

Biodiversity is life.
Biodiversity is our life.



FOR MOUNTAINS AND PEOPLE

The United Nations General Assembly declared 2010 to be the International Year of Biodiversity (IYB) with the slogan *Biodiversity is life Biodiversity is OUR life*. This declaration is a celebration of life on earth and a recognition of the value that biodiversity holds for humanity. The International Year of Biodiversity (IYB) is an opportunity to highlight the unique biodiversity richness of the Hindu Kush-Himalayas and to acknowledge the contributions made by the people of the region who come from a host of diverse cultures and traditions. The IYB will help to raise awareness about the importance of biodiversity, communicate the human costs of its ongoing loss, and get people involved in efforts to conserve and sustainably use our natural heritage for the sake of our lives and the generations to come.



Himalayan tahr (*Hemitragus jemlahicus*)

Biodiversity and biodiversity loss

Biodiversity refers to the variety of life forms on earth, the genes they contain, and the ecosystems they create out of their interdependence and interaction. It is defined as the variability among living organisms and includes the diversity within species, and the interaction between species and ecosystems. Biodiversity is the result of years of gradual but dynamic change – the process of evolution.

Biodiversity in the Hindu Kush-Himalayas is influenced by various drivers such as changes in land use and cover, globalisation and economic growth, climate change, and socioeconomic and demographic changes. Specific changes include human-induced deforestation, urbanisation leading to habitat fragmentation, the growth of invasive species, forest fires, and unsustainable resource extraction including illegal harvesting and poaching.

ICIMOD and Biodiversity Conservation

The International Centre for Integrated Mountain (ICIMOD), is a regional knowledge development and learning centre serving the eight regional member countries of the Hindu Kush-Himalayas – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan. Overall, it is working to develop an economically and environmentally sound mountain ecosystem to improve the living standards of mountain populations and to sustain vital ecosystem services for the billions of people living downstream. In line with this, ICIMOD is committed to conservation and biodiversity management at the regional scale, guided by the Convention on Biological Diversity.



Sausseria sp.

Himalayan biodiversity

The Hindu Kush-Himalayas are home to a rich biodiversity. The extreme differences in altitude, soils, and presence of water, and the varied climatic conditions of the region have resulted in a rich biodiversity of global significance. The region hosts

- all or part of 4 of the 34 Global Biodiversity Hotspots
- 6 UNESCO Natural Heritage Sites
- 330 Important Bird Areas
- 53 Important Plant Areas
- 60 ecoregions (including Global 200 ecoregions)
- 29 Ramsar sites, and
- 488 protected areas (IUCN categories I-VI)

Overall there are approximately 25,000 known species of angiosperms, 75,000 species of insects, 1,200 species of birds, and many 'wild' relatives of modern day crops.

The challenge of biodiversity conservation

The rich ecological systems in the Hindu Kush-Himalayas do not stand alone; they are an integral part of the culture and traditions of the region and form the basis for the livelihoods of more than 200 million people. The major challenge is to balance ecosystem conservation with the sustainable use of biodiversity resources by poor and marginalised mountain communities. Related challenges include the weak implementation of conservation policies, inadequate scientific data and information, and a lack of innovative economic measures to support sustainable livelihoods.

ICIMOD's approach

ICIMOD is committed to conservation and biodiversity management at the regional scale, in this work it is guided in principle and action by the Convention on Biological Diversity (CBD), a global agreement on strategies for the conservation and sustainable use of biological diversity. For the past decade, ICIMOD has promoted transboundary biodiversity conservation in the Hindu Kush-Himalayan region by encouraging



Landscape, Bhutan

regional collaboration, scientific and technical cooperation, and information sharing and exchange, and advocating policy instruments.

To understand the loss of biodiversity and preserve mountain ecosystems in the region, ICIMOD has identified four representative north-south 'trans-Himalayan transects' and seven critical transboundary landscapes in different places from east to west in the region and representing wet and dry areas and both low and high-altitude regimes. Transboundary landscapes are biodiversity rich landscapes shared by two or more Hindu Kush-Himalayan countries and may consist of adjoining protected areas. In these efforts, ICIMOD has been guided by its experience in the Mount Everest (Sagarmatha) and Kangchenjunga Landscapes. The Centre facilitates conservation in collaboration with other regional member countries through the Regional Cooperation Framework for transboundary biodiversity management and also promotes participatory research and planning and regional policy innovations.

ICIMOD's initiatives

Addressing livelihood through conservation –

ICIMOD's conservation initiatives have centred on improving the livelihoods and wellbeing of mountain people. Options that can improve livelihoods have been promoted by developing the value chain and identifying leverage points. These options range from value addition interventions for non-timber forest products, medicinal and aromatic plants, and beekeeping, to linking the producers to markets and promoting pro-poor trade and tourism activities. Policy recommendations aim at equipping and enabling mountain people to have greater livelihood resilience and to improve their adaptability to environmental changes.

The Himalayan Wetlands Initiative and biodiversity conservation –

ICIMOD's Himalayan Wetlands Initiative promotes the conservation and sustainable use of wetlands in the Hindu Kush-Himalayan region. Its major objectives include providing leadership, catalysing policy research, building capacity, and promoting collaboration. It supports the regional contracting parties to the Ramsar Convention,

ICIMOD has facilitated the development of regional ABS policies and guidelines and has helped to raise awareness among marginalised groups. Several research projects on the traditional knowledge and customary arrangements in this region, conducted through consultations and field assessments, have helped build the capacity of partners in ABS.

The Brahmaputra-Salween Landscape is an exceptionally biodiversity-rich transboundary landscape shared by China, India, and Myanmar. Its transborder protected areas share a common habitat for many species of global importance. A regional consultation organised by ICIMOD in 2009 paved the way for the possibility of transboundary biodiversity management in the landscape. Partners in each of the three nations agreed, in principle, to adopt a regional approach. Policy-level interventions and cross-sectoral coordination are key to enhancing regional cooperation in the Landscape.

The Kailash Sacred Landscape (KSL) conservation initiative –

The Kailash Sacred Landscape covers the area around Mt. Kailash and is shared by China, India, and Nepal. The biodiversity in this Landscape has strong cultural connotations; Mt. Kailash is considered sacred by hundreds of millions of people worldwide. The first phase of the conservation initiative aims at developing a framework for cooperation that builds on a shared understanding of the biodiversity and climate change issues. In the long term, the focus will be on monitoring climatic, ecological, and socioeconomic variables to build up an improved regional knowledge base

Climate change and biodiversity – Changes in temperature, rainfall, and soil moisture all affect the fragile ecosystems of the Himalayas and challenge their biodiversity. Some species disappear, others



Husking buckwheat, Bhutan

promotes action research on current issues, and undertakes special studies on livelihood, culture, and poverty reduction.

Policy and advocacy support to access and benefit sharing (ABS) –

In 2004, ICIMOD launched a regional programme on Access and Benefit Sharing (ABS) of Genetic Resources and Associated Traditional Knowledge of the Eastern Himalayas. Since then,



Hariyo paha (*Ameiops formosus*)

migrate, and new ones appear. These changes in the natural landscape impact ecosystem services and threaten the livelihoods and wellbeing of mountain communities both upstream and downstream. ICIMOD documents the impact of climate change on mountain biodiversity and promotes transboundary conservation approaches to help mountain people adapt to and mitigate its effects.

Gender and biodiversity – ICIMOD promotes the role of women in biodiversity management and in conservation initiatives. Women and men often have a complementary knowledge and perception of their natural environment. Women, in their role as gatherers of wild plants and herbs and as the custodians of seed stocks, often have a vast store of knowledge that is crucial for adaptation to climatic and environmental changes. For example, the women farmers of the Garo Hills manage, on average, 35 species of seeds and have thorough knowledge on their preservation and diversification.

ICIMOD's future plans for supporting biodiversity management – ICIMOD envisaged the trans-Himalayan transect approach to help facilitate the long-term monitoring of climate, ecological and socioeconomic variables. The transect approach aims to elucidate the impact of climate change on biodiversity and to enhance the ecological and socioeconomic resilience of mountain people through enhanced ecosystem services, improved livelihoods, and disaster risk management. ICIMOD is also investigating the economics of conservation through 'payment for environmental services' schemes and the possibility of mitigating the effects of climate change through carbon financing mechanisms.

Celebrating the International Year of Biodiversity (IYB)

In 2010, ICIMOD joins the world in celebrating the variety of life on earth. ICIMOD will embrace the IYB theme with various activities including participating in specialised global conferences and workshops, hosting regional level trainings, and developing information materials. A selection is listed below.

Website: www.icimod.org/iyb; conservation web portal for the Hindu Kush-Himalayas, (planned launch International Biodiversity Day (22 May 2010))

Training courses on Biodiversity and Climate Change (March 2010), and on Biodiversity Databases (June 2010), in collaboration with GBIF and GMBA.

Local events for Biodiversity Day and IYB 2010

E-discussion on Gender and Biodiversity in the Hindu Kush-Himalayas (in partnership with Asia Pacific Mountain Network and CBD Secretariat)

Participation in

- Meeting of the Subsidiary Body on Scientific, Technical and Technological Affairs (SBSTTA) (10-21 May 2010, Nairobi)
- 10th meeting of the Conference of Parties to CBD (COP-10) (18-29 October, Nagoya, Japan) – including an information mart; a side event on 'Facing the Challenges of Mountain Biodiversity and Management in a Changing Climate across the Hindu Kush-Himalayan Region'; and submission of a 'Regional Framework for Access and Benefit Sharing in the Hindu Kush Himalayas' to the ABS Working Group for discussion.

Publications and information materials: books, booklets, information sheets, and publicity materials related to biodiversity and conservation approaches in the Hindu Kush-Himalayas



Honeybee pollination

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