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Women and Wildlife in Southern Africa

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When naturalists think of Africa they think first of the world's most impressive assemblage of large mammals. To perpetuate this fauna conservation models developed in Europe and North America have been widely applied in Africa, especially through the establishment of inviolate nature reserves and allocation of primary use of large mammals to sport hunters. The models have not been entirely successful. This is particularly apparent in large areas of southern Africa where human populations are low and natural ecosystems still dominate the landscape, but the ecosystems exist with greatly impoverished populations of large mammals. This failure has occurred in large part because a long tradition of hunting game animals was broken when centralized governments usurped control of this resource. Local communities no longer have a vested interest in sustainable utilization and make little effort to control the depredations of poachers.

The solution to this dilemma, returning control and use of the resource to local communities, has been recognized for several years (Myers 1972) and has catalyzed some promising initiatives. These include Zam-

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bia's ADMAD project (described by Lewis et al. 1990) and projects in the communal areas of Zimbabwe (Department of National Parks and Wildlife Management 1989) and in the Kalahari Desert region of Botswana (Hitchcock 1988a, 1989; Cumming & Taylor 1989). These projects involve village-based use of large mammals for meat, skins, and other wild animal products, most of which are marketed for cash income. Most utilization activities — cropping, processing, marketing, sometimes even population assessment — are undertaken by village men. This is viewed as a continuation of the traditional division of labor. The fact that women are also users and managers of natural resources is usually ignored; thus, women are left with few direct benefits and some negative impacts. This paper examines these issues and demonstrates that it is crucial that women be included in project design and implementation if the goals of improving human welfare and ensuring sustainable resource use are to be met.

Women as Users and Managers of Wildlife

If one uses a broad definition of wildlife — all forms of life that are wild — women in rural communities interact with myriad forms of wildlife in ways that are of fundamental importance. Although men are primarily the killers of large mammals, anthropologists have often

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overlooked women's role in sighting and tracking large mammals and capturing animals of all sizes, especially insects, fish, reptiles, birds, bats, and rodents. Of 52 Tyua Basarwa women interviewed in the Nata River region of northeastern Botswana, for example, over 42% had collected tortoises (*Geochelone pardalis*), nearly a third had captured monitors (*Varanus exanthematicus*), and over 15% had killed either large or small antelopes (Hitchcock 1988a:23–25). In Zambia, Valley Bisa women rarely participated in the elephant hunts themselves, but they were a crucial part of the elephant exploitation process (Marks 1976:61–64). If they saw elephant sign, women would often cut short their gathering trips and return to inform the men. Groups of women would then follow the hunters and perform the bulk of the butchering and the preparation of the meat and other products. In West Africa, giant rats (*Cricetomys* spp.) and cane rats (*Thryonomys* spp.) are particularly prized by women (Asibey 1974). In Botswana, women frequently collect wild birds' eggs, including those of the ostrich (*Struthio camelus*). Once the yolk is consumed, the eggs are cleaned out and used as water containers (Hitchcock 1988a:26). In the Okavango Delta and Chobe and Nata river systems of northern Botswana, women often fish communally using fish baskets (Hitchcock 1988b). Along the Kariba River, Zimbabwe and Zambia, processing and marketing of fish are done primarily by women.

Insects and insect products are used extensively by many African people, especially women, for both subsistence and cash income. An important insect resource in Botswana, Zimbabwe, and South Africa is caterpillars, especially the mopane worm (*Gonimbrasia belina*). They are gathered in substantial quantities, then processed and consumed, or stored for later sale to buyers who transport them to urban markets. Another profitable activity in which women are the primary participants is exploitation of moth cocoons (e.g., *Argema mimosae* and *Gonometa postica*) for silk production. From 1985 to 1988, Botswana Game Industries (BGI) purchased over 100 tons of cocoons from 3,000 local collectors (Hitchcock 1988a:30). A fledgling silk industry has emerged in Botswana, the processing being done prior to export to markets in Italy.

Gathering wild plants for food, medicines, construction, tool manufacturing, and generating income is an important aspect of the economic systems of rural southern African populations, especially for women (Scudder 1971; Silberbauer 1981:80–93, 198–203; Hitchcock 1988a:33–45). A wide variety of wild plants are consumed; in Botswana alone over 150 wild plant species are used for food (Campbell 1986). In southwestern Botswana, the tubers of the grapple plant (*Harpagophytum procumbens*) are dug up and sold to the Agricultural Resources Board, which then exports them to Europe for use as arthritis medicine. An impor-

tant craft export in Botswana, Zimbabwe, and Zambia is baskets; these are made by women from the leaves of palms (e.g., *Hyphaene ventricosa*), and natural dyes are utilized for decoration. Unfortunately, in the Nata River and Okavango Delta areas of northern Botswana, the palms are so heavily exploited that the long-term viability of the basket industry is threatened (Cunningham & Milton 1987). Botswanacraft, a parastatal handicraft purchasing organization, is working with local women to find alternative types of plants and to plant palms.

As both users and managers of the natural resource base, women have an extensive knowledge of their environment. They can often predict the location and yields of indigenous wild products, and by using a variety of species, they promote sustainable utilization. Women decide or help decide when and where wild plants and small animals should be collected, trees cut for firewood and fodder, and grasses exploited. In their role as primary subsistence producers, women are also responsible for maintaining soil fertility. It is not surprising, therefore, that women are becoming increasingly involved in efforts to conserve resources (Vollers 1988).

Potential Impacts of Wildlife Utilization Projects on Women

In some cases conservation programs for large mammals can have a direct, negative impact on women. Generally, apart from land-clearing and plowing, much of the responsibility for subsistence agriculture lies with women, and if large mammals destroy crops, the impact falls most directly on women. Some Tyua women in northern Botswana spent nights in their fields cracking bullwhips in the hope that the sound would keep the elephants at a distance (Hitchcock et al., in press). High mammal populations can also limit women's access to other wildlife products. Women we interviewed in Zambia said they were afraid to travel far from the village to gather food and other resources when large mammal populations were high.

It is also important to consider secondary impacts of wildlife utilization activities. Increased demand for fuel to process game meat, for example, could decrease the availability of fuel for home consumption and force women to walk farther to collect firewood. Moreover, when fuel is scarce, fewer meals are cooked and there is a shift to less nutritious foods requiring less energy to cook (Dankelman & Davidson 1988).

Wildlife utilization projects may also have many positive impacts on women. As members of the community, women will benefit from expanded economic activity; from the provision of community services such as schools, clinics, wells, and grain mills; and, potentially, from increased supplies of game meat. Benefits will be

particularly substantial if women's interests are considered in the process of developing community infrastructure.

Integrating Women into Wildlife Utilization Projects

Women must be integrated into wildlife utilization projects as both participants and beneficiaries to meet the dual objectives of better management of the resource base and improved community welfare. In rural African communities, as elsewhere, women have a pivotal economic role. They perform most of the agricultural tasks and raise small livestock; they provide firewood and water; they generate substantial income for the family budget; and they care for their children and homesteads. This is particularly true in southern Africa, where there are many women-headed households (e.g., about 40% in Botswana [Obbo 1981; Kossoudji & Mueller 1983] and, in parts of Zimbabwe, up to 65% [Murphree 1989]). Generally, married women with absent husbands (men who have migrated to urban areas and mines) head these households, which are often the poorest in the community.

Unfortunately, development programs sponsored by governments and aid agencies have largely ignored the use of natural resources by women, even though its total economic impact may exceed that based on large mammals. This economic sector, commonly termed *veld* products, regularly appears in planning documents, but few specific programs result from these assessments. Williams (1985), for example, argued that despite women's widespread use and management of forest resources, forestry policies have largely ignored women except in their role as firewood consumers.

The most obvious means of increasing women's participation is to develop income-generating activities that utilize all forms of wildlife, not just large mammals. Experience has shown, however, that unless women are specifically targeted as beneficiaries, economic development projects ostensibly directed to both women and men rarely involve women. Therefore, it is necessary to target an appropriate level of funding to be reserved for subprojects focused on women. These may include collection and marketing of insects, medicinal plants, thatching grass, and wood for fuel and building materials; keeping bees and other small animals; basket-making and other handicrafts; smoking meat; soap-making; and biltong production. Women's entrance into traditionally male occupations should also be considered. A few women in Zimbabwe, for example, have expressed interest in becoming ivory carvers. (According to Child [1989], there are approximately 150 carvers in Zimbabwe, and they generate between U.S. \$5 million and \$10 million per year in sales.)

Women should also be encouraged to participate in decision-making regarding the management and use of wildlife, as well as the control and use of revenues generated by utilization activities. Wildlife utilization projects should include a facilitator for women's activities, who would assess the needs of the women, facilitate communication of these needs to decision-making bodies, and inform women of their rights and obligations under the project. During our interviews with women in an ADMADE project area (Lewis et al. 1990), it was clear that while they were aware of ADMADE's anti-poaching activities and employment of men, they were not aware of its community development aspects. In the two community-based wildlife projects that have been undertaken in Botswana, the only people in the villages who received training were males (Hitchcock 1988a: 19–24). Some of the women we interviewed felt that they had been overlooked by extension personnel, and several pointed out vociferously that large mammals were as much their concern as men's.

Another means of integrating women is to collaborate with traditional and modern women leaders. Women have informal means of gathering information and expressing their acceptance or rejection of decisions taken on their behalf. Women rely on other women with authority to represent their interests, including traditional midwives, wives of the chief, and successful entrepreneurs. There are also examples, albeit few, of the formal participation of women in decision-making bodies. Obviously, integrating women needs to be undertaken very carefully, with due consideration for traditional social structures that vary from culture to culture.

In summary, community development based on large-mammal utilization has been designed and implemented to date as a male-oriented activity. However, when one uses a broad definition of wildlife—all forms of life that are wild—women in rural communities interact with myriad forms of wildlife in ways that are of fundamental importance. Any successful natural resource utilization project with the dual objectives of better resource management and improved community well-being must integrate women into project activities, and there are many vehicles for doing so.

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