

# Biodiversity and the Millennium Development Goals



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## **1. Introduction**

The variety of life forms on earth, including genes, species and ecosystems, is known as biological diversity or biodiversity. Loss of biodiversity results in serious reductions in the goods (such as food, medicine and raw materials) and services (such as clean water and nutrient cycling) provided by the earth's ecosystems, which make human survival and economic prosperity possible (Anonymous 2002).

The Millennium Development Goals (MDGs) were formally established when the United Nations General Assembly adopted the Millennium Declaration in September 2000. Adoption of the Millennium Declaration paves a significant way to addressing issues of poverty eradication and sustainable development. Through a set of targets and dates, the MDGs provide a framework for measuring development progress. They also reinforce the commitment of the international community for a comprehensive and integrated approach to sustainable development.

Biodiversity plays an important role in ensuring that the targets of the MDGs for sustainable development are successfully achieved. However, the links between biodiversity and the path to achieving the MDGs have not been made explicit. The first section of this paper provides an introduction to the benefits of biodiversity and the Millennium Development Goals. The importance of biodiversity to development objectives is also discussed in the context of the WEHAB Initiative and the Convention on Biological Diversity. The second section of this paper provides a more detailed discussion of the role of biodiversity in achieving the targets of each of the MDGs. The third section considers links between climate change, biodiversity and the MDGs. Finally, section 4 provides the conclusions and recommendations for ways forward and future activities.

### **1.1 Biodiversity**

Through the provision of biological resources and ecosystem services, biodiversity is an essential component of human development and human security. Through agriculture, forestry and fishing, biodiversity provides crops, timber and fish and contributes significantly to national economies and employment. Ecosystem goods range from food and water to timber and fodder to genetic resources. In addition, ecosystems provide essential services including nutrient cycling,

air and water purification, flood and drought mitigation and soil production, free of charge. These services can not be replaced at a reasonable price (WRI, 2002).

The direct economic benefits of biodiversity run into trillions of dollars per year (Costanza *et.al.* 1997). Some of the significant benefits include: an annual market value of crop production in the United States to tunes of about US\$40 billion which is completely dependent on insect pollinators; biological pest control that saves an annual revenue of US\$ 100-200 billion; and, biological nitrogen fixation has an estimated annual worth of US\$50 billion. While recognition of the values of the goods and services that biodiversity offers – both direct and indirect – is increasing, the relationship between the role of biodiversity in environmental sustainability, poverty reduction and sustainable development needs further attention and understanding.

## **1.2 The Millennium Development Goals**

The Millennium Development Goals (MDGs) were formally established when the United Nations General Assembly adopted the Millennium Declaration in 2002. They address issues of poverty eradication and sustainable development through a set of targets and dates (Box 1). Achieving these targets is the responsibility of national governments.

One of the significant features of the MDGs is that they seem to focus on developmental issues, leaving options of how to implement actions to achieve the goals open for interpretation. Goal 7 of the MDGs focuses on ensuring environmental sustainability without any explicit mention of the role of biodiversity and natural resources. However, the role of biodiversity in ensuring that the targets of the MDGs are successfully achieved is well recognised. Attempts are being made to mainstream biodiversity into, not only MDG 7, but also across other MDGs, as achieving the targets of the MDGs will directly or indirectly impinge on the status and use of biodiversity.



## **Box 1 – The Millennium Development Goals and Targets**

### **Goal 1 - Eradicate Extreme Poverty and Hunger**

Targets: Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day; Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

### **Goal 2 - Achieve Universal Primary Education**

Target: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

### **Goal 3 - Promote Gender Equality and Empower Women**

Target: Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015.

### **Goal 4 - Reduce Child Mortality**

Target: Reduce, by two-thirds, between 1990 and 2015, the under-five mortality rate.

### **Goal 5 - Improve Maternal Health**

Target: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio.

### **Goal 6 - Combat HIV/AIDS, Malaria and other Diseases**

Targets: Have halted by 2015 and begun to reverse the spread of HIV/AIDS; Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.

### **Goal 7 - Ensure Environmental Sustainability**

Targets: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources; Halve, by 2015, the proportion of people without sustainable access to safe drinking water; Have achieved, by 2020, a significant improvement in the lives of at least 100 million slum dwellers.

### **Goal 8 - Develop a Global Partnership for Development**

Targets: Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system (includes a commitment to good governance, development and poverty reduction - both nationally and internationally); Address the special needs of the least

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