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PRESS RELEASE

Global warming report details impacts on people and nature

Bonn/Geneva/Nairobi, 19 February 2001 – The second volume of a major climate change report describing in greater detail than ever before how global warming could impact civilization and the natural environment has been finalized here by an international group of leading scientists.

Last month's report by Working Group I of the Intergovernmental Panel on Climate Change (IPCC) confirmed the increasingly strong evidence for humanity's influence on the global climate. It also projected that the globally-averaged temperature of the air above the Earth's surface would rise by $1.4-5.8^{\circ}\text{C}$ over the next 100 years.

Today's report by Working Group II analyses how this general warming will affect Africa, Asia, Europe and other regions over the coming decades. While highlighting remaining uncertainties, it details expected changes in weather patterns, water resources, the cycling of the seasons, ecosystems, extreme climate events, and much more. The report is an objective assessment of the most up-to-date, peer-reviewed scientific research available.

"Climate change is a stress that will be superimposed over expected population and other environmental stresses," said Professor G.O.P. Obasi, Secretary-General of the World Meteorological Organization (WMO), which, together with the United Nations Environment Programme (UNEP), launched the IPCC in 1988. "Life as we know it today on the planet will be forced to respond to the shift to a warmer world. We have to use mitigation and adaptation strategies to face the changes while not forgetting to improve our knowledge basis. Every natural and socio-economic system appears to be vulnerable to climate change. However, it is the least developed countries that are the most vulnerable."

Klaus Toepfer, Executive Director of UNEP, said "The scientists have shown us a compelling snapshot of what the Earth – which already faces so many other social and environmental pressures – will probably look like later in the 21st century."

"In addition to minimizing global warming through cuts in greenhouse gas emissions, we need to understand the powerful changes our industrial economy has set into motion and anticipate them. We must start helping vulnerable species and ecosystems adapt to new climate conditions. Governments should already factor these new conditions into their long-term investment and planning decisions," he said.

The report concludes that our future ability to satisfy human needs will be affected – both positively and negatively – by changes in agricultural conditions; by local and regional trends in droughts, floods, and storms; by unforeseen stresses on buildings and other long-standing infrastructure; by altered disease and health risks; and much more.

"The new IPCC report has powerful implications for how we deal with poverty and sustainable development over the coming decades," said Michael Zammit Cutajar, Executive Secretary of the United Nations Framework Convention on Climate Change.

"No country can afford to ignore the coming transformation of its natural and human environment The poor and the vulnerable are at greatest risk. This report is a timely reminder that we need to pay more attention to the costs of inaction, and that the costs of action to cut emissions are just part of the climate change equation," he said.

Many of the physical changes that scientists have assessed as being consistent with global warming can already be witnessed today. The extent of Arctic sea-ice has shrunk by about 10-15%, while Antarctic sea ice retreated south by 2.8 degrees of latitude from the mid 1950s to the early 1970s. Alaska's boreal forests are expanding northwards at a rate of about 100 kilometres per 1°C rise. Ice cover on lakes and rivers in the mid-to-high Northern latitudes now lasts for about two weeks less than it did 150 years ago.

In the European Alps, some plant species have been migrating upwards by one to four metres each decade. Across Europe, the growing season in controlled mixed-species gardens lengthened by 10.8 days from 1959 to 1993. In Europe and North America, migratory birds now arrive earlier in the spring and depart later in the autumn. Butterflies, beetles, dragonflies, and other insects are now found further north, where it was previously too cold for them to survive.

In large parts of Eastern Europe, European Russia, central Canada and California, peak stream flows have shifted from spring to winter, as more precipitation falls as rain rather than as snow. In Asia, 67% of the glaciers in the Himalayan and Tianshan mountain ranges (which feed some major rivers) have retreated during the past decade.

These trends are expected to continue through the 21st century and beyond. In parts of Africa, desertification is expected to worsen in response to reduced rainfall, runoff and soil moisture. In many Asian countries, declines in agricultural productivity will diminish food security, while sea-level rise and an increase in the intensity of tropical cyclones could displace tens of millions of people in low-lying coastal areas. In Australia and New Zealand, water is likely to become a key issue due to projected drying trends over much of the region.

The risk of flooding will increase across much of Europe. In Latin America, floods and droughts will become more frequent and vector-borne infectious diseases will expand poleward. In North America, sea-level rise is expected to enhance coastal erosion and flooding and the risk of storm surges, particularly in Florida and along much of the US Atlantic coast.

Small island states are likely to be among the countries most seriously affected by climate change. In all regions, developing countries will have difficulties adapting to climate change.

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