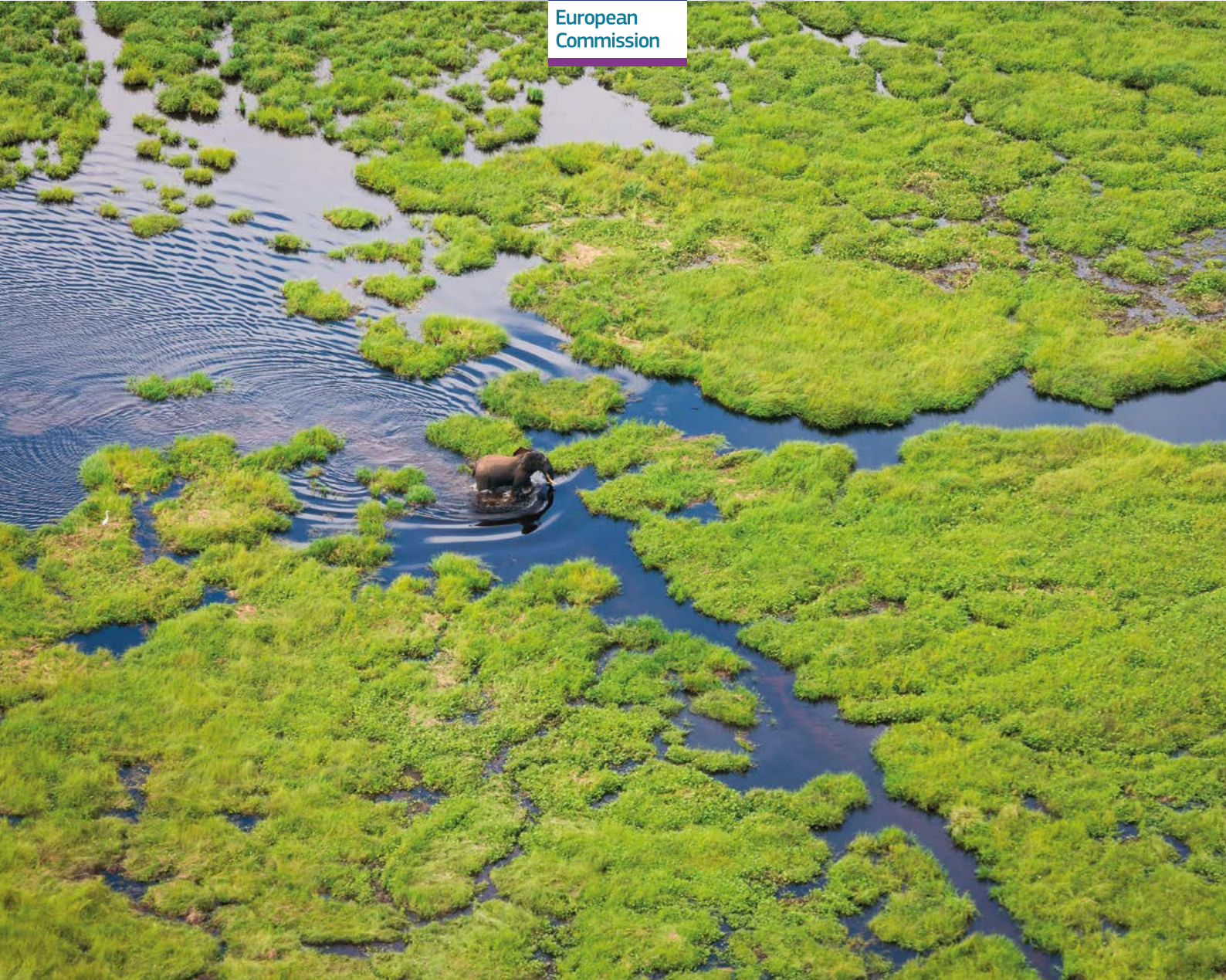European Commission

Study on the interaction between security and wildlife conservation in sub-Saharan Africa
Summary report

International Cooperation and Development

Foreword

Illegal wildlife trafficking is a serious and growing problem. The global trade is estimated to be worth tens of billions of euros and to include hundreds of millions of plant and animal specimens. It threatens the survival of iconic species, including elephants, rhinos and tigers, as well as thousands of lesser-known mammals, reptiles and birds. Illegal, unregulated and unreported fishing has devastating impacts on fish stocks and the livelihoods of coastal communities. Perpetrators have little to fear as many countries lack adequate laws and sanctions to penalise them. In addition to the direct ecological impacts of wildlife and forest crime, there is growing evidence that the corruption that enables it to flourish feeds a spiral that undermines the rule of law, fosters other criminal activities and fuels insecurity. However, our understanding of the precise ways that wildlife trafficking and insecurity are linked remains incomplete, and in particular the involvement of armed insurgencies and terrorist groups.

This study brings together robust information drawn from over 20 marine and terrestrial sites in sub-Saharan Africa and shines a spotlight on the nature and extent of the links between security, including socio-economic security, and wildlife (protection of species and ecosystems, interactions between humans and nature, and trafficking). As such it contributes to key objectives of the 2016 EU Action Plan against wildlife trafficking and will enable the EU, as a leading contributor to biodiversity-related development assistance in Africa, to engage in a well-informed political dialogue on the wildlife-security nexus, and define effective responses and programmes that mutually reinforce wildlife conservation and the security and well-being of communities that live in and around key habitats and landscapes.

Neven Mimica
European Commissioner for International Cooperation and Development

Armed livestock herder in northern Kenya. Climate change and conflict in sub-Saharan Africa are driving many pastoralists out of their traditional areas, bringing them into conflict with other communities, armed groups and conservation projects.

Introduction

In 2017, the Directorate-General for International Cooperation and Development of the European Commission commissioned a study with the objective of acquiring robust evidence, information and understanding on the wildlife-security nexus in sub-Saharan Africa, in order for the Commission to engage in a well-informed political dialogue on the issue, to define an effective response and to design programmes that mutually reinforce wildlife and security. This document summarises the study's findings.

land-use and natural resources (including wildlife), exacerbated by weak governance, organised crime and climate change, are played out in and near biodiversity-rich protected areas and other natural resource-rich areas.

There seems to be no doubt, therefore, that wildlife and security in sub-Saharan Africa are closely linked. Less well known, however, are how and to what extent they are linked, and what responses might help to address this 'wildlife-security nexus'.

Context

Since the early 2000s the world has seen an alarming surge in poaching and trafficking of protected flora and fauna species. These crimes impact not just biodiversity; they also undermine the rule of law, affect economies through loss of revenues, endanger the physical and food security of local communities, affect state and regional security due to the involvement of armed groups, and in some cases fuel human migration. These impacts are felt particularly in biodiversity-rich countries in sub-Saharan Africa, which are greatly affected by poaching and trafficking and serve as source and transit points for massive quantities of illegal wildlife, fish and timber. In many sub-Saharan Africa countries, competition and conflicts over

Methodology

The study[1] collected and analysed information on the wildlife-security nexus through a desk review of literature and other open source materials as well as the team's own experience, interviews with experts and case studies through field missions to 11 sites in Kenya, Gabon, South Sudan, Central African Republic (CAR), Chad, Burkina Faso, Benin, Niger and Mozambique (Figure 1). The study also integrated findings from an additional 11 sites in CAR, Democratic Republic of Congo (DRC), South Sudan, Cameroon, Nigeria, Mali, Ivory Coast, Zimbabwe and Ethiopia, which were assessed through remote interviews with key informants and/or research of relevant documentation.

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1   The full report is presented in two parts: results from the analysis, conclusions and recommendations (Part I), and reports of the primary case studies (Part II).

Summary of findings

The study provides evidence that:
(i)   wildlife trafficking triggers conflicts, fuels existing unrest or leads to scaled-up conflicts;
(ii)   armed conflicts trigger or fuel wildlife trafficking or hamper conservation;
(iii)   socio-economic security is undermined by wildlife trafficking;
(iv)   wildlife trafficking undermines the rule of law and legitimate institutions and fosters corruption;
(v)   in some cases, wildlife related insecurity contributes to migration flows.

Key findings:

- Armed conflicts in sub-Saharan Africa's biodiversity hotspots pose a critical threat to wildlife conservation and protected areas, with armed groups settling in protected areas and poaching/trafficking wildlife to sustain their operations;

- Furthermore, wildlife poaching and trafficking are driving conflict and insecurity in areas where heavily armed poaching gangs are crossing borders, killing elephants and other wildlife, and creating insecurity for local communities living in and near protected areas. There might be terrorist group involvement in ivory poaching and trafficking in vulnerable areas of sub-Saharan Africa, although at present few cases have been confirmed;

- Pastoralists across sub-Saharan Africa affected by climate change and conflict are moving out of their traditional areas, sometimes through and into protected areas. This brings them into conflict with other communities, armed groups and/or conservation projects. Some become targets for criminals and/or become perpetrators of violence, poach wildlife and drive out wildlife. The links between transhumant pastoralism, pastoralist conflicts and wildlife cannot be underestimated given that approximately 268 million people practice some form of pastoralism across 43 % of Africa's landmass;

- The increasing availability in Africa of modern weapons and larger stocks of ammunition has increased the efficiency of poaching exponentially, whilst rendering anti-poaching efforts less efficient and increasingly risky, indeed often deadly for rangers. It has also made conflict between local communities and wildlife increasingly deadly for wildlife;

- Poaching and wildlife trafficking impact on socio-economic security in situations where wildlife poaching removes an important resource for local communities and/or affects important (future) revenues of community-based conservation schemes; local communities are coerced into poaching by organised criminal syndicates; and in some cases are subjected to heavy-handed militarised responses to wildlife crime;

- Widespread (illegal) mining of natural resources across sub-Saharan Africa is financing conflict, and in many places negatively impacts on wildlife, natural habitats, and protected areas: (artisanal) mining exploitations create insecurity in some areas, as rent-seeking armed actors use (the threat of) force to access mines and mineral trade revenues, and to protect these against law enforcement or other armed actors. In addition, miners and militias engage in poaching, logging, charcoal production and associated illicit activities;

- Maritime insecurity caused by illicit maritime commerce and piracy thriving in areas with weak governance has a negative impact on marine conservation, as marine resources are depleted through illegal, unreported and unregulated (IUU) fishing. The reverse effect has been observed in Somalia, where depletion of fishing grounds through IUU fishing by foreign vessels has led local fishermen to turn to piracy;

- Biodiversity loss (e.g. through overfishing) and natural resource depletion, often compounded by climate change, particularly in the Sahel region, can be drivers for human migration;

- Competition for scarce resources such as land and water, again often exacerbated by climate change, is fuelling armed conflict between different groups. Often these conflicts take place in and around protected areas and consequently negatively impact wildlife populations and conservation efforts;

- Political instability, corruption and poor governance are primary facilitators of wildlife, timber and fisheries crimes in sub-Saharan Africa and have enabled these to increase exponentially in recent decades. Poaching tends to thrive in places where corruption is rife, government enforcement weak and alternative economic opportunities limited.

- The escalation of illegal natural resource extraction since the early 2000s is linked to the increased involvement of African and Asian organised crime groups, which thrive in countries where the rule of law is weak or absent and which are affected by conflict and violence. Organised crime groups destabilise states by eroding state institutions and public confidence in them, to protect their activities. They facilitate the corruption of institutions and agents.
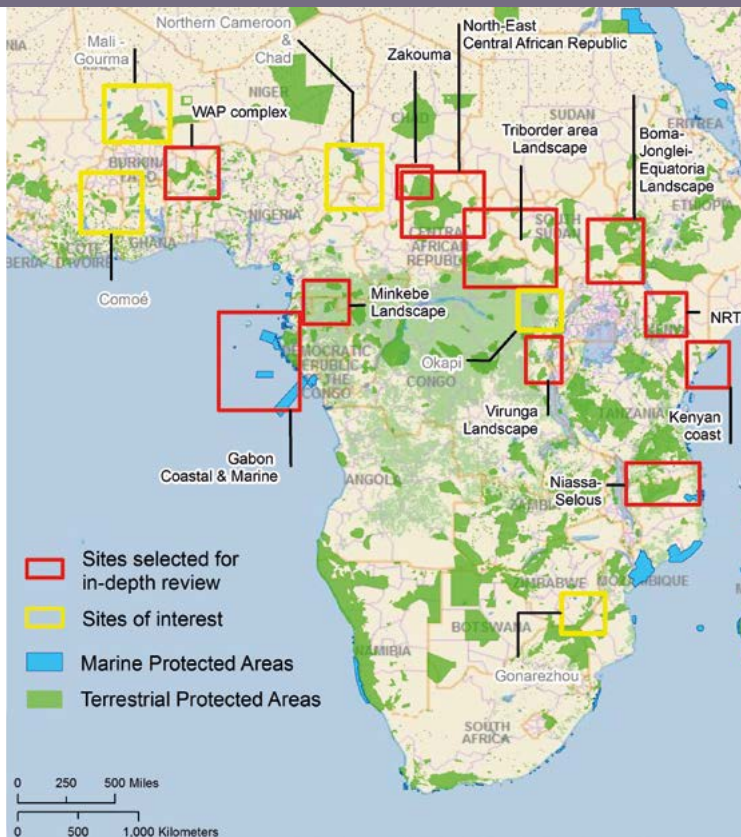
Figure 1.
Sites selected for in-depth review of the wildlife-security nexus

Good practices and approaches

The following can usefully contribute to addressing the wildlife-security nexus:

- **Well-managed protected areas** are increasingly acknowledged for playing a critical role as centres of security and governance, providing stability and economic development profiting both wildlife and humans;
- Given their scale, in many areas of sub-Saharan Africa threats to wildlife and security issues need to be and are increasingly addressed by **management strategies at the landscape level** (i.e. moving beyond protected area boundaries), with regional/transboundary coordination of effort;
- **Community-based conservation programmes** (including conservancies) which engage with and provide benefits for local communities, in order to create incentives for them to (help) protect wildlife resources in their local environment, have proven to be successful in reducing poaching, regenerating degraded land and improving the socio-economic security of local communities;
- **Anti-trafficking programmes** have been set up to help detect and curb the illegal flow of wildlife within and out of Africa, e.g. through capacity building of law enforcement agencies and the judiciary, enhancing collaboration and information exchange and the innovative use of wildlife forensics and detector dogs;
- **Cooperation on the wildlife-security nexus between military and conservation partners** (governmental as well as non-governmental) is increasingly seen to be effective in strengthening security, stabilisation and conservation;
- Programmes that **engage different stakeholders and look for synergies** in addressing competing interests with regard to natural resource extraction, e.g. through land-use planning, are crucial to preventing or mitigating conflict as well as achieving conservation goals;
- **Rangeland and water management** programmes are important instruments to mitigate (potential) land-use conflicts resulting from increased pressure on rangelands for grazing, crop production and conservation, due to the rapid increase in human and livestock populations, often leading to rangeland degradation;
- Promising results have been achieved with initiatives aiming to **enhance the capacity of pastoralist and agricultural communities to adapt to climate change**, mitigate its effects and avoid/mitigate conflicts caused by climate change (e.g. over reduced land availability due to desertification);
- **Programmes to tackle corruption in the context of wildlife crime** have been launched by governments, intergovernmental organisations (IGOs) and NGOs, with varying success. The most crucial success factor for any anti-corruption programme is found to be **political will at the highest level**;
- Ensuring **appropriate policy commitments** to support wildlife-security nexus initiatives and translating those commitments into **political action**, legislation (where needed), and strategic programming tools is critical to creating the governance context for conservation, security, and sustainable development;
- The success of wildlife conservation efforts and the fight against wildlife crimes and associated insecurity greatly **depend upon the existence of good governance and fighting corruption** in a country, and models to develop good governance are crucially important.
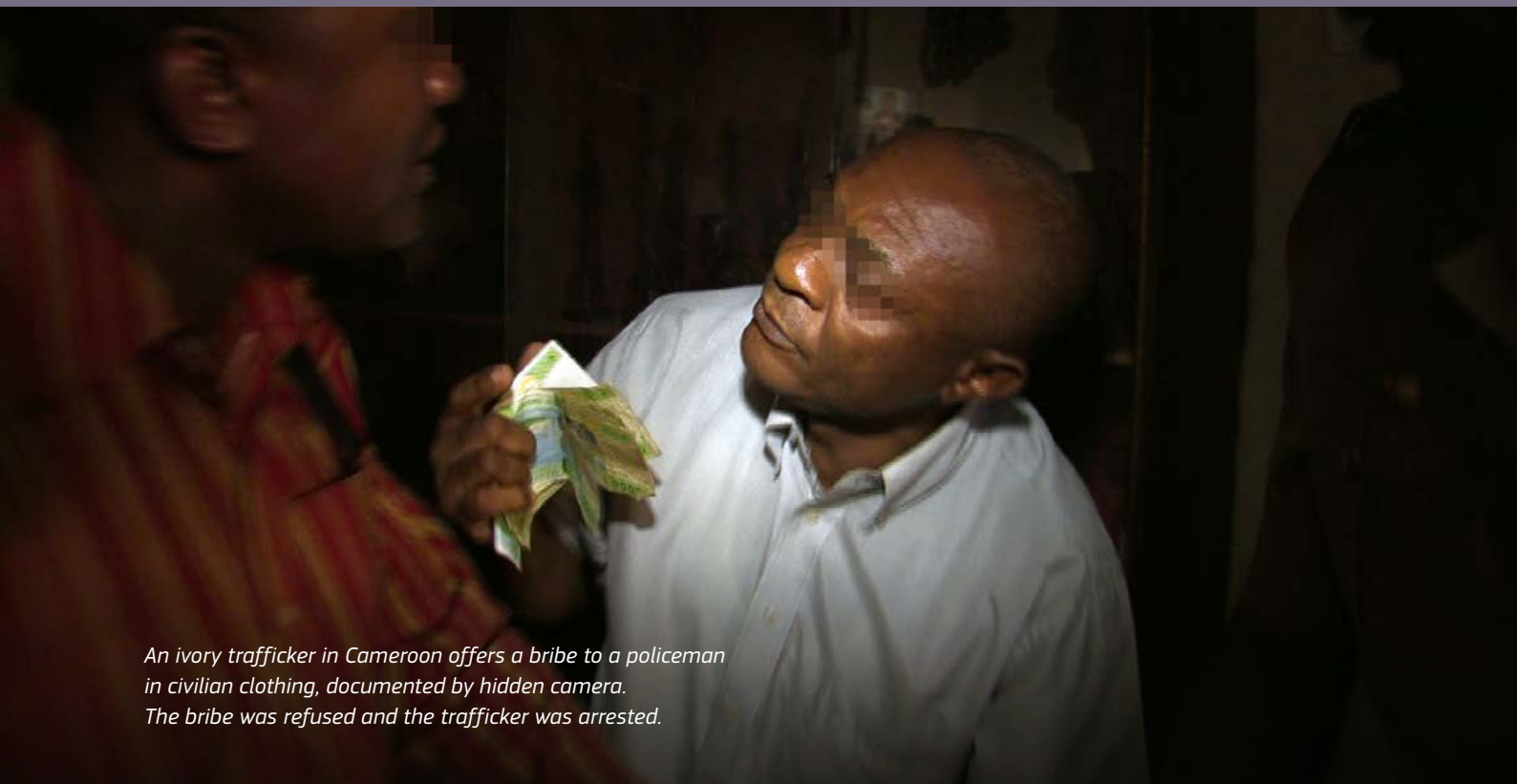
*An ivory trafficker in Cameroon offers a bribe to a policeman
in civilian clothing, documented by hidden camera.
The bribe was refused and the trafficker was arrested.*

Detailed summary of key conclusions

The study sought to provide answers to the following six questions:

1.   Where does wildlife trafficking trigger conflicts, fuel existing unrest or lead to scaled-up conflicts (from local to national/regional, international)?
2.   Where have conflicts triggered or fuelled wildlife trafficking or hampered conservation?
3.   How is socio-economic security undermined by trafficking and poor conservation, both at local and national levels?
4.   How does wildlife trafficking undermine the rule of law and legitimate institutions (notably because of the links with corruption)?
5.   How does wildlife-related insecurity (whether in term of conflict or from a socio-economic point of view) contribute to migration flows (intra-state, inter-state, global)?
6.   How are approaches being applied to address the wildlife-security nexus as a basis for development and improving security?

The study highlights both the importance and complexities of the wildlife-security nexus in sub-Saharan Africa and the differences and commonalities between regions, ecosystems and socio-political contexts. While this area of work will benefit from further in-depth and site-specific analyses, key conclusions for each of the research questions are as follows:
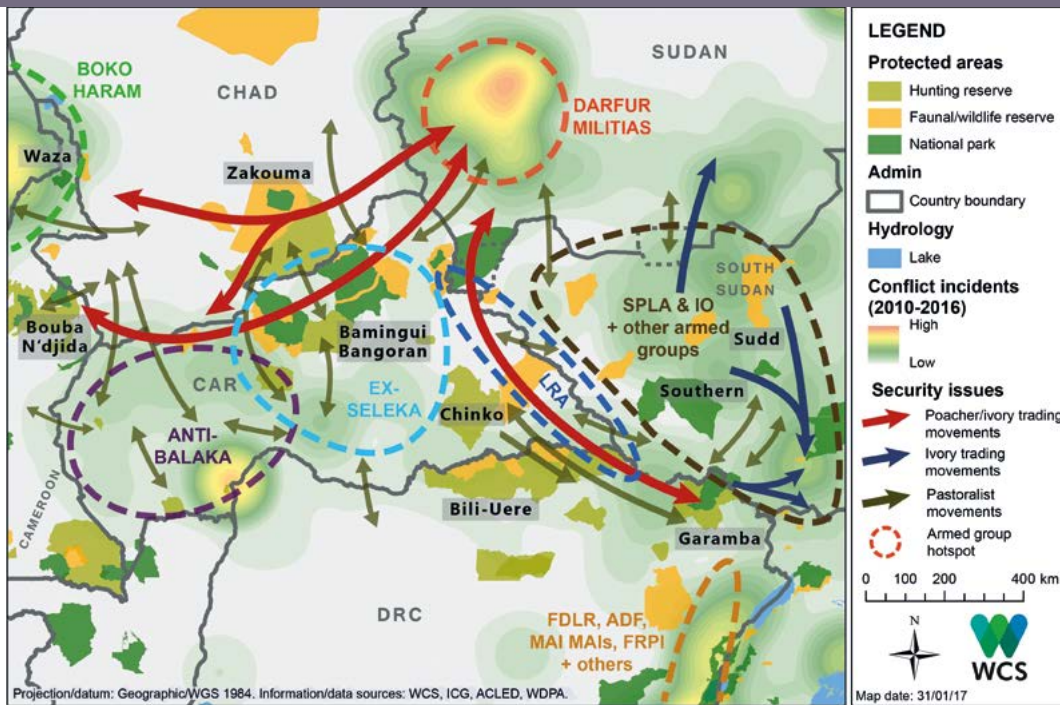
Figure 2. Sudano-Sahel region conservation security dynamics

1.

Where does wildlife trafficking trigger conflicts, fuel existing unrest or lead to scaled-up conflicts (from local to national/regional, international)?

The literature review and case study examination revealed a limited but important set of examples of wildlife trafficking contributing directly to conflicts and insecurity in sub-Saharan Africa. These include clear cases of heavily armed groups (of Sudanese, Chadian, and/or northern CAR origin) crossing international borders to hunt for ivory and bush meat in Chad, Cameroon, CAR, South Sudan, and DRC. LRA[2] involvement in trafficking ivory (along with gold and other natural resources) has been documented. Séléka-associated fighters[3] were 'compensated' for their military service by being allowed to poach and traffic ivory in southern CAR, and systematically hunt remaining populations for bush meat in northern CAR. **In these cases the activity of wildlife trafficking directly contributes to conflict and insecurity, hence interventions to halt trafficking weaken these groups and directly enhance security in the region concerned and globally.**

The **potential risk of organised terrorist group involvement in ivory trafficking and its associated financial flows exists in several vulnerable areas of sub-Saharan Africa. However, at present few cases have been confirmed**, clear evidence is lacking (though classified information may clearly document it and simply be restricted), and the subject has generated considerable debate in some circles. The report of a group with alleged jihadist links involved in ivory poaching along with criminal activities in Burkina Faso is noteworthy in this regard. Reports from eastern Kenya have not had any confirmation of

Al-Shabaab involvement in ivory trafficking, though they have been confirmed to be involved in bush meat hunting (Fig. 2). Recent reports of alleged Boko Haram connections to trafficking of ivory from northern Gabon have been challenged in some corners. The LRA on the other hand is known to traffic ivory.

Regardless of whether terrorist groups are currently involved in ivory trafficking or not, as with trafficking of drugs and humans, trafficking of high-value natural resources represents clear potential opportunities for terrorist and/or insurgent groups to be involved and benefit directly or indirectly. Securing high value natural resources, including wildlife in vulnerable areas, is therefore a critical priority for security, conflict prevention and stabilisation strategies.

While wildlife trafficking **has been, is, and has the potential to be a driver of, and contributor to, conflict and insecurity**, particularly in low governance and unstable areas of sub-Saharan Africa, **it is more common that conflicts and insecurity act as drivers of wildlife trafficking**. In addition to the direct impacts, assessing the impact of wildlife trafficking on fuelling insecurity and conflict needs to take into account the impact of wildlife trafficking on fostering corruption, and the resulting corruption undermining the rule of law and creating insecurity.

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2   LRA – Lord's Resistance Army
3   Séléka – an alliance of rebel militia that briefly took over CAR from March 2013 to January 2014.
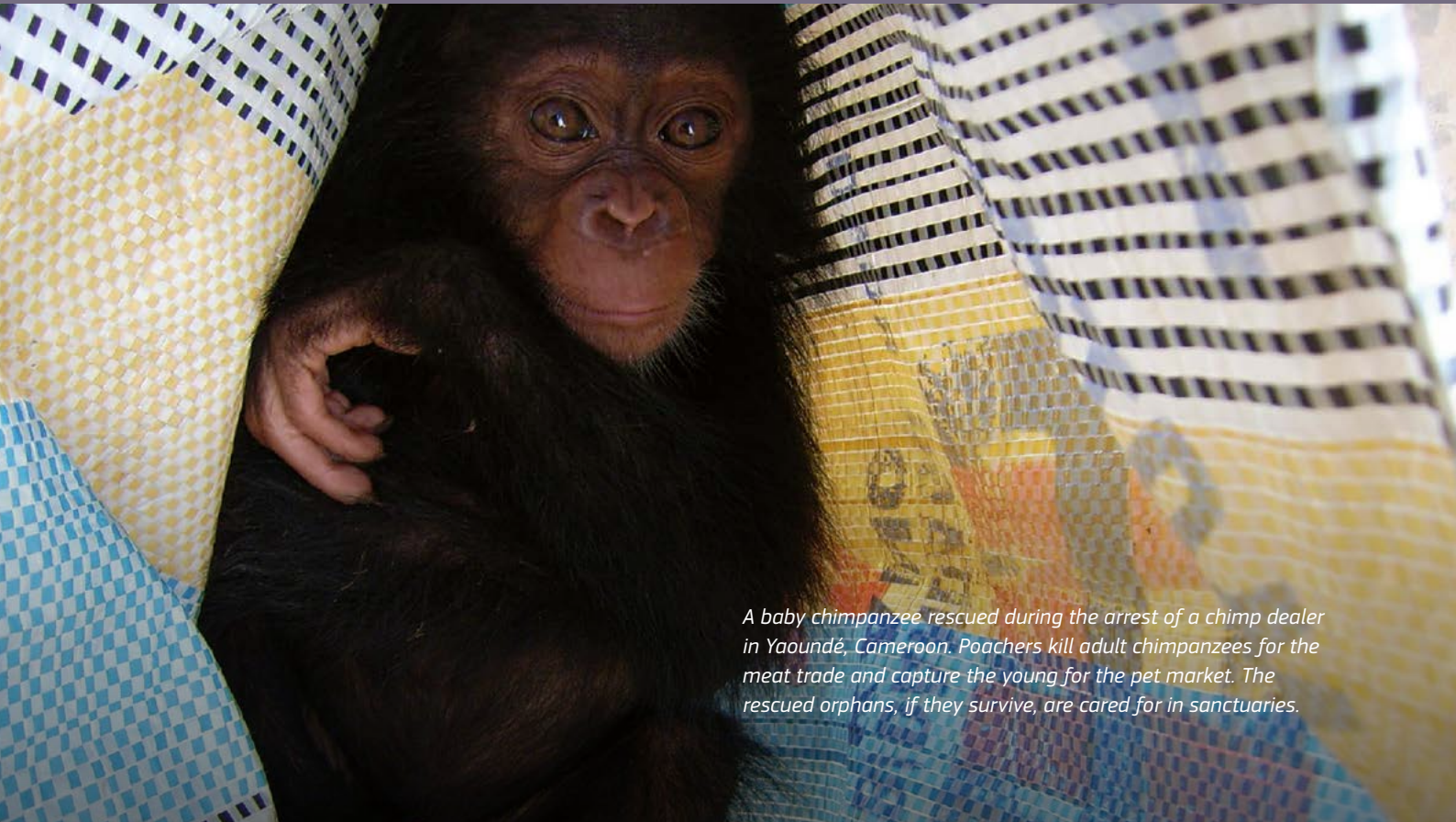
A baby chimpanzee rescued during the arrest of a chimp dealer in Yaoundé, Cameroon. Poachers kill adult chimpanzees for the meat trade and capture the young for the pet market. The rescued orphans, if they survive, are cared for in sanctuaries.

On the ground: 'Safari Jihad'

Since 2012 an Al-Shabaab group has been operating from Boni Forest in Boni Forest Reserve, a protected area in the northeast of Kenya on the border with Somalia. In 2015, an Al-Shabaab propaganda video reportedly filmed in Boni forest was released. The video depicts Al-Shabaab rebels shooting and skinning a giraffe, a buffalo and a Topi antelope. 'Don't be deceived into believing that when people fight jihad they are accompanied by hunger,' one man says in Swahili. He wears a camouflaged balaclava and an ammunition belt around his waist. He points at the dead buffalo at his feet. 'Just look at the meat here,' he shouts. 'What are you waiting for?' The video also quotes Osama Bin Laden's supposed mentor, Abdullah Azzam: 'You eat, drink and hunt for free. Not in Bangkok or Los Angeles, or paying 500 dollars a night at a London hotel. It is an entertaining journey of tourism and hunting. Indeed, the tourism of my nation is jihad.' This type of recruitment tactic has been dubbed 'Safari Jihad'.[4]

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4   Foreign Affairs 17 December 2015, The Softer Side of Jihad, http://edition.cnn.com/2015/11/05/africa/Al Shabaab-proganda-video/index.html (includes link to the video), accessed 29 November 2017. Also see CNN 5 November 2015, Al Shabaab sells terror in safari propaganda video: https://www.foreignaffairs.com/articles/kenya/2015-12-17/softer-side-jihad, accessed 29 November 2017.

An elephant in Garamba National Park, Democratic Republic of Congo, that has been slaughtered for its tusks. International cooperation to combat the illegal ivory trade is bearing fruit, but killings are still widespread.

2.

Where have conflicts triggered or fuelled wildlife trafficking or hampered conservation?

The impact of conflict on protected areas and wildlife populations has been clearly documented throughout many geographic locations across sub-Saharan Africa. This review has identified a suite of examples of **armed groups in various regions in sub-Saharan Africa feeding their combatants and supporters with bush meat. It can be considered that areas with rich wildlife resources would allow armed groups to persist more easily and over a longer period of time than areas with less wildlife**. Armed groups also readily access fisheries and domestic livestock from local communities for protein to feed themselves. There is evidence that in many cases **individual members of armed groups become involved in wildlife trafficking and other natural resource pillaging for financial gain. This further depletes the resource base for future development options, and also incentivises prolonging conflict for individual gain.**

Use of protected areas as safe havens for armed groups and banditry is widespread in areas of West, Central, Eastern and Southern Africa. Remote areas and the fact that many protected areas have historically been poorly managed offer governance vacuums in which armed groups can organise

themselves and establish remote bases from which to launch attacks (e.g. Sambisa forest for Boko Haram, Boni Forest for Al-Shabaab, Garamba NP and Imatong Mountains for the LRA, Boma NP for the DYY[5] insurgency and Virunga NP for the FDLR[6]). Similarly, the governance vacuum in remote protected areas has enabled **organised bandits to use them as bases for operations** (Arly region in Burkina Faso, Bouba-Njidda NP in Cameroon, etc.), thus hindering wildlife protection efforts, rendering the areas vulnerable to poaching and trafficking, and creating insecurity for local communities. **Transhumance pastoralists, armed and some supported by heavily armed protectors, cross international borders** into Nigeria, Cameroon, CAR, South Sudan, DRC, Ethiopia, and other countries where they penetrate protected areas with herds of livestock, entering into conflict with local agriculturists and pastoralist communities. They are often involved in commercial poaching for ivory and bush meat, as well as banditry and other crimes, undermining both conservation efforts and local and international security.

Conflicts and insecurity in a series of unstable zones across Africa have been, and are directly contributing to, wildlife and other natural resource trafficking. Evidence demonstrates that wildlife trafficking is at times catalysed as a secondary activity alongside other illegal natural resource extraction (gold, charcoal, diamonds), which is enabled by insecurity and conflict.

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5   DYY – David Yau Yau, leader of the Cobra Faction of the rebel South Sudan Democratic Movement
6   FDLR – Forces démocratiques de libération du Rwanda

Odzala National Park in the Republic of Congo works closely with local communities to curb poaching. It organises mobile healthcare units for villages and gorilla habituation programmes to increase tourism. The park is home to 20 % of the remaining global population of Western lowland gorilla.

Natural resource pillaging in governance vacuums (both in post-conflict situations and in non-war poor governance settings) by armed groups, criminal networks, and individuals, including members of local communities, has been and is contributing to wildlife trafficking. **The corruption (from local to national to international levels) associated with natural resource trafficking undermines the rule of law, credibility of governments and contributes further to insecurity and conflict**.

3.

How is socio-economic security undermined by trafficking and poor conservation both at local and national levels?

There is much evidence that wildlife trafficking in sub-Saharan Africa negatively impacts socio-economic security through i) physical insecurity created by wildlife trafficking which in turn undermines the ability of local communities to undertake their livelihood activities (e.g. heavily armed poachers occupying areas and preventing local communities from accessing the area for natural resource use/farming needs); ii) depletion of wildlife resources by commercial traffickers – depleting resources that communities would have traditionally used for their own subsistence; iii) depletion of the wildlife resource base leading to loss of wildlife-related development opportunities (e.g. lost ecotourism and/or protected area employment opportunities which would have existed had the

wildlife resource base been maintained, lost fisheries opportunities, lost sustainable wildlife harvest opportunities, etc.).

The insecurity created by **wildlife trafficking and trafficking-associated corruption often disrupts local communities' normal access to spatial areas and resources**. This can lead to further conflict with other communities as displaced users seek to access alternative areas and exacerbate pressures on the resource base of these areas. Also systematic depletion of wildlife takes away an important food source for local communities in many areas of Africa. Some communities depend on wildlife for their protein, and particularly during times of scarcity or conflict, or environmental stress. Depletion of fisheries stocks by uncontrolled commercial fishing along the coasts of both Eastern and Central Africa, and the huge impacts that this has on local community livelihoods, is well documented.

Wildlife-related benefits to local communities represent a tremendous opportunity for development in much of sub-Saharan Africa, both in terms of direct employment benefits (with protected areas, conservancies, ecotourism enterprises, etc.), and of wildlife-related economic opportunities (provision of goods and services to parks and ecotourism). The **depletion of wildlife resources therefore in turn undermines the development opportunity** potential for local communities and nations. When considering impacts on socio-economic security it is important to consider the **spatial multiplier effect that uncontrolled natural resource use, including wildlife trafficking, can have on local, national, and international security and**
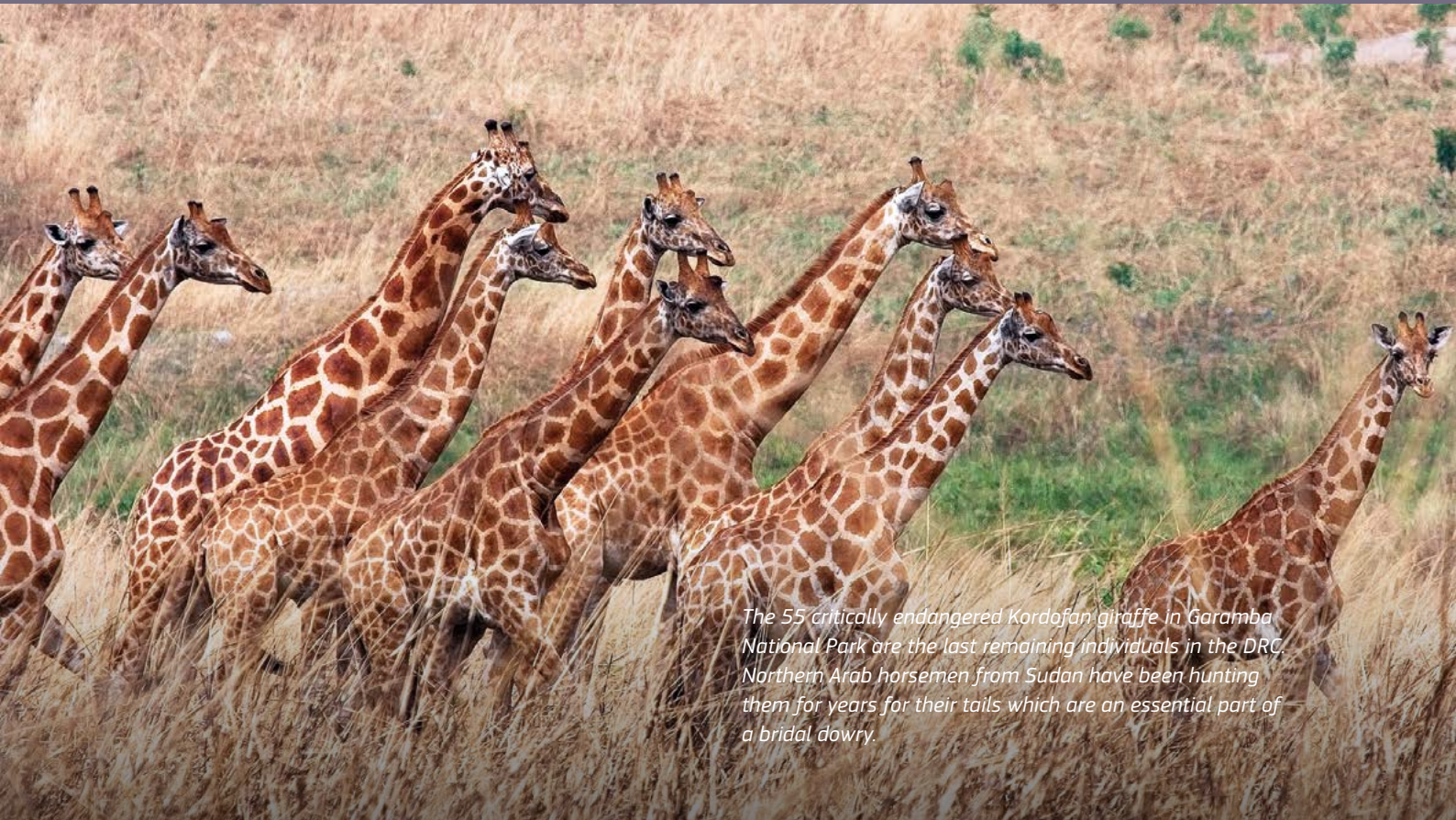
The 55 critically endangered Kordofan giraffe in Garamba National Park are the last remaining individuals in the DRC. Northern Arab horsemen from Sudan have been hunting them for years for their tails which are an essential part of a bridal dowry.

vice versa. **An important example is the transhumant pastoralists** who in recent years have been unable to access some areas of CAR and South Sudan due to armed conflicts, and have moved to access parts of northern Cameroon and northern DRC, putting further pressure on scarce resources and creating conflict with local pastoralists and farmers. Similarly, large numbers of Dinka pastoralists, unable to access their traditional grazing areas, pushed southwards into the Western Equatorial region in South Sudan in the latter part of 2015. They entered into conflict with the local Azande people who in turn pushed them back north, and then joined the armed rebellion against the government.

Efforts to negate wildlife trafficking contribute directly and indirectly to fostering socio-economic security.

4.
How does wildlife trafficking undermine the rule of law and legitimate institutions (notably because of the links with corruption)?

Perhaps the most subtle and insidious impacts of wildlife trafficking contributing to insecurity and conflict is **the corruption which both enables and is fuelled by wildlife and other natural resource trafficking**. In all the case studies examined, corruption has been a significant factor. Whether in the dense tropical forests of northern Gabon, the Sudano-Sahelian savannahs of northern CAR, or Miombo woodlands of Mozambique, across the gambit of stability and governance situations, corruption has been and continues to be a dominant factor in wildlife trafficking and insecurity. Examples of **corruption in wildlife trafficking chains range from local rangers and authorities to central wildlife departments, judiciary systems and senior politicians**. With the increased demand and expansion of ivory poaching and trafficking from 2010-11 to the present, the incentives for facilitating and supporting ivory (and rhino horn) trafficking have increased. **Corrupt officials who may have also been involved in corruption in other sectors (e.g. drugs, human trafficking) have engaged in wildlife trafficking**. Cases have been documented of organised trafficking networks (involved in drugs and human trafficking) broadening into ivory and rhino horn trafficking as prices increased, thus bringing their corrupting influence to the wildlife sector. Even where wildlife protection has had a relatively successful track record, such as Uganda, the vulnerabilities to internal corruption in relation to ivory stock management have been evident.

Types, forms and actors in corruption vary. In areas of instability in eastern DRC, wildlife and other natural resource **trafficking has been systematised by armed groups** (bandits as well as rebellions) in an armed conflict context, with **networks of corrupt officials** (including Congolese military) also racketing the traffic. In the relatively more stable areas of northern Mozambique and northern Gabon, cases of corrupt officials enabling natural resource trafficking networks (ivory poaching, wildlife trafficking, illegal logging) have been documented. The case of sandalwood in Kenya demonstrates how the corruption

Rangers on horseback in Zakouma National Park, Chad. The park, now one of the largest employers in the region, works closely with local communities to boost security, and has enabled elephant and other wildlife populations to recover after years of poaching and killings.

factor in natural resource trafficking can undermine the rule of law even in a country that is one of the continent's strongest proponents of wildlife protection and depends on wildlife tourism as a primary source of revenue.

Explicit and robust anti-corruption programmes must be developed as part and parcel of security and conservation programmes.

5.

How does wildlife-related insecurity (whether in term of conflicts or from a socio-economic point of view) contribute to migration flows (intra-state, inter-state, global)?

The study found cases of **migration of people due to climate change impacts, environmental degradation, and insecurity and conflict factors in various areas** of sub-Saharan Africa. The few examples identified of wildlife trafficking directly contributing to human migration related to depletion of fisheries stocks in West Africa. **Protected area landscapes are affected by migrations that cross them, while a lack of economic opportunities and security in and around protected areas can lead to migration**. Therefore, the approaches being developed to improve security for people and their livelihoods in these areas through conservation have a direct contribution to providing incentives to local peoples to remain in their areas, rather than seek to migrate.

Conservation and protected area management programmes that address security concerns and create economic opportunities can help address the root causes of migration in some vulnerable areas of sub-Saharan Africa.

6.

How are approaches being applied to address the wildlife-security nexus as a basis for development and improving security?

The literature review and in-depth case study analysis offer diverse examples of approaches being applied to security-wildlife nexus problems across different ecosystems and socio-political and governance contexts. While it is clear that **approaches must be locally specific and appropriate, there are certain important basic principles** which, when integrated into programmatic and policy interventions, can contribute to security for people and wildlife at local, national, transboundary, regional and global scales. Several key observations emerge to inform adjustments of ongoing efforts and planning, and guide the launch of new wildlife-security programmes and policy engagements.

Public-private partnerships in protected area management are being implemented or considered in many sub-Saharan Africa countries. The delegation of management authority to a specialised NGO or other entity (e.g. Trust) has several advantages for achieving conservation and security results. These

Detained chimp and gorilla skull dealers in Bertoua, Cameroon, who were investigated by the EAGLE network. They were subsequently sentenced to a year in jail and ordered to pay more than USD 35 000 in damages for cross-border trafficking with Nigeria.

models have clear benefits for reducing corruption vulnerabilities in protected areas and surrounding managed landscapes. This in turn improves the credibility of the management actions with respect to wildlife law enforcement personnel, local communities and government partners. The role of "honest broker" and sponsor of "good governance" is a critical one that the management operator plays, in addition to providing **high-level technical expertise and mobilising long-term adequate funding**. This also **reduces vulnerability to political and ethnic divisions** that might exist and contribute to tensions or conflict. Careful planning of programme interventions and consultations in relation to conflict, ethnic and security tensions and sensitivities is essential. In the context of insecure and armed conflict areas and highly vulnerable wildlife trafficking and corruption situations (e.g. rhino horn and elephant ivory), these factors are even more important. The international management partner with delegated management authority is able to **provide governance and transparency** where government wildlife department staff would be highly vulnerable and perhaps fear or be hindered to engage. It is fundamentally important for the success of public-private partnerships that they be **structured and managed carefully** to ensure that the public partner has sufficient ownership over the partnership and its programmes.

Another important factor is that the funding levels for protected area and anti-trafficking programmes need to be adequate to support the full package of actions required. The cost of operating a **protected area safely and effectively in an insecure environment is higher and more complex than in a stable situation** due to the skills, tools and systems required. However, **the gains in terms of improved security through robust protected area management are well justified**. Therefore donors and governments need to view investments in terms of stabilisation and security (local, national and global), and development opportunities, in addition to biodiversity conservation results. It is **critical to work at the landscape scale** with protected areas as core areas of security within the broader mosaic. It should be stressed that **while protected area micro-hubs of governance may be established and managed, a broader landscape approach and national governance initiatives including explicit anti-corruption programmes accompanying the site-based effort are required** for sustained results.

The **community conservancy model being developed by NRT**[7] in Kenya (both in the northern savannah region and along on the coast) is particularly strong with its structured governance approach, community mandate and ownership, and potential for expansion on extensive spatial scales. Many of NRT's **natural resource management, security and governance principles** could be applied elsewhere, although **approaches need to be planned and adapted to the specificities of the local context**. A critical factor in the success of NRT's ranger-based efforts to contribute to both human and wildlife security as part of conservation-security programmes is that of **formal mandate**. In

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7   NRT – Northern Rangelands Trust. https://www.nrt-kenya.org/

Artisanal mining activities taking place in the periphery of Odzala National Park, Republic of Congo. Illegal mining activities in sub-Saharan Africa deplete wildlife habitats and are associated with poaching, logging and funding armed conflict.

the case of NRT, a set of rangers have been granted police auxiliary powers in addition to wildlife law enforcement powers and their operations are actively coordinated with national police, as well as with Kenya Wildlife Service. In Arly NP, local **traditional defence groups mobilised to combat banditry also contributed to wildlife protection**, though without formal mandate. A case is made that **where wildlife rangers are well managed** (and in some locations this is certainly not the case), and where appropriate and feasible, their mandates in remote areas could include auxiliary national police functions alongside wildlife law enforcement to further contribute to security results.

Integrating conflict mitigation in land-use planning and management at the landscape scale is a clear and promising approach, which returns both security and conservation dividends. This requires mandating processes to manage natural resource conservation and security at landscape and larger scales. Therefore appropriate approaches and mandates need to be structured and negotiated accordingly.

The **EAGLE[8]** network's methodology and programme, developed from the original founding organisation LAGA[9] and later giving rise to Conservation Justice, PALF[10] and other EAGLE members, is an effective cooperation model for countering **wildlife trafficking**. Some governments have registered

concerns with this approach but EAGLE's expansion in various countries of Africa demonstrates its acceptance by many. The government agrees to work with the NGO entity on what are normally exclusively government law enforcement investigations, arrest operations, and judicial follow-up. **Basic principles and techniques** of the EAGLE approach can be applied to most situations and contexts in sub-Saharan Africa. The **anti-trafficking work undertaken by the National and Transnational Serious Crimes Investigation Unit (NTSCIU) in Tanzania is a national approach** showing potential that needs to be examined and carefully considered in designing anti-trafficking programmes.

While conservation and protection can contribute to security and stabilisation in insecure contexts, severe insecurity and armed and political conflict greatly impact and hinder conservation in these circumstances, as they do all activities. It is clear that **conservation efforts can be adjusted and continue to be undertaken** in insecure environments, albeit with increased risk and constraints. **It is critical to support conservation-security nexus initiatives and robust protected area management as part of long-term stabilisation, security enhancement and conflict-prevention strategies.**

The **strong high-level leadership** shown by the governments of Gabon (both terrestrial and marine protected area

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8   EAGLE – Eco-Activists for Governance and Law Enforcement. http://www.eagle-enforcement.org/
9   LAGA – Last Great Ape organisation. http://www.laga-enforcement.org/
10   PALF – Projet d'appui de l'Application de la Loi sur la Faune sauvage. http://palf-enforcement.org/

A ranger monitors marine ecosystems in Kenya. Rangers in the Northern Rangelands Trust are trained to collect data on wildlife behaviour, illegal activities, wildlife mortality and human-wildlife conflict. The data is shared with local and national partners.

conservation), Kenya (in leading the mission to halt elephant and rhino poaching, develop community and private conservancies, and professional park management systems), and Benin (recent initiatives on anti-trafficking and protected area management) are **concrete examples of good governance that can enhance conservation and security**. Despite the strong commitments, the corruption factors in both Gabon and Kenya in relation to natural resource crimes demonstrate the **need for well-structured anti-corruption engagements and programmes** to accompany the strong political will. Leadership and commitment is required, but progress and security will be undermined without major efforts to minimise corruption. Formally structured **national scale anti-corruption initiatives** are required to address wildlife trafficking and the subsequent insecurity that it generates.

There is growing understanding and support for the **need for military cooperation with non-military actors** to address the wildlife-security nexus. This includes: i) **engagement with militaries to 'do no harm'** and ensure they do not participate in wildlife trafficking and other natural resource pillaging (e.g. training, monitoring, sanctions) and respect human rights; and ii) **proactively define and support specific areas of cooperation with conservation-security efforts** (e.g. training and equipment sharing, joint patrolling with wildlife units, joint military operations in transboundary zones against heavily armed poachers and traffickers, information-sharing with conservation partners, awareness raising with local authorities and communities) as part of **integrated strategies to comprehensively address security issues. The necessity for structuring and developing this military cooperation with non-military partners on the wildlife-security nexus has been clearly shown** and while progress is being made, it has thus far been relatively slow and **demands an accelerated, focused and results-driven strategic approach, commitment and operationalisation.**
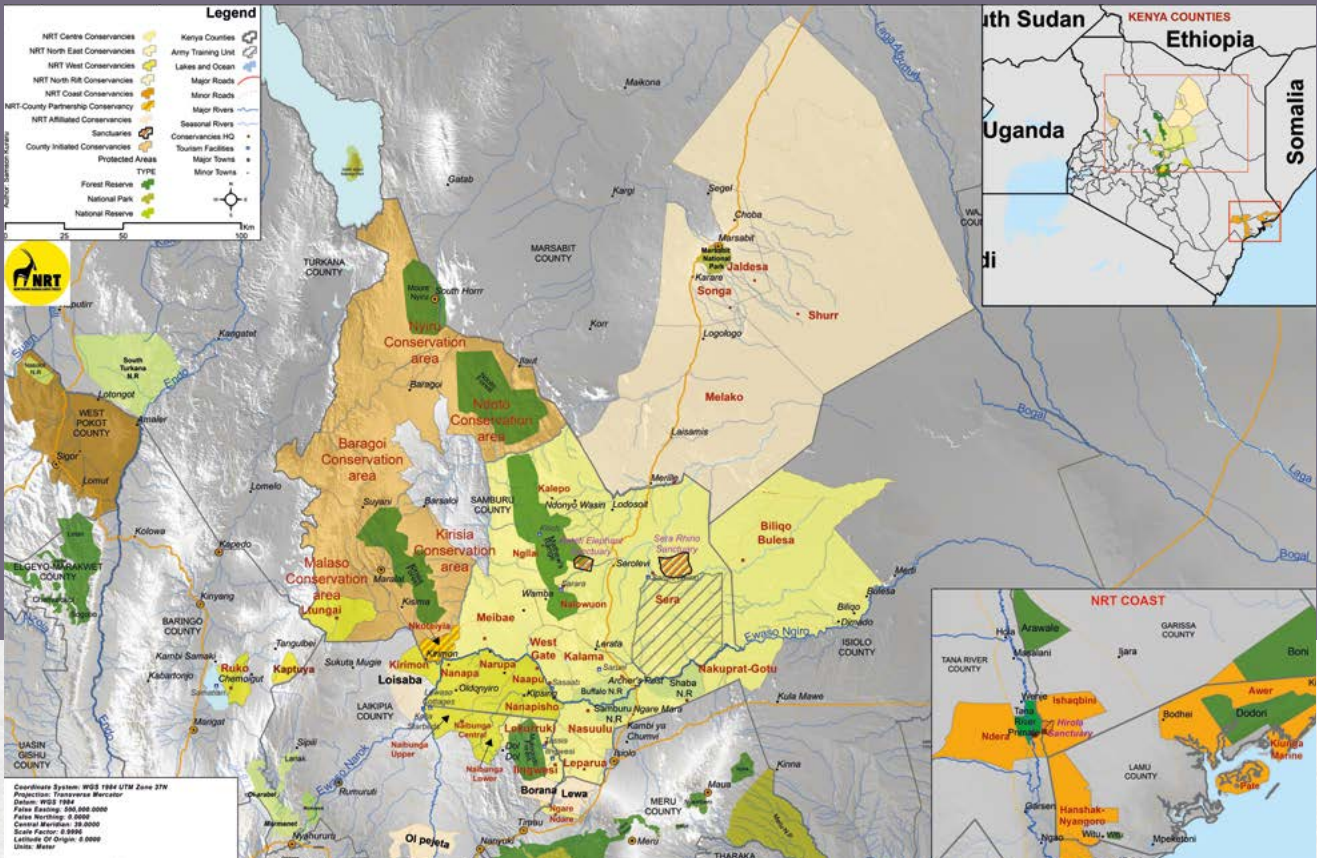
Case study 1: Northern Rangelands Trust, Kenya

Wildlife populations in Kenya have experienced a dramatic decline in the last 40 years, resulting mainly from human population growth, a 76 % increase in livestock numbers, less rainfall and higher temperatures. In northern Kenya, the savannahs and dry bush land support critical populations of key species such as rhino, elephant, giraffe and zebra, living on national reserves, protected areas, ranches and conservancies. Among these are 28 community-managed conservancies created and supported by the Northern Rangelands Trust (NRT), which pioneers a programme of conservation and natural resource management based on formal community governance structures with a human security objective.

Security for wildlife and local populations is closely linked. Cattle raiding, by local groups and pastoralists ranging more broadly in search of pasture and water, is judged to be among the top sources of insecurity and conflict. Modern weapons have made raids and banditry increasingly violent, while pastoralist competition for access to water and grazing areas fuels inter-communal conflict. Soaring demand for rhino horn and elephant ivory from 2011 saw increased poaching, contributing to insecurity and corruption. Strong law enforcement has now largely eliminated rhino poaching, while elephant poaching has declined with the fall in black market ivory prices. Illegal sandalwood harvesting and trafficking, meanwhile, has expanded dramatically. The trade is run by organised crime networks and involves extensive corruption. Such illicit activities, banditry and poaching affect the socio-economic security of local people, and undermine the development of tourism.

NRT supports communities to develop locally led governance structures, run peace and security programmes, take the lead in natural resource management, and manage sustainable businesses linked to conservation. In a 2016 survey, over 90 % of stakeholders reported that they felt safe in their conservancy; 83 % believed wildlife was important for their future; and 77 % believed their conservancy improved their well-being.

A key element for success is NRT's formal governance structure. Rangers are mandated by the Government to act as auxiliaries of the National Police as well as the Kenya Wildlife Service, thus providing law enforcement as well as wildlife protection. The rangers are recruited from the local communities and units are mixed and deployed strategically. The main emphasis of law enforcement is community policing through dialogue within adjoining communities, resulting in less stock theft, road banditry and poaching over the past 5 years. Employing local people to police their own communities fosters local ownership, enabling long-term criminals to be exposed and arrested.

The conservancy governance structure also serves to coordinate development assistance (e.g. water, health, education, roads), linking the benefits with conservation and natural resource management principles. Income generation programmes in the north include tourism, livestock management and marketing, and bead jewellery. Further efforts focus on water, renewable energy, micro-finance and education. Tourism revenue connected to wildlife protection is a very strong incentive to protect wildlife in the conservancies. NRT conservancies employed some 1 800 employees and 700 armed rangers in 2017, making them the top employer in the region.

The EU naval force Somalia (Operation Atalanta) trains Kenyan navy in exercises on boat handling, search and rescue and first aid.

Case study 2: Kenya-Somali coastal and marine zones

The coast of Kenya is prized for the extensive coral reefs stretching along its length and north into Somalia. But this marine environment, ecosystems and associated resources have suffered from decades of degradation due to unregulated over-fishing and destructive fishing practices. Fragile habitats at risk include seagrass beds, mangroves, beaches and dune systems, and their emblematic and/or threatened species: green turtles, dugongs and other sea mammals such as dolphins and whales.

Poaching (illegal, unregulated, unreported (IUU) fishing) occurs in both coastal and offshore waters. Coastal IUU fishing includes fishing in marine protected areas (MPAs), using illegal fishing gear (including dynamite), exceeding quotas, fishing out of season or targeting protected species (such as turtles). Offshore (high seas) IUU fishing involves industrial fishing vessels under foreign flags and includes fishing without a licence (or with a fake one), exceeding quotas or using indiscriminate fishing techniques leading to a high level of bycatch and the capture of protected species (such as sharks or sea mammals). IUU fishing has a severe impact on fish stocks and ecosystems. IUU vessels are thought to be responsible for 40 % of the catch in the region.

Issuing illegal fishing licences is a lucrative activity, as a licence can cost USD 150 000 per year per vessel. Local and foreign businessmen and government officials are said to take part in licence trafficking. A recent trend shows that 'repentant' Somali pirates have managed to get onto coastguard-type training programmes (species identification, boarding techniques, surveillance capacity, etc.) funded by international donors, then left at the end of the course and offered their services to IUU vessels, many of which are also engaged in arms and drug smuggling and human trafficking.

Kenya has a network of MPAs, which enhance sustainable fisheries associated with the coral reef ecosystem. Although somewhat understaffed, MPAs are characterised by increased surveillance compared to other areas and this appears to deter pirate and IUU vessels. On their way from Somalia to Mombasa or Tanzania and back, these vessels now tend to avoid MPAs.

The Northern Rangelands Trust (NRT) has facilitated the establishment of 7 coastal conservancies over the past decade, complementing the MPA network. They undertake community-based monitoring, turtle protection, fisheries management, mangrove protection and surveillance. NRT works with communities to foster a shift to sustainable fishing practices, as well as on other job creation initiatives. The foundations of the coastal conservancies, established by communities with support from the NRT, contribute to improved surveillance and security, although securing livelihoods is hindered by the Al-Shabaab threat and intimidation in the northern sector.

Offshore patrols in the waters off north-eastern Africa are mainly performed by foreign navies, for instance through the EU Atalanta operation. Military operations in the area as part of surveillance and counter terrorism also contribute to reducing threats to conservation areas. At a regional level, challenges are addressed by the Indian Ocean Commission (IOC), which takes part in programmes related to maritime security, fisheries management and combating IUU activities. Among these are three EU-funded initiatives: the Fisheries Surveillance Regional Programme (Programme Régional de Surveillance des Pêches or PRSP), the Maritime Security Programme (MASE) and the Monitoring of Environment and Security in Africa programme (MESA).

Marine zones
- Marine park
- Seasonal fishing
- Community fishing
- Multi-use
- Pelagic
- Oil exclusion

Boundaries, names and designations shown do not imply official endorsements or acceptance

Sources: WCS - Gabon

Case study 3:
Gabon coastal and marine protected areas

In 2017 Gabon enacted a new marine protected area network of 9 marine parks and 11 aquatic reserves, covering over 55 000 km² and bringing 26 % of Gabon's Exclusive Economic Zone under protection, the highest proportion of any African country. This initiative is part of Gabon Bleu, a presidential marine security, conservation and fisheries management initiative to tackle the different threats to Gabon's marine and coastal biodiversity, and is the result of two decades of surveys and data collection by Gabon's protected areas authority and its technical NGO and research partners.

Illegal, unregulated and unreported (IUU) fishing seriously depletes fish stocks and results in unacceptable levels of by-catch of species such as marine turtles, coastal dolphins, humpback whales, sharks and rays (an estimated 30 000 accidental catches per season). Other threats to Gabon's coastal ecosystems are pollution from offshore oil and gas production, coastal infrastructure development impacting important habitats such as mangroves, and shipping collisions with whales. By curtailing IUU through improved surveillance and monitoring, and strengthening ecosystem protection though improved management of an expanded protected area network, the Gabon Bleu initiative contributes to both safeguarding the livelihoods of coastal communities that depend on marine resources, and detecting and deterring illegal fishing, piracy and other potential security threats.

The corruption that enables IUU to thrive feeds a spiral that undermines the rule of law and fosters other criminal activities in the region. There are numerous documented cases of fishing being used as a cover for transnational organised crimes, such piracy and trafficking of drugs, humans and wildlife, and this creates very real security risks for law enforcement personnel. Maritime security incidents in the Gulf of Guinea are on the rise, the majority of attacks being perpetrated by Nigerian criminals.
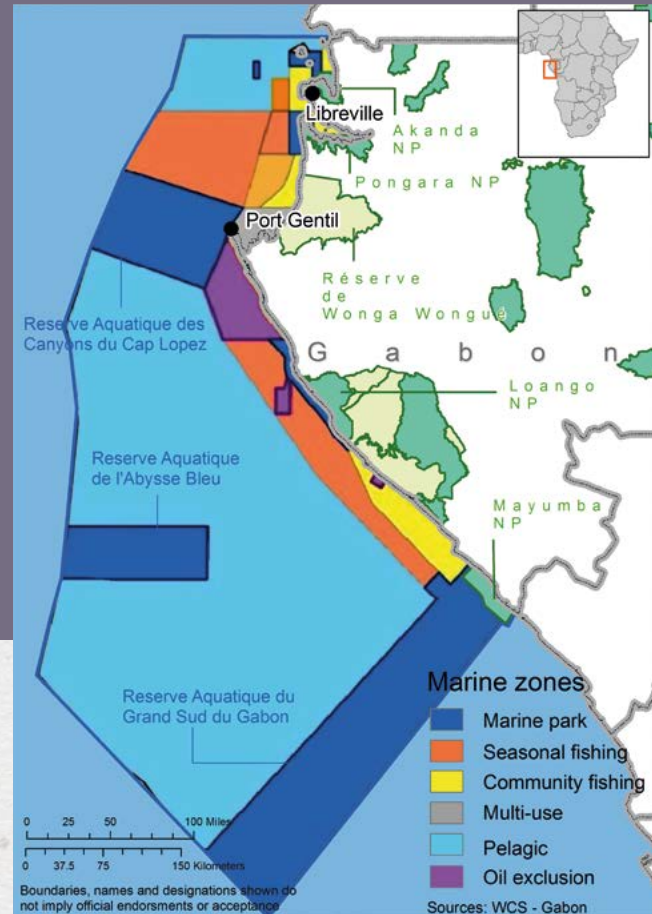
Threats to governance and security also come from the artisanal fishing sector. An estimated 1 500 open-deck artisanal fishing boats ('pirogues' up to 15 m. long) currently operate in Gabonese waters. Some are officially owned by Gabonese citizens but most are in fact owned by West Africans, facilitated by the complicity of government officials. In addition to unsustainable fishing these boats also engage in various illicit activities including human trafficking (mainly from Nigeria) and drug trafficking. Illegal immigrants brought to Gabon establish villages in the mangrove areas around Libreville and elsewhere, and engage in various lucrative legal and illegal activities. This fuels existing banditry and conflicts in the region.

Under the Gabon Bleu initiative Gabon has made significant progress in cleaning up the fishing sector and eliminating illegal vessels. Only 24 trawlers currently operate in Gabonese waters, all registered and licensed legally. Sanctions against illegally operating trawlers are increasingly successful, although the Chinese embassy in Gabon has successfully intervened on more than one occasion to prevent prosecution of Chinese vessels based in neighbouring Congo that were caught fishing illegally in Gabonese waters. Capacities for monitoring, control and surveillance of the MPA network have improved substantially and resulted in a significant decrease in illegal activities and improved protection of biodiversity. However considerable challenges remain and greater resources, particularly in terms of capacity building and specialised monitoring equipment, are needed.

Boundaries, names and designations shown do not imply official endorsments or acceptance
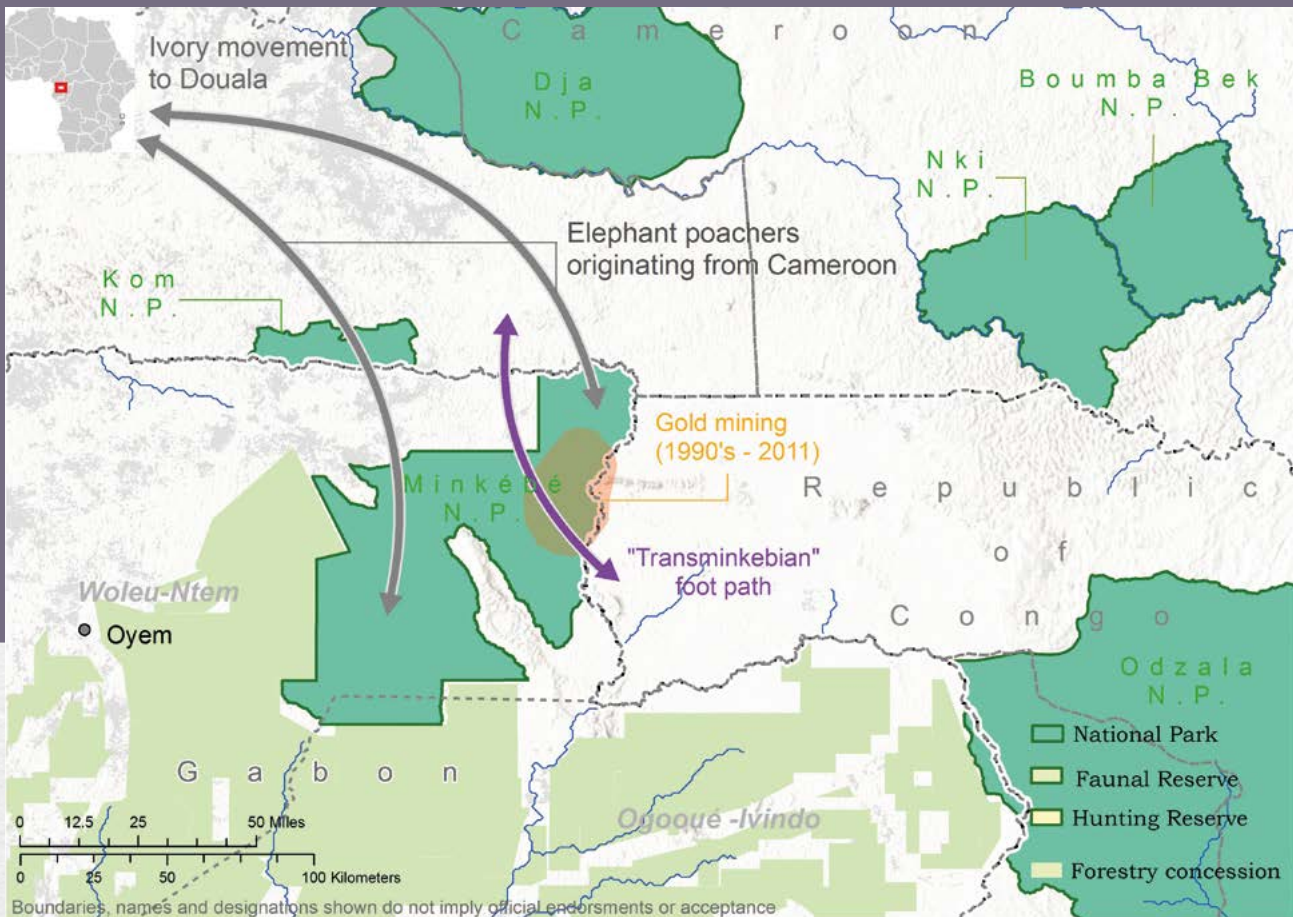
Case study 4: Minkébé National Park, Gabon

Located in the north-east corner of Gabon, on the border with Cameroon and Congo, Minkébé National Park, created in 2002, covers around 7 500 km² of largely intact dense tropical rainforest. Despite its remoteness, ivory hunters, organised and financed by criminal networks in Cameroon working in collusion with Gabonese poaching networks and officials, reduced the forest elephant population from an estimated 30 000 in 2004 to 5 000 a decade later. From 2000 to 2011 the park was also occupied by up to 5 000 gold miners, also mostly from Cameroon, exploiting a particularly rich vein of gold in the north of the park. They were evicted by the Gabonese army in 2011 but their presence for over a decade fuelled corruption: both Gabonese and Cameroonian officials were directly involved in 'taxing' the mining activity and the resulting impunity for operators created the conditions for other illicit activities such as trafficking, money-laundering and immigration.

Since 2010 the Gabonese parks authority, the Agence Nationale des Parcs Nationaux (ANPN), supported by a local NGO, Conservation Justice, has been successful in exposing and dismantling trafficking networks, leading to the arrest and imprisonment of over 200 traffickers including a governor and a vice-governor. ANPN guards, who are not armed, are increasingly faced with confronting well-armed poachers. They are therefore supported by a special armed force of rangers from the army and the police. However, cross-border cooperation between law enforcement, conservation and intelligence agencies in Gabon and Cameroon needs to be significantly improved.

Illegal forestry practices in the forest concessions surrounding Minkébé are also widespread and the involvement of forestry officials has been documented on numerous occasions. In addition to the massive loss of government revenues, mismanagement of forest concessions facilitates access of poachers to wildlife-rich areas, both in the concession and in the adjacent park. Local communities are also being deprived of the socio-economic benefits that should accrue to them from the logging activities. Most concessionaires completely ignore their contractual obligations with respect to the local communities. While the government has clearly stated its determination to improve governance and stamp out trafficking of wildlife, gold and timber, corruption remains systemic and undermines the rule of law, with undeniable security risks.
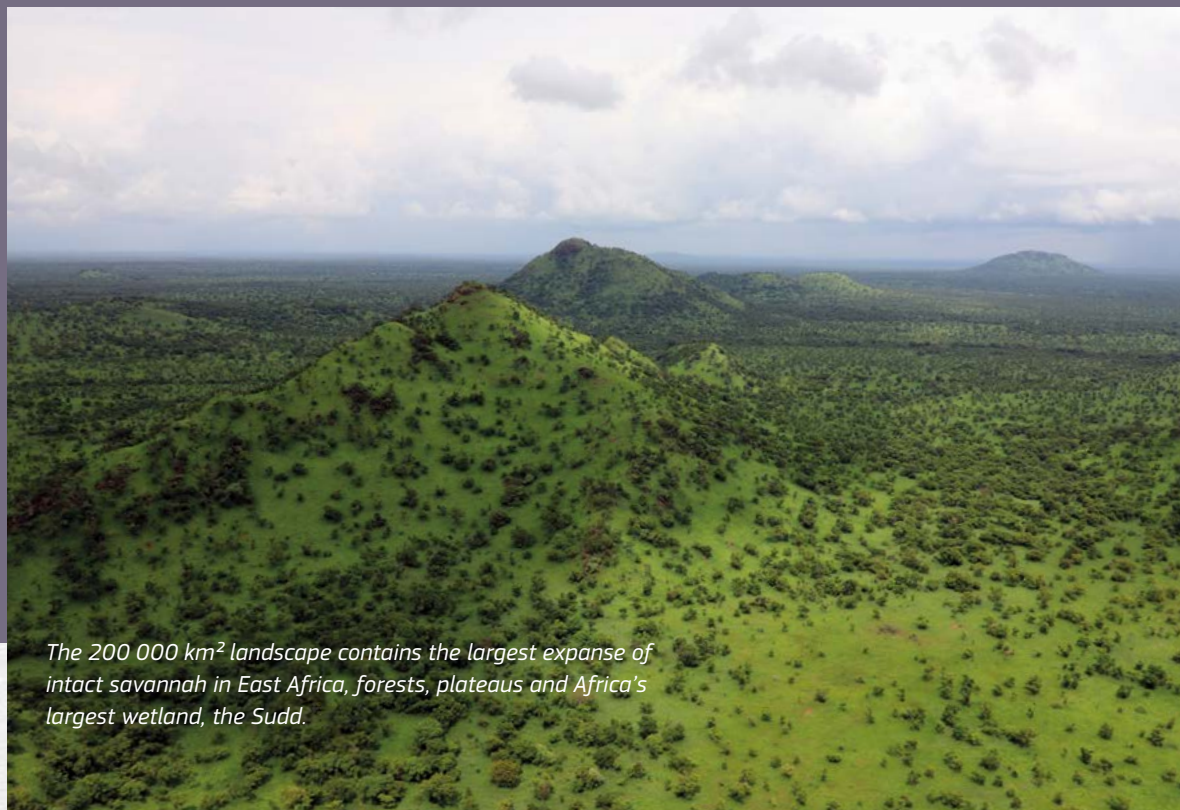
The 200 000 km² landscape contains the largest expanse of intact savannah in East Africa, forests, plateaus and Africa's largest wetland, the Sudd.

## Case study 5: Boma and Badingilo landscape, S.Sudan

With the largest expanse of intact savannah in East Africa and Africa's largest wetland, the Boma-Jonglei-Equatoria landscape in South Sudan is of tremendous importance for biodiversity conservation. The landscape comprises Boma, Badingilo and Shanbe national parks, Zeraf reserve and wildlife corridors linking the protected areas. It is home to elephant, giraffe and other key mammal species, some 400 bird species and the world's second largest land mammal migration (involving over 1.2 million white eared kob, Mongalla gazelle and tiang). It also supports the livelihoods of over 2 million people, through provision of pasture, timber and non-timber forest products, fisheries, hunting, water and watershed regulation, and farmland.

But decades of conflict have taken a toll on southern Sudan. Over 2 million people are estimated to have lost their lives in the 1983-2005 war, and many more were displaced. Conservation efforts in the then newly created Boma National Park and survey and conservation planning in the Jonglei area were abandoned in 1983, and restarted only after 2000 with the support of the new government of South Sudan. The war depleted many wildlife populations (particularly the more sedentary species such as buffalo, zebra and hartebeest) including the northern white rhino, which is now considered extinct. South Sudan gained full independence in July 2011. The country is richly endowed with land, minerals, forests, wildlife and water, and the government prioritised wildlife conservation and sustainable natural resource management as a key component of its development strategy.

However, conflict resumed in 2012 and has continued on and off ever since. Boma park staff were executed in 2013, and

protected areas continue to suffer from weak governance and high levels of corruption. Poaching and wildlife trafficking and other illicit natural resource exploitation, such as illegal logging, gold mining, and charcoal production and trafficking, continue to expand. Wildlife crime helps drive insecurity with armed rebel groups surviving in remote areas and living off wildlife (bush meat). Groups and individuals engaged in poaching are often also involved in other activities that create insecurity, such as banditry, robbery and child abduction. The violence and pillaging destabilises local communities and undermines development opportunities. Although many people have fled the landscape (to Ethiopia, Uganda or Kenya), there are also cases of people originally from the Boma area returning from other more insecure parts of the country due to the relatively safer situation around Boma Park.

Conservation of the Boma-Jonglei-Equatoria Landscape programme is managed jointly by USAID, the Wildlife Conservation Society and the South Sudan Wildlife Service. The programme operates where possible and develops approaches to help address the threats of armed conflict. It has learned a number of important lessons, including: the need to adopt a landscape approach to conservation and conflict mitigation with protected areas as hubs for security and governance; to build capacity in communities for sustainable management of natural resources; to develop enterprises to improve livelihoods; the importance of participatory land-use planning, zoning and resource management; and the need to strengthen transboundary initiatives with Ethiopia. If conserved, the rich biodiversity resources of the area are projected to contribute substantially to (future) sustainable development in the area and to South Sudan.
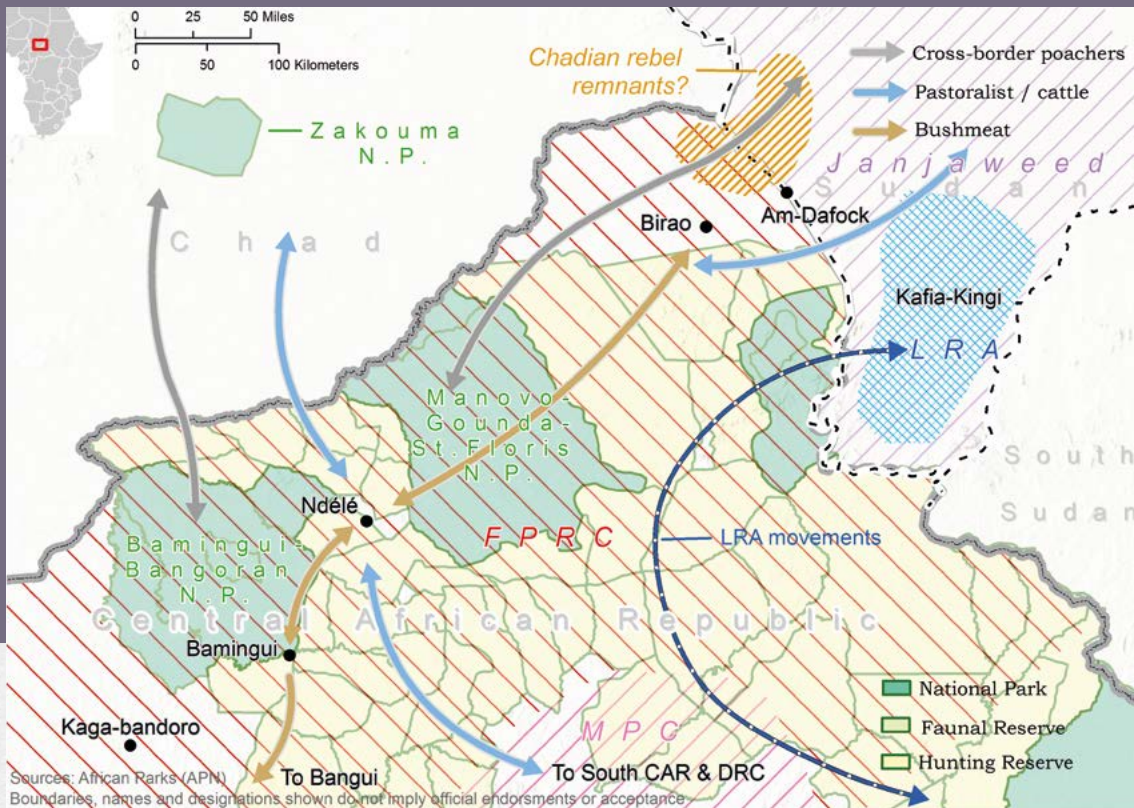
Case study 6: Bamingui-Bangoran & Manovo-Gounda St Floris NP landscape, CAR

In the north of the Central African Republic, human-wildlife dynamics have altered dramatically in recent decades, while power struggles and violent conflict have marked the region and its neighbours. The elephant population of Bamingui-Bangoran national park, where habitat includes wooded and open savannah, tropical forest and river courses, collapsed from around 60 000 in the 1960s to 4 800 in 1985, and 68 in 2010. Other key wildlife species – Lord Derby eland, roan antelope, bushbuck, waterbuck, buffalo and giraffe – also experienced sharp declines. The human population of the administrative district, meanwhile, has doubled since the late 1980s (though density remains below 1 inhabitant/km²), and cattle numbers have quadrupled. Key wildlife and security issues include excessive bushmeat hunting for consumption and sale; ivory poaching and trafficking; nomadic pastoralism with links to foreign poachers; and uncontrolled mining for diamonds and gold.

The area enjoyed a period of stability from the 1990s until early 2000s, when an EU-backed conservation project benefited from substantial funding. Jobs were generated and hunting zones around the protected areas brought welcome income to local communities. However, after the project was extended until 2005 there were repeated interruptions in programme funding and, with rangers never integrated into permanent bodies such as the Water and Forestry service, half of them joined successive rebellions. Reprisals and attacks between local groups and Sudanese pastoralists, which had backing from the Sudanese side, led to some local populations feeling abandoned by Bangui government, prompting a rebel movement led by the FPRC (Popular Front for the rebirth of CAR), which eventually seized power over the province.

The rebel presence has hampered both the resumption of conservation efforts and state-building and development. Rebels are involved in bushmeat poaching and trafficking, as well as the exploitation and trafficking of other natural resources, including diamonds, gold and bamboo. In addition, transhumance migrations from Chad and Sudan annually impact the area.

The fact that the most recent EU conservation project ECO-FAUNE (2012-2018) managed to survive against the odds is generally seen as positive, and has contributed to some sense of stability in Bamingui-Bangoran. All sides commonly view the project as a useful link between the Government in Bangui and the rebel-controlled area. Starting in 2012, the project focused on maintaining a presence and, from 2016, re-forming a ranger force that has gradually retaken possession of the park. It conducted surveillance and intelligence gathering, gradually increasing the area it protected and monitoring the wildlife populations. It also set up training programmes with local communities (construction, mechanics, welding, carpentry and sewing), restored public buildings and backed micro-projects to promote sustainable activities, such as the production of shea butter, moringa, domestic guinea fowl, dried beef and baked goods. Looking ahead, it aimed to improve the capacities of the ranger force; maintain equipment and infrastructures in hunting areas where possible; work with US and UN peacekeeping forces to tackle illegal exploitation of natural resources, and with rebels on the need to stop mining in protected areas; increase engagement with pastoralist communities to demarcate permissible grazing areas and routes in order to reduce conflict between farmers and nomads.
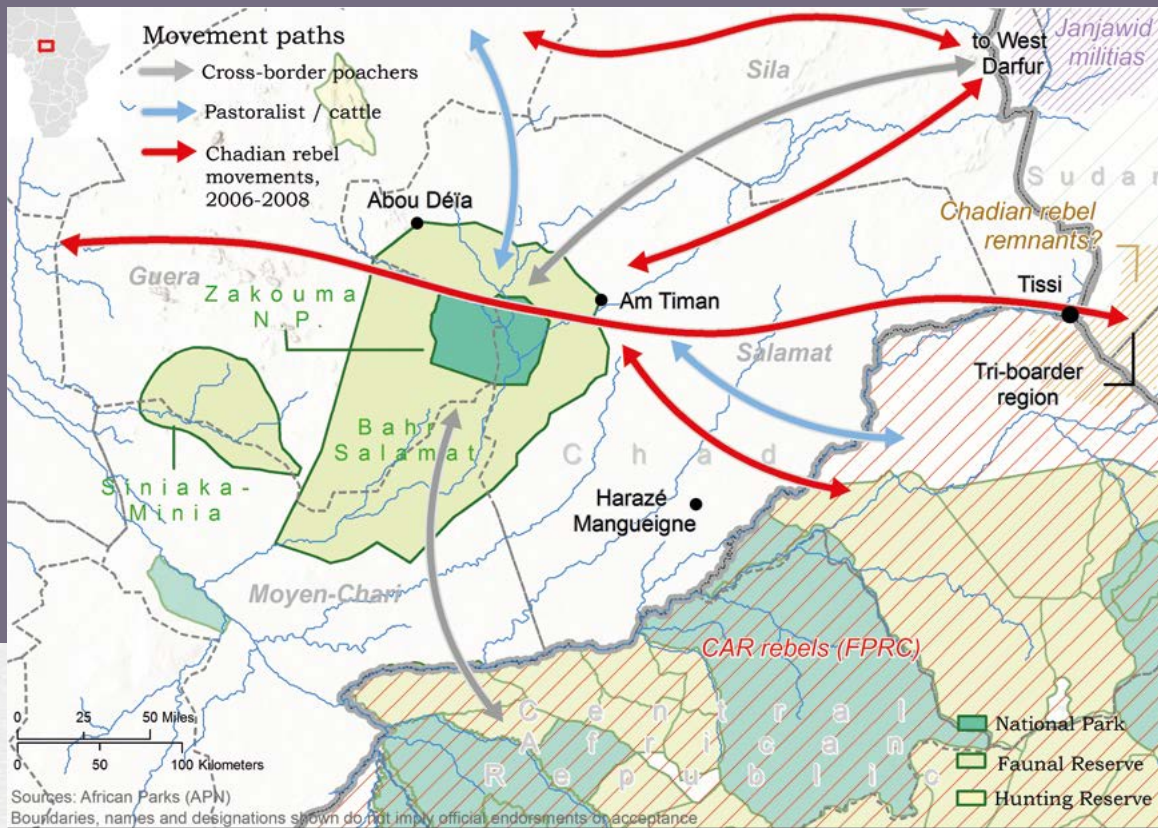
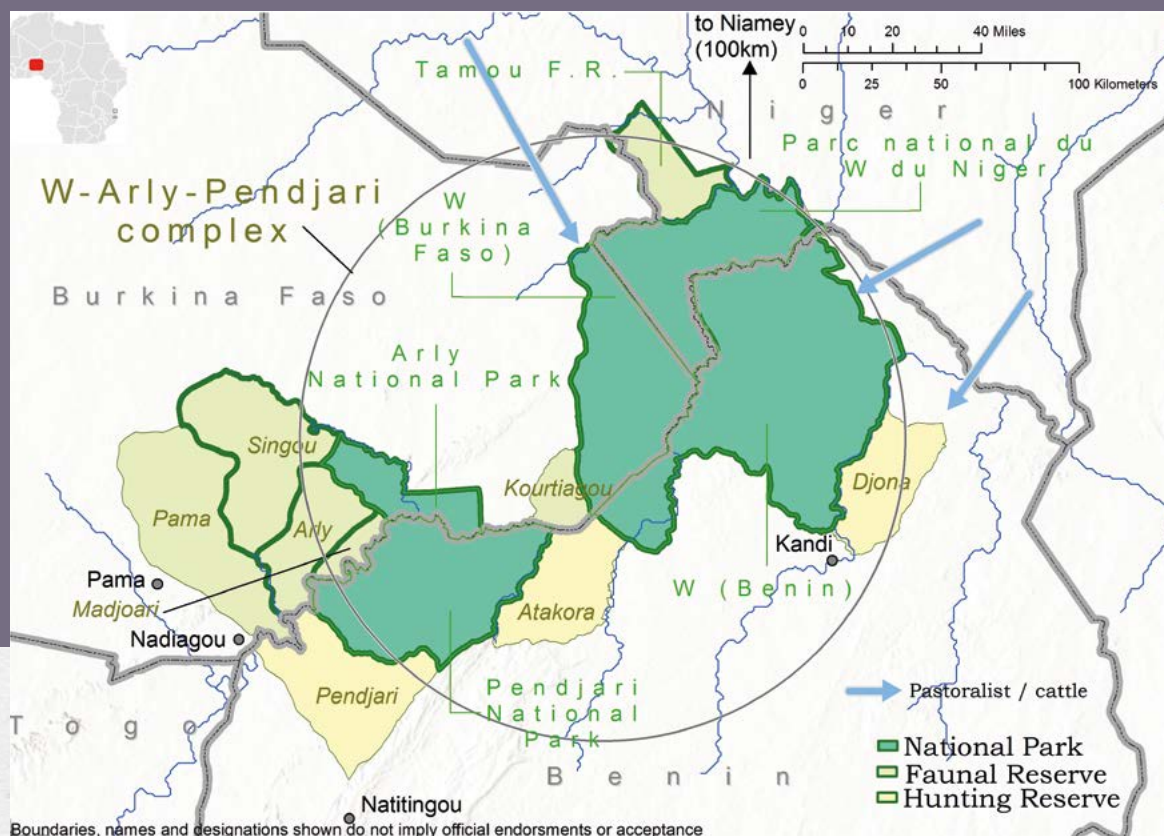## **Case study 7:** Zakouma National Park landscape, Chad

Zakouma in southern Chad used to be an example of how armed conflict fuels wildlife trafficking and hampers conservation. Now, it is steadily showing the results of effective conservation management and stability. The area consists of Zakouma national park (3 054 km²), created in 1963, and its extended periphery (25 514 km²). Rebel groups took control of the area in the 1960s and 1970s, and the park was all but abandoned until an aerial survey in 1986 found that it was still viable. Conservation efforts resumed in 1987 and the EU began funding in 1989, through successive projects.

Key species in the largely savannah landscape include elephant, buffalo, giraffe, tiang, lion, cheetah and wild dog. Elephant populations are slowly recovering following a decade of slaughter (reducing 4 350 animals in 2002 to 450 in 2010-14), which included the Chad-Sudan proxy war. Poachers also killed 20 Zakouma staff between 1998 and 2012. Since 2010, African Parks Network (APN) has managed the park in a public-private-partnership agreement with the Chadian Government, mainly with EU funding. Ongoing wildlife-related security issues include ivory and bushmeat poaching, illegal fishing, habitat destruction, nomadic pastoralism, and pastoralist migrations occurring earlier in the year than before, due to climate change. Stability at regional, national and local levels remains fragile, with conflicts on the Chad-Sudan-CAR tri-border region. Boko Haram has increased attacks and recruitment in the country.

Historically, remote wildlife-rich areas such as Zakouma attracted rebellions because they were good places to hide and escape government control, while the proximity of borders allowed for the acquisition of supplies from abroad and provided escape routes in case of danger. Rebels could sustain them-selves by poaching ivory and bushmeat, while marginalised populations often have grievances against the state. Conservation managers in Zakouma had been seen as on the side of the government, a legacy from when the park was created in the early 1960s and violence was used against the population. The local perception of the park was thus quite negative. Communities benefited little from conservation efforts, and gained more from ivory and bush-meat poaching. Nomadic pastoralists describe how they used to be prevented from crossing into the park and accessing grazing areas and water points.

Now, however, in a context where ivory has become scarce, efforts by APN and the Government of Chad to involve communities in conservation have increased and the situation has shifted towards improved relations. One of APN's main assets, when it took over the project, was its ability to secure long-term funding. It re-asserted the need to correct negative experiences and perceptions by local communities, and appears to have had success through steps to establish the park as a hub of governance. Permanent and seasonal schools now cater to both sedentary and nomadic communities. Better training of leadership and staff has improved the professionalism of law enforcement and anti-poaching measures. Intelligence gathering has been enhanced by community participation in an early-warning radio system, with radios in 18 villages. And a land-use planning programme drafted with the participation of local communities preserves wildlife migration corridors (which nomadic pastoralists are allowed to use during the dry season) and limits the encroachment of farms and villages on those corridors. Experience suggests that Zakouma can play a positive role in promoting co-existence between the park and the communities, and possibly even between communities themselves.

W-Arly-Pendjari complex

Boundaries, names and designations shown do not imply official endorsements or acceptance

Case study 8: WAP landscape, Burkina Faso–Benin–Niger

The WAP complex is a transboundary area of 35 000 km^2 on the border area between Burkina Faso, Benin and Niger. It includes 5 national parks – Arly National Park in Burkina Faso, Pendjari National Park in Benin and national shares of the W park in each country – and 16 hunting areas. The landscape is home to nearly 9 000 elephants - more than 75 % of the savannah elephant population of West Africa - as well as lion, cheetah, leopard, buffalo, hippo, 10 species of antelope and 460 bird species.

In Burkina Faso, until 2016, the most serious threat had been road bandits who were also involved in poaching and ivory traf-ficking. Efforts by the Government and local traditional *Kolg-wéogos* police had managed to effectively eliminate these. The situation changed in 2018 with a series of attacks by armed groups from the north of Burkina Faso and Mali. Arly park and its periphery have since become a refuge for groups described as terrorists and jihadists, but including bandits and traffickers of various contraband, especially gold. Park rangers as well as those who run hunting concessions around the park's periphery have had to leave the zone. A number of rangers, trackers and informers have been killed and villages have been targeted. In early 2019, military missions installed a dozen bases but with-out regaining control of the park. The Burkina part of W Park is also threatened by armed groups but to a lesser extent than Arly, and ranger patrols have been maintained.

Park W Benin and W Niger have seen skirmishes between armed Nigerian poachers and the soldiers, park rangers and armed police that provide security and protection in the parks, but authorities in both countries put sufficient means in place to deter and effectively fight the poachers, some of whom received lengthy jail sentences. A more persistent threat is that of trans-humance pastoralism. Official transhumance corridors cross or run through the parks of the WAP area and are often not respected. However, pastoralists crossing the WAP are generally not armed. A growing need for land for agricultural production is also increasing pressure on local people to seek cultivation areas in the WAP. Buffer zones, if they exist, are often in poor condition and not at all or poorly monitored.

In terms of management approaches for better security, border control is an important factor, as cross-border poachers appear to be the most dangerous, especially from Nigeria. Positive results in terms of wildlife population growth in some areas, particularly around Arly National Park, where hunting areas had generally recorded the higher densities of large wildlife through-out the WAP, are being undermined by heightened insecurity. In early 2019, the W, Arly and almost all of Burkina Faso were classified as a red zone. This has inevitably had an impact on Benin, and in particular on Pendjari Park, which experienced a serious incident in May 2019 (the death of 2 French soldiers). Following this episode, the Government of Benin, which had formed a partnership with APN in 2017 for the management of Pendjari, responded by assigning 100 soldiers to the park, to add to the 100 rangers employed by African Parks. A similar dynamic would be desirable in Burkina Faso and Niger.

Frank and operational collaboration between the three states seems a prerequisite for bringing sufficient security back into the WAP complex to develop conservation activities.
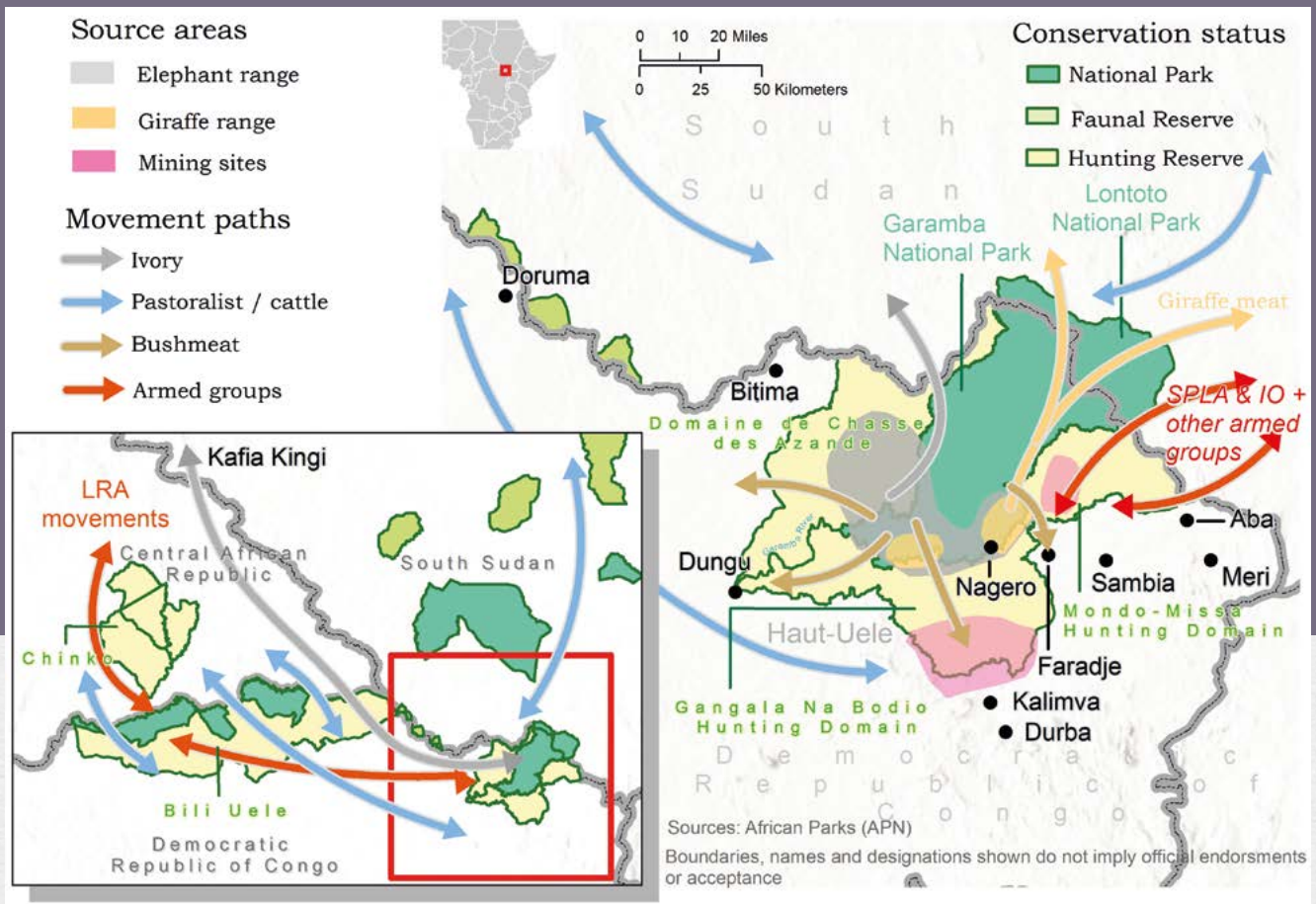
Case study 9:
Virunga National Park, DRC

Located in the highly populated fertile highlands of eastern DRC, this World Heritage site, Africa's oldest park, harbours an extraordinary diversity of biomes including moist and dry forests, savannahs, wetlands, snow-capped mountains and active volcanoes. Virunga's mountain gorilla population has increased steadily over the past 30 years thanks to good protection of the small gorilla sector (<5% of the park) and revenues from gorilla viewing, but elsewhere in the park wildlife has suffered from heavy poaching with declines of over 90 % for most mammal species. However the park is contiguous with protected areas in neighbouring Uganda and Rwanda and these serve as critically important refuge areas for wildlife when poaching pressure is high in Virunga.

The turmoil of the 1990s in eastern DRC brought lasting insecurity to the region. The Rwandan genocide in 1994 led to an influx of almost 1 million Rwandan refugees and was followed by the Congo Wars (1996-1997 and 1998-2003), the Kivu conflict (2004-2013) and ongoing insurgencies. An estimated 3 000 fighters, belonging to various armed rebel and 'self-defence' groups, currently live in or immediately around Virunga, and most have been accused of atrocities against the civilian population. Militias have killed some 160 park rangers since 1996. They are involved in a variety of rent-seeking activities including illegal exploitation of the park's resources (charcoal, timber, wildlife, fishing), roadside banditry and kidnappings. The persistent insecurity has impacted the well-being of local populations, exacerbated inter-community tensions and greatly weakened state institutions. Poverty, population pressure, corruption and the breakdown in law has resulted in encroachments affecting 25 % of the park, and armed groups run protection rackets to allow them to continue their illegal activities. There are also continuing attempts by international oil companies to obtain exploitation rights for oil within the park.
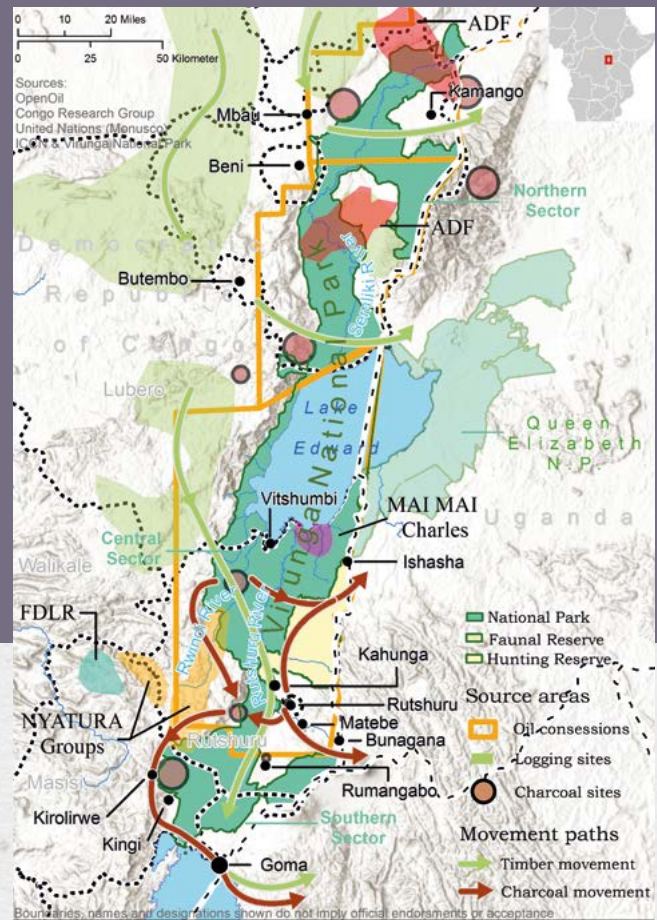
The park is managed under a public-private-partnership agreement between ICCN and the Virunga Foundation. Law enforcement is conducted by a force of 600 well-trained and equipped guards, which collaborates, when necessary, with the national army (FARDC) to share intelligence, organise protected convoys crossing the park, and conduct joint patrols in security hotspots. Through the Virunga Alliance, the park contributes to peace and prosperity, focusing on four areas: energy, tourism, agro-industry and sustainable fisheries. An estimated 105 MW of hydropower around the park is being harnessed to stimulate small and medium-sized enterprises, create an estimated 100 000 jobs and reduce the recruitment base of armed groups.

While the conflicts in the region do not stem from exploitation of natural resources, including wildlife, they have clearly hampered conservation, fuelled illegal natural resource use and allowed armed groups to maintain a climate of insecurity. Human socio-economic and physical security has been profoundly affected as a consequence. While the movements of the estimated 1 million internally displaced people in the region are not directly linked to wildlife crime, they are nevertheless caused by the activities of armed groups, most of whom are involved in illegal exploitation of natural resources.

Source: African Parks (APN)
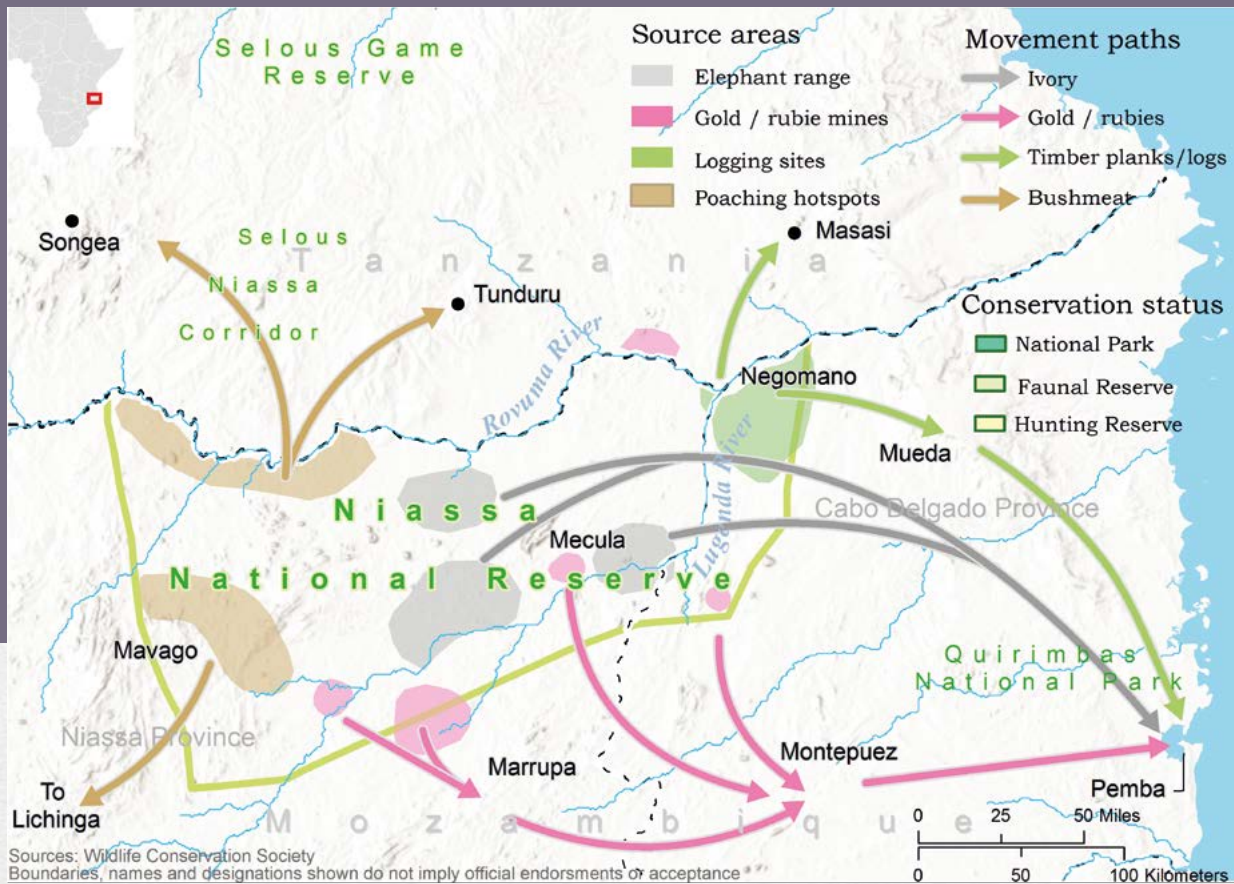Boundaries, names and designations shown do not imply official endorsements or acceptance

Case study 10: Garamba National Park, DRC

Located in the north east of DRC on the border with South Sudan, the park and its contiguous hunting domains cover 14 800 km² of grasslands and woodlands. Garamba's natural wealth has historically attracted heavily armed poachers in search of high-value rhino horn, elephant ivory and giraffe tails, as well as other species for bushmeat. Many of the poachers are affiliated with rebel groups such as the Sudan People's Liberation Army (SPLA), the Sudan People's Liberation Movement (SPLM) and its various splinter groups, or terror groups such as the Lord's Resistance Army (LRA). However, armed poaching gangs from north Sudan (Darfur), South Sudan and DRC have also been involved. DRC's national army FARDC has been heavily implicated in poaching and racketeering.

The successive Congo wars, together with decades of armed conflict in South Sudan, the recent conflict in CAR and the presence of the LRA have all provoked large movements of refugees (both internally and cross-border) at various times and the resulting governance vacuum in this tri-border region has allowed the different armed actors to operate with virtual impunity in large areas of the park. Illegal and unregulated gold mining has also increased recently. Transhumant pastoralists from neighbouring countries are a new regional security issue as they extend their historic movements in response to conflict, climate change and the opportunities offered by the governance vacuum in northern DRC. As a result of this prolonged and complex period of regional turmoil, the park's wildlife populations have suffered serious declines. Elephant numbers declined from 22 000 in the early 1970s to an estimated 1 200 individuals today, and the park's most emblematic species, the northern white rhino, was exterminated sometime between 2006 and 2008.

Since 2005 the park has been managed by African Parks under a public-private-partnership agreement with ICCN, DRC's protected area authority. However historic and ongoing threats to security means that for many years it was not possible to conduct effective surveillance activities in the northern part of the park and in most of the area within the hunting domains. The LRA threat has declined recently as a result of international inter-agency efforts to destroy it and although pockets of terrorists remain, park management has been able to expand the area under its control. In so doing it has contributed to improving the security and wellbeing for at least some of the local communities, as evidenced by the recent return of people to the area around the park HQ at Nagero. Since 2015 park management has also successfully collaborated with the FARDC on joint patrols in security hotspots and this has helped repair some of the mistrust of authority after years of misconduct by the army. It also enables the park to project itself as a micro-hub of good governance and security, a key first step in the park's strategy to engage with local communities for conservation. By re-establishing security for local communities and implementing a community-based conservation and development strategy the park believes that it can develop more sustainable natural resource use practices in the hunting domains and enable them to act as real buffers to the park. However, the park's development activities are still at a very early stage given the insecurity and governance vacuum that has blighted the area for so long.

Sources: Wildlife Conservation Society
Boundaries, names and designations shown do not imply official endorsements or acceptance

Case study 11: Niassa landscape, Mozambique

Niassa National Reserve (NNR) in northern Mozambique is an iconic wilderness area. Together with the Selous Game Reserve in Tanzania and a wildlife corridor between the two, it forms part of a trans-frontier conservation area of some 150 000 km². The region's miombo woodlands are important for carbon sequestration and provide critical habitat for many of Africa's wide-ranging species and threatened mega-fauna: savannah elephant, Cape buffalo, impala, sable antelope, greater kudu and hartebeest. The reserve is particularly important for the protection of the Niassa wildebeest, Crawshays zebra, Roosevelt sable, African wild dog, leopard and lion. Since 2012, the Wildlife Conservation Society has co-managed the reserve with the national administration for conservation areas (ANAC).

Niassa's wildlife and other natural resources are increasingly threatened by external criminals abusing weak governance in the region. Ivory poaching has increased significantly since 2010. Elephant populations fell from 20 364 in 2009 to an estimated 3 675 in 2016. Organised crime has professionalised in recent years, and corruption is significant. Poachers have turned to poisoning lions to feed demands for their body-parts in Asia. There is considerable illegal logging of precious timber species, and evidence to suggest a link between those involved in timber and ivory trafficking. Bushmeat poaching is on the rise, and is exacerbated by illegal mining, illegal logging and excessive fishing. Poachers can easily source AK-47s, and their illicit collusion with police and army officials fuels insecurity. Confrontations between heavily armed poachers and under-armed scouts are not uncommon. Miners have responded violently to actions against their illegal camps, which are also a haven for other illegal activities.

Some 45 000 people live within the reserve boundaries in three large towns and numerous smaller towns and villages. These communities see wildlife as a threat (crop raiding) and some benefit from wildlife crime financially. In addition, mining camps that harbour contraband smugglers and are associated with drug crimes and prostitution are likely to attract youth and other vulnerable members of local communities. They have already attracted migrants from Tanzania, Malawi, Somalia and beyond, and precious-stone buyers from Myanmar and Thailand started arriving around 2011.

Mozambique has a benefit-sharing mechanism for conservation areas that requires 16 % of the concession and entrance fees to go directly to local communities. However, funds take a long time to reach communities and are not sufficient to improve livelihoods. The NNR's new management plan (2017-2027), is the first to explicitly acknowledge local community members as key stakeholders and partners in the NNR's future, and to zone sections of the reserve explicitly for community use and development.

In order to enhance the overall consistency and effectiveness of successful approaches, they need to be expanded to key areas across the landscape and surrounding areas in northern Mozambique. Co-management is deemed a best practice that should be continued.

Since 2018, significantly strengthened anti-poaching efforts, including the use of a helicopter in the wet season, have reduced poaching by 87 %.

A herd of elephant in Garamba National Park, Democratic Republic of Congo. The park has been used as a remote base by different armed groups, and a number of park rangers have been killed in gunfights with poachers.

Concluding remarks

The complexities of the subject and the links between wildlife trafficking and conflict, insecurity, the impact on socio-economic security, the rule of law and migration examined here demonstrate the necessity to expand and increase investments in conservation-security-development programmes in priority protected area landscapes of sub-Saharan Africa in order to achieve sustained global, regional and local security and stabilisation objectives.

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