# **Gender and**

## **Natural Resources**





Rural women have developed practices for the efficient and sustainable use of the resources available to them (India).

case of separation, women are reluctant to invest time and resources into long-term land improvements such as building irrigation or drainage systems, terracing, planting tree crops or other activities that maintain soil fertility.

When women do not own land, they often have no access to agricultural support services such as credit with which to purchase inputs, to training in land and water development, or to water resources for irrigation.

In many cases, water resource policies and programmes have proven detrimental to women's land and water rights and thus to their sustainable management and use. Interventions such as irrigation often fail to take into consideration the existing imbalance between men and women's ownership rights, division of labour, and incomes. Irrigation raises the value of the land, bringing about social change which usually favours men. In

addition, irrigation systems may favour mono-cropping, often for the production of cash crops, and thus may exclude provisions for a more diversified cropping pattern supporting a variety of food crops. Cash crops are usually controlled by men and decisions regarding the scheduling of irrigation water tend to be made without consideration for women's productive and reproductive activities.

Women must be involved in policy-making and planning to ensure the most productive and efficient use of land and water resources to meet present and future food and agricultural demands. Women farmers need to be part of the planning and implementation of land and water management programmes, with full access to inputs and organizational arrangements. Equally important is the increased participation of women in training and extension activities that deal with soil resources and land-use planning, and in water conservation and development.

### STRATEGIES AND ACTIONS TO BE TAKEN



Participatory Approach to Better Land Husbandry.

- Prepare case studies on the development and testing of participatory methodologies for land use planning, specifically with regard to women's roles in priority-setting, conflict resolution, and stakeholder negotiations over land use alternatives.
- Prepare briefing sheets on Women and Land Use Planning and Women and Soil Conservation.

- Develop a "tool kit" on Women in Land, Water, and Plant Nutrient Development.
- Develop guidelines and training materials on how to increase women's participation in water users' associations and in training courses for on-farm water management.
- Incorporate detailed information by gender and age on land tenure and on the labour inputs for land use operations in the FAO Universal Land Use Database (ULUD).



# PLANTS

Women play a central role in the development of sustainable agricultural systems, particularly in improving crop and grassland productivity. In sub-Saharan Africa, it is estimated that women contribute 30 to 80 per cent of the agricultural labour for crop production, depending on area and economic class. In nearly all rice growing areas of Asia men traditionally perform such activities as land preparation, ploughing, irrigation and leveling of the fields. However, sowing, transplanting, weeding and crop processing are usually women's work.

Women in Latin America are also heavily engaged in crop production. Surveys in Colombia and Peru show that female participation in agricultural field tasks ranges from 25 to 45 per cent. The contribution of women to crop production in the Near East varies widely from country to country, but in many countries it is substantial. Where drought has forced men to migrate, women have increasingly taken on agricultural tasks that were traditionally done by men.

Given their varied and complex responsibilities in rural households, women often have a special interest in the diverse and multiple uses of plants. Women farmers play a leading role in maintaining crop diver-

sity and populations of valued wild plant species. They often have considerable knowledge about the characteristics, distribution and site requirements of indigenous trees, shrubs and herbs. Women's knowledge of plants for food, fuel, health and crafts plays a decisive role in the conservation of different species and varieties according to their usefulness to the community. Plant genetic resources for food are selected by women according to such variables as nutrition and medicinal properties, taste, texture, processing requirements, storage qualities, resistance to pests and diseases, soil and agro-climatic adaptability.

There is limited knowledge and recognition of women's roles in seed production, crop manage-

Genetic resources, particularly plant genetic resources, are increasingly under threat. Rural women in developing countries hold the key to many of the planet's agricultural systems for food production, seed selection and protection of agro-biodiversity. Home gardens are often used as experimental plots where women adapt or diversify wild and indigenous species. Research in home gardens in one single village in Thailand revealed 230 different plant species, many of which had been rescued from a neighbouring forest before it was cleared.

#### STRATEGIES AND ACTIONS TO BE TAKEN



#### **Plants**

- Carry out studies on the role of women in on-farm in-situ conservation, and the use of genetic resources, integrated crop and grassland management and production, integrated pest management and seed production and exchange.
- Prepare case-studies on: the role of women in urban and peri-urban horticulture production; the factors limiting the participation of women in integrated-pest management activities; women's home
- gardens and their contribution to food security; and on gender factors in tree crop intercropping systems.
- Collect and disseminate information on the gender aspects of technologies and sustainable production systems for different agro-ecological zones.
- Highlight gender issues in technical guidelines and in the identification and dissemination of appropriate production, protection and propagation technologies, and training activities.

## **Natural Resources**





Women contribute 30 to 80 per cent of the agricultural labour for crop production (Myanmar).

ment, improvement and protection, or in the conservation and sustainable use of plant genetic resources. Consequently, women are often excluded as participants in, and beneficiaries of, development activities in plant production and protection.

More information is needed on the role of women in crop production and protection in order to design extension and training activities that better target them. **Technology development must be carried out in collaboration with women farmers** in order to benefit from their knowledge and respond to their needs concerning the sustainable use and conservation of plants for crops, medicines, crafts and other purposes.

# ANIMAL RESOURCES

Women play key roles in raising animals and in harvesting and processing livestock products both for home consumption and for sale. Although men are often the owners (and sellers) of large livestock, it is the women who perform most of the household labour devoted to animals. As males seek off-farm employment, rural women are assuming greater and more varied roles in managing the family farm, including animal husbandry operations. At the same time, and in response to the expanding urban demand for livestock products, peri- and intra-urban stock raising have increased as income-earning enterprises. It is the women and children who are mainly involved in these activities. In most cities in the developing world, women are also vendors of prepared foods, many of which utilize livestock products.

The contribution of women to livestock products is

### STRATEGIES AND ACTIONS TO BE TAKEN



 Undertake specific measures to increase the number of women participating in plant-nutrition and fertilizer extension and training programmes.

### **Animal Resources**

- Incorporate gender-disaggregated information on household labour, income, and management structure into the FAO Global Livestock Production Systems Database.
- Prepare and publish case studies on the

- benefits of incorporating gender into livestock production activities.
- Address gender issues (for Member Nations) in training workshops in livestock sector policy and planning.
- Incorporate gender-disaggregated data and information into the Regional Dairy Information Networks.
- Carry out gender-targeted training programmes on the technical and managerial aspects of animal husbandry, feed resources, nutrition and health, and

### **Natural Resources**

often overlooked. Animal health and production extension services are rarely directed towards women and therefore are not sensitive to their needs. Women's roles are increasing in virtually every link of the producer-to-consumer chain within the livestock sector. It is imperative to enhance their access to appropriate technologies and information regarding livestock husbandry and processing of animal products. This requires technologies that are labour-saving and efficient, environmentally friendly and profitable, and that

take into consideration consumer needs for products that are safe, nutritious and affordable.

To achieve this goal, policy-makers, planners and development workers must have a better understanding of the relative and often shifting roles of all family members in livestock-related activities, including division of labour, decision-making and traditional knowledge and practices. This will ensure that all actors in the sector are better served, and that women, in addition to men, participate more fully in decisions regarding technology generation and dissemination, and receive training in the technical, managerial and organizational aspects of improved livestock production and processing.



Women play key roles in raising animals and in harvesting and processing livestock products (Yemen).

# FORESTS AND TREES

Women's knowledge of forest products represents a vast database of species which scientists are unable to catalogue. Tribal women in India, for example, know medicinal uses for some three hundred forest species.

Rural women are major caretakers and users of forests. They are the main gatherers of fodder and fuelwood, and they seek out fruits and nuts to provide food for their families. In addition, they use bark, roots and herbs for medicines. Women's gathering activities are very important to household income and nutrition. The products they collect are important supplements to the family diet. Much of what they gather is processed or marketed bringing in supplementary cash income. During periods of famine and shortage,

#### STRATEGIES AND ACTIONS TO BE TAKEN



- on the processing and marketing of livestock products, in order to improve women's access to, and employment in, livestock sector institutions and services.
- Incorporate gender-specific traditional knowledge and practices into FAO's Global Program for the Management of Farm Animal Genetic Resources.

#### **Forests and Trees**

• Incorporate gender-disaggregated data into: existing databases (specifically the

- database on communal management); research on community forestry legal frameworks; marketing and other studies; and project reporting.
- Develop gender-sensitive training materials in community forestry, and distribute this material to universities, training institutes and NGOs for use in training programmes. Translate the materials into local languages to ensure improved accessibility for rural women and men.