

THE POLITICS AND ECONOMICS OF COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT IN /XAI/XAI, NGAMILAND, BOTSWANA

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ABSTRACT This study examined assumptions surrounding the issue of community-based natural resource management (CBNRM) projects in southern Africa. Data were drawn from the village of /Xai/Xai in Ngamiland (North West District), Botswana, a multi-ethnic community consisting mainly of Ju/'hoansi San and Herero located on the Botswana-Namibia border in the northern Kalahari Desert. The /Xai /Xai people formed the /Xai/Xai (Cgae Cgae) Tlhabololo Trust in 1997, the first of its kind in Botswana. An examination of the /Xai/Xai Trust's activities and implementation over time reveals some of the complexities of CBNRM projects, including those relating to management, transparency, benefit distribution, equity, and the impacts of decision-making on local people. Gender, ethnicity, and class issues are examined along with the problem of elite capture of resources, the tendency of the state to favor private companies, the challenges of conflicting government policies, and power relations at the local, district, and national levels. The analysis shows that if CBNRM projects are to be successful, then community-based institutions and their members as well as district councils and the central government must be able to come to agreements about benefit distribution, ways to resolve conflicts, provision of investment in livelihood-related activities, and security of tenure over land and resources.

Key Words: Botswana; Ju/'hoansi San; Herero; Community trust; Natural resource management; Ecotourism; Privatization.

INTRODUCTION

In the 1980s, 1990s and early part of the new millennium, significant strides were made in southern Africa over what came to be known as CBNRM projects, sometimes also described as integrated conservation and development projects (ICDPs) (Agrawal & Gibson, 1999, 2001; Anderson & Berglund, 2004; Fabricius & Koch, 2004; Blaikie, 2006; Buzwani et al, 2007; Alcorn, 2010; Dressler et al, 2010; Nelson, 2010; Hoon, 2014). These projects were based on a number of important assumptions.

- (1) First, it was assumed that southern African governments would be willing to devolve authority over natural resources to the local level and would enact legislation to make this possible.

- (2) A second assumption was that local people would be willing to participate in community based conservation and development.
- (3) A third assumption was that government, traditional authorities, and non-government organizations (NGOs) would be willing to consult local people and involve them fully in planning and decision-making.
- (4) A fourth assumption was that if local people had the rights over natural resources and reaped the benefits from them, they would work to conserve them.
- (5) Fifth, since CBNRM combines natural conservation and rural development, it was assumed that both human and wildlife populations would benefit.
- (6) Sixth, biodiversity conservation programs would help to reduce poverty and to diversify livelihoods.
- (7) Sustainable resource use will ensure that there are resources available for both present and future generations.

In order to make CBNRM possible, governments, which in the past had controlled income from wildlife and forest lands, had to devolve responsibility over natural resources to local communities and at the same time allow those communities to benefit directly from those resources.

Under Botswana conservation legislation, notably the *Wildlife Conservation Act of 1986* (Republic of Botswana, 1986) and the *Community Based Natural Resource Management Policy* (Republic of Botswana, 2007), local communities can establish community trusts in what were known as community-controlled hunting areas (CCHAs, see Table 1), most of which were in what were zoned as Wildlife Management Areas (WMAs). These trusts were allowed to make decisions about the use of wildlife resources, including whether to use the resources for their own purposes (for example, for subsistence) or alternatively, to enter into joint venture agreements (JVAs) with private safari company partners or a combination of the two. When the government of Botswana decided to support CBNRM projects in 1990, it was anticipated that policy approach to conservation and development would have positive impacts on community-level income and poverty alleviation (Painter, 1997; Cassidy, 2000; Hitchcock, 2000a, 2000b; Mutale & Mbaiwa, 2012).

Questions have been raised over the ways in which the government and district councils have implemented CBNRM projects. In some cases, the state or district-level institutions decided to drain off some of the funds generated at the community level, as was the case in Zimbabwe (Patel, 1998; Hitchcock et al., 2014). In Botswana, the state and district councils expressed concerns about the abilities of community-based organizations to manage their own finances and suspended some of the operations of community trusts (Arntzen et al., 2003). In cases where communities entered into agreements with joint venture partners (JVPs) such as safari companies, agreements made at the time of negotiation and successful bids were not always followed, and some of the financial and employment benefits promised by the companies were not forthcoming (Rihoy & Maguranyanga, 2010). Concerns were also raised about the equity and gender impacts of southern African CBNRM projects (e.g., by Hunter et al., 1990; Mehra,

1993; Cassidy, 2001).

While there were cases where wildlife numbers increased in community-controlled areas, expansions in the numbers of large mammals such as elephants or lions were not necessarily viewed all that positively by local people. There were situations in some of the areas around the Okavango Delta and western Botswana where human-wildlife conflicts (HWC) increased (Mmopelwa & Mpolokeng, 2008; DeMotts & Hoon, 2012). A common position taken by local people was that if governments were going to promote CBNRM, then efforts would have to be made to compensate people for wildlife-related damages and to engage in problem animal control (PAC).

It was assumed at the outset of these projects that NGOs possessed the institutional capacity and knowledge to provide assistance to communities in CBNRM (Jones & Murphree, 2001). As it worked out, there was a significant need for intensive assistance in the organizational development of NGOs and community-based organizations. In a number of cases CBNRM projects or NGO staff members needed to invest considerable time, energy, and funds in institutional strengthening, training, and working on project implementation at the field level.

It was not always easy to work around community issues such as those associated with egalitarianism and people not wanting to run for positions in community trusts for fear of causing resentments at the community level. One of the biggest concerns about CBNRM projects was that southern African governments, while supportive of them at first, were shifting their positions and moving toward turning the community projects into ones that were run by district councils, central government, or private operators.

THE STUDY AREA AND STUDY POPULATIONS /XAI/XAI

In order to assess some of the ways in which CBNRM programs have been implemented in southern Africa, we examine a specific case, the community of /Xai/Xai⁽¹⁾ in the Republic of Botswana. /Xai/Xai is a community on the Namibia-Botswana border that is located at 19° 52' S and 21° 04' E. /Xai/Xai lies close to the Botswana-Namibia border in western Ngamiland (North West District) Botswana (see Fig. 1). This case is an excellent one because /Xai/Xai has had detailed documentation by anthropologists, government personnel, and development workers who resided there for extended periods or who visited periodically over the past 60 years (Marshall, 1976: 3, 7, 21, 58, 132, 157–158, Table 3; Lee, 1972, 1979: 17–23, 39, 52, 73, 83, 174, 176, 361–362, 368–369; Wilmsen, 1976, 1989; Wiessner 1977, 1982; Hitchcock, 2000a, 2000b). Two important research groups worked with people from /Xai/Xai: (1) the Marshall family and their collaborators in the 1950s (Marshall, 1976: 1–22), and (2) the Harvard Kalahari Research Group in the 1960s and early 1970s (Marshall, 1976: 1–22; Lee & DeVore, 1976; Lee, 2013: 15, 240–244). Long-term fieldwork was also carried out at /Xai/Xai by Edwin Wilmsen (1976, 1989) and Polly Wiessner (1977, 1982). As Wiessner (1977: x) noted, /Xai/Xai was one of the few places in northwestern Botswana that had 7 or 8 bands (groups) located within walking distance of a single water hole.

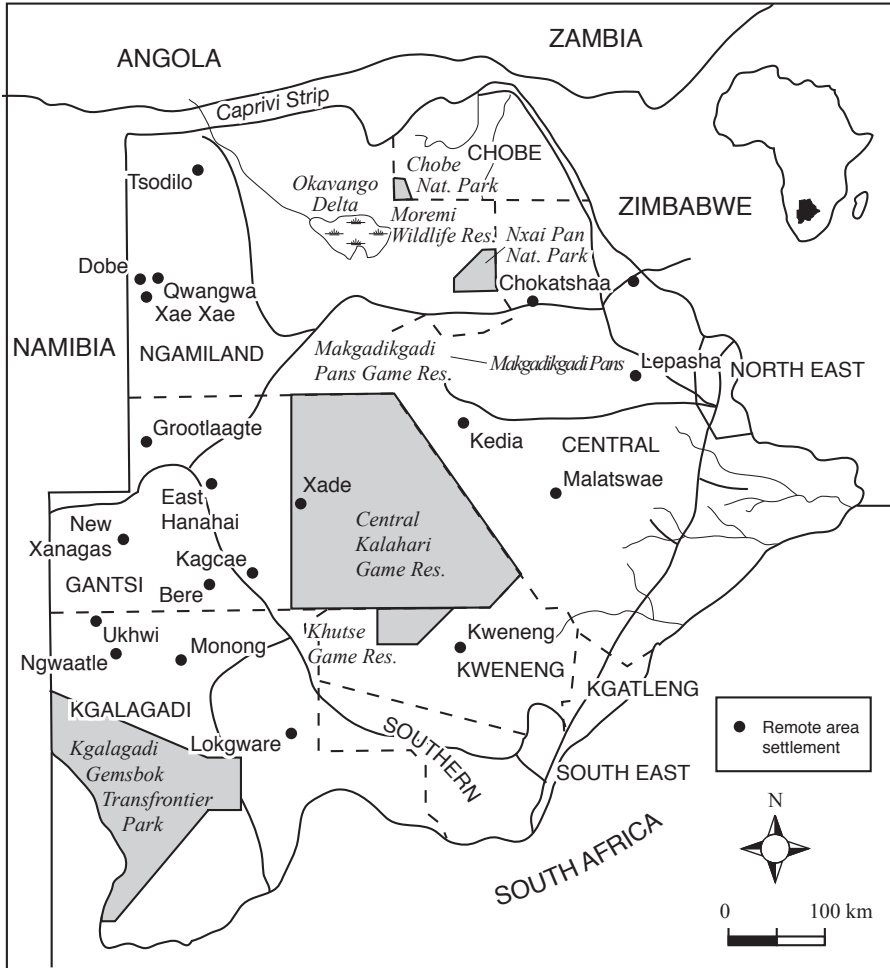


Fig. 1. Map of Botswana showing the location of /Xai/Xai (Xae Xae) in the northwestern part of the country relative to the border with Namibia to the west and the Okavango Delta to the East

In the past, the /Xai/Xai region supported both foraging and agropastoral populations, archaeological and ethnoarchaeological evidence of which was reported by Wilmsen (1976, 1988, cf. Yellen, 1977; Yellen & Brooks, 1988). /Xai/Xai had been visited by Tawana who travelled to the west from their towns around the Okavango in the 1870s (Lee, 1979: 77–78). The Tawana, part of the larger Tswana polity, had established themselves in what came to be known as Ngamiland (after Lake Ngami) in the late 18th century (Tlou, 1977, 1985). Early Europeans who visited /Xai/Xai in the 19th century included Hendrik van Zyl, a hunter and trader who had established a residence north of what is now Ghanzi in the 1870s (Lee, 1979: 78). Siegfried Passarge, a German geologist visited the Tsodilo Hills and areas to the south, including /Xai/Xai, in 1896–1898 (Wilmsen, 1997). Figure 2 shows the location of /Xai/Xai relative to other communities in western Ngamiland, the Botswana–Namibia border, the Aha Hills, and other important geograph-

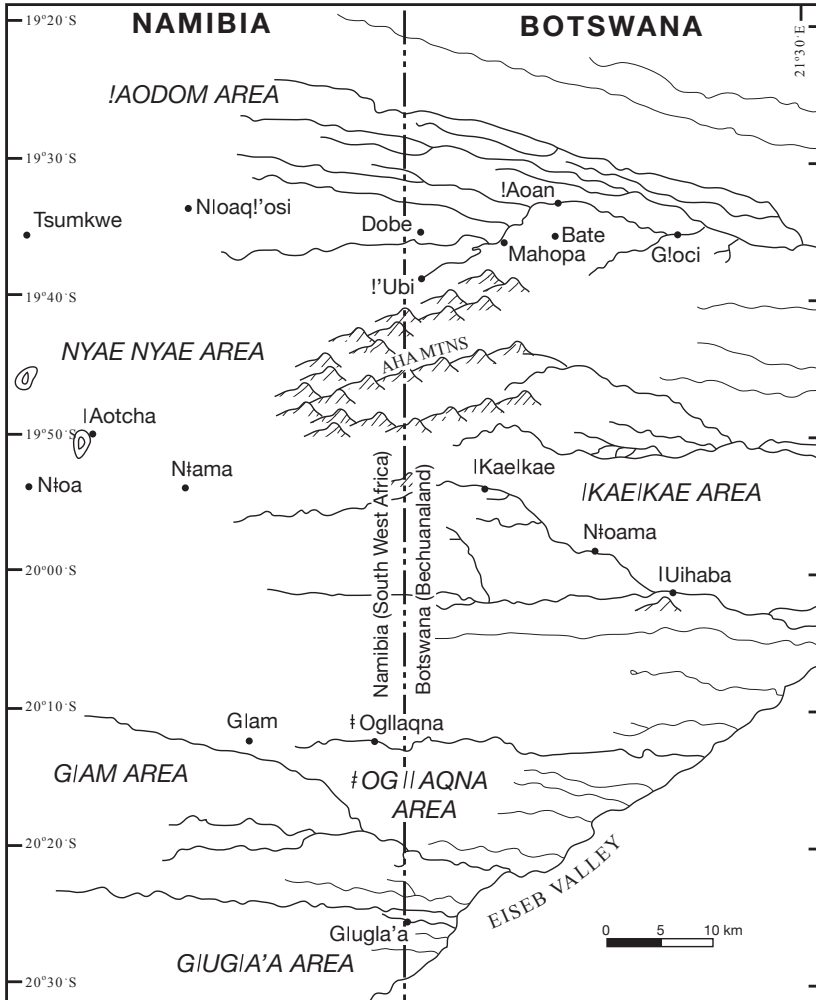


Fig. 2. Map of the Dobe-/Kae/Kae Area in western Ngamiland, Botswana and the Nyae Nyae Region, Namibia

ical features in the area.

The environment of the northwestern Kalahari where /Xai/Xai is located is classified as semi-arid Northern Kalahari Tree-Bush Savanna (Smithers, 1971: 21–22; Weare & Yalata, 1971; Yellen, 1977: 13–37; Yellen & Lee, 1976; Lee, 1979: 87–115; Thomas & Shaw, 2010). Rainfall varies between 300 mm per annum and 470 mm per annum (Botswana Meteorological Services data). Annual and seasonal droughts are common in the northwestern Kalahari region, as are periodic crop failures and reductions in the numbers and varieties of wild plants and animals. Agriculture is often a risky activity in the northwestern Kalahari; yields are low even in the best of years. Livestock production, on the other hand, is relatively significant in terms of economic returns, which is one reason why the

Herero and Tawana and some San engage in it.

The hottest mean temperatures in the region usually occur from October to February (33° to 43° Celsius or 93° to 110° F. in daytime shade). The coldest months are June and July, when nighttime temperatures drop to freezing, but daytime temperatures average 24° to 27° Celsius (70° to 80° F.). The most crucial limiting factors for human and wildlife populations in the region are the highly variable rainfall, the quality and quantity of wild plant resources, and the scarcity of surface water in some places during the dry season.

The /Xai/Xai region consists of sandy plains covered with tree-bush savanna. In some places the area is dotted with pans that contain rainwater during the rainy season and sometimes into the dry season (May–October). Major geographical features in the area include some fossil river valleys that in the past saw surface water flows but which today are largely dry (Grove, 1969; Yellen & Lee, 1976). Water in the region is obtained from surface sources (e.g., pans) during the rainy season. There are approximately half a dozen pans that contain water throughout the year in the Dobe-/Xai/Xai area, a feature that is unusual in the Kalahari Desert which is considered by some analysts to be a “thirstland” (Debenham, 1953; Jones, 1982; Thomas & Shaw, 2010).

An important geographical feature in the /Xai/Xai-Dobe region is the Aha Hills which stretch across the Botswana-Namibia border (Lee, 1979: 41). In Botswana there are the G/wihaba Hills, some 35 km west of /Xai/Xai, and the Kanata Hills (Nqumtsa), approximately 22.5 km southwest of G/wihaba on the Botswana side of the Botswana-Namibia border. Both of these sets of hills contain caves of major paleontological and environmental significance. In the past, bat guano was dug out of G/wihaba and sold for fertilizer. Local people, tourists and occasionally scientists and government officials visit the hills. As will be explained below, these hills have become focal points of concern to the residents of /Xai/Xai, mining companies, and the Botswana and Namibian governments.

Besides the hills, pans, and dry river beds (*molapos*), the main topographical feature of the region is a system of parallel longitudinal dunes (called *alab dunes*), 8 to 80 km in length and 1.5 to 8 km apart, which are oriented roughly WNW-ESE (Grove, 1969; Thomas & Shaw, 2010). These dunes are presently stabilized by vegetation, including grasses, shrubs, and trees. The vegetation of the area consists of semiarid treeshrub savanna (Weare & Yalala, 1971; Yellen & Lee, 1976). The tree species include a variety of acacias and various broad-leaved trees on the dunes and flats. There are numerous trees, shrubs, and vines that provide fruits, nuts, gums, barks, and roots that are used for food, medicinal and ritual purposes, the manufacture of household implements, and for construction, fuel, and crafts (Lee, 1979: 87–115, 158–249; Yellen, 1977: 12–35). The people of /Xai/Xai make extensive use of these resources, although the degree of dependence on them rose and declined over time, depending on socioeconomic circumstances.

The wildlife population in /Xai/Xai consists of a wide range of small and large mammals, including ungulates, carnivores, and other species, as well as birds, amphibians, reptiles, insects, and invertebrates (Yellen, 1977: 27–29, Table 1; Lee,

1979: 96–102; Hitchcock et al., 1996: 164–167, Tables 1 & 2). Some of the larger species such as elephant and rhinoceros are not as plentiful in the area as they used to be, in part because of hunting pressure in the 19th century and ecological changes in the region.

/Xai/Xai is a single community which is made up of two ethnic groups: Ju/'hoansi San and Herero (who also sometimes identify themselves as Mbanderu). The Ju/'hoansi are !Kung-speaking San peoples who are part of a larger Northern San population that extends from the /Du/Da area of western Ngamiland, north to the Tsodilo Hills, and west into Namibia as far as the Grootfontein Farms, south to the Omaheke region of Namibia and the northern Ghanzi Farms region of Botswana, and east to Makuri near the Okavango Delta (Barnard, 1992; Suzman, 1999; Lee, 2013). The Ju/'hoansi, who today number some 11,000, are part of a larger San language cluster that includes the !Xun, !Kung, and †Xao-!aen (Biesele & Hitchcock, 2011; Lee, 2013; Dieckmann et al., 2014). The distribution of Ju/hoansi in northwestern Botswana is presented in Table 1. It should be noted, however, that the Ju/'hoansi also lived in smaller communities and in places where they only stayed for short periods, such as /Du/Da south of /Xai/Xai and Dobe †Oa north of Dobe.

Table 1. Ju/'hoansi San communities in western Ngamiland (North West District), Botswana

Name of community	Controlled hunting area number, size (km ²)	San population and total population and composition	Activities
Tsodilo Hills	NG 6 / 225 km ²	70 (of 140, 50%) Mbukushu	Tourism, farming, small stock, crafts, foraging
Nxau Nxau	NG 2 / 7,448 km ²	488 (of 813, 66%) Herero	Foraging, farming, crafts, livestock
Dobe	NG 3 / 5,760 km ²	100 at Dobe, 350 (of 550, 63%) in Dobe localities, Herero	Foraging, farming, crafts, livestock
Goshe (Qoshe)	NG 3 / 5,760 km ²	107 (of 153, 70%) Herero	Foraging, farming, crafts, livestock
!Xangwa (Qangwa)	NG 3 / 5,760 km ²	416 (of 833, 50%), Herero, Tawana	Foraging, farming, crafts, livestock
/Xai/Xai (Cgae Cgae)	NG 4 / 9,293 km ² and access to NG 5, 7,673 km ² (16,966 km ² total)	475 (of 550, 80%), Herero (Mbanderu), Tawana	Foraging, farming, crafts, livestock
Chuchumuchu	NG 1 / 2,970 km ²	29 (of 289, 10%), Mbukushu, Herero	Foraging, farming, crafts, livestock
//Kaudum (Xaudum)	NG 1 / 2,970 km ²	40 (of 162, 25%), Mbukushu, Herero	Foraging, farming, crafts, livestock
8 Communities	33,369 km ² (6 CCHAs)	1,845 Ju/'hoansi, 3,490 Total (55%)	

Note: Data obtained from the Remote Area Development Program, government of Botswana and from Cassidy et al. (2001: A-38, Table A.30). NG stands for Ngamiland. CCHA = Community Controlled Hunting Area. The Tsodilo Hills are part of a Botswana national monument and, since 2001, a UNESCO World Heritage Site.

The Herero who occupy the western Ngamiland region today are Bantu-speaking people, some of whom came from Namibia after the German-Herero Wars of 1904–1907. The Herero population expanded in the 1950s as people moved out of the Sehitwa and other areas around the Okavango Delta to avoid outbreaks of tsetse fly (*Glossina morsitans*) (Pennington & Harpending, 1993: 201–202). The Herero in /Xai/Xai usually are characterized by themselves and others as pastoralists (livestock-keepers) who supplement their subsistence and incomes with wage work, small-scale crop production, and occasional foraging. According to informants, the Herero families living at /Xai/Xai arrived in the late 1920s. Some of them left /Xai/Xai and other areas in western Ngamiland and moved into the Gam area of Namibia in the late 1990s and the early part of the new millennium in order to return, as they put it, to their “ancestral areas.”

Portions of the ancestral Ju/'hoan territory were lost to the Ju/'hoansi as a result of decisions by the colonial and post-colonial administrations of Bechuanaland (now Botswana) and South West Africa (now Namibia). In Botswana, the Tsodilo Hills, which fall in the ancestral territory of the Ju/'hoansi, were declared a national monument in the 1970s, and in the 1990s, Ju/'hoansi were required to relocate to an area outside of the hills (Alec Campbell, personal communication, 1995, 2011). In Namibia, the Kaudum Game Reserve was declared a conservation area in 1986. Comprising an area of some 3,840 km², Kaudum later became a national park (2007). Some Ju/'hoansi were required to move out of Kaudum in the 1990s, and they resettled in the northern portion of the Nyae Nyae area, with a few Ju/'hoansi moving into Botswana, primarily to the Nxau Nxau area north of /Xai/Xai. The southern portion of the Ju/'hoan territory in Nyae Nyae was allocated to the Herero in 1969–1970 as part of the South West African Administration's efforts to establish the equivalent of “native reserves” (Biesele & Hitchcock, 2011: 33–36). In Botswana, as will be described below, commercial livestock and game ranches were established in western Ngamiland in the early part of the new millennium which had significant effects on Ju/'hoan and Herero land use.

METHODS

Research upon which this paper is based was carried out over a period from May, 1976 to June, 2014. Visits were made to /Xai/Xai and to places where /Xai/Xai residents had moved in Namibia in 1976, 1978, 1979, 1980, 1981, 1982, 1987, 1988, 1990, 1992, 1995, 1997, 2000, 2001, 2005, 2008, 2012, 2013, and 2014. Data collection consisted of qualitative and quantitative methods. Ethnographic interviews were carried out with key informants and with members of specific sub-sections of the /Xai/Xai population, including women, children, the elderly, hunters, and people involved with land and resource management. Group interviews were also conducted. Attention was paid to local institutions including the /Xai/Xai Village Development Committee (VDC) and the /Xai/Xai Tlhabololo Trust.

Analyses were done of the records of the VDC and the trust and of district-level institutions such as the Sub-Land Board of Gomare, the Tawana Land Board in Maun, the North West District Council, the regional and national level offices of the Department of Wildlife and National Parks, and the various NGOs and faith-based institutions working in /Xai/Xai. Participant observation was carried out with hunters, gatherers, craft-producers, farmers, and livestock owners. Interviews were also done of the safari companies that brought tourists to /Xai/Xai and tourists themselves. Records were kept by individual residents of /Xai/Xai and these were made available to the research team. Government records of food and cash distributions and labor-based relief and development projects of the district council and the Botswana government were also consulted during the course of the investigations reported here. We also drew on the community ethnocartographic mapping work of Arthur Albertson (1998, 2000) and some of the work on oral history, folklore, and healing of Biesele (1993) and Katz, et al. (1997).

The ethnic variability in the /Xai/Xai population which we investigated is significant. There are major cultural and socioeconomic differences between the Ju/'hoansi and the Herero. The Ju/'hoansi sometimes describe themselves as hunter-gatherers, though this is not accurate since they generally earn a living through a combination of foraging, small-scale craft production, keeping of some domestic animals, doing some gardening, and doing formal sector work for the government of Botswana or doing odd jobs for their neighbors or for visitors (Hitchcock, 2000a). The Herero, who often describe themselves as pastoralists, sometimes employed Ju/'hoansi as herders or as domestic workers, paying them relatively low to moderate wages and/or providing them with food, clothing, and tobacco in exchange for their services (Biesele et al., 1989; Wilmsen, 1989: 86, 95; Howell, 2010: 141). The Herero at /Xai/Xai tend to have more livestock than the Ju/'hoansi, and some Herero tend to be wealthier in economic terms than the Ju/'hoansi. Both groups, along with short-term residents of /Xai/Xai, had to deal with droughts, economic downturns, outbreaks of livestock disease, and the government of Botswana's decision to cull the entire cattle population of /Xai/Xai in 1995–1996 (Hitchcock, 2002). The Ju/'hoansi and Herero also had somewhat different interactions with outsiders, including government officials, tourists and safari companies.

THE INSTITUTIONAL SETTING OF /XAI/XAI

The North West District where /Xai/Xai is located is 109,130 km² in size. It is one of 10 districts in Botswana, each of which has a district council. The government of Botswana changed the land tenure system of the country not long after independence in September 1966, initiating the Tribal Land Act of 1968, which went into effect in 1970 (Republic of Botswana, 1968). Subsequently, Botswana undertook a nation-wide land use planning assessment in which tribal land, 71% of the country, was sub-divided into three basic zoning categories: communal, where customary land tenure rules would continue to prevail, commercial, which would be turned into ranches that would be leased out to

Table 2. Land zoning categories in Botswana under the Tribal Grazing Land Policy

Type of land	Land zoning category	Amount of land (km ²)	Percentage of country
Freehold Land	Freehold Farms	32,970	5.7
State Land	Parks and Reserves	101,535	17.4
	Other	32,455	5.6
Tribal Land	Communal	173,432	29.8
	Commercial	51,094	8.8
	Wildlife Management Areas	129,450	22.2
	Leasehold Ranches	3,351	0.6
	Remote Area Dweller Settlements	3,523	0.6
	Other	53,945	9.3
Sub-total Tribal Land		414,795	71.3
Grand Total		581,755	100.0

Note: Data obtained from the Ministry of Local Government and the Ministry of Lands and Housing, Government of Botswana. The category “other” includes land in towns and land set aside for government purposes (e.g., trek routes, quarantine camps for livestock).

individuals and groups of livestock owners, and reserved, which would be set aside for the poor (Republic of Botswana, 1975; Peters, 1994). In the communal areas, the basis of land tenure would remain the same as it was before, and some land would be set aside as reserved “for the future” (Republic of Botswana, 1975: 67). Largescale cattle owners would be encouraged to move to the commercial areas, where they could establish fenced ranches in exchange for a rental payment to the district Land Board. Grazing pressure in the communal areas would be relieved, thus enhancing herd productivity and at the same time providing a more equitable distribution of land for rural people.

By the latter part of the 1970s, Botswana was divided into tribal land (71%), state land (some of which in the past was called Crown Land) (17.4%), and freehold land (5.7%) (See Table 2). The tribal land, which was the focus of the Tribal Grazing Land Policy, was divided into leasehold areas, Wildlife Management Areas (WMAs), communal areas, and remote area settlements.

By the beginning of the new millennium, Botswana had abandoned the Tribal Grazing Land Policy guarantee of land for the poor and instead zoned “reserved” areas either as commercial leasehold areas or as WMAs (Cullis & Watson, 2009; Sapiñoli & Hitchcock, 2013). The North West District Council and the Tawana Land Board, set aside a sizable area known as the Hainaveld, in the southeastern part of the district, as a commercial area, which was divided into 72 ranches. Later on, the North West District Council and Land Board declared a second commercial leasehold area, which extended west from the Hainaveld toward the Ghanzi-Maun road.

There were four WMAs zoned in the original North West District land use plan: (1) Kwando, (2) Okavango, (3) Ngamiland State Lands, and (4) G/wihaba (!Uihaba, Quihaba). /Xai/Xai, the community under investigation here, falls in the latter WMA (Smit & Kappe, 1992). Table 3 shows a breakdown of land categories that were included in the North West District Council and Tawana Land

Table 3. Land zoning categories in North West District (Ngamiland), Botswana

Land zoning category	Area (km ²)	Percentage of the district
Communal Land	61,840	56.7
Commercial Land	6,950	6.4
Game Reserve	3,600	3.3
Wildlife Management Area	19,100	17.5
Tribal Land (Sub-total)	91,490	83.8
State Land (Sub-total)	17,640	16.2
Total	109,130	100.0

Note: Data obtained from the North West District Land Use Planning Unit (DLUPU), Maun, Botswana; see also Sub-District Land Use Planning Unit Working Group Western Communal Remote Zone, 1993.

Board land use plan, which was passed by the two district bodies and was accepted by the Land Development Committee and the then Ministry of Local Government and Lands at the central government level. The district's land use plan indicates that 61,840 km² (56.7% of the district) was zoned communal, land which is under customary tenure and which could be allocated to people for residential, arable, grazing, and residential purposes. Two areas of North West District covering 6,950 km² (about 6.4% of the district) were designated as commercial ranching areas, where blocks of land can be leased out to individuals and groups who then have de jure leasehold rights over that land in exchange for a rental payment to the district land board (the Tawana Land Board). Some of the district's land is considered State Land (17,640 km², or 16.2%), portions of which are used by the Ministry of Agriculture, for example, as veterinary camps for livestock observation under quarantine, as seen at Makalamabedi Gate, a veterinary cordon gate on the Nata-Maun road or at Kuke, on the Ghanzi-Maun road.

/Xai/Xai had access to two community-controlled wildlife areas (also community trust areas): NG (Ngamiland) 4 (9,293 km²) and NG (Ngamiland) 5 (7,673 km²) in the western communal areas of the district, comprising a total of 16,966 km². The Tawana Land Board and the North West District Council were considering changing the /Xai/Xai and other villages' access rights to community-controlled hunting areas in 2014, something that the /Xai/Xai Community Trust members expressed concerns about.

THE /XAI/XAI THLABOLOLO TRUST AND COMMUNITY BASED NATURAL RESOURCE MANAGEMENT

The government of Botswana stipulated in its *Wildlife Conservation Policy* (Republic of Botswana, 1986) and its *National Parks and Wildlife Regulations* (Republic of Botswana, 1992) that communities could obtain the rights to wildlife in the WMAs and in Community-Controlled Wildlife Areas. Wildlife quotas specifying the numbers and types of animals that could be hunted were set by the Department of Wildlife and National Parks.

/Xai/Xai had a community-based natural resource management program from

1994 through 1998. /Xai/Xai elected to run its own programs, and in the 1994–1998 period the community worked closely with a resident Natural Resource Management Advisor (NRMA) who was sponsored by SNV, the Netherlands Development Organization. /Xai/Xai also worked with the Sub-District Land Use Planning Unit (Sub-DLUPU) based at Gomare and with other district and central government agencies including the Department of Wildlife and National Parks in what is now the Ministry of Environment, Wildlife and Tourism (MEWT) say now headed by Tshekedi Khama.

/Xai/Xai established a Quota Management Committee (QMC, see Table 7) in 1996. By doing so, the community was allowed to have quotas for the wildlife resources in western Ngamiland in line with government policy on the development of natural resource based development in rural areas (Republic of Botswana, 1986, 2007). In October 1997, the /Xai/Xai Tlhabololo Trust was registered officially with the government of Botswana, the first of its kind in Botswana. This trust, which was broadly representative of the community, sought to establish natural resource management, ecotourism, and small-scale business opportunities for people at /Xai/Xai.

Development-oriented research was carried out at /Xai/Xai by the Natural Resource Management Advisor, Edwin Ruigrok and others (see, for example, van der Sluis, 1992; Gujadjur, 2000; Hitchcock 2000a, 2000b, 2001; Main, 2008; Campbell, 2010; Mbaiwa & Sakuze, 2009; Garner, 2012). As these studies documented, the /Xai/Xai community engaged in a number of different activities that had generated income, such as handcraft production and marketing through a local crafts group, !Kokoro Crafts. !Kokoro Crafts brought in 13,500 Pula in 1995–1996 and 8,000 Pula through tourism, benefiting some 20 people. Consumer goods were also sold in the community and to visitors for 600 Pula in 1996.⁽²⁾ Some of this money went to individuals while other money was deposited in savings accounts for use by the community-based organization and its management committee.

The area in which /Xai/Xai falls is zoned as communal land, which means that local people have de facto rights to the land under Tswana customary law (Schapera, 1943; Republic of Botswana, 1975; Hitchcock, 2000a). The area does not cross jurisdictional boundaries as it falls entirely in the western communal remote zone (Zone 6) of North West District. The /Xai/Xai land use plan, which was agreed upon by the community and later by the North West District Council, went into effect in 1993, just prior to the initiation of the natural resource management project of SNV and the government of Botswana.

From the perspective of the people of /Xai/Xai, the degree to which they have control over their own areas has declined over time. They did not feel as comfortable as they did in the past crossing the border into Namibia to visit relatives or to go to Tsumkwe (*Tjum!kui*) where there is a clinic and a store. They also were concerned that their access to the area to the north of /Xai/Xai, which now lies in CHA NG 3, could potentially be reduced if the government decides that the people of Dobe, Mahopa, and !Xanga have control over that area or if alternative arrangements are made for the use of that land such as leasing it out as commercial ranches to private citizens or companies.

There was a great deal of concern among people at /Xai/Xai that their access to the G/wihaba Hills, some 30 km to the east of /Xai/Xai, would be restricted if G/wihaba is declared a World Heritage Site as some Botswana government officials would like to see done, including the current President, H. E. Seretse Khama Ian Khama. The G/wihaba Hills fall in one of the traditional territories (*n!oresi*) of some of the families at /Xai/Xai, and people visit them on a fairly regular basis to collect wild plants and also to obtain honey from the caves in the hills. There was some internal conflict in the community over whether or not these hills should be turned over to a private safari company which was operating in the area or to the North West District Council and the Botswana government, which wanted to have G/wihaba declared as a World Heritage Site.

Development-related field work was done at /Xai/Xai in the mid-1990s by a Dutch couple, Edwin Ruigrok and Tineka Alons, who as representatives of SNV collaborated closely with the community, which at that time numbered some 400 people (see Table 4). From 1994–1995 to 2013, the numbers of people at /Xai/Xai expanded, to the point where there are some 550 people there today, consisting of about 475 Ju/'hoansi and 75 Herero. The Herero population at /Xai/Xai, fluctuated over time, depending in part upon larger social, political, economic, and environmental conditions in the region. The population of Herero at /Xai/Xai grew between the mid-1950s and the 1990s to the point where there

Table 4. Population data over time for the community of /Xai/Xai, western Ngamiland, Botswana

Year	Population size	Ethnic breakdown	Reference(s)
1952	114	114 Ju/'hoansi	Marshall (1976: 158, Table 3)
1964	117	Majority	Lee (1979: 54, Table 3.8)
1968	141	Majority	Lee (1979: 54, Table 3.8)
1973	142 (Lee) 161 (Wiessner)	Majority	Lee (1979: 54, Table 3.8); Wiessner (1977: 35, Table 1)
1976	165	Majority Ju/'hoansi	Hitchcock (field notes, 1976)
1978	220	184 Ju, 36 Herero (Mbanderu)	Hitchcock (field notes, 1978)
1981	81 total	No breakdown	1981 Botswana census, pp. 70–298
1987	236	Majority Ju/'hoansi	Richard B. Lee, personal communication
1991	299	No breakdown	1991 Botswana census, p. 170
1997	368 + 20 temporary visitors	321 Ju, 47 Herero (Mbanderu)	Hitchcock (2000a, 2000b)
1999	431	245 Ju/'hoansi,	Cassidy et al. (2001: A-38, Table A.30)
2001	372	No breakdown	2001 Botswana census, p. 142
2005	480 people	No breakdown	Letloa, Kuru Family of Organizations
2008	500 people	Majority Ju/'hoansi	Main (2008) data
2011	499	No breakdown	2011 Botswana census, p. B9
2013	550	No breakdown	Remote Area Development Program, personal communication

Note: Data obtained from ethnographic surveys and censuses and from Botswana national censuses.

were 50–75 living there full-time (Hitchcock, 2000a). This number has remained relatively steady. In 2015 there were approximately 475 Ju/'hoansi, 75 Herero, and 6 Tswana living in /Xai/Xai. This number did not include the people who were residing there for employment purposes such as working at the school, clinic, kgotla and police station or who were there temporarily for commodity deliveries.

/Xai/Xai was remote enough from the main centers where Department of Wildlife and National Parks game scouts operated that the residents were able to continue to exploit wild animal resources without having to worry too much about being arrested for violating the country's wildlife laws. At the same time, the Ministry of Agriculture, whose Forestry Section oversees timber resources in the country, concentrates its efforts primarily on the forests in the Chobe District and, to a lesser extent, on the forest resources around the Okavango Delta (Bolaane, 2013; Ministry of Agriculture, Maun, personal communications, 2012, 2013). Mineral resources are also overseen by the state, which are controlled by government laws. There were mineral prospecting companies operating out of the Aha Hills in the new millennium. The presence of these companies was seen as having mixed effects. They did provide some employment opportunities, but they also represented a threat to the local people if high densities of minerals were found which would lead to the creation of mines, as has happened further east in Ngamiland to the east of the Okavango Delta.

The /Xai/Xai Tlhabololo Trust was the first one of its kind established in Botswana, in October, 1997. Since then a dozen more community trusts were formed in Ngamiland, some of them with majority San populations. The /Xai/Xai Trust was considered to be of the more successful community-based institutions trusts in Botswana, in part because of reasonably good working relations with NGOs and with the Tawana Land Board, the North West District Council, and the Department of Wildlife and National Parks (Gujadhur, 2000; Masilo-Rakgoasi, 2002; Rozemeijer, 2003). There were, however, difficulties encountered over time both with the community-based organization and with the assumptions about how CBNRM would play out, as will be described below.

The total resident human population of /Xai/Xai in 1997 was 368. In addition to the resident population, there was a temporary population of approximately 20 people who worked at the clinic, school, and tribal police station. There were also 20 people living at a cattle post east of /Xai/Xai known as Xhaba, and another 30–50 people were working on projects debushing fields and making calcrete vehicle roads between /Xai/Xai and the villages of Dobe and Tsau. Immigration into the region is minimal with the exception of people moving into the area on a temporary basis for work. There have also been short-term visitors to the region including anthropologists, tourists, development workers, and members of mineral exploration teams. For a period of time there was a missionary couple based at /Xai/Xai, but they went back to South Africa.

The infrastructure of /Xai/Xai consists of a borehole and government buildings, including a school, health post, teachers' quarters, offices and a kgotla (a council place). Roads into the region are unimproved dirt tracks, making access relatively difficult except for four-wheel drive vehicles. Population density is low, less than

two people per square kilometer, and population growth rates are moderate, averaging around 2.5% per annum, which is below the national average for Botswana.

Health and nutritional statuses of the people in the /Xai/Xai region are moderate, with the exception of some of the more vulnerable members of the population such as children below the age of five and pregnant and lactating women, especially in poorer households. HIV/AIDS and tuberculosis are diseases which some people have to contend with at /Xai/Xai, though the infection rates are lower than the national average. There are several kinds of social safety net programs in /Xai/Xai which are aimed at assisting school-age children, pregnant women, the disabled, people with HIV and AIDS, and the poor.

HUNTING IN /XAI/XAI

A critical area of concern to local people in /Xai/Xai related to hunting. In the period between 1979 and 1996–1997 in Ngamiland, people who were viewed as being dependent to a significant degree on natural resources were allowed to hunt a specified number of animals. The rules for the Special Game Licenses (SGL, see Table 5), as they were called, were (1) people had to carry a license with them when they hunted, (2) there were not supposed to be any transfers of licenses from one person to another, (3) for a time, people were only allowed to use traditional weapons to hunt. In Ngamiland, however, the Regional Wildlife Office of the Department of Wildlife and National parks ruled that people could use guns to hunt beginning in the late 1980s.

Faunal exploitation in the /Xai/Xai and Dobe areas consisted of hunting of large and small mammals with the aid of bows and arrows, spears, and clubs (Marshall, 1976: 130–152; Lee, 1979: 207–208, 214–219; Wilmsen, 1989: 225–257). Much of the hunting done by the Ju/'hoansi is done on foot, whereas hunting by the Herero was often on horseback or by vehicle. Hunting from vehicles was not allowed under the *Wildlife and National Parks Wildlife Act of 1992* (Republic of Botswana, 1992). Some of the hunting done in the past in the /Xai/Xai region and across the border in Namibia was from horseback (Lorna Marshall, personal communication, 1990; Wilmsen, 1989: 230–231; Hitchcock et al, 1996; Hitchcock, 2000a, 2000b). Horses enable hunters to reduce both search and pursuit time. According to some of the Ju/'hoansi to whom we spoke, hunting from horseback is especially effective in bringing down gemsbok (*Oryx gazella*) and other large antelopes. Some of the hunting in the western Ngamiland region was done using ambush techniques. Hunters with bows and arrows or spears would conceal themselves in a hunting blind near a pan at night and await animals that would come down to the pan to drink or lick salt. Figure 3 shows a hunting blind at Gui /O Pan in western Ngamiland, north of /Xai/Xai.

Hunters in the Nyae Nyae region across the border from /Xai/Xai used to hunt giraffe from horseback, but the government of South West Africa told the Ju/'hoansi in 1953 that giraffe hunting was illegal (Lorna Marshall, personal communication, 1987). This did not mean, of course, that they stopped hunting by horseback; they were just much more careful about it. Some of the younger Ju/'hoansi

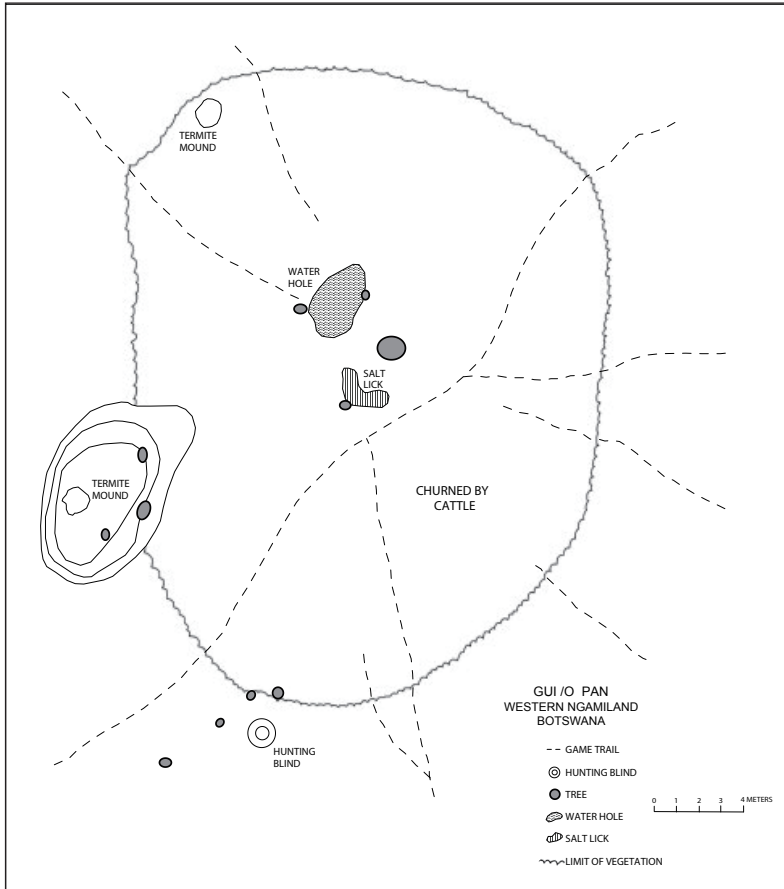


Fig. 3. Map of Gui /O Pan in western Ngamiland where ambush hunting from blinds took place

do not use horses or donkeys for hunting, only for transport. There were cases where donkeys were used to transport meat from successful hunts back to camp. Ambush hunting was a more popular method of hunting since it was done at night and hunters were less likely to be caught by game scouts.

The Ju/'hoansi at /Xai/Xai used to use bows and arrows regularly for hunting; the arrows were unfletched and they consisted of several parts: a main shaft, a link shaft, and an arrow point either of bone or metal (Wiessner, 1983, 1984; Robbins et al., 2012). Bow and arrow hunting usually was done in pairs, with the hunters stalking animals after assessing carefully their behavior, location in the herd, sex, age, and physical condition. The hunters would move forward, sometimes with surprising speed, to a point where they were close enough to the animals to get off a shot with their arrows (Marshall, 1976: 135–137). Generally, this distance was between approximately 10 to 30 meters. Once within range, the hunters would take aim and let their arrows fly.

One of the difficulties of bow and arrow hunting in the tree-bush savanna and grasslands of the /Xai/Xai region is the lack of cover in some areas. Hunters do not have an easy time sneaking up on animals, which tend to be wary of both movement and unusual smells. Stalking requires significant expertise, and it is considered arduous by most hunters who engage in it. Group hunting involving women and children serving as beaters, encouraging game to move toward waiting hunters or toward pits into which game could fall, was not done in recent years by Ju/'hoansi or Herero according to informants, who said that this kind of hunting was usually done by groups in the Okavango Delta and in the Makgadikgadi Pans region but is not practiced any longer in western Ngamiland.

The effectiveness of bow and poisoned arrow hunting varies, depending on season, the toxicity of the poison used, the amount of cover available, the type of prey, and the presence of other predators and scavengers. Arrow poison was made from the larvae of beetles (*Diamphidia nigro-ornata* or *Diamphidia simplex* or *Polyclada flexuosa*) (see Koch, 1958; Shaw et al., 1963; De La Harpe et al., 1983; Robbins et al., 2012). Thomas (2006: 123) considers the discovery of arrow poison beetles one of the most significant findings of humankind. The poison is extremely effective, killing an animal within a relatively short period of time. It should be noted, however, that the efficacy of the poison varied considerably. The toxicity tended to decline in the late dry season, and in drought years and extremely wet years the beetles were often not available at all (Hitchcock & Bleed, 1997; Chaboo et al., 2015).

The gearing up phase of a hunt consisted in part of checking one's arrows and smearing on fresh poison below the tip. This activity usually took place slightly away from camp so that children would not inadvertently step on a freshly poisoned arrow or have a fly crawl on the arrow and then get into a person's eye, something which would cause severe pain and sometimes blindness. There were strict rules about the ways in which arrow poison was supposed to be handled, although admittedly these were not always observed.

Ideally, during the course of a hunt, two or three hunters tried to hit the same animal, thus doubling or tripling the amount of poison in the prey. More often than not, the hunters would fire a number of arrows in the general direction of the animal they had selected, the object being to get as many arrows into the prey as possible. Once hit by a poisoned arrow, an animal must be tracked by the hunters, often for long distances. Sometimes hunters will note the tracks of the wounded animal and go back to camp and rest before resuming the hunt. The chances of recovery of a wounded animal depended in part upon where it was hit by the arrow, the virulence of the poison, and the animal's physical condition. If the hunters are fortunate, they will come upon the dying animal before other predators such as lions or hyenas do. If the animal is still alive, they will dispatch it, usually with spears but sometimes with clubs or knives. The recovery rates of animals hit by poisoned arrows varied from about 30–70%, with the lower figures in areas where there were high densities of predators and scavengers.

Wilmsen (1989: 230–231) notes, drawing on data he obtained at /Xai/Xai in the period 1973–1976, shows that the use of bows and arrows by Ju/'hoansi resulted in the killing and capture of 8 species of mammals, and two species of

birds. Of the animals killed by bow and arrow, the numbers were as follows: duiker 4, eland 3, gemsbok 6, kudu 16, steenbok 9, wildebeest 4, warthog 2, and hare 2. Of the birds, 2 francolins and 9 guinea fowls were obtained with bows and arrows. The Herero at /Xai/Xai also used a bow and arrow in a few cases, obtaining a porcupine, a hare, a francolin, and 4 guinea fowls. As Wilmsen (1989: 232) points out, both in the case of arrows and in the case of guns, the owner of the implement of production is the owner of the product.

Archaeological excavations at White Paintings Shelter in the Tsodilo Hills revealed portions of bone points that appear to have been parts of reversible arrowheads that could have been used with poison (Robbins et al., 2012). Optical spectral luminescence dates on the levels with the bone fragments indicate that worked bone technology extended as far back as 45,000 years ago. Ethnographic data from Ju/'hoansi residing at Tsodilo in the period between the 1960s and 2013 indicates that Ju/'hoan hunters used *Diamphidia* poison mixed with *Sansevieria aethiopica* juice. The efficacy of the poison varies. According to Richard Lee (1979: 137), the arrow poison's potency is very high at first, but it declines over time, to the point where after a year it is essentially harmless.

According to some of the Ju/'hoansi interviewed at /Xai/Xai in the 1990s and in 2005, bow and arrow hunting has several drawbacks. First, it requires training and experience to be good at it. Second, it requires detailed knowledge of plants and insects as well as prey animals. Third, it is seen by some as being a less efficient means of obtaining meat since it often requires extensive inputs of labor in following up wounded animals, and even this labor expenditure does not guarantee prey recovery. It generally took between 3 and 24 hours (and sometimes several days) for an animal to die from the effects of the poison, by which time predators and scavengers were on the trail of the animal or had appropriated it before the hunters reached the death site. The chances of recovery of prey hit by spears was much greater than was the case for prey hit by poisoned arrows, in part because the shock effect saw the animal die more quickly (Hitchcock & Bleed, 1997). There were, however, some drawbacks to spear hunting, not least of which was the fact that hunters had to get relatively close to the animals to dispatch them. This was a problem when it came to hunting large, dangerous animals such as buffalo (*Syncerus caffer*) or those antelopes that used their horns to good effect, as is the case with gemsbok (*Oryx gazella*). One way that Ju/'hoansi deal with gemsbok is to employ dogs in hunting; according to informants, gemsbok will stop and attempt to fend off the dogs, making the gemsbok more vulnerable to being hit with a spear or arrow.

Spears were primarily used by Ju/hoansi as a secondary tool, which they employed to finish off an animal. There were, however, a number of Ju/'hoan hunters, especially younger ones, who preferred to use spears. Spear hunting appears to be somewhat more productive than bow and arrow hunting (Hitchcock & Bleed, 1997; Hitchcock et al., 1996). One of the reasons given by some of the hunters we interviewed for their use of spears was that they enabled them to kill larger body-sized animals more efficiently. The spears' impact, when thrown or thrust using both hands, resulted either in immediate death or sufficient blood loss to weaken the animal relatively quickly. Sometimes spears were used to impale or club prey

such as springhare (*Pedetes capensis*) which were caught with the aid of a long, segmented stick with a hook on the end that was pushed down into burrows and used to catch and hold the animal.

Another common faunal procurement strategy is spear hunting with the aid of dogs. Dogs facilitate spear hunting both by finding the game and by chasing animals down and cornering them. Dogs were especially effective, as mentioned above, in the hunting of gemsbok and may, in fact, be one of the reasons that these antelopes are killed so frequently by subsistence hunters. Hunting with dogs was a secondary strategy in the Nyae Nyae region, something that differs from some other parts of the Kalahari such as the Nata River region. Hunters often take dogs with them on long-distance expedition hunts, and the meat from these hunts is carried back to the villages on donkeys. In the case of the Ju/'hoansi studied by Lee in the Dobe-/Xai/Xai area in 1963–1965, the large numbers of warthogs (*Phacochoerus aethiopicus*) and duikers (*Sylvicapra grimmia*) killed were a result of the existence of a well-trained pack of dogs (Lee, 1979: 143–144).

The use of guns for hunting was an issue that was brought up fairly frequently during the course of interviews conducted at /Xai/Xai in the 1990s and in the new millennium. Some people argued that they needed to have guns to protect their livestock herds from lions, leopards, and other predators. Others said that introducing guns into their areas would cause serious problems. One man who had lived in northern Namibia said, “There were too many guns when the army was here, and that is why there is so little game here today.” Another man talked of how a gun was brought out at a beer party and pointed at people. With more guns in the villages, he said, killings and wounding of people would increase. If more people had guns in the region, another person argued, the numbers of tourists might decline because of fears that they could be shot. The safety factor was also an issue raised by safari company representatives, many of whom were opposed to the idea of allowing local people access to guns for subsistence hunting or problem animal control.

Hunting with the aid of guns by Ju/'hoansi was very rare at /Xai/Xai. Most of the gun hunting that did take place in the past was done by Herero. According to informants and to government wildlife officers, there were no guns in the households of Ju/'hoansi in the 1980s and 1990s. The lack of guns was sometimes seen by some people as a constraint, especially when people were faced with large predators such as lions or leopards that were threatening them or their livestock. Gun hunting, however, was allowed in Botswana, in line with government wildlife legislation passed in 1979 (the *Unified Hunting Regulations*, see Republic of Botswana, 1979). It should be noted, however, that gun hunting using Special Game Licenses was only allowed in Ngamiland, and the North West District Council and the Regional Department of Wildlife and National Parks disallowed the use of guns for subsistence hunting in 1996.

Ironically, the shift toward gun hunting in some areas in Botswana reportedly to a reduction in the availability of meat for local people, in part, it was argued, because the people who own the guns did not allow the people who use them to keep much of the meat that they obtain (Hitchcock & Masilo, 1995; Hitchcock et al., 1996; Hitchcock, 2000a, 2001). This situation was seen in the

Dobe-/Xai/Xai area in the 1960s by Richard Lee, who observed:

When the !Kung men hunted with borrowed guns, the kill belonged to the gun's Herero or Tswana owner, not to the hunter. Therefore, even though hunting with guns was more efficient than hunting with bow and arrow, only a small proportion of the meat so killed found its way into the !Kung subsistence economy (Lee, 1979: 405).

In the 1990s, agreements were usually made between gun owners and Special Game License (subsistence hunting license) holders who used the guns which specified how much meat the hunter would get from the animal that was killed. In some cases, people would shoot two animals and give one of them to the gun owner. In other cases, the hunter would get half of the meat.

There are some drawbacks to the use of guns which were mentioned by some of the people of /Xai/Xai. The expansion of gun use reportedly led to increases in the flight distances of prey animals, thus making them less accessible to bow and arrow and spear hunters. As a result, people had to change their hunting strategies. An alternative method was to hunt smaller game or to hunt from ambush locations at night during specific seasons of the year (Crowell & Hitchcock, 1978). People also relied more on the meat supplied by safari hunters who came to the area with safari companies. This was not a common strategy, since the distribution of meat from safari hunts was highly seasonal (April to September), and not all safari companies were willing to provide meat to the community.

Hunting has declined substantially at /Xai/Xai, in part because of a greater game scout presence and because of changes in the hunting laws. According to local people, they hunt less in part because young people do not know how to track as much as they used to (see Liebenberg, 1990; Biesele & Barclay, 2001 for a discussion of San tracking activities). Hunting is on the decline throughout Botswana because of new hunting rules announced by the Department of Wildlife and National Parks and the Ministry of Environment, Wildlife and Tourism in 2013. It is uncertain whether people will be allocated hunting licenses for so-called traditional or subsistence hunting (for those people who fall below a minimum standard in terms of food and income). People in western Ngamiland maintain that they are going to suffer because of the new hunting rules, but the government, for its part, says that they will still be able to benefit from ecotourism activities.

One area of concern relates to ostriches and ostrich eggshell products, which are seen as very important to people in /Xai/Xai both for subsistence and income generation. The passage of the *Ostrich Management Plan Policy in 1994* (Republic of Botswana, 1994) made it illegal for people to have ostrich products in their possession unless they had a license (Hitchcock, 2012a). Broken ostrich eggshells are used in the manufacture of beads which are important socially and which are used both for exchange and as what one Ju/'hoan woman at /Xai/Xai called "a store of wealth." The ostrich eggshell bead items are valued by people as heirlooms and they are sometimes passed along to other people in a reciprocal

exchange system known as hxaro (Wiessner, 1977, 1982, 2002). The ostrich eggshell products are thus important from economic, social, and ideological standpoints, and the inability to use ostrich eggshell items is seen as a serious problem by the people of /Xai/Xai and other parts of Botswana.

One of the concerns expressed by a number of older Ju/'hoansi was the fact that members of the younger generation often did not have the desire to learn how to manufacture arrow poison, track, and hunt animals (Biesele & Barclay, 2001; Biesele & Hitchcock, 2011; Chaboo et al., 2015). Some people saw this situation as being extremely problematic since, as they noted, the younger Ju/'hoansi have few options besides foraging, farming, craft production, and dependency on

Table 5. Wild animals obtained by subsistence hunters at /Xai/Xai, Botswana 1995–1996 and 1996–1997

Name of animal	Local name and scientific name	Number allowed on Special Game License (SGL) and quota in NG 4	Wild animals obtained in 1995–1996	Wild animals obtained in 1996–1997
Chacma baboon	<i>Papio ursinus</i>	50 (0)	0	0
Bat-eared Fox	<i>Otocyon megalotis</i>	50 (0)	0	0
Caracal	<i>Caracal caracal</i>	10 (0)	0	1
Blue duiker	Phuti <i>Cephalophus monticola</i>	30 (1,086)	11	4
Eland	Phofu (Dun) <i>Taurotragus oryx</i>	1 (10)	4 (all confiscated)	0
Gemsbok	<i>Oryx gazella</i>	4 (49)	5 (all confiscated)	1
Genet	Tologwani <i>Genetta genetta</i>	50 (0)	0	0
Hartebeest	<i>Alcelaphus buselaphus</i>	4 (105)	1	1
Impala	Phala <i>Aepyceros melampus</i>	2 (11)	0	0
Black-backed jackal	Phokoje <i>Canis mesomelas</i>	50 (0)	2	0
Side-striped jackal	<i>Canis adustus</i>	50 (0)	4	2
Kudu	<i>Tragelaphus strepsiceros</i>	1 (100)	7	1
Monitor lizard	Leguaan <i>Varanus niloticus</i>	10 (0)	many	many
Ostrich	//garoo <i>Struthio camelus</i>	2 (0)	some	some
Silver fox	<i>Vulpes chama</i>	10 (0)	0	0
Spotted hyena	<i>Crocuta crocuta</i>	5 (5)	1	0
Springbok	<i>Antidorcus marsupialis</i>	4 (29)	0	0
Steenbok	<i>Raphicerus campestris</i>	30 (1,390)	5	2
Warthog	<i>Phacochoerus aethiopicus</i>	3 (15)	3	1
Wild cat	<i>Felis silvestris lybica</i>	50 (0)	4	0
Wildebeest	<i>Connochaetes taurinus</i>	4 (0)	2	4

Note: Quota data obtained from the Department of Wildlife and National Parks (DWNP); the quota is for NG (Ngamiland) 4, /Xai/Xai community controlled hunting area (CCHA).

government support to earn a living. At the same time, it should be noted, some younger people said that they did not want to hunt because it was “too dangerous” or “too difficult.” Gathering, too, was not easy. As several people pointed out, gathering required knowledge of plants and the conditions under which they grow. Collecting wild foods, they said, was “hard work” and unless they were able to get significant cash returns for their sale, it was not worth the effort, even in the case of Devil’s Claw (*Harpagophytum procumbens*) which is valuable in the southern African and global markets.

Data on hunting at /Xai/Xai in the 1990s are shown in Table 5. It can be seen that the numbers of animals taken were much less than was allowed for under the government’s subsistence hunting policy, which lasted in Botswana from 1979 to the early part of the new millennium in much of the country (Hitchcock & Masilo, 1995; Hitchcock, 2000a, 2000b; Department of Wildlife and National Parks, North West District Council, personal communications, 2012). The hunting year of 1996–1997 was the last one in which people were allowed to hunt using Special Game Licenses in Ngamiland. After 1996–1997, people had to obtain citizen’s hunting licenses from the government, or alternatively they could devote a portion of their quota for the Cgae Cgae Community Trust to subsistence exploitation. By 2014, it was unclear to the members of the trust whether or not they had the right to hunt for subsistence, given the new wildlife laws that had gone into effect in Botswana in 2013 and early 2014 (Republic of Botswana, 2014).

OTHER LIVELIHOOD PURSUITS AND TRANSFORMATIONS IN THE /XAI/XAI ECONOMY

Besides hunting and gathering, a substantial portion of the /Xai/Xai population obtained food and income through their involvement in agriculture, raising and managing livestock in exchange for cash and milk and sometimes a calf, craft manufacture and sale, short-term work for other people, and government-sponsored social safety net programs. The safari companies that had the leases for the /Xai/Xai area would hire trackers, hunting guides, camp cleaners, and company assistants, and mining companies also employed temporary Ju/’hoan and Herero workers. Sometimes the safari companies would supply meat to community members. The North West District Council and the central government of Botswana employed teachers, nurses, tribal police, and village headmen or headwomen in addition to temporary workers involved in labor-based relief and development projects such as clearing brush and maintaining roads.

In 1995, as mentioned previously, there was an outbreak of contagious bovine pleuropneumonia (CBPP, see Hitchcock, 2002). The government of Botswana opted to supply local people who were affected by the outbreak with various kinds of commodities including maize, sorghum, beans, and oil. Table 6 presents data on what were known as destitute relief rations which were provided to local people under the government’s national policy on destitutes (Republic of Botswana, 2002) in 1995–1996. Destitutes are defined as people who cannot meet their own subsistence and income needs. Community income earned from economic activi-

Table 6. Destitute relief and rations, /Xai/Xai, Botswana, 1996–1997

Household size	Maize	Sorghum	Beans	Oil
1–4	25 kg	25 kg	10 kg	1.5 liters
5–8	50 kg	50 kg	20 kg	3.0 liters
9+	75 kg	75 kg	30 kg	4.5 liters

Note: Data obtained from the North West District Council.

Table 7. Community income earned from economic activities in /Xai/Xai, North West District, Botswana, 1995–1996

Economic activity	Implementing agency	Amount earned (in Pula)
Handicrafts	!Kokoro Crafts	P13,500
Hunting	Quota Management Committee	4 large antelopes
Tourism	QMC (!Kokoro Safaris)	P8,000 (20 people)
Consumer Goods	!Kokoro Street Vendor	P600
Dancing	QMC (!Kokoro Safaris)	P1,200 (12 people)
Total	4 organizations	P23,300

Note: data obtained from fieldwork and from the Natural Resource Management Advisor E. Ruigrok (1997).

ties in /Xai/Xai in 1995–1996 is presented in Table 7. Once the CBPP emergency was declared, the government initiated not only a ration distribution program but also a labor-based relief and development program. Compensation was also provided to cattle owners whose livestock were killed as part of the CBPP eradication campaign.

An examination of the employment status of residents of /Xai/Xai in 1997 (see Table 8) revealed that there were 80 people working there, including two of whom worked for the Natural Resources Management Advisor. There were also people working with community-based organizations, one of which was known as !Kokoro Crafts. As Terry (1991) has shown, craft sales make up an important part of the income of community residents in northern Botswana. This was also true for the

Table 8. Employment of residents of /Xai/Xai, Botswana, 1997

Employment type	Employing agency	Number of jobs
Road Clearing	North West District Council	50
Road Clearing	Roads Department	15
Geological Work	Botswana Geological Survey	6
NRMA Facilitators	SNV/CBNRM Project	2
Borehole Pumper	Council Water Department	2
Headman	District Administration	1
Cleaner (Health)	Council Health Department	1
Watchman (Health)	Council Health Department	1
Land Board Warden	Tawana Land Board	1
Total	8 institutions	79 jobs

Note: NRMA stands for Natural Resource Management Area, SNV is the Netherlands Development Organization, and CBNRM is Community-based Natural Resource Management. Data obtained from fieldwork and from the Natural Resource Management Advisor E. Ruigrok (1997).

Ju/'hoansi in Nyae Nyae, Namibia (Wiessner, 2003). The craft sales in Botswana had been affected by the passage of the *Ostrich Management Plan Policy in 1994*, as noted previously, but sales increased during the CBPP period between 1996 and 1998, in part because local people sold off some of their heirlooms and valuables as a means of generating some cash. This was done in part because of the reduction in the availability of milk and other goods from livestock that had been destroyed by the government in 1996.

The /Xai/Xai Tlhabololo Trust decided to try and limit the numbers of animals and wildlife products such as ostrich eggs taken by local people, although the degree to which they were successful in this effort is open to question. The !Kokoro Crafts committee also discussed the idea of imposing limits on the numbers and types of wild plants that could be exploited by members of the group, and a set of rules was drawn up which stipulated that members of !Kokoro Crafts had to tell the committee if the plants that they were exploiting were becoming scarce. Interviews suggested that at least some people in /Xai/Xai opted to reduce the exploitation of certain species, including fan palm (*Hyphaene petersiana*) which grew in some areas around /Xai/Xai and was sold to people living close to the Okavango Delta (e.g., at Gomare and Etsha) for making baskets. Wooden items such as mortars and pestles were also produced by community members at /Xai/Xai, some of which were sold.

By establishing the /Xai/Xai Tlhabololo Trust and gaining control over the NG 4 area as a representative management body, the people of /Xai/Xai were hoping that they would have a greater say over the exploitation of specific resources in the area and would be able to control the number of outsiders coming into the region. They did not mind tourists, they said, since tourists brought cash. Some of the residents of /Xai/Xai also saw the utility of tourism in terms of promoting and preserving cultural identity through, for example, continuing traditional healing and providing reasons for dances which were both community-driven and sought eagerly by people and companies visiting /Xai/Xai.

Some of the things that the people of /Xai/Xai did for tourists were to take them on walks to demonstrate strategies for gathering and tracking. They also engaged in dances for tourists, based in part on traditional dances done with Ju/'hoan healers (Katz et al., 1997). Dancers from /Xai/Xai were well-known in Botswana, some of them having participated in national-level competitions in Gaborone. The /Xai/Xai dancers also took part in the Kuru Dance Festival in Ghanzi District in August, 2012, where they demonstrated a combination of traditional and contemporary dances, much to the enjoyment of the audience which was drawn from places around the world.

GENDER, AGE, ETHNICITY, AND CLASS ISSUES

Discussions at the various meetings held in /Xai/Xai and interviews of the residents of the community underscored the fact that there were differences of opinion between men and women, old and young, Ju/'hoansi and Herero, and among individuals, groups, and socioeconomic classes concerning the ways in which to

handle land use, natural resource management, ecotourism, and economic benefit distribution issues. The people of /Xai/Xai expressed frustration over the lack of control that they had over land and wildlife policies. They also wanted greater control over cultural heritage, including the desire to restrict the number of outsiders attending the /Xai/Xai Dance Festival, held most recently in 2011, which included competitors from other places.

There were cleavages within the /Xai/Xai community over the issue of the conservation status of G/wihaba, the Aha Hills to the north, and the Koanaka Hills to the south, as well as Tsodilo Hills, far to the north, which had received World Heritage Site status in 2001 (Giraud, 2011), the first Botswana site to receive that designation. Community members were aware that one of the impacts of the declaration of Tsodilo as a national monument by the Botswana government in the mid-1990s was that the Ju/'hoan community in the hills was required to move, and the compensation that they received was only 17,500 Pula for the entire group of 100 people (Alec Campbell, personal communication; Hitchcock, field data, Tsodilo Hills, 1999). They were worried that they, too, would lose access to land in the nearby hills if they were set aside as part of a World Heritage Site. Some /Xai/Xai residents had heard that the Okavango Delta was declared a World Heritage Site on June 22, 2014, and there were rumors that government officials were already preventing people from exploiting wild plants in the Okavango, something that they realized would have negative effects on them if the government chose to follow similar strategies in the G/wihaba area (located at 20° 01' S and 21° 21' E). It is interesting to note, too, that the Botswana government was allowing fracking (*hydraulic fracturing*) activities by oil and gas exploration companies in the Tsodilo, Okavango, and Central Kalahari Game Reserve areas in 2013 (The Telegraph Reporter, 2013), something that local people said was affecting the water table, and the quality and quantity of water available (Sapignoli, 2015).

Adult Ju/'hoan and Herero women at /Xai/Xai were witnessing changes in strategies involving the procurement of wild plant resources. While some young women were learning craft-making from their mothers, there were a number of young women and girls who felt that the work of going out to collect wild plants was too onerous, and they did not want to engage in it. When pressed as to why they might not want to go out collecting, several women expressed fear of wild animals such as elephants and of people who might mistreat them. Two women said that the increased presence of Department of Wildlife and National Parks game scouts, military personnel, and temporary mining company workers in the /Xai/Xai area made them concerned for their safety. Some Ju/'hoan and Herero women from /Xai/Xai said that they were far more cautious today than they were in the past because of the presence of sizable numbers of outsiders in western Ngamiland, Botswana, and across the fence in Tsumkwe, Namibia where they went to visit relatives.

One of the reasons that the people of /Xai/Xai wanted to establish a community trust was that it would generate income that could be used for local projects. Another reason they wanted to have a trust was that they felt it would give them greater control over the land on which they lived, something that was

Table 9. Benefits of CBNRM activities in /Xai/Xai, Botswana, 1998–1999

Activity	Amount of income	Gender breakdown
Hunting	P40,000	20% F, 80% M
Phototourism	P20,000	60% F, 40% M
Craft Sales	P20,000	60% F, 40% M
Dancing	P2,500	80% F, 20% M
Total	P82,500	

Note: Data obtained from fieldwork, the Natural Resource Management advisor and from the records of the SNV IUCN CBNRM Project (R. Jansen, personal communication, 2000).

not, in fact, the case, given the way that the Botswana CBNRM and land policies were written (see Republic of Botswana, 2007, 2011a). Members of the /Xai/Xai Trust remarked on how they were not able to prevent outsiders from coming into the /Xai/Xai area, and they noted that the District Council and Land Board and the central government were establishing commercial leasehold ranches in their Community-Controlled Wildlife Area without their permission.

For some idea of the benefits of CBNRM activities in /Xai/Xai, one can compare the benefits derived from CBNRM activities in the late 1990s with those of more recent times. Table 9 shows the benefits derived from CBNRM activities in 1998–1999. Benefits were derived from a combination of traditional cultural activities such as dancing and craft production and from modern activities such as safari hunting and phototourism. Data obtained by the Trust for Okavango Cultural and Development Initiatives (TOCADI) in 2012–2013 indicate that the returns from CBNRM remained about the same as 1998–1999. Household income levels, however, had declined (TOCADI, personal communications, 2013, 2014).

Once the /Xai/Xai Trust was up and running, the community was able to either use part of the wildlife quota from the Department of Wildlife and National Parks for its own purposes (i.e., subsistence use) or sell off the quota to joint venture partners, safari companies primarily. This process was not easy for a number of reasons. In some cases, safari companies engaged in illicit activities such as over-hunting their quota. There were also cases in the past where safari company operators seeking to obtain the lease to the /Xai/Xai area provided payments under

Table 10. Wildlife quota sales and joint venture partnerships in /Xai/Xai, Ngamiland, Botswana

Year of quota sale	Amount of income to trust	Joint venture partner
1997	P45,000	
1998	P83,000	Jao Safaris
1999	P68,000	Kalahari Desert Safaris
2000–2001	P405,000	Komtsa Adventure Safaris (Bernard Horton)
2002–2004	P489,708	Greg Butler
2004–2009	P4,000,000 to Land Board, P1,000,000 to trust	Lindstrom Safaris (Greg and Kelly Butler)
2010–2012	P4,000,000	Lindstrom Safaris (Greg and Kelly Butler)
2012–2013	P450,000 payments for activities in /Xai/Xai	Capricorn (Adam Hedges), Uncharted Africa (Ralph Bousfield)

Note: Some of the data presented here were provided by the IUCN CBNRM Program in Botswana (see, for example, Rozemeier, 2001; Buzwani et al., 2007; Schuster, 2007).

the table to community trust officials in the hopes of having a successful bid. Table 10 shows the wildlife quota sales and joint venture partnerships at /Xai/Xai in the period between 1997 and 2012. There is no evidence to suggest, however, that any of these companies were involved in illicit activities.

One way to measure the impacts of biodiversity conservation and the effects of the establishment of community-based conservation and development organizations such as the /Xai/Xai Tlhabololo Trust is to look at the effects on the behavior of the residents in the communities involved. If one assesses the numbers of people who engage in hunting, for example, there were fewer people hunting in 2014 than was the case in the past. At the same time, the numbers of wild animals, they said, were on the decline, in part, they said, because of adverse environmental conditions, especially in the drought period of 2012–2013. It was also suggested that the construction of veterinary cordon fences, such as the Setata Fence, and the building of fences around ranches that were designated as commercial by the central government and the Tawana Land Board were having impacts on wildlife numbers.

In June 2014, people from /Xai/Xai and Makuri in Botswana who were visiting relatives and friends in Tsumkwe, Namibia, said that there were wealthy people, some of them foreigners, who had received ranches in the area between /Xai/Xai and the Okavango Delta. Some of the people who owned ranches and the leasehold farms were reportedly bringing in hunters from South Africa and other places who spent their time shooting game in exchange for sizable payments of foreign currency and Botswana Pula made to the ranch owners and leasees.

Given the Botswana government's new policies on wildlife, it is uncertain what will occur at /Xai/Xai, and what effects the cessation of safari hunting in community-controlled areas such as NG 4 and NG 3 will be. The people of /Xai/Xai were able to generate a fairly substantial amount of money for the community, especially during the period from 2004 to 2013, but many people felt that the benefits would decline with the cessation of hunting in Botswana in 2014 (Morula, 2014; Republic of Botswana, 2014).

Some of the issues associated with the community-level benefits relate to household-based and individual benefits, in other words, the spread effect of the money generated. There were people in the community who felt that the community trust board members monopolized most of the funds that were generated. There was also concern about the apparent lack of transparency in decision-making about the use of funds that were generated (Main, field data, 2008, Garner, 2012; Alec Campbell, personal communication, 2011). Interviews of people at /Xai/Xai revealed a general level of dissatisfaction with the community trust board's decision-making regarding the allocation of benefits.

Another issue had to do with the ethnic composition of /Xai/Xai, a sensitive issue in Botswana which maintains an explicitly non-ethnic based set of policies. The perceived preference of tourists' to interact with the Ju/'hoansi was not lost on the Herero, who felt in some cases that they were being ignored. This resentment played out in various ways. One of the problems in the past and again more recently was that the /Xai/Xai Village Development Committee (VDC)

tended to be dominated by the Herero. The Ju/'hoansi representation on the /Xai/Xai VDC is lower than would be expected given the proportion of the overall population of /Xai/Xai that they represented (85%). Power and wealth in /Xai/Xai are largely in the hands of the Herero minority, and the Herero VDC officers and members were said to favor projects that were in their own interests.

Conflict resolution mechanisms in /Xai/Xai consisted of discussions and meetings at the !Kokoro tree or at the local kgotla, the council place. Outsiders, including government officials, NGO representatives, development workers, missionaries, and, occasionally, anthropologists, have interceded in some of the conflicts in /Xai/Xai. In some cases, the advice of outsiders has been followed, while in other cases their efforts were viewed as meddling in affairs which were not their concern. There have been tensions within the community, as noted previously, because of a perceived preference by the government and visitors to help, work with, or learn more about the Ju/'hoansi. In the 1994–1998 period, the SNV Natural Resource Management Advisor came under a certain amount of criticism for “favoring the Basarwa.” In actual fact, the Natural Resource Management Advisor was balanced in his approach; he worked closely with both Ju/'hoansi and Herero. Assistance and training was provided by SNV and IUCN (the World Conservation Union) to members of all ethnic groups and families. Indeed, this is an important lesson for community-based natural resource management, that is, to have equitable treatment of all groups by anyone dealing with the community.

Efforts to establish a community trust and to obtain the quota from the Department of Wildlife and National Parks helped bring some of the conflicts to the surface so that they could be dealt with directly. Once the community had a wildlife quota and had established a registered trust, it could “get on with the business of managing natural and human resources,” as a government official told one of us, Hitchcock, in 1997. A member of the /Xai/Xai Trust board said that conflict-solving sessions were an important part of the deliberations of the trust. Yet another man said that the traditional means of Ju/'hoan conflict resolution, through subtle or sometimes not-so-subtle public criticism, was an effective strategy for preventing conflicts from worsening. When some members of the community became too argumentative or violent, one way to handle him or her was to “go and get a Herero” who would then attempt to bring the person to his or her senses. From this perspective, the presence of different ethnic groups in /Xai/Xai had its advantages.

Resource conflict is a fundamental issue in natural resource management. There are certainly resource conflicts at /Xai/Xai, one example being the struggle between those who favored the change in the tenure status of G/wihaba and those who did not. There were concerns expressed about mining companies operating in the area, something that was favored by a number of /Xai/Xai residents because they thought it would lead to more wage-paying jobs. There were others who felt that the presence of mining companies was damaging to the environment and that the costs of the exploration and mining activities would outweigh the benefits. Some /Xai/Xai residents told us in the 1990s and again in 2005 that they were worried that the same thing that happened to the people of the Central Kalahari Game

Reserve would happen to them, that is, they would be resettled out of an area to allow mining and high-cost tourism to go forward.

In the past, there were disagreements between cattle owners and foragers who felt that the cattle were trampling veld resources and getting into fields and eating people's crops. Some of the conflicts at the community level were gender-related, as can be seen in the case of income from craft sales, which women wanted to control, something that was disconcerting to their husbands. The issue of craft income became particularly contentious when it was learned that in 1996, the members of !Kokoro Crafts earned some 13,500 Pula. Questions were raised about equity, and members of the crafts group were pressured to share some of their cash with non-members, which many of them did willingly in order to maintain peace among relatives and friends.

A major concern among the people of /Xai/Xai was that the benefits of community-based natural resource management should not go to a minority (e.g., to the trust's board members) but rather to the population as a whole. The recourse available to the members of the community was that they could recall the members of the board of trust, or they could seek a new election of board members. At present, there are few sanctions that can be imposed on board members other than removing them or charging them with abridgement of the trust's constitution or the laws of Botswana. One of the strategies suggested by people in /Xai/Xai to avoid the problems that other community trusts have experienced is to set up rules which dictate that people on the board cannot stipulate that they receive goods as individuals, such as a borehole or livestock, but instead, all benefits forthcoming from the trust must be accessible to the community as a whole. Without efforts to ensure the broader-based distribution of benefits, they said, conflicts would increase and there would be more serious tensions in the community.

The /Xai/Xai Tlhabololo Trust has the power and authority to make decisions at the community level. Unlike the VDC, it has fairly substantial capital resources, and it is registered with the government, something that gives it some significance in the eyes of local people even if they are distrustful of the intentions of the central government. The /Xai/Xai Trust is similar to other trusts involved in conservation in Botswana and Namibia in that it not only has a constitution but that it is a membership body made up of all adult members of the community (Biesele & Hitchcock, 2011: 208–212; Nyae Nyae Development Foundation of Namibia and Nyae Nyae Conservancy, personal communication, 2012, 2014).

The trust board elections are public affairs, and the members of the board are viewed as representatives of the people. It is the community trust that interacts with government officials such as the Department of Wildlife and National Parks game scouts, district council or land board members or, more often than not, tourists and other visitors to /Xai/Xai. The overlap between the Village Development Committee and the /Xai/Xai Trust ensures that both institutions are seen as having a role in the functioning and management of /Xai/Xai.

Civil society played a relatively limited role in /Xai/Xai in the new millennium since relatively few NGOs were working there. Visits have been paid to /Xai/Xai by the Kuru Family of Organizations, and Letloa, one of its institutions, and some

/Xai/Xai residents have attended meetings of the Working Group of Indigenous Minorities of Southern Africa in Botswana and Namibia and national-level workshops on San peoples (such as one sponsored by the Indigenous Peoples of Africa Coordinating Committee, IPACC, in August, 2013). Some of the people of /Xai/Xai have relatives in Namibia who belong to the Nyae Nyae Conservancy. The existence of the Nyae Nyae Conservancy across the border has been useful for the /Xai/Xai people because it has enabled them to watch a grassroots organization evolve and to witness how the organization attempted to solve problems such as incursions of outsiders into their area, as occurred in April, 2009, when a group of Herero from /Gam entered Nyae Nyae, having cut the red-line veterinary cordon fence, bringing some 1,300 head of cattle into the conservancy areas (Hays, 2009; Biesele & Hitchcock, 2011, 2013).

While Botswana government policy and the Botswana Constitution guarantee equitable treatment of all citizens regardless of ethnicity, gender, class, or religious orientation, in practice, ethnic minorities such as the Ju/'hoansi are able to exercise fewer rights than other groups, especially in terms of gaining access to land and a voice in national and local level policy. The same is true of the Herero, who are considered by some officials in the Botswana government to be Namibian and thus not deserving of the same treatment as other Batswana.

The /Xai/Xai community wished to maintain its wildlife and other natural resources both for subsistence utilization purposes and for ensuring sustainability of the resource base. Members of the community said that they want to conserve resources in order "to ensure that there are animals and plants for our children." Individuals in /Xai/Xai maintain that they wish to have wildlife and wild plants around "because it pleases them" and because their existence will provide "learning opportunities for our children."

There was also an ideological argument in favor of conservation and sustainable use. Ju/'hoansi and Herero at /Xai/Xai said that they wanted to make sure that there were sufficient animals, plants, and other resources "for God," "for the spirits" and "for the ancestors." Some wildlife species are considered ritually as well as economically significant to local people, notably eland (*Taurotragus oryx*), so much so that efforts are made to impose limits on their exploitation and specialized rituals are practiced to promote their well-being. As local people in /Xai/Xai put it, non-economic values are just as important as economic values in maintaining resources. As evidence of this, people maintained that they did not hunt eland even when they were listed on the Special Game Licenses, the reason being, they said, was that the eland was sacred. Elands, they pointed out, were known as rain animals and thus were important to the health of the land.

The balance among the various competing interests at the local level in /Xai/Xai is complex. There is no question that the residents of /Xai/Xai wanted to have larger numbers of certain species on the wildlife quota (e.g., kudu, gemsbok, and ostrich). There was also a sense among local people that lions are a big problem but there are few lions on the quota, and in the past 10 years no quotas for lions have been issued. The Department of Wildlife and National Parks is in charge of problem animal control, but in fact often does not do this. Many local people would like to expand their domestic livestock holdings, in part

because cattle represent the best source of income for people in remote areas in Botswana. The problem is that the expansion of livestock numbers sometimes leads to the loss of bush foods (e.g., *Grewia* berries and *morama* beans), a major complaint of Ju/'hoansi and poor Herero and Tawana who utilize wild foods.

The people who were largely dependent on foraging and craft production generally felt that greater efforts should be made to control the numbers and movements of cattle. Some people from outside of the /Xai/Xai area would like to see commercial cattle or game ranches established in the western part of Ngamiland. Most of the people in /Xai/Xai oppose this because they realize that large-scale ranches would have negative impacts on their grazing and wild plant and animal resources. They are fully aware of the fact that the establishment of commercial ranches elsewhere in Botswana had not led to a reduction of stocking rates or the improvement of range and livestock management.

Some of the people of /Xai/Xai expressed the opinion that the kinds of institutional arrangements proposed by the Botswana government and its advisors were too complicated and unwieldy to represent the stakeholders properly. As they put it, "These are highly bureaucratic institutions." What they wanted instead, they said, were institutions based on existing traditional resource management bodies (e.g., the *n!ore kxausi*, the traditional land managers) which have local legitimacy and are recognized by most Ju/'hoansi as being relatively responsive to the needs of community members. Herero in /Xai/Xai wanted to see community institutions organized along lines that are reflective of Herero land and resource management systems (see Wilmsen, 1989: 169, 189–191; Gewald, 1999; Pennington & Harpending, 1993 for discussions of the Herero).

There was an on-going debate in /Xai/Xai about how to refine the trust's land use plan and ensure effective natural resource management. In 1997, some of the members of the /Xai/Xai Trust argued in favor of using the *n!ore kxausi* as sources of information and as managers of the resource base. The idea floated was that the traditional *n!ore* system should be used as the basis for the land management plan for the /Xai/Xai area (see Marshall, 1976: 71–79, 131–132, 184–187; Lee, 1979: 334–350; Wilmsen, 1989: 169–170, 180–186; Biesele & Hitchcock, 2011: 51–59 for discussions of the *n!ore* system of the Ju/'hoansi). The Ju/'hoansi felt that this system was much more effective at spacing people out so that they did not overexploit natural resources, and that it provided a measure of local control over resource utilization (Wiessner, 1977). Using traditional systems of resource control as the basis for modern systems of management had the additional advantage of what some people in /Xai/Xai and Dobe called "cultural familiarity." A contentious issue among the members of the /Xai/Xai Tlhabololo Trust was how to handle the presence of livestock in the /Xai/Xai area and how to protect the community borehole and the gardens from cattle and goats.

DEALING WITH THREATS TO THE RESOURCE BASE

The /Xai/Xai community demonstrated that it was willing to deal with threats from the outside by writing to various authorities about their concerns, filing formal requests for land and resources with district-level and national authorities, and making their views known at local, district, national, regional (Africa-wide), and international meetings. Some of the community's members have attempted to gain access to water points, which would provide de facto control over the grazing and other resources around them, but thus far these efforts have not been successful.

At a practical level, the /Xai/Xai Trust and its advisors worked hard to promote biodiversity conservation through training, information sharing, and carrying out of resource management strategies. Fewer people were involved in hunting, gathering, agriculture, and livestock production than was the case in the early 1990s. It is difficult to quantify the amount of resources that were conserved, as no records were kept locally or by the Department of Wildlife and National Parks (Garner, 2012; Department of Wildlife and National Parks, Maun, Gaborone, personal communications, 2012, 2013). There is no question that from a qualitative standpoint and from the perspectives of both local people and outside observers, the natural resource situation in western Ngamiland was better in 1996–1997 than it was in the early 1990's. This was not the perception, however, that people had in 2013, when a number of people said that natural resources, including wildlife and wild plants, were on the decline.

The Ju/'hoansi and Herero are considered to be extremely skillful in making local-level resource management decisions. The degree to which they plan natural resource management activities is still to be determined in detail, but they have definitely placed sustainable utilization and conservation high on their agendas, judging from what they tell researchers and development workers. Over the past two decades, the people of /Xai/Xai have spent a considerable amount of time and energy in meetings and discussions on natural resource management and development issues, an indication of their concern about these topics. While there have been some questions raised about the degree to which the community-based organizations in /Xai/Xai represent and negotiate their constituents' interests in a broad arena (for example, in pushing for rights to wildlife or bush food products at the national level), they have actively sought to represent their needs and objectives at local, district, and national meetings.

A major concern of the people of /Xai/Xai from a policy perspective was the lack of de jure control over land and water resources. They noted that they would like to be able to obtain freehold or leasehold rights over their area so that they could exclude outsiders who they felt were not providing much in the way of benefits to local people or who were seen as utilizing resources without ensuring proper conservation. People from /Xai/Xai expressed tremendous consternation about the lack of willingness of government agencies such as the Ministry of Agriculture to consult them about the erection of the veterinary cordon fences and the establishment of commercial ranches in their area. The people of /Xai/Xai responded by seeking formally in writing to have the fences realigned

and to have the ranching projects shelved, efforts which were unsuccessful. They also argued in meetings that there should be greater government efforts to conduct social and environmental impact assessments. While the fences have not been taken down, the attention brought to bear on the impacts of the fences has led to decisions to investigate the impacts of cordon fences, although thus far there have not been any formal investigations of fencing.

Both the Ju/'hoansi and the Herero at /Xai/Xai have strong commitments to maintaining traditional cultural values and belief systems. One of the reasons that the people of /Xai/Xai say that they want to engage in resource management and community-based tourism activities is the opportunity to "show outsiders" their lovely craft items and their unique dances and ritual healing systems. At the 20th anniversary celebrations of the independence of Botswana on September 30, 1986, a group of dancers from /Xai/Xai performed and was praised widely. While cautious about the kinds of stereotyped notions outsiders sometimes possess of San, the members of the /Xai/Xai community wish to be seen as people who treat each other with respect and who honor their cultural traditions. They have continued their dances, and the most recent performances were at /Xai/Xai in 2011 and at the Kuru San Dance Festival in Dqae Qare in Ghanzi in August 2012.

When asked the question as to whether or not the government had truly decentralized power and authority to the local level, the people of /Xai/Xai maintained that the government had done so only to a certain extent. Wildlife resources were still in the hands of the state, they noted, and they were not allowed to make decisions themselves about mineral resources. They did feel, however, that they had the capacity and willingness to make their own decisions, if only the central and district governments and private companies would let them do so.

The commodification of tourism and cultural heritage is also a concern in /Xai/Xai (for a discussion of this process, see Aicken & Ryan, 2005; Mutale & Mbaiwa, 2012). There were divisions in the community over issues such as craft production and sale and dances. As mentioned previously, some Herero felt that the Ju/'hoansi had more opportunities to engage in dances and therefore more had more chances to generate income. The Ju/'hoansi, for their part, were worried about transformations in the dances away from healing-related activities to more commercial tourist-oriented events. Both Ju/'hoansi and Herero expressed concerns about traditional indigenous knowledge loss such as the decline in awareness among the young of how to track animals and how to locate plants that had nutritional and medicinal value. A sizable number of /Xai/Xai residents expressed a desire to see cultural heritage management and indigenous knowledge systems initiatives undertaken locally. Three people said that this was especially important given the social, political, economic, and environmental changes that were occurring in the region, some due to the expansion of state control, competition for land, and global and local climate change.

PRIVATIZATION AND ITS IMPACTS

The people of /Xai/Xai and other Ngamiland communities are very concerned about the potential impacts of the Botswana government's new land policy, a revised version of which was announced in early 2011 (Republic of Botswana, 2011a). In recent years, the Tawana Land Board and the Gomare Sub-Land Board allocated leasehold rights over blocks of land to individuals and groups in western Ngamiland's Zone 6 which includes /Xai/Xai (Smit & Kappe, 1992). In line with the Tribal Grazing Land Policy regulations (Republic of Botswana, 1975), the leasehold ranches are 64 km² in size (8 km × 8 km, or 5 mi × 5 mi). Leasehold ranches were allocated by the Tawana Land Board in the period from 2008 to 2014. Sub-Land boards can allocate land for arable, residential, and grazing purposes. In these areas there were indications that leaseholders were essentially selling their leases to foreigners (non-Batswana) who were using citizen-fronted companies to buy the leases. Once they secured the land some of the foreign buyers either bought out or pressured the citizen shareholders to give up their leasehold rights. This issue was in the process of being investigated by the Department of Corruption and Economic Crimes in 2013–2014.

A number of farms have now been “bought” by people in NG 3 (Dobe) which is 5,760 km² in size. The plans of some new owners were to fence their areas and to bring in outside hunters in exchange for cash, although these kinds of arrangements were not legal under current land and wildlife laws. There are already indications that the numbers of wild animals are being affected in the area and are on the decline. Once the new owners fence the farms it will likely mean massive dispossession for local communities and large-scale interference with wildlife migratory routes, something that was already a problem with the Setata veterinary cordon fence south of /Xai/Xai.

Clearly, there is an urgent need for an Environmental Impact Assessment (EIA) in order to guide development of the western Ngamiland area so that it is as compatible as possible with the needs of local people as well as those of the North West District Council and the Botswana government. This must be done in line with the Environmental Assessment Act of 2011 (Republic of Botswana, 2011a). Some local community members argue that they should be able to obtain certificates of title to the lands where they live. One way to approach this would be to raise funds to buy some of the existing leases for the western Ngamiland communities before they are sold off to foreigners, which would also help to avert development threats from private ranchers in the future. Consideration is also being given to initiating legal proceedings to assist the communities in opposing any authorized developments in their traditional lands.

In the case of the !Harin//axo community near Dobe, the main Tawana Land Board in Maun approved the application by an individual for a wilderness campsite (Albertson, 2013). This individual registered a company in 2010 in which he was the 100% shareholder, as required by Botswana government rules and policies on land allocations and the granting of tourism licenses. It took two years for the Department of Environmental Affairs authorization process and to obtain Tourism Department licensing approval. The issue was that the community mem-

bers needed to raise P15,000 in order to be able to commission a consultant to do the authorization process.⁽³⁾ The Qarin//axo community also needed help with repairing their borehole which was severely damaged by elephants in 2012.

In 2013 serious drought conditions prevailed in the northwestern Kalahari, so the need for technological, management, and other interventions was quite urgent. Under nutrition was a problem in some of the western Ngamiland communities, and colds and flu were affecting some of the people. Some Ju/'hoan families had moved to Qangwa, Mahopa, or the northern part of Dobe in order to seek support from relatives or members of other groups (Albertson, 2013).

In June 2015, people from /Xai/Xai and Makuri in Botswana who were visiting relatives and friends in Tsumkwe, Namibia, said that there were wealthy people who had received ranches in the area between /Xai/Xai and the Okavango Delta who were bringing in hunters from South Africa and other places who were shooting game on the ranches and in the communal areas near the ranches in exchange for sizable payments made to the ranch owners and lessees. This was also said to be the case with both commercial farmers and people who had been allocated rights to communal land in the northern part of Ghanzi District to the south of Ngamiland. The Botswana government, for its part, said that no licenses were being issued to sport hunters in the country.

In order to get an idea of what impacts the presence of private safari companies have had, it is useful to examine the benefits provided to the /Xai/Xai community by safari companies operating there. It is evident that the economic returns to the /Xai/Xai community from joint venture partnerships have varied over time. In 2005, for example, the concessionaire provided the community with P260,000 in fees, including land rental of P20,000, hunting partnership of P100,000, and management of campsites on the part of the trust at P17,000. A total of 15 people were employed, 7 in the trust, and 8 by the concessionaire.

There were 3 community escort guides in /Xai/Xai in 2005. The community trust provided social service assistance including P300 per family for funerals plus transport. The numbers of animals contributed to the community by the JVP in 2005 consisted of 4 gemsbok, 2 kudus, 2 wildebeest, and 4 elephants. In the latter case, some people said that they did not eat elephant meat, but there were others in the community who did. In the period between 2004 and 2012 over P5,000,000.00 was generated by the joint venture partnership, a substantial portion of which went to the North West District Council.

With the cessation of safari hunting except on private (freehold) lands in Botswana in 2014, the /Xai/Xai area will no longer be a hunting concession but instead will be used primarily for photographic and ecotourism safaris. At least 2 companies regularly used the /Xai/Xai area in the period from 2012–2014. These two ecotourism companies (Capricorn and Uncharted Africa) visited /Xai/Xai and employed local community members for a variety of activities, including showing clients about tracking, hunting, taking tourists out to see the identification of and gathering of wild plants, dancing, and manufacturing of tools and crafts.

There is significant interest in the /Xai/Xai area in part because of its proximity to G/wihaba Caves which the current President of Botswana (the Hon. Lt.

General Seretse Khama Ian Khama) has significant interest in both scientifically and culturally. One potential plan is that a large tourism company would get the concession to /Xai/Xai and G/wihaba together and they would bring together local people and a financially well-off company, in line with the government's new land policy in which "people with means" can acquire rights to land anywhere in the country (Republic of Botswana, 2011a). The problem, however, is how the benefit sharing arrangements will be worked out to ensure that the poor in the community get an equitable portion of the funds generated.

A major concern of the people of /Xai/Xai relates to their long-term tenure security in their area. Many of the residents are worried about the trends that they see in NG 3 (the Dobe community trust area) and the NG 4 area (/Xai/Xai and G/wihaba) which involve greater commercialization both of the natural and cultural resources. They are also concerned about the possibility that the government will seek World Heritage Site status for the G/wihaba and other hills with caves and that this could limit their mobility and resource exploitation options.

The presence of mineral prospecting companies in the Aha Hills has resulted in local concerns about what might happen to their area if economically viable mineral deposits are found. There were already rumors to the effect that coltane (Columbite-Tantaline), a highly valuable mineral used in cell phones and computers, had been discovered in the Nyae Nyae region across the border in Namibia, although this has not been confirmed.

The people of /Xai/Xai have been told by district and central government officials and some visitors from private companies that there is a possibility that they may be affected by the new land and wildlife policies of the Botswana government and that some people in western and central Ngamiland may have to move elsewhere (for a list of some of the community trusts in North West District, see Table 11). The people of /Xai/Xai are fully aware that other majority-San communities in North West District, such as Mababe and Khwaai, have been told that they have to move to new places and that that they will be required to operate under different legal arrangements than was the case previously.

As a result of these events, there is tremendous uncertainty about the future in /Xai/Xai and other Ngamiland communities. Government officials have not specified either where people will have to move or what arrangements will be made for facilitating resettlement and the payment of compensation for assets affected by the government's relocation policies.

In 2013, there was a change to the laws regarding gathering veld food. People must apply for permits like they used to have to do for hunting permits. Only one person per household can apply and be granted a permit. Many fear this will change the ways in which gathering is done, especially as gathering is a group job and one that many family and other group members do together. It also has gender implications. It is possible that the new law might make the vegetable foods into more of a commodity. The people being granted the plant gathering permits may opt to obtain plant foods and medicinal plants that would then be sold for money or exchanged.

The Botswana government has guaranteed that subsistence hunters (not San and Herero *per se*) will be allowed the right to obtain subsistence hunting licenses

Table 11. Communities in North West District (Ngamiland) Botswana that have formed community trusts and which have been told that they may either have to move or operate under different arrangements than previously

Name of trust and founding date	Controlled hunting area, size (km ²)	Composition of population, population size	Date of request and project activities
Cgae Cgae (/Xai/Xai) Tlhabololo Trust, 1997	NG 4/9,293 km ² NG 5/7,623 km ² (16,916 km ² total)	Ju/'hoansi San, Herero (Mbanderu), 500 people, 1 village	Leasing out of portion of quota, crafts, community tourism
Dobe Community Trust, 1999	NG 3/5,760 km ²	Ju/'hoansi San, Herero (Mbanderu), 120 people, 1 village	Leasing out of portion of quota, crafts, community tourism
Jakotsha Community Trust, 1999	NG 24/530 km ²	Mbukushu, Herero and G//anikwe San, 10,000 people, multiple villages	Community tourism, <i>makoro</i> (canoe) poling, basketry and other craft sales
Khwai Development Trust (KDT), 2000	NG 18/1,815 km ² , NG 19/180 km ²	Bugakwe San, Tawana, and Subiya, 360 people, 1 village	Ecotourism, craft sales, work at safari lodge, Tsaro, and leased out hunting quotas to a joint venture partner
Mababe Zukutsama Community Trust, 1998	NG 41/2,045 km ²	Tsegakhwe San, 400 people, 1 village	Ecotourism, leased out some of the hunting quota to a safari company
Okavango Community Trust (OCT), 1995	NG 22/580 km ² NG 23/540 km ²	Bugakwe, Wayeyi, Mbukushu, G//anikwe, Geiriku, Batawana, 2,200 people, 5 villages	Safari hunting and photo-based tourism
Okavango Kopano Community Trust (OKMCT), 1997	NG 32/1,223 km ²	Bugakwe San, Wayeyi, Mbukushu	Community tourism, craft sales, natural resource marketing
Teemashane Community Trust, 1999	NGs 10 & 11/ca. 800 km ²	Mbukushu, Wayeyi, Bugakwe San, G//anikwe San, 5,000 people	Community tourism, campsite, cultural trail, craft sales, <i>makoro</i> poling
Tceheku Community Trust, 2003	NG 13/2,750 km ²	Khwe San, Mbukushu, 2,000 people	Community tourism, campsite, cultural trail, craft sales
Tsodilo Community Development Trust (TCDT), 2006	NG 6/225 km ²	Mbukushu, Ju/'hoansi San, 250 people	2012 rock art guiding, community tourism, craft sales

Note: NG stands for Ngamiland, JVP stands for Joint Venture Partner. Data compiled by R. Hitchcock based on fieldwork, 1995–2013.

(Special Game Licenses) in Botswana even under the new hunting ban. This was made clear in speeches by President Seretse Khama Ian Khama in his State of the Nation Address in November, 2013, and by his brother, the Minister of Environment, Wildlife, and Tourism (MEWT) Tshekedi Khama when the ban was

announced in September 2013 at the end of the hunting season.

The formal announcement of the hunting ban in Botswana was made on 14 January 2014 (Republic of Botswana, 2014). Thus far, no Special Game Licenses have been allocated to any subsistence hunters in Ngamiland or anywhere else in Botswana. It was discovered, however, that the Department of Corruption and Economic Crime was looking into actions of leaseholders in Ngamiland who were allowing individuals from outside of the country to hunt on their leasehold property in exchange for cash. As of November 2014, nobody had been arrested by the police or game scouts of the Department of Wildlife and National Parks for either hunting or for taking funds for allowing recreational and commercial hunters to operate in their areas in Botswana.

CONCLUSIONS

There are a number of lessons that can be drawn from the experience of the /Xai/Xai people with CBNRM. First of all, with respect to the assumptions of CBNRM outlined at the beginning of this article, it was found that while the assumptions largely hold, the crucial issue is whether governments follow through on their promises to allow local communities to keep the benefits that they generate. Second, governments in southern Africa and elsewhere, including Kenya, Tanzania, Zambia, and Zimbabwe, have a tendency to favor district councils, private companies, or NGOs when it comes to control of some of the benefits generated by CBNRM (Neumann, 1998; Ohenjo, 2010; Marks, 2014; Hitchcock, et al., 2014).

One way to measure the impacts of biodiversity conservation is to look at whether or not the impacts were positive or negative in terms of community income and household income and subsistence (Roe et al., 2013). Judging from data on the income generated by the /Xai/Xai (Cgae Cgae) Community Trust, the income increased over time. The degree to which community members received benefits, however, appears to have declined over time except in terms of direct employment by safari companies and government. One of the complaints of /Xai/Xai community members was that the involvement of some individuals with ecotourism and the community trust was that people in some households were doing less agricultural, livestock, foraging, and craft-related work. While the data on household subsistence and income at /Xai/Xai over time is variable and in some cases problematic, it does appear that some households in /Xai/Xai were living below the poverty datum line and that at least some families were worse off in 2013–2014 than they were a decade before.

Another way to assess the impacts of the establishment of community-based conservation and development organizations such as the /Xai/Xai Tlhabololo Trust is to look at the effects on the behavior of the residents of the communities involved. If one assesses the numbers of people who engage in hunting, for example, there were fewer people hunting in 2014 than was the case in the past. At the same time, the numbers of wild animals, they said, were on the decline, in part, they said, because of adverse environmental conditions, especially in the

drought period of 2012–2013. It was also suggested that the construction of veterinary cordon fences, such as the Setata Fence, and the building of fences around ranches that were designated as commercial by the central government and the Tawana Land Board were having impacts on wildlife numbers. The Botswana government and Namibian government wildlife personnel were monitoring the /Xai/Xai and Nyae areas in 2015, looking for signs of people crossing the border and engaging in illegal hunting.

The /Xai/Xai experience has demonstrated that there are a number of conditions that must exist if sustainable development, environmental conservation, and equity are to be achieved in community-based natural resource management projects. Communities must have the decisionmaking power and authority to undertake projects and conservation activities that they deem necessary. Local institutions should be self-governing, and members should have a significant voice in the operations of those institutions. Crucial to the success of a community-based organization are transparency, openness, and flexibility. Also crucial in the operations of community trusts is careful financial management.

Working at the rhythm of communities is critical in local development. Community-based organizations and NGOs must set their own priorities and mobilize themselves to achieve those priorities. There must also be a willingness of national and district-level institutions to devolve power and authority to local authorities, and provide support, in the form of formal and informal recognition, of community-based institutions and their leaders.

Careful attention must be paid by people working with community-based organizations to the ways that governments and the private and non-government sectors treat specific groups (e.g., indigenous minorities or people who are perceived as being non-citizens or those who are “outside the universe of obligation.” If it is determined that there are biases in the ways that groups are treated, efforts must be made to rectify the situation so that all actions are equitable and that they do not either favor or harm specific groups. Equity and fair treatment are keys to successful development and natural resource management.

Community-based natural resource management is a time-consuming and labor-intensive process. Agencies and individuals at all levels must be willing to be patient and to work collaboratively with local people. At the same time, mechanisms must be put in place that foster accountability and responsibility and not just participation. The management and administration systems should not be overly complex from an organizational standpoint. In addition, capital and technical inputs must be planned in such a way that they do not overwhelm the capacity of local institutions to cope with them.

The /Xai/Xai case revealed that natural resource management and governance regimes must take account of diverse interests. In order to ensure that this is done, it is necessary to conduct baseline social, economic, and political assessments of communities that focus on gender, age, power, and class characteristics. Individuals and groups working with community-based organizations should pursue activities that are beneficial and equitable to as wide a number of people as possible. Alternatively, they should develop a diverse array of activities that meet

the needs of a variety of groups or sets of individuals in the community. Such activities should include diverse livelihood strategies such as agriculture, livestock management, and fishing (where possible), in addition to ecotourism.

In the case of /Xai/Xai, there is a mixture of an egalitarian social system (that of the Ju/'hoansi) with a more hierarchically organized one (that of the Herero, which has local and group-wide chiefs). If one is to be successful in ensuring that these different kinds of systems work in cooperation and not in competition, efforts must be invested in ensuring that conflict resolution mechanisms are in place and that the playing fields are as even as possible no matter how the social systems are organized. One of the difficulties faced by the /Xai/Xai Trust over time was the tendency for people in the trust board to capture a fairly sizable portion of the benefits from the trust's activities for themselves; this elite capture of resources is a major difficulty facing CBNRM projects through southern Africa.

If it is to be successful, the devolution of authority must be done through negotiation and interaction, rather than through statutory mandate and the imposition of strict rules and conditions. A participatory and openly consultative set of strategies works well in many contexts, including those involving natural resource management. A protectionist and top-down approach to natural resource management has its drawbacks, in part because it leads to people distrusting central government authorities, and the loss of access to resources for some if not many community members. There was concern in /Xai/Xai about government's plans to expand the number of protected areas in western Ngamiland and to declare areas World Heritage Sites, especially in light of the experience of the people of the Tsodilo Hills, which was declared a World Heritage Site in 2001 (Giraud, 2011) and more recently, the Okavango Delta which was made a World Heritage Site in June, 2014. The Department of Wildlife and National Parks, the Ministry of Agriculture, and other government agencies would be well-served to employ a community-oriented approach in which game scouts and agricultural extension officers work closely with local people and provide training and assistance rather than focusing attention on catching "poachers" or sanctioning people for setting fire to the bush. People respond more positively to incentives than they do to disincentives including arrests and confiscation of their goods, as occurred in /Xai/Xai in 1995 (see Hitchcock et al., 1996: 177–178) and in other parts of Botswana.

Another valuable lesson of the /Xai/Xai case is that people who have chosen to initiate their own programs can have positive impacts on conservation and development as long as they are in control of planning and decision-making. It is clear that the assumption is not supported that the state will necessarily allow local communities to retain the funds that they generate through CBNRM projects, at least in the case of /Xai/Xai and other communities in Ngamiland and in Zimbabwe. Community members can also not necessarily rely on the community trusts in Botswana or the conservancy councils in Namibia to spread the benefits to everyone in the community on a regular basis. An examination of the various CBNRM projects that were implemented over the past several decades in southern Africa (see Table 12) reveals that some programs were more successful than others (Dressler et al., 2010; Nelson, 2010; Roe et al., 2013).

Table 12. CBNRM projects in Southern Africa

Country or region	Program	Agencies	Cost, comments
Southern African Development Community (SADC) (Malawi, Botswana, Zambia, and Zimbabwe)	Regional Natural Resources Management Project (690-0251)	U.S. Agency for International Development (USAID), Governments of Botswana, Malawi, Zambia, Zimbabwe	US\$32,133,000 (1990–2002)
Botswana	Community-Based Natural Resource Management Program	SNV (Netherlands Development Organization) and IUCN (World Conservation Union)	US\$3,000,000 (2000–2007)
Botswana	Botswana Natural Resources Management Project (NRMP)	U.S. AID, Department of Wildlife and National Parks (DWNP), Government of Botswana	US\$28,500,000 (1990–1999)
Namibia	Biodiversity Management and Land Support Program (BMLSP)	GIZ and GRN Ministry of Agriculture, Water, and Forestry	US\$11,000,000 (2009–2012)
Namibia	Living in a Finite Environment (LIFE) Project, 690-0251.73	U.S. AID and Government of Namibia (GRN)	US\$17,800,000 (1992–2002)
Namibia	Millennium Challenge Corporation (MCC) Compact with Namibia Ministry of Environment and Tourism (MET)	31 communal conservancies in northern and central Namibia, WWF US implementer	US\$30,000,000 (2011–2014)
Zambia	ADMADE (Administrative Management Design)	World Wildlife Fund (US) and Zambia National Parks and Wildlife Service	US\$7,000,000 (1989–1996)
Zimbabwe	Communal Areas Management Program for Indigenous Resources (CAMPFIRE)	USAID, Worldwide Fund for Nature, Zimbabwe National Parks and Wildlife Management Authority	US\$20,000,000 (1992–2002)

Note: Data obtained from southern African governments, donor agencies, and conservation and development organizations.

It is clear from the data presented in Table 12 that a sizable amount of investment has been made in CBNRM projects in southern Africa over the past three decades.

Garner (2012) declared the CBNRM activities at /Xai/Xai to be unsuccessful in terms of promoting conservation and development. Galvin & Reid (2014), in their assessment of a Samburu conservancy in Kenya, said that the CBNRM activities met the needs of people, livestock, and wildlife. Most of the assessments of communal conservancies in Namibia indicate that some conservancies do relatively well (e.g., Nyae Nyae) while others are struggling (Biesele & Hitchcock, 2013; Nyae Nyae Development Foundation of Namibia, Ministry of Environment and Tourism, Millennium Challenge Account-Namibia, personal communications, 2013, 2014).

It is evident from the Africa-wide experience that CBNRM programs must operate in such a way that benefits are widely distributed instead of going to a few people. Interviews in /Xai/Xai revealed that some people in the community felt that the /Xai/Xai Trust has not been as successful as it might have been. The interview also indicated that more attention needed to be paid to benefit distribution issues and wider circulation of jobs with the trust. One of the biggest concerns of trust members in 2014 was that with the changes in government policies toward communities, the trusts would either become defunct or that they would be unable to meet their financial needs to be able to pay trust board members or to fund community projects. Some /Xai/Xai community members called for the Botswana government to provide funds to community trusts.

While there were hopes that having a community trust and a wildlife quota from the Department of Wildlife and National Parks would lead to further developments, the numbers of new jobs and sources of subsistence and income at /Xai/Xai have been limited. One of the objectives of the /Xai/Xai Trust was to gain rights over grazing and timber, along the lines of the community forests in Namibia, as can be seen in the community established in 2008 in the N/a Jaqna Conservancy and in 2012 in the Nyae Nyae Conservancy (Hitchcock, 2012b; Biesele & Hitchcock, 2013). Enhanced rights over plant resources have not materialized in /Xai/Xai. As a result, some local people feel that the state is in control and that the government is more interested in generating money for private companies than it is in developing the communities in remote areas.

There were a number of challenges that the Cgae Cgae Tlhabololo Trust faced, not least among them the uncertainty of what would happen to them as a result of the Botswana government's hunting ban and the changes in the way that the government was dealing with community trusts. By the end of 2014, it was apparent that the government and the North West District Council and Land Board were not as supportive as they had been in the past of community trusts (Hoon, 2014). One of the problems was that areas in western Ngamiland which had gained leasehold status under Botswana's Revised Land Policy (Republic of Botswana, 2011b) were being used for commercial hunting purposes, with the leaseholders allowing foreign hunters to hunt on their land in exchange for fees ranging from US\$5,000–US\$20,000. Community trusts like /Xai/Xai were not allowed to have joint venture partners who engaged in safari hunting, only photographic tourism.

Significant issues included gaining, through a fair and transparent bidding process, a joint venture partner who was willing to work cooperatively with the community, ensuring that the joint venture partners, some foreign-owned, did not take advantage of the local community by requiring that they honored their agreements, for example, by providing the community trust members with agreed-upon royalties and benefits, and ensuring transparency of the community trust and of the joint venture partners. Another issue that faced the people of /Xai/Xai and their neighbors was the fact that the government of Botswana had established tourism facilities at G/wihaba which were dedicated formally by the President and the Minister of Environment, Wildlife and Tourism on December 19, 2014 (Mmolai, 2014). People learned of plans on the part of the government to allow

a private company to establish a lodge there, with no consultation with the Cgae Cgae Tlhabololo Trust or arrangements for benefit-sharing. The expansion of leasehold farms, tourism, and mining in the western Ngamiland area posed serious challenges for the people of the /Xai/Xai-G/wihaba region, who called for investigations by the government's Directorate on Corruption and Economic Crime regarding the ways in which leases for communal land and for tourism areas were being allocated.

It is clearly in the best interests of local communities if the state and other agencies recognized those communities officially as proprietary units with *de jure* rights over land, wildlife, veld products, minerals, and other natural resources over which they maintain legal control in perpetuity. The devolution of authority, responsibility, and power to people in most direct contact with natural resources could well have the effect of enhancing biodiversity conservation and development. This can only take place if community members have the right to make informed decisions about how they wish to handle those resources over the long term and at the same time have the responsibility for their control.

ACKNOWLEDGEMENTS Support of the research upon which this paper is based was provided by the Remote Area Development Program of the government of Botswana, the Norwegian Agency for International Development (NORAD), the U.S. Agency for International Development (USAID), the Biodiversity Support Program (BSP), the Natural Resource Management Project (NRMP), the IUCN (World Conservation Union), and the Max Planck Institute for Social Anthropology. We would like to thank SNV Botswana, the IUCN Botswana CBNRM Program, the Remote Area Development Program, the Department of Wildlife and National Parks, the Tawana Land Board, the North West District Council, and the International Work Group for Indigenous Affairs (IWGIA) for support of this work. Permission to carry out the research was provided by the Office of the President of Botswana and by the then Ministry of Local Government and Lands. Charles Motshubi, Rosinah Masilo-Rakgoasi, O.T. Thakadu, Sedia Modise, Joseph Mbaiwa, Tsamkxao #Oma, Leon Tsamkxao, Khao Ghauz, Ketsile Molokomme, Nick Winer, Polly Wiessner, John Yellen, Alison Brooks, Aron Crowell, Axel Thoma, Magdalena Broermann, Richard Lee, Megan Biesele, Stuart Marks, Job Morris, Larry Robbins, Michael Murphy, Mabuse Abel Abdenico, Grace Mabuse, Jim Ebert, Arthur Albertson, Sandi Robertson, Michael Painter, Sonia Arellano-Lopez, Lara Diez, Wendy Viall, Maitseo Bolaane, Ben Begbie-Clench, Ted Scudder, Chris Sharp, Megan Laws, Willemien LeRoux, Alan Osborn, Rachel Giraudo, Parakh Hoon, Melinda Kelly, Robert Kelly, Patricia Draper, Diana Vinding, the late Alec Campbell and the late Braam LeRoux provided useful information, updates, and critiques on this work. Edwin Ruigrok and Tineka Alons were of enormous help in the field, as were Michael Painter, Sonia Arellano-Lopez, and Rosinah Masilo-Rakgoasi in 1995, when some of the demographic, hunting, gathering, and natural resource management data were collected for this study. We thank the people of /Xai/Xai and of Ngamiland for their hospitality and all their support. We would also like to thank the reviewers of this article and the editorial staff of African Study Monographs for their comments, criticisms, and recommendations.

NOTES

- (1) /Xai/Xai is also known as Cgae Cgae, /Kai/Kai, /Kae/Kae, and XaeXae.
- (2) The Pula at the time was worth 3.54 Pula to US\$1.00.
- (3) The Pula in May, 2013 was worth 8.16 Pula to US\$1.00.

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