

# Livelihood activities in a Namibian wildlife conservancy: a case study of variation within a CBNRM programme

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APPENDIX 1 Household livelihoods survey in Mashi Conservancy, Caprivi, Namibia (Fig. 1).

INTERVIEW NUMBER \_\_\_\_\_  
DATE: \_\_\_\_\_  
TIME: \_\_\_\_\_  
GPS COORDINATES  
NORTHING \_\_\_\_\_  
EASTING \_\_\_\_\_  
NAME OF INTERVIEWER \_\_\_\_\_  
NAME OF INTERPRETER \_\_\_\_\_  
CONSERVANCY \_\_\_\_\_  
KHUTA \_\_\_\_\_  
VILLAGE \_\_\_\_\_

This survey was developed as part of a collaborative research project involving participants from several US and African universities and with input from community leaders and other stakeholders. The effort was funded by the US National Science Foundation, the University of Florida and IUCN.

## Household demographic information

1. For each household member, please tell us the following:

Relationship with head of household	Age or date of birth	Male/female	Education level	Salaried employment	Is person living in household for at least 9 months per year?	If 18, is person a registered member of conservancy?
HEAD						

2. When did you move to this village?

3. Has this village ever moved? If yes . . . When? Why?

4. What is your tribe?

\_\_\_ Mayeyi      \_\_\_ Mafwe      \_\_\_ Other \_\_\_\_\_  
\_\_\_ Mbukushu      \_\_\_ Khwoe  
\_\_\_ Totela      \_\_\_ Mbalangwe

## Infrastructure

5. House:

\_\_\_ Traditional mud  
\_\_\_ Traditional reed  
\_\_\_ Cement block      \_\_\_ Other \_\_\_\_\_

## 6. Roof:

Thatch  Other \_\_\_\_\_  
 Reed  
 Tin

## 7. Courtyard:

Yes  No

## 8. Main source of lighting in household (tick one):

Electric power line  Firewood  
 Paraffin  Generator  
 Gas  Solar  
 Candles  Other (specify) \_\_\_\_\_

## 9. Main source of cooking in household (tick one):

Electric power line  Cow dung  
 Paraffin  Generator  
 Gas  Solar  
 Firewood / charcoal  Other (specify) \_\_\_\_\_

## 10. Tick the following assets your household owns:

Asset	Tick if owned	Asset	Tick if owned
Car		Water storage tank	
Bicycle		Pit latrine	
Canoe		Radio	
Donkey cart		Television	
Sledge		Cell phone	
Plough		Generator	
Tractor		Fishing net and hooks	
Hunting bear		Other: specify	

11. If you don't own a car and need transport, how would you get to Kongola?

12. How would you get to the hospital?

13. If you don't own a cell phone and need to contact someone, how easy is it for you to get access to one?

**Livelihood strategies**

14. What are the things that you and other members of your household do to make money or receive in-kind services? Please list all activities and what you earn from each in 1 year. Also, please rank their importance to your household, with 1 being most important.

Activities or sources of income or in-kind services	Tick if household activity or source	Income (in \$N or type of in-kind service)	Rank of importance
Cash crops			
Livestock sales			
Fishing			
Formal employment			
Pensions			
Remittances			
Farm labour			
Craft sales			
Firewood			
Poles for construction			
River reeds			
Papyrus			

(Continued)

Activities or sources of income or in-kind services	Tick if household activity or source	Income (in \$N or type of in-kind service)	Rank of importance
Thatching grass			
Palm leaves			
Water lillies			
Nuts and berries			
Other			
Other			
<i>Fill in additional items on the back of this page</i>			

15. Has the ranking of these activities changed since the creation of the conservancy? If so, how?

16. Aside from earning money, what are the things that you and your household do to provide for yourselves?

Activities or sources for household use	Tick if household activity or source
Food crops	
Livestock	
Fishing	
Firewood	
Poles for construction	
Reeds	
Papyrus	
Thatching grass	
Palm leaves	
Medicinal plants	
Edible plants	

17. Have the things that you do for your household changed since the creation of the conservancy? If yes . . . how?

18. Was anyone in your household employed last year by a tourist lodge, tour operator, safari hunter, conservancy or national park? If so:

Member of household	Employer	How many months last year?	Salary

19. Did anyone in your household earn other types of income last year from tourists, lodges, tour operators, safari hunters, conservancies or national parks? If so:

Member of household	Product sold or type of work	How many months last year?	Cash earned

20. Please list the crops that you planted and the amount you harvested in the last growing season. How much of each crop do you use for food and how much do you sell? For sales, please include \$N per unit.

Crop	Unit (e.g. number of 50-kg bags)	Amount used for food	Amount sold for cash	Price in \$N per unit sold	Where sold? (local, in town or both)
Maize					
Sorghum					
Millet					
Pumpkins					
Beans					
Melons					
Ground nuts					
<i>Additional items on back of page</i>					

## 21. Field information:

How many fields do you own? \_\_\_\_\_

How large are your fields? \_\_\_\_\_

How long have you owned these fields? \_\_\_\_\_

How far away are your fields? \_\_\_\_\_

22. How much of your field(s) did you plough last season?

23. How many years do you plough the same field before letting it rest?

24. Do you use any fertilizers? If so, which kind? How much does it cost?

25. How did you get the rights to land for cultivation?

26. Do you have any written records that describe your land or resource rights? If yes, what is it?

27. Who will inherit your field(s)?

28. Please indicate the number of livestock your household owns:

Livestock species	Number
Cattle	
Goats	
Chickens	
Others	

29. Where do you graze your cattle? How does this vary at different times of the year?

30. Has the quality of grazing land changed? If yes ... how?

**Expenses information**

33. Please list all your expenses over 1 year. How much do you spend on each expense? Example: \$N 200 per year or \$N 30 per month.

Expense category	Approximate amount (cash or in-kind)	Time frame (per year, per month, etc.)
Food		
School		
Transport		
Medical care		
Clothes		
Labour		
Building materials		
Household electronics (radio, TV, cell phone...)		
Other		

**Food security**

34.

Year	Did you grow enough food for your family?(yes or no)	Did you get food aid?(yes or no)	If yes, who gave you the food aid?
2007			
2006			
2005			
2004			
2003			

**Resource use and availability**

35. What is your drinking water source in the dry season?

36. Where is it located? How long does it take to get there?

37. Has your source of drinking water changed? If yes, when? What was your source before?

38. Where is your water source for livestock in the dry season?

### Human–wildlife conflicts

39. Did you have any problems with crop raiding this season?

Animal	Crops raided	Number of raids	Amount of damage	Did you report this? To whom?
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40. Do you guard your fields? If yes, how do you guard them?

41. For how long do you guard them?

42. Has crop raiding by wildlife increased or decreased or remained the same since as far back as you can remember?

43. If yes, how has it changed? Why?

44. Did you have any problems with predators attacking livestock this year?

Predator	Livestock species	Number of kills	Number of injuries	Did you report this? To whom?
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45. How do you protect your livestock?

46. Have predator attacks on livestock increased or decreased or remained the same since as far back as you can remember?

47. If yes, how has it changed? Why?

48. Were any household members injured or killed by wildlife this year? If so, what animals were involved?

### Risk perception

In some places, people face many problems, including things that are uncertain and hard to predict. For example, in some places people are worried about drought, some people are worried about livestock diseases, and some are worried that other people may take their land. Now we would like to ask you about the things that you are worried about: what things may be a problem for you or your family?

49. First, list these problems in the table below.

50. Then, rank these problems: Which is the biggest problem or the most serious? Which is the next most serious, etc.?

*Response to unfavourable events:* Now we would like to talk with you about your experience with the worries that you have identified. For each of the problems you listed:

Problem/concern/worry	Rank
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51. Who do you know that has experienced this problem or event? (You or someone in your household? Someone in your village? Someone in your conservancy? Someone further away?)

If so, what happened? When?

Rank	Risk/concern	Who experienced this?				When?	What happened?
		Someone in household	Someone in village	Others in conservancy	Someone further away		

1

2

3

4

5

52. Name of interviewee (optional)  
 53. Would it be OK to contact you again in coming weeks or next year?

APPENDIX 2 Agricultural field survey in Mashi Conservancy, Caprivi, Namibia (Fig. 1).

FIELD SURVEY NUMBER \_\_\_\_  
 LIVELIHOOD SURVEY NUMBER \_\_\_\_  
 DATE:  
 TIME:  
 TICK AFTER TRACKING FROM HH TO FIELD \_\_\_\_  
 TICK AFTER TRACKING FIELD \_\_\_\_  
 GPS COORDINATES for centre of field  
 NORTHING \_\_\_\_\_  
 EASTING \_\_\_\_\_  
 NAME OF INTERVIEWER \_\_\_\_\_  
 NAME OF INTERPRETER \_\_\_\_\_  
 CONSERVANCY \_\_\_\_\_  
 KHUTA \_\_\_\_\_  
 VILLAGE \_\_\_\_\_

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**I. Plot characteristics – enumerator observations**

1. What is the topographic position of the plot?  
 \_\_\_ Flat upland                      \_\_\_ Flat valley  
 \_\_\_ Slope                              \_\_\_ Other
2. How is the plot sloped? Scale of 1 to 5:  
 Highly sloped = 1, Medium sloped = 3, Flat = 5
3. What kind of water bodies do you see near the plot? Describe.
4. What colour is the soil of this plot?  
 \_\_\_ Yellow                              \_\_\_ Grey  
 \_\_\_ Brown                              \_\_\_ Red  
 \_\_\_ Black                                \_\_\_ Other
5. What is the texture of the soil of this plot?  
 \_\_\_ Sandy                                \_\_\_ Silt  
 \_\_\_ Gravelly                            \_\_\_ Clay  
 \_\_\_ Rocky
- 6a. Is the plot surrounded by similar plots in terms of the characteristics described above?  
 \_\_\_ Yes \_\_\_ No
- 6b. If no, briefly describe the differences.
7. What is the vegetation on this plot?  
 \_\_\_ No vegetation, bare soil              \_\_\_ Field crop (specify) \_\_\_\_\_  
 \_\_\_ Fallow – mostly grass, forbs        \_\_\_ Vegetable (specify) \_\_\_\_\_  
 \_\_\_ Fallow – mostly bush                \_\_\_ Tree crop (specify) \_\_\_\_\_  
 \_\_\_ Fallow – mostly trees
8. Is most of the surrounding land forested?  
 \_\_\_ Yes                                  \_\_\_ No
- 9a. Are village houses present on the perimeter of the plot?  
 \_\_\_ Yes                                  \_\_\_ No
- 9b. If yes, how many? \_\_\_\_

## II. Changes over last 5 years – ask informant

1. In what year was this plot cleared for agriculture?
2. What crops have you been growing on this plot during the last 5 years? How many kilograms, bags, etc., have you harvested from this plot?

Year	Crops (include bush and fallow when appropriate)	Units of harvest	N\$ from crop sales
2007			
2006			
2005			
2004			
2003			

3. What is the total number of ha for this plot? For all plots?
4. How much N\$ did you spend on your crops?

Year	N\$ labour	Your time: labour	N\$ for guarding field	Time spent guarding field	N\$ for harvest	Time for harvest
2007						
2006						
2005						

5. Do you apply manure to this plot?

Yes       No

6. In the last 5 years, have you ever applied chemical fertilizer to this plot?

Yes       No

7. If yes:

Year	Type (N-P-K number)	Amount (bags, kg, or other unit)	Number of applications
2007			
2006			
2005			
2004			
2003			

## III. Access to water source

1. How do you water this plot?
- 2a. Has that changed during the last 5 years?  
 Yes       No
- 2b. If yes, how?
- 3a. In each of the last 5 years, how much of your crops have you lost to crop raiding by wildlife?
- 3b. For the crops that remained, how much have you lost to flood?
- 3c. For the crops that remained, how much have you lost to drought?

Year	% lost to wildlife	% lost to flood	% lost to drought
2007			
2006			
2005			
2004			
2003			

## IV. Soil description

1. How would you describe the soil on this plot?
2. How fertile do you think this plot is?  
 Very fertile       Poor  
 Fertile       Very poor

3a. Has the fertility of the soil changed since you started farming this plot?

Yes  No

3b. If yes, how has it changed? Why?

4. Is soil loss considered to be a significant problem for this plot?

Yes  No

5. In which of the last 5 years did this plot lose a significant amount of soil? What was the cause (wind, rain, other)?

Year	Tick if soil loss	If yes
2007		
2006		
2005		
2004		
2003		

**V. Zonation**

1a. Would you be willing to move to a new field if it meant that your crops had greater protection from wildlife and there was water on site?

Yes  No  Don't know

1b. If yes, how far (in distance or time) would you be willing to travel to plough and harvest your crops if it meant that they had greater protection from wildlife?

1c. If no, why would you be unwilling to relocate?

2a. Do you think that it would be a good idea to allocate certain parts of this conservancy as wildlife only and other parts as agriculture only and grazing only?

Yes  No

2b. Why?