As active agents of change, women and men have been developing innovative strategies to adapt to climate variability, and enhance their resilience to climate change and associated impacts. Most attention to adaptation to date has focused on technological interventions for water conservation, agricultural practices, and infrastructure design, rather than on institutional or procedural innovations that may reduce vulnerability. National and local adaptation strategies need to build on and enable local knowledge and efforts, and strengthen underlying systems to support capacities of women and men to adapt.

**Strengthening agricultural and livestock production**

Women and men are strengthening agricultural production systems to be more resilient to climate variability through growing different crops, cultivating drought-tolerant, water-resistant and saline tolerant crop and fodder varieties, planting early or late sowing varieties. They are also employing water efficient management for agriculture such as drip irrigation and treadle pumps.
But crop diversification and adapted agricultural and livestock practices often require information and skill training about planting; suitability of varieties; proper use of manure, pesticides and irrigation; post-harvest methods; and improved animal husbandry. Poor populations, and particularly women, often have limited access to extension services for needed inputs and information. They may also lack credit and financial resources, and appropriate links to markets, necessary for investment in new crops and products.

In most countries, specific efforts need to be made to ensure that women are included in developing platforms and processes of learning and exchange towards improved and more resilient agricultural production (see, for example: www.ecoagriculturepartners.org).

**Diversified livelihoods and migration**

Many poor rural women and men are responding to environmental and economic hardship through diversifying their livelihoods to non-farm labour. This diversification can enhance their resilience as evidenced in India where middle-income families solely dependent on farm incomes were more vulnerable to drought than poorer families that had already diversified their sources of income.
Those with skills and social networks may migrate to urban or peri-urban centres seeking alternative employment, and many families throughout the world have at least one family member sending remittances.

However, change of livelihoods requires skills, and women, generally with less education and access to skills or training, and more limited mobility than men, may not be able to obtain non-farm work, or end up working in low-skilled jobs with low wages. Most of this employment is in the informal sector with limited social protection and harsh working conditions. While migration may ultimately strengthen adaptive capacity for families “at home”, it also exposes migrants to new social vulnerabilities.

**Enhancing economic assets**

A strong asset base, ownership of liquefiable assets, and access to financial services such as credit and insurance can assist poor women and men to cope with losses arising from climate extremes and economic shocks. In South Asia, women’s self-help groups and networks for savings, as well as micro-credit banks for the poor (such as Grameen and SEWA) have enabled women to build their financial assets, and many have felt more empowered in this process. Emerging micro- and low-cost insurance schemes such as weather-indexed crop insurance may also assist poor men and women to cope.
However, financial services need to be made more accessible to the poor and especially to women, through for example flexible repayment options.

**Disaster risk reduction**

Disaster risk reduction is an essential part of adaptation as the first line of defence against climate change impacts such as increased flooding and regular droughts. Gender-responsive disaster planning and risk reduction measures, linked with long-term development planning, can ensure that women and men are better able to respond to and recover from extreme events. For example, raising the plinth level of houses, building community shelters, and protecting seed and livestock can enhance women and men’s ability to cope with flooding events. Appropriate sanitation facilities, such as elevated latrine units reduce fecal contamination of water resources, thereby reducing disease. They also provide safe and secure spaces for women to meet sanitary and hygiene needs with dignity. Appropriate and accessible early storm or flood warning mechanisms that consider gender differentiated access to technologies (such as cell phones) and information can enable women and men to move in time to safe locations. Stronger linkages between disaster risk reduction experience and tools and adaptation planning from local to international levels can help build resilience of women and men to climate variability.
Similarly, adaptation efforts, and attention to the shifting hazard burden of longer-term changes in climate strategies should inform the disaster risk reduction community.

**Disaster management planning**

Gender-sensitive disaster management planning saved lives of women, men and children in La Masica, Honduras. There were no reported fatalities after Hurricane Mitch because a disaster agency had provided gender-sensitive training and involved women and men equally in hazard management activities, and women took over control over the early warning system. This led to a quick evacuation when the hurricane struck.

Source: http://www.iwawaterwiki.org/xwiki/bin/view/Articles/GenderWaterandClimateChange