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GEOGRAPHY B**

Issues in the Environment

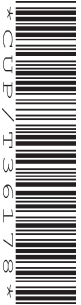
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Are we having more natural disasters?

By John Vidal

It does seem so. During the last year we have had the Indian Ocean tsunami, hurricanes Katrina and Stan in the US and central America, massive floods in India and China and now the Pakistan earthquake. Watch television a lot, and you would think that the world is lurching from one disaster to another.

Last year, says the International Red Cross, saw 128 major floods, 121 hurricanes and cyclones and 42 earthquakes and tsunamis. Add major avalanches, forest fires and locust plagues and there were a grand total of 360 official natural disasters in 2004. This was far more than the 239 recorded in 1995, but fewer than the 424 of 2002, the 431 of 2000 and the 395 in 2001.

What is happening, says the

Red Cross, is that more people are being killed and affected by disasters. Last week it said 901,177 had died in natural disasters from 1995 to 2004, compared with 643,418 in the previous decade. Count the "adversely affected" and you find that 2.54 billion people – almost half the people alive – have been through one disaster or another in the past decade, compared with 1.7 billion in the previous 10 years.

Worldwide, the Red Cross reckons that the number of people affected by disaster has climbed 46% in a decade.

Might there be fewer natural disasters which are being reported more? Up to a point. The Indian Ocean tsunami killed 224,495 people on Boxing Day 2004 – but in disaster terms it was smaller than the barely reported famine in North Korea, which killed 270,000 people

from 1995 to 1999. Equally, the Chinese and Bangladeshi floods affected more than 130 million but were barely mentioned on western television.

At least one myth can now be scotched. Africa, popularly believed to be the most disaster-prone continent, is actually one of the safest, recording 48,000 disaster deaths from 1995 to 2004. In that time, 64,000 died in Europe and a terrible 702,000 in Asia. But no one can tell whether that's because droughts are so common in Africa, and deaths from malnutrition so inexactly reported, that the world has stopped looking.

From The Guardian, 11 October 2005
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Fig. 2

Hot news from 740,000 years ago warns of climate change

By Mark Henderson
Science Correspondent

A three-kilometre column of ice has been drilled from Antarctica by European scientists, shedding important new light on both the past and the future of the world's climate.

The core has provided researchers with the oldest and most detailed record of climate change ever obtained, stretching back 740,000 years.

Analysis of the core has already suggested that the next ice age lies 15,000 years in the future. But the prospect of a stable climate has been thrown into doubt by human activity causing global warming. The ice shows that today's greenhouse gas concentrations in the atmosphere are by far the highest for at least 440,000 years.

Ice cores are among the most valuable sources of data on the world's past climate as they record both variations in temperature and concentrations of gases such as carbon dioxide and methane that contribute to the greenhouse effect. This is critical to establishing the cause of past warming and cooling trends, and to predicting the effects of rising gas levels.

Cores from Greenland reach back more than 100,000 years through the last ice age, and

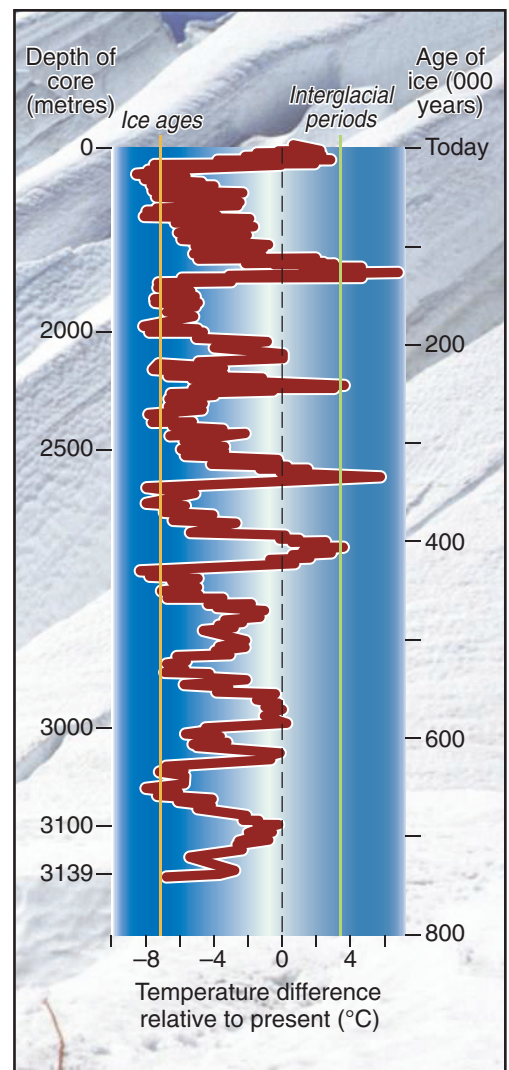
a core from Lake Vostok in Antarctica dates back about 400,000 years. The new core drilled in Hasted, Antarctica, will supply some 740,000 years of data.

The new core confirms evidence from ocean sediments that the Earth has endured eight ice ages during this time, each separated by a warmer period known as an interglacial. While ice ages typically last about 100,000 years, the interglacials are much shorter at an average of 10,000 years.

But although the last ice age ended 12,000 years ago, scientists do not believe another is on the way. They suggest that if the earth is left to its own devices the next ice age will be in 15,000 years.

The temperature data also shows that interglacial periods before about 430,000 years ago did not get as warm as those that came later, though the scientists do not yet understand why.

The ice core has taken eight years to drill, as average temperatures of -55°C in the polar desert mean that work can take place only in the high Antarctic summer months of December and January.



Recent ice core

Extract from *The Times*
© *The Times*, 10 June 2004

Fig. 3

US prepares black mark in white wilderness

By Francis Harris

THE PROSPECT of new oilfields in the Arctic and the impact their arrival would have on such rare creatures as the polar bear may horrify environmentalists.

To a visitor whose vehicle has stalled in a snow drift the thought of fewer massive carnivores may not seem such a bad idea.

Those who choose to live here, such as Art Smith, a film maker, say the brutal environment requires a certain humility. "Up here you are just meat," he said.

That may be about to change. If the oil companies have their way, about a tenth of the 8 million hectare Arctic National Wildlife Reserve in north-eastern Alaska will be opened for drilling.

The plan would dot the landscape with wells and miles of roads and pipelines.

More people will

also mean less wildlife. Among the losers will be the polar bear, the caribou and the musk ox.

Few Americans visit this refuge. There are no roads, few runways and almost no inhabitants.

Yet the campaign to protect the pristine wilderness touches a nerve in the national consciousness.

Almost 5000 kilometres from the US capital lies the refuge's only village. Here the 270 people of Kaktovik, which in Eskimo-Inupiat translates as "Place to Fish", are living out another savage winter. A local campaigner said "some things are more important than money". Eskimos, who have been in the area for at least 4,000 years, had been "getting along very well without oil". His petition has been signed by almost a third of the adult population, about 60 people.

The rest have not, for reasons that appear clear enough. Oil has changed the Eskimo communities

in other parts of Alaska beyond recognition.

Here locals lived in homes without electricity, water or telephones 40 years ago. Now people have wooden dwellings with running water and central heating. Flushing lavatories have been installed.

Outside almost every home are one or two snowmobiles. The Rev Isaac Akootchook, says Kaktovik should look hard at what is on offer before rejecting the plan.

A visit to the oil fields dominated by BP and Conoco, offers a crystal ball to Kaktovik's possible fate. The area is thick with complexes illuminated by millions of orange lights, connected to a network of pipelines and roads fanning out across the tundra. Gas flares flicker on wells dimly visible through the orange-tinged Arctic haze.

*Extract from The Daily Telegraph,
12 November 2005
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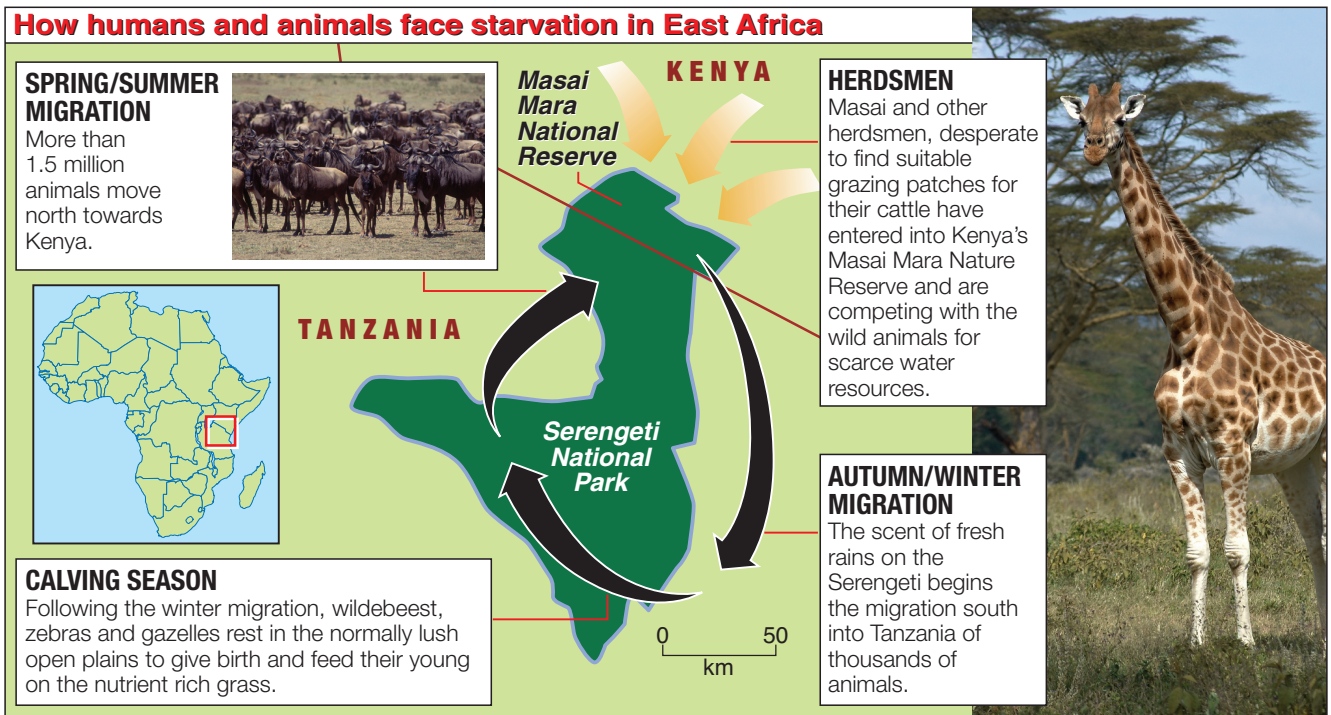
LAND OF ICE AND SNOW



- The Arctic National Wildlife Reserve covers 8 million hectares.
- Drilling would be allowed only in the coastal plain.
- The likely drilling zone contains scores of polar bears, at least 130,000 caribou, 250 rare musk oxen and up to 300,000 snow geese.
- Scientists say all these species would be badly affected by oil drilling.
- The human population is around 270.
- The proposal's backers say that oil installations would cover only 8,000 hectares. Environmentalists say the industry's footprint would be far larger.

Fig. 4

Drought threatens the people and wildlife of East Africa



By Meera Selva

In cracked riverbeds once flowing with water, dozens of hippos lie decomposing in the stifling heat. Elsewhere, the thin delicate frames of the rare Grevy's zebras lie on parched grass, felled by anthrax.

East Africa should now be preparing for the migration of the wildebeest – the biggest movement of wildlife in the world – but instead, the animals are slowly starving. The people are suffering too. The United Nations estimates that 11 million people in Somalia, Kenya, Ethiopia, Eritrea and Burundi will need food airlifts to survive this drought.

The Masai Mara, dry at the best of times, is a dustbowl – parched from a season of pitiful rains that has driven many animals out of their natural homes in search for water.

The wildebeest, zebras and gazelles know to follow the rains, to feed off the young grass, rich in potassium and calcium that will give them healthy calves. But right now the pastures along most of the migratory corridors are dry and the wildlife have no sense of where to go for better grazing.

Wildlife rangers have tried to protect wild animals by stopping farmers driving their cattle into the national parks, but these people who live alongside the animals are desperate too.

In the worst hit regions of

Somalia, people are already surviving on three cups of water a day for washing and drinking – and very little food.

Most families across the region have now lost all the cows that were their only source of wealth. Even if they make it to the next harvest, they will be impoverished for many years to come.

The World Meteorological Association warned that the rains in East Africa may not arrive until April, by which time the few remaining grasslands and water holes will have dried up too.

Extract from *The Independent*, 21 February 2006
© The Independent

Out of rhythm

The pressure from supermarkets desperate to maintain a competitive edge is driving down prices and putting the squeeze on food manufacturers and farmers

Farming has its own pace determined by the seasons. Despite certain practices, such as covering fields with plastic sheeting to 'bring forward' the time of harvest of high-value crops, no one has found a way to shorten the year.

Farmers may grow varieties especially bred to survive earlier or later in the season than the normal, but they still have to work within nature's timetable.

The speed at which things happen at the other end of the food chain is very different. Companies are constantly fine-tuning their operations so they meet the needs of their customers. They use loyalty cards to identify their customers and keep track of their requirements. They switch suppliers as demand changes and they are always on the look out for new products. They are desperate to maintain a competitive edge over their rivals and use their enormous buying power to force suppliers to accept lower prices for their products. One of the techniques the companies use to squeeze suppliers is e-trading. Through the use of on-line auctions, a supermarket can

gain the most competitive pricing of their products by forcing their suppliers to cut their own profits. For instance, if a supermarket wants to source a particular type of bread, it can invite several potential suppliers to attend an e-auction. Competing suppliers sit in front of their computer screens and wait for the auction to begin. The supplier who 'wins' is the one who puts in the lowest price bid.

So what do you do if the point is reached when the price is too low to make a profit?

The concentration of buying power in to the hands of a few supermarkets has given the retailers unprecedented control over food production. They can squeeze food manufacturers, driving down prices and creating short-term supply contracts.

The result is that food

manufacturers put pressure on their suppliers, passing uncertainty and lower prices back down the food chain until it eventually reaches the farmers.

Farmers then have a problem – there is no one for them to squeeze. Instead, they do the only thing they can. They absorb the lower prices and try to become ever more efficient and productive. The end result is more intensive and industrialised agriculture.

Agriculture is used to adapting to the seasons, but now it has a more difficult job meeting the rigid and ruthless demands of the supermarket companies.

By Mark Skinner

Extract from NFU Countryside Magazine, August 2004



© iStockphoto.com / Edyta Linek

Fig. 6

Sweden learns the harsh lessons of regeneration

Malmö was once dominated by the 140m-high crane in the Kockums shipyard. Two years ago it was dismantled. The very symbol of an industrial city had gone, leaving behind a huge, empty space.

Last month the first residents moved into luxury apartments built on that very spot. From their window they overlook Copenhagen, the Oresund bridge and, under construction nearby, the city's new landmark: the Turning Torso, Europe's highest residential highrise at 54-storeys or 190-metres tall.

The Turning Torso stands in Vastra Hamnen (the Western Harbour), the newly regenerated docklands area of Malmö. Here spectacular apartments and offices for telecom companies are fast appearing, alongside buildings for the city's six-year-old university.

The Torso and Vastra Hamnen are the symbols of Malmö's transformation from a gritty, declining industrial area to what the city fathers call the "city of tomorrow".

Sweden's third largest city is proving attractive to more and more young people, drawn to its university and the "hip" central area. Malmö has a booming cultural life, leading the rest of the country in music, theatre and the arts. The centre is crowded with restaurants, clubs and cafes.

But there's another side of Malmö. Just a 10-minute bike ride from the city centre is an area called Rosengård (Rose Garden).

Rosengård, with 21,000 inhabitants, has a higher immigrant population than anywhere else in Sweden. In four of its seven districts, more than 90%

of residents were born overseas.

The jobless rate in Rosengård is more than 85%, which means almost everyone is living on state benefits. Only about half the children have sufficient grades to be eligible for secondary school. Living conditions are cramped and the level of health is poor.

Many people in Rosengård, and also in other immigrant districts of Malmö have given up hope of finding employment.

The ordinary, middle-aged Swede doesn't have much contact with the immigrant population. But when the authorities placed a family of 11 from Afghanistan in a house in the middle of a well-to-do district, the

Swedish neighbours got very upset and eventually the family was forced to move to another area.

So Malmö, socially and economically, is going up and down at the same time. To mix Vastra Hamnen and Rosengård in to one city is the big challenge. But it's one that many in the city are eager to meet. City councillor Ilmar Reepalu, an immigrant from Estonia, took a unique step earlier this year when he conceded that the politics of integration and a fair and equal distribution of welfare in the city had failed.

*By Claes Fürstenberg
From The Guardian, 19 January 2005*



The Turning Torso, Malmö © imagebroker / Alamy

Fig. 7

Take Action to stop tourist resort in the Bahamas!

The multimillion dollar Bimini Bay Resort and Casino is threatening both local communities and their environment. The project, which once built, will include a golf course, marinas and apartments has outraged local community members who have staged a protest outside the development to stop the construction. The Miami-based owner of the development has promised, amongst other things, a primary school, fire truck, and that the project would be friendly to the environment. But these promises have failed to materialise:



Some of the problems include:–

- A gate has been erected denying local Biminities access to 7 kilometres of the ten kilometre long island. This is said to leave only 3km of land (only 500 metres wide) for a population of 1,600. Beaches are also restricted for locals.
- Water supplies are being used for the tourism development resulting in water to local communities being frequently turned off.
- Mangroves have been bulldozed, land has been carved up, the seafloor dug and destroyed and the North Bimini lagoon has been silted with waste material.

Recent hurricanes and floods have illustrated that the mangroves are the best way to protect vulnerable coastlines. The government decision to permit a developer to destroy Bimini island's protective mangroves and replace it with a tourist resort puts the island in jeopardy. The habitats of species including dolphins, turtles and sharks and some which are endangered is seriously threatened. Along with the local communities, Bahamian environmental organisations, the scientific community and fishermen are desperately fighting to protect their ecosystems and fight exploitation.

Save Bimini – We must act now!

Phase 1 of the development has already taken place, destroying mangroves and large areas of Bimini's pristine habitat and coastline. In the last few days alone, they have removed hundreds of metres of mangroves from the shoreline.

Phases 2 and 3, which include marinas, apartments and golf courses is about to happen and will destroy environments and cause irreparable damage.



Source: Tourism Concern, www.tourismconcern.org.uk

Fig. 8

Return of mining brings hope of peace and prosperity to ravaged Congo

There is little to break the silence at Kolwezi, once the economic powerhouse of Congo, now a landscape of industrial desolation.

Potholed roads lead to ruined, rusted factories. Trucks and bulldozers are lined up neatly, as if ready to roll, but the wheels are missing and the engines have cobwebs.

But the silence at Kolwezi and other mining areas in Katanga province will soon be broken. The mining companies are coming back.

An international scramble for this central African treasure trove is underway. With copper prices at record highs, fuelled by demand in India and China, companies are competing to rehabilitate derelict sites. Kolwezi could again produce 500,000 tonnes a year of copper and cobalt, metal used in making steel.

Billions of dollars will be made. The question is whether the boom will benefit the citizens of the Democratic Republic of Congo. Decades of misrule and conflict have left millions poor, malnourished and sick.

René Nolevaux, an executive with Katanga Mining, a Canadian enterprise, said strict rules would avert corruption.

His company is investing \$450m (£245m) in Kamoto, one of Kolwezi's richest mines. Within weeks workers will start repairing roads, installing equipment and refurbishing offices. There will be jobs for 2,500 Congolese labourers and technicians, a free clinic and school for locals and taxes for Kinshasa, said Mr Nolevaux. Rather than exported in raw form the ore will be processed on site, maximising the value to Congo. "It's a good project for us and a good project for the people," he said.

Kisula Ngoy, Katanga's governor, said foreign capital and expertise were vital. "There is no alternative. The solution is to re-industrialise."

His welcome was echoed by some of those who currently occupy the sites, clawing with bare hands for nuggets of copper, backbreaking labour which on a good day earns \$3. "We have been waiting for them to come to give us proper work and better conditions" said Cedric Muteba, 30, his eyes red from dust, his chest covered in mud and sweat.

The most immediate dilemma is the fate of the 150,000 families in Katanga who survive by scavenging copper and cobalt from sites that mining companies are taking over with government assistance. The



The location of Katanga province

eviction of children who toil in pits should be good news, but without alternative work, affordable schooling or social welfare, it could sentence them to worse destitution.

"My mother is dead so it's up to me to provide for my brother and sister," said Michel Chacha, 10, lowering a rope to a colleague down a hole at Ruashi, a mine outside Lubumbashi.

By Rory Carroll

Extract from *The Guardian*, 5 July 2006
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