

## BIODIVERSITY AND AGRICULTURE

# Gender and the Management of Agricultural Biodiversity

Underpinning the Convention on Biological Diversity is a recognition that humans, themselves a diversity of cultures and knowledge, are an integral component of ecosystems as both users and managers of resources. Because it is human management of agricultural landscapes that shapes agricultural biodiversity, gender-based differences in knowledge and responsibilities, greatly impact management activities.

Both men and women farmers play an important role as decision-makers in agricultural biodiversity management. They decide when to plant, harvest and process their crops. They decide how much of each crop variety to plant each year, how much seed to save from their own production and what to buy or exchange. All these decisions affect the total amount of genetic diversity that is conserved and used. However, frequently there is a clear gender differentiation in roles and responsibilities in agriculture causing men and women to be responsible for the management of different aspects of agrobiodiversity.<sup>1</sup>

### WHAT IS GENDER AND GENDER ROLES?

Gender refers to the social roles that men and women play and the power relations between them, which usually have a profound effect on the use and management of natural resources. Gender is not based on biological differences between men and women or sex. Gender is shaped by culture, social relations, and natural environments. Thus, depending on values, norms customs and laws men and women in different parts of the world have evolved different gender roles.

Gender roles of women and men include different labour responsibilities, decision-making processes, and knowledge. According to their needs, men and women often use resources differently and thus manage their resources in different ways. The gendering of local knowledge, including knowledge for managing agricultural systems, has four key characteristics:<sup>2</sup>

1. Women and men have knowledge about different things.
2. Men and women have different knowledge about the same things.
3. Women and men may organize their knowledge in different ways.
4. Men and women may receive and transmit their knowledge by different means.

Gender and gender roles affect the economic, social and ecological opportunities and constraints faced by both men and women. For example, In Tamil, India, both male and female agricultural workers agreed that it would be humiliating for a man to be paid the same as a woman, even for the same work.<sup>3</sup>

#### Women's Traditional Knowledge of Medicinal Plants in Malaysia

Women's local knowledge of medicinal plants, which has evolved over centuries and continues to adapt to changing conditions, is at risk of being lost forever. For example, Maria Malanga, a medicine woman in Malaysia, is a veritable "living library" of traditional and local knowledge of about 200 species or varieties. Her undocumented knowledge is at risk of being lost as she has no children, and the youth of the village have thus far shown little interest in acquiring her knowledge. The Global Environment Facility Small Grants Programme in Malaysia is undertaking efforts aimed at capturing valuable knowledge for the benefit of the local people and of all humankind.

*Source: United Nations Development Programme, 2007. Gender Mainstreaming—A key driver of Development in Environment and Energy: Portfolio Review and Assessment. UNDP, New York.*

## CHALLENGES AND CONSTRAINTS IN AGRICULTURAL BIODIVERSITY MANAGEMENT

Locally varied food production systems and agricultural biodiversity, including local knowledge and the culture and skills of women and men farmers, are disappearing under threats from a number of changes and trends. Drivers of change include over-harvesting, invasive species, and introduced species and varieties. Trends include movement from traditional foods to more processed food; from local production for local use to commercial production; and from local resources towards high-external input systems. These drivers of change and trends are changing the interactions between men and women farmers.

Home gardens, traditionally grown by women, provide a wide variety of vegetables, relishes and condiments for family consumption and the marketplace. These home gardens are also experimental plots where women try out and adapt diverse wild plants and indigenous species. In Thailand, researchers found that in response to declining natural habitats women rescued species from a neighbouring forest before it was cleared, resulting in 60 home gardens containing more than 230 different species.<sup>4</sup>

Over the past few decades gardening has become more and more a man's affair for commercial venture. Local crops are commonly being replaced by introduced commercial crops, often resulting in the displacement of women farmers by men. For example, a case study in Mali showed that when men started commercial horticulture production (fruits, vegetables, and melons), women were displaced to find other areas to grow traditional plants for their sauces.<sup>5</sup>

In recent decades there have been rapid advances in agricultural technology and substantial gains in agricultural productivity. These advances have often bypassed women farmers, who currently account for 60-80% of all food production in developing countries<sup>6</sup> and 44 percent of the approximately 1.3 billion persons in the agricultural labour force<sup>7</sup>, resulting in a variety of gender-based constraints for women as farmers and natural resources managers. In order to meet the challenges of ensuring food security, adequate nutrition and stable livelihoods, these shortcomings need to be overcome.

By understanding differences in the way men and women often manage, use and control agricultural resources, development programs, projects and policies achieve greater equity and efficiency.<sup>8</sup> The consequences of ignoring gender-based knowledge are manifold, such as setbacks in development and the erosion of knowledge for sustainably managing resources.

### Differences in gender management of livestock production

Men and women generally:

**Own different animals species:** men tend to be responsible for cattle and larger animals and women for smaller animals, such as poultry.

**Have different responsibilities:** regardless of who owns the animal, women are often responsible for the care of young animals, keeping stalls clean or milking. Men are occupied with herding, breeding and slaughtering.

**Use different animals products:** in many societies women use animals for milk and dairy products, whereas men use their meat, hides and for labour.

*Source: Food and Agriculture Organization of the United Nations, 2005. Building on Gender, Agrobiodiversity and Local Knowledge: A Training Manual. FAO, Rome.*

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3. Rojas, Mary Hill, no date. IUCN Fact Sheet, "Gender Makes the Difference: Agriculture". IUCN, Gland.
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8. Rojas, Mary Hill, no date. IUCN Fact Sheet, "Gender Makes the Difference: Agriculture". IUCN, Gland.