



## Gender Relations in Biodiversity for Development

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**P**lant biodiversity has been drastically reduced over much of industrialised world. Most land is in urban areas or under intensive agriculture and its nature has been set apart from production. Few people have a direct productive relationship with nature outside of agriculture. On a global scale and particularly in regions rich in biodiversity, either in villages or farms, house gardens, forests, fields, boundaries and other lands, it is mainly another important gentry i.e. poor women who manages the biodiversity of plant species and varieties. They do so largely within what is often socially defined as domestic work which largely remains unmentioned and the women-plant relationship within it are largely invisible to out world.

It did not take long to learn that it was an easy task to demonstrate women's (especially those who are living in villages and below poverty line) importance in plant biodiversity management and conservation, since the literature dealing with this topic is highly fragmented and dispersed. The world's first compilation of papers on women and biodiversity management was based on the proceedings of a conference held at Harvard University in 1991 that directly deal with biodiversity, reflecting the lacunae existing at that time. Clearly there is a need to search out, compile and review empirical and theoretical significances of poor women and relation of local plant biodiversity management and conservation systems across the globe. This will help to demonstrate effective plant biodiversity research and conservation efforts that must take into account poor women, gender relation and the entire range of issues that course to the fore when fullest possible account of human activity and culture is considered and that such exclusivity becomes possible only when a gender especially village women perspective is incorporate.

The significance of the case studies will be helpful for the people in the following ways:

- ◆ Knowledge and production within domestic sphere.
- ◆ Household labour activity/ availability, use and organization.
- ◆ Intra- household knowledge division and transmission.
- ◆ The social organization of indigenous systems of right and knowledge about plants.
- ◆ The relationship between plant biodiversity, in rural areas and status within households and communities.

### Women and plant world : An exploration

The traditional economic system of indigenous societies in North-Western America, like many other around the world are characterised by a gender division of labour where men generally work as the hunters and fishers and as the workers of wood and stones. Women by and large are engaged in the collection of plant species for food and fiber and accordingly manage their storage and consumption while acting as weavers of baskets for marketing. It is important to note that women's work has been highly valued in society.

They too work in harvesting of crops and managing plants, although seldom their efforts could not be given due emphasis. The various types of subsistence and cultural activities traditionally undertaken by the women in indigenous society of North-Western North America include a range of harvesting, processing, manufacturing and provision ring activities; land and resources management, household management and mentoring of children and livestock. Here, it is important to note this is a



generalised listing; the work of an individual woman of any community off-course becomes more specific to her particular role within the family community culture and environment. Elders of recent times recall their mothers, aunts or grand mothers journeying, sometimes for many days to harvesting location, to obtain good quality Cedar (*Thuja plicata*) bark, Spruce (*Picea sitchensis*, *Picea glauca*) roots or edible medicines.

On the north coast, women used to travel long distance over potentially rough water to harvest edible sea-weed (*Porphyra abottae*). The history of settled European colonization and industrial economic development resulted in changes in indigenous women's activities as many of them began applying their knowledge and skills of piece work and wage work in fish processing plants; fruit harvesting, hop picking, potato growing and other agricultural works. Instead of making baskets for personal use or trade amongst themselves, women also started manufacturing baskets for sale or trade within neighbouring settler and tourists. Many used their basketry to obtain food or clothing from the European neighbours.

Women's activities in North-West regions that has been described earlier require an immense and complex base of knowledge and practical skills, including;

- ◆ Familiarity with ecosystems, geographic features, climate, moon cycles, tides, winds, currents and weather.
- ◆ Understanding of ecological succession, habitats and life cycles of resource species and of ecological indicators of their phenomenon.
- ◆ All manner of survival skills, including knowledge of wilderness survival, navigating in stormy or foggy weather or tracking routes, reorganization of poisonous plants and how to treat poisoning.
- ◆ Techniques required for harvesting and processing foods, material and medicines, including dehydrating, smoking, cooking, storage and weaving baskets, mats, bags and clothing, using a variety of techniques, materials and design, dyes and tanning agents.

- ◆ Knowledge of all kinds of plants, their habitat requirements, distribution, growth cycle, means of reproduction, variants and associated plants and animal species.
- ◆ Knowledge of various types of timber and fuels and where to find these.
- ◆ Knowledge of nutrition, foods and famine foods, including qualities required for preservation, food safety and potential toxicity of foods.
- ◆ Knowledge of the preparation, safety and effectiveness of medicinal herbs.

While some of the knowledge pertains to men as well as women, women have held much of it primarily or exclusively and they are the ones who have applied and perpetrated it. This knowledge not only includes practical, technical and environmental information, but also embodies 'wisdom' that accure with training and experience and enables women to apply the information they hold effectively.

Although the fundamentals to the traditional knowledge systems for men and women are alike, is the cultural philosophy or attitudes, religious beliefs and ethics that shape and direct people's action and activities. For women this cultural world view is reflected in the ways in which plants are harvested; in the ceremony and rituals at the time of puberty, child's birth, marriage and death; in the ways in which women relate to one another.

### Women's participation

In rural areas of south central Mali, very clear gender relations of production and domains of experience and knowledge mark the food production process. The men in each house hold work collectively in their group mainly upland field, which is located in bush areas at least a few kilometres from the settlement. Here they produce a suit of staple crops including Sorghum (*Sorghum bicolor*), millet (*Pennisetum glaucum*), corn (*Zea mays*), cowpeas (*Vigna unguiculata*), peanuts (*Arachis hypogea*) etc. Women on the other hand are responsible for the cultivation and collection of plants that make up the sauces that accent the men's grain crops in daily meals. During the rainy season, married women in each



domestic group work individually in upland fields assign to produce 'sauce things'. In most cases women inter -crop peanuts (*Arachis hypogea*), Roselle (*Hibiscus sabderiffa*), okra (*Abelmoschus esculentus*).

The vast majority of women's are destined for direct consumption although, from time to time, some items are sold to generate income i.e. typically used to purchase commercial sauce ingredients. This general pattern of distinct gender contribution in the food economy, with man providing grains and women providing sauces, is wide spread among the rural areas of Bamana.

## Conclusion

As women's productive space such as the home gardens are shifted over to commercially viable exotic crop and market garden production, traditional plant resources may decline and knowledge of these crops may be lost. This threat has been identified as a key concern by the International Board for Plant Genetic Resources and other organizational concern with the long term viability of locally adopted plant biop-diversity. It is clear that gender linked commer-

cialization dynamics can pose a threat to local plant biodiversity and that the loss of these resources can provoke further detrimental effects on the environment and human welfare. Not without difficulty they are showing how the barriers that have existed between public and private, professionals and farmer experts, male extension workers and poor females can be broken down and a spirit of shared learning created around plant breeding as an activity of mutual interest.

As women in the 'seed production base' develop their organizational and leadership capacities and link-up with support agencies on wider networks, they will be positioned to talk directly with decision makers in ways that can help shape the choices made. So there is an urgent need to seek the contribution of importance of women labour in plant management including the determinants of genetic erosion, the significance of gender ethno botanical knowledge system, traditional property right systems and women's entitlement therein, and eco-feminist and other works about the nature of gender environment relations.

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