

ENVIRONMENT

Investments Toward Sustainable Development

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Sustainable development, meaning economic growth that is environmentally sound, is a practical necessity. Environmental goals cannot be achieved without development. Poor people will circumvent environmental restrictions in their desperation for land, food, and sustenance. Nor can development goals be achieved and sustained without sound environmental management. Environmental catastrophes will undermine economic life, whether in New Orleans or Nigeria. Therefore, investing in poverty reduction is crucial for environmental policy, while investing in the environment is vital for successful poverty reduction (see figure, right). Yet the world underinvests in both, and rich-country and poor-country governments overlook the policy links between poverty reduction and the environment.

The United Nations (U.N.) Millennium Project (1) and the Millennium Ecosystem Assessment (MA) (2) highlighted the centrality of environmental management for poverty reduction and general well-being. Each report emphasized the unsustainability of our current trajectory. Millions of people die each year because of their poverty and extreme vulnerability to droughts, crop failure, lack of safe drinking water, and other environmentally related ills. The desperation of the poor and heedlessness of the rich also exact a toll on future well-being in terms of habitat destruction, species extinction, and climate change.

The goal of the Millennium Project (1) is to develop and to promote practical plans for achieving the U.N. Millennium Development Goals (MDGs) for ending poverty, eradicating hunger, achieving universal primary education, improving health, and restoring a healthy environment. The MA, in turn, examined the consequences of ecosystem change for human well-being and analyzed options for conserving ecosystems while enhancing their contributions

to people (2, 3). The MA and the Millennium Project reached strikingly parallel conclusions:

Environmental degradation is a major barrier to the achievement of the MDGs. The MA examined 24 ecosystem services (the benefits people obtain from ecosystems) and found that



An investment strategy for sustainable development in low-income countries.

productivity of only 4 had been enhanced over the last 50 years, whereas 15 (including capture fisheries, water purification, natural hazard regulation, and regional climate regulation) had been degraded. More than 70% of the 1.1 billion poor people surviving on less than \$1 per day live in rural areas, where they are directly dependent on ecosystem services.

Investing in environmental assets and management are vital to cost-effective and equitable strategies to achieve national goals for relief from poverty, hunger, and disease. For example, investments in improved agricultural practices to reduce water pollution can boost coastal fishing industry. Wetlands protection can meet needs of rural communities while avoiding costs of expensive flood control infrastructure. Yet these investments are often overlooked.

Reaching environmental goals requires progress in eradicating poverty. More coherent and bolder poverty reduction strategies could ease environmental stresses by slowing population growth and enabling the poor to invest long term in their environment.

We recommend the following measures in 2006. First, we call on the rich donor countries to establish a Millennium Ecosystem Fund to give poor countries the wherewithal to incorporate environmental sustainability into national development strategies. The fund would support work that focuses on how poverty reduction can enhance environmental conservation (e.g., by giving farmers alternatives to slash and burn) and how environmental sustainability can support poverty reduction (e.g., watershed management to maintain clean water supplies). It would also support national ecosystem service assessments to help decision-makers factor the economic and health consequences of changes in

Environmental goals cannot be attained without also addressing poverty; similarly, addressing poverty is essential for improving the environment; both need additional resources, particularly in developing nations.

ecosystem services into their planning choices.

The fund would initially need roughly \$200 million over 5 years. It would enable universities and scientists in dozens of the poorest countries to incorporate the science of environmental sustainability into poverty reduction strategies. The programs would generate evidence for countries to use in setting priorities for national development and environmental investments.

Second, the United Nations should establish a cycle of global assessments modeled on the MA and similar to the climate change reports produced at 4- to 5-year intervals by the Intergovernmental

Panel on Climate Change (IPCC). The MA and IPCC cost roughly \$20 million, and each mobilized in-kind contributions of that magnitude. A global network of respected ecologists, economists, and social scientists working to bring scientific knowledge to decision-makers and to the public can clarify the state of scientific knowledge, help to mobilize needed research, and defeat the obfuscation led by vested interests.

France's recent initiative for a consultative process exploring the merits of an International Mechanism of Scientific Expertise on Biodiversity (4) could be one means of establishing a regular assessment process if, along with biodiversity, it also addresses the linkages between ecosystem change and human well-being. Also, it would need to evaluate potential policy, institutional, and behavioral responses.

Third, the world scientific community needs to chart an interdisciplinary strategy for sustainable development research, backed by increased funding. Leading scientific institutions should now coalesce behind a shared agenda on sustainable development and thereby help to draw governments into the challenges of the 21st century.

References

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