Ecosystem approach and evolution of transboundary landscape in the HKH

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14 June 2022
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HKH as biodiversity repository
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HKH as biodiversity repository
The Hindu Kush Himalaya

Largest reserves of ice outside the polar regions

Source of 10 major Asian river systems

Diverse cultures, languages, religions, and traditional knowledge systems

4 Global Biodiversity Hotspots

High biodiversity; 330 Important Bird and Biodiversity Areas

Hindu Kush Himalaya and Major Downstream River Basins

240 million people depend directly on the HKH for their lives and livelihoods

1.9 billion people depend on the HKH for water, food, and energy

> 35% of the world population benefits indirectly from HKH resources and ecosystem services

Xu et al. 2019

Summary of the HKH Assessment Report
Contiguous ecoregions

Xu et al. 2019
Contiguous ecosystems

Xu et al. 2019
Natural assets and carbon storage

Chaplin and Cramer 2020
Biodiversity, water and carbon

Jung et al. 2021
Transborder intersects

Titley et al. 2021
Threatened species intersects

Number of threatened species ranges that intersect border

Titley et al. 2021
Mammals range shift

Titley et al. 2021
Intactness and connectivity

Ward et al. 2020
Fences limiting wildlife movements

Titley et al. 2021
Human impact on species

Allan et al. 2019
Changing discourses and paradigm
Changing priorities at ICIMOD

1. Developing regional partnership
   - KL initiated, conservation portal established, CBD recognized ICIMOD as observer, Landscape concept webinar
   - Contribution to Mountain Work programme of CBD, Millennium Ecosystem Assessment report published

2. ICIMOD focus
   - Developed partnership and put forward mountain perspectives
   - Collation of biodiversity status report, regional dialogue and transboundary cooperation initiated
   - Millennium Development Goals Ecosystem approach included in CBD

3. Changing paradigm on biodiversity
   - Expanding organization and programme
   - Mountain biodiversity as focused theme
   - Mountain as an element in CBD

4. Global discourses
   - Footing, identifying niche
   - Natural resources management with agrobiodiversity as thematic areas
   - UNEP’s Global Biodiversity Assessment

2003–2007

2008–2012

2013–2017

2018–2022

1. Defined as regional knowledge centre
   - KSL, HiLife, HKPL initiated, IMBC 2008, Observer for GBIF, climate change perspective added, CBD COP 10 and COP 12
   - IPBES established focusing biodiversity and ecosystem services linkages

2. Matrix management initiated
   - Transboundary Landscape, programme and Ecosystem Services theme mainstreamed
   - SDGs and Paris Agreements

3. Science, policy and practice linkages
   - Profiling, synergy and commonality emphasized
   - CBD COP 15, GLF
The changing paradigm in approaches

- **Charismatic species conservation** (1930–1980)
- **Habitat/PA management approach** (1970–2000)
- **Buffer zone/community based approach** (1980–2002)
- **Landscape/ecosystem approach** (1998–2022)
ICIMOD’s contribution
Data gap and grey area
Transect and transboundary landscapes
Complemented the NBSAP report of

1 – Kangchendzonga
2 – Jaldapara-Buxa-Phibsoo
3 – Jigme Dorji-Manas-Bumdeling
4 – Tawang-Khulong Chu
5 – Namcha Barwa-Dibang Walong
6 – Namdapha-Hkakaborazi
Our interventions
Chronology of landscape evolution

**2005-2009**
- **2005**: Kailash Sacred Landscape Conservation Initiative implemented in China, India, and Nepal.
- **2007**: IPCC’s Fourth Assessment Report identifies HKH as a climate-sensitive region.
- **2006**: “Transact” approach for HKH region presented at International Mountain Biodiversity Conference, Kathmandu, Nepal.

**2010-2014**
- **2010**: Strategic Plan for Biodiversity 2011–2020 and Aichi Targets adopted during Tenth Conference of the Parties to the CBD.
- **2012**: First regional consultation on KLCDI in Sikkim, India.
- **2014**: Second regional consultation on KLCDI in Sikkim, India.

**2015-2017**
- **2015**: Third regional consultation on KLCDI in Kathmandu, Nepal.
- **2016**: KLCDI Conservation and Development Strategy approved.
- **2017**: KLCDI Regional Cooperation Framework endorsed.

**1995-1999**
- **1997**: First regional consultation on conservation of Kangchenjunga.
- **1998**: International meeting on Ecoregional Cooperation for Biodiversity Conservation in Kathmandu, Nepal.

**Legend**
- Milestones within the Kangchenjunga Landscape and Kanchenjunga Landscape Conservation and Development Initiative (KLCDI).
- Relevant global and regional conservation and development milestones outside of the Kangchenjunga Landscape.
Long term monitoring stations
Enabling environment

Transboundary cooperation: Festivals, dialogues, cross learnings

Innovation and livelihood – Mainstreaming of thematic topics, equity and gender focused interventions, capacity developments

Knowledge support – Biodiversity status, ecosystem services, climate change impacts – assessment frameworks, databases

Policy support – Tourism, trade, NRM, value chains, CBD targets
Global outreach

**CBD**
Ecosystem approach, Aichi target review, post 2020 Framework

**IPBES** – Global, Regional and Thematic assessments

**UNFCCC – NWP** – Biodiversity and climate change linkage – scoping document, assessment framework

**UNESCO-IUCN** – Status and potential WHS in the HKH, PA status
SIX URGENT ACTIONS FOR THE HINDU KUSH HIMALAYA

- Cooperate at all levels across the HKH
- Limit global warming to under 1.5 degrees
- Enhance ecosystem resilience
- Recognize and prioritize the uniqueness of HKH mountain people
- Achieve the SDGs in the HKH
- Share information and knowledge

2030 strategic focus - Biodiversity and environmental health
Thank you

Protect the pulse