

Adaptation to Climate Change – Why gender makes a difference?

Brigitte Leduc, Senior Gender Specialist, ICIMOD, bleduc@icimod.org

Himalayan communities face the challenges of remoteness, isolation, and harsh living conditions on a daily basis. Mountain people have developed a resilient lifestyle with the capacity to take advantage of their environment and cope with occasional natural disasters. However, scientific evidence shows that climate change is greatly affecting the mountain ecosystems and water regimes of the Himalayas, thus directly affecting mountain people who depend on natural resources for their livelihood. The anticipated intensification of natural hazards may stretch their coping mechanisms.

Natural hazards – such as flood, landslides, and droughts – affect every member of mountain communities, threatening lives and livelihoods. However, not everyone has adequate assets to face a crisis and recover from it. It is known that climate changes do not impact people equally and can exacerbate existing inequalities and vulnerabilities (Brody et al. 2008, Hannan 2002, IPCC 2001 and 2007, Lambrou and Laub no date, Lynn 2005).

Champing valley, Sichuan, China



Why gender matters?

Climatic variability and environmental changes affect men and women differently because they have different roles in their household and society and different rights and access to resources. Although both are vulnerable to climate change, the causes of their vulnerability and their experience of it are different, as are their capacities to cope and adapt. Gender is one factor affecting people's inequitable vulnerabilities and capacity to cope with and adapt to impacts. Class, caste, race, and ethnicity are additional stress factors that can increase vulnerability (Leduc et al. 2008).

While gender relations are a significant 'pre-condition' of people's ability to anticipate, prepare for, survive, cope with, and recover from disasters (Mehta 2007), numerous experiences show that more women are victims of natural disasters. Motherhood partially explains this fact; 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 mode of decision making (Leduc 2008; Mehta 2007).

Although women are highly vulnerable, they also play a tremendous role in disaster preparedness and responses, as highlighted by Mehta (2007) and Enarson (2001):

- Women manage and use natural resources, such as wood, water, and fodder on a daily basis.
- Everyday tasks, such as food preservation, help them survive and cope in emergencies.
- Their family and community roles make them important 'risk' communicators.
- Their informal social networks provide them with information about members of the community who may need assistance, or who can help in times of crisis.
- As caretakers of the very young and old, women tend to be more safety conscious and risk adverse. They are more likely than men to pay attention to emergency warnings and the need for disaster preparedness.
- Women have leadership roles in informal local networks and organisations, which are not visible to outsiders or taken seriously by men.
- Many of their formal and informal specialisations – such as cooking, teaching, and involvement in health care – are vital to disaster preparedness and recovery work.
- In many, if not most, communities women are the guardians of local history, including knowledge of past hazards and how the community coped with them. They convey the stories to the younger generation.

Lessons from the Asian Experience

- **Mortality rates for women are often higher than for men** – During the 1991 cyclone, many Bangladeshi women and children lost their lives due to their reluctance to evacuate homes and take shelter in the absence of men relatives. In earthquakes, women die in great numbers because they are more likely to be inside houses susceptible to collapse. Women's care-giving roles also make it difficult for them to take adequate precautions to save themselves.
- **Early warning systems often fail to reach women** - In the aftermath of the Bangladesh cyclone of 1991, it was found that early warning signals had not reached many rural women because information had been disseminated primarily in market places to which many women do not have easy access. It had been erroneously assumed that men would convey the information to their family members, which did not occur to the extent that it should have.
- **Women's workloads increase during crises** - Natural disasters disrupt access to the natural resources on which household subsistence depends. Women must walk longer distances for water, fodder, and fuel during crises, and the destruction of houses affects their work of cooking, washing, and child care.
- **Girls often have to drop out of school to assist their mothers** - Outmigration of men in post-disaster situations results in women having additional agricultural and household duties. This reinforces gender roles and denies girls access to education.
- **Women are economically vulnerable** - Women's vulnerability is reinforced by the collapse of social support systems, women's lack of assets, lower literacy and educational levels, and limited mobility and access to income-generating work. Some women – the elderly, widows, children, and orphans – are vulnerable to destitution and susceptible to labour exploitation, forced marriages, and trafficking.
- **Women's health and sanitary needs often go unmet** – The responsibility of women and girls for child care, water provisioning, and sanitation makes it more likely that they will come in contact with polluted water sources and the associated potential health consequences. Girls may be given less food in preference to boys and adults, thereby rendering them susceptible to poor health. Menstrual taboos create considerable stress and health complications for women and girls, especially if a lack of privacy and/or lack of latrines and clean water prevent them from attending to their needs.
- **Women are often denied adequate relief or compensation** - Men are regarded as the heads of households, so economic assistance, direct compensation, jobs, and training are often channelled through them. This makes it difficult for women – especially widows, single women, and women-heads of households – to claim compensation, as was the case after the 2005 earthquake in northern Pakistan. After the 1991 cyclone in Bangladesh, women heads of households were overlooked in the distribution of allotments of land and housing, which were based on the previous ownership patterns that were only in men's names.
- **Women face the risk of increased gender-based violence** - After the 2004 Indian Ocean tsunami, there were instances of women being battered for resisting their husbands' selling of jewellery or disputing the use of relief funds. Socially isolated women also face greater risk of domestic violence and their access to fewer resources limits their options to deal with the crisis (Mehta 2007).

The other dimension is women's role in mountain livelihoods. In most of the Himalayan region, women are responsible for supplying water and fuel and play a crucial role in food security (Bhattarai 2008, Brody et al. 2008, Gautam et al. 2007, Leduc et al. 2008, Sherpa 2007). Since climate change affects the water sources and the vegetation that provides sources of food and energy, the depletion of natural resources has negative consequences for women. The migration or extinction of some plant species and disappearance of water sources means that they will have to work harder to access these resources, which will increase their already heavy workload.

There is an urgent need to recognise women's capacities, knowledge, skills, and competencies as their knowledge of their environment is essential in adaptation. In many parts of the Himalayas, women manage the seeds and know which ones are more resistant to droughts or floods. This knowledge is crucial for adapting to climatic variability and environmental changes.

Garro Hills, Shillong, India (below); Mustang, Nepal (right)

Gender mainstreaming, a key to adaptation

The gender perspective is still rarely integrated in research, adaptation initiatives, and climate change dialogue (Aguilar 2003; Mehta 2007; Leduc 2008). This is despite general acknowledgement of women's roles in farm production, management of households, and caring for family members. It is also despite the growing realisation of women's role in the management of natural resources and increasing efforts to mainstream gender in development and disaster preparedness initiatives.

We need to tap the knowledge of both women and men to increase mountain people's resilience to climate change

In the Garro Hills of North East India, women farmers who practice shifting cultivation manage an average of 35 species of seeds. They have a rich knowledge for their preservation and diversification and about the medicinal and aromatic proprieties of the plants. They know which species adapt better to droughts or floods. This knowledge, too often undervalued, is capital for people's adaptation to climatic and environmental changes.

Brigitte Leduc. Field notes 2009



Mainstreaming gender in adaptation strategies will broaden the scope of potential solutions by using a diversity of knowledge and skills related to natural resources management and food production. It would also capitalise on the contribution of more resources for adaptation. For this, we need to

- have a better knowledge about the different vulnerabilities of women and men to climate variability and environmental changes and the causes of those vulnerabilities;



- acknowledge the roles of women and men in coping and adaptation strategies to environmental changes;
- address both women's and men's needs for building their resilience;
- increase the participation of women in climate change dialogue and in adaptation strategies at all levels.

Climate change is already affecting the Himalayan environment and people. The impacts will be felt increasingly and will necessitate changes in people's livelihoods and lifestyles. With different roles in society, men and women face different challenges and demonstrate different reactions and methods for coping. Integrating a gender perspective into climate change adaptation and mitigation policies and strategies will address both men's and women's needs, increase the efficiency of those strategies, save lives, improve livelihoods, and protect natural resources.

References

- Aguilar, I (no date) *Climate change and disaster mitigation – Gender makes the difference*. IUCN factsheet.
- Bhattarai, B (2008) *Gender assessment for IFAD's Western Uplands Poverty Alleviation Project, Nepal*. Draft report for IFAD, Rome.
- Brody, A; Demtriades, J; Esplen, E (2008) *Gender and climate change: Mapping the linkages – A scoping study on knowledge and gaps*. Unpublished paper prepared by BRIDGE, Institute of Development Studies (IDS), UK, for the UK Department for International Development, London
- Enarson, E (2001) *Gender equality, environmental management, and natural disaster mitigation*. Report from the online conference conducted by the UN Division for the Advancement of Women (DAW), New York
- Gautam, D; Jnavaly, S; Sharma, A; Amatya, A (2007) *Climate change adaptation on livelihood of women farmers – Case study of Banke and Bardiya districts of Nepal*, Case study report. Kathmandu: ActionAid Nepal
- Hannan, C (2002) *Mainstreaming gender perspectives in environmental management and mitigation of natural disasters*. Paper presented at the roundtable panel organised by the UN Division for the Advancement of Women and the NGO Committee on the Status of Women in preparation for the 46th Session of the Commission on the Status of Women
- IPCC (2007) Summary for policy makers. In *Climate change 2007: Impacts, adaptation and vulnerability*, Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, pp 7-22 Cambridge: Cambridge University Press
- IPCC (2001) *Climate Change 2001: Impacts, Adaptation, and Vulnerability*. Geneva: IPCC
- Lambrou, Y; Laub, R (no date) *Gender perspectives on the conventions on biodiversity, climate change and desertification*. Rome: FAO, Gender and Population Division, Sustainable Development Department
- Leduc, B (2008) *Gender and Climate Change in the Himalayas: the Women's Perspective*. Paper presented at the Third Global Congress of Women in Politics and Governance Theme: Gender in Climate Change Adaptation and Disaster Risk Reduction, 19-22 October 2008, Philippines
- Leduc, B; Shrestha, AB; Bhattarai, B (2008) *Case study: Gender and climate change in the Hindu Kush Himalayas of Nepal*, Kathmandu: WEDO
- Lynn, K (2005) *Disasters and the cycle of poverty: Understanding urban, rural, and gender aspects of social vulnerability*. Unpublished paper, Resource Innovations, University of Oregon's Institute for a Sustainable Environment
- Mehta, M (2007a) *The gendered nature of vulnerability to climate change in the Upper Brahmaputra basin*. Unpublished paper prepared for ICIMOD, Kathmandu
- Mehta, M (2007b) *Gender matters – Lessons for disaster risk reduction in South Asia*. Kathmandu: ICIMOD
- Sherpa, D (2007) *New vulnerabilities for mountain women: A different light on the Greater Himalaya*. Unpublished paper prepared for ICIMOD, Kathmandu