



MEDIA BRIEF

Dependence on Oil and Continued Urban Sprawl Remain Challenges for North America

Nairobi/New York, 25 October: North America's huge output of greenhouse gases contributes to altering the global climate. North America's growing economy and its population are key drivers of its environmental challenges.

With only 5.1 per cent of the world's people, North America consumes just over 24 per cent of global primary energy. Energy consumption per head in both Canada and the United States has grown since 1987, with the total rising by 18 per cent: the US transport sector is the region's dominant energy user. From 1987 to 2003, CO₂ emissions from fossil fuels in North America increased 27.8 per cent.

The North American region is a leader in research in environmental science and reporting, integrating the public into environmental decision making, and providing timely access to information on environmental conditions. A solid foundation of legislation from the 1970s and newer innovative market-based programmes provide incentives for controlling pollution and conserving natural resources.

However, many of North America's environmental problems are those of a technologically successful society which is learning that boundless consumption is not indefinitely sustainable, the UN says. Other key issues include urban sprawl, and freshwater quality and quantity.

The warnings come in Global Environment Outlook 4, *GEO-4*, the latest in the series of flagship reports from the Nairobi-based United Nations Environment Programme. *GEO-4* is published 20 years after the World Commission on Environment and Development (the Brundtland Commission) produced its seminal report, *Our Common Future*. *GEO-4* describes the changes since 1987, assesses the current state of global atmosphere, land, water and biodiversity, and identifies priorities for action.

GEO-4 salutes the world's progress in tackling some relatively straightforward problems, with the environment now much closer to mainstream politics everywhere. But despite these advances, there remain the more persistent issues for which existing measures and institutional arrangements have systematically demonstrated inadequacies and where solutions are still emerging. Failure to address these persistent problems, UNEP says, may undo all the achievements so far on the simpler issues, and may threaten humanity's survival. The report adds - "There are no major issues raised in *Our Common Future* for which the foreseeable trends are favourable." But it insists: "The objective is not to present a dark and gloomy scenario, but an urgent call for action."

The climate change threat is now urgent. To limit the impacts of climate change to a manageable level, some experts have proposed that the global temperature should not exceed an average of 2°C above pre-industrial temperatures. To achieve this target, worldwide greenhouse gas emissions will need to peak before 2025, and by 2050 they should fall by up to 50 per cent, compared to 1990 levels. This implies emission reductions of 60–80 per cent by 2050 in developed countries. If developing countries accept emissions reduction commitments, they will need to significantly reduce their emissions.

Negotiations are due to start in December on a treaty to replace the Kyoto Protocol, the international climate agreement which obligates countries to control anthropogenic greenhouse gas emissions. Although it exempts all developing countries from emission reduction commitments, there is growing pressure for some rapidly-industrializing countries, now substantial emitters themselves, to agree to emission reductions.

GEO-4 says climate change is a "global priority", demanding political will and leadership. Yet it finds "a remarkable lack of urgency", and a "woefully inadequate" global response.

www.unep.org/geo/geo4/



Several highly-polluting countries have refused to ratify the Kyoto Protocol. *GEO-4* says: "... some industrial sectors that were unfavorable to the... Protocol managed successfully to undermine the political will to ratify it." It calls for fundamental changes in social and economic structures, including lifestyle changes.

Despite the rise in energy consumption, North America has made progress in using energy better (though improvements here are due in part to the outsourcing of some industrial activity). But energy efficiency gains have been countered by the use of larger vehicles, low fuel economy standards, and increases in car numbers and distances traveled.

While total energy production grew in both countries of North America, oil production declined in the United States resulting in a growing dependence on imported oil. Heavy investments were made in Canada, which doubled oil production from oil sands.

Sprawl continues to be another of the region's most daunting challenges, and has contributed significantly to increases in the number of cars, vehicle kilometres traveled and the length of paved roads in North America over the past 20 years. Houses and their sites have become bigger, while the average number of people per household has fallen.

Urban sprawl - low-density housing on the outskirts of urban areas - has continued unabated over the past 20 years. Rural or exurban sprawl - clusters of low-density housing on large plots beyond the urban fringe, with long travelling times to towns - increasingly threatens natural and protected systems.

Growing exurban sprawl and the urban-rural interface, where social and natural systems overlap and affect one another, add to the fragmentation and loss of forests, wetlands and habitats.

Human health suffers too, with higher ozone levels in sprawling suburbs. Less walking than in more compact neighbourhoods contributes to problems of weight gain and diabetes. The human health consequences of environmental impacts is an emerging issue.

The region's drinking water is the cleanest in the world overall, though with some sub-regional variations. The main causes of degradation are farm run-off, sewage treatment plant discharges and hydrologic modifications. There has been considerable progress in protecting water quality from point pollution, and diffuse pollution, especially from farms, is now a priority in both countries.

Confined (or concentrated) animal feeding operations (CAFOs) have increased over the last 20 years and are a growing source of diffuse nutrient pollution, when improper management allows nutrients from manure to enter surface and groundwater. About 40 per cent of big US estuaries suffer severe eutrophication because of nitrogen enrichment.

The future will be largely determined by the decisions individuals and society make now, *GEO-4* says: "Our common future depends on our actions today, not tomorrow or some time in the future."

For some of the world's persistent problems the damage may already be irreversible. *GEO-4* warns that tackling the underlying causes of environmental pressures often affects the vested interests of powerful groups able to influence policy decisions. The only way to address these harder-to-manage problems requires moving the environment from the periphery to the core of decision-making: environment *for* development, not development to the detriment of environment.

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Notes to Editors

GEO-4 is produced and published by the Division of Early Warning and Assessment of the United Nations Environment Programme. It is available from www.unep.org/geo/geo4/

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Regional Highlights

Improving the environmental performance of producing oil from oil sands (which involves the use of large amounts of natural gas and water, results in substantial greenhouse gas releases, and damages forests and wildlife) is likely to be eroded by a huge increase in the scale of the operation.

In the early years of this decade, air pollution caused the premature deaths of an estimated 70 000 people annually in the US and about 5 900 in Canada. Mercury emitted when coal is burnt in power plants enters the food chain, affecting indigenous people in the North more than other people in the region.

In 2006, California, the world's twelfth largest carbon emitter, passed the first bill in the US to cap CO₂ emissions.

Canada now has three of the world's ten most sprawling urban areas, Calgary, Vancouver and Toronto. In the US, coastal areas cover only 17 per cent of the country but contain more than half its population. Sprawl is increasing, and can stretch 80 kilometres inland.

Exurban settlement also affects water: hard surfaces channel it into drains and sewers where it cannot replenish groundwater, and suburban run-off contains many pollutants.

More than 500 endangered species in the US face extinction because of exurban sprawl and the urban-rural interface.

Prairies are being lost: the North American Central Grasslands are considered to be among the most threatened ecosystems on the continent, and globally.

While the focus has, till now, mostly been on development first, often at the expense of the environment, leadership in promoting sustainability is emerging from states, provinces, municipalities, as well as the voluntary and private sectors. One example of the commitments made to mitigate climate change is the Smart Growth strategy, typically housing about 48 people per hectare, a density thought likely to be conducive to public transport. This can also be a way to reduce concentrations of traditional urban air pollutants.

North America is well-endowed with fresh water (about 13 per cent of the world's total), but sometimes suffers stress and scarcity. Glaciers and snowpacks, a major source of the Canadian Prairies' water, are declining.

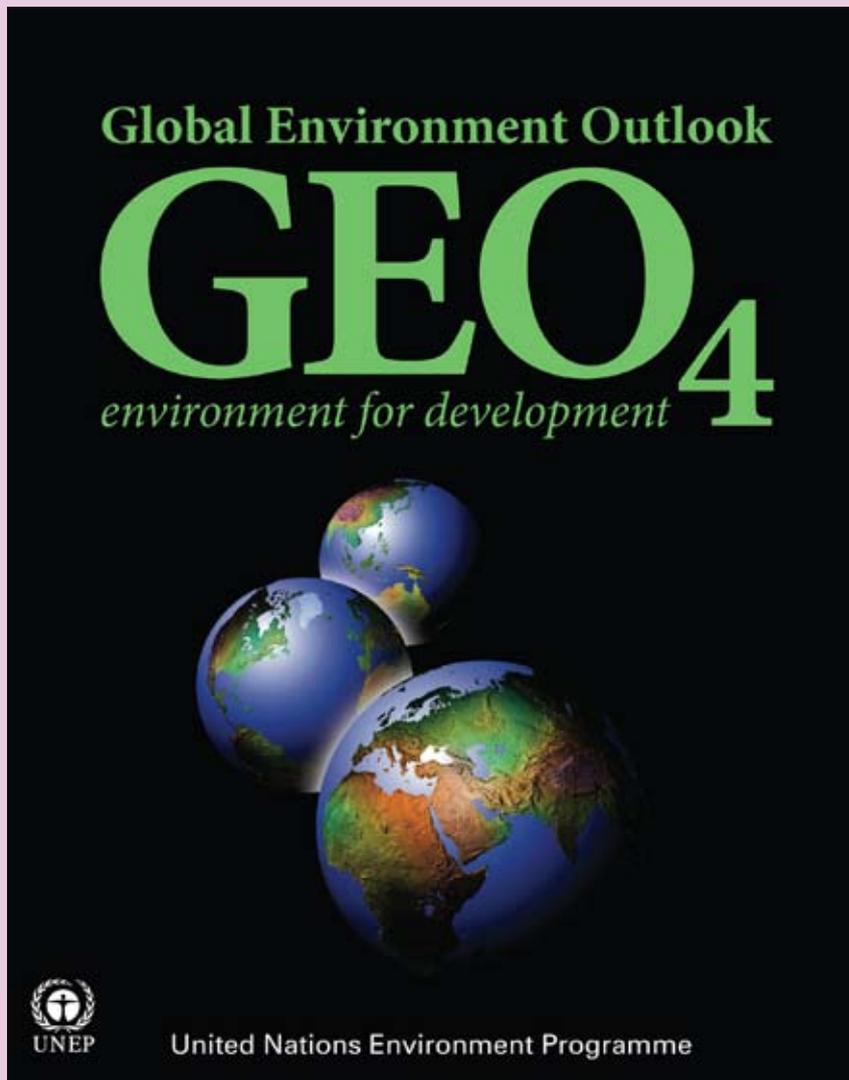
The loss of municipal water from leaking pipes reaches up to 50 per cent in some places. Irrigation in drought-prone US regions leads to unsustainable aquifer withdrawals, up to 25 per cent above natural replenishment rates.

Conservation strategies are improving water efficiency: the US area irrigated by sprinkler and micro-irrigation systems had grown to more than half the country's total irrigated land by 2004.

Farm fertiliser accounts for about two-thirds of the nitrogen entering the Gulf of Mexico from the Mississippi Basin, helping to make it the world's second-largest "dead zone" (after the Baltic Sea), so-called because it is starved of oxygen. Chesapeake Bay is also affected by nutrients and associated large algal blooms which kill fish.

National and transboundary measures in the Great Lakes ecosystem have tackled industrial pressures, improved water quality and reduced mercury concentrations in sediments over the last two decades. But so far only two of 43 polluted Areas of Concern have been delisted.





The Global Environment Outlook (GEO) is UNEP's flagship assessment process and report series. The fourth report in the series, GEO-4 provides an overview of the global and regional environmental, social and economic state-and-trends over the past two decades. It highlights the interlinkages, challenges and opportunities which the environment provides for development and human well-being. The report also presents an outlook, using four scenarios to explore plausible futures to the year 2050, as well as policy options to address present and emerging environmental issues.

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Copies of the GEO-4 report are available for download on www.unep.org/geo/geo4/ and on
UNEP's official distributor's website: <http://www.earthprint.com/go.htm?to=DEW0962NA>
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