

Feature Environment

Israeli Rule Threatens Environment in Occupied Territories

by The Palestine Post

ISRAELI occupation is threatening an environmental disaster in the West Bank and Gaza Strip...

tion to analyse and verify. Haddad was the main investigator for one of the first reports...

Jad Isaac of the Applied Research Institute in Bethlehem is currently working on a study of the impact of the Occupation on the Environment...

A preliminary report prepared by the Centre for Engineering and Planning (CEP) in Ramallah in 1990 notes: 'There are no national or regional master plans for any elements of the environment including land use, water, health, transport, energy economy education, natural resources, tourism and so on.'

He says: 'If our ancestors returned, they would not recognise the Palestinian landscape. There is desertification. The Hula lake has disappeared; the Jordan River has become a stream; and the Dead Sea in effect has become two seas.'

Shortage and contamination of water sources, and pollution caused by indiscriminate use of pesticides are some of the serious problems faced by Palestinians in the Occupied Territories.

Two new environmental groups have been formed in Gaza to counter growing environmental problems, chiefly the salinisation of the water supply, which have become acute.

According to Akram Mattar, salinisation is the main problem affecting water supplies. Fruit trees in some areas in Gaza die almost as soon as they are planted, owing to salinisation of ground and well water.

Yusuf Abu Safieh, a biologist from the Islamic University, heads the Environmental Protection Agency; while Akram Mattar, the director of Gaza Ophthalmic Hospital, is in charge of the Gaza Environmental Programme.

While data collected by researchers in the West Bank suggest water quality in towns is generally safe, villages without piped water often face serious pollution.

But these bodies face one major stumbling block in their research work: the refusal of the Israeli authorities to give them access to vital data.

Ramzi Sansur says aquifers in the northern region are contaminated. He blames 'urbanisation without planning.'

West Bank water comes from underground aquifers, but 'full scientific information on aquifers is kept classified (by Israel)', says Ramzi Sansur, head of Birzeit University's Centre for Environmental and Occupational Health Sciences (CEOHS).

As the CEP report explains: 'Only 50-60 per cent of urban areas in the Occupied Palestinian Territory are served by sewerage networks. The collected wastewater flows beyond urban areas in open channels and is mostly used in restricted irrigation causing serious health problems and contaminating agricultural soils.'

Marwan Haddad, a civil engineer at An Najah National University who has been searching through available Israeli data on West Bank water resources, says: 'We have no authority or instrumenta-

The Palestine Hydrology Group (PHG), which was founded in 1987 by 10 engineers, has the job of repairing these springs. Following a two-year survey of West Bank springs, the PHG began a pilot project in 1989 in Arara village to assist farmers in providing spring yield. The project also involved establishing irrigated plots of land near springs.

Engineer Ayman Rabi says the PHG is also engaged in another project to improve rain-fed cisterns, a vital water source for West Bank villages

which do not have piped water. The PHG has helped to fund the building of 200 new cisterns and is also teaching villagers to collect and purify water so that the cisterns do not get polluted.

In 1990 researchers analysed a cup of drinking water in Balata camp and discovered 300 faecal coliforms: acceptable levels defined by the World Health Organisation are in the range of 2-10.

A project backed by the relief agency UNWRA is underway in Balata camp to replace worn pipes and so reduce contamination of domestic water supplies. But the problem of sewage and wastewater in the Occupied Territories is far from solved.

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As Jad Isaac observes, the oppressed Palestinian people are engaged in a battle against the Israeli occupiers. 'People today are worrying about their survival, not the environment. But the environment is our future.'

Sewage from the two Israeli settlements near the Green Line has already polluted some wells in the West Bank town of Qalqilya. Israeli officials warn that new settlements under construction along the Green Line threaten to pollute a major West Bank aquifer.

Pollution of the land is worsened by the use of canned pesticides in the Occupied Territories which only have instructions in Hebrew. Says Ramzi Sansur: 'Most Palestinian farmers can't read these instructions. I can't read them. The Palestinian farmer does not have the information or assistance to use pesticides properly. This leads to methods of using pesticides - perhaps characterised by the "more the merrier" - that are dangerous to the farmer and harmful to the consumer.'

In a country which has the highest per capita use of pesticides in the world, Israeli government monitoring is negligible. As one recent report states: 'The threat of Iraqi nerve gas has receded, but the chemical war in Israel is just beginning.'

In tests carried out in the mid-1980s in West Bank markets, the CEOHS found 38% of vegetables tested had pesticide traces above accepted levels.

As a result of its findings the ECOHS and the Union of Agricultural Workers Committees launched a Safe Use for Pesticides campaign in 1991. It focuses on field training to show farmers how to use pesticides so they are less expensive and less toxic.

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Third World Network Features

Mr Greenpeace Vows to Harass the Politicians

by Frank Nowikowski

THE appointment of a level-headed Finnish lawyer as chairman of the environmental agency Greenpeace has added professionalism to counterbalance its popular image of well-meaning amateurism.

Matti Vuori is still keeping many of his plans secret. Clues from his career and personality indicate the way things might go.

He has taken over from the legendary David McTaggart, who founded Greenpeace in 1971. Says Vuori: 'Greenpeace has been criticised for its high-handedness, sometimes with due cause.'

For example, its uncompromising stand against hunting fur-bearing animals has been attacked by native American communities for whom hunting is a central part of their lives. Vuori hopes to bring in a more pragmatic approach.

This does not mean he is any less alarmist about the deteriorating state of the planet. He has said: 'Two or three decades from now, the world as we know it will be no more than a memory.'

'American consumerism and the American lifestyle cannot go on. Nor should they be exported to developing countries. That would be a misinterpretation of freedom.'

If the example of American consumerism was emulated - the US uses 25 per cent of the world's resources and generates a similar amount of pollution - then 'life on earth would become simply unsustainable,' says Vuori.

'It will not be the kind of human life we are accustomed to. We are heading for something worse than we have ever seen before.'

Matti Vuori was a reluctant recruit to Greenpeace. His interest in human rights issues brought him to the attention of Greenpeace activists who held



MATTI VUORI A steady influence?

up a shipment of whalemeat in Helsinki on its way to Japan. They needed a lawyer to defend them and turned to Vuori. At first he refused and then was talked into it.

A look at the organisation from the outside convinced him that he could influence policy and strengthen the body. He wrote the regulations for Greenpeace Finland and became chairman for Greenpeace Sweden. He became chairman of Greenpeace International in August 1991 and will hold the job for 18 months. The organisation has transferred its headquarters from Rome to Amsterdam.

clusion zone and on March 26 French commandos boarded and took it over. There was no violence.

Greenpeace has chalked up some notable successes. Its activities achieved a US halt on nuclear tests in the Aleutian Islands, a French halt to atmospheric testing, and the Antarctic agreement which bans mineral exploitation on the continent for 50 years. But it has not been without some cost.

In 1973 a French ship Greenpeace is making the headlines again. Its flagship, Rainbow Warrior II, sailed into an exclusion zone around the South Pacific nuclear testing site of Mururoa in late March and was taken over by French commandos. Greenpeace has a new chairman, Finnish lawyer Martti Vuori.

rammed and disabled a Greenpeace boat in the open sea. In 1973 in what amounted to an act of piracy, French commandos boarded Greenpeace 111 and severely beat McTaggart and another crew member. In 1985 in New Zealand French commandos bombed and sank Greenpeace's Rainbow Warrior killing a photographer.

Greenpeace has been famous for its hit-and-run tactics, with little time, money or inclination for back-up political work.

Its new chairman intends to lobby politicians more vigorously to take decisive action to protect the planet. Otherwise, he warns: 'Europe will witness the rise of more and more terrorist organisations who, tired of indecisive leadership, decide to take matters into their own hands.'

In this respect he echoes McTaggart, who has warned of worldwide revolt against the rapid deterioration of the Earth's environment.

McTaggart believes that women in the Third World, alarmed by rising toxics-induced birth defects, will lead that revolt. 'You can't push them much further,' he has said.

How does Vuori intend to change the political behaviour of world leaders? They are not exactly queuing up for refresher courses in ecology or sustainable development. Vuori admits: 'No one is likely to do anything until it's too late.'

Basically he is waiting for a major disaster to convince leaders there is no alternative - something along the lines of Chernobyl. Perhaps he has a point.

Though Vuori has not said so, it could be argued that Chernobyl disaster was a major contributor to the downfall of the Soviet empire.

No one should be fooled by his staid appearance. Underneath that sheep's exterior there could be a wolf. 'I have always supported civil disobedience when it becomes absolutely unavoidable to defend important values,' says Vuori.

'The crime of obedience is the greatest crime of the century: consider Hitler, Stalin, and Cambodia.'

Greenpeace activists need not fear that they will be reined in, though Vuori insists that they face the consequences of their actions and therefore not act hastily or irresponsibly.

Project Raises Hopes of Saving the Rhino In Kenya

by Patrick Isaack

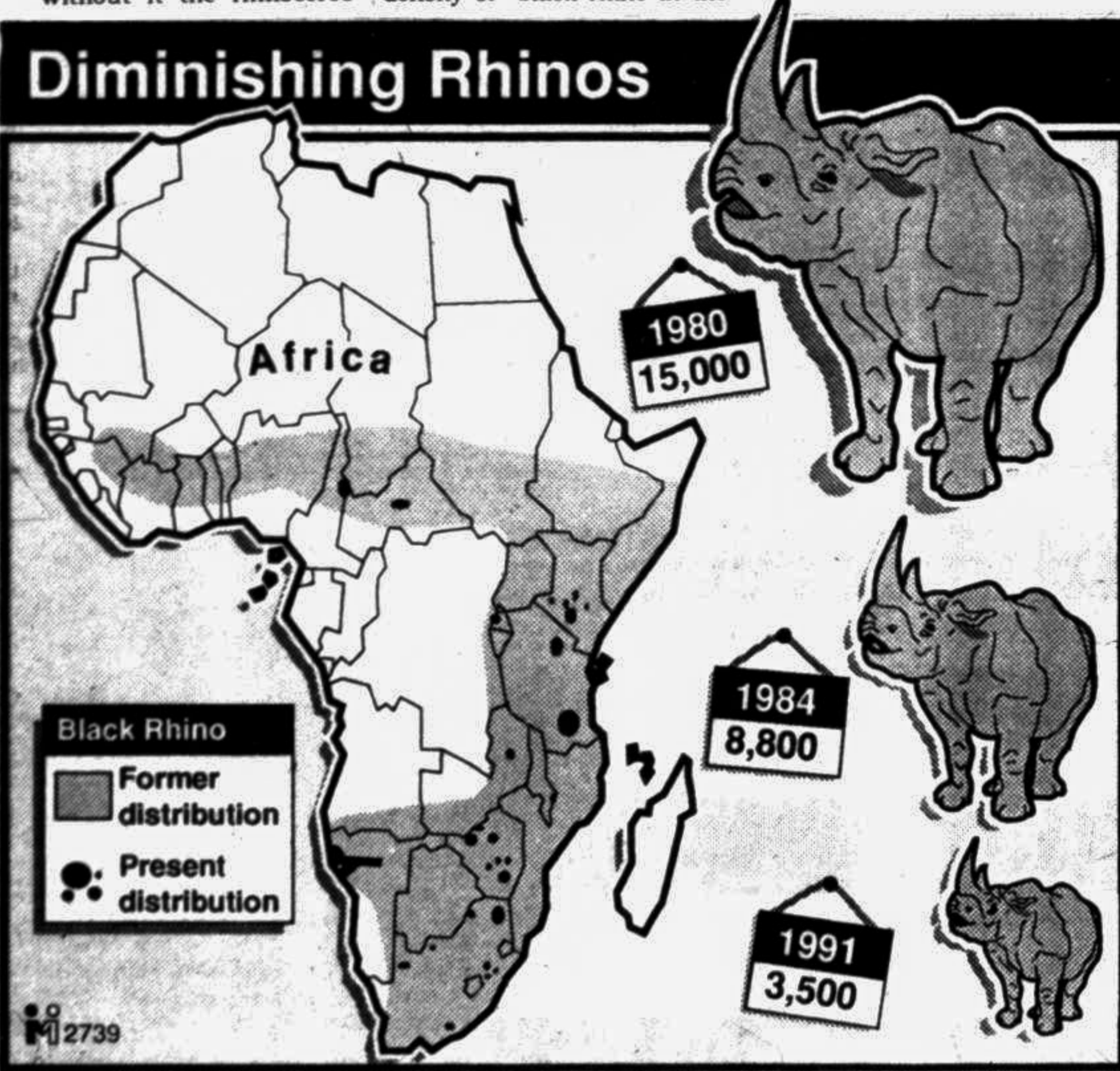
HOPES are rising that the dwindling rhino population of Kenya can be saved. The government, despite being faced at his time with so many demanding issues, has launched a promising new project.

lodge and so is an important tourist attraction.

Solo Ranch, a private game sanctuary near Salient enclave in the Aberdare National Park, has been successful in raising rhino. It now has the highest density of black rhino in the

wildlife and people to co-exist in such a manner that wild game does not destroy plantations and domestic animals while at the same time keeping poachers at armslength.

The plan is to develop a unique eco-sanctuary by erecting 200 km of electrified



faces extinction. In 1970, the country had an estimated 20,000 black rhinos. Today, there are estimated to be between 400 and 450.

In 1985 the government realised that only drastic solutions would prevent the total loss of Kenya's black rhinos, one of the great attractions for tourists and thus a source for foreign exchange.

Ken Kuhle, chairman of the Rhino Ark Management Committee, recalls how at first the government decided to set up high security sanctuaries in a good rhino habitat with an electric perimeter fence.

Only in 1985 was it recognised that rhinos could be translocated into such areas and, if let alone, would breed well. The strategy also provided tougher security against poachers.

The Aberdare National Park, 247 km east of Nairobi, was identified as an ideal site for the sanctuary. The Salient, the Area fenced initially, is a prime rhino habitat with an abundance of natural water. It has two popular game viewing

The rhino being translocated into the completed Aberdare sanctuary come initially from Solo Ranch, which is now overpopulated.

Because of its proximity to the Aberdare Rhino Sanctuary, the translocation exercise should prove much easier and less expensive than in other areas of Kenya. Additionally, the Salient is not subject to tick-borne diseases.

The Salient, a densely forested area, used to contain hundreds of rhinos. It is famous for its indigenous elephant population, as well as an abundance of other smaller game, including cat species.

Rhino Ark was set up as a project with the financial help of the David Sheldrick Wildlife Trust. Sheldrick was a famous warden and conservationist. The trust was set up after he died in 1977 and Rhino Ark is the largest of several projects. Patrons include Prince Sadruddin Aga Khan.

Kuhle says that 'behind the idea of fencing off the sanctuary is making it possible for

fence around the entire Aberdare National Park. The sanctuary will have patrol roads and bridges, independent hydro-power supply, and fully serviced headquarters for park staff.

The motto is 'total environmental and universal benefit.' The project aims to create a haven for myriad species of animals and birds, a bulwark to protect the indigenous forest, for its own sake and to preserve Nairobi's most vital water catchment area.

Last year the annual 'Rhino Charge' no-road car rally raised more than \$20,000. A Rhino Golf Charge was also organised and a documentary film about Rhino Ark was produced and shown worldwide.

Support for the project has come from among others, the World Wide Fund for Nature, the East African Wildlife Society and the British Overseas Development Administration.

On completion, the project should be a major success by Rhino Ark.

— Gemini News

Hamburg-Designed Climate Model Sheds New Light

by Dietrich Zimmermann

IN 1982 the Federal Republic of Germany launched a national research programme to develop global climate models and systems for simulating regional climate models, examining radiation and cloud in climate and circulation models, develop land surface climatology and analyse the climatic effects of the earth's ice masses.

This programme is being financed by the Bundesministerium für Forschung und Technologie, BMFT, (Federal Ministry for Research and Technology) to the tune of almost 300 million DM - considerably more than other European states are spending.

The 2nd World Climate Conference in November 1990 - the first was in 1979 - addressed political issues and there were calls for an international convention on climate protection. Currently, such a treaty is being drawn up under the auspices of the United Nations and is scheduled for signing by the summer of 1992.

However, whereas the German government is already elaborating proposals on measures to reduce carbon dioxide emissions by 25 per cent by the year 2005, other countries seem unwilling to take

A demonstrated by the recent findings of the Deutsches Klimarechenzentrum in Hamburg (German Climatic Computation Centre), the integration of a sophisticated ocean model into the computer climate models heralds an important advancement in climatic research. Due to the improved computer projections, many controversial issues within the climate debate have been resolved.

action until the quantitative effects of the anthropogenic toxic gases are proven beyond all shadow of doubt.

Consequently, the BMFT has endeavoured to channel its funds towards international projects aimed at detecting climatic changes rapidly and accurately. By applying so-called scenario projections, the long-term consequences of particular climatic assumptions can be examined. For example, assuming that greenhouse-gas emissions will continue to rise at the present rate, concentrations will have doubled by the year 2025 compared to 1985.

To calculate the climatic effects of these changes, complex climate models, incorporating all the important factors, are required, together with powerful computers to simulate them. Until recently both were lacking. Many factors such as heat loss from the

ice masses and the influence of the various cloud structures on global temperatures have not been researched enough to be reliably integrated into the climate models.

On the other hand, even simplified models are already so complicated that until recently even the most powerful of the so-called supercomputers were unable to cope with them.

Previous models took insufficient account of the influence of the oceans which were incorporated merely as a 50-meter layer of water, despite the significance of their huge current flows and great depth for transporting and storing heat.

A more realistic ocean circulation model was developed for the first time at the Max-Planck-Institut für Meteorologie (Max Planck Institute for Meteorology) in Hamburg. With a horizontal resolution of

500 x 500 kilometres, it is vertically divided into 11 layers and even has a sea-ice model.

These ocean models were linked synchronously to the atmospheric model ECHAM of the Meteorological Institute at the University of Hamburg. ECHAM - regarded worldwide as the most developed circulation model - also has a resolution of 500 x 500 kilometres and is divided into 19 vertical layers - between four and six dealing with the stratosphere. ECHAM generates the ocean model using wind power, heat flows and freshwater currents from precipitation and inflowing river water, whereas the ocean model feeds the atmosphere model with information on surface temperature, evaporation and ice masses.

The supercomputer requires approx 8 hours to simulate the climate for one year and more than a month to

calculate a 100-year scenario.

Based on this climate model, the BMFT commissioned the elaboration of three scenarios: firstly, a sudden doubling of CO2; secondly, a sustained rise in CO2 - as is currently the case; and thirdly, a sharp reduction in toxic gas emissions by the year 2085 to 50 per cent of the 1985 level.

In terms of temperature increase, the figures fall below those predicted by previous models, especially for the first 50 years. Similarly, the rise in sea level turned out quite moderately: 16 centimetres with CO2 levels rising steadily, and 6 centimetres with a strong cut in CO2 emissions.

Yet the significance of this data, which will doubtless be revised as models improve, is overshadowed by the change in present climate patterns caused by the increase in greenhouse-gas emissions. Global warming will prove far stronger over the continents than over the oceans, particularly the Atlantic Ocean.

Scientists are predicting a cooling-off of some oceanic regions, such as the Antarctic Wedell Sea. In some areas, particularly in the Arctic, temperature rises of up to 12°C are expected from the formation of sea-ice.

Seeing Neither Forests Nor Trees

by Kunda Dixit

THE needs of Asia's growing numbers of poor people and the activities of commercial loggers are gnawing away at the region's last remaining forests, and experts warn that the earth could soon lose an irreplaceable natural heritage.

Five million hectares of Asian forest vanished last year - four times the annual loss rate ten years ago. By the year 2001, an area the size of Thailand will have disappeared.

Within some Asian nations, forest loss has been catastrophic. The Philippines has lost 90 per cent of its jungles in the last 50 years. Over half of Thailand used to be forest in 1961. Today, only 18 per cent is under forest cover.

'As a consequence of deforestation and degradation of forest resources, the biological system is near the threshold of collapse,' warns F J Dent, a soil expert with the UN Food and Agriculture Organisation (FAO) regional office in Bangkok.

But replanting trees, banning logging or setting up nature sanctuaries, are not going to solve the problem, experts say. 'It is a question of need and greed,' explains Dent. 'Deforestation and shifting cultivation are the symptoms, not the cause of the crisis. Putting legal curtains between people and forests will not work.'

Last year, the Washington-based World Resources

Institute (WRI) analysed latest satellite data and found Asian forests were disappearing much more rapidly than an FAO estimate ten years ago.

The WRI report, which was commissioned by the United Nations Development Programme (UNDP), pinpointed logging as the main culprit. For instance, Burma was mowing down its jungles at a rate 500 times faster than FAO's 1980 estimate.

Elsewhere in South-East Asia, the eastern Malaysian state of Sarawak has become synonymous with rapacious rainforest plunder.

More than half of Japan's imports of tropical hardwoods come from this strip of rainforest in Northern Borneo. 'Sarawak is a Japanese plantation. They mine trees there with no thought for the future,' says the Japan Tropical Forest Action Network (Jatan).

Jatan is lobbying to stop Japanese companies from using precious Sarawak hardwoods for concrete moulds and pulp for the paper industry. It says more environmentally friendly soft-wood timber from plantations in temperate countries are available.

Conservationists say dipterocarp timber from tropical rainforests will continue to be unsustainably mined so long as its price does not reflect its true cost to nature.

During the 1960's and 1970's Japanese companies annihilated rainforests in the Philippines, and moved on to Indonesia and Thailand until log exports were banned. They are now in Malaysia.

In a 1990 report called 'Timber from the South Seas', Jatan's Yoichi Kuroda analysed Japan's role in rainforest destruction in Asia. He found 'Japan's voracious demand for paper and plywood, the high cost of domestic production and the availability of cheap

rainforest hardwoods in South-East Asia as the chief factors.

An average Japanese consumes 300 kg of paper per year. A Chinese or an Indian uses only two kg. Writes Kuroda: 'There are alternatives (to hardwoods) that would not jeopardise Japan's economy, nor would they require significant lifestyle changes in Japan.'

Not all the blame for Asia's rainforest loss can be placed at Japan's doorstep. Countries that banned log exports like Thailand have simply moved across to cut their neighbour's teak trees.



And in countries like the Philippines, forests degraded by loggers have encouraged lowland migrants, subsistence farmers or plantation owners to move in.

Experts say intense international green pressure may force Japan to run soon to harvest temperate trees in Siberia or North America to meet some of its domestic demand. This could ease pressure on Asia's rainforests, but they warn the region's growing population and its rising demand for timber, fuel and land will still be a threat to trees.

Y S Rao, FAO's forestry officer for Asia-Pacific, says tree-replanting efforts at present are replacing only 10 per cent of forest loss in the region. He says unless the people themselves have a stake in protecting trees, banning logging will not work.

Says Rao: 'In planning strategies for reforestation, we must ask three questions: Who decides? Who participates? Who benefits? The answer to all three questions must be: the people.'

FAO, UNDP and WRI launched the Tropical Forest Action Plan in 1985 to conserve forests. Faced with criticism that the plan was encouraging commercial logging, the three organisations met last year in Geneva to revamp the TFAP.

'Community forestry programmes are gaining ground,' says Rao. 'But reforestation efforts still need dynamic planning and management.' -IPS