



## Biodiversity Development and Poverty Alleviation

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**B**iodiversity is the feedstock for biotechnological enterprises. India is rich in biodiversity but unfortunately is also home for a large number of undernourished children, women and men. The challenges lie in converting our rich bioresources into jobs and income in an environmentally and socially sustainable manner, thereby leading to an era of biohappiness. Biodiversity is affected by rapid unpredicted climate change, natural calamities (earth quack, volcanic eruption floods, drought, epiphytotics,) and man's manipulations (deforestation, forest fire, rapid urbanization, use of insecticides and pesticides and pollution) which resulted in to continued loss of biological diversity. The UN declared 2010 the International Year of Biodiversity (IYB). Following initiatives will be organized:

- ◆ To disseminate information.
- ◆ To promote the protection of biodiversity
- ◆ To encourage organizations, Institutions, companies and individuals to take direct action to reduce the constant loss of biological diversity world wide.

The theme for the International Day on Biological Diversity (IDB) in 2010 is Biodiversity, Development and Poverty Alleviation. This year, IDB is part of the International Year of Biodiversity. Designation of IDB 2010 on the theme of development provides Parties to the Convention on Biological Diversity (CBD) and those dealing with development, opportunity to raise awareness of the issue and increase practical action. The United Nations proclaimed May 22 the International Day for Biological Diversity (IDB) to increase understanding and awareness of biodiversity issues. Climate change is now adding its effects to the cumulative pressures. In the last century we have lost 35% of mangroves, 40% of forests and 50% of

wetlands. Due to human actions, species are being lost at a rate that is estimated to be up to 100 times the natural rate of extinction. The Red data List, 2009 reports that of the 44,837 species they have assessed, 38% are threatened and 804 are extinct. There is growing consensus that most of the vital signs of biodiversity are plummeting and that biodiversity loss is moving ecosystems ever closer to thresholds, or tipping points, beyond which their services-providing capabilities will be seriously undermined. Deteriorations in ecosystem services that result from biodiversity loss have severe consequences for human societies and economies and for the future of life on the planet. The poor are particularly vulnerable to these consequences because they are often directly dependent on biodiversity for their day to day survival and are generally not in a position to afford substitutes. 70% of the world's poor live in rural areas and depend directly on biodiversity for their survival and wellbeing. The urban poor also rely heavily on biodiversity. Though human well-being is dependent on the continued provision of ecosystem services, biodiversity is very rarely included in our economic outlook because it is mainly a public good, sending no signals through markets. When first created by the Second Committee of the UN General Assembly in late 1993, 29 December (the date of entry into force of the Convention of Biological Diversity), was designated The International Day for Biological Diversity.

In December 2000, the UN General Assembly adopted 22 May as IDB, to commemorate the adoption of the text of the Convention on 22 May 1992 by the Nairobi Final Act of the Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity. This was partly done because it was difficult for many countries to plan and carry out



suitable celebrations for the date of 29 December, given the number of holidays that coincide around that time of year. One of the greatest threats to sustainable human and economic development comes from the downward spiral of poverty and environmental degradation that threatens current and future generations the poor are disproportionately threatened by the environmental hazards and health risks posed by pollution, inadequate housing, poor sanitation, polluted water and a lack of other basic services. Many of these already deprived people also live in the most ecologically vulnerable areas. The extent of linkages between the ecosystem services provided by biodiversity and the development goals of ending poverty, hunger and disease and improving the health of children and mothers is deep and broad. The diversity and quality of ecosystem goods and services depends on societal, institutional and individual choices made in our development processes. These choices are typically expressed in national policies and implemented in programs at national and Sub-national levels. Given the continued loss of biodiversity, this is a call for policy reforms, institutional strengthening and concomitant investments. Investing in biodiversity conservation is not only about maximizing development benefits; it is also about preventing national, regional and global losses on MDG progress due to environmental degradation and climatic disasters.

### **Biodiversity affected by climate change**

As the effects of the financial and economic crisis and of climate change continue to mount, countries everywhere are struggling to sustain their development achievements. Climate change is a manifestation and symptom of the lack of adequate consideration of environmental sustainability in development pathways. Biodiversity both affects and is affected by climate change: on the one hand climate change is a major cause of biodiversity loss, on the other, the conservation and sustainable use of biodiversity offers resilience to climate variability and natural disasters. The climate change, food production and economic crisis are wake up calls to the need for factoring in sustainability in development choices. This is an opportune time to reset on root causes of these crises,

and more importantly to shift policies, investments and day to day actions to those most effective for the conservation and sustainable use of biodiversity and ecosystem.

### **Progress on MDG goals**

Conservation and sustainable use of biodiversity creates opportunity for reducing poverty and improving human well-being. Reversing biodiversity loss is a key dimension of the MDG agenda and contributes to progress on MDG goals of ending extreme poverty and hunger, ensuring health and education for all, achieving environmental sustainability and international cooperation.

### **Biodiversity loss and consequences for poverty alleviations**

The loss of biodiversity has extensive consequences for poverty alleviation and makes the attainment of the MDGs difficult. For example, Haiti, a country that was once fully forested, has lost 97% of its forest covers. It is now the poorest country in the Western Hemisphere, with 65% of Haitians living on less than \$1/day. The country also has the highest rates of infant, under-five and maternal mortality in the Western hemisphere (with diarrhea as one of the leading causes of death), and 90% of its children are chronically infected with intestinal parasites, which they acquire from the water they drink. This tragic situation is linked to the loss of ecosystem services (rainfall, prevention of soil erosion, water purification) provided by forests.

### **Societal progress or development**

The Royal Government of Bhutan adopted the Gross National Happiness Index (GNH Index putting happiness and well-being at the centre of their societal progress, or development. The GNH Index is composed of nine equally weighted dimensions:

Psychological Wellbeing, Time Use, Community Vitality, Culture, Health, Education, Ecological Diversity and Resilience, Living Standard, Governance.

It considers the state of Bhutan's natural



resources, the pressures on ecosystems, different management responses, and perceptual data on ecology. The indicators used within this dimension include indicators of ecological degradation, knowledge and afforestation. The index guides Bhutan's planners in their development of policies and programs.

### Biodiversity, health and nutrition

Scientific research is revealing an increasing number of links between biodiversity, human health and well-being. The existence of a variety of ecosystems, of different species and of genetic diversity is essential to maintaining human health, in terms of food security.

### Poverty-environment partnership

The Poverty-Environment Partnership (PEP) is a network of international development and environment agencies and NGO's including UNDP, UNEP, IIED, IUCN and WRI. In 2005, it brought a message to the World Summit in New York, based on a body of analytical work and consultations aimed at making clear the complex relationships between poverty reduction and environmental sustainability: "The world's poor depend critically on fertile soil, clean water and healthy ecosystems for their livelihoods and well-being". The Partnership recommended that donor support be focused to the following areas:

- ◆ Greatly expanded investment in environmental assets.
- ◆ Strengthened local institutions.
- ◆ Integrated approaches developed to put pro-poor investments at the heart of national development- and poverty reduction strategies and sectoral planning.
- ◆ Pro-poor changes in environmental governance.
- ◆ Innovative market-based instruments to encourage pro-poor investments in environmental

management and the provision of environmental services.

### Conservation and sustainable use of biodiversity

Conservation and Sustainable Use of Biodiversity is a foundation for Human Development Conservation and sustainable use of biodiversity creates opportunity for reducing poverty and for improving human well-being. The linkages between poverty, the bio-physical environment and human development have been highlighted. Furthermore, the 1994 Human Development Report emphasized the link between human development and sustainability. It stressed that human development is not a one-time goal, but one that should be assured equally for present, and for future generations, that the development we strive toward must be sustainable, and that there is no contradiction between the goals of development and those of ecological conservation. Today, the global report of 2008 on Human Development and Climate Change outlines the mechanisms through which climate change could stall and reverse human development :reduced agricultural productivity and food security; heightened water stress and insecurity; increased exposure to coastal flooding and extreme weather events; the collapse of ecosystems and extinction of species; and increased human health risks. Several countries have included environmental considerations in their National Human Development Reports.

Biodiversity is the most valuable gift of nature, handed over to us through its millions of years of non-replicable and non repeatable process of evolution. It should be considered as the living capital of the country waiting to be tapped and demanding to be conserved for posterity. The year 2010, The International Year of Biodiversity needs to be observed with extreme seriousness and a solemn pledge to conserve and augment our diverse resources in the natural heritage.

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