THE PROFILE AND SOCIO-ECONOMIC IMPACT OF LOCAL HUNTERS IN SOUTH AFRICA

2023

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Tourism Research in Economics Environs and Society

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VISIT US

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About TREES

This innovative tourism research unit, Tourism Research in Economics, Environs and Society, has existed for over 20 years. The Unit forms part of the Faculty of Economic and Management Sciences at North-West University. Our team of researchers is well known on both a national and international level. In the team of 21 researchers, we are proud to have 9 NRF-rated team members, 7 full professors and 7 extraordinary researchers.

Never before has research been as vital as it is today. With tourism growing in importance in the country, we are relevant with the type of studies we conduct and the quality thereof. Our research focus aligns with the goals and objectives of the National and Provincial departments by analysing economic, environmental and community (society) issues. Specific topics related to marketing and management. Globally, the tourism industry has changed over the last few years, and South Africa's situation is no different. Research is needed to ensure that the tourism industry will return to its former position (even be in a better position) and continue to be one of the economic drivers in this country.

Our contribution to the private sector is of note since it guides decisions and gives strategic direction to tourism products. We also adapt themes and focuses where necessary to address the specific needs of the industry and or scholarly communities. Our post-graduate programme (Magister and PhD-students) directly contributes to skill development and educating students that can develop the industry with a positive outlook. I am excited about the current research projects and the difference they can make in the industry and scholarly environment.

We publish in both national and international accredited journals. In 2019 our highest number of articles in the history of TREES was published, an exceptional achievement. Several of our staff serve on editorial boards or act as reviewers for reputable journals. The TREES team members have also received many accolades, such as Women in Science Awards, Most Productive Senior Researcher at NWU, Most Productive Junior Researcher at NWU, one staff member served on the Research Forum of the Minister of Tourism and three of our Master students received the Vice-Chancellors award for best Magister students.

Striving towards excellence

Our research outputs: 2012-2023

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1. INTRODUCTION

Natural area tourism is Africa's leading source of tourist revenue (also accounts for South Africa) through photographic safaris and hunting (Van der Merwe, Saayman & Krugell, 2007). According to Newsome *et al.* (2013:14), natural area tourism consists of four different tourism sectors: ecotourism, wildlife tourism, geotourism and adventure tourism. Each of these tourism sectors offers a unique experience to the tourists who engage in it, with one similarity being that all the tourism activities happen in the natural environment (Fennell, 2008:20). This research focuses on the wildlife pillar of natural area tourism.

Higginbottom (2004:2) states that "wildlife tourism is tourism based on encounters with non-domesticated (non-human) animals such as springbok, elephants and lions." The occurrence can occur in the animals' natural environment, such as reserves, game farms and national parks, or in captivity, such as zoos. These activities can be classified into two main groups, namely non-consumptive (photographic safaris) or consumptive (hunting and fishing) (Higginbottom, 2004:3). The private wildlife industry in South Africa mainly consists of four pillars, namely hunting, game breading, game sales and by-products.

2. RESEARCH AIM AND OBJECTIVES

The main aim of the research project that consisted of four reports was to assess the socio-economic impact of hunting tourism in South Africa. The project are the following:

- Objective 1: To determine the socio-economic impact of national hunters in South Africa (Report 1).
- Objective 2: To determine the socio-economic impact of international hunters to South Africa (Report 2).
- Objective 3: To determine the profile of game farm owners and their socio-economic impact on South Africa (Report 3).
- Objective 4: To determine the socio-economic impact of the taxidermy industry in South Africa (Report 4).

These results will be presented in four separate reports, based on these objectives, the following four reports will feature the profile and socio-economic impact of national hunters of South Africa (report 1), the profile and socio-economic impact of international hunters to South Africa (report 2), the profile and socio-economic impact of game farms in South Africa (report 3), and the profile and socio-economic impact of the taxidermy industry of South Africa (report

4). This report focuses on the profile and socio-economic impact of the national hunters of South Africa.

3. RESEARCH METHOD

A quantitative research approach was followed using a web-based survey. The target population for this research was the South African hunter. Non-probability sampling was used, namely convenience sampling. 1864 useable questionnaires were received.

3.1 DEVELOPMENT OF THE MEASURING INSTRUMENT

The questionnaire for national hunters consisted of the following sections:

- Section A: Demographic information.

  Respondents' demographic information was obtained in this section.

- Section B: Economics impact of hunters

  This section determines the economic impact of hunters by focusing on their spending behaviour.

- Section C: Social impacts of hunting

  This section captures information regarding the social impacts of hunting from a hunter's point of view.

3.2 ETHICAL CONSIDERATIONS

All research projects need to adhere to ethics clarence from the university (North-West University). The ethics clearance number of this research project is NWU-00652-22-A4.

4. RESULTS

4.1 SECTION A: SOCIO-DEMOGRAPHIC INFORMATION OF SA HUNTERS

The following section focusses on the profile of South African hunters, namely gender, age, place of origin and occupation to name but a few.

4.1.1 Gender

As shown in Figure 1.1, 97% of the respondents were male, with 2% female and only 1% of respondents being non-binary.

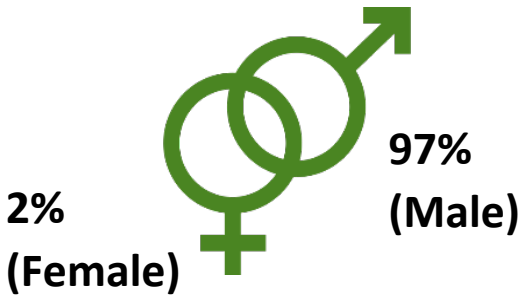

Figure 1.1: Gender

4.1.2 Age of respondents

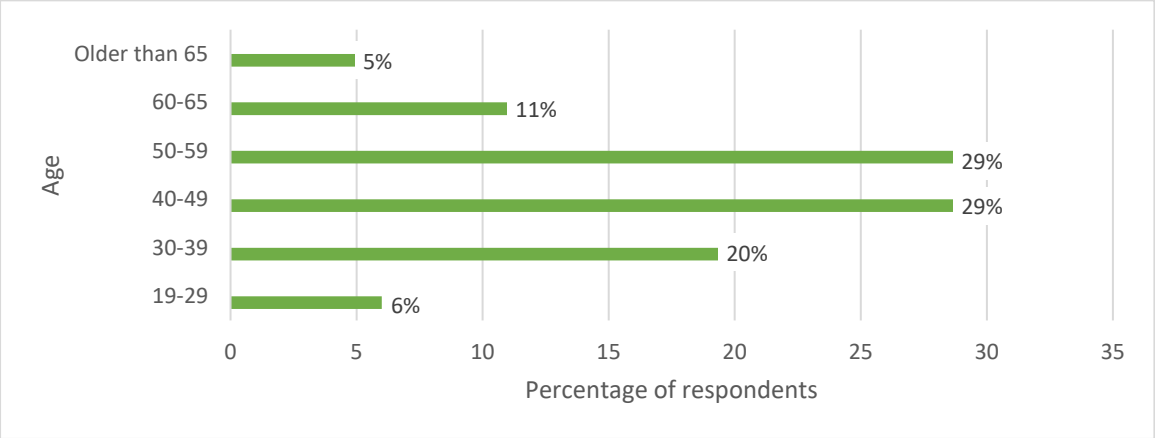

Figure 1.2: Age of respondents

The two most significant percentages of hunters are between 40 and 49 and 50 and 59 years of age, at 29%, respectively (Figure 1.2). The second highest age category was hunters in the age group 30 to 39 years with 20%, followed by hunters between the ages of 60 and 65 with 11%. Younger hunters between 19 and 29 accounted for only 6% of the respondents, while hunters older than 65 accounted for 5%. The average age of the respondents was 47 years of age. The average age of respondents in the 2017 report was 49.85 years (Table 1.1). This is, therefore, in line with previous research.

Table 1.1: Previous findings of age groups 2017

Age	2009	2010	2013	2015	2017
< 18	6%	0%	1%	-	**-**
18-21	1%	0%	1%	-	**-**
22-30	4%	9%	8%	8%	7%
31-40	24%	21%	18%	18%	17%
41-50	34%	33%	30%	32%	26%
51-60	24%	25%	29%	30%	29%
61+	7%	12%	13%	12%	21%

4.1.3 Marital status

Figure 1.3 indicates that most respondents were married, namely 82%, while 5% were divorced, single, or in a relationship, respectively. A small percentage was living together, namely 2%.

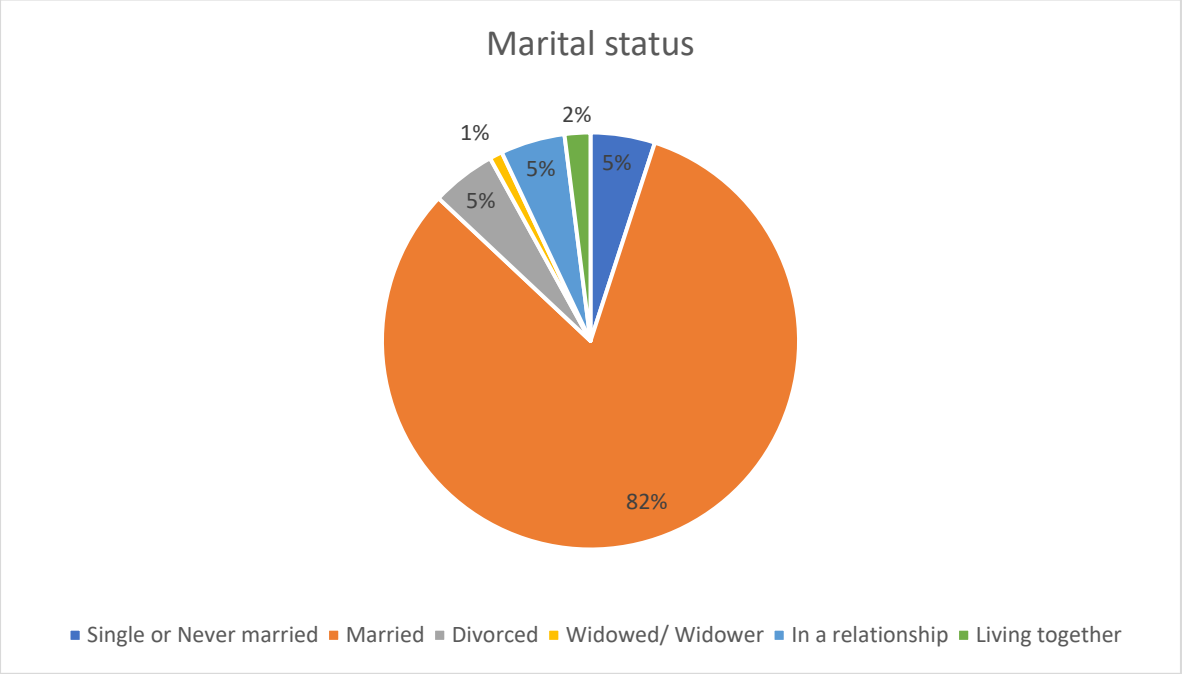

Figure 1.3: Marital status

As seen in Table 1.2, in 2017, 82% of respondents were married, which indicates similarity with the current study.

Table 1.2: Previous findings on marital status 2017

Status	2005	2007	2009	2010	2013	2015	2017
Not married	6%	4%	5%	7%	5%	7%	6%
Married	89%	89%	88%	87%	86%	83%	82%
In a relationship	-	-	-	-	2%	3%	4%
Living together	1%	2%	2%	2%	3%	2%	2%
Divorced	4%	5%	4%	4%	3%	3%	6%
Widow/er	-	-	1%	-	1%	2%	-

4.1.4 Highest level of education

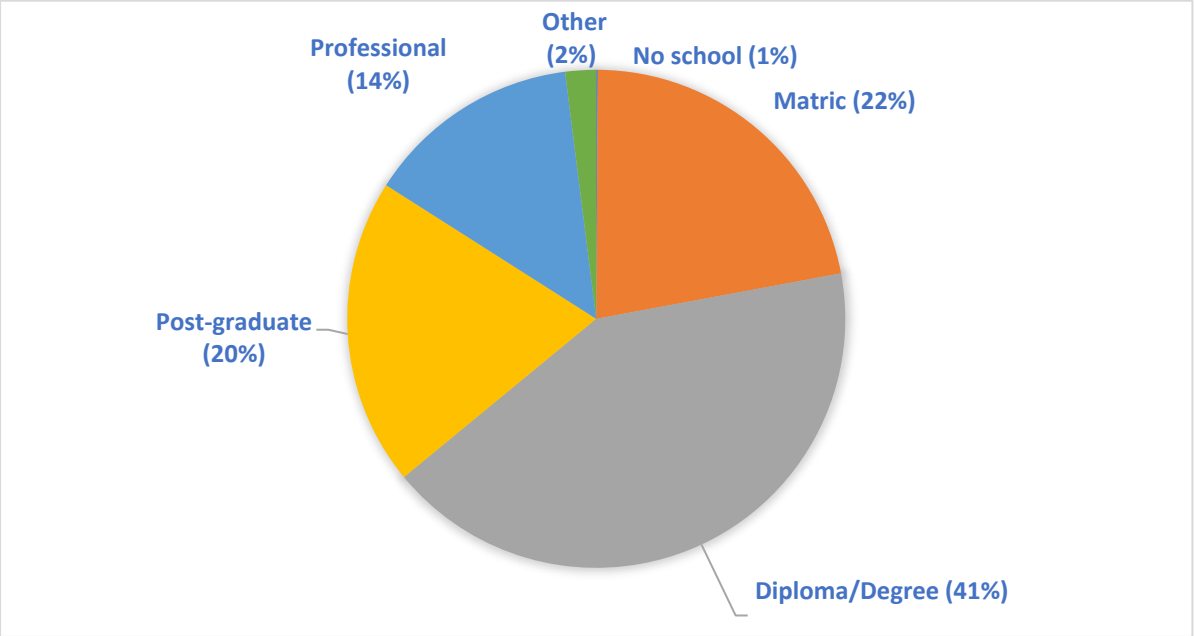

Figure 1.4: The highest level of education

As seen in Figure 1.4, 41% of respondents have a diploma or degree, indicating that respondents are educated, 22% of the respondents hold a matric, and 14% have a professional qualification. Compared to the 2017 report (Table 1.3), 45% of respondents also had a degree or diploma, resulting in a close similarity to the current results.

Table 1.3: Previous findings on the highest level of education

Level of education	2005	2007	2009	2010	2013	2015	2017
No school	-	-	-	-	-	-	-
Completed school (matric)	27%	23%	7%	23%	19%	17%	25%
Diploma/degree	37%	37%	61%	48%	44%	44%	45%
Post-graduate	17%	16%	26%	15%	22%	22%	18%
Professional	15%	20%	-	11%	13%	16%	11%
Other	4%	4%	6%	3%	2%	1%	1%

4.1.5 Province of residence

When analysing the provinces of origin of South African hunters (Figure 1.5), the largest percentage of respondents originate from Gauteng (51%), followed by the Western Cape with 15%, KwaZulu-Natal and the North West with 6%, respectively and Mpumalanga with 7%. The least represented province is the Northern Cape, with 2%. This again confirms that most hunters reside in Gauteng, which agrees with the 2017 results.

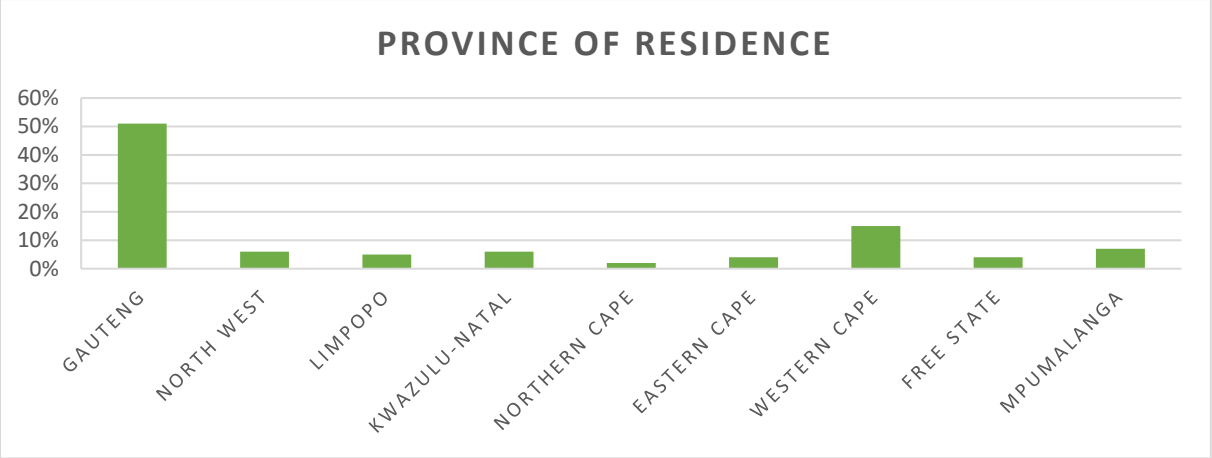

Figure 1.5: Province of residence

4.1.6 Occupation

Most respondents indicated they were in professional occupations (26%). Those in management positions totalled 22%, and 18% were self-employed (Figure 1.6), followed by technical workers (10%) and farmers (8%). This agrees with the 2017 research, namely that hunters still occupy professional, management and self-employed positions (Table 1.4).

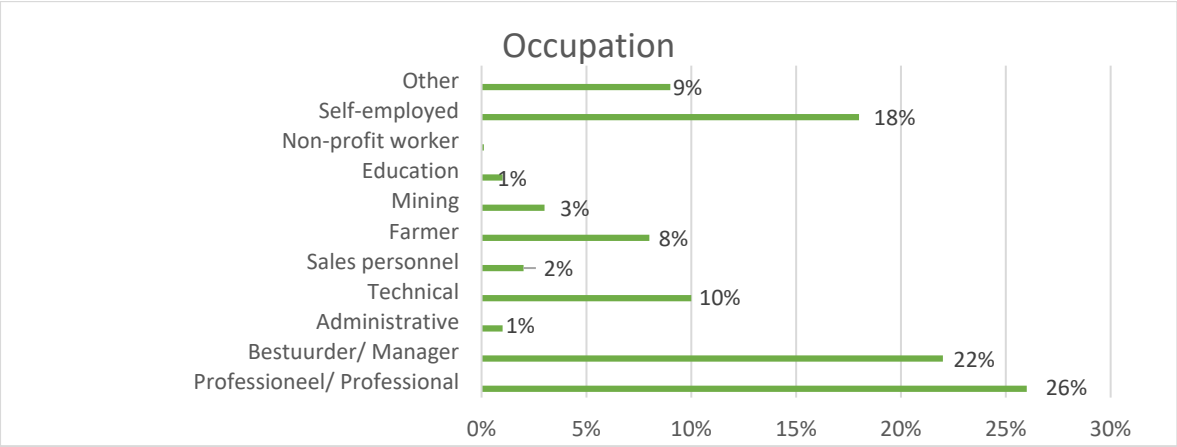

Figure 1.6: Occupation

Table 1.4: Previous findings on occupation

Occupation	2005	2007	2009	2010	2013	2015	2017
Professional	20%	20%	26%	22%	27%	31%	20%
Management	20%	14%	23%	24%	20%	22%	21%
Self-employed	23%	25%	24%	21%	20%	20%	25%
Technical	11%	8%	8%	8%	-	9%	8%
Sales	2%	4%	4%	2%	2%	1%	3%
Administrative	1%	2%	1%	1%	2%	1%	-

Mining	3%	2%	2%	2%	3%	3%	4%
Farmer	13%	11%	3%	5%	6%	5%	4%
Education	-	-	3%	3%	1%	2%	2%
Pensioner	-	-	3%	4%	5%	3%	-
Student	-	-	1%	-	1%	-	-
Unemployed	-	-	-	-	-	-	13%
Other	7%	14%	2%	8%	13%	3%	

4.2 SECTION B: HUNTING PREFERENCES

This section focusses on the hunting preferences of hunters, namely length of stay, frequency of hunting trips and preferred provinces to hunt to name but a few.

4.2.1 Length of stay

As seen in Figure 1.7, 66% of the respondents stay between three and four nights at the destination when going on a hunting trip. The average stay for respondents was 3.7 nights. There is a slight decrease in length of stay when reviewing the 2017 results, which reported a 4.16-night average stay (see Table 1.5).

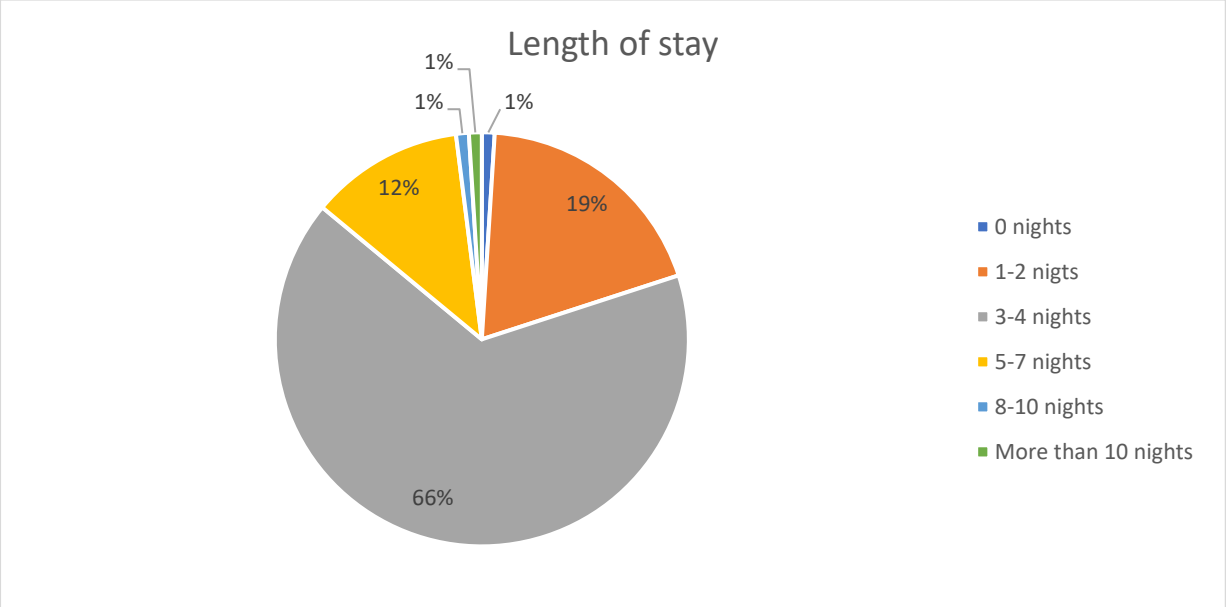

Figure 1.7: Length of stay

Table 1.5: Previous findings on length of stay

Number of days	2005	2007	2009	2010	2013	2015	2017
0 days	-	-	3%	2%	1%	1%	-
One day	2%	5%	1%	1%	4%	1%	2%
2 days	6%	7%	9%	31%	16%	8%	7%
3 days	27%	29%	33%	9%	35%	35%	39%
4 days	35%	32%	34%	27%	26%	33%	26%
5 days	18%	14%	14%	19%	12%	15%	14%
6 days	4%	3%	1%	1%	2%	2%	1%
7 days	5%	6%	3%	8%	2%	3%	5%
8 days	1%	1%	-	-	1%	-	1%
9 days	-	-	-	1%	-	-	-
10+ days	2%	3%	1%	1%	1%	2%	4%
AVERAGE	**4 days**	**4 days**	**3.7 days**	**3.8 days**	**3 days**	**3.96 days**	**4.16 days**

4.2.2 Frequency of hunting trips per year

Figure 1.8 illustrates that most respondents (58%) partake in a hunting trip between once and twice per year, while 30% partake in three or four hunting trips per year. The average number of hunting trips respondents participate in, is 2.7 per year. Again, it is slightly less than the 2017 finding of 3.32 per year (See Table 1.6).

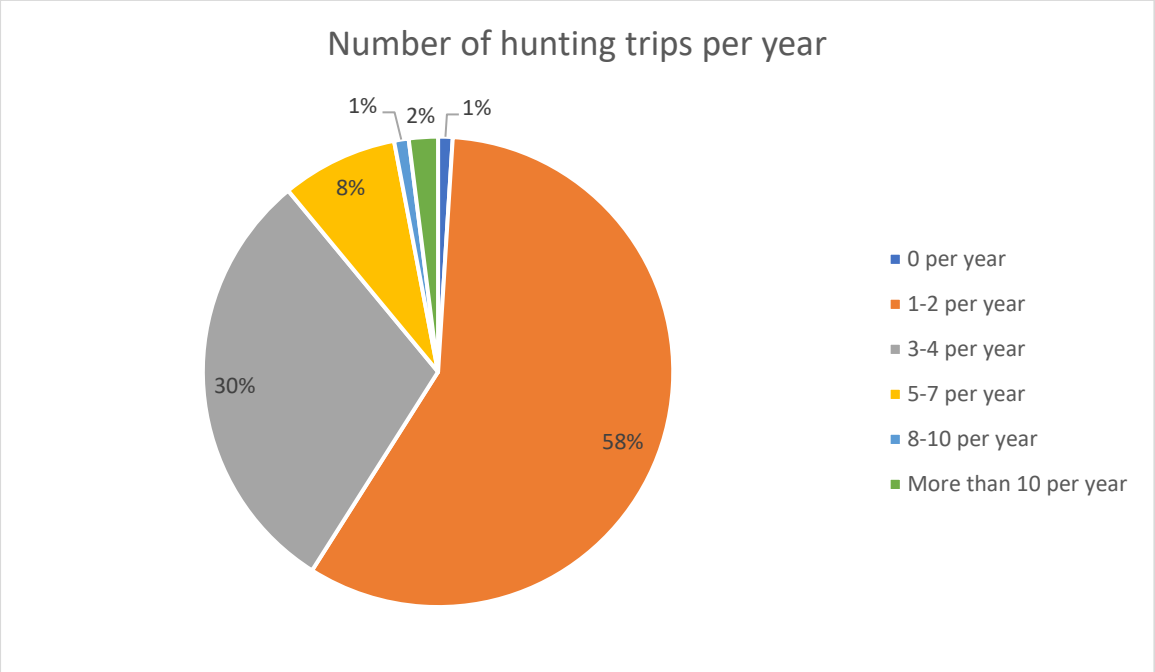

Figure 1.8: Frequency of hunting trips per year

Table 1.6: Previous findings on a number of hunting trips per year in 2017

Number of hunting trips	2005	2007	2009	2010	2013	2015	2017
No hunting trips during the year	-	4%	4%	3%	3%	6%	4%
Once	17%	14%	13%	14%	21%	21%	18%
Twice	27%	21%	23%	22%	29%	30%	27%
3 times	22%	21%	19%	25%	18%	21%	19%
4 times	16%	14%	16%	12%	12%	9%	11%
5 times	5%	7%	8%	8%	5%	6%	10%
6 times	6%	6%	5%	4%	4%	2%	3%
7 times	1%	2%	3%	3%	2%	1%	2%
8 times	2%	4%	3%	3%	1%	1%	1%
9 times	-	-	1%	1%	-	1%	1%
10 times +	4%	2%	1%	2%	5%	2%	4%
The average number of trips	**4**	**5**	**3.95**	**3.67**	**3**	**2.70**	**3.32**

4.2.3 Province of preference to hunt

Table 1.7 indicates that Limpopo (38% chosen as 1st choice) was the most preferred province to hunt in, while the North West (21% selected as 2nd choice) came in second and the Free State (20% chosen as 3rd choice) was selected as the third most preferred province to hunt in. Even though there was a decrease from 2017 (61%) compared to 2022 (38%), Limpopo remained the preferred province to hunt in for South Africans (Table 1.8).

Table 1.7: Preferred provinces to hunt

Ranking	1	2	3	4	5	6	7	8	9
Province	LIM	NW	FS	NC	MP	EC	KZN	WC	GT
Average	3.15	4.09	4.20	4.22	5.19	5.21	5.90	6.42	6.61

Table 1.8: Preferred provinces to hunt in 2017

Province	2017
Limpopo	**61%**
Northern Cape	**43%**
North West	**38%**
Free State	**29%**
Western Cape	6%
Eastern Cape	**26%**
Gauteng	3%
Mpumalanga	13%
KwaZulu-Natal	13%

4.2.4 Farm sizes

= 52% (yes)

= 48% (no)

Respondents were asked to indicated whether farm size matters and 52% indicated that it does and 48% that it does not impact their decision-making related to location.

4.2.4.1 Estimated size of the farm typically hunted on (in hectares)

Respondents were asked to indicate the typical farm size they hunt on. The average size of the farm was indicated as 3200 hectares. The minimum average size hunters prefer to hunt on is 2800 hectares, with a maximum average of 6080 hectares (Figure 1.9).

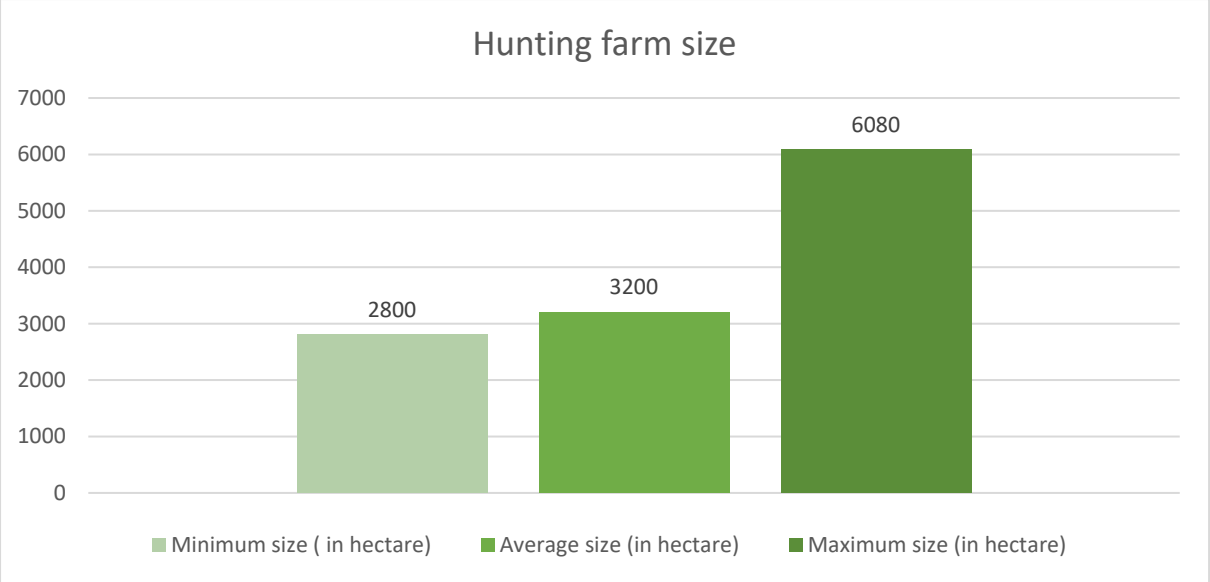

Figure 1.9: Hunting farm sizes

4.3 Section C: Economics of biltong hunters

This section focusses on the spending of hunters, namely spending on game hunted and spending on other hunting related aspects such as accommodation, transportation, and equipment, to name but a few.

4.3.1 Hunting group size

Most respondents hunted in groups of between three and four people (43%), while 31% hunted in groups of five and seven. An average hunting party consisted of five people (Figure 1.10).

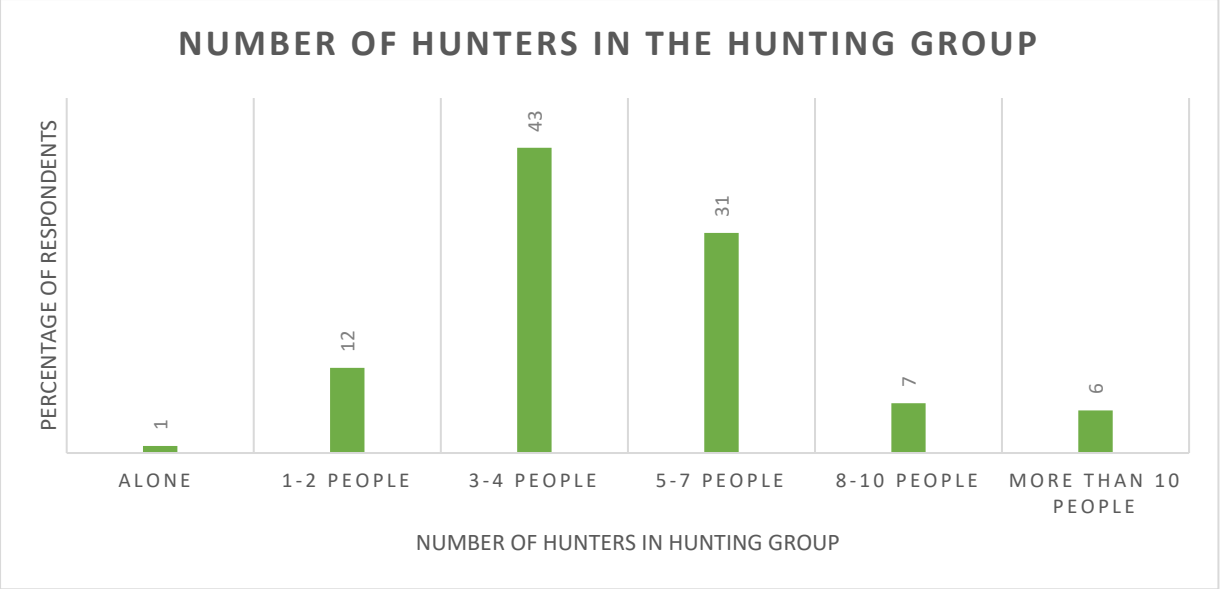

Figure 1.10: Hunting group size

4.3.2 Number of hunters paid for in hunting group

Respondents indicated that they mostly pay for one hunter (44%) when hunting. 26% indicated that they pay for two hunters, followed by 20% that they pay for four hunters (Figure 1.11). The average number of hunters that a respondent is paying for, is 1.56, which indicates that it might be a family activity as hunters normally do not pay for other hunters except when it is family, for example father and child.

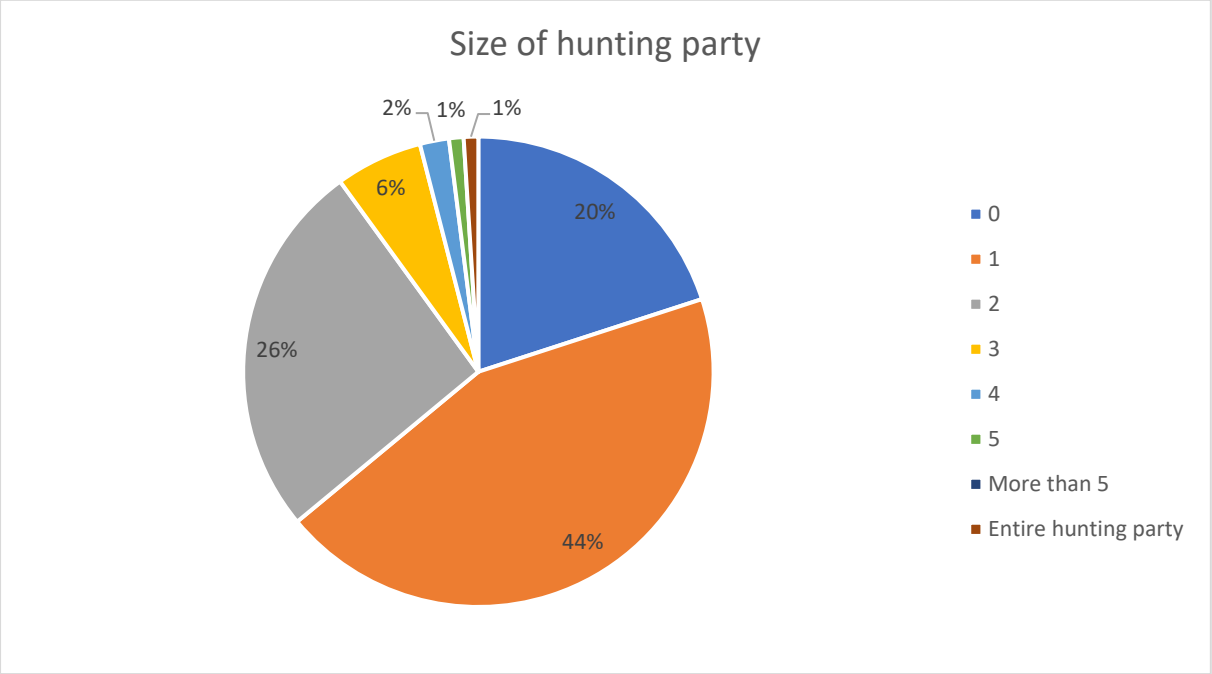

Figure 1.11: Number of hunters paid for in hunting group

4.3.3 Average spending per year on hunting, excluding game hunted

As can be seen in Table 1.9, most respondents highest spending category is accommodation (R6 659.35), followed by meat processing (R5 431.65) and transport (R5 261.83). The average annual spending on a hunting trip, excluding game, by the typical respondent amounts to R26 734.31.

Table 1.9: Average spending per respondent, excluding game hunted

Spending item	Average expenditure per respondent (ZAR)
Accommodation	6 659.35
Transport	5 261.83
Food	3 106.80
Beverages	1 824.17
Meat processing	5 431.65
Hunting permits	475.94
Daily fees	2 120.45
Other (gifts and tips)	1 854.12
Average spending	**26 734.31**

4.3.4 Expenditure on game hunted

Figure 1.12 indicates that most respondents spend between R1 and R10 000 (39%) on game a year, with 31% spending between R10 001 and R20 000. The average annual expenditure on the game amongst the respondents is R35 800.

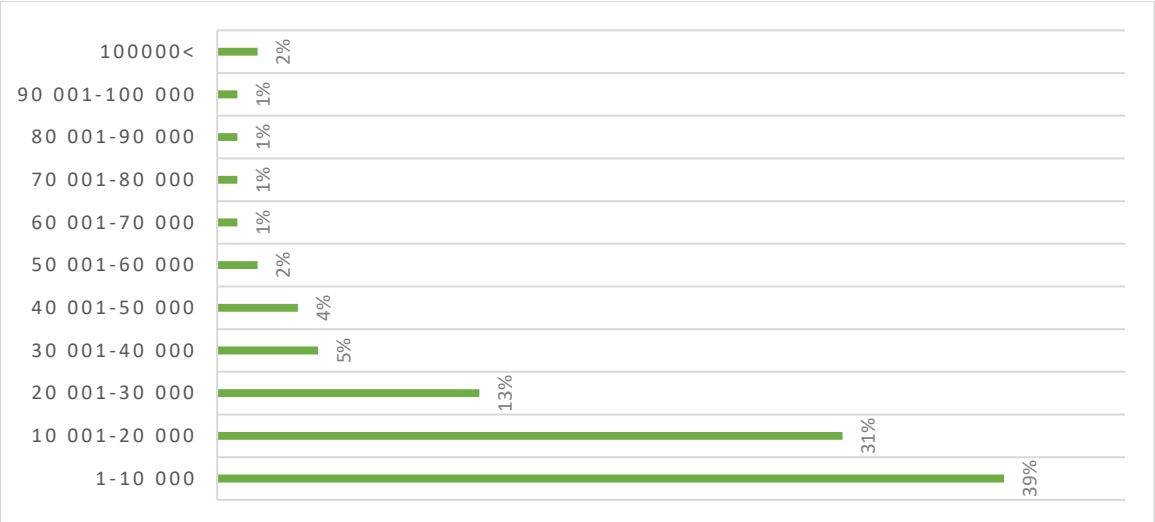

Figure 1.12: Average spending on game hunted per year

4.3.5 Favourite species to hunt, price paid and number hunted

Respondents were asked to list their favourite species to hunt, the average cost per species and the number of the species hunted.

Table 1.10: Species hunted, the average price paid and the number of species hunted

Species	Number of species hunted	Average price per species (ZAR)	Totals spending per species (ZAR)
Blesbok	2 630	1 966.98	**5 173 168**
Blue Wildebeest	2 091	4 237.98	**8 861 616**
Black Wildebeest	448	3 239.92	**1 451 486**
Bontebok	28	2 553.33	**71 493**
Buffalo	53	58 329.27	**3 091 451**
Bush pig	860	974.22	**837 828**
Bushbuck	114	3 912.28	**446 000**
Duiker	66	1 048.53	**69 203**
Eland	641	10 104.80	**6 477 175**
Oryx	957	5 619.01	**5 374 588**
Grysbok	1	8 500.00	**8 500**
Impala	4 534	1 705.23	**7 731 523**
Giraffe	41	10 196.43	**418 054**
Klipspringer	9	5 285.71	**47 571**
Kudu	1 583	5 878.83	**9 306 182**
Nyala	143	6 026.75	**861 825**
Oribi			
Reedbuck	83	2 390.00	**198 370**
Red hartebeest	357	4 345.63	**1 549 217**
Red rhebuck	138	1 670.83	**230 575**
Crocodile	10	23 166.67	**231 667**
Leopard			
Lion	6	34 000.00	**204 000**
Elephant	1	375 000.00	**375 000**
Hippo	9	33 333.33	**300 000**
Springbuck	5 085	1 238.17	**6 296 080**
Ibex	30	1 458.33	**43 750**
Grey Rhebuck	17	2 395.00	**40 715**
Warthog	2 657	872.15	**2 317 295**
Ostrich	91	1 543.88	**140 493**
Waterbuck	313	4 817.50	**1 507 878**
Zebra	190	5 093.40	**967 745**
Other	143	7 170.64	**1 025 401**
Total	**23 333**		**65 655 846**

Table 1.10 shows that the five most hunted species during the 2022/3 hunting season were springbuck, impala, warthog, blesbok, and blue wildebeest. The most hunted species for the

2022/3 hunting season was the springbok with 5085 animals hunted. Table 1.10 also indicates the average price per animal paid by hunters. The five most expensive species to hunt based on average price were elephant (R375 000), buffalo (R58 329), lion (R34 000), hippopotamus (R33 333) and crocodile (R23 167). In total, the respondents hunted 23 333 animals. The most lucrative species or species generating the most significant income is kudu (R9.3 mil), blue wildebeest (R8.9 mil), impala (R7.7 mil), springbok (R6.3 mil) and eland (R6.5 mil).

4.3.6 Bird hunting

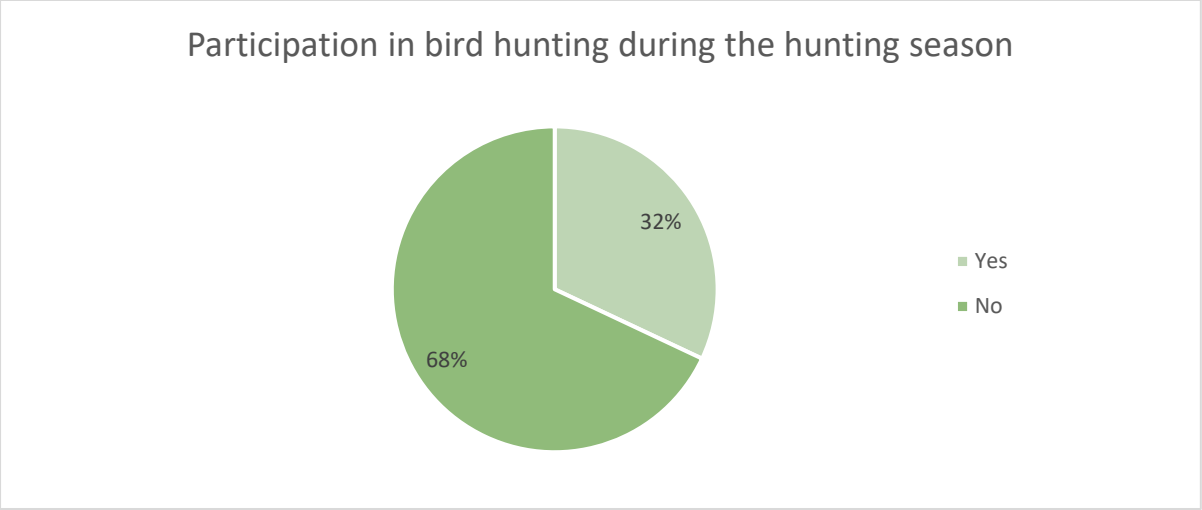

Figure 1.13: Bird hunting

Respondents were asked if they participate in bird hunting during the hunting season and, if so, how many times per year and their average spending per trip (Figures 1.13 and 1.14). 68% of respondents do not participate in bird hunting during the hunting season with 32% participating. The average spending per bird hunting trip for respondents that participate in bird hunting is R2 358. If the total spending for this group is divided by the total number of respondents of 1 864 it translates to an average of R748.15 per respondent. Fifty-one percent (51%) of the respondents indicated that they partake in more than ten trips per year, followed by 28% taking one to two trips per year and 13% taking three to four trips per year. The average number of trips is 3.6 trips per year.

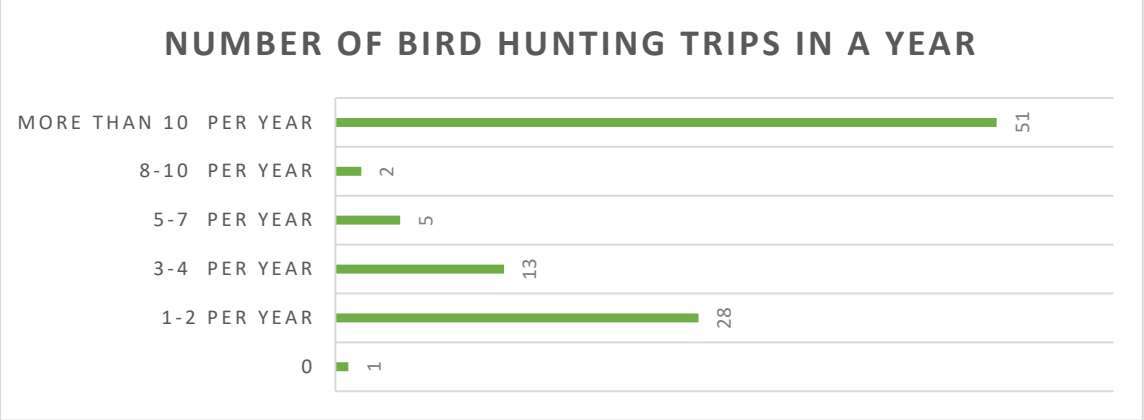

Figure 1.14: Number of bird hunting trips per year

4.3.6.1 Most common bird species hunted

Table 1.11 reflects the most common birds hunted during the hunting season. First was Guineafowl (29%), followed by pigeons (27%), and geese (15%).

Table 1.11: Favourite bird species to hunt

Bird species	Percentage of hunters hunting the species
Pigeon	27%
Guineafowl	29%
Duck	8%
Francolin	4%
Geese	15%
Makou (spur-winged goose)	4%
Pheasant	9%
Partridge	3%
Yellow-billed oxpecker	1%

4.3.7 Other hunting-related expenditure

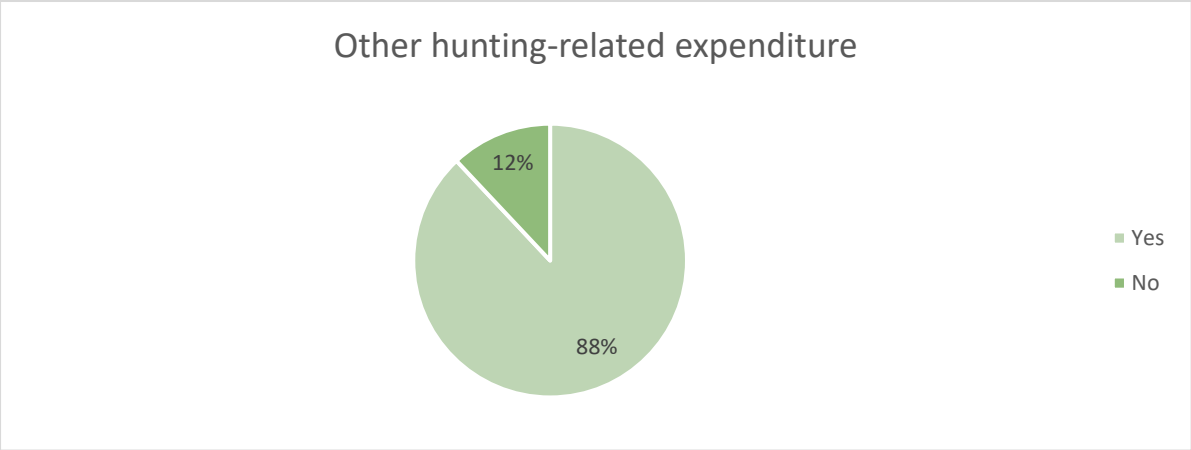

Figure 1.15: Other hunting-related expenditure

Eighty-eight percent (88%) of respondents indicated spending money on other hunting related activities and equipment, apart from their hunting trip expenditure. The two highest spending categories were spending on vehicle-related aspects, which amounted to R25 642 per year, followed by firearms, bows, and other firearm-related equipment, which amounted to R14 880. On average, respondents spent R52 556 on additional related hunting expenditures (Table 1.12).

Table 1.12: Other hunting-related expenditure items

Item money spent on	Spending per respondent (ZAR)
Firearms, bows, other firearm equipment and ammunition	R14 880
Hunting/target shooting club memberships	R1 144
Licenses (e.g., firearm licenses)	R650
Training to support your hunting/target shooting activities (e.g., target practice)	R1 080
New vehicles/motorbikes/boats (purchased with hunting in mind)	R25 642
Vehicle maintenance	R2 602
Vehicle accessories	R2 438
Other equipment to support your hunting/target shooting activities (e.g. vehicle equipment/accessories, safety equipment, camping equipment, clothing, knives, binoculars, etc.)	R3 526
Other items	R593
Total	**R52 556**

4.3.8 Hunters' spending summary

The above sections all contain information on the spending behaviour of hunters who formed part of the survey. In this section, an aggregate view of hunter spending due to their hunting activities is provided. In section 4.3.3, it was shown that the average amount spent on a hunting trip by respondent was R26 734, excluding spending on animals. When spending on game and birds hunted is included, total spending by a respondent on hunting activities amounted to R63 282.

Table 1.13: Total expenditure due to hunting activities

Spending Item	Spend per respondent (ZAR)
Accommodation	R6 659
Transport	R5 262
Food	R3 107
Beverages	R1 824
Meat processing	R5 432
Hunting permits	R476
Daily fees	R2 120
Other expenses	R1 854

Total (excluding animals)	**R26 734**
Game	R35 799
Birds	R748
Total (including animals)	**R63 282**
Equipment and capital expenditure	R52 557
Total expenditure	**R115 838**

When the average spending per year of 2022/3, namely R63 282, is multiplied by the estimated number of active local hunters in South Africa (200 000), it totals R12.656 billion. The total economic contribution from the game hunted (excluding game bird hunting) is R7.160 billion, and the total spent on other hurting trip-related items (food, accommodation, transport, etc.) is R5.347 billion. Spending on birds amount to R150 million in aggregate.

In the previous survey (2017), the average spending per hunter was R58 275 per season, amounting to R11.66 billion in total. There was an increase in spending per hunter and therefore an increase in total spending by hunters. Plausible reasons can be the increase in inflation in South Africa, which is also evident in the increase in general trip expenditure (accommodation, food, transport etc) compared to the previous surveys.

This survey also measured additional expenditure on hunting-related equipment and activities. The data revealed that the average respondent spends R52 227 on hunting-related equipment and activities, which, together with the respondent spending on hunting amounts to R115 838. Given the estimated total number of hunters of 200 000, total spending by hunters due to all hunting-related activities amount to R23.165 billion.

4.4 Section D: Social effects of biltong hunters

The next section discusses the perceived social impact of hunting in South Africa as seen by the South African hunters.

4.4.1 The effects of hunting tourism on the surrounding area and communities

From the Table 1.14, the following is evident: The respondents either agreed (52%) or fully agreed (34%) that hunting tourism generated more income for the community (85%). In addition, 83% of respondents either agreed (46%) or fully agreed (37%) that hunting tourism increased job opportunities within the area, and 46% agreed or fully agreed (37%) that hunting tourism improved the economy of the area.

Table 1.14: Social effects of hunting tourism

Because of hunting tourism in general……	STRONGLY DISAGREE	SOMEWHAT DISAGREE	NEITHER AGREE NOR	AGREE	FULLY AGREE	MEAN VALUE
job opportunities in the area have increased	3%	3%	11%	46%	37%	4.10
the living standards of locals have improved	2%	3%	14%	51%	30%	4.03
the economy in the area has improved	2%	4%	11%	46%	37%	4.05
more income is generated for the community	2%	3%	10%	51%	34%	4.14
cultural traditions are preserved for future generations	1%	3%	16%	40%	40%	4.15
the appearance of the area has improved	2%	5%	20%	43%	30%	3.94
new infrastructure has been developed in the area	3%	8%	24%	40%	25%	3.74
current services and infrastructure are well-maintained	4%	9%	20%	44%	23%	3.74
more people visit the area	2%	4%	23%	45%	26%	3.91
the area became well-known	2%	4%	34%	41%	19%	3.70
opportunities are created for local businesses in the area	2%	4%	16%	52%	26%	3.96
tourism has developed in general in the area	2%	5%	24%	47%	22%	3.83
the area is safe, and there is less crime	9%	14%	39%	25%	13%	3.19

Other notable social impacts are that respondents either agreed (51%) or fully agreed (30%) that the standards of living have improved and that cultural traditions are preserved for future generations (40% both agreed and fully agreed). However, 53% of respondents neither agreed nor disagreed (39%) or disagreed (14%) that the area is safe and there is less crime due to hunting tourism. Respondents who opted to neither agree nor disagree were 32% that communities become educated about tourism and its value, while 32% also neither agreed nor disagreed that the infrastructure relevant to the on-site communities has improved.

Taking the mean values of the factors into account it was clear that the most significant effect is the contribution of hunting to the preservation of cultural traditions (4.15/5.00), the increase in income for the community (4.14/5.00) and the increase in job opportunities (4.10/5.00). There is thus evidence of both tangible and intangible social effects.

4.4.2 Sustainable development due to hunting tourism

Table 1.15: Community development due to hunting tourism

Because of hunting tourism on the game farm where you hunt:	STRONGLY DISAGREE	SOMEWHAT DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	FULLY AGREE	MEAN VALUE
conservation efforts have improved	1%	3%	27%	21%	48%	4.10
the lifestyles of on-site communities have improved	1%	6%	30%	29%	34%	3.88
the game farm is more sustainable	1%	3%	27%	20%	49%	4.11
communities are directly benefitting	1%	8%	30%	28%	33%	3.83
communities become educated about tourism and the value thereof	2%	11%	32%	28%	27%	3.65
infrastructure relevant to the on-site communities has improved	3%	14%	32%	27%	24%	3.55

The most significant effects of hunting on the game farm were indicated as the contribution of this activity to the sustainability of the game farm (4.11/5.00) and the improvement of the conservation efforts (4.10/5.00).

4.4.3 Hunters' contribution to promote hunting

Hunters were asked if they were doing anything specific to promote hunting. 53% indicated yes, and 47% stated no (Figure 1.10). Those who suggested yes were asked what activities or actions they performed to encourage hunting. From Table 1.16, it is evident that most hunters who promote hunting either endorse or advertise hunting (38%), followed by educating others and young/new hunters on ethical and fair practicing of hunting (34%). 10% indicated they are involved with community enrichment and outreach projects. 9% respectively are engaged with promoting hunting as a conservation tool or serve on a hunting association.

Figure 1.10: Promotion of hunting activities

Table 1Promotion of hunting

Key	Coding	Percentage
1	Community enrichment and outreach	10%
2	Promote hunting as a conservation effort	9%
3	Endorse/ advertise hunting	**38%**
4	Educate other and young/new hunters on ethical and fair practice hunting	**34%**
5	Serve on or are a member of a hunting association	9%

4.4.4 Awareness of farmers/landowners' involvement with social projects and community projects

Figure 1.11: Awareness of projects

Forty-five percent (45%) of respondents indicated that they know that the farms where they hunt are involved in community projects. Table 1.17 reflects some of the social projects farmers are engaged in based on the respondents' knowledge. Respondents observed that most farmers donate to the regional schools and the sports teams of regional schools (37%). Other notable community involvement is that farmers are contributing to regional community

projects and services (18%), donating the meat to community stakeholders (15%) and providing community support (13%).

Table 1.27: Social projects game farm owners are engaged in

Key	Code	Percentage
D1	Donate meat to community stakeholders	**15%**
D2	Donate to regional schools and school sports teams	**37%**
D3	Donate to regional community projects and services	**18%**
H1	Advocate for biodiversity and habitat improvement, development, and sustainability	3%
E1	Create job opportunities for community members	4%
E2	Provide care to the families of employees	3%
C1	Community support	**13%**
C2	Educate and train community members	7%

4.4.5 Contribution of farms to conservation

Figure 1.18 shows that most respondents (91%) feel that the farm owners where they hunt contribute to conservation. Respondents believe farmers do manage and protect game numbers and endangered species on their farms (30%) and rejuvenate the area's fauna and flora (20%) as well as following conservation and sustainability-based management practices (18%) (Table 1.18). An example is to prevent over-herding, using alternative energy resources such as solar energy and employing residents from the area.

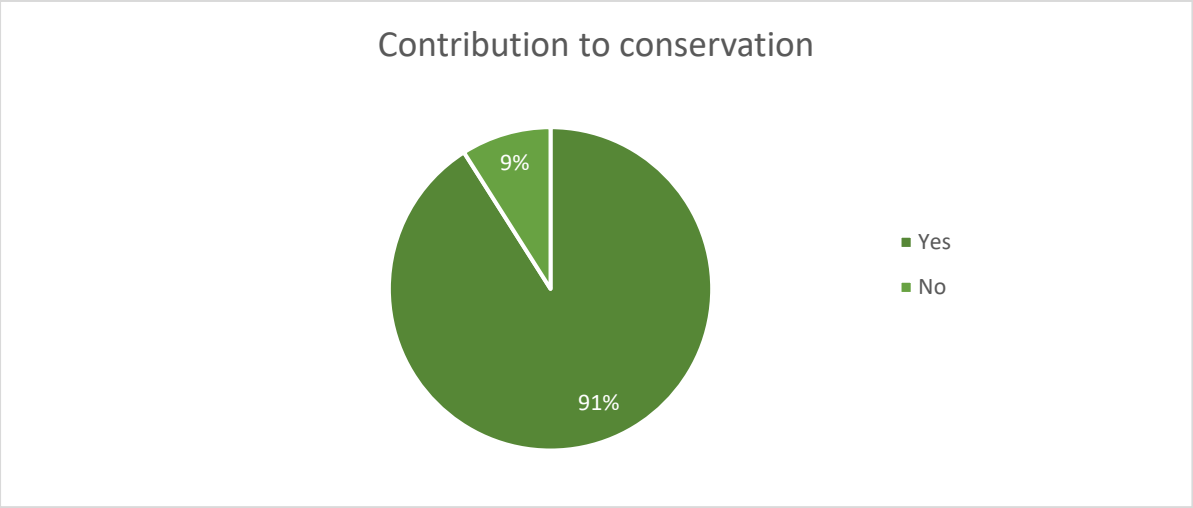

Figure 1Hunting farmers contribution to conservation

Table 1.18: Key motive for believing farmers contribute to conservation

Key	Code	Percentage
1	Conservation and sustainability-based management practices (e.g., preventing over-herding, use of alternative energy sources, job creation, community uplifting)	**18%**
2	Rejuvenate fauna and flora in the area	**20%**
3	Manage and protect game numbers and species on the farm (breading, increasing endangered species numbers)	**30%**
4	Protects ecosystems	**11%**
5	Maintains the carrying capacity of the farm	**11%**
6	Control and discard invasive weeds, fauna and flora	3.5%
7	Active involvement in the prevention of poaching	2%
8	Selective hunting/ ban shooting a lesser number of game	11%
9	Raceable products and informs guest about fair water usage	1%
10	Only hunt in hunting season	0.5%

5. CONCLUSIONS

Based on the results of the study, the following conclusions can be made:

- The profile of local hunters remained the same compared to previous research.
- Most hunters reside in Gauteng.
- The most preferred province to hunt in is Limpopo.
- Length of stay slightly decreased from the 2017 survey.
- Total economic contribution for the 2022/3 season was R12.656 billion. In the previous survey (2017), it was R11.66 billion. This is a R1 billion increase in spending.
- Added to this research was spending on additional items (indirect spending), such as vehicles etc. This has created an additional spend of R52 227 per respondent. When this is brought into the overall spending hunters spend R23.165 billion.
- Most hunters perceive hunting to have a positive social effect on surrounding local communities of game farms. The indicated that hunting generated more income for the community, increased job opportunities within the area and improved the economy of the area.
- Perceived benefits to communities are the distribution of meat among community members, donations to regional schools and school sports teams; donations to regional community projects and services; and advocating for biodiversity and habitat improvement, development, and sustainability.

Table 1.19: Summary

Category	2013	2015	2017	2022
Gender	99% Male	98% Male	99% Male	97% Male
Age	41-50 years of age (30%)	41-50 years of age (32%)	41-50 years of age (26%) Average: 50 years of age	40-49 years of age (29%) Average: 47 years of age
Marital status	86% Married	83% Married	82% Married	82% Married
Province of residence	Western Cape (39%) Gauteng (29%) KZN (8%)	Gauteng (51%) Western Cape (17%) Limpopo (8%)	Gauteng (44%) North West (17%) Western Cape (9%)	Gauteng (51%) Western Cape (15%) Mpumalanga (7%)
Level of education	44% Diploma or degree	44% Diploma or degree	45% Diploma or degree	42% Diploma or degree
Occupation	Professional (27%); Self-Employed (20%); Management (20%)	Professional (31%); Management (22%); Self-Employed (20%)	Self-Employed (25%); Management (21%); Professional (20%)	Professional (26%); Management (22%); Self-Employed (18%)
Province of preference to hunt in	Limpopo Northern Cape Eastern Cape	Limpopo Northern Cape Eastern cape	Limpopo Northern Cape North West	Limpopo North West Free State
Length of stay	3 days	3.96 (4) days	4.16 (4) days	2.7 (3) days
Frequency of hunting trips per year	3 per year	2.7 (3) per year	3.32 (3) per year	2.7 (3) per year
Hunting group size	4.8 (5) people	-	-	5 people
Average spending on hunting trips per year (excluding game)	R16 906,95	R20 328,75	R28 211,82	R26 734,31
Average spending on game hunted per year	R14 906,65	R16 565,95	R30 063,76	R35 799,26
Average spending per person per hunting season	R31 472,60	R39 874,50	R58 211,00	R63 282.72
Most species hunted			Springbuck	Springbok

			Impala Warthog	Impala Warthog
Bird hunting	-	-	41% (Yes)	32% (Yes)
Number of bird hunting trips per year	-	-	3.9 (4) per year	3.5 (4) per year
Average spending per trip on game bird hunting	-	-	R1 260,25	R748.15
Most hunted bird species	-	-	Pigeon	Guineafowl

Table 1.20: Summary Social impact

Social effects of hunting tourism (only 2022)			
Positive impacts of hunting tourism…			
Opportunities are created for local businesses in the area (52%-agree)	The living standards of locals have improved (51%-agree)	More income for the community is generated (51%-agree)	Tourism has developed in general areas (47%-agree)
Sustainable development effects of hunting tourism:			
The farm is more sustainable (49%-fully agree)	Conservation efforts have improved (48%-fully agree)	The lifestyle of on-site communities has improved (34%-fully agree)	The community is directly benefiting (33%-fully agree)
Promotion of hunting by respondents			
Endorsing/ advertising hunting (38%)		Educate others and young/ new hunters on ethical and fair practice hunting (34%)	
Social projects of game farm owners:			
Donate to regional schools and school sports teams (37%)	Donate to regional community projects and services (18%)	Donate meat to community stakeholders (15%)	
Farm owner conservation contribution			
Manage and protect game numbers and species (breading, increasing endangered species numbers) (30%)	Rejuvenate fauna and flora in the area (20%)	Conservation and sustainability-based management practices (e.g. preventing over-herding, use of alternative energy sources, job creation, community uplifting) (18%)	

6. RECOMMENDATIONS

6.1 Respondent recommendations

Table 1.21 reflects on the most mentioned recommendations or suggestions as described by the respondents. As a result, 19% of respondents suggested a need to improve the awareness of hunting and ethical hunting, such as reducing social media posts with photos of hunted game and increasing the understanding of the benefits of hunting among the public. In addition, 17% of respondents recommended a reduction in prices for local hunters, seeing that sometimes SA Hunters need to compete with prices that are asked for international hunters, 16% of respondents suggested hunting should be used/promoted as a conservation and sustainability method. 7% of respondents recommended that farmers improve the farm's landscape and game and 7% feel there must be less political interference.

Table 1.21: Recommendations or suggestions of respondents

Key	Code	Percentage
A	Better use of the game	2%
B	Improve awareness of hunting and ethical hunting	19%
C	Issue related to exotic breeding	0.5%
D	Use hunting more for conservation	16%
E	Improve infrastructure and community uplifting/involvement	4.5%
F	Decrease crime in the area	5%
G	Educate the younger generation to be more involved	9%
H	Improve farm landscape and wild on the farm	7%
I	Problem with the legislation	1%
J	Less political interference	7%
K	Decrease prices	17%
L	Reduce regulation on biltong hunting	5%
M	Standardise regulation in the area	1%
N	Improve weapon registration	6%

6.2 Recommendations from the research

The researchers make the following recommendations:

- It still remains a male-dominant industry, and the researchers feel there is room to market more among women hunters and family hunting trips.
- More needs to be done to attract other ethnic groups in South Africa to take up hunting.

- Younger hunter development needs attention, as the profile is still that of older hunters. What is also true is that hunting is expensive and, therefore, difficult for younger hunters to participate in.
- Bird hunting seems to be underestimated, and it can be better promoted among young hunters as this is not that expensive.
- Ethical hunting remains a crucial issue for the hunting industry to be better acceptable by the broader public, and this needs to be promoted by hunting organisations and farm owners.
- Make sure that videos and photos posted by hunters of their social media platforms of their hunting experiences are acceptable for the broader public.