

Background paper for the e-discussion from 5 to 25 October 2009 on 'Climate Change in the Himalayas: The Gender Perspective' organised by ICIMOD and APMN

Gender and Climate Change in the Himalayas

Prepared by Brigitte Leduc, Kathmandu, September 2009

Global warming is impacting on the Himalayas in several ways, but of particular importance are changes in precipitation patterns and the potential for more precipitation falling as rain instead of snow, thereby reducing water storage. The total amount may also be subject to trends, with more in some areas and less in others, leading to water stress and droughts. Precipitation may also increase in intensity, potentially leading to more flash floods and in places landslides as a result, and flash floods and subsequent destruction may be caused by bursting out of recently formed glacial lakes. The fragile mountain ecosystems are also being threatened by the migration and loss of species. All of these changes impact on people's livelihoods and wellbeing.

Although the effects of climate change are being felt by all mountain people, not everyone is affected equally; people do not have the same capacity to cope and adapt to the changes. Vulnerability to climate change depends not only on natural factors, but also on economic, social, and cultural factors, which impact on people's status, behaviour, relationships, and power. In Asia, poverty, caste, ethnicity, and gender are among the factors that may hinder people's resilience to climate change.

From the Karakoram in Pakistan to Chomulungma/Sagarmatha in China/Nepal, the Hindu Kush-Himalayan mountain chains extend across eight countries with a great diversity in terms of ecosystems and landscapes, and also in terms of cultures, religions, political structures, social organisations, and livelihoods. Living in the Himalayan region is a daily challenge: remoteness combined with the harsh environment and limited infrastructure hampers mountain people's economic and social development.

Men and women are affected differently by change, because they have different roles in society. Although both are vulnerable to climate change, the causes of their vulnerability, and their experience of it, are different, along with their capacity to cope and adapt. Gender inequality – manifested as limited access to resources and information, and exclusion from decision making – is among the factors that limit women's capacity to cope with the changing environment.

Mountain women play many roles, as farmers, natural resource managers, caregivers, and household managers to name a few. Wherever they live, mountain women are constantly coping with the heavy burden of household chores combined with farm production and livestock raising. Moreover, the mountain landscape, with its steep and fragile slopes, makes collection and carrying of water, fuelwood, and fodder even more difficult and dangerous. This burden takes a toll on the health of mountain women. But because as women they are generally less able to voice their needs, they rarely access the technologies and other essential resources that would reduce their drudgery and build their resilience to environmental changes.

Nevertheless, Himalayan women hold a specific and rich knowledge and possess a variety of skills for maximising the use of the natural resources provided by the fragile mountain ecosystems and in relation to farming practices. Their knowledge also contributes to the survival and the care of their families and to their ability to adapt in extreme situations such as conflict, natural disasters, and displacement. If their role were fairly acknowledged, their experience could be an important asset for mountain communities in adapting to the new challenges presented by climate change impacts.

The Issues

Increased occurrence of natural disasters: Different vulnerabilities

The people of the Himalayas have developed different ways to cope with and, in some cases, to take advantage of, occasional natural disasters. However, with the intensification of natural disasters, these coping mechanisms may be stretched. Although everyone is vulnerable to the impacts of natural disasters, the poor are even more at risk because they have fewer resources and alternatives to protect themselves and their livelihoods when faced with sudden change. As women are more vulnerable to poverty, they are also more vulnerable to natural disasters.

At present, very little gender disaggregated data is collected that could be used to measure the differential impact of natural disasters on women and men; but anecdote and experience indicates that there are more women among the victims of natural disasters. Motherhood explains this in part, but the main factors that place women at greater risk are related to social norms and gender roles such as dress codes, behavioural norms, and the process of decision making¹. In the mountains, remoteness and isolation deprive the population of access to essential information about climate risks. In addition, with the high rate of men migrating for economic reasons, mountain women are often alone in experiencing the stress of ensuring the safety of household members, coping with the loss of household assets, and dealing with health issues and food insecurity.

Most disaster preparedness and management plans do not contain a gender perspective to address the differential vulnerabilities and needs of women and men, and they do not acknowledge women's role in plans for early warning systems. Despite their role as caregivers and the fact that women are often working around their house and village (while a large number of men are working outside the village), women are still rarely involved in learning about and participating in such systems.

Depletion of natural resources: Different impacts on livelihoods and workloads

The Himalayan region has a rich biodiversity that is at high risk because of global warming. Changes in the climate may greatly affect the resistance and quality of natural resources, cause the migration of some species to higher elevations, and lead to the extinction of others. Mountain people are highly dependent on these natural resources to meet household needs (and even for their own survival). Loss of biodiversity will have a great impact on people's health, as well as their livelihoods. Women and men use natural resources differently. Women collect fuelwood and medicinal and aromatic plants, mainly for household use, and fodder for livestock; men collect timber to generate income. In the context of extreme poverty, the intensified use of natural resources for income generation often becomes a priority over sustainable use and household needs. While women are participating in the sustainable management of natural resources, their role is underestimated and they are often excluded from conservation initiatives, under which they are sometimes even forbidden to use such resources.

As women have the primary responsibility for collecting water, fuelwood for cooking and heating, and fodder to feed livestock, the migration or extinction of some plant species will mean that they have to work harder to access these resources, which may increase their already heavy workload.

The value of environmental resources, such as forests, is attracting much interest because they can be a part of climate change mitigation strategies. However, few women are involved in the reflection and negotiation processes on the proper use of such resources or in relation to mechanisms for payment for environmental services, despite their knowledge and experience in managing these resources. Policies often relate to how natural resources should be used, who can use them, how they are managed, and how the benefits are distributed. These policies can greatly affect women because they may deprive them of the resources essential to sustain their families. In addition, such policies can increase their workload and further impoverish them.

Changes in traditional livelihoods: Different coping strategies

The increased occurrence of droughts, floods, landslides, and soil erosion due to climatic changes is affecting food production, and threatening food security and rural people's livelihoods. Mountain people in the Himalayas depend largely on agricultural production and livestock raising for their livelihoods, and women play a determinant role in ensuring food security for the household. Women's knowledge about seed selection and crop breeding is important to climate change adaptation.

A common coping strategy to deal with food insecurity is for men to find a job in the cities or abroad, leaving women to head the household and take over the work normally performed by men. This increases women's workload tremendously. In some regions, they are the main producers of food, but they still do not have access to appropriate

¹ For example, while boys are encouraged to run, climb, and swim (and even to defy the rules sometimes), girls learn to obey and have limitations placed on them in terms of mobility and physical aptitude.

resources to help them perform their work better and increase productivity; this is because their role is still not properly acknowledged. In the Himalayan region, women rarely have access to land ownership, technologies, extension services, and financial resources. Because their role as farmers and natural resource managers is not acknowledged, women are more likely to be sidelined in climate change adaptation strategies, rendering such strategies less effective.

Migration and population displacement: Different stresses

Each natural disaster carries with it population movement. Climate change may lead to an increase in the occurrence of natural disasters, and more and more people are likely to be displaced or forced to migrate. Again, women's and men's stresses and capacities to adapt are different. Men's role as the main breadwinner compels them to find sources of income quickly to make up for losses or insufficiencies in their livelihood. To generate income, men may have to migrate and live away from their families. The poor often end up living in slums and having to accept underpaid jobs.

In most parts of the Himalayas, women are traditionally less mobile than men. Having to adapt to a new environment and cope with the loss of their household resources, while taking care of the other members of the household, represents a significant stress for women. Moreover, women refugees are particularly vulnerable to exploitation, trafficking, and other forms of violence.

Increased incidence of disease and epidemics: Differential risks

We do not have enough information yet to state the impact of climate change on health in the Himalayan region, but it may aggravate the already vulnerable health conditions of mountain women who have little access to health services. Global warming may contribute to the resurgence of some diseases such as malaria and Japanese encephalitis, and intensify respiratory and water-borne diseases. While the overall prevalence of malaria in the Hindu Kush-Himalayan countries has declined in the last decades, there is evidence of its resurgence in the mountainous Chinese province of Yunnan since 2001, and both Nepal and Bhutan have reported malaria cases at altitudes higher than 4000 m. In North East India, which is already malaria prone, malaria may occur at elevations above 1800 m.

Gender roles and status affect people's health; hence, women and men face different health risks. Household work, such as cooking, exposes women to a higher risk of respiratory diseases. Seasonal migration with longer travel distances may put men more at risk to contracting infectious diseases, notably HIV and sexually transmitted diseases.

As women are primarily responsible for the care of children, the elderly, and the sick, a disease outbreak highly affects their stress level and workload.

Mainstreaming Gender in Climate Change Adaptation Strategies – from Local to Global Levels

The gender perspective is still rarely integrated into climate change policies and strategies at either international or national levels, and the mountain perspective is still not specifically considered. It is necessary to reiterate the importance of conducting a gender analysis in the mountain context of the impacts of climate change and of incorporating the gender perspective into any plan for addressing both women's and men's needs in order to build mountain people's resilience to climate change, as well as monitoring the impacts of adaptation and mitigation strategies on women and men – ensuring that they both benefit from such strategies. ICIMOD believes in the importance of mainstreaming gender in climate change adaptation strategies and is committed to work in collaboration with the countries of the Hindu Kush-Himalayas to this end. More concretely, the following measures need to be taken:

1. Document the gendered impacts of climate change in the Himalayan mountains in all sectors
2. Promote equity and mainstream gender in adaptation and mitigation strategies taking into account the particular challenges mountain men and women are facing
3. Mainstream gender and address mountain specificities in disaster preparedness plans and involve women in early warning systems
4. Promote gender sensitive development initiatives to build mountain people's resilience to climate change

5. Facilitate mountain women's access to alternative and renewable sources of energy from the perspective of reducing their drudgery
6. Promote mountain people's – women and men's – participation in climate change negotiations and policy making
7. Involve gender experts and female scientists in the preparation of national climate change mitigation and adaptation policies and strategies
8. Conduct a gender analysis of proposed interventions for mitigation and adaptation to climate change and assess their impacts on mountain people and the environment
9. Develop effective information channels to reach out to mountain women, especially in remote areas, with information about climate change
10. Facilitate equitable access to technologies and other productive resources to build mountain people's resilience to climate change and to ensure that women needs are properly addressed

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