

# The people in South Sudan's wildlife conservation story

July 2025

This research was conducted by Adrian Garside and Kabacha Oleo, with support from CSRF colleagues, Ranga Gworo and David Otim. The research was conducted in areas in and around Boma and Badingilo National Parks, east of the White Nile. To provide sufficient breadth and depth of analysis, the paper also includes separate research conducted by Adrian Garside in Protected Areas west of the White Nile and the Sudd.

The Conflict Sensitivity Resource Facility supports conflict-sensitive aid programming in South Sudan. The facility is implemented by a consortium of Saferworld and swisspeace and funded by the British, Swiss, and Dutch governments, and the European Union.

## **Contents.**

Acknowledgements

Acronyms

Executive Summary

1. The people in South Sudan's wildlife conservation story
  - 1.1. Introduction
  - 1.2. Methodology: the research
  - 1.3. Methodology: the aim and structure of the paper
2. South Sudan's wildlife estate
  - 2.1. An introduction to South Sudan's Protected Areas
  - 2.2. South Sudan and the global biodiversity loss agenda
  - 2.3. Tailoring solutions for a biodiverse landscape
  - 2.4. Area-based and Landscape Approaches
  - 2.5. Diverse approaches in conservation management
3. The People in South Sudan's conservation story
  - 3.1. Protected Areas and a history of displacement
  - 3.2. Engaging with the people
  - 3.3. Rural communities, wildlife and hunting
  - 3.4. A reward for not hunting?
  - 3.5. Breaking out of the transactions
  - 3.6. Protecting wildlife or managing landscapes
4. The South Sudanese in PA management
  - 4.1. Community involvement in Park Management
  - 4.2. The South Sudan Wildlife Service
5. Protecting biodiversity amidst armed conflict
6. Summary of recommendations

## **Acknowledgements**

Thanks are due to the CSRF team for creating the opportunity for this research and their valuable inputs to the paper, in particular Natalia Chan, Martina Santschi and Gaya Raddadi. For the additional research brought to this paper from other areas of South Sudan, special thanks are due to Fauna & Flora and Michelle Moeller; the Agency for Conservation and Development and Ruei Hoth; the African Wildlife Foundation, Frankfurt Zoological Society, the Elephant Crisis Fund; and to Philip Winter.

This research is nothing without the South Sudanese, their deep knowledge of the bush and their priorities for the environment amidst other acute pressures they face. There are countless people to thank, but over many years the Wildlife Service, embedded into the rural communities, has provided vital connections and help. The Director General, Lt. Gen. Khamis Ding has provided constant advice and support. Special thanks are also owed to 2Lt Benneth Ezekia: teacher, preacher and interpreter.

## Acronyms

ABP	Area-Based Programming
ACD	Agency for Conservation and Development
AP	African Parks. Also uses the acronym APN: African Parks Network
AWF	African Wildlife Foundation
CA	Community Agent
CAR	Central African Republic
CBD	Convention on Biological Diversity
CMP	Collaborative Management Partnership
CPA	Comprehensive Peace Agreement
CWA	Community Wildlife Ambassador
DRC	Democratic Republic of Congo
ECF	Elephant Crisis Fund
EF	Enjojo Foundation
F&F	Fauna & Flora. Formerly FFI: Fauna & Flora International
FZS	Frankfurt Zoological Society
GR	Game Reserve
IUCN	International Union for Conservation of Nature
IWT	Illegal Wildlife Trade
KBA	Key Biodiversity Area
LRA	Lord's Resistance Army
MOU	Memorandum of Understanding
MWCT	Ministry of Wildlife Conservation and Tourism
NP	National Park
PA	Protected Area
PERAC	Protection of the Environment in Relation to Armed Conflicts
PZ	Protected Zone
SA	Small Arms
SALW	Small Arms and Light Weapons
SSWS	South Sudan Wildlife Service. Also the National Wildlife Service and Wildlife Service.
SSYBN	South Sudan Youth Biodiversity Network
WCS	Wildlife Conservation Society
WCSS	Wildlife Clubs of South Sudan

## Executive Summary

South Sudan's wildlife conservation sector has only recently come to prominence, with new evidence of species, including the largest mammalian migration on the planet, raising some of the country's National Parks and Game Reserves to Key Biodiversity Area status. Conservation has been a late starter, due in large part to the country's more visible needs relating to basic human requirements, political stability and lasting resolution to seven decades of recycling civil wars and armed conflicts. As a result, the management of South Sudan's wildlife Protected Areas has not evolved in a way that may be seen elsewhere on the African continent. This is occurring amid the triple planetary crisis of climate change, biodiversity loss and pollution, all matters acutely reflected in South Sudan today. Of these, reversing biodiversity loss presents an opportunity in the country, which could even be linked to a revenue in tourism with benefits reaching rural communities.

Given the above, the management of South Sudan's Protected Areas is extremely complex, risking antagonism and conflict. Most issues are not new but the scale is considerable. Hence there is a requirement to examine where and how the South Sudanese people fit into the evolution of their conservation story and the future of conservation in their country. A fundamental part of this turbulent history is that the country's many rural people are either settled inside or traverse the Protected Areas, dependant on resources provided by nature, and grazing vast herds of cattle. Baseline wildlife data, mostly from the early 1980s, lacked the technology to be accurate resulting in many key species and migrations existing outside of designated PAs. The viability of the current Protected Area network is further brought into question by recent years of flooding in the Sudd – Africa's largest wetland – that has displaced both human and wildlife populations to compete over suitable habitat. New designated areas might lead towards the Convention on Biological Diversity's agenda under forms of community conservancies, but approaches cannot hang on the old paradigm of 'humans or wildlife': this is about conservation amongst the people.

## Summary of Key Findings

- **South Sudan presents a very different conservation context to other countries on the African continent where conservation has been widely practised for many years.** Underdeveloped in all respects, this presents both opportunity and risk. Opportunity lies in embracing this unique context: where tailored solutions have been developed there is evidence of conservation success. Diversity exists across the Protected Areas too: political, ethnic, livelihood as well as tropical forests to open savannahs, mountains to vast wetlands. Each Protected Area demands bespoke management. This lends itself to being driven by ground-up, de-centralised solutions, that need to be aligned with and respected by centralised wildlife governance.

- **Conservation organisations, in managing PAs, are inherently dealing with major conflict factors.** This stems from their involvement in managing territory – often with ambiguous boundaries on both maps and the ground – and regulating access to natural resources within these areas, particularly wildlife/bushmeat and pastureland. PA management also necessitates working with local populations that are entangled in complex social and political conflicts, with violence exacerbated by the proliferation of small arms.
- **Despite the challenges, ‘wildlife’ is emerging as a neutral and respected entry point for engagement.** By adopting a conflict-sensitive approach, wildlife conservation offers an opportunity to apply an area-based methodology across conflict-affected landscapes. While biodiversity success should be upheld as the critical goal, this approach also aligns with peacebuilding, humanitarian, and development outcomes, and may showcase South Sudan’s potential contribution to the global biodiversity agenda.
- **International conservation organisations are working in areas where communities have received little if any humanitarian or development attention.** This is unsurprising since these areas are recognised for their biodiversity rather than as human population centres. Since they may represent the first conservation presence in that area for years, may be the first ever, those communities are unsure what PA management will mean for them. Communities are more familiar with humanitarian and development demands.
- **It is very clear that without understanding the intentions of modern PA management and biodiversity, suspicion and uncertainty quickly rises to antagonism and conflict.** Quite rightly, those communities want to be a part of conservation, gain benefits from doing so, and above all to be involved in decision-making. For this relationship to develop with mutual benefit to both communities and conservation, education and inclusion would be central to a conflict-sensitive approach.
- **There are a number of successful conservation initiatives across the country where community members are being selected, trained and employed in different wildlife roles.** These are proving to be very effective, well-received by the rural communities, authorities and the Wildlife Service. This already presents useful lessons and considerable opportunity for the future, with foundations for potential community conservancies already being laid.
- **The South Sudan Wildlife Service has a long history but like the other security organisations it presents considerable difficulties for conservation NGOs.** Aside from its institutional constraints, at the local level the Wildlife Service is an ingrained part of the communities, connecting rural people with local authorities and government. Ultimately, it is the national institution responsible for the management of the country’s wildlife estate. Where relationships have been built over years – with

training, resourcing and mentoring – the Wildlife Service has become a major contributor to conservation success.

- **Conservation management is a complex arena and international conservation organisations bring different approaches:** this should be beneficial to a country needing bespoke solutions. However, it can also bring confusion to the Ministry of Wildlife Conservation and Tourism. Clarity on the models for Collaborative Management Partnerships, especially with regards to the role of the National Wildlife Service, seems to be an area that would benefit relationships across the conservation sector.
- **The history of ‘wildlife’ in South Sudan, from hunting to protecting, has been a male-dominated activity,** as is the case in wildlife histories across the continent. In the deep rural areas, the inclusion of women presents some different issues to be addressed compared with urban centres. It is notable that the new Wildlife Service Act demands for 35% women in recruitment. Agrarian communities are advancing more quickly in the recruitment of women into conservation roles, both in the Wildlife Service and the community conservation initiatives. It will clearly require specific attention, especially ensuring that women and men have equal roles.
- **It is widely acknowledged that effective PA management depends on a stable political environment which remains elusive in South Sudan.** The newly adopted principles for Protecting the Environment in Relation to Armed Conflict (PERAC) offer a framework for engagement with the Ministry of Wildlife Conservation and Tourism and the broader government. Key Biodiversity Areas (KBAs) for example, may be used as a point of negotiation for developing nominated Protected Zones during armed conflict. PERAC specifically utilises a temporal framework of before, during and after armed conflict. This makes it highly applicable in South Sudan and encourages a pro-active approach before armed conflicts, as well as hooks for initiatives during armed conflict.

## 1. The people in South Sudan's wildlife conservation story

**1.1. Introduction.** This research paper is about the people of South Sudan and the management of their wildlife estate.<sup>1</sup> The recent attention given to South Sudan's wildlife sector may appear an anomaly amidst the country's severe humanitarian needs dictated by war and peace, aid and development. None of the country's designated national parks and game reserves have ever been demarcated or managed in a way that would be recognised as Protected Area management in other countries like Kenya, Uganda, Tanzania, and South Africa, where national and international staff may enjoy wildlife safaris during their breaks away from South Sudan.

Forms of wildlife conservation have been enacted in southern Sudan since the early condominium period<sup>2</sup> and probably with traditional methods of controlled hunting before that. After 1955, conservation management was disrupted by Sudan's independence and the first Sudanese civil war. Until very recently, much of the baseline wildlife data came from the inter-war period (1972-1983) before the second Sudanese civil war. Conservation restarted again during the Comprehensive Peace Agreement (CPA) period and South Sudan's early independence.<sup>3</sup> Therefore, updating the baseline wildlife data has been a priority. Since 2015, Fauna & Flora has been releasing press statements about the extraordinary biodiversity captured in remote-sensing camera traps in the Game Reserves on South Sudan's border with the DRC and in Southern National Park.<sup>4</sup> In 2024, after a huge collaring and aerial survey operation, African Parks declared South Sudan had the largest mammalian migration on the planet, in the Boma-Badingilo-Jonglei Landscape.<sup>5</sup> Less well-known, the Agency for Conservation and Development has been identifying new movement patterns of wildlife escaping the flooding east of Zeraf Game Reserve, including camera trap images of important species such as lions. Wonderful as these declarations are, the confirmation that such wildlife exists represents fragile opportunities amidst political instability, climate change and a conservation sector grappling with the best way to manage wildlife Protected Areas in South Sudan's unique context.

Three Civil Wars fought mostly with Small Arms and Light Weapons rather than destructive, high-tech weaponry, interspersed with seven decades of systematic under-development and repression, has left South Sudan with a substantial natural wilderness. However, this is now mixed with unregulated

---

<sup>1</sup> 'Wildlife estate' is used here as a general term so as not to be constrained to the boundaries of designated wildlife Protected Areas. These boundaries are defined by descriptions rather than coordinates, wildlife is often found outside of designated areas, flooding and urbanisation is causing species to migrate to new areas, and global biodiversity loss requires the expansion of managed wildlife areas. Therefore, this paper is focused on but not bounded by the country's officially designated wildlife Protected Areas, hence a broader term of 'wildlife estate'.

<sup>2</sup> Day, C. and Garside, A. *Wildlife Management in South Sudan, 1901-2021: Conservation Amidst Conflict*. African Studies Review (2024), 1-22.

<sup>3</sup> Wildlife Conservation Society (2007-2023); Fauna & Flora (2010-ongoing); African Wildlife Foundation (2013-2016).

<sup>4</sup> For example: <https://news.mongabay.com/2015/12/forgotten-forests-of-south-sudan-camera-traps-capture-first-ever-pictures-of-forest-elephants-giant-pangolins-in-the-country/> and <https://www.fauna-flora.org/news/the-lion-the-wish-and-the-warthog-king-of-the-beasts-caught-on-camera-in-south-sudan/>

<sup>5</sup> <https://www.africanparks.org/worlds-largest-land-mammal-migration-confirmed-south-sudan>



extraction of natural resources and pollution, causing great harm to its ecosystem, impacting both humans and wildlife.<sup>6</sup> In spite of South Sudan's 'vast bush' and the extent of the wilderness seen from an aircraft, on the ground a human footprint can be found almost everywhere. Wars fought over control of urban centres and oilfields have forced people to settle inside parks because these spaces offered safe distance from the fighting and availability of the resources that sustain their lives. These designated wildlife areas may also represent non-neutral territory in South Sudan's ongoing conflicts where precision drones and attack helicopters may alter the character, but not the nature, of its warfare. After a long interlude and with modern data-gathering technology, South Sudan's conservation story is only now turning its attention to managing its unexpected and often extraordinary wildlife that survives. However, more deeply ingrained in the history of this story is the migration of the rural people, their violent displacement, return and refuge amidst unmanaged conservation areas. South Sudan's wildlife story therefore remains utterly connected with its people, somewhat differently to other countries where there is peace and the designation, protection and management of PAs began decades earlier. "When you come to South Sudan, you have to throw away everything you thought you knew about conservation."<sup>7</sup> Conservation in South Sudan requires a multi-disciplinary approach with conflict as a core subject: the nexus of issues presents a conundrum for park managers. However, amongst this – on all sides – the National Wildlife Service has been an under-appreciated part of South Sudan's conservation story and a potential solution. Entrenched on the lower rungs of the national security architecture, it holds a unique position amongst rural communities while also aligned with local, state and national authorities, crossing political fault lines but everywhere united by the wildlife it is meant to protect.

**1.2. Methodology: the research.** The geographical area for the research was Boma and Badingilo (or Burgilo) National Parks where African Parks – the largest international conservation organisation in Africa – has begun the management of extensive areas of the great migration. Interviews were conducted with the traditional authorities, men, women and youth in rural communities. Within and in the vicinity of Badingilo NP this included Lafon, Marguna and Ukwanya. In Boma NP, this included Boma centre, Nyett, Kissangor, Marowa and the villages of Upper Boma. In addition to rural communities, one-on-one interviews were conducted with local government officials. Wildlife Service rangers were an important target for research, and were either interviewed one-on-one, in focus groups, or as part of youths' and elders' groups. In Juba, meetings were held at the Ministry of Wildlife Conservation and Tourism (MWCT); and with the national and international conservation organisations present in South

---

<sup>6</sup> <https://www.bbc.com/news/articles/c4gpmx7z0xno>

<sup>7</sup> Country Manager, Fauna & Flora. Juba. March 2025.

Sudan.<sup>8</sup> The two Protected Areas for this research are east of the White Nile and therefore, present insufficient geographic, biodiversity and ethnic coverage to draw nation-wide conservation findings and priorities representative of South Sudan. Therefore, the lead researcher/author has added to this paper his research and findings from fourteen years working in Southern National Park, the Game Reserves on the DRC border (Bangangai and Bire Kpatuo), Shambe National Park, the Imatong Mountains, plus Zeraf and Fanyikang Game Reserves in the heart of the Sudd. This comprises participant-observer research during work with Fauna & Flora, the Agency for Conservation and Development, the African Wildlife Foundation and Frankfurt Zoological Society; and through research fellowships with King's College London and the University of Oxford. The Elephant Crisis Fund has been a significant donor.

**1.3. Methodology: the aim and structure of the paper.** In this research paper, wildlife conservation refers to the management of designated wildlife Protected Areas (which in South Sudan includes 6 National Parks, 12 Game Reserves and a Forest Reserve), often referred to as Protected Area (PA) management. This paper takes a broad approach with a view to making recommendations for **effective PA management centred on 'the people'**, referred to in this paper as 'communities' for ease: understanding their perspective, utilising their local knowledge, strengthening their capacity, the governance of territory and the protection of all species (including humans). This paper is not a study of biology. Nor is it a 'How-To' manual for all things associated with conservation management in South Sudan. Wildlife conservation and the evolution of park management has a contentious history, imposing regulations and differing approaches. Largely founded during the colonial era, it is not practiced identically across Africa. Incentive models of conservation management, rather than centralized protection, were introduced much earlier than many critics acknowledge.<sup>9</sup> However, different approaches to conservation continue and have resulted in polarised perspectives which are often based on generalised conclusions from single case studies. As a result, these perspectives have limited utility in providing recommendations for effective conservation practice on the ground, which must be guided by each local context. And in the case of South Sudan, the diverse local contexts are quite unique.

The paper is aimed at three target audiences with very different perspectives and levels of knowledge about park management: different parts of the paper are necessarily aimed at these discrete audiences. First is the wildlife conservation sector itself: the Ministry of Wildlife Conservation and Tourism and the National Wildlife Service, responsible for the management of the country's wildlife estate; the international organisations working or aspiring to work in the country and several new national NGOs intent on salvaging their wildlife, and for whom PA management may be a new concept. In time, this

---

<sup>8</sup> In addition to the National Wildlife Service, the conservation organisations active on the ground at the time of the research are: African Parks, Agency for Conservation and Development, Enjojo Foundation, Fauna & Flora.

<sup>9</sup> Eds Helen Suich and Brian Child with Anna Spenceley, *Evolution and Innovation in Wildlife Conservation: Parks and Game Ranches to Transfrontier Conservation Areas*. Earthscan, IUCN (2009).

should also include private investors in the wildlife tourism sector. Second, for the donor community that sees the potential of conservation in South Sudan's future. Statutory and traditional conservation donors, public and private funds, wrestling with uncertainties about the conservation sector and what constitutes the right outcomes in South Sudan's atypical context. Third, for the humanitarian, aid and development sectors, dominant across the country, for whom ecocentric outcomes may be perceived as an intrusion on anthropocentric needs and where mutual benefits need to be found.

The paper runs in a sequence that begins with some background to wildlife conservation so that the reader understands why bespoke solutions for each area are necessary, rather than just focusing on one case. It then proceeds to examining three 'groups' of people: local authorities and rural communities; models of 'community rangers' that are currently practiced in South Sudan; and the National Wildlife Service. Throughout this discussion runs the essential need to develop capacity – education, training and mentoring – amongst the South Sudanese for park management, more than just controlled hunting. Throughout the paper runs the issue of conflict and conservation. Aside from human/wildlife conflict, the broader subject of conflict and conservation is a curiously new topic in the wildlife conservation sector, especially at the more politicised and violent end of the scale. This paper takes a broader political and territorial approach to conflicts and conservation, rather than the usual poaching/counter-poaching paradigm which is only one aspect of park management. This paper examines through a conflict lens drawing out recommendations for conflict-sensitive programming. This includes a brief examination of the new principles for Protecting the Environment in Relation to Armed Conflicts (PERAC)<sup>10</sup> and maintaining a presence during armed conflict.

The paper concludes with a summary of the main recommendations.

## **2. South Sudan's wildlife estate**

**2.1. An introduction to South Sudan's Protected Areas.** At South Sudan's independence in 2011 one could take a map of the country's wildlife Protected Areas (PAs) to most offices in Juba and it would be met with surprise: unrecognisable 'blobs' on the map. There was widespread lack of awareness that South Sudan had National Parks or that significant wildlife might exist.<sup>11</sup> This was in spite of several state flags and other insignia carrying images of wildlife. The country's new bank notes, traditionally used to message national identity, depicted the country's wealth of natural resources – mostly wildlife. The same credulity has applied to the Wildlife Laws for South Sudan. Even those in other law enforcement agencies and the judiciary have been unaware that these laws exist.<sup>12</sup> Adding to this is the country's

---

<sup>10</sup> United Nations General Assembly, A/RES/77/104, adopted by the General Assembly on 7 December 2022.

<sup>11</sup> For many years Philip Winter has been the chief voice, rallying others to support South Sudan's wildlife.

<sup>12</sup> Adrian Garside, notes from 2011-2025 including interviews MWCT, August 2022.

Wildlife Service, largely recruited from former combatants but ignored in the extensive Security Sector Reform programmes of the CPA era.

The lack of awareness was not the result of wildlife conservation existing in its own detached ‘bubble’.<sup>13</sup> Strictly it does not: instead, conservation management reflects the societies in which it is practiced, hence one reason for there being many different approaches and inconsistency in ‘what works’. Models for PA management have been categorised by the outstanding research of Mujon Baghai,<sup>14</sup> which has provided much clarity for the conservation sector into its modes of management. Mujon’s work is not dogma but provides important guidance for arrangements between international conservation organisations and national governments. This must be treated especially carefully in the context of conflict-affected countries where the national government may not have control over all the territories in which PAs exist.<sup>15</sup> This is important to acknowledge when devising the right approach for each wildlife PA in South Sudan, and for developing co-management arrangements with a complex Wildlife Service. The practice of wildlife conservation in conflict-affected countries often falls into a funding gap between development donors and the private sector, a gap that is hard to fill with tourism revenue when insecurity discourages even the most adventurous travel companies. The complex and contentious issues of conservation juxtaposed with development is a difficult one for donors, which is another reason for ‘wildlife’ disappearing from South Sudan’s development radar for several years.

South Sudan’s wildlife estate comprises some 13% of its territory. This is not a straightforward figure that implies that all 13% is fully protected by law, let alone in practice. The average figure for land mass designated to wildlife PAs in African countries is about 19%, with Tanzania reaching some 44%. South Sudan’s human population per square kilometer is much lower than the continent’s average. However, a large percentage of that human population remains deeply rural and utterly reliant on subsistence cultivation, livestock and pasture, fish, bushmeat and many other products found in nature. The point is, South Sudan’s wildlife estate is not excessive, indeed it could be expanded and remain within the continent’s norms, incorporating rural communities in their management as community conservancies.<sup>16</sup>

The Sudd Ramsar Site would add to this percentage.<sup>17</sup> Ramsar sites and the three Game Reserves within the Sudd (Zeraf, Fanyikang and Meshra) are managed under International Union for Conservation of Nature (IUCN)<sup>18</sup> category VI, allowing for sustainable use of their natural resources. Whereas the

---

<sup>13</sup> Conversely the ‘Juba bubble’ is a well-known phenomenon, as is the case with most national capitals.

<sup>14</sup> Mujon Baghai et al, *Models for the Collaborative Management of Africa’s Protected Areas*. Biological Conservation 218 (2018) 73-82.

<sup>15</sup> Skype Garside/Baghai, 9 March 2021.

<sup>16</sup> There is no set definition of community conservancy, the important point is that it is community-led and finding local solutions that work is generally regarded as the best approach.

<sup>17</sup> Officially quoted in the order of 57,000km<sup>2</sup> (including the three Game Reserves) the flooded area of the Sudd has now expanded greatly since 2019.

<sup>18</sup> IUCN is the global authority on the status of the natural world and the measures needed to safeguard it.

National Parks are IUCN category II giving them much stronger, formal protections.<sup>19</sup> South Sudan's 2013 Wildlife Conservation and Protected Areas Policy aligns with IUCN standards and resembles other African country's wildlife policies. It is important to acknowledge that in South Sudan there is a legal basis for wildlife conservation as well as the local context.

To call these 'paper parks' gives the wrong impression, their existence on paper is too poorly known. Whereas people know more about them on the ground especially amongst the rural communities, cattle keepers, hunters, foragers, those on the move, displaced, living beyond the reach of predatory authorities, and a smattering of wildlife rangers everywhere. Amongst these people the parks are known, they have a sense of the boundaries insofar as to acknowledge whether they are 'inside' and what wildlife lives, or should be living, within them. The greatest migration on earth has survived amongst them, while in other areas the wildlife has been plundered for bushmeat. For years local rules for wildlife have been applied, the ones on paper are too poorly known. But the governance of these parks is now taking a new course towards the survival of the biodiversity they hold.

**1.2. South Sudan in the global biodiversity loss agenda.** In 2022 the Kunming-Montreal Global Biodiversity Framework was adopted as a legally binding agreement, by 196 countries including South Sudan and many conservation donors. One of the global targets is to ensure that 30% of the planet's surface (land, inland water, coastal and marine) is effectively managed and conserved for nature by 2030.

Countries affected by conflict present some unique opportunities towards this global effort, because of their remaining expanses of wilderness often resulting from under-development. For example, a potential ecological corridor exists from western South Sudan, through Eastern CAR to southern Chad, including major designated conservation areas, which would allow wildlife with major ranges such as elephants to roam hundreds of miles of largely under-developed land, while crossing just a few mud roads.<sup>20</sup> However, related to this under-development are the armed conflicts in these countries complicating conservation opportunities.

Many conservation donors now expressly demand that organisations work towards the 30x30 target. This is something that countries like South Sudan have to offer. To some extent it is necessary: most of their designated PAs have very limited boundary descriptions and in several cases, key biodiversity is outside a boundary due in part to the earlier data for wildlife being inaccurate. In other cases, there is a lack of hard copy of the legal declaration of a PA. This all presents opportunities for community-based conservation initiatives.

---

<sup>19</sup> Dudley, N. *Guidelines for Applying Protected Area Management Categories*, IUCN (2008): <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://portals.iucn.org/library/sites/library/files/documents/pag-021.pdf>

<sup>20</sup> Briefing by AP Regional Manager, Chinko conservation area, CAR. November 2022.

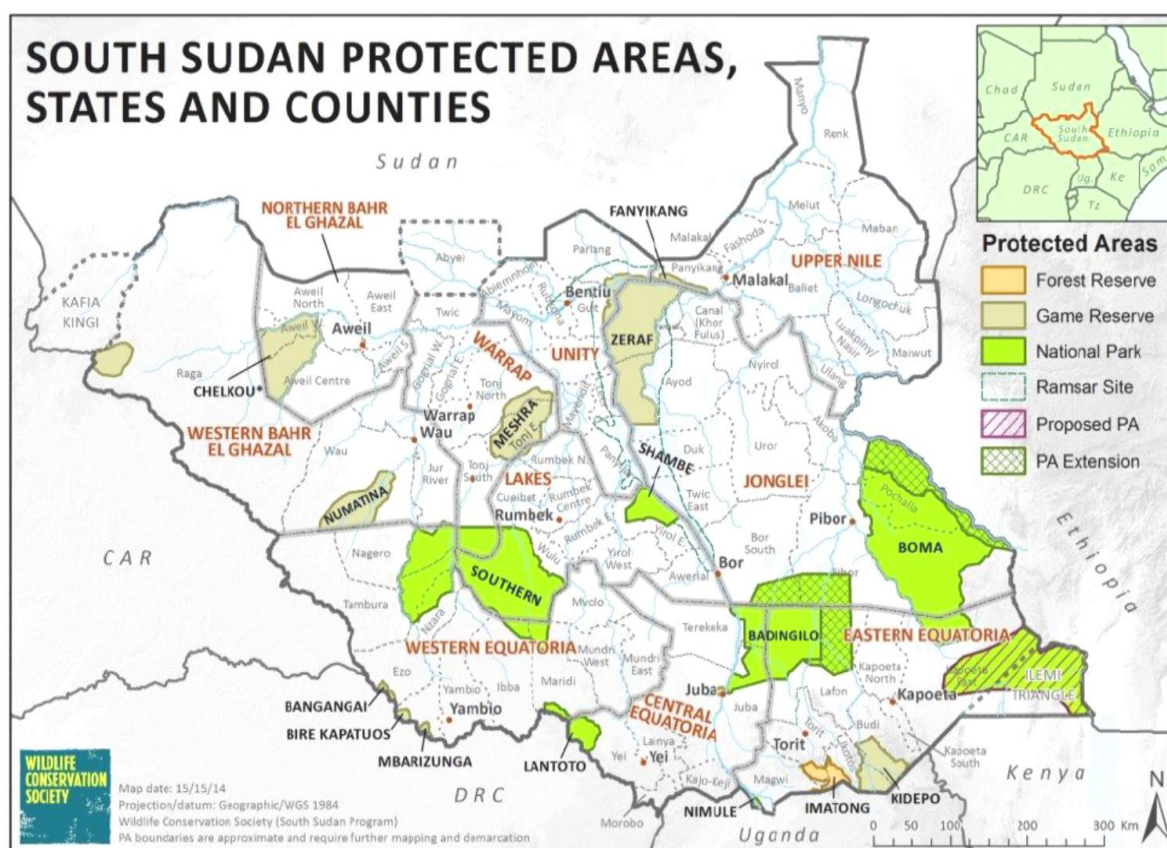
**2.3. Tailoring solutions for a biodiverse landscape.** The complexity of drawing standard lessons in conservation is that everywhere is managed differently based on scale, topography, rivers, forests or savannahs and the biodiversity that exists in each varying location. Add to this the area's history, politics, culture, livelihoods, land governance and development. To draw out lessons, the first and primary recommendation is that everywhere is different and therefore requires a tailored approach to its specific context. We already see this in the different models of 'community rangers' employed in different PAs across the country. Like many things in South Sudan, drawing examples into a single broader dynamic undermines our ability to see and understand.

Conservationists and humanitarians work in different geographies. By its nature, conservation is practiced 'in the bush' focusing on wildlife and biodiverse habitat. The humanitarian sector, by its nature, focuses where 'numbers of affected people' are higher, as demanded by humanitarian outcomes. Therefore, many of the deeply rural communities directly affected by park management in South Sudan, may receive attention from only the more expeditionary NGOs. Much of the hard infrastructure such as bridges that remain in these remote locations was mostly built during the 1970s or earlier.<sup>21</sup> Therefore, there is little competition between humanitarians and conservationists, within the geographical areas under discussion in this paper. PA management activities do not normally include giving aid, but it may become involved in alleviating human suffering.<sup>22</sup> Indeed, there should be cooperation between these sectors: where communities are living in the remote areas, they have development and other needs: of great importance to them and on a relatively small scale, but that will have impact on biodiversity. This highlights one of the complex dilemmas to overcome, between conservation and development especially in a situation where development needs are so high. Aligned with working in different geographical spaces is differing timelines, and it needs to be acknowledged that conservation organisations often have a much longer horizon than aid actors, with agreements and strategies lasting 20+ years.

---

<sup>21</sup> Garside field notes 2011-2022

<sup>22</sup> For example, Gorongosa NP and its management assets were at the centre of relief operations for the surrounding area following Tropical Cyclone Idai, March – June 2019. The first grant received by the Agency for Conservation and Development in Old Fangak, included funds for wildlife surveys and essential food supplies for people.



Above. Map of the Protected Areas of South Sudan, showing them in relation to state and county boundaries. Courtesy of the Wildlife Conservation Society.

**2.4. Area-Based Programmes and Landscape Approaches.** By examining different aspects of PA management one identifies similarities with Area-Based Programming (ABP), which begins with defining a geographical area as the entry point for a nexus of humanitarian, development and peacebuilding interventions.<sup>23</sup> In conservation a similar approach is used called the Landscape Approach. Unlike ABP it is sector-specific (wildlife conservation) but similarly begins with a defined geographical space (in this case, a designated wildlife PA or area known for its wildlife habitat). Originally, the Landscape Approach focused on social, economic and environmental outcomes. But more recently it has broadened its outlook to include sociology, history, politics, group dynamics and conflict.<sup>24</sup> It has certainly helped conservationists to acknowledge that ‘people are part of the landscape’ and to work on solutions inclusive of them. It has helped move beyond the human/wildlife conflict paradigm to a better understanding of human/human conflict over wildlife, and that amidst violent conflict there is more to conserving biodiversity than just species.

<sup>23</sup> Heidi Dessecker, CSRF team. *CSRF Analysis: A Review of Area-Based Nexus Programming in South Sudan*. CSRF (January 2025).

<sup>24</sup> For example: Sarah Cordon, *A Brief Explainer of the Landscape Approach*. Think Landscape. Global Landscapes Forum (6 August 2019). Accessed online <https://thinklandscape.globallandscapesforum.org/37802/a-brief-explainer-of-the-landscape-approach/>

However, much ABP programming in South Sudan remains constrained by administrative boundaries. This in spite of recommendations that addressing drivers of conflict requires working across sectors and political boundaries. This would allow a conflict zone approach that tackles conflicts from both or all perspectives and not just one side.<sup>25</sup> However, PA management is one of the first sectors that has had to address the issue of crossing political boundaries: PAs are generally not constrained by state and county lines, except where both PA and administrative boundaries follow the same physical feature. For example, the Bahr el Jebel (White Nile) forms the western boundary of Zeraf Game Reserve and also demarcates between Jonglei and Unity States. Alternatively, Southern National Park straddles four states (Lakes, Western Equatoria, Warrap and Western Bahr el Ghazal). Like ABP the entry-point is a defined geographical space, but very different to ABP, the PA space is predetermined by law and concerns biodiversity. Subsequently, ‘wildlife’ has provided a neutral entry-point amidst conflict, for subsequent conflict-sensitive programming and reconnecting people across fault lines.<sup>26</sup> Indeed, this entry point requires – or enables – the management of a PA to work across some fault lines where they are contained within a PAs geographical limits. Since the nature of the work is on the ground, this can provide extraordinary opportunities to bring people together. For this to be done effectively, PA management needs to have an intimate knowledge of the conflict dynamics, and approach from both a ground-up and a top-down manner: in conservation terms, this aligns with de-centralised and centralised methods respectively.

The description below of PA management in South Sudan provides a very brief illustration of its different challenges through a Landscape Approach. Important differences quickly emerge and these must be taken into account to find effective, tailored solutions that stand a chance of achieving conflict-sensitive conservation outcomes. This requires that even the measures of conservation success might necessarily be different area-by-area, largely dependent upon the conflict dynamic. This is an important factor for the whole conservation sector to acknowledge, including donors.

The White Nile creates the first division: east or west bank have immediate differences.

East of the Nile, the Boma/Badingilo/Jonglei landscape is home to the great migration: a wildlife phenomenon providing real potential in tourism as well as a controlled bushmeat take-off. Most fundamental to its management is the area’s vulnerability to violent conflict between pastoralists and the most volatile ethnic/political fault lines in the country. There is limited data on PA boundaries and since Boma and Badingilo were only designated NPs in 1979 and 1986 respectively, there is considerable human settlement across the landscape. This settlement is relatively fluid, depending on the conflict

---

<sup>25</sup> Adrian Garside. *Sudan Recovery Fund Assessment Mission Report*. Sudan Recovery Fund (March 2011).

<sup>26</sup> Adrian Garside. *Managing a National Park Without a Nation*. Presented at the Conflict and Behaviour Change Conference, BioEducation Program, Gorongosa National Park, Mozambique. (November 2021).



dynamics at the time. Both parks are traversed by pastoralists so the sense of human (and cattle) presence is abundant, making it less a wilderness than some other parts of the country.

West of the White Nile, Southern is the country's largest NP, a buffer between agrarians and pastoralists, it may best be managed in two 'halves' or at least using trans-boundary principles. Recently, the western sector has been vulnerable to the Balanda/Azande conflict. Critical species exist but in much smaller numbers than the great migration: here, the bushmeat trade is a real threat to its wildlife. Forested with isolated inselbergs, it has a great sense of wilderness which has also encouraged some human settlement from fighting. Areas have also been at risk to the illicit logging industry. To the west the border Game Reserves are the extent of the Nile watershed landscape, containing incredible biodiversity connecting the biomes of east and central Africa. There are opportunities, albeit limited, in tourism.

Centrally and west of the White Nile, Shambe NP maintains a Wildlife Service presence and is home to much wildlife, but under pressure from urban growth and needing a land use plan. There is much evidence of wildlife, particularly elephant herds, outside the park boundaries requiring extensive surveys an urgent necessity. New or expanded conservation areas should be considered, with community conservation opportunities. There must also be consideration for land use and the inclusion of cattle keeping in management plans. Shambe NP may best be managed in coordination with the eastern sector of Southern NP, and in a co-managed arrangement with the strong Wildlife Service presence in Lakes State. Special attention will need to be made to the Illegal Wildlife Trade in particular ivory. There is good opportunity in tourism.

To the north is the Sudd, a Ramsar site or wetland of international importance. Within the Sudd are the Game Reserves of Zeraf, Fanyikang, and Meshra. People and wildlife are displaced by four years of extreme flooding, habitat is now underwater and the forests may be lost for decades. There are complications of management in collaboration with the Wildlife Service, since this is in core opposition territory. Locating the wildlife and identifying species is the priority, before wildlife management plans can be developed. These will require human/wildlife coexistence in this rapidly changing landscape. There is tourism potential but in the longer term. The greatest threat may come from the oil industry, both a cause of violent conflict and pollution: unless regulation is greatly improved there remains a major risk to the environment, people and biodiversity from oil spillage.

To the northwest are major Game Reserves that are relatively unknown having received very limited attention from international conservation organisations to date. Numatina is probably the last, best PA in this range yet to be tackled. Access has been limited in recent years due to the Balanda/Azande conflict. These PAs connect with a central African landscape spanning South Sudan, CAR and southern Chad, and in South Sudan have been increasingly overrun by Mbororo pastoralists in recent years.

To the south are PAs on the border with DRC and Uganda, requiring transboundary management complicated by violent conflict and in places, contested borders. There is also great disparity in conservation capacity either side of these borders, with community-based conservation a stronger alternative inside South Sudan. Compatibility with park management across borders may be complicated especially where transboundary management is expected. These PAs have long term potential for re-introduction of species from across their borders, if the situation in and around the PAs can be stabilised. Add to this the Imatong Mountains Central Forest Reserve and Nimule NP, and there is strong scope for tourism, as had been demonstrated as recently as the CPA period.

**Diverse Approaches in Conservation Management.** Conservation organisations are also very different: there is not one type or set modus operandi. They each bring different approaches to conservation, most easily explained in the categories defined in Mujon Baghai's research mentioned earlier. This refers to the arrangements established between the non-profit and the national government, usually through a Memorandum of Understanding (MoU). This determines the approach taken for a PA and concerns the Collaborative Management Partnership (CMP), including both the governance (strategic approach and oversight) and management (daily operations and implementation) of the PA. At one end is Delegated Management where governance is shared (although the non-profit may dominate the Board) while management is fully delegated to the non-profit. At the other end is Technical and Financial Support, where the government (and therefore in South Sudan, the Wildlife Service) retain responsibility for governance and management, while the non-profit provides technical and financial support to help them achieve this. In the middle sit forms of Co-Management where the extent of delegation varies between the non-profit and the government. The research for these models included conflicted-affected countries such as the DRC and CAR, however it did not include South Sudan. The strengths and weaknesses of these different approaches are accentuated by the dynamics of conflict in South Sudan, deserving a research project in itself. One can immediately identify the problems of delegated management where the national government does not control the territory, the geographical space, where the PA exists. On the other hand, under technical and financial support, the responsibility of the non-profit rapidly expands beyond the MoU since the conservation organization is providing all means except the people, to achieve conservation. And with all models wherein lies the National Wildlife Service and the individual rangers who are living across the country and in all the PAs? A workshop on CMPs and in particular, arrangements for Co-Management, is an urgent undertaking for the MWCT and the conservation sector.

Of the well-established international organisations currently working in the country, African Parks has a Delegated Management MoU and brings the best ability to work at scale: a truly vital capability for managing the largest migration on earth. Fauna & Flora has less experience in park management and

has a Technical and Financial Support MoU, but brings strong focus on community-based conservation. It is re-iterated here that the national NGOs working in conservation are not (yet) undertaking the role of PA management. Instead, they are currently conducting essential surveys into wildlife, people and habitat to help inform future management options. They represent an excellent foundation for community conservation in the future. It is easy to become lost in the models as an end in itself, whereas the 'how' of programme implementation becomes more important than the 'what': setting the right contextualised conservation outcomes is critical. Central to this in South Sudan is the strengthening of local capacity and changing peoples' mindsets to support the management of wildlife, which will be covered later in this paper.

### **3. The People in South Sudan's conservation story**

**3.1. Protected Areas and a history of displacement.** What unites all these PAs is that they have been commoditised for many reasons as well as their wildlife, by deeply rural people. PAs have provided safe routes and havens for these people to escape conflict: to understand the impacts of war on wildlife conservation it is necessary to examine both direct and indirect consequences of violent conflict. From the Game Reserves on the DRC border where communities were displaced out of the forests by the Lord's Resistance Army (LRA) between 2006–09, then resettled back near the reserves as the threat came 'from within the country' during the civil war of 2013-18. The wider area now hosts communities displaced by the Balanda/Azande conflict to the north, a violent conflict which is directly impacting the management of the western sector of Southern NP. Or the YauYau conflict in Jonglei State (2010-11 and 2012-14) which witnessed extreme levels of ethnically-politicised violence, displacing communities from Greater Boma, Marowa and Kissingor – key areas in the Park landscape – into Ethiopia where many still remain. The Park Warden of Boma NP and a number of rangers were killed in Kissingor during this conflict. Or through South Sudan's civil war (2013-2018) where people were affected across the country, including wildlife rangers forced out of their Ranger Posts by armed groups; or forced to fight on one side or another of the conflict. Refugees from the current Sudanese war have been appearing at Fanyikang Game Reserve. And there is an ongoing mass displacement of people and wildlife escaping the floods that have swept through Zeraf and Fanyikang GRs. Over time and with stable conditions, people return to their homelands, though the future of the floods in the Sudd wetlands remains uncertain. The history of most of South Sudan's wildlife estate is deeply connected with its history of conflict and human displacement.

There are also accounts of the displaced returning to their homelands in wildlife areas, because of the safety that comes with park management, a mix of governance and security. These people find it inconceivable that further displacement or relocation could be forced upon them as a result of Park Management and efforts to secure habitat for biodiversity. Successful PA management is found in local

solutions applicable to the context: PA management will need solutions that take account of the presence and livelihoods of these people which is complex. Land Use surveys and planning will be an essential part of ensuring that those settled in or near PAs remain, symbiotic in the wildlife landscape.<sup>27</sup> Strategies must consider whether PA management can provide secure governance of these territories for the people, amidst violent pastoralist competition or during another armed conflict. For example, could the management of Boma NP provide territorial governance with sufficient security for those remaining in Ethiopia to return to Boma, Marowa and Kissingor? This would represent very interesting and unusual measures of success in wildlife conservation: measures that the conservation sector and donors should be prepared to embrace rather than create further conflict over.

**3.2. Engaging with the people<sup>28</sup>** Given its history of conservation, the practice of modern park management is new to many people living in South Sudan: PA management imposes something new on the landscape. It is even new for many of those serving with the Wildlife Service. Therefore, capacity development as a part of behaviour change is at the core of successful management of these PAs. As discussed, wildlife and habitat has largely been commoditized. Therefore, there needs to be a change in the mindset towards biodiversity. This also requires the human condition to improve, illustrated during discussions with Wildlife Service rangers: solutions for wildlife usually conclude with the declaration “but first we need peace”.<sup>29</sup> However, the threats of biodiversity loss cannot wait for peace, especially if PAs and tourism are to be part of an economic future for the country. All this reflects how important engaging the people is: much time and resources need to be given to it and the conversations with communities about PA management need elevating to fair and balanced discussions. The scale of South Sudan’s PAs and the general lack of infrastructure makes flying a necessary means of management, logistically as well as for wildlife protection. It also reveals the scale of the human engagement that will be necessary, which can only be done on the ground amongst the people.

The protocol for visitors wanting to reach deep into the rural areas involves the same sequence of introductions across the country: County Commissioner, Payam Administrator, Chiefs, elders, youths and women. The more rural one goes, the more this is about security: the County Commissioner is responsible for security in his area of responsibility, and that includes the security of visitors. There is a command structure that each commissioner sits within and is responsible to. Their responsibility for visitor security is a duty and a kindness, extended across a rural area that is permanently on alert for intruders. Doing your own thing is not acceptable and it undermines the structure: it is irrelevant that an agreement made in Juba might give an INGO responsibility for managing areas that overlap with the

---

<sup>27</sup> Land Use surveys and planning will begin shortly as part of the strategic plan for Badingilo NP. African Parks. March 2025.

<sup>28</sup> While some of the research for this section comes from that recently undertaken by the CSRF in Boma and Badingilo, it also draws on the author’s research from wildlife conservation across the country and therefore, provides illustration and case studies in conservation from South Sudan more broadly.

<sup>29</sup> Adrian Garside, notes from training on Illegal Wildlife Trade with Fauna & Flora, 2022 – 2024.

Commissioner's. This somehow needs to be made collaborative with the management of the park: the international conservation organization does not have sole responsibility for security in a PA. Indeed, in areas where people are settled inside a park such as Boma, sharing information would be a more productive system and demonstrate cooperation. Another is always to travel accompanied by South Sudanese who are part of this security structure: it is a benefit of working with the Wildlife Service as they automatically provide this arrangement. When community rangers have been well enough established, they may take on some of these responsibilities, too. This is also part of their mentoring process, turning them into Park Managers.

Engaging on a regular basis with the authorities is essential – at least at the level of Commissioners, Payam Administrators and Chiefs. The PAs of South Sudan have never been managed in a way that would be recognizable as PA management today<sup>30</sup> and with its unique evolution of wildlife conservation, there is a lack of awareness of what is actually meant by PA management. Hence it is imposing something new, a different form of governance, on their territory that they already own the responsibility for.

**3.3. Rural communities, wildlife and hunting.** “We have lived with wildlife since the time of our ancestors, and we know how to live with wildlife”.<sup>31</sup> It is amongst the elders that one hears how they hunted sustainably before the proliferation of the AK47, getting close enough to their prey to apply rules such as not killing a pregnant female, juveniles or a dominant male, and respecting breeding seasons. Abiding by this would ensure a supply of bushmeat into the future.<sup>32</sup> These are in essence the ‘rules’ that African Parks is now trying to embed in the communities living inside and near the great migration: a sustainable level of subsistence hunting amidst food insecurity. At the same time, there is strong messaging to prevent poaching at scale, or killing important species such as elephant, giraffe, lion and so forth.

Across the country, there is a belief that the wildlife has left due to the fighting in the various civil wars and armed conflicts, that it is in neighbouring countries (all except Sudan) and waiting to return. This is not the case. Sadly, it has mostly been eaten, killed in the defence of crops and cattle, with over a century of targeting elephants for the ivory trade.<sup>33</sup> Amidst this, the effort to provide sophisticated management and protection has only just begun.

---

<sup>30</sup> This is slowly turning: the Game Reserves on the DRC border have constant monitoring patrols of joint Wildlife Service and Community Wildlife Ambassadors; and a Community Managed Area provides a buffer on the South Sudanese side of the Reserves. This is on a very small scale in comparison to the Boma-Badingilo-Jonglei landscape, but provides evidence of how conservation can work.

<sup>31</sup> Chiefs and elders focus group, Marguna, Lafon County. March 2025.

<sup>32</sup> Author interviews across South Sudan, 2010-present.

<sup>33</sup> Keith Somerville. *Ivory: Power and Poaching in Africa*. Hurst (2016). See also Capt. H.E. Haymes 3-part account, *On the March in the Bahr-el-Ghazal* from the World Wide Magazine (undated), of trading huge numbers of elephant tusks from Sultan Tumbura in 1901, with photographic evidence.

There remain local laws covering what can be hunted and when, the organizing of official hunting trips, and the rights to kill wildlife that is damaging crops or threatening livestock.<sup>34</sup> This has translated into a competition between the communities and African Parks: “they should control their livestock [the wildlife] and we will look after ours.”<sup>35</sup> In Lafon, rather than a restriction on what or how much wildlife could be killed, the traditional rule was that only one annual hunting trip was allowed, organised by the whole village and clearly aligned with the timing of the great migration. Officially, no hunting should occur outside this.<sup>36</sup> There were also laws for cutting trees which were accompanied by detailed punishments.<sup>37</sup> There was very little awareness of the national wildlife laws, so the subsistence hunting being taught through African Parks community engagements is now accepted as the official regulation. It was quoted with considerable accuracy, in part because it aligns with their traditional rules.

However, whenever pressed for details it emerges that many of these ‘rules’ are being broken for three main reasons: the availability of Small Arms, hunger and that it is a pastime for bored youth. For all the focus groups in the villages around Lafon and most in Boma, their primary concern was food insecurity.<sup>38</sup> In this situation, protecting crops and getting bushmeat is a serious matter. In parts of Boma NP, particularly Marowa, hunting with packs of dogs was a preferred method: like an AK47 it is an indiscriminate way to kill wildlife.<sup>39</sup>

Gender needs to be addressed in a manner that is localized to deeply rural communities and their cultures. Historically, across the continent, hunting has been a role predominantly practiced by men. In African oral literature, hunters were celebrated for their successes and their connection with nature.<sup>40</sup> Recent research on the bushmeat trade in Western Equatoria reveals that women play a significant role as sellers of bushmeat to consumers. As stallholders, they may also place orders for their products with male hunters.

Celebrating those who now *protect* wildlife has not yet become widespread, either in deeply rural Africa or internationally. This emphasizes the need to understand the rights of rangers, including considerations for their families. Additionally, it raises questions about the roles of female rangers and those involved in community conservation programs.

This is a complex area in South Sudan where permissions may need to be sought for a woman to be recruited into this traditionally male-dominated sector. The objective for women rangers and those involved in community conservation initiatives is not only to secure employment but also to perform

---

<sup>34</sup> Interviews Boma, Badingilo 2025; Southern NP, GRs 2011-2024; Shambe 2024; Sudd 2023-2024.

<sup>35</sup> Monyomiji focus group, Maragun, Lafon County. March 2025.

<sup>36</sup> All communities, Lafon County. March 2025.

<sup>37</sup> Youth and women focus group, Marguna, Lafon County. March 2025.

<sup>38</sup> Focus Groups, Lafon and Boma, March 2025. In some cases across Boma their priority was insecurity due to Toposa incursions.

<sup>39</sup> Youth focus group, Marowa. March 2025.

<sup>40</sup> Finnegan, R. *Oral Literature in Africa*. Oxford University Press (1970).

the same work as their male counterparts and to pursue careers in conservation. There have been areas of success in South Sudan, particularly among agrarian societies rather than pastoralist ones, where women rangers have assumed leadership roles.<sup>41</sup> Other examples of progress and successes in this field are emerging.<sup>42</sup>

In South Sudan, this field remains male-dominated, especially within the Wildlife Service with its historical links and recruitment from combatants. Even so, the new Wildlife Service Act upholds the constitutional principle that 35 percent of all ranks should be women. Encouraging women to take on management roles within Protected Areas (PAs) must be approached with an awareness of the long history of male dominance. Success should be measured based on the activities and responsibilities that women undertake in this field, rather than merely on numerical representation.

**3.4. A reward for not hunting?** Communities seem to believe that conservationists' only interest is with animals and hunting. As a result, they have very transactional arrangements for the benefits they expect to receive for complying, that generally fall under two formulas.<sup>43</sup> The first is the direct transaction: we the community, will go along with your demands not to kill wildlife, but for this we expect a school, a hospital and a road. (This in spite of most villages already having schools and health centres).<sup>44</sup> Transactional arrangements are unhelpful: the demands are unrealistic, based on humanitarian interventions rather than conservation priorities, and the formulas have limited proven success in South Sudan. Group rewards can be as ineffectual as group punishments: everyone, even the poacher, benefits from schools, hospitals and especially roads.<sup>45</sup> These transactions began several years earlier when the Wildlife Conservation Society was active in Boma and Badingilo. Over a decade later there was still no sign of closing the deal: "we've been going along with this for years so we'd better get something soon!"<sup>46</sup>

As experienced by other countries during their evolution of conservation and tourism, "it's so much simpler to build a road than to think of what the country really needs".<sup>47</sup> Throughout the research, rural communities wanted to be connected for trade and other reasons, roads are important to them. Roads also dissect wildlife areas that may be a considerable hazard for wildlife migrations. The survival of the

---

<sup>41</sup> For example, the Ranger Post commander at Bangangai GR: <https://www.aljazeera.com/features/2022/3/13/the-woman-protecting-south-sudans-parks-from-war-and-poaching>

<sup>42</sup> Fauna & Flora, *Life as a Wildlife Ranger in South Sudan*, accessible online: <https://www.youtube.com/watch?v=ZPwt6S3jK5U>

<sup>43</sup> While the evidence for this came from the CSRF research in Boma and Badingilo, it has also been the case with every other PA in South Sudan since at least independence.

<sup>44</sup> In the areas of Lafon, rather than provide a school AP had agreed to resource teachers, and this was acknowledged by the community as the right solution.

<sup>45</sup> Clark C. Gibson, *Politicians and Poachers: the Political Economy of Wildlife Policy in Africa*. Cambridge University Press (1999).

<sup>46</sup> Said with a wry humour, Marguna, Lafon County. March 2025.

<sup>47</sup> Aldo Leopold, from the "Land Ethic". He called for a shift in perspective from viewing the land as a mere resource to be exploited to seeing it as a biotic community of which humans are a part. This ethic suggests that roads should be built with a holistic understanding of their impact on the entire ecosystem.

largest migration on earth will have had much to do with the lack of roads and development. Developing access into wildlife areas is always a double-edged sword: on the one hand it provides means for managing PAs and on the other it provides the opportunity to up-scale the Illegal Wildlife Trade and other illicit extractives. This is clearly evidenced by the bushmeat travelling on the Bor road to Juba. Communities also raised the issues of banditry on the Lafon-Juba road, which was costing them in stolen goods including bushmeat.<sup>48</sup> Conservationists need to be included in road development plans, which also requires an improved security sector and Rule of Law, without which there are major risks to PAs and rural communities.

The second formula is best described as the “tourism trap”. It is based on another transactional formula, similar to a theory of change, that communities quote across the country: if we don’t hunt, then there will be wildlife, so tourists will come, and we will get money. This is then followed by their priorities for that money: schools, hospitals, roads and jobs in tourism. The formula itself sounds logical and conservationists are guilty of encouraging it, despite the lack of a tourism industry in South Sudan.

South Sudan’s tourism sector requires more than wildlife. It should start with a friendly welcome at immigration in Juba airport. It also requires guarantees of sufficient security that would then need to be reflected in other governments’ official travel advice for South Sudan. There are well-paying tourists who want to visit South Sudan, especially to see the great migration, and there is a market in ‘being the first’. The new Tourism Act<sup>49</sup> will be helpful. But the tourism formula needs refining to ensure the theory of change works, and there must be a solid system and transparency on how the benefits will reach right down to the ground.

Tourism could change more quickly: the country already hosts a large number of well-paid potential tourists, mostly stuck in urban compounds and containers, eager to have a story to go home with. This will require the United Nations (Mission, Agencies, Funds and Programmes), INGOs and diplomatic staff to proactively work with conservation NGOs, the private sector and their security staff. This could provide a steady flow of long-weekend visitors to a number of sites, breaking the tourism trap with mutual benefits to all.<sup>50</sup> One might argue this should be a compulsory duty towards supporting conservation in South Sudan.

**3.5. Breaking out of the transactions.** In order to have meaningful engagement with the communities, it is necessary to break out of these transactions and into a more collaborative relationship. For most South Sudanese, when we say National Parks or Game Reserves the image that is conjured in their minds

---

<sup>48</sup> The communities in Lafon reported regular ambushes on the Lafon-Juba road, causing problems to their trade including bushmeat.

<sup>49</sup> Republic of South Sudan, Tourism Act, 2024.

<sup>50</sup> For example, for a few years prior to December 2013, there was a steady flow of expats from Juba visiting Nimule NP at weekends. The Secret Compass tour operators ran holidays for expats in South Sudan, mixing rafting on the Nile with hiking in the Imatong Mountains.



is different to that of someone who has visited Kenya, Uganda, Tanzania, South Africa, and so on. They need to be educated in what wildlife conservation aims to achieve in their country, and the wider aspects of park management, in order for there to be meaningful engagement between communities and INGOs.

First there is a need for communities to feel involved in decision making. In some cases, chiefs specifically used the term 'decision making'. Currently, they believe they are being excluded. During the research, there were some difficult conversations, very transactional, undermining any opportunity for discussion. The option of involvement in decision making brought the conversation back onto an even keel.<sup>51</sup> The key point of entry for this would be Land Use surveys and planning. This is particularly the case and becoming urgent, where boundaries are unclear. "We believe we live within the park because we have wildlife all around us, but we don't really know where the boundary is".<sup>52</sup> Uncertainty brings suspicion which evolves into negative rumors that brews conflict.

Linked to this is education. Without understanding park management, there cannot be a meaningful discussion. There was a distinct lack of knowledge about what PA management really is, what outcomes it really aims to achieve. To date, engagements have clung around hunting rather than the environment, forests and rivers: without the habitat the wildlife cannot exist. The African Wildlife Foundation had a short-lived programme in the Imatong Mountains: its purpose was the protection and sustainable management of the upper Kinyetti river.<sup>53</sup> The spread of cultivation up the mountains was silting the Kinyeti river causing flooding in Torit and the evaporation of the river, which should have flowed to Lafon. The clearance of trees to make way for cultivation in Upper Boma will have a similar effect with the rivers there. There is a very clear necessity to provide this education, which should go a long way to their sense of involvement and also, to developing better and sustainable relationships because they are not built on unsolvable transactions.

Other solutions have existed in South Sudan. The Wildlife Clubs of South Sudan (WCSS) began in 1978. The first was established in Rumbek Secondary School, housed in the Wildlife Education Centre and new clubs soon set up in other schools. Their motto was 'Development without Destruction'. Non-political, non profit-making and affiliated with the Wildlife Department, their activities focused not just on wildlife but also the environment. The clubs ended because of war, not because they didn't work. They now seem rather ahead of their time. The South Sudan Youth Biodiversity Network could be the new evolution of the WCSS, a ready-made organization to work with on these very issues. In the midst of park management, the education needs to be aimed at local authorities and chiefs in particular, and rural communities more broadly, to enable informed meetings and decision-making.

---

<sup>51</sup> Interview, chiefs elders and youth, Upper Boma. March 2025.

<sup>52</sup> Chiefs, elders, youth, Marguna, Lafon County. March 2025.

<sup>53</sup> African Wildlife Foundation, *Improving the Integrated Watershed Management of the Imatong Mountains*. 2014.

**3.6. Protecting wildlife or managing landscapes.** Aside from skills in hunting and tracking wildlife, what all people have in common across rural South Sudan is an ability to immediately identify signs of ‘other’ human presence not known to them. Usually just footprints often faint, difficult for an outsider to see why these are different from one of their own. A potential intrusion, a threat to their cattle, their families, their larder. It brings an urgency, a huddle, hushed discussion and immediate decision on actions to take. They are all absolutely set on protecting their territory.<sup>54</sup>

In South Sudan, the protection of territory and the management of PAs starts to converge in a complex relationship. What should it look like, in a country awash with Small Arms where violent contest between groups is a regular occurrence? Training in other aspects of park management rather than only protection (law enforcement), becomes essential. First, communities living in or near PAs and the Wildlife Rangers, need to know the park and its wildlife belong to South Sudan and not the INGO.<sup>55</sup> There are many antecedents to the arrival of outsiders to manage territory.<sup>56</sup> These need to be understood and approached in such a way for the communities to own and be responsible for their land. Some of these methods, discussed below, have proven extremely effective without the use of hard measures.

The Power of Maps is one. Maps are a vital tool in managing geographical areas, though rural communities often know their local terrain so well it is formed in their minds rather than a two-dimensional image. A former State Wildlife Director in Yambio knew the value of a map in PA management: hand drawn on a large sheet of paper with roads, towns, rivers, Ranger Posts and wildlife PAs all carefully marked.<sup>57</sup> He had rangers producing hand-drawn maps at various Ranger Posts, all of which provided really important information that was not available on any printed or digital map at that time. Such was the importance of this information that his hand-drawn map of the state was reproduced and used by the international conservation organisation for planning purposes. When sufficient Wildlife Service rangers had learned the use of a GPS and how to plot the coordinates, new maps were produced. This was essential to their taking ownership of their land.

This process may appear bizarrely manual in comparison with the EarthRanger system. EarthRanger is used extensively in park management because it uses all available data, combining this with reports from the field, GPS data, collared wildlife, real time events from patrols, and so forth. It is a brilliant system and is immensely helpful for park management, especially on a scale such as Boma and Badingilo. But wherein lie the people of South Sudan in such a system? And what is the security of the

---

<sup>54</sup> Adrian Garside, notes from the field usually during wildlife patrols, from seven PAs.

<sup>55</sup> On many occasions it has been necessary to explain this to communities, wildlife rangers even to local authorities: the clarification has always been extremely helpful.

<sup>56</sup> David Day, *Conquest: how societies overwhelm others*, Oxford University Press (2008).

<sup>57</sup> Brig. Jonathan Nyari, Western Equatoria State Wildlife Director, Yambio 2011.

data held by such a system in a conflict-affected region? A dual approach, using both methods would be more inclusive and educational.

Associated with the Power of Maps is Claiming by Naming.<sup>58</sup> The first set of maps for the Game Reserves on the DRC border were printed with topographic features and contour lines, but no names. It had become evident that place names and spellings were not aligned with local custom, or important place names were missing altogether. For example, Jebel Mbia Ngareri in Southern NP was noted on the map as Jebel Angeleri. The next set of maps were printed with the names that the communities and rangers had confirmed as correct. Naming is important culturally. To the people of Lafon on Badingilo Park's southern boundary, the correct name for the area is Burgilo meaning the grave of one of their ancestors called "Gilo".<sup>59</sup> It has historical and cultural importance to them and pronouncing it their way during the research gained much favour and cooperation from the community. This may have problems if a different spelling is culturally correct somewhere else, but some flexibility and recognition of local custom is both necessary and easy to accommodate. Some names will require negotiation over the transition: the same river that flows into Southern NP as the Ibba River, flows out as the River Tonj, both with associated county names and cultural significance. The Wildlife Information Booklet for Southern Sudan, produced in 1982 by Dr Chris Hillman and still useful today, contains the names of each species in as many of the local languages as he could gather.<sup>60</sup>

These methods all aim towards education, collaboration and meaningful engagements about the management of PAs. Instead of poor awareness and transactional arrangements that lead to frustration on both sides, and ultimately to conflict.

#### **4. The South Sudanese in Protected Area management**

**4.1. Community involvement in Protected Area management.** In November 2013 the First South Sudan Wildlife Leadership Conference was held. Just a month before the outbreak of fighting in Juba, the MWCT had recently been disbanded and the Wildlife Service placed under the new Ministry of Interior and Wildlife Conservation (MIWC), because 'an armed body of its size needed to be centralized under the Army or Police'.<sup>61</sup> At the conference, discussions were held on the need for the Wildlife Service to develop conservation awareness, collaboration and benefit sharing with communities impacted by wildlife and PAs. This included joint initiatives between the Wildlife Service, communities and other partners and the development of community conservancies.<sup>62</sup>

---

<sup>58</sup> David Day, *Conquest: how societies overwhelm others*, Oxford University Press (2008).

<sup>59</sup> Community meetings across Lafon County. March 2025.

<sup>60</sup> Dr. J.C. Hillman, *Democratic Republic of the Sudan, Ministry of Wildlife Conservation and Tourism, Southern Region, Wildlife Information Booklet*. Department of Wildlife Management. New York Zoological Society (1982).

<sup>61</sup> Interview MIWC, Juba, November 2013.

<sup>62</sup> Communique from the First South Sudan Wildlife Leadership Conference, paragraph 1.9. Dated 28 November 2013.

There is no set model of community conservation. The tailored models that have emerged in recent years in South Sudan are proof that- with the right selection, training and mentoring- localisation is a very necessary approach in wildlife conservation. As mentioned previously, it is widely acknowledged in conservation globally, that those living nearest to a PA must be involved in its management, benefits and decision-making. In South Sudan that might also include some not insignificant human populations living inside a PA.

Working with community guides in pastoralist areas such as Zeraf Game Reserve or Shambe NP has shown their great ability to traverse their difficult terrain and an awareness of wildlife threats to their cattle. But it also reveals a less developed ability to identify different animals from their tracks, and limited words for different species, (yet no shortage of words for their cattle). Fish is often more popular than bushmeat.<sup>63</sup> But the situation is different elsewhere. The agrarians of Western Equatoria have an extraordinary ability to identify wildlife species from their tracks and dung, know how long ago the tracks or dung were left. They quickly identify other signs, such as an elephant scratch on a tree, bent grass from a leopard dragging its prey into the bush to consume. They can identify species from pieces of bushmeat, after it has been cut up and smoked.<sup>64</sup> The bush is their 'larder'. These skills and knowledge of 'the bush' make for ideal recruits into conservation.

In early 2014, Fauna & Flora recruited and trained – alongside the Wildlife Service – a selected group of community members to become Community Wildlife Ambassadors (CWAs).<sup>65</sup> Initially just for the Game Reserves on the DRC border, they were employed in joint patrols with the Wildlife Service.<sup>66</sup> During the worst period of the civil war, the CWAs became the sole guardians of the Game Reserves. The name *Community Wildlife Ambassador* became well-known and the role so popular, that it was replicated and adapted slightly for Southern NP. There, they are used in smaller numbers as guides and for construction tasks such as track clearing, and for raising awareness amongst communities living near the park. In all cases they receive basic PA management training alongside the Wildlife Service rangers. (The rangers receive additional training in law enforcement and tackling the bushmeat trade). Women are recruited as CWAs though it is acknowledged that this is more readily accepted in agrarian communities than pastoralist ones.

The Agency for Conservation and Development (ACD) took up the CWA model in Zeraf and Fanyikang GRs and the eastern Sudd, in 2022. The role has been adapted slightly, for conducting wildlife surveys to identify where key species have relocated as a result of the flooding. During the surveys, CWAs raise

---

<sup>63</sup> Adrian Garside, observations and discussions with the Agency for Conservation and Development (ACD) in areas of Zeraf and Fanyikang GRs and the eastern Sudd.

<sup>64</sup> Adrian Garside, observations, 2011-2024.

<sup>65</sup> The name Community Wildlife Ambassador was decided specifically to ensure the link to communities and wildlife and also to avoid misrepresentation of it being the formation of an armed group.

<sup>66</sup> Under the Transitional Constitution, the States take a greater responsibility for the Game Reserves.

awareness amongst the people there, about the wildlife and methods of co-existence. Additional education is given in urban areas. These CWAs are recruited from different villages in order to have a network of trained wildlife ambassadors across an extended area, who are familiar with each area, and can report information of wildlife presence. During surveys they are usually accompanied by Wildlife Service rangers to provide an official level of protection.

In the cases above, the Community Wildlife Ambassadors work in collaboration with the Wildlife Service. In Badingilo NP, African Parks is using a locally recruited model of Community Agents, trained to work individually or in small teams, to patrol the bush and visit rural communities to raise awareness about wildlife, report issues and concerns such as damage to crops.<sup>67</sup> They have been trained to give quite sophisticated education about subsistence hunting.

In Boma NP, Tango Teams<sup>68</sup> have been recruited from within the cattle camps, from areas including Pibor, Boma, Marowa, Kissingor, and have received formal, tailored training. As cattle keepers they are out on the ground, observing and reporting. Their primary responsibility, like the Community Agents, is messaging and awareness raising amongst the rural communities.

In these cases, the Community Agents and Tango Teams do not as yet, work with the Wildlife Service.

In all cases, the Community Wildlife Ambassadors, Tango Teams and Community Agents do not have authority for law enforcement – that lies with the Wildlife Service rangers who also have the legal authority to be armed and conduct arrests.<sup>69</sup>

Everywhere, this form of community engagement is appreciated, popular amongst local authorities, rural communities and with the Wildlife Service and is clearly achieving conservation effect. There are specific reasons for this: the recruitment process involves the local authorities and chiefs. Suitable people are selected, those with some authority and with a good geographic and ethnic spread. There is transparency in the whole process, from recruitment, through effective training and equipping, and in the conduct of their employment. There is also transparency about the system of pay they receive, which is recognized as a system of ‘benefits going to the communities’.<sup>70</sup> It clearly gives those communities, through their wildlife representatives, a sense of involvement in managing the PAs. They all would like to see more of their people employed in this manner, though they recognize they cannot all be employed this way, it cannot include a whole age-set or village.<sup>71</sup>

These community representatives must not be standardised, they have been created, adapted, according to their locations. For INGOs, they also represent an ‘impartial’ entry point to PA

---

<sup>67</sup> African Parks, March 2025. Interviews conducted with Community Agents in Lafon, March 2025.

<sup>68</sup> African Parks, March 2025. Interviews with youth at Kissingor who were familiar with the Tango Teams. The name originates from Chinko in CAR, where the Tango Team concept was developed to engage non-aggressively with Mbororo cattle herders, with great success.

<sup>69</sup> In accordance with the National Wildlife Service Act, 2011 (Amendment) Act 2022.

<sup>70</sup> All community meetings, Boma and Badingilo. March 2025.

<sup>71</sup> Ibid.

management, unaligned with an armed ranger who may represent government or opposition. A conference should be held to discuss the successes, mistakes, and to learn lessons. Also to recognise that changes and adaptations may be required by location and through the transitions from conflict to peace.

There is, however, an acknowledgement from many villages that their community representatives alone cannot manage the Park, that that responsibility must lie with the Wildlife Service.

**4.2. The South Sudan Wildlife Service.** A Wildlife Department had been operating in South Sudan since before Sudan's independence in 1956. It converted to the *Wildlife Service* in 1979, as parliament decided it should be armed as a result of the proliferation in Small Arms across the country, destroying elephant populations in particular.<sup>72</sup> As with the Police, Prison and Fire Services, its numbers swelled after each civil war with the disbanding of combatants from the military. At South Sudan's independence it was believed to be 14,000-18,000 strong. Today it is estimated to be over 20,000 of which about half are able-bodied and some 40% are thought to be disabled or deceased.<sup>73</sup>

The Wildlife Service is structured on state and county administrative lines rather than Protected Areas. The dominance of state boundaries over PA boundaries explains their contradictory chains-of-command. At independence it looked more like each State Governors' army.<sup>74</sup> Today it conforms to a reporting structure aligned far more clearly to the MWCT, with rangers allocated to Protected Areas as well as states. As an example, Shambe NP has some 300 rangers assigned to it. But without uniform or pay the Deputy Park Warden can only account for about 30 rangers on a daily basis.<sup>75</sup>

During the CPA and independence period, the Sudan People's Liberation Army, Police and Prison Services were part of a major Security Sector Reform (SSR) effort under bilateral and UN arrangements. The Wildlife Service was left out, only receiving attention from the international conservation organisations in the areas they were working. However, at that time Wildlife salaries were paid on time, there was an operational allowance allocated to each State Wildlife Service for rations and fuel, uniforms were issued and there were enough rifles for everyone, though ammunition was limited. Vehicles were in very short supply.

Today it is without pay, has not received uniforms since 2013, with a major shortage of rifles and ammunition even to protect itself from better-armed poachers. However, it remains deployed across the country. Often referred to simply as 'Wildlife' its members can be found almost everywhere, especially in the rural areas from where it is largely recruited. Many Wildlife Service rangers across the

---

<sup>72</sup> Interview, former MWCT Undersecretary, Juba, 2016.

<sup>73</sup> Interviews MWCT, March 2025.

<sup>74</sup> Day, C. and Garside, A. *Wildlife Management in South Sudan, 1901-2021: Conservation Amidst Conflict*. African Studies Review (2024), 1-22.

<sup>75</sup> Adior HQ, Shambe NP, April 2024.

country are accompanied by their families, whether in positions in towns and villages, or at an organised Ranger Post. These latter often resemble military camps that quickly become small subsistence farms due to the lack of provision of rations.<sup>76</sup> In locations where the Wildlife Service is being professionalised in PA management roles, rangers may spend long periods away from their families. This has implications for arrangements in co-management since there needs to be a roulement system for rangers to spend time with their families. It also requires a system for families to receive salary payments of the ranger in order to provide basic needs for the family.<sup>77</sup>

It therefore presents international conservation organisations with a problem. There are too many to all be employed in Park Management. As the statistics show, many should be demobilised rather than employed. However, there is an expectation from them, the local authorities and communities that the 'wildlife' represents the institution and individuals responsible for managing the PAs: only the 'wildlife' has jurisdiction.<sup>78</sup> They are also very connected into the local security architecture, reporting and informing between villages and county commissioners.

This presents a particular issue for African Parks, since this does not fit their normal delegated management arrangements for park management. It is made more complex because the Wildlife Conservation Society which operated in Boma and Badingilo before AP, worked with, trained and equipped the Wildlife Service. For these 'wildlife' and the chiefs, it was extremely frustrating to see the land they had given to WCS for the Park Headquarters and other infrastructure, they were no longer allowed even to visit. "It's my land that I gave it to them and now I can't even enter to get water".<sup>79</sup> There is a strong sense of abandonment amongst the rangers, chiefs and elders that the 'wildlife' seems to have lost its role and authority. As discussed earlier, its role is not just 'wildlife' but an integral part of the security network, linking rural communities with authorities.

The situation is different elsewhere in South Sudan: "Probably the single most important factor for conservation success in Western Equatoria [Southern NP Western Sector and the Game Reserves] is the Wildlife Service."<sup>80</sup> Fauna & Flora's relationship with the Wildlife Service has always been important, recognising the unique position it held amongst the rural communities and with the Government. Early in the civil war, this meant turning away donor funding that was caveated 'cannot be used to support government'. It is understandable that statutory donors could not work with an armed element of the government once the country returned to war, and in some parts rangers resumed their role as

---

<sup>76</sup> Provision of rations at Ranger Posts inside PAs becomes a major logistical and financial undertaking for conservation organisations, in order to prevent cultivation inside of NPs. For example, in the western sector of Southern NP.

<sup>77</sup> This was witnessed by the author, where the State Wildlife Director in Yambio would give salary payments to wives of deployed rangers in order to facilitate the needs of their families. However, it was an informal arrangement based on the priorities of the Director. Yambio, 2011-13.

<sup>78</sup> Wildlife Service members, chiefs and elders, Commissioner in Boma, Nyett, Marowa. March 2025.

<sup>79</sup> Chief, elders and Wildlife Service rangers, Nyett. March 2025.

<sup>80</sup> Country Manager F&F, Juba. March 2025.

combatants on either side of the conflict. However, where the relationship had been established and there were guarantees of rangers remaining employed on wildlife management, maintaining that relationship was too important. The principle of 'by activity' will be discussed later.

The successes of the Wildlife Service are entirely a matter of capacity development: educational training and mentoring. Over 200 Wildlife Service personnel have been trained over the years by Fauna & Flora. Courses cover PA management, leadership and organisation, the conduct of purposeful patrols, logistic management, biodiversity monitoring and data collection, tackling the Illegal Wildlife Trade and Human Rights. It begins with selection and vetting. Training is educational, there is much focus on the gathering and reporting of information. This has largely been on a manual, hand-written basis (plus GPS data), in order that ownership and responsibility lies with the ranger. The Code of Conduct is part of all major courses. Training on arrest and handling persons caught is based on International Humanitarian Law, so that it is applicable in situations where those caught in a PA may be combatants on either side of the political conflicts, rather than simply 'poachers'. Several rangers who attended the first courses run by Fauna & Flora are still working with them on PA management fourteen years later.

The importance of educational training is probably best summed up by a young Lieutenant who attended some wildlife training elsewhere: "I turned up with books and pens but there was no education. This wasn't training, it was just push-ups, do this, do that, run over there. So I left". Leaders and warriors do not labour other than for their cattle, crops and to fight. There are fine lines to tread between the Wildlife Service rangers, many with a military past, who will enjoy some banter; and community rangers who do not find this group-humour respectful.

Wildlife training has also provided the opportunity to integrate people of different backgrounds together, very specifically in pairs and teams to ensure that those who would not normally do so, are put in situations where they must work together. The training includes women who carry out (and enjoy) all the same training as the men. Central to success is leadership and organization:<sup>81</sup> action-centred leadership based on John Adair's principles, ideal for small unit leadership such as wildlife patrol teams. Key concepts during leadership training include 'leadership by example' and 'loyalty'.

It is worth noting the importance of context which is critical for their capacity development. When Wildlife Service officers have been sent to Kenya to learn with the Kenya Wildlife Service, the subsequent impact of that training in South Sudan is negligible: in Kenya, wildlife management is something beyond their horizon and while they might gain the picture of what to aim for, the difference is so great that they do not know how to get there.<sup>82</sup>

---

<sup>81</sup> Adrian Garside, Handover Notes for Southern NP and the GRs, Fauna & Flora (2013). The centrality of Leadership and Organisation is also found in Che Guevara, *The African Dream* (Sperling and Kupfer (1999)).

<sup>82</sup> Interviews with WLS rangers after being sent to Kenya by WCS, Yambio, January 2013.



There are further issues to consider and factors that are beyond the scope of this report. However, this relationship began under financial and technical support arrangements. Since Fauna & Flora now provides all funding for wildlife operations, stipends, fuel, rations and so forth, the relationship in practical terms has become co-management. There are complexities with the Wildlife Service as it remains part of the Organised Forces (a bringing together of Army, Police, Prison, Wildlife and Fire Services for security duties) and therefore, has security responsibilities beyond park management. For this, Fauna & Flora must be outside their chain of command. But there are complexities with being outside this, such as managing the roulement of rangers allowing time for leave to see their families and ensuring that trained rangers remain employed on park management duties.

There is urgent need for support to a workshop at the MWCT, with other security agencies, donors and all the conservation organisations (national and international), to examine ways of co-management for the PAs. There are many issues to overcome that are administrative, as well as chain of command, security duties, and what happens amidst armed conflict.

With greater clarification of these issues, it may also be that new able-bodied persons could be recruited into the Wildlife Service, as has happened previously. In both Western and Eastern Equatoria, when international conservation organisations discussed training plans with the respective State Wildlife Directors, both directors ‘declared their dead’ in order to recruit new, young, educated people. The result, especially in the Imatong Mountains, was an incredible set of educated youth, former teachers, geography students, men and women, all volunteers eager to take up wildlife conservation.<sup>83</sup>

What is most useful about the Wildlife Service has been its recruitment from and connection with the rural villages, while also representing government. In many cases, the Wildlife Service has been the only regular representation of government in these distant villages. It’s military capability – the ability to use force – is exceptionally low in comparison with the rest of the security sector, including community defence groups. Indeed, ‘protecting the protectors’ is an urgent matter for the government to address. This also demonstrates the utility of joint patrolling with Community Wildlife Ambassadors: between the patrol team and the poachers, there are usually familial connections to rapidly de-escalate situations.<sup>84</sup> It is politically complex to have the government Wildlife Service managing a PA that sits largely in opposition territory. This is where the principle of ‘by activity’ is critical, similar to the protection of cultural sites, that will be important to respect if PA management is going to survive another armed conflict.

## **5. Protecting biodiversity amidst armed conflict**

---

<sup>83</sup> Adrian Garside, notes, Yambio, 2014; Torit, 2014.

<sup>84</sup> Adrian Garside, notes, 2011-2024.

The last part of this research paper concerns PA management practiced amidst a wider political armed conflict and the new principles for Protecting the Environment in Relation to Armed Conflict (PERAC), which include specific principles relating to PA management.

On December 7, 2022, the United Nations General Assembly (UNGA) adopted 27 legal principles recommended by the International Law Commission (ILC) on “Protection of the environment in relation to armed conflicts.”<sup>85</sup> These legal principles and objectives intersect in the recognition of territory or area-based protection of the natural environment through what the ILC refers to as Protected Zones as distinct from Protected Areas. This idea began in the 1970s and gained urgency with the increasing environmental dimensions of armed conflicts and global biodiversity loss.

The PERAC principles provide that “States should designate, by agreement or otherwise, areas of environmental importance as protected zones in the event of an armed conflict, including where those areas are of cultural importance” and that these protected zones “shall be protected against any attack, except insofar as it contains a military objective,” with the possibility that additional protections may also be negotiated.

In its commentaries, the ILC suggests qualifying criteria for Protected Zones including World Heritage Sites (WHS) and agreed Protected Areas. Theoretically, the latter could include PAs designated under multilateral environmental agreements, such as the Convention on Biological Diversity (CBD) or the Ramsar Convention on Wetlands of International Importance. There are important standards that PAs must meet in order to qualify as a Protected Zone and thus benefit from enhanced protection before, during and after armed conflict. Key Biodiversity Areas (KBAs) meet this standard. By definition they are “sites of importance for the global persistence of biodiversity” or as proponents of KBAs would say, “the most important places in the world for species and their habitats,” as well as planetary health.<sup>86</sup> Many of South Sudan’s PAs are also designated as KBAs.

There are clearly discrete issues to address for inter-state and intra-state armed conflicts. Directly or indirectly, PAs can also be impacted by secondary effects of armed conflict, such as shifts in conflict economies and human displacement, that may increase pressure on natural resources and decrease resources for conservation. The International Committee of the Red Cross (ICRC) had been leading early work in this area, engaging with militaries globally and supporting research.<sup>87</sup>

---

<sup>85</sup> International Law Commission, *Resolution adopted by the General Assembly on 7 December 2022*, Report of the International Law Commission on the work of the seventy-third session, A/RES/77/104, United Nations, 19 December 2022.

<sup>86</sup> IUCN, *A global standard for the identification of Key Biodiversity Areas*, Version 1.0, IUCN, 2016, pp. vi, 37, at p. 9; The Key Biodiversity Area Partnership, “Key Biodiversity Areas: keep nature thriving”, *Key Biodiversity Areas: keep nature thriving*, 2023.

<sup>87</sup> Hsiao, E., Garside, A. Weir, D., Plumtre, A. *Protected Zones in Context: exploring the complexity of armed conflicts and their impacts on the protection of biodiversity*, International Review of the Red Cross, (December 2023). <https://www.cambridge.org/core/journals/international-review-of-the-red-cross/article/protected-zones-in-context-exploring-the-complexity-of-armed-conflicts-and-their-impacts-on-the-protection-of-biodiversity/741575E8522637A99EFAF5D6D9C784DE>

There is much work to be done towards this in the case of South Sudan, there are yet no guarantees that PERAC would be respected any more than International Humanitarian Law during armed conflict. However, PERAC provides an entry point and a basic framework: a workshop on methods for implementing PERAC would be a start, if only to ascertain the level of political will towards such a concept. This should have a broad interest from government ministries and security agencies, the United Nations including UNHCR, the ICRC and diplomatic community, as well as the conservation organisations.

Importantly, the PERAC principles use a temporal framing of before, during and after armed conflict. In this regard, Fauna & Flora brings rare experience having remained working on the ground in South Sudan since 2011. National NGOs like the Agency for Conservation and Development bring critical local insight. One aim would be to ensure that gains made are not lost due to resurgence in armed conflicts and to identify activities that ensure a conservation presence is maintained. This could also provide hooks for donors to continue their funding. The nomination of PZs would be a start, from which negotiations may occur nationally and locally between armed actors and PA managers.

Two critical issues stand out concerning the people of South Sudan. The first is maintaining the principle that those living in or near a PA must be involved in its management and decision-making, and gain benefits from that PA. This principle should be retained in the case of nominated PZs, even should they fall into non-neutral areas.<sup>88</sup> Implementing this will require international conservation organisations to have absolute impartiality. The ICRC does not see implementing the PERAC principles as its responsibility, however developing symbols of impartiality – a conservation version of the red cross and red crescent – should be examined. In evidence of this, during South Sudan's recent civil war F&F was able to keep working across the fault line, with the repeated message from either side, "they know you, they recognise your vehicle, and they like what you do": indications that such recognition should avoid ambush or targeting by either armed force.<sup>89</sup>

The second critical issue concerns maintaining park management activities by the Wildlife Service, during armed conflict. Protecting the protectors is a responsibility of both the MWCT and conservation organisations, rather than an issue of militarisation. However, the situation in South Sudan has history. It is acknowledged that in the past the Wildlife Service has taken sides as combatants in the civil wars. However, for parks to be managed in future armed conflicts, the work of the Wildlife Service rangers needs to be judged 'by activity' as the legitimate protection of a PZ and not part of the political conflict. International conservation organisations could play a validating role in this, so long as impartiality is maintained.

---

<sup>88</sup> Garside, A. *Achieving Effective Biodiversity Protection During Armed Conflict*, Royal United Services Institute, (December 2021). <https://shoc.rusi.org/blog/achieving-effective-biodiversity-protection-during-war-and-armed-conflict/>

<sup>89</sup> Adrian Garside, notes 2014-2017, Western Equatoria State.

This also leads to the final point that conservationists – park managers – should be involved in peace negotiations, to ensure biodiversity has a voice and to provide advice to avoid a situation where a peace agreement provides opportunities for an illicit extractive industry in natural resources, that prolongs armed conflict as well as damaging biodiversity. An elusive ‘post-conflict peacebuilding phase’ is too late an entry point to start managing wildlife Protected Areas.

## **6. Summary of recommendations**

A summary of the recommendations discussed in the paper is provided below for ease and actionability. However, the contextual nature of these recommendations requires reading the paper. The reader is also reminded these recommendations are for effective, conflict-sensitive PA management centred on the people of South Sudan. They are not recommendations for all matters of conservation management. The recommendations below have been sequenced in accordance with the paper. They are aimed at international and national conservation organisations along with the Ministry of Wildlife Conservation and Tourism, conservation donors and the Friends of Conservation, and to the multitude of organisations – national and international – that operate across the country and connected on matters of biodiversity, natural resources, conflict and rural communities.

1. **Respect that everywhere is different. South Sudan’s history and the evolution of its wildlife management is unique. It requires unique solutions, tailored to each location and PA.** Standardised models for PA management can provide useful guidelines, but a conservation cookie-cutter has limited applicability in South Sudan and is likely to create more problems than solutions.

Similarly, measures of conservation success need to be developed relevant to these different PAs and any new areas for conservation management such as through community conservancies. Conservation outcomes need to be adaptable to cycles of political instability and armed conflict, with human as well as biodiversity goals. Donors should be ready to adapt and in difficult periods reduce the restrictions on funds: simply to maintain a presence can at times, be a successful outcome, especially within the long-term strategy of PA management.

2. **Understand how the practice of conservation connects with major conflict factors. Develop conflict sensitive programming to avoid being drawn into local conflict dynamics.** Conservation organisations, particularly those involved in PA management, need to recognise that they may be conflict actors in respect that they are involved in the management of territory, access to natural resources, and work with people many of whom are armed and may span the conflict spectrum. PA management is essentially political and conservation actors must know the politics and conflict

dynamics at various levels and engage with political and conflict actors. A conflict lens needs to be applied to all planning and execution, seeking conflict advice wherever necessary. Understand the conflict dynamics in each area, recognising that a single PA may span several conflicts at different levels.

3. **Working and maintaining impartiality is central to achieving conservation success in a conflict environment.** Recognising that conservation connects with issues of territory, natural resources and people, requires conservation actors to uphold principles of impartiality on a daily basis. This implies an active role working with all sides, rather than a passive neutrality. Engaging with conflict actors and finding ways to keep the management of PAs out of the political, violent conflicts is vital.
4. **Understand territory as a critical conflict factor in the management of PAs.** South Sudan has a history of conquest, the violent taking of territory and the displacement of people from their land. The rural areas of the country are also awash with Small Arms, in large part to protect people, their territory and resources.

Utilise other methods than armed force, to apply wildlife laws and manage the land. For example, ensure local people especially traditional authorities are involved in land use planning. Training in the use of GPS and its relation with maps and geo-referencing of data, gives people a sense of ownership and responsibility of the space they consider their own. (Conversely, to conduct this work without local communities and not to involve them with technology such as the GPS has the opposite effect). The use of cameras and camera traps also lends itself to the non-violent control of land and the resources it contains.

These efforts should all aim to be inclusive of local people, building their knowledge, to enable education, collaboration and involve them with informed decision making.

5. **Utilise conservation's Landscape Approach, aligned with Area-Based Programming, to work across fault lines in the landscape.** The designation of wildlife PAs is normally associated with wildlife presence, migrations and habitat. Subsequently, most PA boundaries in South Sudan are not constrained to administrative (state or county) boundaries. Therefore, conservation provides a rare opportunity to work across politicised fault lines. Recognise and respect these fault lines: some circumstances may be more suited to management under transboundary methods (for example between the western and eastern sectors of Southern NP); while others may offer opportunities to

bring people together across such fault lines. This requires an intimate knowledge of the different levels of conflict dynamics in the area.

Utilise both a ground-up and top-down, or decentralised and centralised, wildlife management approach. One of the great advantages of conservation is that it fundamentally works 'on the ground' and with remote communities, bringing people together at a very localised level. Timing and seasons may provide neutral entry points and matters for negotiation, such as seasonal wildlife migrations.

6. **Understand the history of South Sudan's PA network, its relation to armed conflicts and in particular the displacement of people. A conservation approach based on human/wildlife coexistence, along with cattle and food security, will be central to wildlife management in many parts of South Sudan.** South Sudan presents a particular case where conservation outcomes can only be successful if they include those local communities living within and nearest to PAs, or transiting through them for various reasons be that for pastoralism or displacement. Work towards outcomes that incorporate local people into the governance of PAs.

These people will have development needs which must be managed carefully. Roads in particular may present a security risk and especially a threat to biodiversity, crossing migration routes, opening areas for further encroachment and development, and in particular an opportunity for the bushmeat trade. Bushmeat begins with demand from the main human population centres, therefore roads connecting to Juba and state capitals present particular IWT risk. The development of roads also needs to be balanced with the necessary security and the Rule of Law to manage these lines of communication.

7. **Work with the local systems of security governance.** A local system of security governance extends across South Sudan including most PAs, with individuals and appointments connected into this system. It includes County Commissioners, Payam Administrators, chiefs and the security agencies including the SSWS. These people have responsibility as the custodians of information concerning human activity in their area of responsibility, especially regarding security. The communities are integrated into and accountable to this system.

Work with these structures and individuals inclusively: the presence of a conservation organisation does not remove their responsibilities. Working with the Wildlife Service has proven to be an

effective way of bridging the gap between conservation NGOs, communities and government at various levels.

Conservation managers should be aware that PA management systems like Earthranger may contain sensitive human data that could be used politically, potentially affecting the organisation's impartiality, undermining conservation efforts and alienating communities.

8. **The South Sudan Wildlife Service is the national institution responsible for the management of the country's wildlife estate.** Understand the SSWS and its role in wildlife management and security. Recognise where it sits within the national security architecture. Also recognise its relationships that spans centralised and de-centralised approaches: rangers exist amongst the rural communities across the country, who are looked to as the custodians of the PAs. There is much support that it needs: it is neither resourced nor trained for its role, but where international organisations have worked with it, it has proven to be central to conservation success.

**Systems of co-management should be developed between conservation organisations and the MWCT,** to ensure compatibility with international standards of PA management. The SSWS needs considerable capacity strengthening in all respects: educational training in wildlife management, leadership and organisation; all aspects of resourcing including basic field gear and technical equipment for wildlife management; while also focusing only on those that should have been through a selection process.

Conservation organisations will need to have rights over selection and employment of individuals, who must remain exclusively on PA management and not other security duties. The principle of 'by activity' is essential if INGOs are to continue to operate with the Wildlife Service, especially amidst political conflicts.

9. **PA management imposes something new onto the landscape and people that requires a change of mindsets towards biodiversity.** Currently, the engagement with local communities focuses too much on key mammalian species and levels of permissible hunting. Education is necessary to raise peoples' understanding of PA management to a level that incorporates broad aspects of biodiversity and ecology.

Maximise engagement with people on the ground, awareness raising and educating in wildlife conservation, to enable a fair and balanced conversation between Park Managers and communities.

Education and awareness raising should lead to a better recognition of the benefits that may come, and in particular to a real sense of being involved in decision making. Ensure that tourism in the PA or landscape, abides by the new Tourism Act, 2024. Transparency over benefits reaching communities is essential to avoiding wildlife tourism from becoming an issue of contention with local communities.

These form essential steps in behaviour change, that can be carried out by conservation organisations, that stand a chance of changing mindsets towards wildlife.

10. **There needs to be education and awareness raising amongst the communities so they understand what conservation organisations are trying to achieve in park management and the protection of biodiversity.** Currently, rural communities have deep knowledge of their natural environment but conservation engagements with them so far, have largely been about mammals and hunting. Community education to explain modern park management and matters of biodiversity loss should be conducted to enable communities to move beyond transactional arrangements over hunting and bushmeat. There could be many mutual benefits to this:

Inclusiveness and education, especially with community leaders such as chiefs and youth leaders, will enable them to be more involved in constructive planning and decision-making over what is in their minds, their land and resources. This will be particularly important when conducting land use planning and eventually, boundary confirmation.

At the early stages of conservation engagement, there should be a focus on community education and awareness in conservation management and the importance of biodiversity. Perceptions will already exist in the communities about threats that conservation could bring, even the threat of being displaced from their land. It is a conservation organisation's responsibility and priority, to provide this education and awareness raising in order to create collaboration rather than conflict.



11. **Community involvement in conservation is proving to be widely successful in South Sudan, which may form the basis of future community conservancies.** It requires careful and inclusive selection and recruitment through local and traditional authorities. Transparency is essential in matters of their recruitment, training, role and payment. Done well, these community conservation initiatives are receiving strong support from rural communities, Local and Traditional Authorities as well as the MWCT and the Wildlife Service at all levels. Above all, these community initiatives provide local ownership, benefits and decision-making in conservation management.

The legal authority for wildlife law enforcement remains with the MWCT and the SSWS.

The structural management and liaison arrangements between community conservation actors and the SSWS needs to be developed in collaboration and agreed formally and at a local level.

12. **Encourage the recruitment and employment of women into wildlife roles.** This needs to be done mindful of the long history of male dominance in the hunting/wildlife sector, and with respect for rural customs. Rather than focus on numbers, it is far better to ensure that women perform the same roles as men, (it is very easy for them to fall into traditional roles of cooking and collecting water at Ranger Posts and on wildlife patrols). There are demonstrated examples of success where lessons may be learned, particularly with women in leadership roles amongst agrarian communities.

The matter of numbers is important in teams such as Patrols and Rangers Posts, where women should be employed at least in pairs, just as the men are.

13. **The new principles for PERAC provide opportunities to develop ways for conservation to be maintained in some form, through the cycle of Before, During and After armed conflict, limiting the loss of gains that have been made.** Understand the before, during and after cycle of armed conflict and how PA management needs to adapt to the conditions inherent within these phases. The role of community members (for example Community Wildlife Ambassadors) necessarily evolves during the cycle of armed conflict. PERAC is different to Protection of Civilians though some lessons may be learned from this, as well as other actors working in non-neutral areas such as humanitarians, and World Heritage sites.

An Inter-Agency workshop should be arranged by the MWCT, with UN, International and national conservation NGOs, diplomatic representatives, to examine ways of implementing the PERAC principles by nominating wildlife areas (possibly Key Biodiversity Areas) as Protected Zones during armed conflict, and developing ways to ensure these are respected by armed actors.

This needs to address ways of maintaining formal management systems, and will need to include issues of those living nearest to/within a nominated wildlife Protected Zone.

Protecting the protectors, including by necessary arms and potentially with recognised marking and symbols, should be examined. The principle of 'by activity' should be expanded upon and recognised as a means for donors to continue funding conservation work through armed conflict.

Conservationists develop knowledge of deeply rural areas, working in landscapes in an Area-Based approach, and have visibility on many of the illicit resource-extractive industries that occur in conflict and post-conflict areas. Their advice may prove extremely helpful during negotiations for ceasefires and peace agreements.