



A F R I C A N
W I L D L I F E
F O U N D A T I O N

KNOWLEDGE, ATTITUDES AND
PRACTICES CONCERNING
COMMUNITY CONSERVATION IN
THE GROUP RANCHES AROUND
AMBOSELI NATIONAL PARK

Edmund Barrow, Peter Lembuya, Paul Ntiati and David Sumba



African Wildlife Foundation Discussion Papers
Series
Community Conservation Discussion Paper No. 11

CC-DP-11

KNOWLEDGE, ATTITUDES AND PRACTICES CONCERNING COMMUNITY CONSERVATION IN THE GROUP RANCHES AROUND AMBOSELI NATIONAL PARK

SUMMARY

AWF, as part of its Tsavo Community Conservation Project in Kenya, and its regional Community Conservation Programme in East Africa carried out a Knowledge, Attitudes and Practises survey with a 30% sample, totalling 1399 respondents, of the land users comprising the four group ranches which border Amboseli National Park. The main objectives of this survey, which was carried out in September 1993, included: to gain an understanding about the knowledge rural resource users have concerning conservation and natural resource management; to see what attitudes rural people have towards conservation, and in particular towards wildlife and protected area authorities; to gain an understanding of some of the existing conservation related practises that rural people in these areas undertake; to form one basis for future monitoring of trends of change in knowledge, attitude and practise towards conservation; and to provide input into a more participatory community conservation planning process in these areas. Other surveys have been carried out around Tsavo National Park in Kenya, Lake Mburo National Park in Uganda, and Serengeti, Tarangire, Lake Manyara and Arusha National Parks in Tanzania.

A pre-designed and pre-tested survey instrument was implemented by local Maasai enumerators. The questions were asked in an open ended manner, with the answers being scored into relevant answer boxes. The survey was analysed by AWF using FOXPRO. This report summarizes some of the key findings, based on the needs of Kenya Wildlife Service's (KWS) Community Wildlife Service (CWS) and help in deriving a basis for evaluating the effectiveness of the CWS activities in this area. Based on this the report identifies a number of key monitoring indicators which could be used as the basis follow-up. These include:

- Changes in occupation status of respondents, especially into, and out of pastoralism;
- Improved more equitable distribution of livestock (ie. a Gini coefficient which tends closer to zero);
- More people with increased numbers and better quality of livestock which can satisfy their subsistence needs;
- Improved overall level of education, with increased numbers completing primary and secondary school education;
- Improved attitudes to KWS rangers;
- Greater employment and other opportunities as a result of tourism;
- More streamlined structure for the reporting of wildlife problems;
- Changes in wildlife utilisation with increased consumptive and non-consumptive use;
- Reduced incidence of problem animals;
- Increased tourist awareness and understanding of Maasai customs and sensitivities;
- Reduction in natural resource destruction, as a result of improved conservation;
- Increased amount, and variety of benefits from living close to a national park;
- Reduction in KWS controllable disturbances, in particular due to rangers;
- Increased amount, and variety of benefits of having wildlife on people's land;
- Change in where natural resources are sourced from, especially park related resources;

- Conservation related projects initiated;
- Increased understanding of WDF, better management (transparency, accountability);
- Increased advice, and usefulness of visitation from KWS staff in relation to conservation; and
- Increased advice, and usefulness of visitation from Government and other staff in relation to conservation.

Based on the results of the survey, it is planned during the life of the USAID funded Conservation of Biodiverse Resource Areas (COBRA) project to revisit some of the key indicator questions of this survey during 1996.

TABLE OF CONTENTS

SUMMARY.....	1
1. INTRODUCTION	4
2. RATIONALE AND OBJECTIVES	8
3. METHODOLOGY	9
4. RESULTS AND DISCUSSION	11
4.1. HOUSEHOLD STATISTICS.....	11
A). EDUCATION, OCCUPANCY AND OCCUPATION	11
B). MANYATTA COMPOSITION	12
C). LIVESTOCK HOLDINGS	12
D). DISCUSSION.....	14
E). SOME KEY MONITORING INDICATORS	14
4.2 KNOWLEDGE	16
A). OF THE PARK.....	16
B). ABOUT TOURISM.....	16
C). ABOUT WILDLIFE PROBLEMS	17
D). ABOUT USE OF WILDLIFE	18
E). DISCUSSION	19
F). SOME KEY MONITORING INDICATORS.....	19
4.3. ATTITUDES	20
A). CONCERNING NATURAL RESOURCES.....	20
B). CONCERNING THE NATIONAL PARK	20
C). DISCUSSION	22
D). SOME KEY MONITORING INDICATORS	22
4.4. PRACTISES	23
A).IMPORTANCE OF, AND ACCESS TO, KEY NATURAL RESOURCES.....	23
B). CONCERNING CONSERVATION AND RURAL DEVELOPMENT.....	23
C). CONCERNING ADVICE RECEIVED FROM.....	25
D). DISCUSSION.....	26
E). SOME KEY MONITORING INDICATORS	27
5. IMPLICATIONS FOR COMMUNITY CONSERVATION	27
ANNEX 1: AWF-KWS. COMMUNITY CONSERVATION SERVICE KNOWLEDGE, ATTITUDES AND PRACTISES ASSESSMENT. AMBOSELI NATIONAL PARK	30
ACKNOWLEDGEMENTS	38

1. INTRODUCTION

In East Africa many of the most significant protected areas are found adjoining pastoral land use systems. Extensive forms of land use are, to a greater degree, compatible with wildlife management when wildlife, livestock and local resource users are part of a complex social and natural resource management system. Where cultivation is dominant this is not the case. In the recent past there was rarely harmony, only conflict and the necessity for amelioration as wildlife were perceived as vermin.

The most important shortcoming in the past establishment of protected area systems may not be geographical and ecological but human and institutional. Protected areas in Africa were usually established without the participation or consent of local people and many times involved their forced removal. Few attempts were made to educate people about the importance of an area or indeed to learn about its importance from those who knew it best, i.e. those people living there. Parks were not established with linkages to local land use plans, traditional or otherwise or as part of a system which provided opportunities for sustainable development.

Wildlife related problems are particularly acute where people have squatted, or moved onto, land adjoining protected areas due to increasing population and land pressures, and this is seen as a threat to conserving bio-diversity. Local resource users were seen as the enemy not as potential partners. National Parks were gazetted and conservation enforced. This problem of trying to manage protected areas in isolation from, or in opposition to, local people has been well documented. Over the past decade, many park managers have come to realize that the survival of protected areas depends ultimately on the support of local people, rather than on fences, fines and even armed force.

The prevalent attitude of protected area authorities towards local communities was simply to keep them out. Only recently has this attitude started to change. Community conservation cannot be simplified to the provision of benefits but has to relate to wider issues of land use and tenure together with local and national economic needs and aspirations. This implies the need for alliances and real partnerships.

It is necessary to build relationships between rural resource users and conservation; to build sustainable community systems and create new alliances between conservation authorities and local communities. The African Wildlife Foundation, an international conservation non governmental organization (NGO), has helped develop the field of community conservation through its "*Protected Areas: Neighbours as Partners*" programme in East Africa. The principle that local communities should be involved in, and benefit from, conservation of protected areas is now widely accepted but there is still little experience of how to put the principle into practise. Community conservation seeks to involve local people in dialogue which will lead to joint responsibility for natural resource use and management, and sharing in the benefits of conservation. It is not a rural development programme but may act as a catalyst for such activities.

Creating a real and lasting partnership is not easy, especially in a context of doubt and conflict between protected area managers and local people. Nor is the implicit change of

protected area authority attitudes towards local community issues, easy. It is difficult to change an anti-poaching and protectionist model to one of conciliation, consultation and enablement. However it is now recognized that this must be done. Partnership and consultation, concern over sustainability leading to a voice in decision making, an increased responsibility and benefit sharing are seen as keys to long term sustainability of protected areas. This hinges on the creation of attitudes of responsibility towards natural resource management, understanding problems and opportunities that exist, and enablement.

The ultimate benefits of community conservation should include maintenance of protected area integrity, resolution of conflict resulting in sustainable conservation for improved food security and household economics of rural resource users and may be both attitudinal and physical. Community conservation needs to be able to address the wider political, policy and land issues so as to be better able to achieve its conservation objectives. Broader political and land use issues have to be understood and influenced, for instance land use and tenure is a critical, highly emotive and politicised issue in East Africa.

National parks authorities in East Africa have been evolving a functional means for involving neighbours as partners in conservation. Issues are discussed with Park management in the National Park and broad problems, opportunities and priority target areas are selected. This forms the basis for opening channels of communication and target areas being informally surveyed. District and local level support is solicited. Initial baseline socio-economic data is gathered from various sources including Park records, and literature.

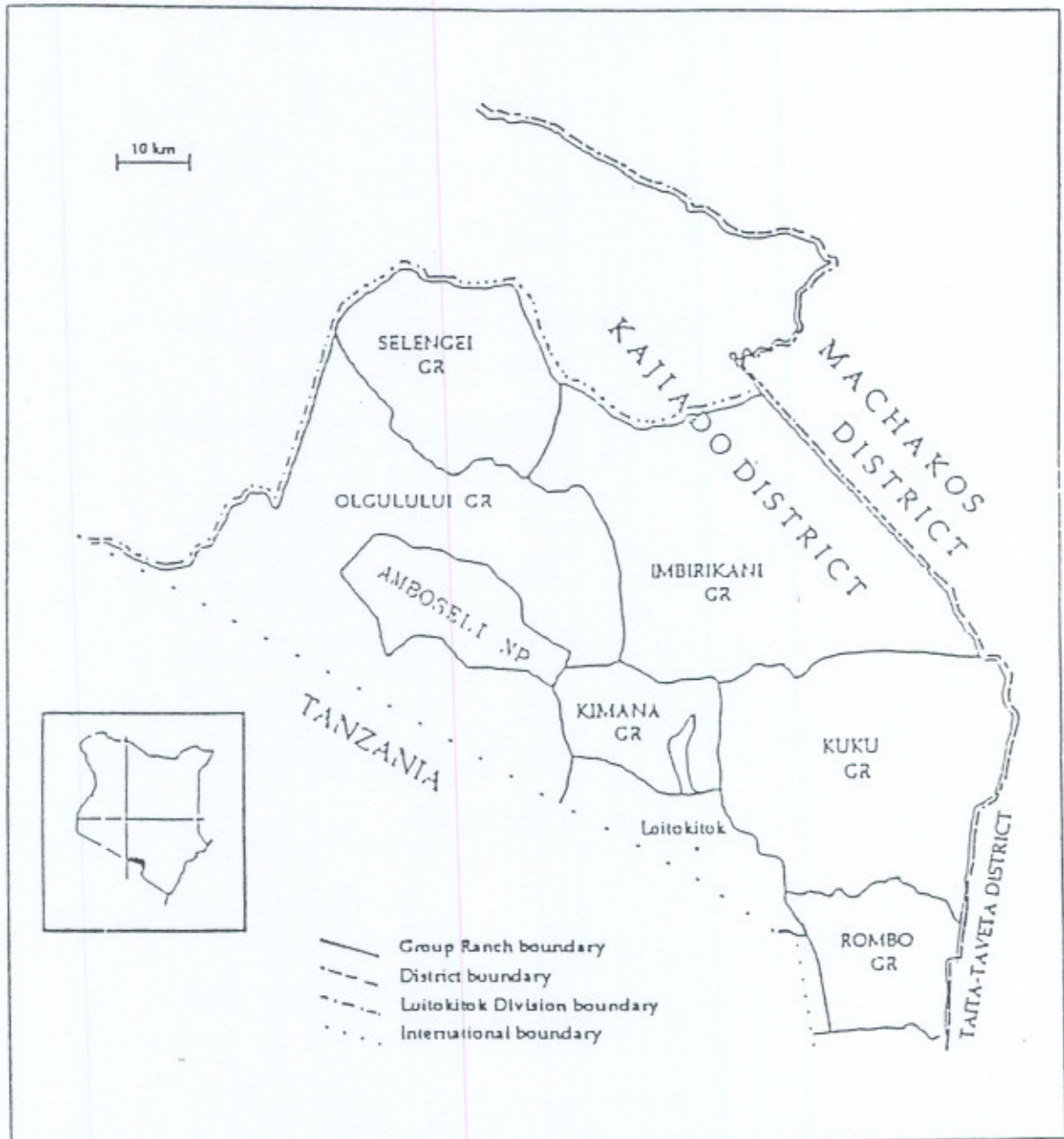
In some areas a simple **Knowledge, Attitudes and Practices Survey**, has been carried out in a number of Parks in East Africa (Table 1), as one mechanism to gain baseline and relevant information of rural peoples knowledge about, attitudes to and practises concerning community conservation. However the surveys cannot be considered in isolation to other forms of dialogue that have, and are being carried out in the different areas, for example village and group ranch meetings, Participatory Rural Appraisals (PRA) etc.

This report presents the summary findings and a discussion from the survey carried out during September 1993 in the group ranches that constitute the Amboseli eco-system. Reports are being prepared for the different surveys, together with comparative results, comparing and contrasting results from the different areas. The surveys around Amboseli and Tsavo were activities of AWF's Tsavo West Community Conservation Project, and funded by USAID under Grant No. AFR-0467-G-00-1060-00. While this report is produced by AWF as subcontractors to DAI in the Conservation of Biodiverse Resource Areas (COBRA) project, which is funded by USAID, under contract No. 623-0247-C-00-3002-00.

Table 1: Scope of AWF's Knowledge, Attitudes and Practices Survey in East Africa

Area	No. Respondents	Country	Year of Survey	Project
Amboseli Group Ranches	1399	Kenya	1993	Community Conservation Around Tsavo West National Park: Phase II Project. Funded by USAID
Kuku and Rombo Group Ranches of Tsavo West National Park	964	Kenya	1993	
Mang'elete-Maktau Area of Tsavo West National Park	996	Kenya	1993	
Areas bordering Lake Manyara National Park	1614	Tanzania	1992	Tanzania Community Conservation Project. Funded by Pew Charitable Trust, Dorothy Chadwick Foundation
Areas bordering Serengeti National Park	451	Tanzania	1993	
Areas bordering Tarangire National Park	1256	Tanzania	1993	
Areas bordering Arusha National Park	976	Tanzania	1993	
Areas bordering Lake Mburo National Park	304	Uganda	1992	Lake Mburo National Park Support and Community Conservation Project. Funded by SIDA
Areas bordering 7 protected areas in East Africa	7960	3 Countries	1992-93	

MAP 1: LOCATION OF GROUP RANCHES IN LOITOKITOK DIVISION



2. RATIONALE AND OBJECTIVES

The rationale behind these surveys was to gain a broad empirical understanding of the Knowledge, Attitudes and Practices of land users who border different protected areas in the East Africa, and in this case Amboseli National Park in Kenya. Such empirical data has been lacking in the past.

The objectives included:

- to gain an understanding about the knowledge rural resource users have concerning conservation and natural resource management;
- to see what attitudes rural people have towards conservation, and in particular towards wildlife and protected area authorities;
- to gain an understanding of some of the existing conservation related practises that rural people in these areas undertake;
- to form one basis for future monitoring of trends of change in knowledge, attitude and practise towards conservation; and
- to provide input into a more participatory community conservation planning process in these areas;

3. METHODOLOGY

The original survey instrument was drawn up by AWF's Tanzania Community Conservation Project in collaboration with Tanzania National Parks (TANAPA), for implementation as one component of a participatory planning process for Lake Manyara National Park. Other components of this process included ongoing village-based dialogue, structured village meetings to discuss the results of the survey and prioritize key issues of concern to the local people in the context of the National Park. The survey instrument was discussed extensively with TANAPA Community Conservation Service (CCS) staff as well as Lake Manyara Park Management. Because of timing pressures, it was not possible to pre-test the instrument fully. However on the basis of the Lake Manyara survey it was then possible to adapt and fine tune the survey instrument for other National Park areas in Tanzania and Kenya. This was further facilitated by a more homogenous land use type in the areas being surveyed, being dominated primarily by Maasai pastoralism. Due to differences in timing and of local conditions a different, but compatible instrument was used for Lake Mburo in Uganda.

The generic Knowledge, Attitudes and Practices (KAP) Survey instrument was adapted for the group ranches around Amboseli. Prior to pre-testing the concept of such a survey was discussed with some of the leadership and members of the group ranches in order to obtain their support, and show how this activity would be of use to them as they increasingly become involved in community conservation. The AWF Project Officers then informally surveyed the group ranches to ascertain an appropriate sample size by identifying the homesteads (or manyattas) in the four group ranches. These were roughly mapped and a sample size of approximately 30% was selected (Table 2).

It was not realistically possible to use national census data. In such pastoral land use systems, it is difficult to get a random sample, given population movements, the pastoral nature of the people, and the lack of a reliable statistical sampling frame. Such a situation exists in many arid and semi-arid lands. Generally those selected for the survey were the heads of the household. Women were targeted, but given the Maasai social structure this was not always easy, as indicated in the gender breakdown of the sample (Table 2). The relatively large size of the sample (30%), and the initial mapping out of all the households in the group ranches helped ensure a smaller sampling error and offset survey bias.

Table 2: Division of Respondents by Group Ranch

Group Ranch	No. Respondents	% Total Respondents
Mbirikani	529	38
Kimana	288	20
Olgulului	434	31
Selengei	82	6
Other	66	5
Total	1399	100%

The survey instrument was first pre-tested in the area by AWF staff working with KWS Community Wildlife Officers (CWOs), with fifteen for each of the four group ranches, and appropriate corrections were made to the instrument (See Annex 1 for sample survey form). The pre-testing also served as a mechanism for training local Maasai enumerators from the group ranches. This on-the-ground training was re-enforced by a one day training session for the enumerators and local elders who represented a support team for the enumerators, so as to improve their skills, identify things that the enumerators should and should not do. One of the key issues was to stress the need for asking the questions in an open ended manner, thus soliciting information and not leading the respondents to certain answers. This helped ensure a higher degree of accuracy, with the answers then being scored into the relevant answer code. Enumerators were encouraged to really understand the questionnaire so that they would be able to translate the questions into Ki-Maa.

AWF and KWS staff supervised the survey in the different group ranches, and ensured that logistics were adequate; cross checked on the enumerators to ensure that the forms were properly filled in; and ensuring that the questionnaires were complete. The survey questionnaires were then collected and brought to AWF where they were coded and entered into the computer, for data analysis by the AWF data management expert. Programme routines for simple analysis had already been developed from previous surveys. These were adapted for the Amboseli survey. A summary analysis was then generated. This initial draft analysis was returned to AWF and KWS field staff, as well as to CWS and COBRA staff at KWS HQ., for comment prior to completing this main report.

4. RESULTS AND DISCUSSION

4.1. HOUSEHOLD STATISTICS

a). Education, Occupancy and Occupation

Because of the Maasai social structure the survey was biased in favour of male heads of household (84%), however in many cases the responses reflected discussions at the household level amongst different members of the manyatta. Most respondents had not received any schooling (77%, Table 3), with only 4% of respondents having completed their primary education. There was an even spread of how long people had lived in the area for, with 23% having been in their area for up to 5 years, 28% for between 6-10 years, 22% for between 11-20 years, and 26% in excess of 26%. This is generally compatible with a pastoral way of life in such an area and relates to movements in search of pasture. Though the increased sedentarization may also be related to increased pressures to settle and sub-divide the land. There are few pure farmers (9%), with most respondents classifying themselves as farmer/livestock keeper (46%). The remainder classified themselves as pure pastoralists (40%).

Table 3: General Household Statistics of Amboseli Group Ranches

	Number	%
LEVEL OF EDUCATION		
None	1063	77
Some Primary	163	12
Finished Primary	50	4
Some Secondary	26	2
Finished Secondary	41	3
NUMBER OF YEARS LIVED IN AREA		
1-5 years	325	23
6-10 years	391	28
11-20 years	306	22
more than 20 years	361	26
OCCUPATION		
Farmer	131	9
Pastoralist	562	40
Farmer/livestock keeper	649	46
Trader	26	2
Other	12	1

The four group ranches, which cover an area of 564,000 ha, of the Amboseli eco-system were the main focus for this survey (Mbirikani, Olgulului, Eselenkei and Kimana, Table 2). Olgulului and Mbirikani comprised the majority.

b). Manyatta composition

Two hundred and thirty six respondents (16.9%) had one spouse. Of the remainder 41.2% had 1-2 wives, 10.1% had 2-4 wives and 1.9% had more than 5 wives. Table 4 indicates the composition of other siblings and people living in the manyatta. A surprising number of households had no sons or daughters living with them (21.9%), while most had between 1-5 sons and daughters (62.8%). Thirty two per cent of manyattas had other men/women staying with them at the time of the survey.

Table 4: Manyatta composition

Number	% Sons	% Daughters	% Siblings	% Other Male	% Other Female	% Other
0	18.4	21.4	21.9	68.4	65.8	67.9
1 to 5	56.8	57.4	62.8	29.1	31.6	30.7
6 to 10	12.9	10.9	13.1	1.0	1.4	1.2
> 15	2.1	1.9	2.2	0.2	0.1	0.1
no response	9.8	8.4				

c). Livestock holdings

In pastoral societies livestock are key indicators of wealth and well being, as well as being a vital component for pastoralist social norms. Total livestock holdings, both based at the manyatta and elsewhere were analyzed (Table 5). Most respondents either had no livestock (61%), or have between 1-5 (17%), or in excess of 15 head (15%). This indicates a very skewed livestock distribution in favour of those owning many livestock. While 9% of the sample indicated they were farmers, and probably had no livestock (Table 3), 46% indicated they were farmer/pastoralist and would be expected to keep fewer livestock than the true pastoralists (40%). However rich pastoralists sometimes re-invest wealth in such activities as farming.

For all those who own livestock the figures were converted to Standard Stock Units (SSU), which is equivalent to 0.75 cattle, 0.1 goats, 0.1 sheep or 0.5 donkeys. These figures were then matrix ranked, in ascending order by ten percentile groupings of the sample population owning ten percentile groupings of livestock, expressed as SSU's (Table 6).

Table 5: Livestock owned both at home and elsewhere

Numbers of stock owned	% Livestock owned, both at home and elsewhere				
	% Cattle	% Sheep	% Goats	% Donkeys	% Total Numbers
0	52.6	62.9	58.2	71.0	61.2
1-5	14.4	14.3	15.7	23.7	17.0
5-10	5.6	5.6	6.7	3.5	5.4
10-15	1.3	2.0	1.7	0.6	1.4
> 15	26	15.2	17.8	1.3	15.0

Table 6: Number of Standard Stock Units owned per Ten Percentile of Respondents

Ten Percentile groupings of Respondents	Number of SSUs	% of Total SSUs	Cumulative %
10	143	0.23	0.23
20	447	0.71	0.94
30	795	1.26	2.20
40	1,196	1.90	4.10
50	1,619	2.57	6.67
60	2,400	3.82	10.49
70	3,643	5.79	16.28
80	6,173	9.81	26.09
90	11,637	18.50	44.59
100	34,844	55.40	100.00
Total	62,897		

Figure 1 shows a graph of percentage wealth, in terms of livestock owned, plotted against ten percentile groups of the population. Most of the livestock (74%) in the Amboseli ecosystem are owned by the richest 20% of the population, while the remaining 80% of the population owned only 26% of the livestock. The Gini coefficient, an index of equality (0 representing perfect equality, and 1 representing total inequality) was then calculated. The Gini coefficient of 0.68 supports the hypothesis of a skewed and unequal distribution of livestock amongst the population.

Such an unequal distribution is not unusual in pastoral societies, and has to be understood in the context of pastoralism, the social linkages and obligations, resource sharing and loans etc. This is a subject beyond the scope of this report, but is well addressed in the literature on pastoralism.

d). Discussion

Overall the figures are fairly representative of a pastoral society in Kenya, with a highly skewed distribution of livestock wealth and an often low school attendance rate. A significant number of respondents were solely farmers, or were farmers/livestock keeper. Both these groups can be expected to have fewer livestock than true pastoralists.

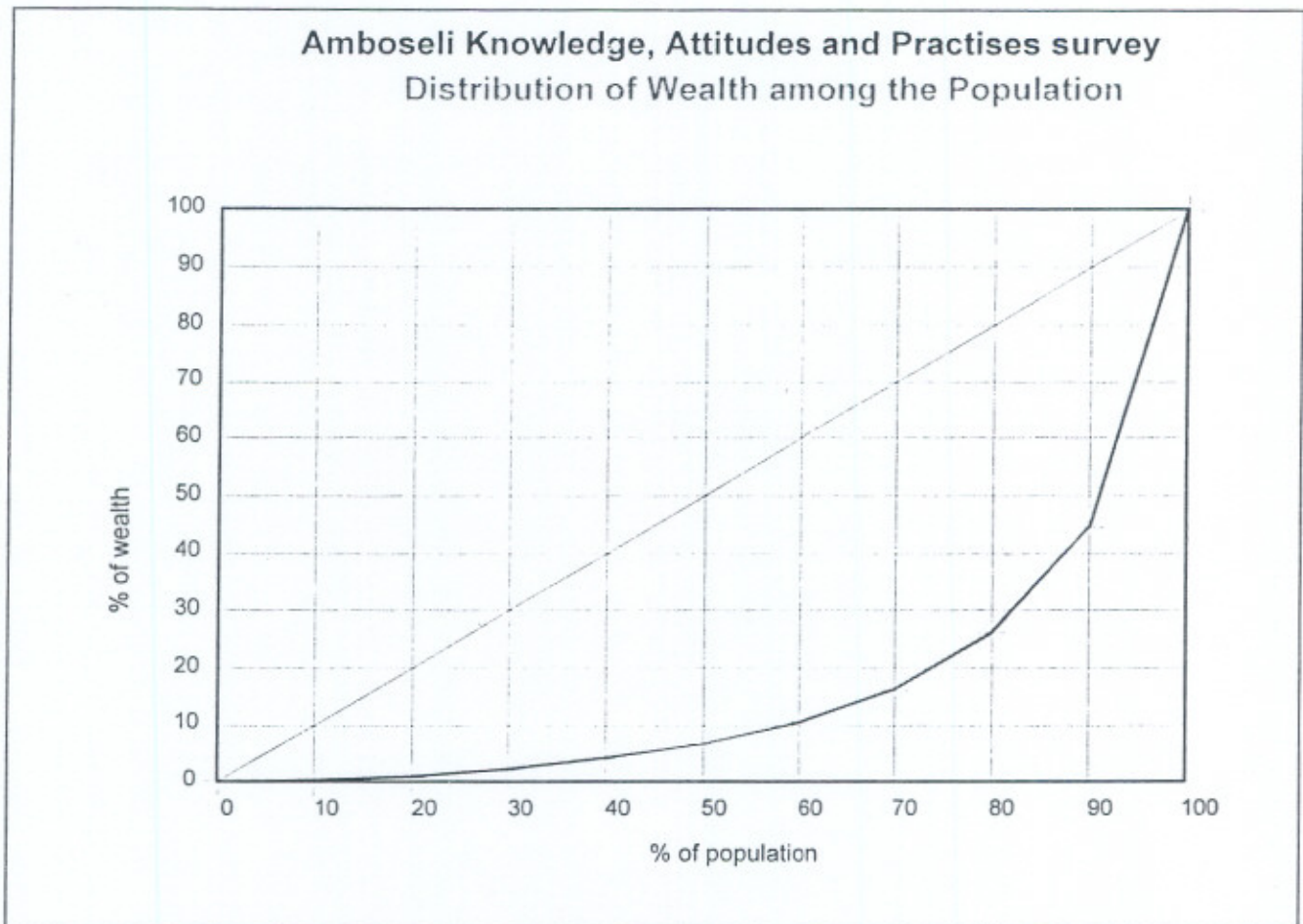
If CWS activities are successful one could expect certain changes:

1. That more people will have received a higher level of education due to more access to funds for schools (either from their own earning or through WDF);
2. That there will be a more equitable distribution of livestock as Amboseli pastoralists gain more equitable access to resources especially those accruing as a result of WDF projects, for instance dips, cattle troughs.

e). Some key monitoring indicators

- Changes in occupation status of respondents, especially into, and out of, pastoralism
- Improved more equitable distribution of livestock (ie. a Gini coefficient which tends closer to zero).
- More people with increased numbers and better quality of livestock which can satisfy their subsistence needs
- Improved overall level of education, with increased numbers completing primary and secondary school education

Figure 1



4.2 KNOWLEDGE

a). Of the Park

Respondents expressed two main reasons for being allowed to visit the park, namely to see the animals (39%), and for grazing of livestock (23%). While 66% of respondents said they should be allowed to enter Amboseli National Park, this was balanced by reasons for not going into the park, which included fear of rangers (13%), fear of wild animals (17%), and no reason for visiting the park (11%).

b). About tourism

Seventy per cent of respondents said that tourists coming to Amboseli NP help pastoralists in a number of ways (Table 7), though employment opportunities were the most important. However 12% stated that tourists made life more difficult by coming to the Amboseli areas (Table 8), though 48% of respondents noted that tourism made life easier through accruing income from donations and photography (80%).

Table 7: Knowledge concerning tourism benefits

	How do tourists benefits people in the area		
	% Women	% men	% total
Employment	19.1	16.7	16.9
Foreign exchange	0	0.6	0.5
Exchange of ideas	0	0.6	0.5
Buy carvings	4.4	2.6	2.9
Give donations	0.5	0.4	0.4
Know different cultures	3.9	2.5	2.6
No response	72.1	76.6	75.1
	How could tourists benefit you more?		
Development projects	2.1	1.4	1.1
School bursaries	0.7	0.2	0.2
Pay for photographs		0.1	0.1
Sell ornaments to	4.9	2.8	2.2
No response	92.3	95.33	96.4

Table 8: How do tourists coming to your area make life more difficult or easy?

	How do tourists make life more difficult?	
	% women	% men
Take photographs inconsiderately	37.5	82.4
Spread disease	62.5	51.3
Increase price of goods	37.5	22.7
Spoil women, children, culture	12.5	32.8
Cause accidents	0	11.8
None	0	9.2
	How do tourists make life easier?	
Give donations	43.5	48.0
Cash from photographs	91.3	80.6
None	5.8	10.5

c). About wildlife problems

A wide variety of animals cause various crop, livestock and human related problems (Table 9). Buffalo, lions, leopard, elephant and baboon are the main problem animals. The Maasai try to prevent wildlife damage in a number of ways (Table 10), for example constructing strong livestock enclosures (81%), protecting livestock (67%), and guarding crops (53%). However only 61% of wildlife problems are reported to a variety of different parties (Table 11). For those who do not report livestock problems (39%), the lack of compensation payments was the main reason cited (55%), though not knowing to whom to report to (28%), distance (8.7%) and no reason (7%) were also stated.

Table 9: Which wild animal cause what problems to land users?

Problem	% Women	% Men	% Total
Buffalo destroy life	93.1	95.5	94.1
Buffalo eat crops	45.6	49.2	48.1
Elephants destroy crops	63.7	62.0	61.5
Lions eat stock, harm people	75.0	74.6	73.8
Leopard eat stock, harm people	70.6	63.3	63.6
Baboon eat crops	50.0	39.5	40.6
Pigs eat crops	8.8	6.1	6.4
Baboon harm people	9.3	3.0	4.7
Monkeys eat crops	25.5	20.1	20.7
Hippo harm people	14.7	10.4	10.9
Birds destroy crops	10.8	6.6	7.2
Antelope destroy crops	17.2	17.6	17.3
Pongo destroy crops	3.4	3.2	3.2
Hippos destroy crops	0.5	1.4	1.2
Eland destroy crops	29.4	39.8	37.8
Zebras destroy crops	8.8	5.3	5.8

Table 10: Local methods of problem animal management

Methods	% Women	% Men	% Total
Strong bomas (enclosures)	87.8	81.0	81.1
Not cultivate near park	22.1	22.4	22.1
Guard crops	61.3	52.3	53.0
Protect stock	70.1	67.1	66.8
Graze far from park	23.0	31.3	29.7
Fencing	23.5	20.6	20.8
Beat debes, make noise	6.9	8.1	7.8
Scarecrows	18.1	25.4	24.0
None	8.8	4.3	4.9

Table 11: To Whom are wildlife problems reported to?

Methods	% Women	% Men	% Total
Park warden	51.6	60.8	35.8
Elders	34.7	30.8	18.7
DC/Chief/A.Chief	31.6	42.9	25.0
Community Warden	14.7	18.8	11.0
Rangers	10.5	7.0	4.4
Game scouts	63.2	56.0	34.0
GR committee	57.9	50.5	30.7
None	9.5	5.9	3.8

d). About use of wildlife

Maasai use wildlife products in a variety of ways (Table 12). However few respondents use wildlife as a source of food (18.8%), and very few hunt (10%). From the survey the following are hunted gazelle (5.2%), eland (6.4%), hippo (0.6%), giraffe (4.1%) and buffalo (0.9%). Subsistence is the main reason for hunting (67% of those who hunt). Respondents understood that hunting was controlled (85%), and that this control rested primarily with the administration (56%), and KWS (23%). The majority of respondents stated that there are rules and regulations concerning wildlife use and protection (82%), which are related to traditional methods, based on various taboos (55%).

Table 12: Customary Uses of Wildlife

Use	% Women	% Men	% Total
Culture	25.5	24.7	24.5
Ornaments	42.2	59.5	56.3
Use as fly whisk	18.6	17.5	17.4
Bows and arrows	77.0	79.1	77.9
Shield making	9.8	9.1	9.1
Medicines	50.5	45.4	45.6
None	3.9	3.8	3.8

e). Discussion

The historical interest of the Maasai in Amboseli is expressed in their desire for access to grazing, and, de facto to water, and traditional salt licks. However their fear of KWS rangers is a cause for concern.

A wide variety of benefits are perceived to accrue. Some of these accrue nationally, and others are local. Employment, as being the primary perceived benefit, is important in the context of developing lodge leases, campsites, eco-tourism ventures etc. Tourists do make life easier, but this is balanced by a number of key areas where tourists make life more difficult. The implication here is that the more tourism can benefit local people, and the more tourists can be made more aware of local customs and sensitivities, the stronger the overall benefit will be to local people and so to conservation.

Elephant damage has been well known, and documented in Amboseli ecosystem for many years. However there are a number of other animal which cause significant problems to the area. As a result numerous local methods have evolved to try and resolve problem animal issues. People report wildlife problems to a wide variety of different people. This probably reflects a degree of confusion as to whom they should report such incidents to. This might be as a result of the discontinuation of compensation. This might be due to fear of KWS rangers, the distance they have to walk and that most people report wildlife problems to the game scouts on the group ranches

Currently people use wildlife in a number of different ways, most of which are culturally related, but a number of which relate to consumptive use of wildlife. Currently the hunting ban is still in force, though this may change soon.

f). Some key monitoring indicators

- Improved attitudes to KWS rangers
- Greater employment and other opportunities as a result of tourism
- More streamlined structure for the reporting of wildlife problems
- Changes in wildlife utilisation with increased consumptive and non-consumptive use
- Reduced incidence of problem animals
- Increased tourist awareness and understanding of Maasai customs and sensitivities

4.3. ATTITUDES

a). Concerning natural resources

There are a number of issues happening, concerning natural resources, which people did not like (Table 13). There were some gender related differences, with women being more concerned with charcoal burning and bird hunting. While men were concerned with poaching and overgrazing. Interestingly elephants were only considered as a small problem (3.3%)

Table 13: Things happening to natural resources which people did not like

Use	% Women	% Men	% Total
Charcoal burning	60.3	51.7	52.3
Fire outbreak	46.6	49.5	48.5
Water pollution	12.8	13.3	13.1
Overgrazing	25.0	33.8	32.2
Army worm infestation	25.0	23.7	23.6
Poaching	37.8	44.6	43.1
Bird hunting	38.2	23.1	25.0
Elephant destruction	4.4	3.1	3.3

b). Concerning the national park

There was a clear understanding about the difference between a National Park and other areas where wildlife live, in that wild animals are guarded (81.6%), there is better security (50.1%) and permission is required for entry (27.0%). It is interesting to note that access to grazing was considered important (6.1%), though 5.4% stated they were not allowed to use resources in the park, while only a few (1.7%) considered tourists visiting the park as a major difference.

Respondents see a variety of positive factors in living close to Amboseli National Park (Table 14), including, in particular, attracting tourists, providing employment and revenue sharing in terms of community projects support, not a cash dividend. However this is balanced by the negative effects of living next to a protected area (Table 15) including ranger disturbance, spread of animal disease, livestock loss, crop destruction and overgrazing attributed to wildlife. Obviously the balance between the negative and positive factors relate to attitudes to wildlife and also relate to the good and bad aspects of having wildlife on their own land (Table 16, and Table 17), where there appears to be stronger negative perception as compared to the positive attitudes.

Table 14: Good things of living next to Amboseli National Park

Good things	% Women	% Men	% Total
Provide meat	0.0	0.0	0.0
Build classrooms	36.3	26.0	27.2
Provide transport	33.3	34.5	34.0
Grazing in park	4.4	7.4	6.9
Security	3.9	5.7	5.4
Provide firewood	26.0	11.9	13.8
Attract tourists	85.8	82.8	82.3
Provide employment	78.4	79.1	78.1
None	21.1	34.4	32.0

Table 15: Bad things of living next to Amboseli National Park

Bad things	% Women	% Men	% Total
Ranger disturbance	79.9	85.1	83.4
Wildlife disturbance	40.7	41.7	41.1
Spread of animal diseases	72.6	74.9	73.7
Eat stock	71.1	75.7	74.2
Crop destruction	57.8	51.6	51.9
Chase us from grazing	29.4	30.5	30.0
Wildlife causes overgrazing	51.5	42.4	43.3
Don't share resources	12.3	11.0	11.1
None	5.9	5.0	5.1

Table 16: Good things of having wildlife in your area

Good things	% Women	% Men	% Total
Provide meat	13.2	15.1	14.7
Attract tourists	52.0	60.2	58.3
Funds for development	43.6	53.8	51.7
See/know different animals	50.5	43.2	43.8
None	11.3	9.5	4.7

Table 17: Bad things of having wildlife in your area

Bad things	% Women	% Men	% Total
Eat stock	75.5	82.7	80.7
Threat to safety/security	91.7	92.5	91.3
Spread of animal diseases	61.3	66.2	64.8
Causes overgrazing	66.2	55.7	56.6
None	7.8	6.3	6.4

Sixteen percent of respondents thought that the National Park should be abolished. The main reasons given for the possibility of abolishing the park was for settlement (76%), grazing (85%), and for cultivation. This was offset by a much wider range of reasons for keeping the park (Table 18).

Table 18: Reasons for not abolishing Amboseli National Park

Good things	% Women	% Men	% Total
Foreign exchange	54.8	64.1	52.0
Provide employment	72.6	79.3	65.0
Funds for development	61.3	70.0	57.0
Provide security	8.3	8.1	6.7
Loose revenue sharing	11.9	14.9	12.0
Conservation of wildlife	20.2	14.2	12.5
None	5.4	2.6	2.5

c). Discussion

People are aware of, and concerned about, a number of issues relating to their natural resources which they did not like. Elephant damage was small compared to other issues, though elephants are a significant problem animal in the area, presumably causing damage to crops, livestock and human life.

Group ranch members are all well aware of the difference between a park and other wildlife areas, though (see 4.2) grazing access is an issue. Even without revenue sharing there are obvious benefits of living close to Amboseli NP. But there are significant costs as well, some of which are wildlife damage related. Others are due to ranger disturbance - which is a cause for concern in KWS' evolving CWP.

Respondents clearly benefit, both in qualitative and quantitative terms from having wildlife on their lands, though this has a near equal cost. The costs identified will probably not change significantly, but, if the potential benefits can increase substantially, it will further contribute to the desire for having wildlife on their land.

In terms of the hypothetical question concerning the abolition of the Park, there were only two reasons for abolishing the national park, offset by much more compelling reasons for keeping the park, most of which are related to accruable benefits.

d). Some key monitoring indicators

- Reduction in natural resource destruction, as a result of improved conservation
- Increased amount, and variety of benefits from living close to a national park
- Reduction in KWS controllable disturbances, in particular that of rangers
- Increased amount, and variety of benefits of having wildlife on people's land.

4.4. PRACTICES

a). Importance of, and access to, key natural resources

Key natural resources used were defined as grass, water, firewood, fuel, food, medicines and cultural uses (Table 19). Not all respondents answered all the questions, and the percentage given is based on the total number of respondents. While most resources are obtained from the group ranch, woodland areas or from cultivated lands, a small, but significant amount of resources were obtained from the national park, in particular water, grass and cultural uses (table 19, in bold typeface).

Table 19: Importance of, and access to natural resources

Resource	Location	% Women	% Men	% Total
Firewood	Shamba	7.4	5.4	5.7
	Commons	93.6	86.5	86.6
	Forest	10.3	6.1	6.7
	Park	0.0	0.1	0.1
Water	Shamba	3.4	3.8	3.7
	Commons	93.1	84.8	85.1
	Forest	2.0	4.1	3.7
	Park	3.9	5.9	5.5
Medicines	Shamba	5.4	3.9	4.1
	Commons	64.2	55.8	56.4
	Forest	19.1	20.1	19.7
	Park	1.0	0.8	0.8
Fruit	Shamba	4.4	2.5	2.7
	Commons	44.1	49.0	47.8
	Forest	7.8	12.8	11.9
	Park	0.5	2.0	1.7
Cultural uses	Shamba	1.0	0.7	0.7
	Commons	37.3	43.9	42.4
	Forest	12.8	11.6	11.7
	Park	3.9	8.1	7.4
Grass	Shamba	8.3	4.7	5.2
	Commons	84.3	81.5	81.0
	Forest	15.2	8.7	9.5
	Park	2.5	3.3	3.2

b). Concerning conservation and rural development

People in the Amboseli area are prepared to contribute monies to a variety of activities (Table 20), though education, health, water and livestock related activities were the most important. Respondents suggested a variety of wildlife related activities (Table 21), with bee keeping, and game sanctuaries being the most important.

Seventy six per cent had heard about the KWS revenue sharing programme, with the main benefits including construction of schools (30.1%), provision of water (22.2%), and building of dispensaries (18.1%). While 38% of respondents stated that they had benefitted from the revenue sharing programme, 39% indicated that the revenue sharing funds were poorly managed. In future respondents would like to see revenue sharing funds used in a different way (Table 22), with bursaries, health related projects and electric fencing being the most important issues to address.

Table 20: Development Activities which people are prepared to contribute monies to

Projects	% Women	% Men	% Total
School	91.2	89.1	88.4
Polytechnic	78.9	70.7	71.1
Dispensary	16.2	18.9	18.0
Water	74.0	71.6	71.1
Helping the disabled	8.8	12.4	11.7
Irrigating furrows	9.8	9.8	9.7
Dips	20.6	28.1	26.7
Electric fence	7.8	5.0	5.4
None	2.0	1.4	1.4

Table 21: Wildlife related projects interested in seeing initiated

Projects	% Women	% Men	% Total
Sanctuary	10.3	11.6	11.3
Tourist hotel	7.8	11.9	11.2
Fish farming	6.4	4.2	4.4
Bee keeping	15.2	21.5	20.3
Game farming	7.4	10.4	9.9
School for wildlife	16.8	19.8	19.1

Table 22: Desired use for revenue sharing Funds

Desired use	% Women	% Men	% Total
Electric fencing	45.1	47.8	46.8
Dividing among members	25.0	24.2	24.0
Dispensary	66.7	62.6	62.5
Bursaries	67.2	58.0	58.7
Repair of road	19.6	17.6	17.7
Provide water	15.2	22.5	21.2
Provision of loans	1.5	6.7	5.9
Divided as per area	2.5	5.3	4.9
Fund cultural villages	4.9	1.7	2.1
Famine relief	4.4	7.3	6.8
Income generating activities	0.5	2.5	2.4

Respondents are fairly clear about what they would like the park to do for them (Table 23). Community related inputs were most important, though problem animal management and security were also important. School Bursaries were not mentioned at all.

Table 23: One good thing Amboseli National Park could do

One good thing	% Women	% Men	% Total
Electric fencing	76.0	67.6	68.1
Problem animal control	17.2	26.5	24.8
Construct a school	45.6	41.6	41.7
Provide security	2.9	11.3	9.9
Allow grazing	1.0	1.4	1.3
Construct a dip	12.3	13.0	12.7
Construct roads	16.2	10.2	10.9
None	1.5	0.6	0.7

c). Concerning advice received from

Pastoralists around Amboseli currently receive advice from a number of sources (Table 24), though it is interesting that no advice is sought from KWS park staff! Forty three per cent had been visited by Park staff (wardens 30%, research staff 4.7%, Park water staff (6.7%) mostly during 1993 (77%), but some in 1992 (16%) with very few remembering any visits prior to that (6%). The main purposes of KWS staff visiting included information gathering and game scout recruitment (Table 25).

Table 24: Source of Development Advice

Source	% Women	% Men	% Total
Agricultural officer	16.7	23.7	22.4
Forest officer	1.0	2.2	2.0
Padre	17.7	17.3	17.2
Teacher	10.8	12.0	11.7
Locational Development Committee	62.3	63.8	62.8
Politician	0.0	0.0	0.0
Chief	13.2	14.9	14.5
Warden	0.0	0.0	0.0
NGO	0.0	0.0	0.0
Villagers	0.0	0.0	0.0
None	2.5	3.8	3.6

In contrast there were more extensive visits by government staff, with 53% having been visited by Government Staff and in particular members of parliament (38%), chief and assistance chief (4.7%), councillors (3.2%) and livestock officers (7.1%). It is interesting to note that most of the visits took place in 1991, the year of the elections (65%), with fewer in 1992 (20%) and only 5.6% in 1993. The main reasons for such visits included explaining government policy, plain visits, on development and for political campaigns (Table 26).

Table 25: Purpose of KWS staff visit

Purpose	% Women	% Men	% Total
Educate on wildlife	0.0	0.0	0.0
Check water supply	9.4	17.0	18.1
Information gathering	28.1	34.3	37.7
Assess effects of elephants	0.0	0.0	0.0
Recruit game scouts	37.5	46.2	50.8
Problem animal control	0.0	0.0	0.0
Drinking	1.6	4.0	4.2
Other	23.4	4.7	7.6

Table 26: Purpose of Government staff visit

Purpose	% Women	% Men	% Total
Crop destruction assessment	1.0	4.8	2.3
Area development	6.9	3.3	2.0
Visit	53.9	47.4	25.7
Campaign	6.9	12.9	6.4
Explain govt policy	31.4	28.8	15.5

d). Discussion

The importance of communal lands for the provision of key resources is vital, both in terms of the grazing and wooded lands. This is a strong argument against land use division in the Amboseli group ranches. A small percentage of people obtain their natural resources from the farm land; others obtain some of their natural resources from the park, and in particular water.

People are prepared to contribute funds to a variety of development projects, though they are also interested in seeing certain wildlife/conservation related activities initiated. The majority of respondents had heard of the KWS revenue sharing programme, but were concerned about poor management of the funds. People are clear about what they would like KWS/Amboseli National Park to do for them, namely activities which are primarily rural development focused; but also including electric fencing and problem animal management.

Advice is sought from a variety of sources, none of which currently include KWS, though 43% had been visited by KWS staff. KWS visitation was primarily related to information gathering, game scout recruitment and not the provision of relevant advice. However Government and government related visitation was primarily related to the 1991 elections, though there was also a significant amount of development related visitation

e). **Some key monitoring indicators**

- Change in where natural resources are sourced from, especially park related resources
- Conservation related project initiated
- Increased understanding of WDF, better management (transparency, accountability)
- Increased advise, and usefulness of visitation from KWS staff in relation to conservation
- Increased advise, and usefulness of visitation from Government and other staff in relation to conservation.

5. IMPLICATIONS FOR COMMUNITY CONSERVATION

This survey has attempted to gain insight concerning the Knowledge, Attitudes and Practises of the land users of the Group ranches which comprise the Amboseli ecosystem, and on which Amboseli National Park depends on. A lot of data has been collected. The analysis in this report has a more general summary focus, with more specific reference to gender related issues. The survey could be analysed across a number of different variables and combinations of variables. Such more detailed analysis will be the subject of future reports on these surveys.

The data presented here show strongly the interdependence which exists between the land users of this areas and their land, combined with the generally positive attitude towards wildlife. While the national push towards sedentarization is evident in terms of increased cultivation and longer periods of time spent in one place, pastoralism and livestock production is still the dominant economic mode of production. The compatibility of pastoralism with wildlife conservation is implicit throughout, even though the livestock distribution is very skewed in favour of the richer 20% of the pastoral population.

Interestingly attitudes towards tourism and tourists is ambivalent. On the one hand the people recognize the contribution tourism makes to the National Park and the area as a whole. Yet this is contrasted with a number of problems that are associated with tourism. Concerning Amboseli as a National Park, the respondents understand what the park is, and why it is there. As a result of the Park tourism benefits do accrue to the land users both in terms of direct benefits, and through revenue sharing. However there is a fear concerning rangers and what they do. Obviously this is an area where community conservation and CWS can have a significant effect in terms of community awareness and ranger re-training.

Elephant have often been cited as the primary wild animal problem. However the survey has shown that there is a wide variety of wild animals which cause a variety of problems. It is interesting that most of these problems are related to crops, and much fewer related to

livestock and people. This is due to the increase of rich patch land, being put to agriculture, and in particular irrigated agriculture. This is not compatible with wildlife conservation. If the trend of putting increasing amounts of land under cultivation, such problems will undoubtedly increase in the coming years. This is a strong argument for not increasing agricultural production, but rather trying to increase the economic benefits which can accrue from conservation to land users, thereby encouraging the compatibility between livestock and wildlife conservation production systems.

It is clear that people are not fully aware of how they should report problem animals. This is compounded by the fact that many do not report at all, since compensation is no longer paid, which argues for more emphasis being placed on problem animal management, rather than control. Such problem animal management would need to have its ownership locally, though with the active involvement of the KWS Problem Animal Management Unit (PAMU). People already have a number of mechanisms for dealing with problem animals, which, with more community involvement and advice from KWS, could be diversified and improved upon, thereby creating greater community responsibility for conservation.

The people of the area already use wildlife in a number of ways. Under the current Wildlife Act all these uses would be classified as illegal, though many of the uses are culturally derived and so probably sustainable as they are embodied under a series of customary rules and regulations concerning wildlife use and protection. Interestingly 10% of the sample stated they hunted, primarily for subsistence. Concern was expressed about poaching of wildlife in the area. This survey did not differentiate on ethnic background, therefore it is not possible to say with confidence that it was Maasai or non-Maasai who were hunting. Respondents were well aware that hunting is controlled, but did not associate this control as being primarily with KWS, but with the District Administration. How KWS and the country will be able to rationalize customary use of wildlife for cultural values is an issue that will have to be addressed in the broad context of consumptive use of wildlife, and not confining it to cropping, farming sport and trophy hunting.

People in the area are very aware about the importance of their own natural resources in the extent to which they are used. Likewise they have expressed significant concern about how these natural resources are being treated and in particular the issue of charcoal production in a semi-arid environment where trees play a very important role in the lives of the people as well as in conservation. This is of particular importance for Acacia trees which are valued for their charcoal, yet are extremely important to the ecosystem. Wildlife, and in particular, elephant destruction of habitat was not considered an important natural resource problem. About one quarter of the respondents expressed concern about bird hunting. A number of these natural resource issues are, to an extent beyond the purview of KWS to address. But the CWS should be able to try and work with the group ranches, other NGOs to reduce, or in some way rationalize the production of charcoal. The concern over poaching could be linked back to PAMU and creating a more enabling community response to anti-poaching as well as problem animal management. Likewise the concern over bird hunting may be linked to a number of issues, for instance potential depletion of numbers of birds, and lack of transparent benefit flows - issues that can be addressed through increased awareness and greater transparency.

Linked to this, the majority of the population obtain their key natural resources, for instance firewood, water, grass etc. from common property lands which include the group ranch grazing and forested lands. Very few people obtain these resources from their cultivated lands. However a number obtain some of these key resources from the Park. This points to the lack of coordination between the proposed land sub-division in these areas, and the practical environmental reality of access to, and use of key resources for the people of the area.

Overall the people of the area have a positive attitude towards the National Park, recognizing a variety of contributions which the Park makes, either directly or indirectly. However there are still a number of negative factors associated with the Park, and its management. Some of the issues can be dealt with, for instance improving the negative perception rangers have, while others are more difficult, for instance pastoralist access to water in the Park.

The Amboseli area was the first place where KWS distributed revenue sharing funds. While the majority of respondents had heard of the KWS revenue sharing programme, nearly two fifths of the population expressed concern over the way the programme was run in that they were poorly managed. This argues for a much more transparent and responsible attitude towards revenue sharing, and not perceiving it as a KWS community development fund for those involved. This also relates to where people get their advice from in that it appears that no one obtained advice from KWS staff, though they had been visited quite extensively by KWS staff. This may indicate that the land users are not clear on what the roles of KWS are outside the National Park. The area is not as well serviced in terms of extension advice and visitation by Government extension staff as it could be. Most of the visitations in 1991 were associated with the multi party elections and not necessarily substantive development issues.

It appears clear that at the time of the survey, the land users of the Amboseli ecosystem had not been adequately consulted about conservation issues which directly affect them. This was expressed in terms of a lack of clarity about the role of KWS and more specifically the evolving community conservation approach being taken. This is particularly evident in terms of their perceptions concerning the rangers. However there was widespread awareness about the first revenue sharing attempts in the Amboseli area. It is hoped that since the time of the survey, there is much more clarity about the roles of KWS and its community programme, together with a changing perception of the roles of KWS staff.

It is also clear that the land users of the area are well aware of the importance of their resources, and the potential value conservation is to them both in the context of the natural resources and wildlife. This has to be fostered and developed in the context of sustainable, environmental sound conservation related activities which are of direct and indirect benefit to the people of the area. In this way the land users will increasingly view conservation as an opportunity, and not necessarily a cost.

Annex 1: AWF-KWS. Community Conservation Service Knowledge, Attitudes and practises assessment. Amboseli National Park [Survey Number _____]

1). Name of Head of Household: 1.a). Boma Name _____	2). Sex: Male <input type="checkbox"/> , Female <input type="checkbox"/>
3). When were you born: _____	4). Leadership Position: _____ 5). Tribe: _____
6). Village (or Group Ranch): _____	7). Division: _____
8). District: _____	9). Park Area: _____
10). How many years have you been living in this village? 1). 1-5 years <input type="checkbox"/> , 2). 6-10 years <input type="checkbox"/> , 3). 11-20 years <input type="checkbox"/> , 4). More than 20 years <input type="checkbox"/>	11). How many dependents do you have? wives <input type="checkbox"/> , male children <input type="checkbox"/> female children <input type="checkbox"/> other relatives, male <input type="checkbox"/> other relatives, female <input type="checkbox"/>

12). What is your major occupation/livelihood?

1). Farmer	5). Teacher
2). Pastoralist	6). Fisherman
3). Farmer and livestock keeper	7). Civil Servants
4). Trader	8). Others

13. a). Are you a member of this group ranch? Yes , No

13. b). If No, which Group Ranch? _____

14). What is your level of schooling?

1). No Schooling	4). Some Secondary
2). Some Primary	5). Finished Secondary
3). Finished Primary	n). Other

15). How many animals do you have?

15.a). With You

15.b). Elsewhere

cattle

cattle

sheep

sheep

goats

goats

donkeys

donkeys

16). What things are happening to the natural resources of your village/area that you do not like? (list three only)

1). charcoal burning		7). Bird hunting	
2). Fire outbreak		8). Soil erosion	
3). Water pollution		9). Elephant destroying trees	
4). overgrazing		10). Cutting down trees	
5). Army worm infestation			
6). Poaching		n). Others	

17). What natural resources in your area are important to you and where do you get them from?

Resource	Own land	Common lands	Forest Reserve	Park area
Firewood	1).	2).	3).	4).
water	5).	6).	7).	8).
medicines	9).	10).	11).	12).
wild fruits and foods	13).	14).	15).	16).
cultural reasons	17).	18).	19).	20).
grazing	21).	22).	23).	24).

18). From whom do you receive most of your advise on development in your village?

1). Bw. kilimo		6). Politician	
2). Bw. misitu		7). Chief	
3). Padre		8). Warden	
4). Teacher		9). NGO	
5). LCDA		10). Villagers	
u). Don't Know		n). Others	

19.a). Has anyone from Amboseli National park ever visited you in your village? Yes , No

19.b). If yes when? This Year , Last year , Year before last ,

19.c). If Yes, who?

1). Community warden		4). Water-man	
2). Rangers			
3). Researchers		n). other	

19.d). If yes, what was the purpose of their visit?

1). Educate on wildlife		5). Recruit game scouts	
2). Check water supply		6). Problem Animal Control	
3). Information gathering		7). Drinking	
4). Assess effects of Elephants		n). other	

20). Kainyoo Napaashari teramatare o ngwesi naatii empaka onaatii atua sikiim (what is the difference between a National Park and other areas in which wildlife live)?

1). Animals guarded		5). Plenty of grazing	
2). Not allowed in without permission		6). Not allowed in to use natural resources	
3). Tourists visit park		7). Animals treated	
4). Security in the park		n). other	

21.a). Has anyone from the District Government visited your village? Yes , No

21.b). When? This Year , Last year , Year before last ,

21.c). Who came?

1). Chief		5). Education Officer	
2). M.P.		6). DO , DC	
3). Councillor		7). Agricultural Officer	
4). Livestock, Vet Officer		n). Others	

21.d). How Many Times? less than 5 times , or more than five times?

21.e). For what purpose did they come?

1). Crop destruction assessment		5). Explain Gov. Policy	
2). Area development		6). Famine assessment	
3). Inspect school		7). Solve conflicts	
4). Visit		8). "Harambee"	
5). Campaign		n). Others	

22). What are the good things of living next to Amboseli National Park?

1). Provides water		7). Attract Tourists	
2). built a classroom, polytechnic		8). Provide employment	
3). transport		9). Revenue sharing	
4). grazing		10). Providing shopping facilities	
5). Security		11). Access to salt lick	
6). Provide firewood		n). Other	

23). What are the bad things of living next to Amboseli National Park?

1). Ranger disturbance		6). Chase us from cultivating	
2). Wildlife disturbance		7). Wildlife causes overgrazing	
3). Spread of animal disease		8). Don't share resources	
4). Eat Stock			
5). Crop destruction		n). Other	

24). What are the good things of having wildlife in your area?

1). Provide meat		5). See and know different types of animals	
2). Attract tourists		6).	
3). cash from photos			
4). Funds for development		n). Other	

25).What are the bad things of having wildlife in your area?

1).Eat Stock		5). Spread diseases	
2).Destroy crops		6). Causes overgrazing	
3).threat to safety/security			
4).general destruction		n). Other	

26). If Amboseli West National Park could do one thing to make life in your village better, what should it be?

1). Electric fence		10).Bursaries	
2). Problem animal control		11).Help disabled	
3). Construct a school		12).Help womens groups	
4). Provide security		13).Compensate for losses	
5). Allow grazing		14).Lodges to share revenue	
6). Provide water		15).Increase revenue sharing	
7). Construct a dip		16).Fence the park	
8). Construct a dispensary			
9). Construct roads		n). Others	

27.a). Should you be allowed to enter Amboseli National Park? Yes , No

27.b). If yes, why?		27.c).If No, Why Not?	
1). See different animals		1). Fear rangers	
2). For grazing		2). no need to	
3). Watering		3). Fear wild animals	
4). Shopping			
n). other		n). other	

28.a). Do the tourists coming to Kenya National Parks help you in any way? Yes , No

28.b). If yes, How do they help you?

1).Employment		6). Know different cultures	
2).Foreign exchange		7). Pay for camping	
3).Exchange ideas		8). Encourage friendship	
4).Buy carvings			
5).Give donations		n).Other	

28.c). If no, how would you like to benefit from tourists coming to Amboseli National Park? _____

29.a). Do tourists visiting your area make your life more difficult? Yes , No

29.b). Or easier? Yes , No

29.c). How?

29.c.1). How Make life easier		29.c.2).How not make life easier	
1). Buy carvings		1). Take pictures without consideration	
2). Provide transport		2). Spread diseases	
3). Give donation		3). Increase prices of goods	
4). Cash from photos		4). Spoil women, children and culture	
		5). Cause accidents	
n). Other		n). Others	

30).Do you think Amboseli National park should be abolished? Yes , No

30.a). If Yes Why?		30.b).If No Why?	
1). Provide settlement		1). Foreign exchange	
2). Provide grazing		2).Provide employment	
3). to cultivate		3).Funds for development	
		4).Provide security	
		5). Loose revenue sharing	
		6). Conservation of wildlife	
n). Other		n). Others	

31). What wild animals cause you problems and what are the problems?

1).buffalo destroy life		11).wart hog destroy crops	
2).buffalo eat crops		12).birds destroy crops	
3).elephant destroy crops		13).Swala destroy crops	
4).lion harm people, stock		14).Pongo destroy crops	
5).leopard harm people,stock		15).Hippo destroy crops	
6).baboon eat crops		16).Eland destroy crops	
7).Pigs eat crops		17). Mongoose eat poultry	
8).baboon harm people		18). Zebra destroy crops	
9).Monkeys eat crops		19). Hyenas harm stock	
10).Hippo harm people		Other	

32). What methods do you use to prevent wildlife from causing problems?

1).strong bomas		7). beat debes, make noise	
2).not cultivate near park		8). Scare crows	
3).Guard Crops		9). Report to KWS	
4).Protect stock		10). Lighting fires	
5).Chunga mbali ya Hifadhi			
6). Fencing		n). other	

33.a). Do you report your wildlife problems? Yes , No

33.b). If yes, to whom do you report your wildlife problems?

33.b). If Yes to whom do you report your wildlife problems	33.c). If No, then why not
1). Park Warden	1). no reason
2). Elders	2). don't know who to report to
3). DC/DO/chief/ A.Chief	3). Distance
4). Community Warden	4). No compensation
5). Rangers	
6). Game Scouts	
7). Group ranch committee	
8). Politicians	
n). others	n). Others

34). In which ways do you use wildlife traditionally?

1). Cults	6). Shield making
2). Ornaments	7). Ropes
3). Use as fly whisk	8). Medicines
4). Food	
5). Bows and arrows	n). Other

35.a). Do you use wildlife as a source of food? Yes , No

35.b). if yes which wildlife species

1). gazelle	6). Buffalo
2). eland	7). Dik dik
3). hippo	8). Wildebeast
4). Giraffe	9). Zebra
5). pigs	n). Other

35.c). When was the last time you ate game meat?

This Year , Last year , Year before last , Never eaten

36.a). Does anyone hunt animals in your area? Yes , No

36.b). What do they hunt?

1). gazelle	6). Buffalo
2). eland	7). Dik dik
3). hippo	8). Pongo
4). Giraffe	9). Warthog
5). pigs	n). Other

36.c). Why do they hunt?

Subsistence , Earn Money , Other ,

36.d). When was the last time that hunting was done? _____

37.a). Does anyone control the hunting? Yes , No

37.b). If yes, who?

KWS , Chief , Elders , Villagers , Other ,

38.a). Has your village any rules/regulations (traditional or modern) concerning wildlife use, protection?

Yes , No

38.b). If yes what are they?

1).Employment of game scouts		
2). Taboos (cults)		
3). Fear of Government	n). other	

40). Which development activities are you prepared to contribute money to in your area?

1).School		7). Helping the disabled	
2).Polytechnic		8). Irrigation furrows	
3).Dispensary		9). Dips	
4). Water		10).Electric fence	
5).Dams			
6).Roads		n).Other	

40.a).Where should these development activities be located (name, location etc)?

41).What wildlife activity would you like to see started in your area?

1).Zoos		5).Bee keeping	
2).Sanctuary		6).Game farming	
3).Tourist hotel		7).	
4).Fish Farming		n).Other	

42). Have you heard about Revenue Sharing around Amboseli National Park? Yes , No

42.b). Have you benefited from Revenue Sharing? Yes , No

42.c). If yes, How?		42.d). If no, Why Not?	
1). Construction of School		1). Don't know revenue sharing	
2). Provision of Water		2).Poor management of funds	
3). Dispensary			
n). Other		n). other	

42.e). How would you like revenue sharing to be used in future?

1). Electric fencing		8). Divided as per area	
2). Divided among members		9). Fund cultural villages	
3). Dispensary		10).Famine relief	
4). Bursaries		11).Income generating activities	
5). Repair roadfs			
6). Water provision			
7). Provision of loans		n). other	

43.a). During the dry season where do you graze your livestock?

Name of place _____

43.b). Is this place outside the park?

Yes , No

43.c).Where were you grazing in the last dry season? _____

43.d).Are you still grazing there?

Yes , No

43.e).Why can you no longer graze there?

1).Sufficient grass now		5).A different group ranch	
2).Irrigation scheme		6). In-sufficient grazing	
3).National Park		7).	
4).Rainfall sufficient		8).Other	

Name of Interviewer _____

date: _____

Additional Comments and other information that is felt to be important	

ACKNOWLEDGEMENTS

This survey, though implemented as part of AWF's Tsavo Community Conservation Project has involved a large number of people both at KWS headquarters and in the field.

Without the support of the Assistant Director for Community Wildlife Service (AD-CWS) of KWS, Mrs. G. Lusiola, it is unlikely that this survey would have been carried out as effectively as it was. She provided input into the design of the survey, and ensured that there was good KWS field support in the Tsavo area for the work.

In the field the authors are grateful to the following KWS staff for their assistance with planning, logistics and the carrying out of the survey: Senior Park Warden - Tsavo West National Park, Mr. Kenneth Nashuu (Community Wildlife Officer, Amboseli), Mr. Bernard Koruta (Community Wildlife Officer, Tsavo West), and Mr. David Changai (Warden, Loitokitok). Margaret Ndungu (CWS Monitoring and Evaluation specialist) has provided valuable comment on a previous draft of this report.

A wide range of Group ranch members assisted in the survey in one way or other. These included:

- **Kuku Group Ranch:** Chief for Kuku location, Mr. Philip Leshirika, Councillor for Kuku ward (Cllr. Kotere), Chairman (Mr. Paul Kinyala) and management committee for Kuku Group Ranch, Elders and members of Kuku Group Ranch, and the locally deployed enumerators from Kuku Group Ranch
- **Rombo Group Ranch:** Senior Chief for Rombo location (Mr. A. Mepukori), Councillor for Rombo ward (Cllr. ole Nchabora), Assistant Chief for Rombo Location, Chairman and management committee for Rombo Group Ranch, Elders and members of Rombo Group Ranch, and the locally deployed enumerators from Rombo Group Ranch

To all of these people the authors are very grateful to. We hope that the draft results of this survey (submitted in 1994) together with this report will be of use as the people of the Tsavo eco-system strive to become more responsibly involved and benefit from conservation activities.