Biodiversity and Human Health

Ecosystem Services for Human Health

Health is our most basic human right and therefore one of the most important indicators of sustainable development. Likewise, biodiversity and ecosystem functioning provide goods and services essential for human health. The latter includes nutrition and food security, clean air and fresh water, medicines, climate stabilization, the natural regulation of pests and disease, cultural and spiritual benefits, as well as contributions to economic development. Biodiversity is not regarded as an ecosystem service itself, but rather as a pre-requisite underpinning each of them.

Because health is central to sustainable development, poor communities face twin challenges. Their greater vulnerability to environmental health impacts exacerbates the development challenges they face, which in turn further weakens their ability to respond to health risks.

There is growing evidence of the impacts of global environmental changes on ecosystems and people, and renewed global consciousness of the need to act quickly to protect the planet’s ecological and climatic systems. During the 21st century, global public health will depend more than ever before on how we manage and respond to global environmental change. Highly influential reports warn that morbidity and mortality from environmental threats will continue to increase rapidly unless major efforts are made to redress the human causes of ecological transformation now under way.

The post-2015 development agenda should include policy instruments that promote human health through the sustainable use and conservation of biodiversity, making explicit linkages such as:

- Ecosystem integrity, biodiversity depletion, and vector-borne diseases
- Freshwater depletion and contamination, water security, and water-related diseases
- Parks and green spaces, biodiversity programmes, exercise opportunities, and physical and mental health
- Agricultural biodiversity, nutrition, and diet and lifestyle changes, and avoidance of non-communicable diseases
- Community-based conservation, medicinal plants, traditional medical knowledge and drug development
- Climate change, invasive species proliferation, and impacts on health and food security.

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As indicated in the UN Rio+20 outcome document “The Future We Want”, through its linkages with safe drinking water and sanitation, the burden of non-communicable diseases and emerging infectious diseases, and traditional and modern medicines, biodiversity has a critical role to play in maintaining ecosystem services. However, there is an urgent need to translate general principles into concrete health outcomes and greater health equity. Actions toward the post-2015 SDGs will be more effective if they highlight the full range of linkages between sustainable development, global environmental change, human health and well-being.

Sustainable Development Goals and indicators must reflect the impacts of biodiversity loss, climate change and desertification on health, in the context of their social, economic and environmental dimensions. The experience of the Millennium Development Goals, among others, has demonstrated the importance of defining standards and tracking progress in achieving a truly integrated vision of sustainable development.