

Box 4.6 The Call for a Millennium Ecosystem Assessment

It is impossible to devise effective environmental policy unless it is based on sound scientific information. While major advances in data collection have been made in many areas, large gaps in our knowledge remain. In particular, there has never been a comprehensive global assessment of the world's major ecosystems. The planned Millennium Ecosystem Assessment, a major international collaborative effort to map the health of our planet, is a response to this need. It is supported by many governments, as well as UNEP, UNDP, FAO and UNESCO. I call on Member States to help provide the necessary financial support for the Millennium Ecosystem Assessment and to become actively engaged in it.

— UN Secretary General Kofi A. Annan
From *We the Peoples: The Role of the United Nations in the 21st Century* (April 2000)

The case studies do not end here. Only time will reveal the level of health that any of these degraded ecosystems regain. We know the “restored” Everglades system will be different in species composition and functioning than the original system. South Africa will never entirely be rid of its invading plants, despite the best efforts of the Working for Water Programme.

Climate change, globalization, and urbanization are pressures that could undermine the long-term successes of even the most informed, carefully constructed management and restoration plans. Increasing global carbon emissions are already affecting ecosystems. Warmer temperatures and changes in rainfall patterns could encourage migrations and invasions of nonnative species, and rising sea levels could submerge many low-lying areas, from coral atolls to parts of the Everglades ecosystem. Globalization and industrialization are likely to destabilize many traditional economic patterns that focus on subsistence and local resource use. Suburban sprawl, habitat fragmentation, air pollution, and the sheer scale of resource demand and waste generation will take a toll before better urban planning begins to minimize these stresses.

Successful ecosystem management will increasingly require the cooperation of neighbors—sometimes people

Also endorsing the Millennium Ecosystem Assessment as of September 2000:

- Conference of parties to the Convention to Combat Desertification
- Conference of parties to the Convention on Biological Diversity
- Conference of parties to the Ramsar Convention on Wetlands
- Consultative Group on International Agricultural Research and the International Agricultural Research Centers
- Millennium Assessment Steering Committee, representing 30 international agencies and research
- Ministers of the Environment meeting in Elmina, Ghana, September 1999, representing 20 countries
- Third World Academy of Sciences
- Third World Network of Scientific Organizations
- *World Resources* partners UNDP, UNEP, World Bank, and WRI

with widely divergent goals. Dhani residents had only to work with adjacent villages, but South Africa must work with Botswana and Zimbabwe to control dense infestations of nonnative plants like rose cactus, the distribution of which is accelerated by elephants and donkeys moving freely across borders. Even that is a relatively local problem compared with the transboundary issues raised by efforts to develop and manage the Mekong River sustainably. There, the wishes and needs of six nations all threaten the quantity and quality of the water in the Basin, and the livelihoods of the fishers and farmers in the Lower Mekong.

The international agreement to stem stratospheric ozone depletion (the Montreal Protocol) suggests that we can—aided by sound science—formulate a shared vision and commitment to manage a problem, once we understand its severity. But for some ecosystem services, like biodiversity and carbon storage, a shared understanding of their importance may not be enough to bring about cooperative global management. International markets do not value ecosystem services, such as biodiversity or carbon storage, as the public assets they are. Yet they are essential assets of global importance; thus, the global community may need to bear some of the costs of sustaining them. International efforts to supply public capital and leverage private-sector