

Ozone Layer Depletion Threatens to Destroy Us

by Mohammad Ahsan Kabir

THE world now knows that danger is looming in the sky. The evidence is overwhelming that the earth's stratospheric ozone layer — our shield against the sun's hazardous ultraviolet rays — is being eaten away by man-made chemicals far faster than any scientist had predicted.

According to the previous studies the ozone levels have declined four per cent to eight per cent over the northern hemisphere in the past decade. But the latest data imply that the ozone layer over some regions, including the northern most parts of the US, Canada, Europe and Russia, could be temporarily depleted in the late winter and early spring this year by as much as 40 per cent.

That would be almost as bad as the 50 per cent ozone loss recorded over Antarctica. Scientists fear that the "ozone hole" over Antarctica, which was discovered in 1985, may open up very soon leading to a devastating catastrophe.

According to scientists, the concentrations of chlorine monoxide (ClO), a chemical by-product of the chlorofluorocarbons (CFCs), is known to be the chief agents of ozone destruction. It is discovered that each atom of chlorine could destroy up to 100,000 molecules of ozone — at a far faster rate than the gas is re-

plenished naturally. Besides each CFC molecule is 20,000 times as efficient at trapping heat as is a molecule of carbon dioxide. So it also increases the greenhouse effect far out of proportion to their concentration in the air.

Ozone is a form of oxygen in which the molecules have three atoms instead of the normal two and that simple

rise in the incidence of non-melanoma skin cancers worldwide if overall ozone levels drop 10 per cent. Excess UV radiation may also affect the body's general ability to fight off disease.

Scientists are also concerned about the potential effect of ozone depletion on the earth's climate systems. When stratospheric ozone intercepts

to even more ozone destruction.

Besides, high doses of UV radiation can reduce the yield of basic crop such as soybeans. UV-B, the most dangerous variety of ultraviolet, penetrates cores of metres below the surface of the oceans. There the radiation can kill phytoplankton and tiny shrimplike animals,

Ridding the planet of the millions of tons ozone-depleting chemicals is not just a big job, it may be the biggest job the nations of the world have ever taken on. And it is not earth that is fragile, it is we who are fragile. Nature has withstood catastrophes far worse than what we have delivered. Nothing we do will destroy nature. But we can easily destroy ourselves.

structure enables ozone to absorb ultraviolet radiation — a process that is crucial to human health.

The small amount that does get through the earth's surface inflicts plenty of damage. Besides causing sunburn the ultraviolet rays (UV) can make the lens of eye cloud up with cataracts, which bring on blindness if untreated. The radiation can cause mutations in DNA, leading to skin cancers, including the often deadly melanoma. In a recent survey, the United Nations Environment Programme predicted that a 26 per cent

UV light, heat is generated. That heat helps create stratospheric winds, the driving force behind weather patterns. Weather patterns have already begun to change over Antarctica. Each sunless winter, steady winds blow in a circular pattern over the ocean that surrounds the continent, trapping a huge air mass inside for months at a time. As the sun rises in the spring, this mass, known as a polar vortex, warms and breaks up. But the lack of ozone causes the stratosphere to warm more slowly, and the vortex takes longer to dissipate. This leads

Krill, which provides nourishment to the larger fishes and as a result humans may face a maritime food shortage. In Australia, scientists believe that crops of wheat, sorghum and peas have been affected.

CFCs are ubiquitous in almost every society. They are used in refrigeration and air conditioning, as cleaning solvents in factories and as blowing agents to create certain kinds of plastic foam. In many countries CFCs are still spewn into the air as part of aerosol sprays.

Though the annual market for CFC has now stood at some

2.2 billion US dollars, efforts for phasing out the CFC have also been made at different times.

Soon after the ozone hole over Antarctica was confirmed in 1985, many of the world's governments reached an unusually rapid consensus that action had to be taken. In 1987, they crafted the landmark Montreal protocol, which called for 50 per cent reduction in CFC production by 1999. Three years later in 1990, as signs of ozone loss mounted, international delegations met again in London and agreed to a total phaseout of CFC by 2000. Some of the countries that resisted CFC control at first are taking the lead today.

Replacing CFCs in newly built equipment, however, is only half the job. Virtually every existing refrigerator and air-conditioner is a CFC reservoir. The chemicals are not a problem as long as they continue to circulate within an appliance. But if the machine is carelessly drained, junked or damaged, the CFCs can escape to attack the ozone.

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Tiger, Tiger Burning Out

TWO decades after India launched Project Tiger, touted as a grand success in rescuing the species from the brink of extinction, poachers are threatening the survival of the majestic golden cat.

Nearly 30 of the 45 tigers in India's famous Ranthambore National Park in north-western Rajasthan State were reportedly trapped and killed during the last 12 months.

An alarmed Ministry of Environment and Forests has ordered an inquiry, but conservationists say Ranthambore is only a part of a well-organised and flourishing trade in tiger skins and bones.

India's tough wildlife protection laws and a CITES (Convention on International Trade in Endangered Species) ban has not been able to curb the smuggling, say officials of

bones can bring US\$170.

According to Traffic-India, bones are mainly supplied to buyers in Taiwan, China and Korea where they are an essential ingredient in several traditional Chinese medicines.

Officials say it is not easy keeping tabs on the buyers, especially since Traffic-Taipei closed down in May, barely a year after it was set up, due to shortage of funds.

Unrestricted poaching is threatening to reverse the gains of India's wildlife conservation efforts. Project Tiger was begun in 1973 to preserve the tiger in its shrinking natural habitat.

National parks and sanctuaries were created to stop human settlements from encroaching. By 1987, the tiger population had risen from 270 to over 1,200.

Over 28,000 sq km of

have been "deliberately keeping out wildlife enthusiasts and local people from the monitoring of Project Tiger". Conservationists have been urging the government to involve villagers in their battle against poaching and to protect forests.

To reinforce their argument, they point to the success of the 'forest protection committees' in an eastern state and van panchayats (forest councils) in the northern Himalayas that have been able to save vanishing wildlife and jungles.

The creation of buffer forests around national parks and sanctuaries would go a long way in keeping the core area reserved for the animals and free of fodder and fuel-hunting peasants, they point out.

Wildlife sanctuaries have taken away from villagers



Traffic-India, which was set up in January with funding from the World Wide Fund for Nature (WWF). It is part of a global network to monitor international wildlife trade.

Poachers in collusion with corrupt forest authorities have invaded all the country's 18 tiger reserves, say officials.

The hunters are most often local people living on the edge or inside national parks who earn almost US\$500 for the handsome striped black on gold furs. A middleman would pay US\$400 for the skeleton.

The untreated hide is then sold for up to US\$1,000 to big dealers in the cities from where it is clandestinely sent for processing to leather tanneries. On the world market, tiger skins fetch about US\$15,000. A kilogramme of

forests have been set aside for tiger reserves in India. Neighbouring Nepal has two big wildlife sanctuaries on the Indian border. The oldest and best known is Corbett Park — named after the famous British hunter Jim Corbett — which was set up in 1936 in India's Himalayan foothills.

The Indian tiger lives in diverse habitats — from the hilly to the humid mangroves of the Ganges delta, the arid scrublands of the Thar Desert and the lush forests of southern and northeastern India.

"We no longer believe the government's claim that the tiger population is rising," says Ashok Kumar of the WWF. According to him, the annual tiger census by forest officials is not reliable.

Kumar told IPS the officials

common lands that provided them with firewood and forest produce. An alienated peasantry surviving on the fringes of protected areas have become poachers and timber smugglers.

A few years ago, an environmental ministry report revealed that just 43 per cent of the over 480 national parks and sanctuaries in the country had an alternative management plan for people uprooted by the creation of wildlife reserves.

In the 400 sq km Ranthambore Park, forest guards are waging a running battle, sometimes violent, to keep local people out. The park sealed off from some 250,000 people living in 60 nearby hamlets is their only source of fodder, fuel and green manure. — IPS

Global Warming May Cause Drowning of Island States

by Ravi Srinivas

GLOBAL warming is now a widely accepted fact. Scientists predict that a rise in temperature by a few degrees could result in the melting of polar ice and ocean levels will rise. The Intergovernmental panel on Climate Change (IPCC) chairperson Bert Bolin had warned that there was no longer time to use the remaining uncertainties about global warming and climate change as an excuse for inaction.

The small island states have tiny land areas compared to their Exclusive Economic Zones (EEZ) and for many of them land forms less than 0.001% of the total area of the EEZ. Often the maximum height above the sea level is less than 10 metres and even a small change in the sea level could cause disasters for them.

They constitute about one-third of the countries in the Commonwealth in terms of numbers and many small island states are small archipelagic states. But, when it comes to cultural diversity and linguistic heritage they are unique. John Pernetta points out that one-third of the world's languages are spoken in the five island countries of Melanesia.

Now these countries are trying to assert themselves in the international arena to safeguard themselves from the

disastrous consequences of global warming. For them it is not the mere loss of life, their very existence as states and communities with distinct cultural practices and identities is at stake.

Thus it cannot be reduced to the loss of a few hundred or a few thousand square metres of land. They are also home to a rich biodiversity. Unique species, both marine and terrestrial, fish, insects etc are found in small island states. Many of them have yet to be classified and studied.

For the small island nations, global warming is much more than climate change. It is a threat to their very existence. Although their contribution to global warming in terms of carbon dioxide emissions etc is negligible, they have to bear the tragic and irreversible consequences of global warming.

They are no longer willing to remain as passive spectators in international environmental negotiations. They have formed an association, the Alliance of Small Island States (AOSIS), to put forward their concern and to evolve a common viewpoint on the global warming issue.

In November 1989 they articulated their concern through the Male Declaration. Representatives from Kiribati, Maldives, Malta, Mauritius, Trinidad and Tobago met in Male, the capital of Maldives, to bring to the attention of the global community the threat of

global warming to small island states.

AOSIS was formed in October 1990 at the Second World Climate Conference with the assistance of the Caribbean Community, Common Market Secretariat, South Pacific Regional Environment Programme and Centre for International Environmental Law. Its 30 members are from the Indian Ocean, the Caribbean, the Pacific, African, Atlantic and Mediterranean

extreme preventive action.

In simple terms it is not willing to change its energy policy and, compared to the action taken by many other nations in setting the targets for cutting emissions or stabilising the level of emissions, the response of the US is negative. In fact projected emissions under the US Climate Change Strategy implied at 15% rise by 2000 AD in carbon dioxide emissions from 1990 levels. The Climate Pact talks are progressing very slowly.

Panineu, prime Minister of Tuvalu, has pointed out that the destructive effects of climate change were being felt in their islands. The major threats include reduction in drinking water and the affected production of food crops. The average rainfall had fallen over the past eight years. Tuvalu is very vulnerable to the impact of global warming. None of the nine coral atolls of this island state in the South Pacific Ocean are more than 4 metres above the sea level.

For such states, even a rise of a few metres in the sea level would spell disaster and ultimately extinction if the rise is unchecked. They expect the international community to help them in facing this grave threat to their survival. Yet the response has been far from encouraging.

The response of JR Spradley, a member of the US delegation to an international meeting on Global Warming, to a plea from the delegation from Bangladesh, is, This is not a disaster, it is merely a change. The area won't have disappeared, it will be under cows. Where you now have cows, you will have fish.

What he forgot or did not bother to mention was, for the West the loss of a few million people or the extinction of cultures and small states hardly matters. They are victims of the maldevelopment of the West which is pumping out greenhouse gases beyond the capacity of natural systems to cope with.

The challenge before AOSIS is daunting. It has to work for a global climate convention although its members can no way be held responsible for the global warming. When others' sins are visited on them and issue a death warrant, the issue is not a question of fishes replacing cows. There is a just struggle for survival. — Third World Network Features

Whaling : a Conflict Between Ethics and Economics

THE argument about whether whaling should be resumed is getting more bitter. Acrimony is growing among the nations of the International Whaling Commission (IWC) and Iceland, Norway and Japan claim conservation groups are hijacking the Commission.

It all boils down to a conflict of economics over ethics. Should we continue to fire harpoon-launched exploding grenades into sea-dwelling mammals which have a large, developed brain and a complex social system, for financial profit?

Is it humane to chase a wounded, dying whale for miles through the sea, before hauling it half-dead aboard a factory ship?

British Agriculture Minister John Gummer said it is akin to a farmer hurling a spear with a bomb attached into a cow and then chasing it through five fields on the end of a rope.

The Japanese went to this year's IWC meeting determined to ensure that whale meat will continue to be served up as a delicacy in top restaurants in Tokyo, Yokohama and Kyoto.

Their request to continue hunting minke whales for "scientific research" in Antarctica (288 were killed last year) was granted — and these whales end up on restaurant tables.

The Japanese commended the IWC for meeting in Glasgow, a city "whose wealth is based on whaling." But the last whale was processed in Glasgow over 200 years ago, and few Glaswegians would welcome the return of the whaling industry.

In fact, Britain and New Zealand are the leading anti-whaling nations. With Norway, Iceland and Japan determined to see a resumption of commercial whaling, Glasgow's

IWC was bound to prove a showdown.

Commercial whaling had been banned at the 1985 IWC meeting because previous kill quotas had over-estimated whale stocks and the numbers that could safely be killed. Populations were seen to be plummeting.

The Glasgow meeting was largely seen as a victory for conservation. The moratorium was continued for another year and five resolutions on protecting small cetaceans — not hunted by whalers and usually ignored by the IWC —

of managing commercial whaling and been taken over by a conservation minority.

Iceland, Norway and possibly Japan may now form a rival forum to the IWC, where nations who want to ignore the consensus ruling of the IWC and kill whales indiscriminately, will presumably be able to do so.

The crucial decision on whether the whaling moratorium is delayed until next year. Meanwhile, Revised Management System (RMS), a new whale kill quota system developed over seven years, was

approved by 16 votes to one.

The RMS is supposed to provide a rational basis for exploiting whales. It is designed to replace the old IWC system by providing an accurate whale kill quota giving the "maximum sustainable yield" — the greatest harvest of whales, year

after year.

If the 16 nations who voted to back the RMS, vote for its implementation next year, commercial whaling may well become a reality again. Whaling fleets, which have kept tucking over by exploiting the "scientific whaling" loophole, will be able to re-start whaling with a vengeance.

So reprieve for the whales is only momentary and Glasgow was far from being the simple victory for conservation some thought it to be.

Anti-whaling nations and conservation groups feel it is

the issue of setting up an Antarctic whaling sanctuary, of launching a survey of all the environmental threats facing whales, and on the RMS.

France proposed the setting up of an Antarctic whale sanctuary where all whaling would be banned, but no decision was made. And Britain proposed a survey into the overall environmental threats facing whales — pollution and ozone depletion.

The environmentalists and pro-whaling nations agree on one point: that the IWC is losing direction and that change is needed. But they are pushing in diametrically opposed directions.

Norway, Japan and Iceland would like an IWC that simply oversees whaling quotas. They say all other issues are outside the remit the IWC was set up to serve.

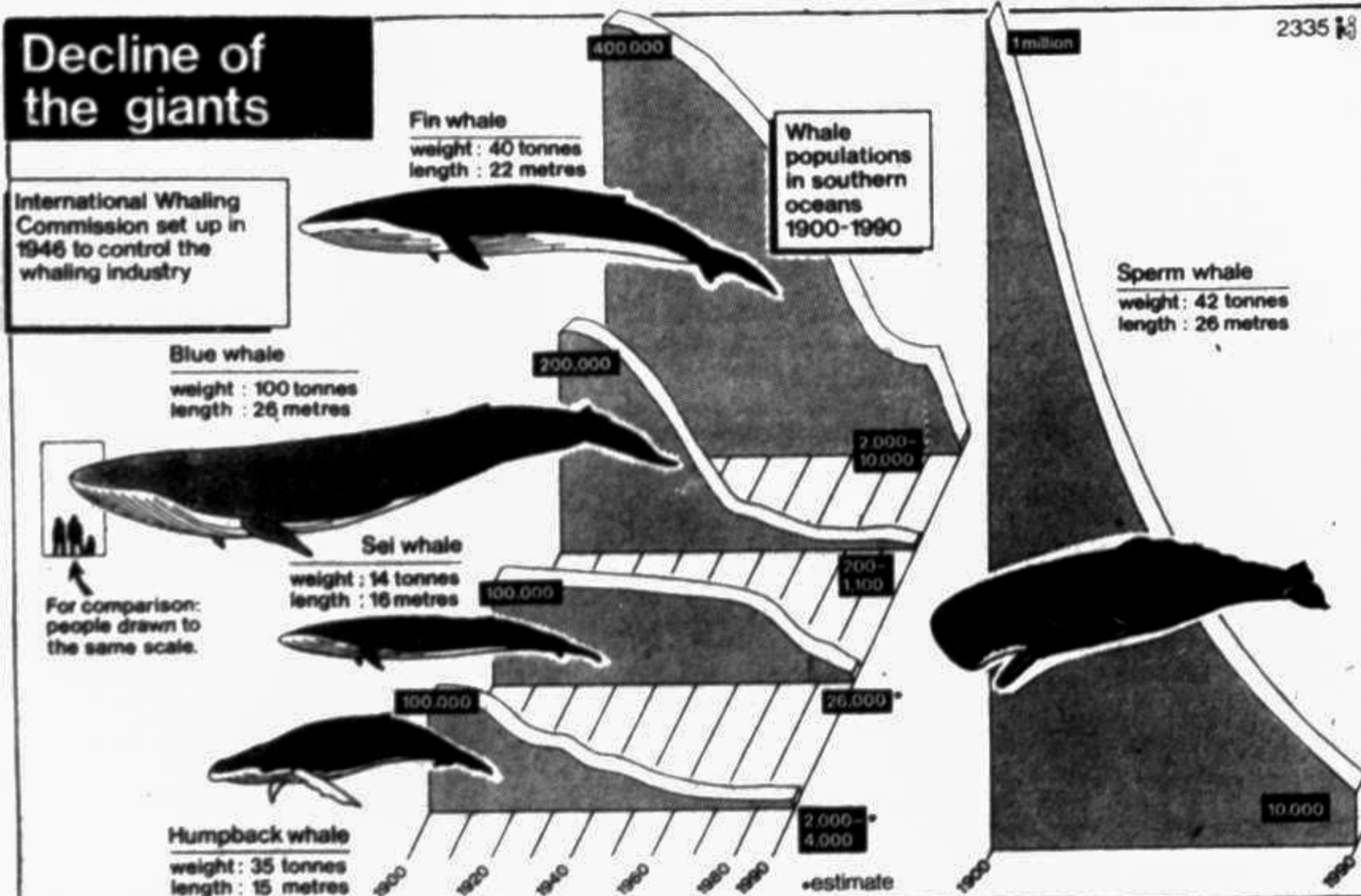
At present, action is desperately needed on 66 species of cetaceans not hunted by whalers if they are to survive. Eight — the Vaquita, Baiji, Harbour Porpoise, Dall's and Striped, pilot Whale, Narwhals, Belugas and Commerson's — face extinction.

It is time the IWC accepted that the threats facing the world's whales come from many sources other than the whale's harpoon, and that it needs to act to ensure their survival.

Ironically, next year's IWC meeting is in Japan. By its end minke whale steaks may be legally permissible on the menu of the hotels in which the delegates are staying.

Or maybe not. A recent MORI poll showed that 60 per cent of Japanese feel the killing of whales is no longer justified. The question is: who will be buying? — Gemini News

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were adopted.

Norway went to the meeting determined to start commercial whaling again and pledged to defy the IWC by killing as many whales as it liked. Iceland walked out.

Norway said the IWC had deserted its original purpose

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high time the IWC entered the post-Rio World Summit era by bringing environmental concerns to the fore.

David Bowles, of the Britain-based Environmental Investigations Agency, says: "The Glasgow meeting was very positive, but it procrastinated on

Political Sparks Ignite Kenya's Forests

THE political sparks are flying in the run-up to Kenya's forthcoming multi-party election — and are threatening the country's already diminishing forests.

The outbreak of politically-generated fire comes only two years after the country's forests suffered widespread damage from the cypress aphid, which decimated cypress and cedar forests. Losses were put at more than US\$1.9 billion. This time, however, the culprit is man.

About 200 people have died in the clashes, which started in 1991 with an outbreak of fighting between ethnic groups in the sprawling Rift Valley and Western Provinces. Anti-government critics claim the trouble was instigated by government supporters to hamper the onset of multi-party politics after the government bowed to domestic and international pressure for the introduction of political pluralism.

Senior figures in the Kenya African National Union (KANU) vehemently opposed the ending of one-party rule, arguing that it would result in ethnic strife — a prophecy that has come true.

Panicky villagers have set fire to forests, sugarcane plantations and other areas suspected of harbouring their enemies. The attackers themselves have left a trail of destruction by setting homes and farms alight.

Outrage and controversy naturally centres on the loss of life and personal possessions, overshadowing discussion of environmental damage.

Officials of the Ministry of Environment and Natural Resources are reluctant to discuss the issue because of its political sensitivity. But privately, many warn that large areas of forests are in danger unless a solution to the political problem is worked out.

Less than four per cent of Kenya's land area is forested. The area covered by Forest Department plantations has grown from 60,000 hectares in 1978 to 170,000 hectares today, but clearance for agriculture and tree-cutting for firewood and charcoal make enormous inroads into other forest land.

The Ministry has not yet fully assessed the environmen-

tal impact of the fires, but says that between January and March this year 17,407 hectares were consumed by fire compared with 6,355 hectares in 1991.

The financial loss, based on sale of forest products at maturity, is put at KShs 136 million (US\$4.3 million) for the first three months of 1992, compared with KShs 2.6 million in 1991. Fire-fighting costs rose to KShs 3.6 million from KShs 26,000 in the same period.

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Ministry sources suggest that both sets of figures are conservative, and that real losses are likely to be much higher.

Other estimates of damage are considerably greater. The Daily Nation estimated losses in the worst hit Molo region of Rift Valley Province at about 30,000 hectares by the end of April, with a further 3,800 hectares destroyed in the area around Mount Elgon. The latter is home to a number of rare tree species, and a host of other rare plants sought after for their nutritional and medicinal properties.

Recent rains helped extinguish some of the still smoldering fires, but the failure of this year's "long rains" has added to the danger of natural conflagrations.

The human clashes have been damped down by the security forces, though minor skirmishes have been reported since June, when the worst fighting was suppressed. There is a danger of revenge attacks as displaced people return to reclaim their homes, land and property.

Visits to affected areas by candidates in the run-up to multi-party elections — expected early next year — will also have to be handled carefully if they are not to produce further potentially dangerous sparks.

— PANOS

Environment Ministry officials