

Gender and adaptation in the HKH

Water and air challenges in the HKH under Climate and Environmental Change: opportunities using a transdisciplinary approach



International Centre for Integrated Mountain Development

Kathmandu, Nepal



• Climatic changes

- Temperature rise
- Rainfall variation
- Precipitation changes



• Environmental degradation and disasters

- Changes in ecosystems
- vegetation
- biodiversity
- water/ice
- Floods and droughts



• Other Changes

- Globalization
- Markets
- Population
- Infrastructure
- Policy changes

The mountain context

ICIMOD

FOR MOUNTAINS AND PEOPLE

**Geological
fragility,
extreme
weather
conditions**

**Less arable
land and
fragmented
land holdings**

**subsistence
economies**

**Greater
dependence
on natural
resources/
absence of
alternatives**



The 'Specificity' of Mountain Women!

In mountain communities, women play a crucial role in protecting, nurturing and sustaining natural resources

Greater physical labor
Greater dependence on natural resources

Limited exposure: Markets, Tech, Communication
Neglect by the State and development agencies

Often disadvantaged in benefit sharing, accessing productive resources, participation in organizational structures & decision making processes relating to agriculture, water and forests

Exposed to increased risks associated with CC during disasters and lost incomes from climate shocks



The Problem of Climate Change

- **Not a clean slate, but complex and unequal world – Women & men disproportionately feel the impact** (due to skewed gender power relations & socially constructed difference, but women's voices, rights, experiences are not part of discussion nor key actors in proposed policy solutions or institutions)
- In fragile HKH mountain ecosystems, **women are rendered particularly vulnerable** - landslides & erosion are common & accessibility to basic services like transport, education, health care and devt. services is limited.



The Problem of Climate Change

- **Women face additional risks** during extreme events (drought, floods ,etc.) largely due to gender inequities
 - During such events, women & girls are frequently subjected to intimidation, gender-based violence, sexual harassment and rape.
 - Women & girls also face an even more serious risk with the onslaught of climate-induced disasters: organised trafficking, which is emerging as a potentially serious risk associated with environmental problems in the HKH
- **‘Solutions’ tend to bio-physical/technical** (although important, will not crack the nut)



Increases in the magnitude and frequency of natural disasters have caused problems in agriculture, substantially increasing women's workload and food insecurity.



CASE STUDY- NEPAL

Key Findings - Water

- **Reduced** quality & quantity of drinking & irrigation water - **increased women's workload** – drudgery
- **Access to drinking water:** poor and dalits (untouchables) most hit.
- *Contestation for irrigation water due to limited supply & high demand - resulted in the sourcing of water for irrigation at night, disadvantaging women-headed households.*
- *Alternative means of accessing water (deep boring, rainwater harvesting) - expensive & require technical knowledge and networking that is not available to Dalit and poor households, particularly those headed by women.*
- **Effect on sanitation hygiene & health:** sanitation related diseases – e.g. eye & skin infection, increased uterus prolapse - high among women from poor & marginalized groups and post-pregnancy; fatigue, mental stress



Key Findings - Agriculture

- ***Hardening of agricultural soil:*** additional work after ploughing; long hrs. physical labour; more water & manure;
- ***Increase in weed and outbreak of pests:*** additional back-breaking work; loss of fodder - not edible/preferred by livestock; hire labor
- ***Low harvest and low family nutrition:*** selling their cereals at higher price & purchasing low quality cheaper rice from terai or India; sharp change in diet pattern and food diversity
- ***Early ripening of crops and vegetables and storage issues:*** increased women's workload - extra time to check, dry and clean the pests out of the crops.



Mountain women - strategically placed for dealing with impacts and adaptation?

Often cited that women have:

- valuable indigenous knowledge about managing their environments
- context-specific skills developed in response to mountain conditions (in relation to agriculture, pastoralism, and forest and watershed management)
- the ability to cope with the everyday changes brought about by climate and other drivers of change
- involvement of women in water user organizations can strengthen the effectiveness of water resource management



Examples of Adaptation

Off-farm seasonal migration- an important adaptation strategy mostly for men - In contrast, women who are left behind have:

- **changed cropping pattern** to reduce the risk of crop failure:
 - A case study from Bangladesh shows instead of growing paddy which requires more water, they started growing off-season vegetables & fruits in home gardens that fetch income. (Mitchell et al. 2007)
 - Nepal: women farmers are - promoting kitchen gardens (Ibid); Practicing intercropping (e.g. planting legumes with maize – as legumes provide additional income and food in case the major crop fails or is lost (Shrestha et al 2014).



Examples of Adaptation

- **Land Utilization:** In a village in Koshi, Nepal, women in the village initiated collective vegetable cultivation plots in portions of the sedimented soil. After four years, much of the flooded land remains barren, yet through the hard work of these women, patches are coming back to life and they are now able to harvest some produce from the land.
- In Nepal women are **using alternative energy technologies** such as solar, biogas & improved cooking stoves.
- Sikkim, India: women are playing primary roles in the conservation of *insitu* genetic resources and agrobiodiversity through **community exchange** between communities (Dhakal 2012).



Critical points

Women are adapting...But

- What approach to take in all this:
Functional (all about efficiency)

Or

Structural (more about empowerment)

- Other changes other than Climate are changing the contexts of women's & men's lives and reconfiguring the relevance of their knowledge systems and their relations (and commitments) to their resource bases – need to look more closely into this – the “How? Why” and “what implications of this in context of CC?”

