Mountain farming, which is largely family farming, has contributed to sustainable development for centuries. Over generations, people residing in mountain areas have refined ways to farm in difficult conditions, and produce a wide variety of crops that are adapted to a range of different elevations, slope conditions and microclimates. Inherently ‘green’, mountain agriculture has a low impact on the environment – in fact, fossil fuels, mineral fertilizers and pesticides are used less in upland than in lowland farming.

In general, mountain farming is the prevailing occupation and the main source of food in mountain areas. Mountain family farms are usually not the centres of national production in terms of quantity, with the exception of some tropical mountain regions. Mountain farmers tend to diversify more than other farmers and it has proved to be a key to resilience. Some family members may work in agriculture (farming, forestry, aquaculture or animal husbandry) and also be employed on a regular or seasonal basis, nearby or even abroad. Despite their engagement in an array of activities, mountain peoples remain vulnerable and often face poverty and food insecurity.

The custodians of knowledge, solutions and techniques, mountain farming communities shape and protect landscapes that provide ecosystem services vital for development, reaching far beyond mountain areas. These services include the provision of freshwater, disaster risk reduction and the preservation of biodiversity as well as areas for recreation and tourism.
Issues

Global changes, such as climate change, population growth, economic globalization and the migration of men and youth to urban areas have significantly increased mountain farmers’ vulnerability to poverty, food insecurity and extreme events. Although those who leave generally provide remittances, women, children and the elderly who remain have heavier workloads to carry. At community level, cultural values and ancient traditions are lost.

Due to their remote location, mountain communities, especially in developing countries, often lack access to basic infrastructure such as health services, schools, extension services, roads, transport and markets. Living far away from centres of power and decision making, mountain family farmers – like mountain peoples in general – are often marginalized in political, social and economic terms and face widespread poverty and food insecurity.

Organic farming helps adapt to climate change

In Colombia, the Rio Las Piedras Basin in the Central Andes is heavily impacted by climate variability. A local farmers’ association, Asociación Campesina del Cauca (ASOCAMPO), adopted a strategy to promote sustainable agriculture while assisting farmers adapt to climate change. It established forest patches to reduce flood impact, improving the water retention and protecting the Andean wetlands, the páramo. Trees were planted to prevent wind erosion, steep slopes terraced using bamboo and acacia wood and indigenous tree nurseries established. Composting systems replaced the need for mineral fertilizers, and selling surplus compost provided additional income. In 2011, ten years after the strategy was implemented, a survey found considerable improvement in the farmers’ livelihoods.
Aquaculture practices improve mountain communities’ diets

A Food and Agriculture Organization of the United Nations (FAO) applied research project in 2013 focused on the aquaculture practices of family farms in the Dak Lak Province in the Tay Nguyen Highlands of Viet Nam. Aquaculture training courses and practical demonstrations were given. The fish fingerlings supply centre provided technical advice and built a network for farmers and local extension staff who distributed fingerlings. By the end of the project, farmers had strengthened their technical skills and understanding of the production cycle of cultured species. Farming family diets improved thanks to the increase of protein from cultured fish as well as from additional food, such as chicken and beef, bought in markets with money made from selling the fish.

Opportunities

In this globalized world, we have an opportunity to promote and foster the wellbeing of mountain communities and reduce the rates of hunger, poverty and outmigration. Globalization offers opportunities for mountain producers to market their high quality products, such as coffee, cocoa, honey, herbs, spices and handicrafts at the national, regional and international levels. Though mountain agriculture cannot compete with the prices and volumes of lowland production, it can concentrate on high value, high quality products to boost local economies.

To fully tap the potential of mountain agriculture, mountain communities would benefit from targeted support in strengthening all phases of the production chain. Expanding collaboration and strengthening farmers associations and cooperatives can improve market access and reduce the number of intermediaries, allowing producers a better profit margin. Secure land tenure and better access to credit for both women and men combined with greater public investments in education, health and infrastructure would improve the performance of family farming in mountain regions.

Incentives for ecosystem services also hold a potential for improving the livelihoods of mountain communities, while enabling the continuation of their role as stewards of the environment.
What is family farming – International Year of Family Farming 2014

According to the Food and Agriculture Organization of the United Nations (FAO), family farming is a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family labour, including that of women and men. Both in developing and developed countries, family farming is the predominant form of agriculture in the food production sector. Family-owned farms are responsible for at least 55 percent of global agricultural production.

Angora goat production boosts mountain peoples’ incomes

Angora goat production and mohair marketing are vital for rural households in northern Tajikistan. An International Center for Agricultural Research in the Dry Areas (ICARDA) project started in 2006 by adding value along the entire market chain. At the start of the chain, livestock scientists worked with farmers to breed goats that produce fine mohair. The project then went on to train women to knit items, such as shawls and sweaters, that sell well on the global market. The Tajik women now train women from other parts of Tajikistan and Iran and are linking with buyers in the United States and Europe and setting up ordering and shipping systems.

These and many more case studies can be found in “Mountain Farming is Family Farming,” a 100-page publication produced by FAO and partners in 2013 to provide an overview of the global changes affecting mountain farming and the strategies that mountain communities have developed to face them: www.fao.org/forestry/internationalmountainday