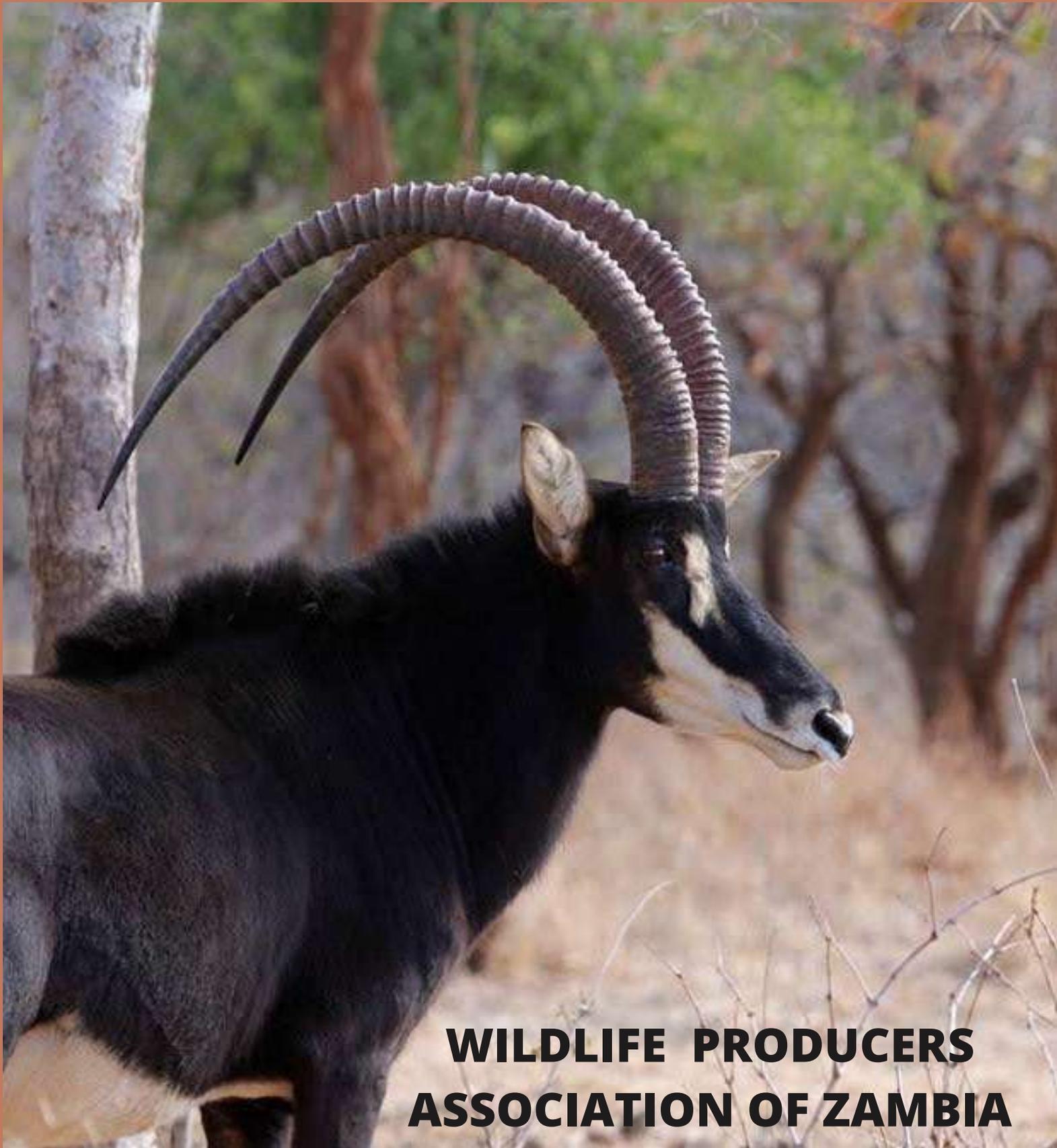


A snapshot of the status of Zambia's Private Wildlife Estate Industry



**WILDLIFE PRODUCERS
ASSOCIATION OF ZAMBIA**

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EXECUTIVE SUMMARY

The Wildlife Producers' Association of Zambia (WPAZ) is a membership-based association that aims to foster the growth of private and community wildlife estates in Zambia. Its primary emphasis is on wildlife contributions to food production, security, job creation, and community development, as well as wildlife and wildlife habitat protection and private sector development.

In March 2020, the United States Agency for International Development's (USAID) Integrated Land and Resource Governance Program awarded WPAZ a subcontract. As part of the subcontract, WPAZ conducted research to update the status of Zambia's Private Wildlife Estate. The research relied on both primary and secondary data sources, with the largest and most thorough data set coming from the Department of National Parks and Wildlife (DNPW).

The key findings and an overview of data from 102 out of 150 registered wildlife estates are as follows: these ranches cover a total of 203,807 hectares (Ha) of land, with approximately 58,000 animals, and an estimated on-farm value of \$30,000,000. In 2019, trade in live sales, trophy hunting, game meat farming, culling, and wildlife by-products was estimated to be worth US \$3,076,571 on the ranches under review. During the 2019 season, around 103,095 kg of game meat was legally produced. In terms of the economic impact of poaching (US\$ 1,340,550) and other unprogrammed (un-solicited) game animal deaths (US\$ 1,378,450), a net US\$ value of just US\$ 357,571 is extrapolated. This is cause for significant concern and suggests an 88% loss in trade dollars through illegal wildlife trade and other unprogrammed deaths. It should be understood that these estimates are economic indicators, not financial statements of profit and loss.

Community game ranches should be encouraged to reach out to more Zambians and disseminate the advantages of game ranching. A Statutory Instrument on private wildlife estates is required to explicitly control the administration and growth of Zambia's wildlife sector. WPAZ advises giving certificates of ownership rather than once a year to attract more people to participate in the sector.

DEFINITIONS

Large Animal Units - a unit of measurement indicating the ability of the land to support a range of large animals.

Game Ranch Return Form - a record of a game ranch/farm and the game animal population statistics of a given year.

Private Wildlife Estate - an area outside the public wildlife estate that is reserved by an individual, local community or enterprise for wildlife conservation and management.

Stocking Rate - the number of animals on a given amount of land over a certain period of time.

Ungulates - a group of large herbivorous mammals that are distinguished from other mammals by the presence of hooves.

ABBREVIATIONS

DNPW — Department of National Parks and Wildlife

GRR — Game Ranch Return

Ha — Hectares

WPAZ — Wildlife Producers Association of Zambia

USAID — United States Agency for International Development

ZNFU — Zambia National Farmers Union

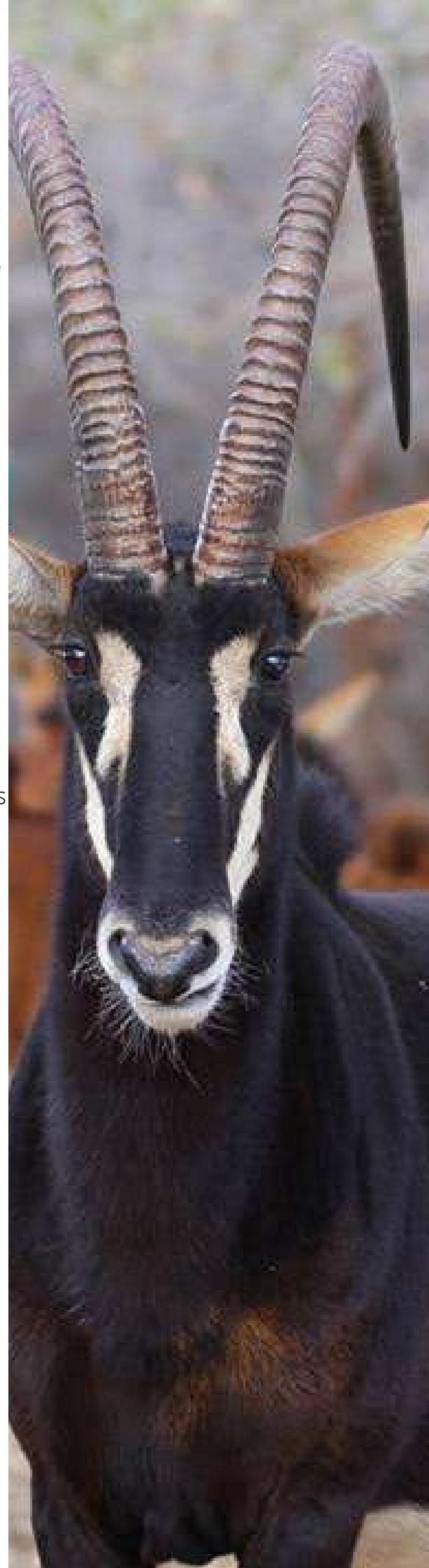


INTRODUCTION

The Wildlife Producers Association of Zambia (WPAZ) was founded in 1988 as an affiliate of the Zambia National Farmers' Union (ZNFU). WPAZ is a membership-based association that aims to foster the growth of Private and Community Wildlife Estate in Zambia. Its primary emphasis is on wildlife contributions to food production, security, job creation, and community development, as well as wildlife and wildlife habitat protection and private sector development.

Currently, WPAZ has over 60 members, and membership is continuously growing with diverse key players in the sector. USAID's Integrated Land and Resource Governance Program awarded WPAZ a subcontract. As part of the subcontract, WPAZ conducted research to update Zambia's status of the Private Wildlife Estate.

The following is a summary of the technical report that was a key output of WPAZ's efforts to update information on the status of Zambia's Private Wildlife Estate. The summary outlines the methodology used, main results, conclusion, and recommendations.



METHODOLOGY

To collect data for this study, WPAZ reviewed existing legislation, literature, interviewed individual game farmers, and lastly used DNPW annual game returns.

For primary data collection, WPAZ used a questionnaire as a tool to collect data from individual game ranchers by conducting face-to-face interviews, telephone interviews, emailing game ranchers, and organizing regional meetings with game ranchers and a total of 37 questionnaires were completed.

Secondary data was collected through the collaboration with DNPW which provided data on PWE registered in Zambia.

The main source of statistical data, therefore, came from existing annual Game Ranch Return (GRR) Forms that are submitted to DNPW as part of compliance regulations that govern the operation of PWEs in Zambia.

For this study, WPAZ focused on the 2019 Game Ranch Return and collected a total of 102 game ranches out of a total of the 150 registered to DNPW. These returns include a range of types of game ranches outside public lands and estates and are thus considered PWEs, although this may also include game ranches with community-based stockholdings and Open Game Ranches.

Through these return forms, data on how many animals, types of species, and additions and subtractions through various means were collected. The return forms also gave a basis for converting raw data into excel worksheets, prepared for this task, to begin analysing data and estimating figures for stocking rates, sex ratios, and a range of other ungulate assessments including estimated values of stock, and impacts of losses.

The Game Ranch Return form collects data regarding a farm's size, location, number of animals at the beginning (opening stock) of the year, additions (such as births, imports, animals from other game ranches), and subtractions (such as deaths, poached, lost, cropped). The closing stock on the form gives an estimate of the number of animals recorded at the end of the year.

RESULTS AND DISCUSSIONS

For this study, a total of 102 Game Ranch Returns were analysed and focused on ungulate herbivores. The results are based on information from private wildlife estates made up of game ranches and farms, and ornamental estates, covering an area of approximately 203,807 hectares. It is not clear why there is a shortfall in the number of returns, but it is likely due to fluctuating performance (activity- inactivity) among registered game ranches and varying compliance with DNPW regulations.

Status of Numbers, Sizes, and Distribution of Game Ranches and Game Animals in Zambia

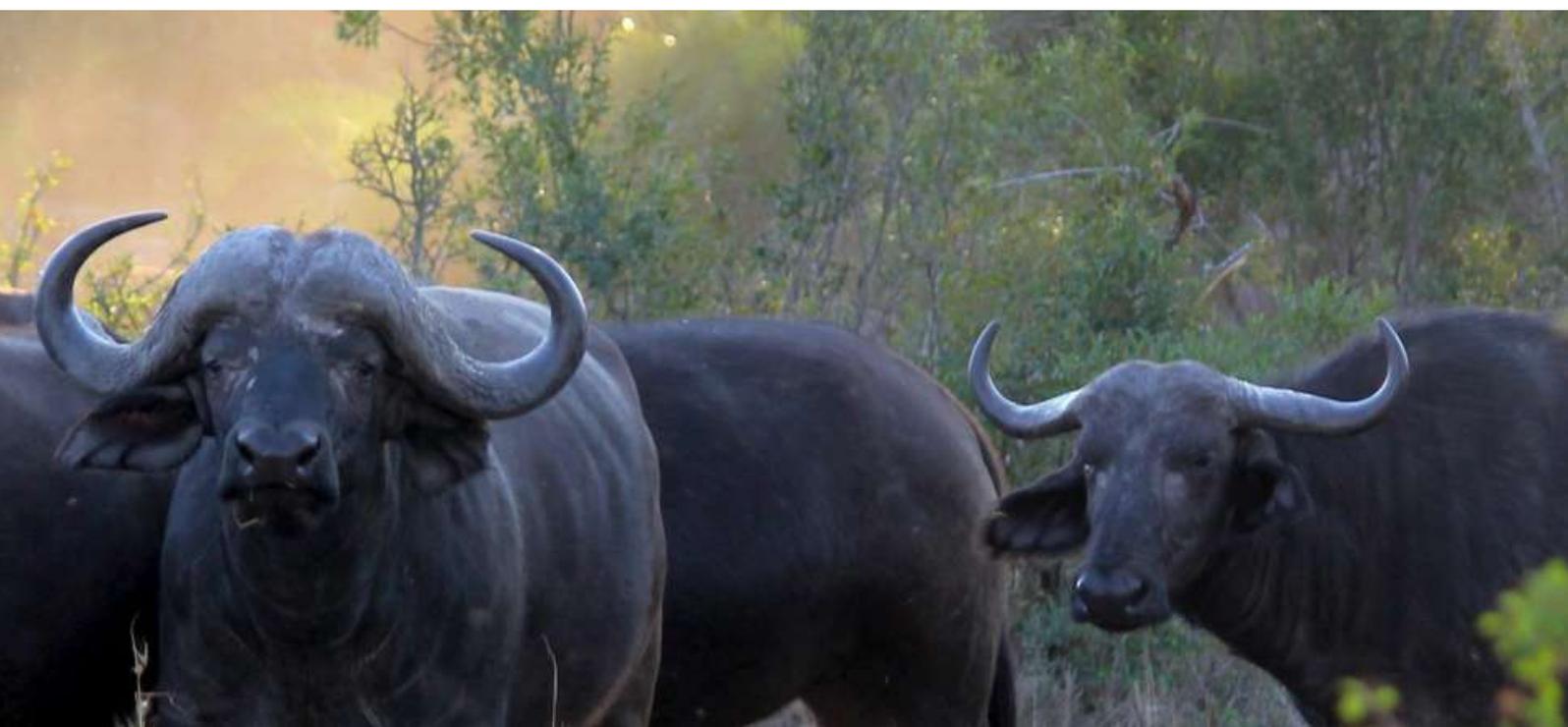
Sizes of game ranches varied from about 3 Ha to 25,000 Ha, showing the various types and distribution of PWEs from the smaller ornamental properties to the larger fenced game farms and ranches. The size classification used in this report is based upon DNPW regulations.

The geographic spread of the 102 ranches analysed for this study covers 7 out of 10 provinces in Zambia. Lusaka province has the highest number of ranches, followed by Southern and Central Province.



Table 1: Summary of numbers, sizes, types, and distribution of 102 PWEs

Sn	Province	Size of game ranches (Ha)						Total number of game ranches
		<500	500 - 1000	1001 - 5000	5001-10000	10001-15000	>15000	
1	Central	8	4	5	2			19
2	Copperbelt	1	1	4	1			7
3	Eastern						2	2
4	Lusaka	27	3	11				41
5	Muchinga				1			1
6	North-western	1		1	2	1		5
7	Southern	13	4	8	1	1		27
	Total	50	12	29	7	2	2	102



Wildlife Productivity and Economic Performance of Game Ranching in Zambia

The wildlife productivity from Zambia's PWEs (2019 Game Ranch Returns) currently holds about 58,000 Herbivorous Wildlife Ungulates including Juveniles, which is about 50,000 adult animals, giving an estimated average stocking rate of 0.0783 LAUs or 0.2841 Game Animals per Ha, with an estimated overall "on- farm" market value of nearly US\$30,000,000. While the average increase in Game Animal populations over this time (1 year) was around 1.36 percent, this equated to a drop in stocking rates of about 0.0029 LAUs per Ha.

For the period under review, the 102 game ranches analyzed yielded the following estimated economic returns and losses in terms of US\$ values:

The total "on-farm" market value of the animals on these PWEs is estimated to be US \$30,000,000. The overall projected economic value from live sales, trophy hunting, game meat crops, and management culling was US\$3,076,571.

Table 2: Summary performance of Game Ranching in Zambia

Live sales	US\$ 1,433,850
Trophy hunting	US\$426,440
Game meat cropping from estimated 103,095 kgs of game	US\$ 515,475
Game by products from game skins etc	US\$ 293,856
Game management culling	US\$ 406,950
Total estimated economic value	US\$ 3,076,571
Losses from poaching and other game animal losses	US\$ 2,719, 000

The economic effect of poaching (US\$ 1,340,550) and other un-programmed (un-solicited) game animal deaths (US\$ 1,378,450) is extrapolated to a net US\$ value of just US\$ 357,571.

This is cause for significant worry since it implies a 88% loss in trade dollars due to illicit wildlife trading and other unplanned fatalities. The impact of such losses on the sector may act as a barrier to development and investment. It is important to note that these estimates are economic indicators, not financial statements of profit and loss for the individual PWEs.



Numbers of Employees working on Game Ranches

Research conducted by Lindsey et al. (2013) calculated a total of 2,200 employees working directly in the game ranching industry (including crocodile farms) in Zambia, extrapolated from the 97 out of 115 game ranches sampled in 2012.

Using a similar methodology of extrapolating employee returns from 37 WPAZ 2020 Questionnaires sampled from the same 102 game ranches' DNPW game ranch 2019 returns yielded an estimate of 3,539 workers currently employed over an area of 203,807 Ha in Zambia, an increase of at least 61% over 2012. A 61% increase in game ranch employees since 2012 is significant, and is a key indicator of positive socio-economic development trends in the industry.

Legal Game Meat Production

Data extrapolated from the DNPW 2019 game ranch ungulate game animal cropping returns from the 102 game ranches and farms in the sample (WPAZ, 2020b) resulted in an estimate of 103,095 kgs of legal game meat produced for sale in 2019 from cropping operations on these game ranches, but this estimate excludes trophy hunting operations. However, Zambia's supply of legal game meat is insufficient to meet demand.



Challenges faced in the Private Wildlife Estate industry



Poaching is an issue that game owners confront often. Most game owners stated that poachers frequently break into their farms, endangering the lives of farm and security workers. They further stated that law enforcement on private wildlife estates does not allow licensed guns, posing a threat to farmer



Another issue brought up by game ranchers that were interviewed was that of **animal ownership**. According to Zambian legislation, game ranchers are granted user rights to wildlife, but ownership is renewed every year, thus limiting investment in the business. This is because ownership creates value, and value opens doors for investment. Further, game ranchers noted that there are several permits and licenses required from more than one government department for trading in this industry. This therefore increases the cost of business in terms of time and resources. At present there are 7 to 10 permits (non-business registration) related to the industry.



During data collection, a problem that was noticed is that of a lack of **uniformity** in game ranch owners' use of the standard return form by DNPW. DNPW has a standard form that they share with all PWEs in Zambia, however, the compliance of game ranchers regarding the use of this form was noted to vary from different game owners.

CONCLUSION

It is clear the wildlife ranching business has significant growth potential and may contribute to economic development, climate change resilience, food security, and animal conservation. The wildlife industry's value chain includes companies that provide security on private land, butchery owners, retail outlets that sell legal game meat, and animal feeding companies, among others. Jobs are created along the value chain, food is produced on the market, and vital wildlife species are conserved and protected.

The report's main findings show that the game ranching industry has great potential, as evidenced by the value of the stock on the ranches, but that there are huge economic impacts on the industry from losses caused due to poaching, escaping animals, and other unplanned deaths, which must be mitigated.

Ownership of animals is one of the biggest roadblocks that game ranches confront in the business due to the way user rights are currently organized, which has resulted in less investment in the industry. Further, the lack of a dedicated statutory instrument to support the growth of the industry continues to hold the industry back.

RECOMMENDATIONS

To address losses sustained as a result of poaching, WPAZ recommends that law enforcement on poaching should be enhanced and encourage the establishment of community game ranches that will help spread the benefits of game ranching to more Zambians.

From the study, it was observed that the law on PWE lacks sufficient detail, as such there is a need to have a Statutory Instrument on private wildlife estates that clearly governs the management and development of Zambia's wildlife economy. Further, WPAZ recommends issuing certificates of ownership on a one-time basis rather than on a yearly basis, which will encourage more individuals to invest in the sector.

Lastly, game ranches must use the DNPW standard form to submit their returns, which will aid in data analysis for future reports and data management. WPAZ also recommends that the industry utilizes an agreed upon database that will provide systematic data management and assessments on the industry.



WPAZ
Building a wildlife economy



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