



ISSUE BRIEF

USAID Integrated Land and Resource Governance (ILRG): Lessons Learned for Community Game Ranching in Zambia

Introduction

Wildlife or game ranching is a billion-dollar industry in southern Africa.¹ Despite Zambia’s seemingly high potential for community-focused private sector development in the industry, it has not flourished to date. Notwithstanding this, private agricultural ranches continue to add game ranching to their portfolios, and several community game ranching initiatives exist. Because participation of civil society (local communities) is understood to be essential for integrating social, economic, environmental, and political imperatives when determining appropriate climate-resilient land use in Zambia, this brief examines how community game ranches in particular are operating within a challenging economic and policy environment and assesses their sustainability potential.

Background

Zambia’s two main protected area categories are national parks and game management areas (GMAs).² Its 20 national parks span over 63,000 square kilometers (km²) and 36 GMAs cover 165,000 km², together covering almost 30 percent of the country. Each GMA buffers a national park. “Open areas” are located outside of these formal protected areas. Game ranching, the management of wildlife over defined areas for production and sale of wild animals and animal products, including sport hunting, cropping, tourism, and fishing,³ is permitted to varying degrees, but is primarily found in the open areas outside of GMAs. Game ranches in Zambia are categorized as either fenced or extensive unfenced (open) ranches. These ranches are commonly called private wildlife estates (PWE).⁴ Some game ranches are partially fenced, particularly those with a natural barrier such as a river on one side of the ranch, often with a protected area on the other side. The majority of the fenced or



¹ Lindsey, P. A., Barnes, J., Nyirenda, V., Pumfrett, B., Tambling, C. J., Taylor, W. A., & Rolfes, M. T. S. (2013). The Zambian wildlife ranching industry: Scale, associated benefits, and limitations affecting its development. *PLoS one*, 8(12), e81761.

² A game management area is defined by the Zambian government as, “A protected area comprising mostly customarily – owned land that is used primarily for the sustainable utilization of wildlife, through hunting and/or non-consumptive tourism concessions, for the benefit of local communities and the wildlife resource, but which can also be used for other land uses, such as settlement, agriculture, forestry, mining etc.”

³ Government of the Republic of Zambia. (2018). National Parks and Wildlife Policy. Lusaka: Ministry of Tourism and Arts.

⁴ Private wildlife estates are defined in the Zambian Wildlife Act as “an area outside public wildlife estates that is reserved by person or local community for wildlife conservation and management, and includes a game farm, game ranch, reptile farm, aviary, zoo and captive breeding facility.”

partially fenced game ranches lie on land under leasehold title (not under customary tenure) and with very few exceptions these are outside of GMAs.

On extensive unfenced game ranches, the state retains ownership of wildlife, which restricts wildlife use to hunting and photographic tourism, while the proprietor retains management and use rights. Fenced game ranches are typically found on commercial farming lands, and also include ornamental farm plots of less than 200 hectares where there is no animal offtake. Fenced ranches can also sell wild animals and game meat but must acquire permits to keep wild animals in captivity and certificates of ownership which must be renewed annually, ostensibly to ensure that the Department of National Parks and Wildlife (DNPW) can keep track of populations nationally. This also provides the DNPW with the basis to enforce the private wildlife estates regulations to attain the minimum accepted conservation standards.

GMAs cover approximately 23 percent of the country and overlap with customary (or traditional) lands administered by 70 of Zambia's 288 chiefs. Many of the GMAs contribute to the wildlife economy and manage wildlife production through hunting concessions, which cover the full GMA, though hunting is usually limited to a small area where animals are more abundant. Some GMAs also host non-consumptive tourism such as photographic tourism and lodges.

Wildlife protection in the GMAs, which are key buffer zones and migratory corridors between national parks, depends heavily on community engagement and local conservation measures. However, the hunting concession model results in limited active management for wild meat over the large areas of GMAs where hunting operators do not actively harvest, as well as within GMAs that do not have concessions, or where hunting is not viable.



Sable antelope are among the most prized species raised on private estates. Photo: ILRG.

DNPW has a critical role in wildlife management and planning responsibilities in GMAs and is responsible for balancing community and state rights to wildlife, as well as managing human-wildlife conflict across these areas. Land use in GMAs is largely under the control of traditional authorities and is shaped by local livelihood and land use practices. The current legal framework around community engagement largely focuses on benefit sharing from hunting in these GMAs and human-wildlife conflict, as well as restricting encroachment and habitat conversion. The 2018 Wildlife Policy calls for strengthening local level institutional governance using the principles of CBNRM and, to-date, DNPW works closely with the Community Resource Boards in all the

GMAs. The policy framework guidance has been used to a lesser degree to promote community management of wildlife in the open areas, which generally, but not always, are less populated with wildlife than GMAs. This despite a Presidential Directive calling for the establishment and promotion of community game ranches, which led, for example, to the creation of the Ntambu Community Game Ranch, devolving 100 percent ownership rights of wildlife to communities. As of 2022, the 2018 policy has yet to be used to update the 2015 Act and associated regulations.

Despite a stated interest in community engagement, Zambia's fenced game ranches are largely operated by private actors on land outside of any formal protection. Though wildlife game ranches have operated in Zambia for more than 25 years, rigorous research on the private game ranching industry was largely confined to a relatively few studies published by the Wildlife Producers Association of Zambia (WPAZ), as well as Chomba et al., 2021. Data gaps, different metrics and methods, and varying sample sizes make it challenging to analyze trends in the industry. To continue building the evidence base, the United States Agency for International Development (USAID) Integrated Land and Resource Governance (ILRG) program partnered with WPAZ to produce a status report on Zambia's private wildlife estates and update the WPAZ 2013 report (Lindsay et al, 2013).

Over the last decade, several locally led initiatives to develop community game ranching sprang up across the country despite numerous social, economic, and political barriers. While some communities documented aspects of the experience, they have not been consolidated to inform current and future community game ranching efforts. Communities in Kaindu, Simalaha, Chitimukulu, and Nyalugwe have nascent community game ranching initiatives whose experiences were documented by ILRG. Complementing this, WPAZ recently prepared a report on community and open game ranches in Zambia.

This brief consolidates and synthesizes the most recent WPAZ reports and those of the above experiences, along with other relevant literature, government policy documentation, ILRG reports, and stakeholder interviews, to describe the status of Zambia’s existing game ranching sector and opportunities for emerging community game ranching initiatives alongside barriers preventing growth in the sector.

Methods

Research on community-based natural resource enterprises identifies four conditions for successful social, environmental, and economic outcomes:



Secure rights to develop, exclude others, sell a wildlife product or service, and enable long-term enterprise investment. While these rights are the most basic policy requirement, other policies contribute to a robust enabling environment.



Governance, organization, and management that provide effective leadership and technical knowledge to the enterprise, accountability to the community, and ensure the enterprise’s financial integrity.



A **viable social enterprise** model that produces sufficient financial benefits to reinvest in wildlife and business management and growth and provides economic benefits (though not necessarily cash) to the community as a whole.



Partnerships with value chain actors to access external funding and technical support; help coordinate amongst several communities (or individual producers); market products to buyers; and build/maintain infrastructure. These partners include national and local government, donors, civil society organizations, and private sector entities.

This brief uses the four enabling conditions as a framework to answer the following questions:

1. Is community tenure sufficiently robust to establish a community game ranch?
2. Are there examples of functioning community institutions that can be adopted or adapted to govern community game ranches?
3. Are there currently any viable community game ranch social enterprise models?
4. Are the wildlife value chain and a range of private, public, and civil society partnerships in place to support the community game ranch institutional and commercial development?

Status of non-community game ranching sector

To assess the community game ranching operating context effectively, it is necessary to first understand the established game ranching industry. This group is represented in Zambia by WPAZ. WPAZ acts as a trade group that helps its members lobby with government and provide clarity on legal framework issues. The group is open to those operating game ranches as well as a broad range of other service providers associated with the wildlife economy, such as private security, safari operators, game feed suppliers, food industry representatives, and community groups. The following sections discuss industry trends, financial viability, and industry constraints specific to private fenced game ranches.

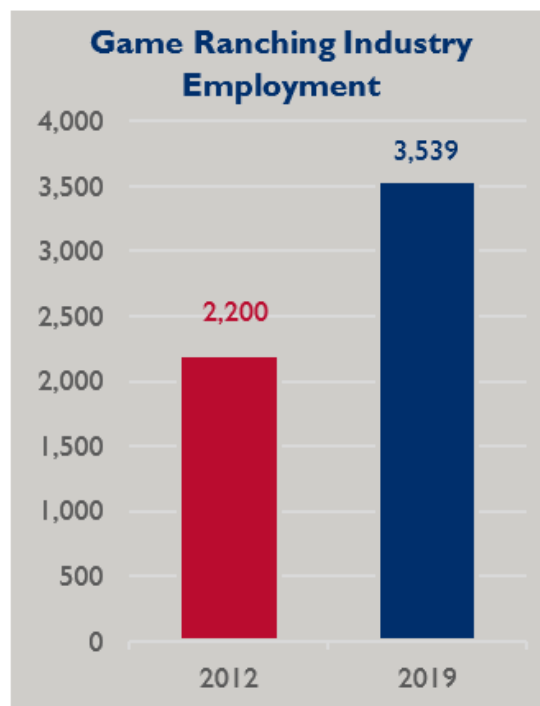
Private fenced game ranching industry trends

Number and size of game ranches and WPAZ membership. Despite the aforementioned challenges with comparing datasets, trends in registered private game ranches and voluntary WPAZ membership numbers point to an initial period of growth in the industry from 1996 to 2012 followed by a downturn in 2013, and resurgence since 2015. In 1996, there were 30 registered fenced private wildlife estates (PWEs) spanning over 142,000 hectares. All of these ranches were members of WPAZ. By 2012, the number of registered PWEs and their area more than doubled to around 78 with 282,600 hectares (the total number of registered PWEs was 115, of which 37 were ornamental plots of 50 hectares or less). WPAZ membership numbers followed suit increasing to 64. There was a sharp reduction in permit renewal by the PWEs in 2013, which is attributed to increasing constraints on the industry from poaching, weak legislation and government support, and wildlife ownership rights disputes. A 2013 government moratorium on trophy hunting on open game ranches likely influenced this decline, since it likely contributed to a reduction in tourists and hunters arriving in Zambia. There is no data available on the extent of the drop in registered PWEs in 2013, but the reduction in WPAZ membership in 2015 to 34 PWEs reflects a significant industry downturn. By 2021, the game ranching industry rebounded to 157 registered PWEs (70 WPAZ members) managing 231,647 hectares (including ornamental plots).⁵

To address data gaps in the game ranching industry, in 2020 WPAZ developed a game ranching database in partnership with DNPW, populated with official returns from registered game ranches. The database will help update, centralize, analyze, and apply game ranching industry data to help better understand its parameters and performance in relation to factors such as climate change, ecosystem resilience, habitat suitability, stocking rates, economic assessments, financial performance, employment statistics, and other important metrics. In 2022, WPAZ anticipates releasing statistics to help both government and PWEs better understand the dynamics of species productivity on ranches in Zambia, in part to help farmers decide on stocking densities and species diversity.

Game ranching production. Ungulate game animal productivity and sales are now close to 2012 levels. Game ranching production is measured by herbivorous ungulate game animals since their utilization for game meat and trophy hunting is the foundation of game ranch land use productivity management. This analysis does not include reptiles (crocodiles) or large carnivores (lions, leopard, and hyenas), the data on which are not included in the WPAZ database. In 2012, there were 28 different ungulate species and ostrich found on wildlife game ranches, with the most common species being impala, kudu, bushbuck, duiker, and bushpig. By 2021, there were 66 different species, including the black impala, nyala, blesbok, springbok and axis deer. A total of 21,000 registered wild ungulates were on game ranches in 1996, 63,023 in 2012, and 45,599 in 2021. Legal game meat produced explicitly for commercial sale followed a similar pattern. In 2012, 115 PWEs sold 143,749 kgs of game meat commercially to butcheries or individuals; in 2019, 102 PWEs sold 103,095 kgs. The value of game meat sales also dropped from US\$718,745 in 2012 to US\$515,475 in 2019.

Gross turnover and game stock. Estimates of gross turnover and ungulate game animal stock economic asset values are similar in 2012 and 2019, but it is likely that the industry is losing money as a



⁵ DNPW (2022). Data request on private wildlife estates, 15 Feb. 2022.

whole. The estimated gross turnover for 115 fenced game ranches in 2012 from live game and game meat sales (from cropping and trophy hunting) and trophy hunting was US\$4.65 million. In 2019, the estimated gross turnover for 102 fenced game ranches, excluding sales from legal game meat from trophy hunting, was US\$3.1 million. While the estimated industry operational costs in 2019 are unknown (see discussion on annual and variable fixed costs and the high capital start-up costs below), the net profit of the industry is likely to be negative after accounting for US\$2.7 million in estimated industry losses from poaching and unexpected animal deaths. Another indicator of industry status is the estimated on-farm ungulate game animal stock economic asset value, which was \$31 million in 2019; there is no similar estimate for 2012.

Employment. The number of people employed in the game ranching industry increased by 61 percent between 2012 to 2019, from 2,200 to 3,539 individuals, inclusive of both full-time and seasonal employees.

Private game ranching financial viability

WPAZ conducted financial modeling for game ranching in Zambia in 1996 and 2012. Yet due to differences in sample sizes, methods, metrics, and assumptions (e.g. game ranch size [3,000 vs. 2,000 hectares], current land use [new farms vs. existing mixed game farms], stocking costs [US\$166,000 vs. US\$715,000], and game uses), very little can be concluded by comparing the two modeling results. Despite these limitations, two key observations can be seen:

High capital start-up costs. The required investment to cover initial capital start-up costs for a game ranch is high, likely over US\$1 million (estimated in 2019). In addition, estimated annual variable and fixed costs over a 20-year period for a small-scale fenced game ranch of 2,000 hectares in 2012 were US\$128,350. Based on this, any farm will therefore need to generate revenue in excess of US\$200,000 per year to cover costs and pay off initial start-up costs before being profitable.

Diversifying livestock or agricultural farms with game ranching. The more existing capital, such as fencing and game animals, found on a site when ranching begins, the higher returns will be. This is supported by the finding from the 2012 study that livestock or agricultural farmers that added wildlife to their farms earned about one fourth of their income from game ranching. Despite this opportunity the incentivizing subsidies for the livestock sector versus the disincentives around game ranching negatively distort the economic potential of mixed farming systems.

Industry Constraints



Poaching and the illegal bush-meat trade



Lack of clarity in game ranching policy, regulation, and legislation



Inadequate ownership rights over wildlife



Bureaucratic hurdles and a perceived lack of an enabling environment and investment incentives from government



Undeveloped potential in the ecotourism and trophy hunting industries



Difficulty accessing land for game ranching



High relative profitability of agricultural crops and livestock farming



Lack of critical mass in the game ranching industry

Industry constraints

The reduction in game ranch renewals in 2013 is evidence that the game industry faces many challenges, as detailed in Lindsey et al.⁶ Below is a summary of these challenges and progress made in addressing them to date.

Poaching and the illegal bush-meat trade. In 2012, poaching was the greatest threat to the viability of the wildlife ranching business model and to the safety of ranchers and their workers. Almost all ranches experienced some level of poaching in 2012, and it was cited as the main reason that 54 ranches failed to renew their status in 2013. Zambia's legislation to address poaching was largely ineffective. Poaching penalties were minor in terms of jail time and fines. Sanctions for poaching game animals are much less severe than for stealing livestock, leading to a perception that poaching wildlife is a less risky enterprise. Poacher capture rates were also low due to limited government resources to follow through with wildlife enforcement cases that occur on private estates and the fact that game ranch scouts were not allowed to carry firearms in discharging their duties and thus could face legal repercussions if they defended themselves. Poaching and other game losses have continued to the present and there have only been a few recent positive developments. Through an agreement between the Ministry of Tourism and Zambia Police, several private security companies are helping to protect some private game ranches, and local WPAZ partners like the non-governmental organization (NGO) Wildlife Crime Prevention are working to strengthen the National Prosecuting Authority and are supporting legal assistants to monitor wildlife crime cases. Despite these advances, poaching continues to be a significant threat to the game ranching industry.

Lack of awareness of game ranching policy, regulation, and legislation. The Zambia Wildlife Act No. 14 of 2015 regulates game ranching. The National Parks and Wildlife Policy (2018) provides a much more comprehensive approach to developing the wildlife sector and identifies policies for addressing many of the challenges discussed in this section, but it has not been promulgated. The absence of clear implementation guidance that is broadly accessible to communities and community leaders for managing the sector contributes to uncertainty and high costs of doing business and inefficient approval procedures. However, collaboration between DNPW and WPAZ has improved communication between industry actors and the government and increased compliance with reporting requirements.

Updating the Wildlife Act No. 14 of 2015 to align with the progressive Wildlife Policy of 2018, as well as the Forestry Act No. 4 of 2015 (which is also progressive in terms of user rights, community based natural resources management and benefit sharing), would be a positive regulatory and legislative change to the game ranching industry in Zambia. The further devolution of rights that underpin this act would greatly advance the game ranching industry.

Inadequate ownership rights over wildlife. As previously mentioned, in 2012, fenced game ranchers did not perceive having full and secure user rights over wildlife, as they were required to renew wildlife ownership certificates annually, based on the submission of annual returns with information on live and utilized wildlife. While the government deems the annual renewal of ownership certificates as proforma approval, game ranch owners perceive this as a lack of full ownership of wildlife. Game ranchers argue that this prevents ranches from attracting investors or obtaining loans needed to cover the high capital start-up costs. While these provisions are still in place, WPAZ is working with the Ministry of Tourism through DNPW to draft a statutory instrument on PWEs. WPAZ is also lobbying the government to update the Wildlife Act No. 14 of 2015 to align it with the Wildlife Policy of 2018. Some key priorities for the sector include:

- Providing guidance for the stocking of sub-species and alien species on game ranches and farms;
- Creating equal penalties for poaching on private lands as exist on government managed areas (at present penalties are weaker on private land);

⁶ Lindsey et al, 2013.

- Increase allowances on game birds to increase international visitors; and
- Reduce fees for game ranches to hold safari operator licenses (current structure is targeted at concession holders).

Bureaucratic hurdles and a perceived lack of an enabling environment and investment incentives from the government. Overregulation is a significant disincentive for potential industry investors, and a major obstacle for those already invested in the industry. The process for establishing a game ranch remains tedious, expensive, and slow. To sell legal game meat, the entire production chain including butcheries and restaurants must have permits and inspections. For example, PVEs are required to obtain certificates of ownership and permits to keep animals in captivity, and end users are also often required to have permits to trade in game skins and other wildlife products. Attempts to streamline this process are under consideration by the DNPW through plans to introduce online payment and permit issuing systems. Finalization and follow through remains a major priority for action.

Undeveloped potential in the ecotourism and trophy hunting industries in Zambia. Compared to regional peers South Africa, Namibia, and Zimbabwe, the ecotourism and trophy hunting industries historically under-perform in Zambia due to limited marketing, poor infrastructure, inadequate investment in protecting and managing wildlife, and an unstable/unpredictable operating environment. Such factors reduce the ability of game ranchers to benefit from these forms of wildlife-based land use.

Difficulty accessing land for game ranching. The majority of Zambia’s land is under customary ownership. Accessing land for game ranching has to date usually required applying for and obtaining legal title, which involves the conversion of customary land to state leasehold. This process is marred by unclear guidelines and slowed by the frequent need to obtain permission from multiple stakeholders (chiefs, local council, national government, DNPW). There is potential for facilitating land access without conversion of title by developing partnerships between communities and private sector or non-governmental organizations on customary land, but obtaining community consensus is still required, and partnership business models present challenges. Models for partnership with communities on game ranching are described below but there remain few active examples and the financial and ecological sustainability of those examples is uncertain.

High relative profitability of agricultural crops and livestock farming. In areas with higher rainfall, fertile soils, and favorable prices for agricultural and domestic livestock products, game ranching is likely to be less competitive than in dry marginal lands, although game ranching can increase farm income if farmers have the time and interest to invest in mixed game ranching. In 2012, surveyed game ranchers noted that their average gross annual earnings from wildlife and livestock were similar, and 67 percent considered livestock more productive than wildlife. This indicates that game ranchers are choosing wildlife not purely for economic reasons.

Lack of critical mass in the game ranching industry. Due to a combination of the discussed constraints, there is limited critical mass within the game ranching industry to influence positive change, including developing markets for live sales of wildlife, legal game meat, other wildlife products, and value-added activities such as photo-tourism and trophy hunting, and associated development of commercial culling teams, taxidermy, and other support industries at viable economies of scale. Nevertheless, since 2013, the industry has grown steadily. While markets are not as well-developed as in sub-



Impala are the most abundant ungulate on game ranches and a potentially important component of the future wildlife economy. Photo: ILRG.

regional competitor countries, Zambia now has a wide range of support industries, such as wild capture, veterinary services, culling, mobile abattoirs, and markets for legal game meat. While there are not specific vested interests who do not want the industry to develop, there has not been a common approach for the full industry to work together. Many of the industry members are comfortable with the existing relationship-based approach to the sector and do not see a benefit in helping to bring new entrants into the game ranching sector.

According to WPAZ, education and public awareness are critical to raising the profile of game ranching in Zambia. Increased education and public awareness can strengthen lobbying efforts and garner public support for the industry. There is also a need for technical training and sharing of industry experiences. Through ILRG, WPAZ is partnering with Zambian social enterprise Community Markets for Conservation (COMACO) to trial an internship program to extend expertise and knowledge to community game farms. Beyond this pilot program, WPAZ has an opportunity to add value and cover some of its operating costs by creating best practice materials for sale at nominal fees. Further, the WPAZ game ranching database is compiling industry data to better place WPAZ to offer facts-based technical advice on a number of issues such as market preferred species, optimal sex ratios, wildlife productivity, and stocking assessments.

Status of community game ranching sector

This section begins by reviewing the Zambian community wildlife tenure policy environment by providing an overview of wildlife tenure and other supportive policies, the community game ranching advocacy organizations and their importance to the sector, and the status of five community ranches that are either currently operating or being proposed in Kaindu, Simalaha, Mpumba, Nyalugwe, and Ntambu. This brief then describes the models that USAID ILRG has supported in recent years as well as their government, private sector, and civil society partnerships.

COMACO has supported the Nyalugwe community's involvement in conservation and economic development activities for many years, principally through the Nyakachifu Multipurpose Cooperative of Nyalugwe Chiefdom, and ILRG has supported the establishment of a community game ranch. The Mpumba community is interested in setting up a game ranch; ILRG worked with the Frankfurt Zoological Society (FZS) to carry out an economic and environmental feasibility assessment to start the process. ILRG also provided a grant to the Petauke District Land Alliance (PDLA) to explore opportunities for game ranching on customary lands in Sandwe and Nyamphande Chiefdoms.

Wildlife tenure and other supportive policies

Overview of community wildlife tenure policies

Although many of the geographic limits of customary lands in Zambia overlap with protected areas, all of the existing community game ranches reviewed for this study are located outside of GMAs in open areas. Even though the Zambia Wildlife Act of 2015 recognizes community rights within GMAs and encourages communities to share in benefits from wildlife management, it does not identify pathways for communities to be involved in sustainable wildlife production. The National Parks and Wildlife Policy of 2018 supports the devolution of wildlife user rights to communities, and communal management of wildlife in areas outside of protected areas, but since these provisions are absent from the 2015 Wildlife Act, they have no legal backing.

The Zambia Wildlife Act of 2015 provides the legal basis for communities living in GMAs to establish community resources boards (CRBs), which are community management groups that can negotiate co-management agreements with hunting outfitters and photographic tour operators, manage wildlife within quotas, appoint village scouts to perform wildlife police officer duties under supervisions of a wildlife police officer, and develop and implement management plans. The act also gives CRBs authority to receive revenue from licenses and concessions and services from wildlife resources in their areas as well as grants and donations with approval of the government. But communities are not always able to

negotiate fair agreements with private sector operators, and concession fees are paid directly to the government, which can lead to delays in payments to communities (see policy advocacy section for an example of this).



Wildlife Tenure Policies in Zambia



- National Parks and Wildlife Policy of 2018
- Management Guidelines for Private Wildlife Estates in Zambia of 2005
- Zambia Wildlife Act of 2015
- Forests Act of 2015
- 2018 Community Forest Management Regulations

While communities have more tenure rights over land use in customary lands located in open areas than in GMAs, wildlife ownership and use rights remain with the government. Thus, communities face the same bureaucratic operational challenges confronted by privately run ranches in terms of having to renew wildlife ownership certificates annually based on submission of annual returns. Similar to private game ranches, wildlife use in unfenced or extensive community game ranches is limited to trophy hunting and ecotourism, while fenced game ranches in open areas can sell game meat or live wildlife. Communities thus lack the ability to monetize wildlife on their land unless they engage in fencing.



For many rural communities, elephants are a major source of human-wildlife conflict. Photo: ILRG.

The Management Guidelines for Private Wildlife Estates in Zambia of 2005 provides a “framework to guide and promote the establishment and expansion of Private Wildlife Estates as an alternative economic land use option,” and outlines a series of actions to implement the framework. The guidelines recommend the establishment of PWE categories to manage licensing fees and policing but provide very little detail about the categories (e.g., definitions, size limits), and as a result there is confusion around PWE categories. PWE categories relevant to community game ranches located in open areas include game “farm/ranch, Communal-Private Conservancy, Communal Wildlife Conservancy.” To register a game ranch and

obtain a land title, communities must create a legal entity such as a trust or association.

Another important policy that provides the basis for supporting community tenure rights is the Forests Act of 2015, and related 2018 Community Forest Management Regulations. The policy gives communities the right to establish local forests and collect, harvest, and manage timber and non-timber forest products both in open areas and within GMAs. Communities must form community forest management groups (CFMGs), or can use a CRB if one exists, to develop forestry agreements with the Forestry Department. There are over 100 CFMGs covering well over one million hectares, representing a groundbreaking approach to registering rights to land and resources in the name of communities. A clear legal framework for registering community rights with few administrative barriers and the immediate devolution of rights to manage a range of forest products have been responsible for the proliferation of community forestry. Community wildlife management, on the other hand, is constrained by a lack of approaches within the Wildlife Act to either acquire management rights to the land or acquire full ownership rights to any wildlife resources.

Policy advocacy

There are several active policy advocacy groups within Zambia that are helping to create the required enabling conditions for establishing community game ranching enterprises. As discussed in other sections of this brief, WPAZ plays a critical role in advocating for the development of the game ranching industry in Zambia. WPAZ was established in 1988 as an affiliate of the Zambia National Farmers' Union (ZNFU) to “foster the growth of the private wildlife estate and especially its national contribution to food production and security, job creation and community development, wildlife and wildlife habitat conservation, and private sector development.”⁷ Initially, it focused primarily on supporting private wildlife estates, but recently expanded to include community game ranching on traditional lands and open areas.

Two major community-based natural resource management (CBNRM) umbrella organizations are the Zambia CBNRM Forum and Zambia Community Resource Board Association (ZCRBA). The Zambia CBNRM Forum, established in 2005 with support from the World Wildlife Fund (WWF), is an umbrella organization for community-based organizations (CBOs), NGOs, the private sector, public sector organizations, and donors that have an interest in or support CBNRM in Zambia. The forum is governed by an elected Board of Directors that is made up of between nine and 13 members, of which 60 percent represent CBOs, elected at the annual general meeting. Although it is independently registered, the forum is hosted by WWF Zambia and has become more active in the last three years. Even though CBOs represent 60 percent of board members, the majority of the members and participants are Lusaka-based.

In response to limited community representation in the CBNRM Forum, ZCRBA was established. ZCRBA is a membership and representative body of CRBs and seeks to include CFMGs within Zambia's GMAs; it has 88 members at present. In 2017, ZCRBA appointed a national coordinator and administrator funded by FZS through a USAID grant. With ILRG support, ZCRBA is focusing on consulting and connecting with its member CRBs across the country and participating in the formulation of the national CBNRM Policy. ZCRBA was instrumental in securing the commitment of the Ministry of Tourism and the Ministry of Finance to release back payments for animal fees to CRBs from previous hunting seasons.

Tenure status of community game ranches

In 2006, the Kaindu Natural Resources Trust (KNRT), a community-based organization established in 2003 with support from the Danish International Development Agency (DANIDA), obtained a 14-year lease on 15,000 hectares of open area outside a protected area. KNRT is currently in the process of applying for land title. In 2009, KNRT signed a 99-year agreement with Royal Kafue Safaris subject to KNRT obtaining a leasehold title. Despite not having title, the DNPW approved KNRT's first safari hunting quota in 2013.

The Simalaha Community Conservancy (SCC) started in 2012 on 180,000 hectares of customary land in Sesheke and Sekute Chiefdoms. In 2013, SCC set aside 24,000 hectares as a fenced wildlife sanctuary for wildlife and tourism development; it has now been expanded to 40,000 hectares. The formation of SCC is based on a bilateral agreement between the two chiefdoms under customary law and a registered association. SCC registered as an association in November 2018, and the Simalaha Community Trust was registered under the Land (Perpetual Succession) Act Cap 186 in January 2019.

In Mpumba community, the government issued the Mpumba Resources Conservation Society (MNRCS) title to 8,474 hectares in 2006. MNRCS is in the process of registering as the Chintumukulu Conservancy. The community requested a GMA area in the early 1990s, but the government gazetted the area for agriculture. In 2006 part of the agricultural area was leased to Mpumba Chiefdom for conservation, but subsequently the area was subdivided and leased to private landowners. The Ministry

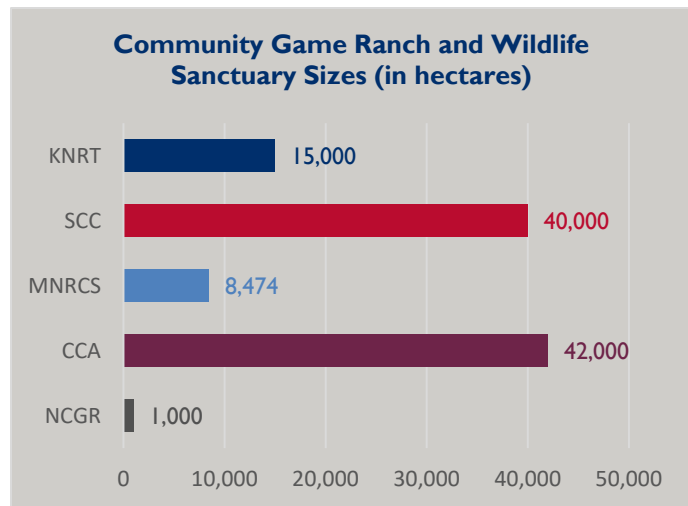
⁷ WPAZ. (n.d.). WPAZ. <https://www.wpazambia.com/>

of Lands is in the process of revoking the existing title deeds to free up title for the community conservancy.

With the support of COMACO, the Nyakachifu Multipurpose Cooperative of Nyalugwe Chiefdom initially created a 42,000 hectare community conservation area (CCA) in an open area outside the West Petauke GMA. This CCA model is not legally recognized, but rather acted as an informal management agreement within the chiefdom. Subsequently, the CCA registered formally as a community forest management area.

Ntambu Community Game Ranch (NCGR)

is a dense and fully fenced community game ranch, covering 1,000 hectares. The ranch is supported financially by Kalumbila Trident Foundation, which sourced all the animals. This means NCGR owns all the animals on its premises and will pay annual certificate of ownership fees, along with permit fees to keep wild animals in captivity.



Organizational capacity

The Kaindu community game ranch is managed by KNRT. Prior to the ranch's formation, Kaindu community established a CRB in the Lunga-Luswishi GMA, for which KNRT now also provides business development support. The KNRT is governed by a deed of trust and an elected board of trustees. The board comprises eight members elected by the community, and two members appointed by the chief, the patron of the KNRT. There are five village action groups (VAGs) in the chiefdom; each VAG elects two people to sit on the CRB and KNRT. DANIDA's departure in 2008 created a period of instability for KNRT, halting resource protection activities and likely causing wildlife depletion. Recognizing the need for external support, KNRT signed a business agreement with Royal Kafue Safaris for commercial trophy hunting. A lack of capacity at the VAG, KNRT, and DNPW levels, coupled with a series of leadership challenges fueled by internal community politics, stalled the progress of the leasehold title application for the game ranch. It took considerable time to work through these issues, some of which were compounded by the purchase and set up of the neighboring privately owned Kashikoto-Mushingashi conservancy. Relationship dynamics between many of the partners, support agencies, and the community itself required time and negotiations to resolve. Mistrust and a lack of accountability and transparency between partners were major challenges, some of which continue to the present.

Prior to the establishment of SCC and Simalaha Community Trust, an interim working group and steering committee facilitated the development of SCC. The trust is governed by shareholders including traditional leaders and Simalaha VAG community representatives. It consists of 22 trustees and is comprised of the chairpersons of the 10 VAGs in Simalaha, 10 nominated senior *indunas*, and the two chiefs, all of whom are the decision-makers within the SCC area. The elected members are equally represented by the two chiefdoms. Each VAG is an elected body of 10 representatives, drawn from the larger communities within the region, and the elected VAG chairpersons represent their communities on the trust.

The proposed game management structure for the Chintumukulu Conservancy is divided between several entities. The Mpumba community CRB in Munyamadzi GMA will be responsible for the sustainable management of wildlife and natural resources. MNRCS, which is formed by representatives of Mpumba community, is expected to be the deed holder of the conservancy title and will receive lease and animal fee income from the conservancy. MNRCS will also be responsible for raising capital to cover set-up and stocking costs as well as the development and management of the relevant tourism products to be offered by the conservancy. A separate legal entity incorporated in Zambia will be established by a

private partner. Reasons for this include the limited liability nature of the company, which protects MNRCS and the operator; it also provides for easier accounting and monitoring (and calculation of relevant fees). MNRCS will assign management rights to the company through a 20-year lease agreement. The company will manage wildlife ranching activities (meat production and trophy hunting) and tourism development. Finally, the now-defunct Mpumba Conservation Trust will be reinstated or a similar institution established to facilitate high-level coordination between stakeholders and conservation areas in Mpumba Chiefdom.

The Nyalugwe community game ranch is proposed to be managed collectively by the Nyakachifu Multipurpose Cooperative, COMACO, and Nyalugwe CRB/CMFGs. The ranch will be overseen by the Forestry Department, and DNPW. The game ranch faced challenges creating a unified vision between stakeholders, but drafted and signed a memorandum of understanding (MOU) outlining partner roles that should help begin to address this. The currently proposed management responsibilities are split between COMACO, the cooperative, and the CRB, but there seems to be overlap between them. CRB roles include employing and training village scouts, village awareness raising, coordinating capital management with the cooperative, and supporting implementation of the community conservation plan.



Ntambu Community Game Reserve was recently established through a partnership between Ntambu community, WWF, and a neighboring copper mining company. This reserve is fenced and benefits from investment from First Quantum Minerals. Photo: ILRG.

Social enterprise model and partnerships

The Kaindu community game ranch is the only ranch reviewed that has received revenue from wildlife use to date. It also appears to be the only community that has sufficient existing wildlife resources in place to operate its enterprise. This is likely due to its location adjacent to a productive area of Kafue National Park, thus not requiring restocking to become operational. The business model revolves around hunting tourism, which is carried out by Royal Kafue. Royal Kafue retains 80 percent of revenue and distributes the rest to KNRT. Between 2015 and 2018, KNRT earned US\$72,400 from the community game ranch. A portion of those funds was returned to the five VAGs, which decided how the funds were used in each village, including school infrastructure (housing and classrooms), goat rearing projects, and grinding mills. A portion of funds went toward KNRT administration, legal fees, and distributions to the chief, the palace committee, royal establishment, the CRB, and local schools. A clearer revenue sharing protocol for KNRT established in 2016 regulates the distribution of benefits received: VAGs receive 75 percent; the traditional authority five percent; the KNRT/CRB 10 percent; Kaindu royal establishment three percent; Kaindu CRB two percent; and community investment five percent. In 2015, KNRT requested support from The Nature Conservancy (TNC) for protecting natural resources, building governance capacity, and supporting business development, particularly moving the stalled Kaindu title application forward. TNC also supported the deployment of 19 village scouts in the game ranch, and continues to provide rations, a vehicle, and capacity development support. Patrols in both the game ranch and in the Lunga-Luswishi GMA are conducted by the scouts.

SCC is still establishing its game ranching business model. It has approximately 2,000 game animals, 1,600 of which were translocated from other areas. SCC hopes to increase wildlife numbers through breeding and then sell surplus animals at a premium. It also expects to develop activities around ecotourism and hunting. Although it acquired funding for building a tourist camp, SCC prefers that the camp be managed by a private sector operator. Peace Parks Foundation (PPF) provides technical and financial support to

SCC for wildlife management and enterprise development activities. PPF also provides benefits to communities through various livelihood support activities. SCC has a multi-faceted approach, with the communities and management participating in various activities, including reforestation, conservation agriculture, and manufacturing of energy efficient cookstoves to help earn direct carbon credits. SCC also benefits from concession fees. PPF hopes to secure donor funding to oversee the implementation of the project and the management of the funds on behalf of the SCC trust, and support the establishment of the SCC commercial entity, including joint selection and appointment of the CEO, as well as restoration of the wildlife products, infrastructure development and support to the business units. DNPW has been involved in the project since its inception and supports the SCC by training scouts as well as providing a wildlife police officer to lead the village scouts. The DNPW ecologist from Sioma Ngwezi National Park assists with undertaking an annual wildlife census. DNPW also assisted in validating disease-free animals purchased from neighboring countries and provided seed stock of certain species for reintroduction to SCC.

The proposed business model for the Chintumukulu Conservancy developed by FZS focuses on trophy hunting and meat production; it excludes live animal sales due to the difficulty of capturing animals in an open area. The estimated wildlife carrying capacity of the conservancy is nine large animal units (LAUs) per 100 hectares, or around 760 LAUs. Poor soil productivity in the conservancy limits carrying capacity. FZS assessed three business models with different management and harvesting options for species combinations and stocking rates. Option 1 includes a balanced mix of production for trophy hunting and wildlife ranching (meat). Option 2 places greater emphasis on wildlife ranching, and Option 3 prioritizes trophy hunting. Capital (including fencing) and restocking costs for all three options are estimated to be over US\$1 million with annual operating costs estimated at US\$60,000 to US\$220,000 over 20 years. Estimated annual income for the community is US\$47,000 under Option 1, US\$45,000 under Option 2, and US\$67,000 under Option 3. The annual allocation of meat to the community is about 2,100 kgs across all three options. Since no revenue is projected for the first six years, project planners believe the community needs an investor willing to write off upfront costs. The report concluded that all three options are unviable with 10 percent of returns going to community. Option 3 is estimated to provide a six percent internal rate of return if returns are reduced to five percent and the animal fee share is reduced. Options 1 and 3 are expected to be viable if the community incorporates the adjacent Mutinondo Wilderness Area to expand the game ranch by an additional 10,000 hectares. Mutinondo's owners are reportedly hesitant to add ranching and trophy hunting to its business portfolio, as its current focus is on photographic tourism. The report estimates that 15,000 hectares are necessary to be viable, with estimated set-up and stocking costs of more than US\$2 million.

The Nyalugwe community game ranch is currently developing a business plan to incorporate wildlife use into the Nyakachifu Cooperative business model, which is currently based on honey and mushroom



Zebras are commonly raised on private game ranches. Photo: ILRG.

production. Current wildlife resource availability in the game ranch is unknown, but the draft business plan identifies the need for restocking. For now, the proposed tourism products beginning in years 2 or 3 will include bicycle safaris led by former poachers and tourist bush camps. Bamboo furniture production is also included in the business model. It is not clear if any feasibility studies to support these activities were carried out. The business plan projects revenue from wildlife use in five to seven years after wildlife is restocked. It is unclear why expected income from carbon is not included in the business model because it appears to be a current income stream with which COMACO supports communities. The

business plan does not include benefit-sharing mechanisms yet. It proposes acquiring donor funding for initial and annual capital investment, but the amount is not specified. The Nyakachifu Multipurpose Cooperative will receive a five percent commission to manage the game ranching activities. According to the draft MOU, the Nyakachifu Multipurpose Cooperative will provide a bank account and financial oversight for the ranching enterprise, and support sustainable farming practices, the implementation of the community conservation plan, and the development of enterprises. DNPW will provide support for regulation compliance and managing non-compliance, assistance negotiating quotas, and coordination with COMACO for fundraising and reviewing and approving workplans and budget. COMACO will provide technical and managerial support to the game ranch, including fundraising, workplan development, and conflict resolution between actors.

Key findings

Communities wishing to develop game ranches share most of the same seemingly insurmountable obstacles confronting the private game ranching sector, but also have distinct challenges related to meeting the four conditions critical to success for community-based natural resource enterprises: secure rights, effective governance, a viable social enterprise model, and value chain partnerships (particularly to access external funding). Key findings related to these enabling conditions are listed below.

- Community wildlife tenure rights are not sufficiently broad to support community game ranching effectively, particularly in GMAs. This is partially evidenced by the near absence of fully functioning community game ranches in the country and contrasts with the approach taken in the forestry sector.
- The requirement that communities must create a legal entity to register a game ranch and obtain land title is unduly burdensome and costly. Navigating policy requirements and coordinating agreement amongst a multitude of stakeholders both within and outside communities takes time and requires long term external financial, technical, and organizational support.
- The Forests Act of 2015 and related 2018 Community Forest Management Regulations provide an opportunity to strengthen community land tenure rights, especially in GMAs. While increasing land use rights is not specific to wildlife, it could provide communities with incentive to protect important ecosystems upon which wildlife depends. Community forest management areas could become the focus of securing land rights as habitat for wildlife-related activities to occur, and indeed this seems to be the approach being taken in some areas, like Nyalugwe Chiefdom in Eastern Province. However, communities will still face the difficult decision on whether they need to fence areas both to secure their rights to animals and to support law enforcement and monitoring.
- Advocacy organizations play an important role in supporting community rights in game ranching and natural resource management in general and will likely continue to do so going forward.
- Several of the communities reviewed have experience in community resource governance through the establishment of CRBs, conservancies, and trusts that can be used as a basis for building wildlife governance. Communities face similar bureaucratic hurdles to those confronting private game ranches, and for the most part do not have the technical or managerial capacity to manage and control wildlife activities within their lands, nor operate game ranching enterprises alone. Nevertheless, the experiences from developing different community wildlife governance models can provide lessons for other communities interested in developing game ranches.
- The Kaindu game ranch experience provides a model for community-private sector partnership, as well as examples for further study around community benefit-sharing arrangements.

- If communities do not already have sufficient wildlife resources to develop game ranching products or fenced-in areas, the investment and time required to create these conditions are likely too high without the support of a long-term philanthropic donor. This highlights the need to situate ranches in areas adjacent to existing protected areas, though these areas have largely been occupied by hunting concessions (within GMAs) or by private partially fenced game ranches.
- Related to the above, long-term partnerships with the government, private sector, and civil society have been and will continue to be critical to community game ranching success. There are emerging stories of private sector game ranching and livestock farmers interested in cooperating with communities on game ranching, particularly in locations where existing privately held farms are adjacent to customary land, or in areas that are not particularly viable for other agriculture practices and that have very low human population densities. These interests continue to be worth mapping and building upon.
- Although not discussed in depth in the community game ranching reports, the threat of poaching identified by private game ranchers is another barrier that if not effectively addressed will ultimately prevent community game ranches from succeeding.

In summary, community game ranching faces particular capacity and economic hurdles. These can be addressed, but only in places where the geographic and wildlife conditions are optimal and communities are well-prepared, and where there are patient philanthropic investors who are not prioritizing short-term economic gains.