

There is a growing interest in conservation circles in the use of indigenous peoples' knowledge and skills in promoting sustained development. The interrelationships between peoples, the environment, and development are being examined carefully by governments, donor agencies, scientists, and the public at large. Botswana is no exception in this process, partly because it has biological and human diversity and a rapidly growing economy. As Botswana's Sixth National Development Plan points out, short-term economic growth should not be at the expense of the environment and social equity.

Botswana is known not only for its wildlife, minerals, and livestock industry but also for its wide range of cultural variation. The remote areas of Botswana contain people who live by foraging, agriculture, pastoralism, fishing, and wage labour. Although today there are relatively few people left in the world who live primarily by hunting and gathering, the Kalahari and adjacent areas support a fairly substantial number of foragers. Some of these populations, who are known as Basarwa (Bushman), San), have been the subject of intense scientific study and popular interest for over three decades. As a result, the Basarwa have become some of the best-known indigenous people in the world.

The term Basarwa is one used by the citizens and Government of Botswana to refer to those people of hunting and gathering origin or practice. Basarwa shift back and forth among a number of strategies; consequently, it is difficult to determine the proportion of people engaged in specific types of activities at one point in time.

A major reason for the emphasis on studying foragers is that these people are often seen as being able to survive even in marginal areas without eroding their resource base significantly. The limited environmental impact of hunting and gathering populations

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is sometimes attributed to their having a kind of "conservation ethic" which ensures that they do not overexploit the areas in which they live. Laurens van der Post describes the Basarwa as living in balance with nature, never taking more than they need and seeking actively to ensure the well-being of the plants and animals on which people depend for their existence.

A typical strategy employed by Basarwa is to adjust the size of their groups to locally available resources. Group sizes in the Kalahari and adjacent areas average between 25 and 30 people but these numbers fluctuate. Foraging groups have land use patterns which generally cover extensive areas, to incorporate all the basic resources that the groups need to sustain themselves. Range sizes in the Kalahari can be as high as 4,000 square km for a group of 50 people, while those in places with permanent water and high habitat diversity average around 300-400 square k.m.

There are a number of reasons besides ideological ones which could explain why foragers and small-scale food producers tend not to have as detrimental an effect on their environments as do complex societies. Population densities of hunter-gatherers and agropastoralists tend to be low, averaging, in many cases, less than one person per square kilometer. Basarwa have an extensive amount of environmental knowledge, and they are highly sensitive to changes in resource conditions. If the number of plants or animals appear to be declining, Basarwa groups will often shift their dependence upon specific items, thus widening their diet breadth. Basarwa subsistence is based upon a variety of resources; Kua in

the east-central Kalahari, for example, regularly utilize 57 species of animals and 48 species of plants.

This dietary diversity not only provides ample nutrients, proteins, and calories, but it also serves to buffer against failure of any one or a few resources, a problem common to agriculturalists in Africa.

Another reason for the limited amount of environmental impact of Botswana Basarwa populations is their relatively simple but efficient technology. Plant foods are obtained by hand, sometimes with the aid of digging sticks, and they are carried back to camp in nets or leather karosses which people manufacture themselves. Hunting is done by spear, clubs, or bows and arrows. Data on hunting returns suggest that even with the use of modern weapons and hunting aids such as horses and dogs, Basarwa and other rural people are taking only a small proportion of the available faunal biomass, certainly not enough to reduce the populations significantly in most cases.

The one strategy used by the Basarwa which may in fact have significant effects on the environment is burning of the bush. Fire is used by some Basarwa groups, as well as other remote area peoples, as an environmental management tool. Areas are burned off to increase the productivity levels of plants such as melons and beans, and fire is sometimes used to drive game toward waiting hunters or attract prey to the flush of green growth that springs up shortly after burning has occurred. The Kalahari like any savanna, is a fire-maintained ecosystem, and it is likely that the Basarwa have

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played an important role in its evolution.

Surprising as it may seem to some who tend to think of the Basarwa as examples of the world's last hunter-gatherers, many of these people participate extensively in farm and mine labour. Large numbers of Basarwa have settled down in the vicinity of cattle posts and villages where they can gain access to water, food and employment opportunities. In exchange for their services, Basarwa are given a small cash wage in addition to a portion of the goods produced such as milk or grain. Most Basarwa today pursue a mixed economic strategy in which foraging is combined with small-scale crop production, the raising of domestic stock, craft manufacture, and wage labour.

The notion of Basarwa as people who prefer to remain pure hunter-gatherers is seriously in need of revision. Many Basarwa express the desire to become agropastoralists like many of their neighbours. A few Basarwa have been able to build up small herds of livestock, though none of these people has sufficient numbers of animals to represent the minimum amount necessary to be sustainable reproductively. It is interesting to note, however, that Botswana's

livestock economy is heavily dependent upon Basarwa labour.

Many of the Basarwa can be classified as "Remote Area Dwellers" (people who live outside established villages) and a large percentage of the remote area dwellers fall into the category of "the poorest of the poor." The problems were underscored during the recent drought, when as much as 80-90% of the remote area population became dependent upon drought relief feeding. Because of some of the development-related problems faced by these people, government initiated a special programme in 1974 to extend basic services, promote income earning opportunities, and provide access to land, water, and agricultural advice. What started out as a "Bushman Development Programme" has now grown into a multi-million Pula development effort aimed at overcoming the environmental, social, and economic constraints facing disadvantaged people in remote areas. A new Accelerated Remote Area Development Programme promises to step up efforts at providing services and technical assistance to remote area populations. A major objective of these efforts is to diversify the support system and economic base of Remote Area Dwellers.

In recent years, the Basarwa and other remote area populations have had to face the problem of declining numbers of resources. A combination of drought, habitat deterioration and range restriction due to population growth and immigration has led to a whole series of changes in subsistence systems and social organization. Some Remote Area Dwellers have become more dependent upon outside groups. Others have moved further into the desert in the hopes of maintaining their foraging lifestyles. Still others have moved to towns and perform services such as firewood collection, traditional healing, domestic work, and construction. Provision of sufficient land is a critical part of settlement efforts and there is little "empty" land left in Botswana. Faced with the problem of insufficient land, Basarwa have had little choice but to intensify food production efforts, change their hunting methods and incorporate new kinds of items (e.g. donkeys) into their cultural repertoire.

It is clear that there is a need to promote both conservation and development in the efforts to assist remote area populations. A major part of Botswana's development strategy is to encourage participatory planning and decentralized decision-making. Building on the skills and knowledge of its citizens will enable it to ensure that development is both equitable and sustained over the long term.

Robert K. Hitchcock

Membership
Application
Form

Annual Membership:	Individual	Family
Addresses in Botswana and Africa	P20,00	P30,00
Addresses in Europe and UK	£20,00	£30,00
Addresses in USA	\$40,00	\$50,00
Corporate membership (minimum)	P500,00	

Please enrol me as an ordinary member. New membership ☐ Renewal ☐

Name (Mr/Mrs/Ms)

Postal Address

Phone Number: Home Office

Amount Enclosed Cash ☐ Cheque ☐

Signature Date