

# Biodiversity and Human Health



Convention on  
Biological Diversity



## Ecosystem Services for Human Health

### FAST FACTS

#### DEGRADED ECOSYSTEMS

An estimated 94% of the diarrhoeal burden of disease is attributable to environmental factors, associated with risk factors such as unsafe drinking-water, and poor sanitation, related in turn to the loss of biodiversity in freshwater ecosystems.

#### POLICIES AND PRACTICES

42% of the burden of malaria is attributable to modifiable environmental factors including policies and practices regarding land use, deforestation, water resource management, settlement siting and modified house design such as improved drainage.

#### TRADITIONAL MEDICINE

In some Asian and African countries, 80% of the population depend on traditional medicines for primary health care. Over half of synthetic medicines originate from natural sources, and millions of people around the world depend on products obtained from ecosystems for medicinal purposes.

more information:

[www.cbd.int/en/health](http://www.cbd.int/en/health)  
[secretariat@cbd.int](mailto:secretariat@cbd.int)

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.



United Nations Decade on Biodiversity



flickr.com/jimmiehomeschoolmom

## STRATEGIC PLAN FOR BIODIVERSITY 2011-2020

The need to accelerate progress on the Millennium Development Goals, to reduce the burden of non-communicable diseases, to combat and prevent emerging infectious diseases, including pandemics such as HIV/AIDS, SARS, and a series of influenza strains that have caused significant global mortality, morbidity, and economic loss, are all examples of the fundamental linkages between biodiversity and human health. The need to integrate biodiversity into health policies and regarding implementation of the Strategic Plan for Biodiversity and its 20 Aichi Biodiversity Targets has never been stronger.

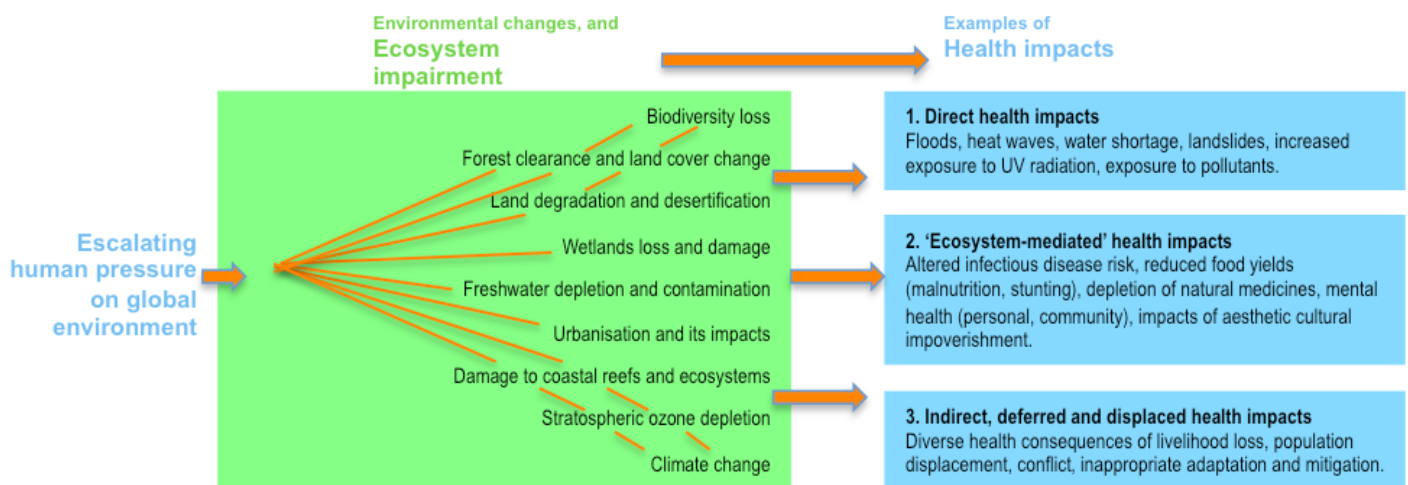
Investments in this area today will reduce much larger societal and health costs in the future.

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.

### Health impacts of environmental change



Adapted from Patz et al, 2012 p.51. Fully referenced version available at : [www.who.int/globalchange/publications/reports/health\\_rioconventions.pdf](http://www.who.int/globalchange/publications/reports/health_rioconventions.pdf)