



## CHAPTER 13 BRIEF

# ADAPTATION TO CLIMATE CHANGE: STRONGER ACTION URGENTLY NEEDED

This chapter focuses primarily on analyzing ongoing adaptation activities and identifying common patterns of adaptation response across the eight countries in the Hindu Kush Himalaya (HKH) – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. It distinguishes between adaptation responses that are planned by governments or by non-state actors, and those that are local, autonomous, and unplanned. Further, it asks whether the planned responses are sufficiently knowledgeable of autonomous adaptation practices. It also considers the extent of policy support for these practices as well as the need to critically evaluate practices and results, and identifies solutions that could work to better connect adaptation science, policy, and practice.



## KEY FINDINGS

- Adaptation to climate change is urgent for the Hindu Kush Himalaya (HKH), but it presents a complex challenge for policy makers. Adaptation responses by governments are mostly incremental and not well integrated with development plans and programmes.
- In spite of these challenges, there are opportunities for scaled up, inclusive, and more comprehensive climate change adaptation responses in the HKH.
- Bolstering climate change adaptation in the HKH will require substantially more funding than is currently available. With appropriate incentive mechanisms, private financing could also support adaptation.

## POLICY MESSAGES

- Climate change adaptation policies and practices must intensify in the HKH, and must become transformative.
- Governments will benefit from mainstreaming policy instruments on adaptation in their planning and budgeting processes. Institutional capacity on adaptation needs to be built and fit to purpose at each level of governance.
- Local-level autonomous responses to climate variability and extreme events must be systematically studied, documented, and validated.
- HKH countries and institutions must work together to build mechanisms and fora to address key challenges, such as data sharing, and incentivize regional cooperation and cross-learning at regional scale.

### LINKS TO





# OBSERVATIONS AND TRENDS

## **ADAPTATION IS BECOMING INCREASINGLY URGENT FOR THE HKH, WHILE DATA, CAPACITY, AND RESOURCE GAPS CONTINUE TO CHALLENGE POLICYMAKERS**

There is growing evidence that increased climate variability is already affecting water availability, ecosystem services, and agricultural production in the HKH. The huge impact of frequent extreme weather events on life and property underscores the urgency of the situation and the necessity to ramp up adaptation action in the region. Policy makers in the HKH countries are aware of the urgency to act on adaptation but face substantive challenges: lack of adequate data (both in terms of quantity and quality, and especially at a localized scale) about climate change impacts in the mountain context, weak institutional capacity at various governance levels, social and economic barriers to intervention uptake, and poor infrastructure for development and adaptation purposes.

## **ADAPTATION NEEDS OF HIGHLY VULNERABLE GROUPS — INDIGENOUS PEOPLE, WOMEN, MIGRANTS, AND URBAN SLUM DWELLERS — DESERVE SPECIAL UNDERSTANDING AND TARGETED ACTION**

In the high mountains, life-saving and livelihood-supporting infrastructure is underdeveloped. Access to climate information and support services is limited, as is the presence of government extension agencies. Weak institutional links hinder farmers from adopting technology that can contribute to adaptive capacity. Entitlements to elements of adaptive capacity (for example, ownership of productive assets and access to services of local government agencies) are typically socially differentiated, and this affects the uptake of coping strategies. Realizing adaptation goals for women and socially marginalized groups in the HKH is likely to be very challenging unless there is urgent and more targeted action on the ground to strengthen and improve their access to and control over productive assets, and access to formal and non-formal education, mobility, and opportunities to generate income. Some HKH countries have national-level climate policies that explicitly identify the most vulnerable groups but very few that seek to address their specific adaptation needs through tailored responses.

In the high mountains, limited access to climate information, support services, and weak institutional links hinder the building of adaptive capacity. Additionally, life-saving and livelihood-supporting infrastructure is underdeveloped.





## ALL HKH COUNTRIES HAVE CLEARLY IDENTIFIED PRIORITY SECTORS FOR ADAPTATION INTERVENTIONS, BUT MOST LACK ATTENTION TO MOUNTAIN SPECIFICITIES

Government-led planned adaptation responses in the HKH are strongly influenced by the evolving global regime under the United Nations Framework Convention on Climate Change (UNFCCC), including adaptation actions and approaches in Nationally Determined Contributions and National Adaptation Plans. This assessment shows that all HKH countries have initiated efforts towards integration of climate change adaptation through multiple plans, programmes, and projects. A majority of their national adaptation projects and programmes relate to watershed management, climate-resilient agriculture, improved access to information for decision making, and disaster risk reduction. However, mountain-specific adaptation issues have received varying degrees of attention and emphasis in country priorities.

## MAJOR GAPS EXIST BETWEEN POLICY GOALS AND ACTUAL IMPLEMENTATION OF ADAPTATION ACTIONS

At both national and subnational levels, HKH countries have weak institutional capacity to deal with climate change impacts in an effective and timely manner. Most institutional capacity needs are related to access to information, knowledge, and resources. Poor coordination within and between agencies responsible for implementing adaptation actions is pervasive across all countries in the region. Public consultation and stakeholder engagement in adaptation planning and implementation is highly uneven and, more often than not, ad hoc within HKH countries. Capabilities required for adaptive governance need to be created in institutions at all levels of governance in HKH countries.

## A COMPREHENSIVE ASSESSMENT OF CLIMATE CHANGE ADAPTATION: FINANCE NEED AND AVAILABILITY IS LACKING FOR THE HKH

Estimating the future costs of adaptation to climate change impacts can be highly speculative and subject to unrealistic assumptions, as these are likely to be non-quantifiable. However, it is important to put some numbers to potential adaptation costs as a way to convey a sense of urgency in addressing financial needs. Unfortunately, a comprehensive assessment of climate change adaptation finance need and availability is lacking for the HKH, for the region as a whole and for specific geographical areas and sectors in each country. Therefore we have very limited knowledge of how much finance is available and of how much the available funds have been allocated to mountain regions or spent on addressing mountain-specific issues. It is highly unlikely that international finance will ever be sufficient to address the adaptation needs of HKH countries. Therefore, mobilizing funds from domestic sources is imperative. Businesses and private finance can become partners in scaling up adaptation efficiently, provided the risks and transaction costs of such investments can be managed.

## THE HKH NEEDS TO MOVE BEYOND REACTIVE, INCREMENTAL STRATEGIES AND SCALE UP ANTICIPATORY, TRANSFORMATIVE ADAPTATION

Government-led adaptation efforts in the HKH continue to be mostly extensions of business-as-usual activities, which might be inadequate to meet adaptation needs in the long run. Given that climate change impacts are likely to be substantial in the near future, HKH countries will benefit from moving beyond incremental strategies and scaling up transformative adaptation, integrating these with development planning and disaster risk reduction. The political leadership must push for an intensified adaptation response within the larger development regime, accompanied by sustained efforts to promote climate literacy, which would require massive awareness campaigns, inclusion of climate change issues in the curriculum, and active engagement of the media.



Every country in the HKH has initiated efforts to integrate climate change adaptation in multiple plans, programmes, and projects. However, mountain-specific adaptation issues have been emphasized to varying degrees.

## CROSS-BORDER IMPLICATIONS OF CLIMATE CHANGE IMPACTS MAKE REGIONAL COOPERATION ON ADAPTATION A NECESSITY

Greater regional cooperation among HKH countries in information and knowledge sharing is of critical importance, particularly in areas such as disaster risk reduction, and food and water security. Presently there are very few examples of cross-country adaptation projects or programmes from the HKH. A transformative stimulus from the global regime would be to allow global adaptation funding mechanisms to put in place funding instruments that support multi-country, transboundary, and regional adaptation action proposals.



Regional cooperation is critical, but there are limited examples of cross-country adaptation projects from the Hindu Kush Himalaya

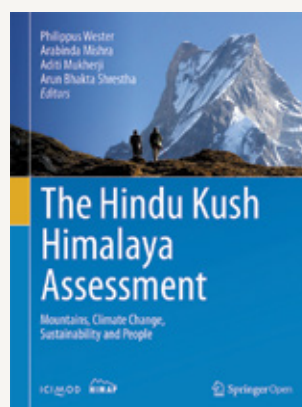


## KEY AREAS FOR PRIORITY ACTION

The proposed SDG-consistent priorities for adaptation to climate change in the HKH is to ensure integration between adaptation to climate change, disaster risk reduction, and sustainable development for the mountains through evidence-based decision making and means of implementation

The key areas for priority action are:

- Greater regional cooperation in areas such as disaster risk reduction and food security
- Stronger integration of adaptation in national development plans and programmes
- Convergence of adaptation, disaster risk reduction, Sustainable Development Goals, and resilience-building priorities
- Investment for generating science-based climate information and knowledge services, creating knowledge networks, and boosting climate literacy
- Promoting policy experimentation through adaptation pilots
- Building institutional capacity on adaptive governance
- Engaging with private business



This chapter is a part of *The Hindu Kush Himalaya Assessment – Mountains, Climate Change, Sustainability and People*.

Download the full assessment at

<https://doi.org/10.1007/978-3-319-92288-1>

Suggested citation: Mishra, Arabinda; Arivudai Nambi Appadurai; Dhrupad Choudhury; Bimal Raj Regmi; Ulka Kelkar; Mozaharul Alam; Pashupati Chaudhary; Seinn Seinn Mu; Ahsan Uddin Ahmed; Hina Lotia; Chao Fu; Thinley Namgyel; and Upasna Sharma (2019) "Adaptation to Climate Change: Stronger Action Urgently Needed", Chapter 13 in P. Wester, A. Mishra, A. Mukherji, A. B. Shrestha (eds) (2019) *The Hindu Kush Himalaya Assessment—Mountains, Climate Change, Sustainability and People*. Springer Nature Switzerland AG, Cham.

ICIMOD

*The Hindu Kush Himalaya Assessment – Mountains, Climate Change, Sustainability and People* is a product of the Hindu Kush Himalayan Monitoring and Assessment Programme (HIMAP) at ICIMOD.

Supported by

ICIMOD gratefully acknowledges the support of its core donors: the Governments of Afghanistan, Australia, Austria, Bangladesh, Bhutan, China, India, Myanmar, Nepal, Norway, Pakistan, Sweden, and Switzerland.

For further information:

Arabinda Mishra | [arabinda.mishra@icimod.org](mailto:arabinda.mishra@icimod.org)

[www.hi-map.org](http://www.hi-map.org)

International Centre for Integrated Mountain Development  
GPO Box 3226, Kathmandu, Nepal  
Tel +977-1-5275223  
Fax +977-1-5275238  
© ICIMOD 2019