

Preface

The 2007 Global Environment Outlook Year Book is focused on the interface between two powerful trends: concerns for environmental integrity and accelerating globalization. In the first years of the 21st century we became all too aware of how global events can affect local attitudes and actions. In 2006 we witnessed how local actions affect global outcomes: for instance, how local consumer demand can lead to certification schemes for sustainable production of goods and services on another continent or how local integration in development of biodiversity corridors can create a destination for the global tourism market.

Globalization is inescapable and its many advances seem self-perpetuating but its consequences should and must be shaped in ways that maximize benefits for people and for the planet. It presents both risks and opportunities. If globalization is managed to optimize the opportunities—to enhance the forces that bring food to the undernourished and clean water to millions and to avoid tendencies towards social or economic exclusion and homogenization of culture—it will become a major force for world-wide sustainable development.

This is why the topic of environment and globalization has been chosen as the key theme for the 24th Session of the Governing Council / Global Ministerial Environment Forum (GC-24/GMEF). The health and wealth of every economy and every region are dependent on the successful reconciliation of these two trends.

Many components of their interface are presented in the GEO Year Book's global and regional **Overview** chapter which details progress and problems at the global scale and within each region. It reports significant developments over the past year and describes recent policy decisions and innovative schemes aimed at resolving potential clashes of economic growth with environmental concerns, including initiatives to reconcile issues of conflict and the environment.

The importance of environment and globalization in the modern world is also why the Year Book's **Feature Focus** is dedicated to the issue. Action towards a more intelligent, socially responsible, and environmentally sensitive form of globalization is long overdue. In some ways, the need for such action has become even more critical as the production and consumption patterns of the developed world are being matched by those of rapidly developing economies such as Brazil, China, and India.

Innovative technologies and techniques are being developed to facilitate the integration of environment and justice concerns into the management of globalization. Paying for ecosystem services, financing environmentally sound technologies, harnessing consumer demand for certification of sustainable produced goods and services, and distributing access to environmental monitoring information for responsible decision-making—these are all mechanisms presented here with the goal of disseminating good ideas and building synergies that will produce more innovations.

The chapter on **Emerging Challenges** looks at one area of those opportunities: nanotechnology—materials and technologies at a scale of one billionth of a meter. Nanotechnology promises to transform sectors as diverse as medicine, manufacturing, energy, water supply, and transportation. Public and private sectors, particularly in developed countries and economies in transition, are investing heavily in research and applications.

By 2014, nanotechnology is projected to have 14 per cent or US\$2.6 trillion of the global manufacturing market. But what are the potential impacts of nanotechnology on the environment and human health? Do current regulatory frameworks deal adequately with the special challenges posed by these 'smart' particles? Policy-makers need to develop and extend science-based risk frameworks and to look at how best to address transboundary issues on the development and deployment of nanomaterials and products.

The **Indicators** chapter depicts up-to-date data on key environmental trends and growing stresses on ecosystems. The latest trends from data tracking CO₂ emissions and forest harvest rates continue to head in the wrong direction. In comparison there are positive trends in areas like the consumption of ozone depleting substances and renewable energy.

The Year Book also highlights how the Multilateral Environmental Agreements are evolving. For example, member governments of the Basel Convention on the Control of Transboundary Movements of Hazardous

Wastes agreed in 2006 to accelerate efforts to reduce the risks and maximize the benefits from the dramatic worldwide growth in electronic wastes—a globalization issue if ever there was one.

The UN Convention on Climate Change estimates that the its Clean Development Mechanism alone could generate some US\$100 billion of funds for developing countries. The Kyoto Protocol is also helping to drive investment and trade in new and renewable technologies like wind, solar power, and biomass fuels.

The GEO Year Book series has many aims—not least to bring together science and policy-making. More than 80 experts worldwide were involved in this Year Book's preparation. UNEP and the Year Book team also benefited from your comments and suggestions. I hope you find the GEO Year Book 2007 informative and stimulating for your discussions during the 24th Regular Session of the GC/GMEF. As always, your feedback is most welcome.



A handwritten signature in black ink that reads "Achim Steiner".

Achim Steiner

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