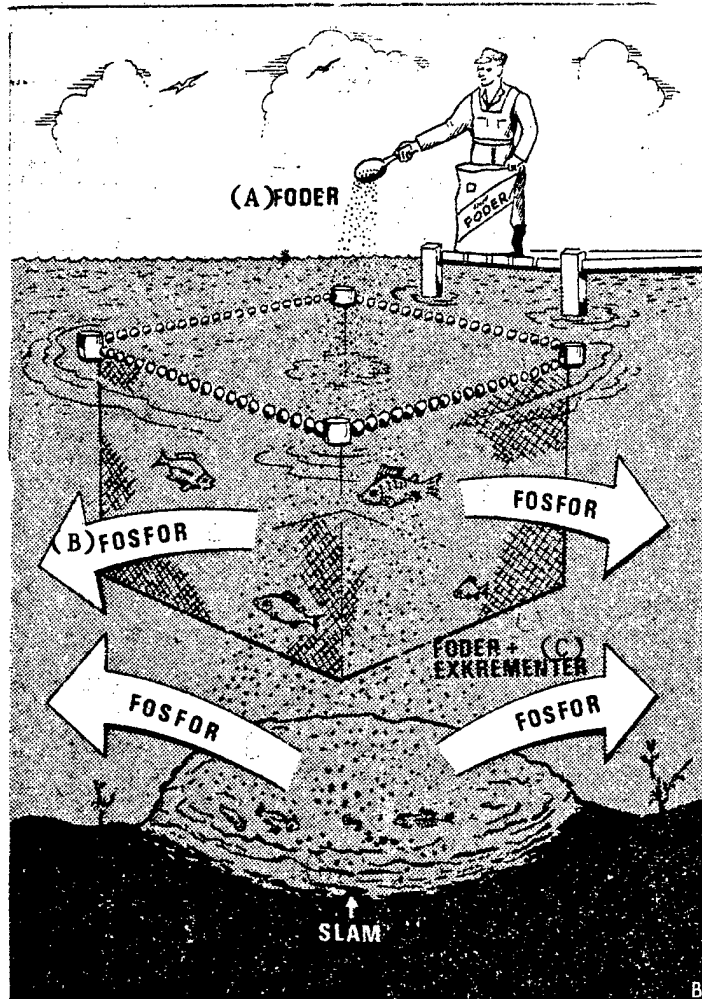
It is possible to reduce the effect. New low-phosphorus foods are appearing on the market and the sediment from the fish farm can be utilized as fertilizer.

"These are steps in the right direction," Lars Karlgren said, "but it will be a while before they can be used in practice."

"The steering committee wants to conduct practical experiments," Hans Ackefors said, "so that we may see if the theories are correct."

"But unfortunately it looks like the Environmental Protection Board is locked into its position," he continued. "Now political decisions are needed."

The effects of the Environmental Protection Board's risk evaluation on the environmental effects of fish farming may already be seen. Most provincial governments, which are responsible for granting permits, apply these regulations in their work. Several provincial governments have even gone much further in their decisions. This means that it is almost impossible for a prospective fish farmer to receive a permit for cultivating fish in enclosures.



(D)

Key to figure:

- A Food
- B Phosphorus
- C Food + excrement
- D Sediment

In fish farming with cages a small area of water is enclosed where fish are cultivated in dense schools. Some of the fish food is wasted and sinks to the bottom. Excrement from the fish also collects there. The sediment formed contains nutrient salts, especially phosphorus, which are dissolved in the water. The phosphorus fertilizes the water and can initiate intense biological growth in the water causing an oxygen shortage.

PARLIAMENT VOTES DOWN PROPOSALS TO LIMIT SULFUR EMISSIONS

Stockholm DAGENS NYHETER in Swedish 21 May 82 p 7

[Article: "No to Tougher Measures against Sulfur Emissions"]

[Text] Parliament has voted down guidelines from Agriculture Minister Anders Dahlgren (Center Party) for tougher regulations against sulfur emissions from coal- and oil-fired plants.

The Conservative Party considered the proposed regulations much too strict and abstained in the final vote. This resulted in a victory for the Social Democrats' proposal to postpone a final decision.

The Social Democrats want to wait until the report on coal, health, and the environment is complete. Until then, the strict environmental protection requirements recommended by the National Franchise Board for Environmental Protection should apply.

According to the Social Democrats, the government's guidelines should be considered minimum requirements in the final decision.

It is not up to parliament to make a formal decision on sulfur emissions standards. Nevertheless, Agriculture Minister Dahlgren reported his and the government's views in the proposal and sought a parliamentary majority. Now it will be up to the government to decide in concrete cases which standards should apply for various types of facilities. No cabinet minister can ignore the decisions of parliament, however, even though the government formally has the right to decide.

Decisive

In the decisive vote the Social Democrats received 153 votes against 87 for the Center Party and the Liberal Party. The 67 conservatives abstained and the VPK (Left Party Communists) supported the Social Democrats.

Parliament did support the government's proposal allocating 190 million kronor over a 3-year period for liming land and lakes. The Social Democrats and VPK wanted to invest even more in this project.

State support also will be extended for desulfurizing facilities during the 1980's. Such investment support should be funded through an increase in the special emergency surcharge on petroleum products by 10 kronor per cubic meter beginning on 1 July 1983.

"I am extremely thankful that you Social Democrats are as interested in this as is the government, but why did you not vote for our proposal?" Agriculture Minister Dahlgren asked during the debate.

He could not understand why they had to wait on the coal, health, and environment report.

Svante Lundkvist (Social Democrat) said that Dahlgren had taken a position between the strict requirements of the Environmental Protection Board and the preliminary recommendations of the study. But the study is not yet complete and, most important, has not been circulated for comment.

The two also disagreed on how other countries view the debate in parliament. Lundkvist claimed that representatives of other countries could see that a large majority in parliament had taken a position in favor of strict regulations.

Dahlgren, on the other hand, said they may believe that Sweden is hesitant to apply strict regulations.

"The Social Democrats are having second thoughts on their support of environmental protection."

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