

ticipate as equals in information sharing and generation, education and training, technology transfer, organizational development, financial assistance and policy development enhances biodiversity conservation. The exclusion of women as agents of development means ignoring half of the planet's population, which, in turn, affects the efficiency and effectiveness of the conservation of biodiversity.

Considerable efforts over the past 15 years, at national and international fora, have brought the Parties and Secretariat of the Convention on Biological Diversity to understand the fundamental role that women play in managing and conserving biodiversity and the need to integrate the gender perspective into their frameworks. To promote this inclusion of gender, the Secretariat of the CBD (SCBD) has appointed a gender focal point based at the Secretariat and elaborated a Gender Plan of Action, in collaboration with IUCN.

Recommendations

- Biodiversity research should be gender sensitive.
- The linkages between gender, biodiversity and poverty eradication must be further studied.
- Clear guidelines, tools and methodologies to mainstream gender into biodiversity management should be developed.
- CBD Parties should integrate the gender perspective into the national biodiversity planning processes.
- Partnerships and networks should be built to promote the mainstreaming of gender within the biodiversity conservation and management. These partnerships and networks should integrate women's organizations, gender organizations, governmental and non-governmental organizations, among others.
- The capacity of women, particularly of indigenous women, to participate in CBD processes and decision making must be enhanced and valued.
- Improved land tenure for women can support biodiversity. Secure access to land for agriculture and home-sites leads to greater on-farm habitat protection of existing biodiversity and exploration of improved varieties.
- Equitable access to agricultural resources and inputs could support biodiversity conservation. Both women and men working with plants and animals need credit, technical support and extension services in order to mitigate or reduce potentially harmful practices.

- A gender approach brings innovation and different approaches to biodiversity research. For example, by studying women's recipes, one can see the changes in available resources over time and by season.
- Biodiversity research and programme decisions should include broader and more diverse perspectives at local, national and regional levels, and should reflect women's constraints, needs and preferences (such as access to land and other natural resources, land use, conflict resolution, household food security during difficult economic and climatic conditions).
- Countries should take advantage of their compliance with the CBD's provisions to create policies and legislation that safeguard the human rights of men and women, as well as indigenous and local communities. This is a great opportunity to achieve equality and equity between men and women in their access to resources, control of their traditional knowledge, and benefits from sound management and participation in governance and decision making.

This fact sheet was prepared by Lorena Aguilar, Gabriela Mata and Andrea Quesada-Aguilar.

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CONTACT: Lorena Aguilar. IUCN Senior Gender Adviser • lorena.aguilar@iucn.org • www.genderandenvironment.org

Gender and Biodiversity



Photo: Stéphanie Burn

- Women in different regions of Latin America, Asia and Africa manage the interface between wild and domesticated species of edible plants. This role dates back to 15,000–19,000BC. Research on 60 home gardens in Thailand revealed 230 different species, many of which had been rescued by women from neighbouring forests before being cleared (Aguilar, 2004).
- Women have been recognized as users and custodians of biological diversity. In countries like Bolivia, Colombia, Peru, Viet Nam, Indonesia and India they are responsible for the selection, improvement and storage of seeds and management of small livestock. Women from sub-Saharan Africa grow over 120 different plant varieties in small areas alongside cash crops (Deda and Rubian, 2004).
- Women provide close to 80% of the total wild vegetable food collected in 135 different subsistence-based societies. Women use extensively wild patches and marginal areas from which they collect wild plants for food, medicine, and



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seeds. Women's gardens in many cases represent a refuge where less common species and varieties are preserved (FAO, 1996). For example, women in Mexico gather food from the forest and woodlands, such as fungi and wild greens such as *azonche*, turnips, clover, mustard, mallow, *quelites de agua*, *papas de agua* and wild potatoes (Cabrera *et al.*, 2001).

- Men's and women's knowledge of the forest is different because they use different forest resources. Women are more likely to collect berries, fruit, or twigs and small branches for fuel from a tree, while men will cut down the same tree to sell as firewood or for use in construction (Hannan, 2002).
- In a study in Sierra Leone, women could name 31 uses of trees on fallow land and in the forest, while men named eight different uses. This shows how men and women have distinct realms of knowledge and application for natural resource management, both of which are necessary for sustainable use and conservation (Aguilar, 2004).
- Women and men often have different knowledge about, and preference for, plants and animals. Women's criteria for choosing certain food crop seeds may

include cooking time, meal quality, taste, resistance to bird damage and ease of collection, processing, preservation and storage (Aguilar, 2004). For example, maize varieties preferred by women are the most resistant to the local weather, the most nutritious and give the highest tortilla yields; these maize varieties are different from the ones grown for commercial purposes (Cabrera *et al.*, 2001).

- Bedouin women have a unique knowledge of medicinal plants used to protect their skin from the harsh conditions of the desert. Three years ago, Bedouin women organized and formed the Asala Desert Nature, with the support of the Center for Jewish-Arab Economic Development (CJAED) to develop a range of skin products that is about to be launched commercially (Blackburn, 2007).
- Decision making is an important function in forest user groups and requires the participation of the whole community; however, forest projects have not been



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able to include women successfully. In Bamdibhirkhoria, Nepali women cannot participate because they are busy in their home gardens, and collecting forest products (CIFOR, 2004).

- In the Himalayan region the creation of protected areas has caused several conflicts. Women, in particular, came into day-to-day conflict with the forest patrols when collecting wood and other non-timber products and many admitted that they were willing to steal biomass from the protected areas. The Binsar Wildlife Sanctuary realized these problems and promoted women's participation in ecodevelopment and ecotourism planning. Women began to take pride in the protected area and now they are instrumental in planning for the area (Badola and Hussain, 2003).
- Women could have an important role at preserving tropical forests. For example, in Zimbabwe, women's groups manage forest resources and development projects through woodlot ownership and management, tree planting, and nursery development (Martin, 2004). In the Uttarakhand region of the Himalayas, the Chipko Movement demonstrated that women can make a difference when protecting forests and developing afforestation projects. Their afforestation programme not only reduced landslides, but also solved the problem of fuel and fodder. Women looked after the trees so thoroughly that the survival rate was 60–80% (Joshi, 1982).
- Women can lead initiatives for the restoration of nature. For example, in a dry and degraded area 1,000km west of Beijing, communities have been mobilized by women leaders who have encourage and organize them to plant willows and poplars to halt the advancing deserts and create fertile land for vegetable production (Toepfer, 2005).

Women have a unique relationship with biodiversity and across the globe, women predominate as wild plant gatherers, home gardeners, plant domesticators, herbalists and seed custodians. There are many examples that document that women and men have different uses, knowledge, and practices concerning biodiversity. These differing relationships with biodiversity result in gender-differentiated impacts when the abundance and composition of the biodiversity changes. These alterations might limit women's access to, and control over, natural resources (i.e. land, water, cattle and trees) and reduce their possibilities to provide their families with a proper lifestyle.

Unfortunately, there is still a gap between the fields of gender and biodiversity (Badola and Hussain, 2003). It is necessary to highlight the gender-differentiated practices and knowledge of women and men in their relations with biodiversity resources, and to recognize that women and men can contribute differently to the conservation of biological diversity. Empowering women to par-