



## CHAPTER 9 BRIEF

# FOOD AND NUTRITION SECURITY IN THE HINDU KUSH HIMALAYA



There is widespread food and nutrition insecurity in the Hindu Kush Himalaya (HKH). Despite some progress in reducing hunger, millions of children suffer from stunting, wasting, and malnutrition. The nature and causes of food insecurity in mountain areas differ from those in the plains as a result of differences in the physical environment, transportation and communication facilities, remoteness, and seasonality.

Addressing this challenge has become increasingly complicated because of rapid socioeconomic, demographic, and environmental changes. This chapter aims to understand the causes of food and nutrition insecurity in its four dimensions – food availability, accessibility, utilization and stability – and to suggest actionable policy measures to improve food and nutrition security in the HKH.

## KEY FINDINGS

- Food and nutrition insecurity remains a serious challenge in the Hindu Kush Himalaya (HKH). Over 30% of the population suffers from food insecurity and around 50% face some form of malnutrition, with women and children suffering the most.
- The causes of food and nutrition insecurity are multifaceted and complex, and influenced by a range of factors including high poverty, natural resource degradation, climate change, low market development, uncertain food support, and inadequate policy and institutional support.
- Traditional mountain food systems are under threat from rapid socioeconomic and environmental changes.
- Despite several challenges the HKH region has advantages in certain products and services that have the potential to revitalize mountain agriculture and improve food security and nutrition.

## POLICY MESSAGES

- To address food and nutrition insecurity in mountain communities, national governments need to integrate a mountain perspective into national policies related to food and nutrition security.
- Governments in the region need to adopt a holistic approach to improving food and nutrition security that includes revitalizing local food systems, strengthening social safety nets, enhancing knowledge and awareness about nutrition, and reducing physical and socioeconomic vulnerabilities.
- Increased investment in the management of natural resources – including soil, water, and energy – is critical to improving nutrition, enhancing agricultural production, and diversifying local food systems.

### LINKS TO





# OBSERVATIONS AND TRENDS

Mountain people are more vulnerable to food and nutritional insecurity. The loss of agrobiodiversity has become a serious concern and may undermine long-term agricultural sustainability and food security in the region.

## ABOUT HALF THE POPULATION IN THE HKH IS SUFFERING FROM MALNUTRITION AND NEARLY ONE-THIRD FROM FOOD INSECURITY

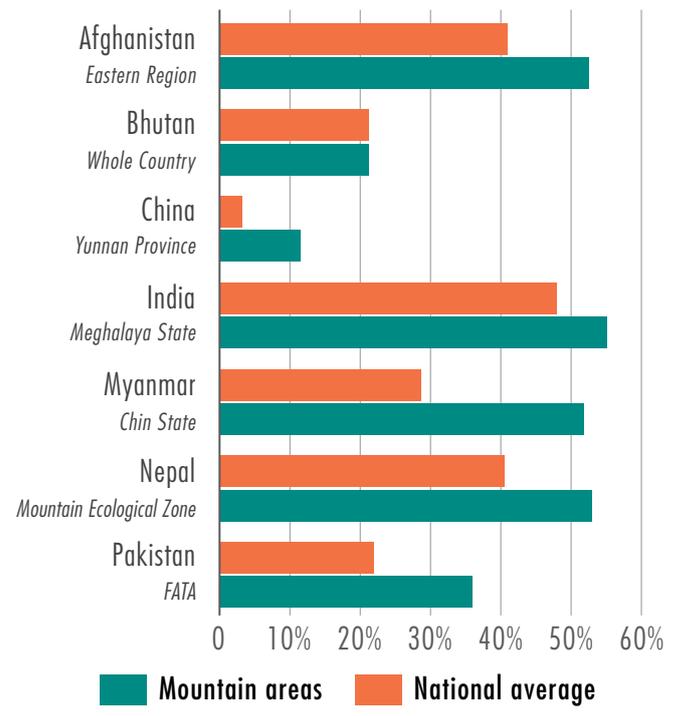
Agriculture is one of the main livelihood options in the HKH, but traditional agricultural systems are under pressure and failing to provide adequate food and income. As a result, nearly one-third of the population is suffering from food insecurity, and between one-fifth and one-half of children (less than five years of age) are underweight and suffer from stunting and wasting. The region's population is increasing quite fast at close to 1.4% annually, and both the total area available per capita and the proportion of net sown area will become even smaller as the population increases. Some mountain areas exhibit high nutrition insecurity compared to the national average for the whole country – eastern Afghanistan, Meghalaya state in India, Chin and Rakhine states in Myanmar, the high mountains of Nepal, and Balochistan province in Pakistan.

## FOOD PRICES BEYOND THE PURCHASING POWER OF POOR PEOPLE DURING WINTER AND RAINY SEASONS

There is a seasonal variation to food security; it tends to be most compromised during the monsoon and winter months, as well as during periods following natural hazards. High mountain areas in the HKH often experience heavy snowfall during the winter months. As a coping strategy, people often reduce their food intake, in terms of both quantity and frequency, which has serious implications for nutrition. Furthermore, in the winter and rainy seasons, road networks in the mountains are often disrupted and food transportation becomes very difficult and highly expensive, particularly if food needs to be airlifted. High transportation costs also increase food prices to levels that may go beyond the purchasing power of poor people and compromise food quality and quantity, affecting nutritional outcomes.

## FOOD INSECURITY CONTRIBUTES TO HIGH LEVELS OF STUNTING IN CHILDREN IN THE MOUNTAINS OF THE HKH

*This figure shows the prevalence of stunting in children below 5 years of age in some mountain areas of HKH countries*



*Note: The specific mountain area to which data refers is listed below the country. Data for the Chittagang Hill Tracts of Bangladesh is not available. Data for severe stunting is presented for the Federally Administered Tribal Areas (FATA) of Pakistan.*

## SHIFT FROM TRADITIONAL TO NEW CROP VARIETIES AND FROM TRADITIONAL TO MODERN FARMING PRACTICES HAS LED TO A DECLINE IN AGRICULTURAL DIVERSITY

A wide range of traditional crops that used to be part of the food basket in mountain areas are being replaced with high-yielding cash crops. The consumption of traditional coarse grains, which contain an abundance of micronutrients and fibre, is often considered to be 'backward' in the sociocultural value system and refined rice and wheat have become the main food items. These traditional crops, known as neglected and underutilized species, are high in nutritional value, are adapted to mountain conditions and resilient to climate-induced stresses like drought and frost. These are now being relabelled as 'future smart foods'.

The loss or limited cultivation of neglected and underutilized species is leading to a decline in agricultural diversity in agricultural ecosystems and changing dietary patterns in the HKH, with a few commodity crops now dominating food systems at all levels. The region should tap its huge potential to develop mountain niche products and promote non-farm livelihood options like tourism, handicrafts, food processing, and medicinal plants.



The cultivation of traditional crops is declining, with a few commodity crops now dominating food systems at all levels.



## APPROACH TO ACHIEVING SUSTAINABLE FOOD AND NUTRITION SECURITY IN THE MOUNTAINS

The challenges faced by mountain communities are often not adequately understood, and the perspectives of mountain communities are not fully recognized in national agricultural policies in the HKH countries. Achieving sustainable food and nutrition security in the mountains requires a balanced approach that entails improving production and increasing household income, along with improving rural infrastructure to enable transportation and market access.

In addition, special attention needs to be paid to the following:

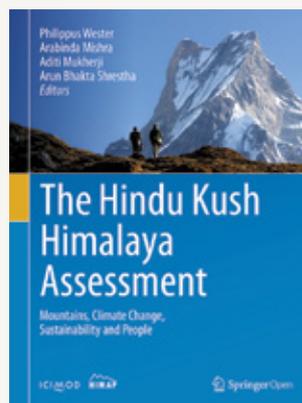
- Strengthening local food systems by integrating crops, livestock, agroforestry, fruits, nuts, and vegetables
- Harnessing the potential of high value mountain niche products
- Strengthening agricultural marketing systems and infrastructure
- Establishing community food banks to store food at village level
- Managing water resources, especially springs in the mid-hills and mountains, and promoting efficient and equitable hill irrigation infrastructure
- Establishing mechanisms for cross-border food trade and internal movement of food products
- Strengthening agricultural research and innovation in mountain agriculture and food systems, including strengthening knowledge on nutrition, child care, and food preparation
- Empowering women by improving knowledge and their control of resources to enable them to take decisions on matters related to family health, education, and nutrition

A balanced approach between food self-sufficiency and market access is needed to achieve food and nutrition security in the HKH along with a strategy to enhance production, distribution, income, and rural infrastructure.



## AREA-SPECIFIC STRATEGIES ARE NEEDED TO ENHANCE FOOD AND NUTRITION SECURITY

- High agro-ecological potential, good market access:**  
 Focus on tapping the potential through land use intensification and growing cash crops in line with market demand.
- High agro-ecological potential, poor market access:**  
 Focus on improving market access, developing local food systems, and promoting high value but low volume and non-perishable products.
- Low agro-ecological potential, good market access:**  
 Focus on promotion of non-farm activities to enhance purchasing power.
- Low agro-ecological potential, poor market access:**  
 Focus on subsistence use of resources, developing incentive mechanisms for conservation of resources, and support for outmigration to increase purchasing power and thus access to nutritious food.



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: Rasul, Golam; Abdul Saboor; Prakash C. Tiwari; Abid Hussain; Nilabja Ghosh; and Ganesh B. Chettri (2019) "Food and Nutrition Security in the Hindu Kush Himalaya: Unique Challenges and Niche Opportunities", Chapter 9 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:

Golam Rasul | [golam.rasul@icimod.org](mailto:golam.rasul@icimod.org)

[www.himap.org](http://www.himap.org)

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