Muduva Nyangana
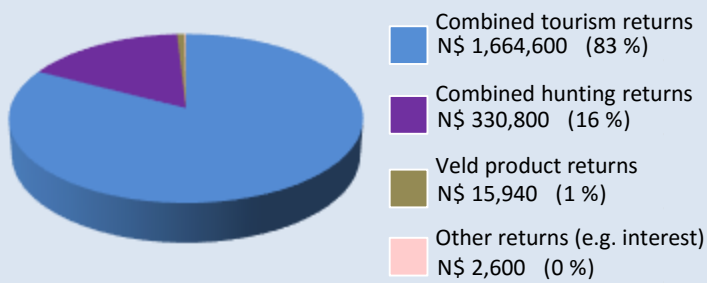# Status Summary & Natural Resource Report

maximising wildlife returns by minimising threats...

Conservancy status summary

Returns from natural resources in 2014
the chart shows the main sources of returns and values and their percentage of the total returns

Approximate Total Returns N$ 2,013,940

- Combined tourism returns N$ 1,664,600 (83 %)
- Combined hunting returns N$ 330,800 (16 %)
- Veld product returns N$ 15,940 (1 %)
- Other returns (e.g. interest) N$ 2,600 (0 %)

Two of the most significant returns for the conservancy:
- ✓ cash income to the conservancy to cover running costs and invest in developments
- ✓ Employment to conservancy residents

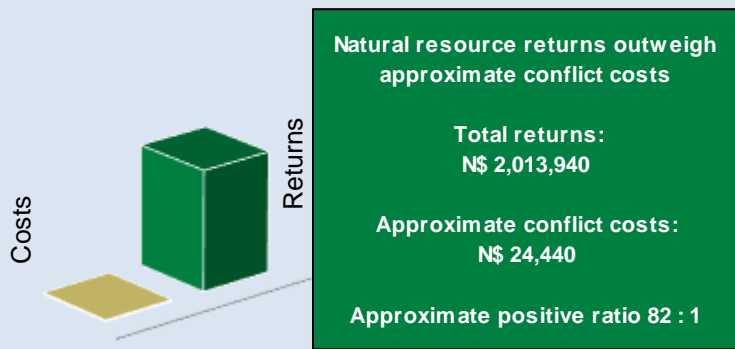| Conservancy income			N$ 336,740
Employment	Private Sector	13 staff	N$ 109,200
	Conservancy	11 staff	N$ 134,430

Cost of natural resource conflicts in 2014
estimates are based on average national values

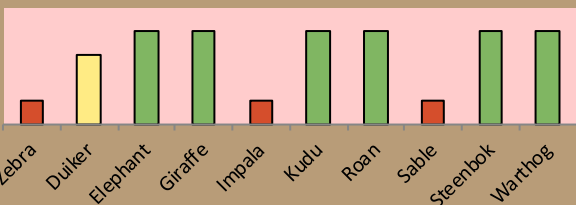| Estimated human wildlife conflict cost	N$ 17,010
Estimated poached high value species loss	N$ 7,430
Total conflict cost estimate	N$ 24,440

Natural resource cost–return ratio in 2014
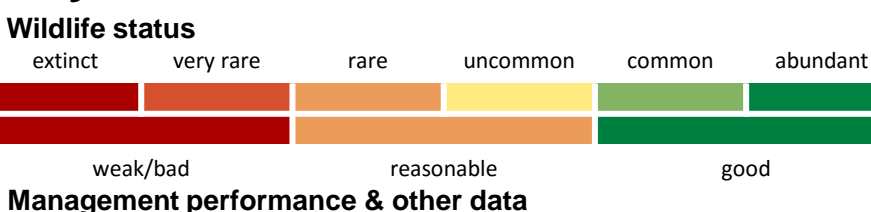the chart shows the approximate ratio of returns to costs

Natural resource returns outweigh approximate conflict costs

Total returns: N$ 2,013,940

Approximate conflict costs: N$ 24,440

Approximate positive ratio 82 : 1

Management performance in 2015

Category	Performance
1 Adequate staffing	
2 Adequate expenditure	
3 Audit attendance	
4 NR management plan	
5 Zonation	
6 Leadership	
7 Display of material	
8 Event Book modules	
9 Event Book quality	
10 Compliance	
11 Game census	
12 Reporting & adaptive m/ment	
13 Law enforcement	
14 Human Wildlife Conflict	
15 Harvesting management	
16 Sources of NR income	
17 Benefits produced	
18 Resource trends	
19 Resource targets	

Wildlife status summary in 2015

B. Zebra, Duiker, Elephant, Giraffe, Impala, Kudu, Roan, Sable, Steenbok, Warthog

Human wildlife conflict

Human wildlife conflict trend
the chart shows the total number of incidents each year, subdivided by species, grouped as herbivores and predators

- Hyaena
- Lion
- Crocodile
- Other predators
- Elephant
- Hippo
- Pigs/Porcupine
- Antelope/baboon

Most troublesome problem animals 2013-2015
the chart shows the number of incidents per species for the last 3 years; the darkest bar (on the right) indicates the current year for each species

The most troublesome species in 2015 are on the left

The least troublesome species in 2015 are on the right

Elephant, Caracal, Wild dog, Hyaena, Cheetah, Antelope

Type of damage by problem animals 2013-2015
the chart shows the number of incidents per category for the last 3 years; the darkest bar (on the right) indicates the current year for each type

Livestock attack, Other damage, Crop damage, Human attack

Poaching

Number of incidents per year
Commercial poaching is a serious threat to conservancy benefits. The chart shows the number of incidents per year

- Subsistence
- Commercial
- High Value

Traps and firearms recovered
number of incidents per category

- Firearms recovered
- Traps/snares recovered

Arrests and convictions
number of incidents per category

- Arrests
- Convictions

Wildlife removals – quota use and value

Species	Quota 2015			Animals actually used in 2015						Potential Trophy Value N$	Potential Other use Value N$
	Total	Trophy	Other Use	Trophy	Own Use & Premium	Shoot & Sell	Capture & Sale	Problem Animal	Total Use		
Caracal	2	2								2,554	
Duiker	2	2								1,916	
Eland	2	2								8,300	
Elephant*	5	4	1	1					1	204,320	63,600
Gemsbok	10	4	6		2				2	4,725	2,160
Giraffe	1		1						1		11,200
Impala	3	3		0.5					1	3,576	
Kudu	13	5	8	0.5	2				2	5,491	2,580
Leopard	1	1								51,080	
Ostrich	3	3								1,277	
Roan*	2	2		1					1	76,620	
Steenbok	3	3								1,532	
Warthog	4	2	2	1					1	2,682	400

Potential value estimates (N$) for species are based on:
- **Potential trophy value** - the average trophy value for that species in the conservancy landscape
  - trophy values vary depending on trophy quality, international recognition of the hunting operator and the hunting area
- **Potential other use value** - the average meat value for common species
  - the average live sale value of each high value species (indicated with an *)[high value species are never used for meat]

Key to the status barometer

Wildlife status

extinct | very rare | rare | uncommon | common | abundant

weak/bad | reasonable | good

Management performance & other data

Success/threat flags

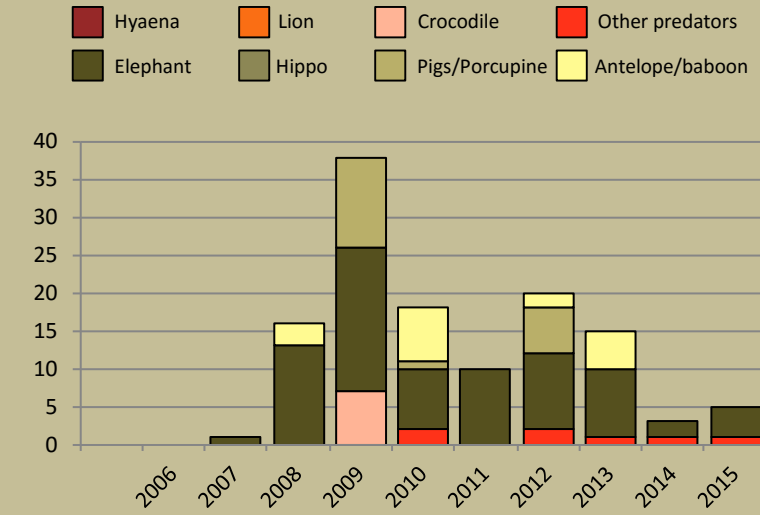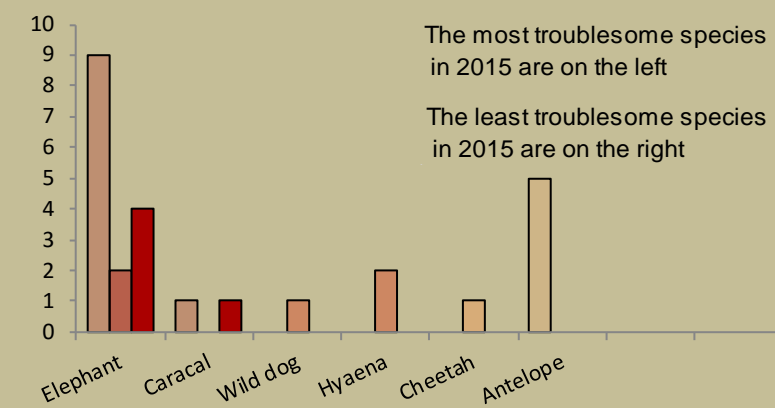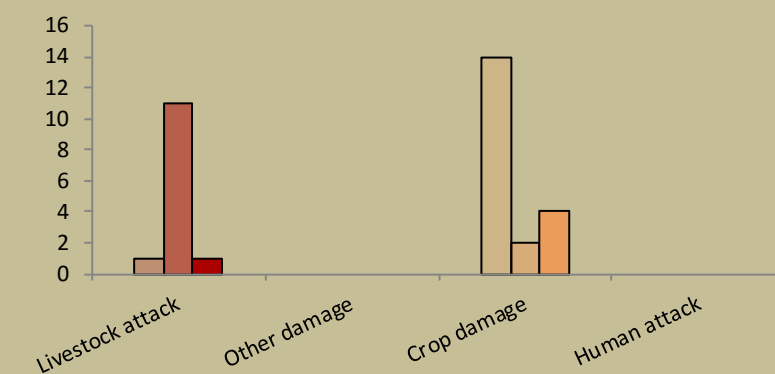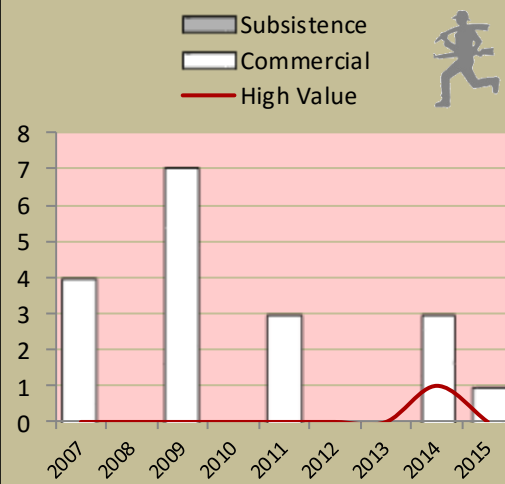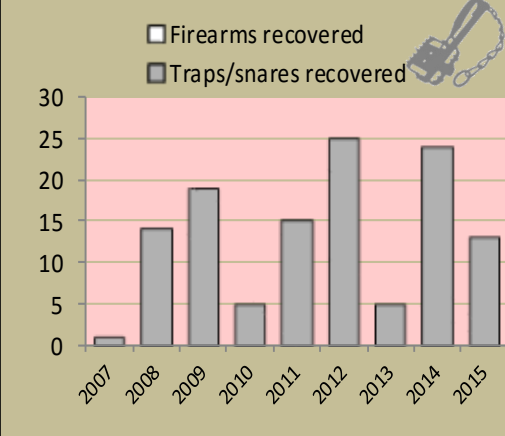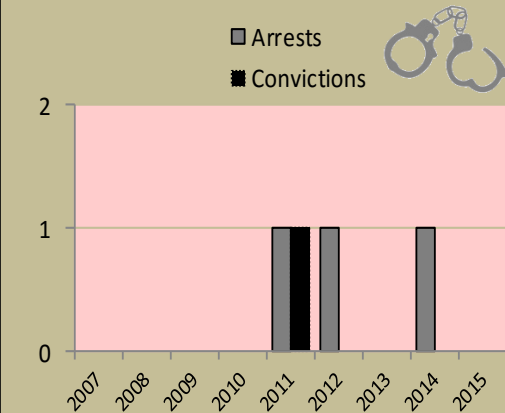▶ success/ benefit created

◀ weakness/ action needed

Conservancies reduce environmental costs while increasing environmental returns. Returns from wildlife can far outweigh human wildlife conflict costs.

monitoring numbers and trends for a healthy conservancy...

Current wildlife numbers and status

Species	Animals Seen	Estimate	Wildlife Status		
			Count Trend	National Guideline	Desired Number
B. Zebra					
Duiker	20				
Elephant	1				
Giraffe	21				
Impala					
Kudu	19				
Roan	41				
Sable					
Steenbok	11				
Warthog	7				

Wildlife Status

Count trend – gives the species status in the conservancy based on game count trend data.
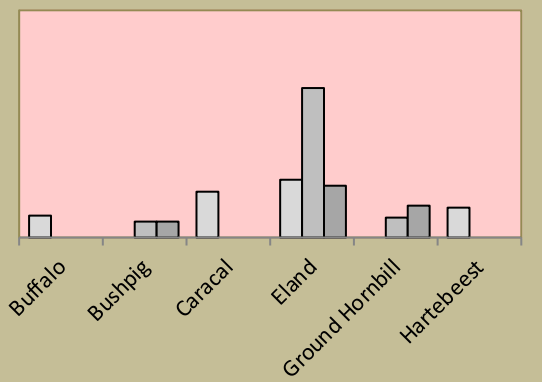
National guideline – gives the species status in the conservancy using national guidelines for the conservancy; for example, lions may cause local problems, but are of high value and are rare at landscape level.

Desired number – gives the species status in the conservancy based on what the conservancy would like to have.
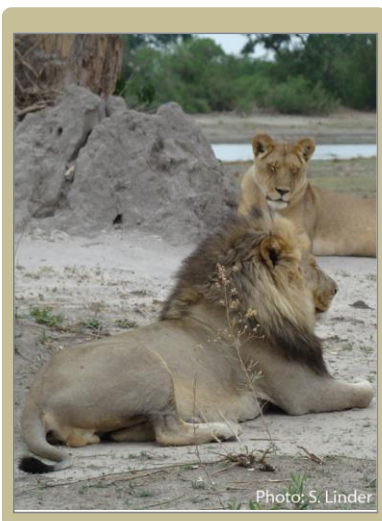
dark green (abundant) – there should be less;
light green (common) – the desired number is reached;
yellow (uncommon) – there should be more;
light orange (rare) – there should be more than double;
dark orange (very rare) – there should be more than triple;
red (extinct) – the species needs to be reintroduced.
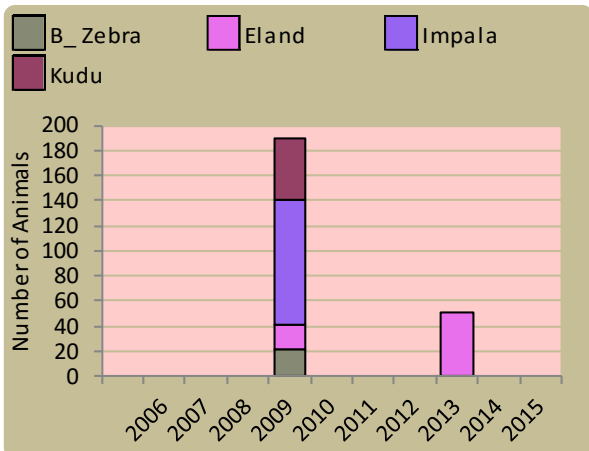
Locally rare species

□ 2013 □ 2014 □ 2015

Sightings indicator

Buffalo, Bushpig, Caracal, Eland, Ground Hornbill, Hartebeest
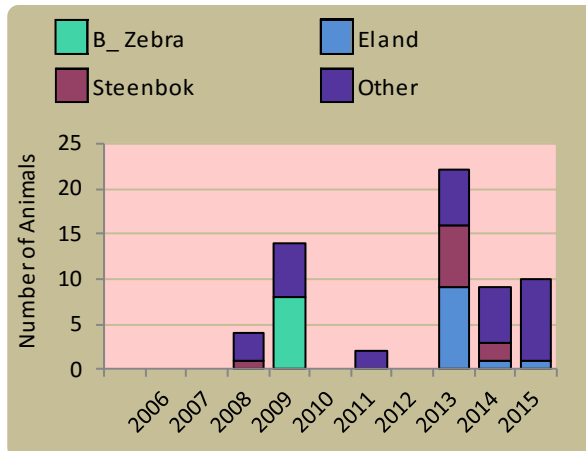
Locally rare and endangered species are not found very often in the conservancy and need special conservation attention.

Wildlife introductions
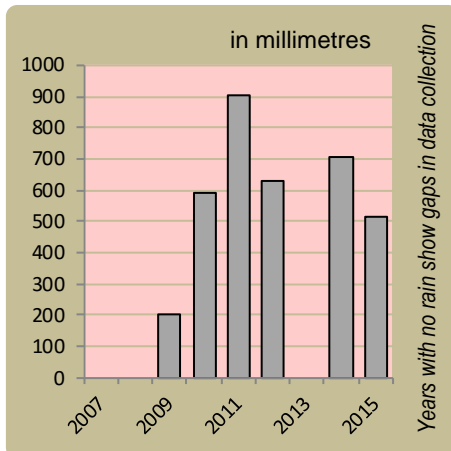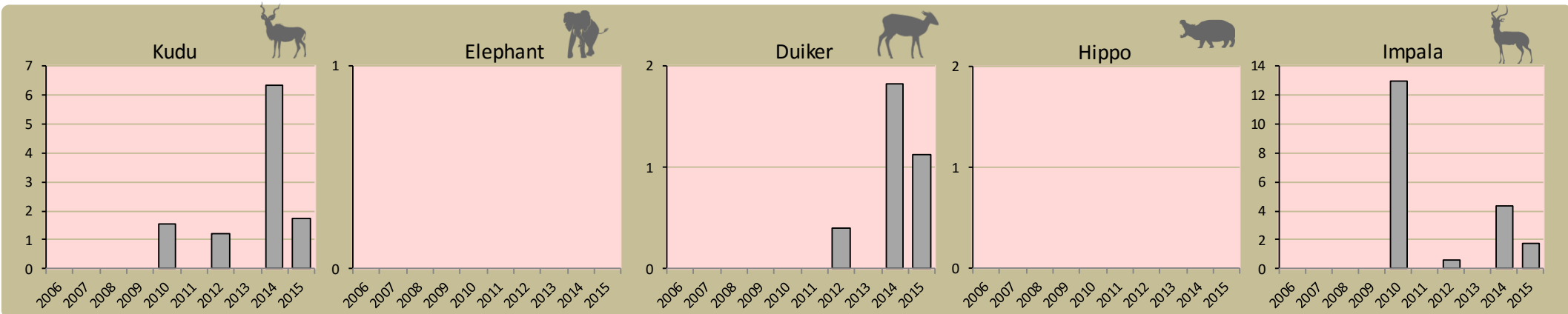

B_Zebra, Eland, Impala, Kudu

Number of Animals

Wildlife mortalities

B_Zebra, Eland, Steenbok, Other

Number of Animals

Annual rainfall

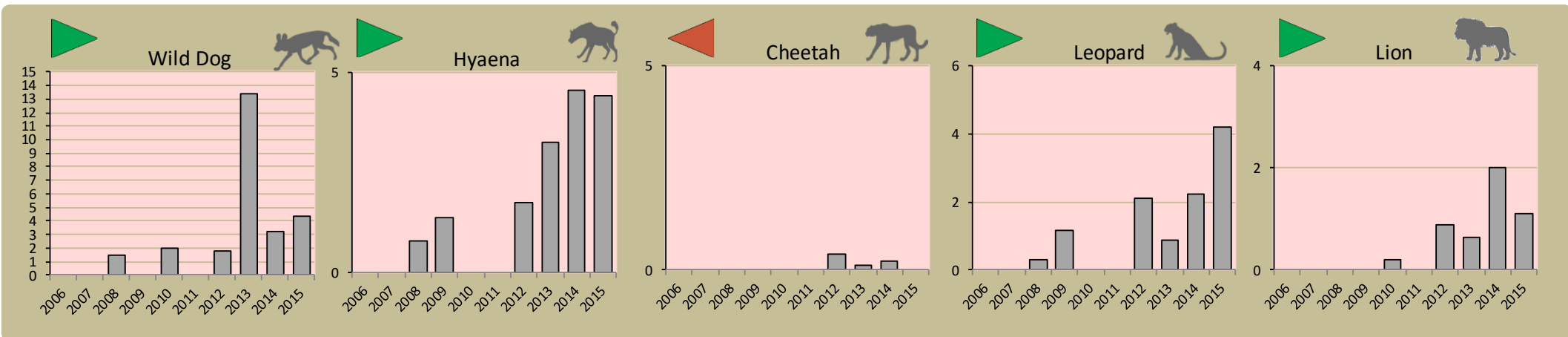

in millimetres

Years with no rain show gaps in data collection

Photo: S. Linder

Fixed route patrols

charts show the number of sightings of each species per fixed route foot patrol each year

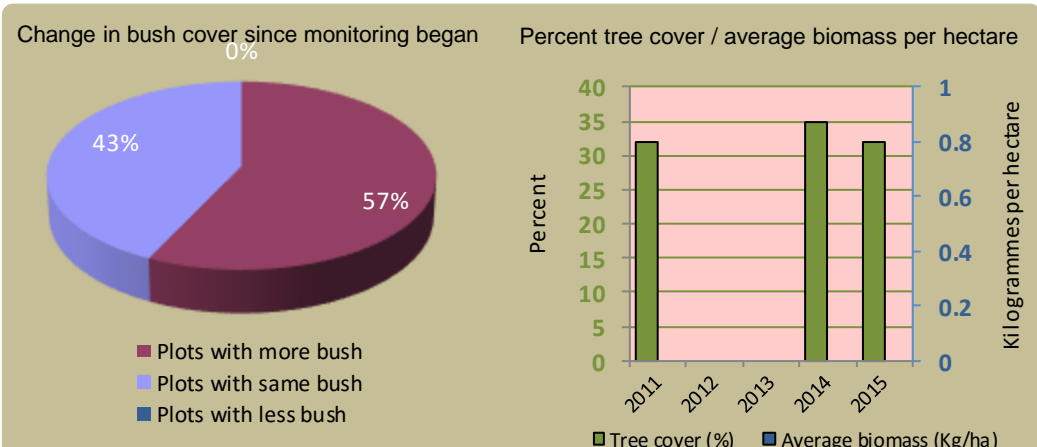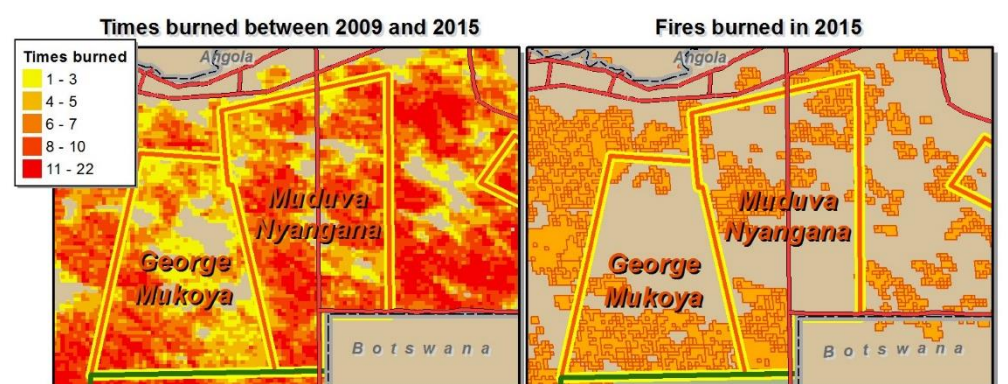Kudu, Elephant, Duiker, Hippo, Impala

Predator monitoring

charts show the average number of animals seen per Event Book each year
status barometers reflect the general sightings trend over the last 5 years

Wild Dog, Hyaena, Cheetah, Leopard, Lion

Vegetation monitoring

Change in bush cover since monitoring began

0%
43%
57%

■ Plots with more bush
■ Plots with same bush
■ Plots with less bush

Percent tree cover / average biomass per hectare

Percent

Kilogrammes per hectare

■ Tree cover (%) ■ Average biomass (Kg/ha)

Fire monitoring

Times burned between 2009 and 2015

Times burned
1 - 3
4 - 5
6 - 7
8 - 10
11 - 22

Angola
Muduva Nyangana
George Mukoya
Botswana

Fires burned in 2015

Angola
Muduva Nyangana
George Mukoya
Botswana

Wildlife provides a wide range of benefits. Some wildlife can cause conflicts, but all wildlife is of value to tourism, trophy hunting and a healthy environment.

By using all the available information and adapting and improving activities, threats such as human wildlife conflict, poaching and other issues can be minimised.

Enabling wise conservancy governance…

Conservancy statistics

Date Registered:	September 2005
Members:	1456
Size (square kilometres):	615

Constitutional adherence

Approved constitution	✓
AGM held	✓
Management and utilisation plan	✓
Financial annual report approved at AGM	✓
Financial report external review	✗
Benefit distribution plan	✓

Conservancy Governance

Number of management committee members:	8
Date of last AGM:	Sat, November 21, 2015
Attendance at AGM:	Men: ; Women:
Date of next AGM:	Mon, November 21, 2016
Other important issues	
Financial report approved?	✓
Budget approved?	✓
Work plan approved?	✓

Employment

Conservancy staff: Male		11
Female		0
Community game guards:		0
Community resource monitors:		9
Lodge staff: Male		0
Female		0

Benefits

Meat Distribution - Members

Conservancy Self Evaluation How well does the conservancy consider it has performed in the past year?

Effectiveness of implementation	Poor	Fair	Good	Explanation of effectiveness rating
Game Utilisation and Management Plan		■		Resource monitors require more training to effectively carry out proper patrols.
Zonation Plan		■		More enforcement of zonation plan still needed, some settlements still in wildlife zone.
Natural Resource Plan		■		More is still required to prevent destructive late season wildfires in the area.
Human Wildlife Conflict Plan		■		Focus on HWC mitigations is still a challenge and needs to be adhered to.
Tourism Plan		■		Not all animals on quota were used. Need to improve on quota utilisation.
Sustainable Financial Plan		■		Proper record keeping is an issue that requires urgent attention.
Benefit Distribution Plan			■	All village projects were implemented successfully.
Staff Plan		■		Proper EBS training required for resource monitors and patrols need to be improved.
Assets Plan		■		More and strict control measures on asset use required.
HIV/AIDS Plan	■	■		Conservancy does not have required materials at hand to implement the activities.
Communication Plan		■		Challenges such as poor cellphone reception in the area, no internet connection.