



Linking Local Perceptions of Elephants and Conservation: Samburu Pastoralists in Northern Kenya

RENEE KURIYAN

Save the Elephants
Nairobi, Kenya, and
Woodrow Wilson School of Public and International Affairs
Princeton University
Princeton, New Jersey, USA

This article examines the development and implementation of a grass-roots elephant conservation program based upon the Samburu people's perceptions and knowledge of elephants in the areas surrounding the Samburu and Buffalo Springs National Reserves in northern Kenya. Ethnographic methods were used to understand these perceptions and demonstrated that strong customs and traditions for conserving wildlife, particularly elephants, exist among the Samburu people. It became evident that these customs are changing, given various factors influencing Samburu culture and younger generations. The use of economic incentives is a widely accepted method to foster positive attitudes and behavior toward wildlife. The value of using ethnographic methods to reinforce positive indigenous knowledge about wildlife, however, is underestimated. This case study highlights the significance of using ethnographic methods in community conservation program design. The article demonstrates that in local contexts where cultural perceptions and traditions toward elephants are largely positive, this is a viable approach for community-based wildlife management that is complementary to economic incentives programs.

Keywords communities, community-based wildlife conservation, East Africa, local knowledge

Community wildlife conservation programs have been based traditionally on the premise that humans and wildlife have conflicting existences and that monetary incentives can ameliorate these relations or modify behavior (Child 1996; Western 1994; Metcalfe 1994; Bromley 1994; Hulme and Murphee 1999, Barnes 1996). One

Received 4 April 2001; accepted 28 January 2002.

The Thomas J. Watson Foundation and Save the Elephants provided funding for this project. Many thanks to the Office of the President; Kenya Government, Kenya Wildlife Service Partnership Program, and Elephant Program; and Samburu and Buffalo Springs County Councils. The author thanks Iain, Oria, and Saba Douglas-Hamilton; Sammy Lemantampash, Wainaina Kimani, Jessica Higgenbottom, Onesmas Kahindi, David Daballen, Njoki Kibanya, the Hon M. M. and Patricia Awori, and the Samburu people. Thanks to P. Lee, S. Gillingham, M. Ezzati, D. Napier, R. Duke, and D. Kammen for input on the article. Special thanks to George Wittemyer.

Address correspondence to Renee Kuriyan, Box 54667, Nairobi, Kenya.
E-mail: rkuriyan@africaonline.co.ke

example is the CAMPFIRE program in Zimbabwe, which aims to enable grassroots institutions to earn revenue from wildlife in order to provide incentives for conservation (Child 1996). Other programs assert that local resource users must view wildlife as having economic values that outweigh the costs that they impose (Hulme and Murphee 1999; Barnes 1996; Thouless 1994).

While the use of monetary incentives in wildlife conservation aims to remedy contentious relations, there is a danger that relying solely on such incentives can create new relationships of economic dependency and unsustainable expectations for compensation to tolerate wildlife. In the process of defining community areas of wildlife conflict, conflict interactions may be routinized and naturalized (Brosius 1999).¹ There is also a risk in defining concepts such as “conflict” or “community” without regard to the local context or political implications (Brosius et al. 1998). Although these concepts are useful in promoting conservation and local empowerment, they are fragile, mutable, and highly variable. An awareness of changing contexts within which programs are designed and implemented is essential (Brosius et al. 1998; Kleymeyer 1994).

In the Samburu District, in northern Kenya, local people have demonstrated a value for wildlife, particularly elephants, for reasons not solely based on economics. Ethnographic information was gathered to understand the dynamic relationship between the Samburu pastoralists and elephants. It became evident that strong customs and traditions for conserving elephants exist among the Samburu people. However, these traditions are changing, given the various factors influencing the Samburu people and their younger generations. While acknowledging the fragility of indigenous practices and changing behavior toward wildlife, Samburu customs and perceptions of wildlife were utilized in the design of an elephant conservation program.

Traditionally, economics has received more attention as a tool to describe and modify human behavior towards wildlife than ethnography. The program described here uses ethnographic methods in community conservation program design and does not limit local involvement in conservation strictly to economic benefits or compensation. Ethnographic methods are defined hereby as the gathering of information regarding local knowledge pertinent to the cultural perceptions on a particular topic, like elephants. It is based on the principle that cultural mechanisms are resources that can be used to facilitate changes in human perceptions towards the environment. This builds on the idea that customs and patterns maintain a dynamic process of creative invention and reinvention, lending itself to a strategy of reviving cultural forms and traditions to effect and serve change (Kleymeyer 1994). This program aims to reinforce positive customs and perceptions of wildlife in order to foster tolerant attitudes toward elephants through a two-way system of education, involvement of local people in conservation and research, and small incentive projects.

The Local Context for the Program

The grass-roots program for the organization Save the Elephants targeted the Samburu communities in the areas surrounding the Samburu and Buffalo Springs National Reserves. The Samburu District, in the northern half of the rift valley in Kenya, is a semi-arid area comprised of communal lands inhabited by Samburu pastoralists (Republic of Kenya 1997). The Samburu people, Maa speakers, are found in the areas stretching north from Mt. Kenya to Mt. Kulal on the eastern side of Lake Turkana (Spencer 1965; Wilson 1989). The Samburu District has two

local authorities, the Samburu County Council and the Maralal County Council (Republic of Kenya 1997).

The Samburu County Council established the Samburu National Reserve in 1962. In 1963, the Isiolo County Council gazetted the Buffalo Springs National Reserve, an adjoining area south of the river (Wilson 1989). These two national reserves are approximately 330 km². There are about 750 elephants that have been identified to use the reserves. However, the numbers of elephants within these protected areas fluctuate constantly, since the elephants are free-ranging and require a greater area than the demarcated reserves (Wittemyer 2001). Thus the elephants spend a significant amount of time on community lands. Tourism from wildlife viewing creates a source of income and employment for local people and the two district governments. More than 90% of the total revenue of the Samburu County Council comes from the reserve (Republic of Kenya 1997).

Pastoralism is the main economic activity within the Samburu District, with approximately 80% of the population holding livestock (Republic of Kenya 1997). The context of pastoralism has been changing with increases in human and livestock populations, expansion of agriculture, political insecurity, market dependence, and wealth differentiation. As a result, pastoral groups are increasingly marginalized and impoverished (Western 1994; Galaty 1981). These groups have had to adapt their way of life and resource management practices to a new and changing environment (Hogg 1985; Dyson-Hudson 1972; Western 1994).

Although the pastoralist livelihood has sometimes been regarded as a threat to the conservation of wildlife due to the overgrazing of wildlife lands, studies indicate that pastoralists generally maintain sustainable relationships with their environment (Collett 1987; Reid and Ellis 1995). It is critical, however, not to idealize or romanticize the practices of indigenous people as having a higher environmental ethic than that of the industrialized world (Kleymeyer 1994). Consequently, Samburu relationships with wildlife are dynamic and influenced over time by various factors, such as droughts, decreasing grazing lands, political instability, modernization, and human encroachment on traditional wildlife lands.

Human–Elephant Interactions

Recent human encroachment into elephant habitat throughout the Samburu District and competition over resources has caused periodic conflict between the two species. Conflicts are primarily over access to water during drought years. The Ewaso Ngiro is the primary source of permanently flowing water in the Samburu District. During the dry seasons or when the seasonal rains fail, the Samburu people and elephants must dig wells in the sand rivers and use small dams and springs to access water. In the attempt for humans and elephants to attain water simultaneously, elephants may chase or even kill cattle (Thouless 1994). The exact numbers of cattle killed per year are difficult to assess because local people have little incentive to report cattle deaths since they do not receive compensation from the Kenya Wildlife Service (Kenya Wildlife Service 2000).

In some areas of the Samburu District, elephants also present a danger to people who are herding cattle or walking in thick bush with occasional human deaths (Thouless 1994). Compensation for the loss of human life by wildlife is a contentious issue since it is difficult to place monetary value onto human life. Local people have commented that the current payment by the Kenya government is inequitable

because it is insufficient to pay for funeral expenses, hospital bills, or costs for surviving children (Kenya Wildlife Service 2000).

Although human deaths due to wildlife have devastating implications for low-income families, the risk of being killed by an elephant is low compared to other causes of human deaths in Kenya. Between 1989 and 1994, 230 people were reported to be killed by all wildlife in Kenya (Kenya Wildlife Service 2000). This compares with 1500 Kenyans reported to be killed each year due to public transportation accidents and 26,000 Kenyan children who die from malaria each year (Van Marsh 1999; Malaria Foundation 2000).

There are several human causes that lead to elephant mortality, including poaching for ivory or meat, problem animal control, ritual hunting, and sport hunting (Kangwana 1996; Barnes 1996). Aerial surveys of the Samburu/Laikipia population in 1999 were used to determine the proportion of dead elephants to the total population. The results of the aerial survey indicate that elephant mortality occurred in Samburu but was relatively low (King et al. 1999).

Application of Local Perceptions in Program Design

Basic ethnographic information about perceptions of elephants was collected in the Samburu District. Information from interviews, such as local strategies, legends, and stories, became tools in the program design to reactivate the fading indigenous knowledge about wildlife and to incorporate Samburu beliefs into conservation objectives. Qualitative methods were used, such as participant observation, informal interviews, and group discussions with various social delineations within Samburu society, specifically elders, men, women, warriors, and youth. This was also a useful channel for education, as participants learned from each other. Logical Framework Analysis (LFA) techniques were utilized at the onset of the project, and group discussions took approximately 2 h each. After the participants identified their problems, they proposed strategies they believed would be most effective to alleviate them (Table 1).

TABLE 1 Logical Framework Analysis, Summary of Results of Logical Framework Analysis: Human–Wildlife Relations

Problems identified by the Samburu	Identified solutions
Tribal clashes/cattle rustling	Increased communication with Kenya Wildlife Service (KWS) Reduce illegal arms in the area Increase security
Human deaths caused by wildlife	KWS compensates for human deaths
Lacking compensation	KWS compensates for cattle and goats
Water sources are needed	Build boreholes and water sources
KWS doesn't respond to reports	Increase communication with KWS Increase opportunities to be involved in conservation
Loss of culture	Conservation education for youth Need outside support to preserve culture

The strategies from the LFA, which the Samburu participants prioritized, broadly encompass issues of security and compensation in various forms. Water is a desired resource, since most of the Samburu areas are semi-arid (Republic of Kenya 1997). Most of the participants indicated that boreholes could relieve their conflicts with wildlife. The Samburu participants, particularly the elders, asserted that the loss of traditions is a problem that will affect the relationship between the Samburu and wildlife. The elders indicated that many of the cultural beliefs and traditional Samburu customs regarding wildlife are changing as a result of the introduction of western education, the influx of weapons into the region, decreasing grazing areas, and economic development programs. They asserted that disparities are forming between more traditional customs and their influence on daily actions, making the dissemination of such values to younger generations difficult. Additionally they expressed the need for more conservation education for youth, as younger generations did not understand the importance of wildlife to the same degree as the older generations.

The LFA discussions with the women's groups illustrated changing attitudes toward wildlife. They asserted that wildlife has important cultural significance to the Samburu. They indicated, however, that because of tribal clashes, insecurity in the Samburu area, and widespread poverty, the youth have more incentives to kill wildlife for quick economic profits. Also, as more Samburu children begin to attend and walk to schools, the women fear that wildlife will present greater safety problems for their children in the bush. They expressed that since their children largely do not understand the cultural or economic importance of wildlife as they spend more time away from their homes, wildlife education, as well as jobs in the wildlife industry, becomes more necessary for the youth.

The proposed local solutions such as education initiatives for youth and support for cultural traditions became priorities for the grassroots program from its inception. Other solutions such as the construction of boreholes were not in accord with the general objectives of the conservation organization under which the program was implemented nor financially feasible.

With the collection of ethnographic information, it became apparent that strong knowledge of elephants exists, which influences behavior towards these animals. The relationship between the Samburu and elephants is influenced by various costs and benefits that elephants bring to people, as well as cultural perceptions of the species. As described before, general costs are occasional conflict over water and human or cattle deaths caused by elephants. The Samburu expressed that elephants benefit those who live among them, since they create paths to water, dig dams, and break branches that people can use for firewood. The Samburu respondents stated that there are many similarities between humans and elephants since elephants have a trunk that acts like a human arm, breasts similar to women, and skin that resembles human skin. Consequently, certain taboos exist that prohibit the killing or eating of elephants.

Other ethnographic information included a Samburu legend that links people to elephants based on the principle that elephants once lived in Samburu homes and worked closely with women.² The elders, women, and youth asserted that the legend represents the closeness and familiarity that exists between the Samburu and elephants. It also describes the cause of the current separation between the two species and indicates that the Samburu must use caution when approaching elephants. The legend demonstrates that elephants are considered to be ancient "relatives" of humans, and thus command much respect among the Samburu.

Samburu traditions entail various uses of elephant dung, including symbolically burning it during wedding ceremonies in the homes of newlyweds. The smoke from elephant dung acts as a blessing for newly married couples and brings them good luck when they enter their new homes. Another use of elephant dung includes the burning of dung as a form of mosquito repellent.

Further evidence of the closeness between Samburu people and wildlife exist within the structure of their clans. The Samburu people are divided into clans that are structured around different species of wildlife, one of which is elephants. Members of the elephant clan, known as the Lukumai clan, must engage in specific rituals when passing elephants in the bush. For example, when a member of the Lukumai clan meets an elephant while walking in thick bush, custom requires the person to throw dirt in the direction of the elephant to see whether the person is able to pass. Once the elephant responds and throws dirt in the direction of this clan member, the person is safe to pass without fear of the elephant. But if the clan member is not careful to allow the elephant time to see the person first and throw dirt into the air, then the member of the clan must walk cautiously and in fear.

Finally, practices of blessing dead elephants are conducted in a similar manner to the practices the Samburu use to pay homage to their deceased. In the Samburu culture, people respect the deceased by placing small items such as tobacco, milk, beads, and green branches of trees onto their graves. In a similar manner, when the Samburu see elephant carcasses or remains, they place green branches onto the elephant's grave. Placing such branches on either a human or an elephant is a symbol of honor and respect.

This ethnographic information served as the foundation for the community conservation program.

Implications for Program Activities

In designing the elephant conservation program, the strategy was to incorporate some traditional beliefs and perceptions of elephants within the more modern Samburu structures and contexts, such as in the Western education system. For example, the conservation program described here attempted to incorporate Samburu stories and customs into a wildlife education program focused on schools and local villages, which was disseminated in the form of a teacher's guide (Kuriyan 1999). Also, a small booklet distributed to schools and community members illustrates the Samburu beliefs about elephants, their legends, and myths (Kuriyan 1998). The publication explores Samburu traditions involving elephants and personal experiences of community members that reflect a positive relationship with the species. This allowed stories that were once passed on in oral tradition to be reactivated within the Kenyan education system.

Further activities within the school system included the creation of the first ever film in the Samburu language that was based on the Samburu legend linking elephants with Samburu women. The film used local materials and Samburu actors to ignite an intellectual interest in elephants and promote a conservation message. The film provoked much laughter, entertainment, and positive responses about passing on old stories to the young.

Another objective of the grass-roots program is to involve local people in conservation and research. The organization uses radio collars to track elephants in order to research their movements, and in turn to understand elephant needs (Douglas-Hamilton 1998). Part of the education program in the Samburu District

was to interest local people in elephant research by teaching them about radio collars, with explanations about the importance of radio collars to elephant conservation. Based on the interest of the Samburu youth to see these “necklaces” for elephants resemble their own beaded necklaces, a radio collar beading workshop was organized as a one-time event to involve local people in research. Samburu women were employed to decorate a radio collar with their traditional beadwork and patterns.

After the workshop, these 10 Samburu women as well as 20 other community members from various sectors of society were invited to engage in the actual radio collaring process and the monitoring that follows. After much interest in approaching an elephant at such a close proximity, participants assisted researchers in attaching a radio collar to an immobilized elephant. The Samburu participants returned to their respective vehicles and watched the bull elephant successfully stand up wearing the beaded radio collar. Following the radio collaring operation, a debriefing session was held to elucidate the reasons for radio collaring elephants and the significance for conservation. This project was filmed with the objective to document the event in order to educate and interest other Samburu people in the region.

The unique aspect of this radio collaring event was that it combined small-scale economic incentives with cultural pride and a local myth in order to involve the Samburu people in elephant conservation and research. The women benefited from the small employment opportunity through the beading workshop and asserted their pride in having an elephant adorned with their beadwork. The Samburu participants exhibited a genuine interest in participating in the collaring operation and research. For months following this activity, they continued to inquire about the whereabouts of this elephant and inform researchers when they observed the bull in the bush.

Local systems of knowledge about wildlife and conservation have existed throughout the African continent in the past (Metcalf 1994). For example, research illustrates positive cultural traditions about wildlife in pastoralist contexts, like the Maasai in the Amboseli area in Kenya (Kangwana 1993). Thus, there is the potential for replicability for other conservation or research programs in local contexts where cultural traditions towards wildlife are largely positive. However, replicability may be constrained in other local contexts less conducive to engendering positive images and cultural perceptions of elephants, depending largely on the primary economic activity and culture of the people involved. Replicability may be particularly inhibited in agricultural contexts that involve extensive wildlife crop raiding, the loss and damage of crops, and/or damage of forest plantation trees.

Conclusions

The use of economic incentives is a widely acceptable method to affect behavior and perceptions of local people towards wildlife positively. This article emphasizes that an ethnographic approach is a complementary, often underestimated option that can be used with economic incentives to initiate conservation measures and to promote positive behavioral changes towards wildlife.

The Samburu District represents a successful example of how to involve local people, who have a cultural inclination to tolerating elephants, in elephant conservation and research. In a region where firearms are readily available and poaching affects the elephant populations, the involvement of local people in conservation is of paramount importance. This grass-roots awareness program explores the

perceptions of the Samburu people who live with wildlife and applies this information in the promotion of local interest in wildlife. Throughout its implementation, it became evident that cultural tools, such as legends, myths, and tribe-specific customs about wildlife, can interest local people in conservation. However, the program acknowledges the potential risks involved in trying to interpret and record local knowledge and in disseminating it through a community conservation program (Brosius 1999, Baines 1989).³ In light of the dynamic nature of culture, such a program must be continually reexamined and revamped to account for and to incorporate changing perceptions and influences that affect culture and the significance of elephants to the local people. This approach has implications for the design of other community-based natural resource management programs to help foster positive attitudes toward wildlife.

Notes

1. This refers to the premise that discourse is important and constitutive of realities. Brosius (1999) emphasizes the importance of the vocabulary used to frame engagements with environmentalism.

2. According to legend, the elephant used to live in the Samburu village and assisted the women as a servant. The elephant shared the duties of the women, including gathering firewood for the home. As a result of an altercation between a woman and the elephant over the size of the wood it was gathering, the elephant became offended and stopped living with the Samburu people. The elephant warned as it left the Samburu village that elephants could no longer live with the Samburu and that they must be careful when passing elephants in the bush. The Samburu woman also warned that the elephant should take care when seeing Samburu people in the future.

3. Since traditional knowledge can rarely be found in written form, risks such as differences of perception, values, and language between those who hold traditional knowledge and those who wish to document and apply it are significant and could influence the recording process (Baines 1989).

References

- Baines, G. 1989. Conclusion: Issues in the application of traditional knowledge to environmental science. In *Traditional ecological knowledge: A collection of essays*, ed. R. E. Johannes. Gland: International Union for the Conservation of Nature.
- Barnes, R. F. W. 1996. The conflict between humans and elephants in the Central African forests. *Mammal Rev.* 26:67–80.
- Bromley, D. 1994. Economic dimensions of community-based conservation. In *Natural connections: Perspectives in community based conservation*, eds. D. Western and R. M. Wright, 428–447. Washington, DC: Island Press.
- Brosius, J. 1999. Anthropological engagements with environmentalism. *Curr. Anthropol.* 40:277–309.
- Brosius, J., A. Tsing, and C. Zerner. 1998. Representing communities: Histories and politics of community-based natural resource management. *Society Nat. Resources* 11:157–168.
- Child, B. 1996. The practice and principles of community-based wildlife management in Zimbabwe: The CAMPFIRE Programme. *Biodiversity Conserv.* 5:369–398.
- Collett, D. 1987. Pastoralists and wildlife: Image and reality in Kenya Maasailand. In *Conservation in Africa: People, policies and practice*, eds. D. Anderson and R. Grove, 129–148. Cambridge, UK: Cambridge University Press.

- Douglas-Hamilton, I. 1998. Tracking African elephants with a global positioning system (G.P.S.) radio collar. *Pachyderm* 25:81–92.
- Dyson-Hudson, R. 1972. Pastoralism: Self image and behavioral reality. *J. Asian African Stud.* 7:30–47.
- Galaty, J. 1981. Land and livestock among Kenyan Maasai: Symbolic perspectives on pastoral exchange, change and inequality. In *Change and development in nomadic and pastoral societies*, eds. P. C. Salzman and J. G. Galaty. Leiden: Brill.
- Hogg, R. 1985. *Restocking pastoralists in Kenya: A strategy for relief and rehabilitation*. London: Overseas Development Institute, Pastoral Development Network.
- Hulme, D., and M. Murphee. 1999. Communities, wildlife and the “New Conservation” in Africa. *J. Int. Dev.* 11:277–285.
- Kangwana, K. 1993. *Elephants and Maasai: Conflict and conservation in Amboseli, Kenya*. PhD dissertation, Cambridge University.
- Kangwana, K. 1996. Assessing the impact of human–elephant interactions. In *Studying elephants, AWF technical handbook series 7*, ed. K. Kangwana, 138–147. Nairobi: African Wildlife Foundation.
- Kenya Wildlife Service. 2000. *Wildlife–human conflicts: Sources, solutions and issues*. Nairobi: Kenya.
- King, J., P. Omondi, and I. Douglas-Hamilton. 1999. The status of Kenya’s elephant populations. Nairobi: Kenya Wildlife Service Report Executive Summary.
- Kleymeyer, C. D. 1994. Cultural traditions and community based conservation. In *Natural connection: Perspectives in community based conservation*, eds. D. Western and R. M. Wright, 323–346. Washington, DC: Island Press.
- Kuriyan, R. 1998. *Living together: Samburu people and elephants*. Nairobi: Save the Elephants.
- Kuriyan, R. 1999. *Final grassroots project report*. Nairobi: Save the Elephants.
- Malaria Foundation International. 2000. Malaria deaths on the increase. *News Briefs on East Africa* 13 September. Nairobi.
- Metcalf, S. 1994. The Zimbabwe communal areas management programme for Indigenous Resources (CAMPFIRE). In *Natural connection: Perspectives in community based conservation*, eds. D. Western and R. M. Wright, 161–191. Washington, DC: Island Press.
- Reid, R., and J. Ellis. 1995. Impacts on woodlands in South Turkana, Kenya: Livestock-mediated tree recruitment. *Ecol. Appl.* 5:978–992.
- Republic of Kenya. 1997. *Samburu district development plan 1997–2001*. Nairobi: Office of the Vice President and Ministry of Planning and National Development.
- Spencer, P. 1965. *The Samburu: A study of gerentocracy in a nomadic tribe*. London: Routledge Kegan Paul.
- Thouless, C. 1994. Conflict between humans and elephants on private land in northern Kenya. *Oryx* 28:119–127.
- Van Marsh, A. 1999. *Navigating Kenya’s roads becomes a perilous journey*. CNN. 6 October.
- Western, D. 1994. Ecosystem conservation and rural development: The case of Amboseli. In *Natural connection: Perspectives in community based conservation*, eds. D. Western and R. M. Wright, 15–50. Washington, DC: Island Press.
- Wilson, A. 1989. *Samburu, Buffalo Springs and Shaba National Reserves: A visitor’s guidebook*. Nairobi: Friends of Conservation.
- Wittemyer, G. 2001. The elephant population of Samburu and Buffalo Springs National Reserves. *J. East African Ecol.* 39:328–337.