

Science and Development Network

## NEWS

## 'Doom and gloom' forecast for global environment

Mike Shanahan 8 October 2004 Source: SciDev.Net

[MONTREAL] The United Nations Millennium Ecosystem Assessment (MEA) will paint a grim picture of the Earth's environmental health, if the preview of its forthcoming report presented at the 4th World Conference of Science Journalists yesterday (7 October) is indicative.

The forecast is particularly bleak for developing countries and the growing degradation of ecological systems will likely constrain progress toward some of the Millennium Development Goals, according to MEA board co-chair Robert Watson and MEA assessment panel co-chair Angela Cropper.



Robert Watson

"Unless we integrate our environmental obligations with classical development obligations, we will have a problem," said Watson, who is the World Bank's chief scientist and former chair of the intergovernmental panel on climate change.

The MEA was initiated in 2001 as a global inventory of ecosystem health and its contribution to human wellbeing. It involves 1,500 scientists, policymakers and government workers in partnership with the UN Development Programme, UN Environment Programme, World Bank and World Resources Institute.

The initiative examined ten ecosystems — including forests, mountains and cultivated land — and the services, such as food, water and nutrient cycling, they provide in order to evaluate their effect on society

Watson warned that the planet's nitrogen cycle is being disturbed by the combustion of fossil fuels, agroforestry, and by the use of fertilisers. The need for more agricultural land, especially in developing countries, he said, would come at a "cost to biodiversity at the ecosystem and species level".

The MEA's final report is expected to conclude that the state of ecosystems globally has changed more in the past 50 years than in any previous short period of time. And though human well-being has, on average, increased in the recent past, a growing number of people are at high risk of suffering from changes to ecosystems.

Ecological services in critically short supply include marine fisheries and freshwater supplies — especially in the planet's arid regions. In southern Africa, without decisive intervention, tens of millions of people will be have an unreliable food supply by 2020, the report is expected to conclude.

According to Watson, climate change will make matters worse. "To stop significant degradation of ecosystems and of food, water, and human health in developing countries, we must limit maximum temperature change to two degrees Celsius above pre-industrial levels," he says.

One aspect of the MEA is an assessment of how different policy scenarios could affect the planet's ecosystems and — as a result — human society. The aim is for the assessment to identify a range of policy choices, rather than recommending one course of action over another.

Watson described four scenarios in which countries could act proactively or reactively, and act globally in concert or regionally.

Under the 'global orchestra' scenario, in which the world acts together to redress the degradation of ecosystems, the number of malnourished children would decrease significantly by 2050. In developing countries, health, freedom of choice, material well-being, social relations and security would all improve.

An alternative scenario — dubbed 'order from strength' — is also reactive, but regional. In it, the United States and Europe would each focus more on their own affairs than on the rest of the world. Under this scenario the report predicts that the number of malnourished children would increase by 2050 and that health, freedom of choice, material well-being, social relations and security would all deteriorate in developing countries

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The MEA will also detail a third scenario, said Watson, called the 'technogarden', featuring a global, proactive response to the challenges facing the planet, in which science and technology are harnessed to address the demands placed on the environment by a growing human population.

"The message is 'we have a choice'," said Watson. "We can have good human well-being and natural heritage."

According to Cropper, the MEA report's authors had their final meeting last week in Kuala Lumpur, Malaysia. The completed report is expected to be released within the next few months.

Speaking directly after Cropper, Daniel Pauly, director of the University of British Columbia's fisheries centre, added what he called "doom and gloom" to the forecast of the planet's environmental health.

"Overfishing is so bad that the world's catch is declining," said Pauly. "Fisheries are in trouble everywhere one looks."

In a debate held at the WCSJ the previous day, Danish political scientist Bjørn Lomborg argued that science journalists focus on bad news, making the state of the environment appear worse that it really is. David Schindler of the University of Alberta, vehemently disagreed.

"Despite our best efforts in winning battles, we are still losing the war on the environment," said Schindler. "I don't view it as a responsibility of science journalists to blow sunshine in dark cracks."

But Schindler did agree with Lomborg's view — later echoed by Evans and Cropper of the MEA — that with limited funds and time, policy makers need to prioritise how to spend money on addressing environmental degradation.

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