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12-1-2005

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Recommended Citation
Jillo, A.D., M. Mutinda, A.A. Aboud, and D.L. Coppock. 2005. Degree of sedentarization affects risks and conflicts for the Waso Boran in northern Kenya. Research Brief 05-08-PARIMA. Global Livestock Collaborative Research Support Program. University of California at Davis. 5 pp.

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Global Livestock CRSP

Degree of Sedentarization Affects Risks and Conflicts for the Waso Boran in Northern Kenya

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Pastoral Risk Management Project

Research Brief 05-08-PARIMA December 2005

The Waso Borana have lived for over a century in northern Kenya. In the last few decades, however, their ability to maintain their traditions has been severely challenged. Here we report survey results from 540 households in Isiolo District, stratified among three groups differing in terms of lifestyle: sedentary, semi-sedentary, and mobile. In some cases these groups vary with respect to important perceived risks, causes of natural-resource related conflict, and possible solutions to conflict. For example, sedentary respondents often noted concerns over land tenure problems, human diseases, and political incitement. Mobile respondents, in contrast, often noted primary concerns over drought, shortages of human food, and inappropriate water developments. Semi-sedentary households could reportedly evade some risks and conflicts better than the other groups by using short, opportunistic movements of people or livestock. Despite variation among groups in their perceptions of problems, it was generally agreed that control of weapons proliferation, promotion of appropriate resource-use policies, control over political incitement, and (in some cases) reduction of livestock numbers are important partial solutions. In conclusion, we feel that government has failed the Waso Boran in several respects. These include failures to provide external livelihood options to reduce local population pressure, a safe and secure production environment, and an appropriate and enforceable land use policy for the area. International coordination is also needed to address local problems that originate outside of Kenya.

Background

The once productive rangelands of northern Kenya, traditionally dominated by a mix of woody species (*Acacia, Commiphora, Cordia spp.*) and graminoids (*Tetrapogon, Aristida, Chrysopogon and Sporobolus spp.*), have gradually deteriorated in ecological condition over recent decades (Herlocker, 1999). A major factor blamed for this trend is the disintegration of traditional systems of land stewardship. Traditional authority has waned in northern Kenya and has often been replaced by open-access tenure that is overseen by ineffectual government administrators. Couple this with frequent droughts that typify this zone, as well as expanding populations of people and livestock, and the net result is increasing resource competition and conflicts. Local people throughout northern Kenya have reportedly entered a survival mode where the incidence of armed conflict has increased because resource-based disputes have intensified (Smith et al., 2000). An objective of this research was to investigate, quantify, and rank the views of the Waso Borana people, one of many ethnic groups in the northern Kenyan rangelands, concerning the risks they face and the causes and possible solutions to conflicts that revolve around natural resources.

Data reported here represent just one small portion of the information collected from a larger household survey conducted for doctoral research by A. D. Jillo among the Waso Borana. A questionnaire was administered to 540 households in Isiolo District during the past year, with the head of the household or his representative responding. The three lifestyles practiced among the Waso Boran in Isiolo District include sedentary, semi-sedentary, and fully mobile pastoralism. Sedentary means that the family members live in one place throughout the year, usually in proximity to a permanent village or town. The livestock of sedentary households may sometimes roam widely, but the animals tend to remain in the same general area all year. The semi-sedentary lifestyle means that both the family members and livestock can occasionally move during the year. This primarily occurs according to seasonal changes in availability of forage or water. The mobile lifestyle, in contrast, is when both people and livestock can opportunistically move all year as needed.

Our sample sizes for these three lifestyle groups varied from 120 (semi-sedentary) to 180 (sedentary) and 240 (mobile). Results documented here were obtained using open-ended questions as follow: (1) what risks do you encounter?; (2) what are the main causes of conflicts that you experience?; and (3) what solutions do you recommend to reduce these conflicts? Respondents provided as many answers as they could to each question.

Table 1. Frequency of important risks perceived by household heads representing three types of pastoral lifestyles among the Waso Boran of Isiolo District, Kenya.[1]

Important Risks as Perceived by Household Heads	Types of Lifestyles							
	Sedentary Households		Semi-Sedentary Households		Mobile Households		Total Households	
	No.	%	No.	%	No.	%	No.	%
Drought	109	(28%)	58	(15%)	221	(57%)	388	(72%)
Grazing shortage	115	(30%)	62	(16%)	209	(54%)	386	(72%)
Water shortage	112	(29%)	58	(15%)	214	(56%)	384	(71%)
Insecurity	112	(30%)	60	(16%)	206	(54%)	378	(70%)
Food shortage	101	(27%)	59	(16%)	217	(57%)	377	(70%)
Resource-use conflict	106	(30%)	60	(17%)	188	(53%)	354	(66%)
Resource tenure problems	105	(44%)	75	(32%)	58	(24%)	238	(44%)
Human diseases	109	(49%)	54	(24%)	60	(27%)	223	(41%)
Poor market access	36	(22%)	60	(37%)	66	(41%)	162	(30%)
Livestock diseases	6	(16%)	2	(5%)	30	(79%)	38	(7%)

[1]Entries are based on sample sizes that varied from 120 households (semi-sedentary), to 180 (sedentary), and 240 (mobile).
Source: A.D. Jillo (in preparation).

Table 2. Frequency of important causes of natural-resource related conflicts as perceived by household heads representing three types of pastoral lifestyles among the Waso Borana of Isiolo District, Kenya. See text for description of various causes of conflict. [1]

Important Causes of Conflicts as Perceived by Household Heads	Types of Livelihoods							
	Sedentary Households		Semi-Sedentary Households		Mobile Households		Total Households	
	No.	%	No.	%	No.	%	No.	%
Ethnic differences	162	(35%)	118	(26%)	178	(39%)	458	(85%)
Influx of weapons	173	(38%)	110	(24%)	175	(38%)	458	(85%)
Water shortage	157	(41%)	42	(11%)	187	(48%)	386	(72%)
Predatory wildlife	129	(33%)	102	(27%)	156	(40%)	387	(72%)
Shortage of grazing land	157	(44%)	43	(12%)	155	(44%)	355	(66%)
Resource tenure	108	(49%)	58	(26%)	55	(25%)	221	(51%)
Encroachment of Cultivation	70	(49%)	67	(47%)	6	(4%)	143	(27%)
Development interventions	79	(57%)	1	(<1%)	58	(42%)	138	(26%)
Livestock numbers	57	(55%)	7	(7%)	40	(38%)	104	(19%)
Political incitement	60	(90%)	0	(0%)	7	(10%)	67	(12%)

[1]Entries are based on sample sizes that varied from 120 households (semi-sedentary), to 180 (sedentary), and 240 (mobile).
Source: A.D. Jillo (in preparation).

Findings

The most common risks perceived by the respondents are shown in Table 1. Across all three types of lifestyles, the household heads were most concerned about drought and shortages of forage, water, and human food. Prevalence of resource-related conflict was also seen as a significant problem. In contrast, market access and livestock diseases were viewed as less important risks overall. There was important variation due to lifestyle, however. For example, the mobile households considered drought, shortage of grazing and water, insecurity, human food shortages, and resource-use conflicts as the most significant, while the sedentary and semi-sedentary households considered land-tenure problems, human diseases, and poor market access as more important (Table 1).

The most common perceived causes of resource-related conflicts are shown in Table 2. Across all three types of lifestyles the household heads most commonly mentioned basic ethnic differences, influx of weapons, and shortages of forage and water. At the bottom of the list were things like numbers of livestock and political incitement. Again, there was important variation due to lifestyle, however. For example, while encroachment of cultivation on seasonal grazing lands was considered as a very important cause of conflict for the semi-sedentary households, the sedentary households more commonly listed a broader array of causes, prominently including political incitement, inappropriate development interventions (such as establishment of permanent settlements and wildlife sanctuaries in dry-season grazing areas), encroachment of cultivation on grazing lands, and new (competitive) forms of resource tenure. The political incitement factor was often reported by sedentary respondents for several reasons and we clarify these points here. The elites who incite political problems live in towns or villages. Political incitement occurs during election campaigns and ethnic, land-use, or development issues are commonly used as the "fuel for the fire." Sedentary pastoral households are accessible to such politicians and can be easily mobilized into violence. Sedentary pastoralists are also most vulnerable to loss of assets and livelihoods from political violence.

The mobile respondents prioritized shortages of water and forage, high livestock numbers, and other development interventions (such as boreholes in wet season grazing areas, lack of water use regulations for government-constructed water points, establishment of irrigation schemes and wildlife sanctuaries, and implementation of projects that restrict mobility such as grazing blocks that concentrate people and stock in small areas). In general, the semi-sedentary households were reportedly most able to evade conflicts based on water shortages, political incitement, etc., compared to the sedentary and mobile groups (Table 2). This is because the semi-sedentary households are better able to employ short, opportunistic movements of people and stock to less-risky situations.

The most commonly mentioned solutions to conflicts are

Table 3. Ranked order of possible solutions to natural-resource related conflicts as perceived by household heads representing three types of pastoral lifestyles among the Waso Boran of Isiolo District, Kenya.[1]

Important Potential Solutions to Conflicts as Perceived by Household Heads	Types of Livelihoods							
	Sedentary Households		Semi-Sedentary Households		Mobile Households		Total Households	
	No.	%	No.	%	No.	%	No.	%
Control of weapons influx	174	(34%)	101	(20%)	233	(46%)	508	(94%)
Enforce ethnic boundaries	102	(20%)	167	(33%)	235	(47%)	504	(93%)
Pastoral land control	113	(28%)	76	(19%)	216	(53%)	405	(75%)
Improve water facilities	172	(42%)	51	(13%)	183	(45%)	406	(75%)
Enforce appropriate land tenure regulations	112	(49%)	53	(23%)	65	(28%)	230	(43%)
Control predatory wildlife and encroaching agriculture	91	(40%)	60	(27%)	74	(33%)	225	(42%)
Reduce livestock numbers	113	(51%)	76	(34%)	32	(15%)	221	(41%)
Stop political incitement	56	(95%)	1	(2%)	2	(3%)	59	(11%)

[1]*Entries are based on sample sizes that varied from 120 households (semi-sedentary), to 180 (sedentary), and 240 (mobile)*
Source: A.D. Jillo (in preparation)

shown in Table 3. Across all three lifestyles, the most common responses concerned control of weapons and enforcing ethnic boundaries, securing pastoral legal control over the rangelands, and improvement of water facilities. Again, there was important variation due to lifestyle, however. For example, the mobile pastoralists more clearly supported the ideas of having pastoral interests fully control the rangelands, enforcing ethnic boundaries, controlling the influx of weapons, and improving water facilities. The sedentary group, in contrast, strongly advocated stopping political incitement, with some attention to reducing livestock numbers and enforcing appropriate land tenure regimes. The semi-sedentary group considered reducing livestock numbers and enforcing ethnic boundaries as most important.

Practical Implications

Fear of violent conflict is reportedly pervasive in the Waso Borana region of northern Kenya. Although increased populations of people and livestock are likely to be the root causes of conflict related to scarcity of natural resources, the respondents tended to identify symptoms of over-population problems. There has been a systematic failure of government to provide choices and options for people who may desire to exit the pastoral sector, thereby releasing more resources to those that remain behind. Government has also failed to provide an environment secure from fear and violence, and a major dimension of this is a chaotic pattern of natural resource use and access that promotes insecurity. Until commitments are made by government to reduce conflict and restore confidence of local people in a predictable form of natural resource access and governance, technical intervention to enhance forage and water supplies, for example, will be irrelevant. Relief, rather than development, will continue to dominate the social agenda.

The control of weapons proliferation appears to be the most clearly defined short-term objective that would be helpful to achieve. Associated efforts by policy makers to protect the rights of local people with respect to land access and use are also vital. Some of the local problems in Isiolo District have international roots, however. Unrest within neighboring countries such as Ethiopia and Somalia occasionally spills over into northern Kenya, and weapons may originate from these sources. International coordination is therefore required in any long-term, viable solution to reduce crises in Isiolo District.

Finally, to be technically effective interventions to reduce conflict must be location and lifestyle-specific and address the diverse needs of each of the three groups described here. Blanket application of corrective measures may not be productive.

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The GL-CRSP Pastoral Risk Management Project (PARIMA) was established in 1997 and conducts research, training, and outreach in an effort to improve welfare of pastoral and agro-pastoral peoples with a focus on northern Kenya and southern Ethiopia. The project is led by Dr. D. Layne Coppock, Utah State University, Email contact: Lcoppock@cc.usu.edu.

The Global Livestock CRSP is comprised of multidisciplinary, collaborative projects focused on human nutrition, economic growth, environment and policy related to animal agriculture and linked by a global theme of risk in a changing environment. The program is active in East Africa, Central Asia and Latin America.

This publication was made possible through support provided by the Office of Agriculture, Bureau of Economic Growth, Agriculture and Trade, under Grant No. PCE-G-00-98-00036-00 to University of California, Davis. The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID.

Design by Susan L. Johnson