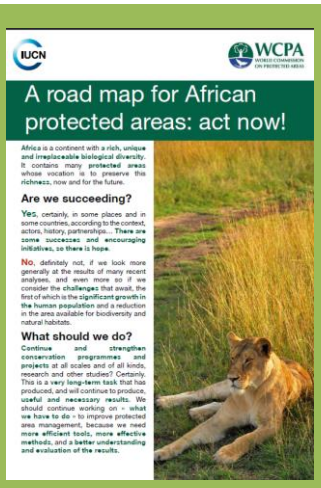


NAPA

News from African Protected Areas

Nouvelles des Aires Protégées en Afrique

N°109
June 2017

Edito

Geoffroy MAUVAIS
PAPACO coordinator

Abundance

Quod abundat non vitiat: plenty is no plague. Having more than needed is better than being short of resources. This common-sense wisdom is probably true most of the time, but does it apply when speaking of conservation? The question deserves to be asked.

In Africa, the number of organizations related to nature, the environment, wildlife – in short, to conservation - is intriguing. Surprisingly low, considering all there is to do, yet surprisingly high when gauged against what is actually done.

At the local level, conservation NGOs are as numerous as the causes they serve. This situation is rather healthy, because they help draw attention to situations that would otherwise remain forgotten. While their legitimacy is rarely questionable, their durability is more uncertain. Whether the cause meets a happy end or not, they tend to survive and progressively evolve into organizations whose primary goal is to remain. Sometimes for the best, embracing new causes and evolving with them, sometimes for the worst - abandoning the product to keep only the packaging. They should be start-ups created to fill a need, and die if this need disappears. Yet, with the help of external interventions, many of them linger on well after they have become useless.

At the higher level, it's worse. The big conservation NGOs, the BINGOs, do not have the legitimacy of the field, and therefore rely on the "theme" for legitimacy. Some deal with a particular species, an ecosystem, a country, a region... Others defend a category of actors, a conceptual approach, a principle... Others yet are built on on an emblematic name, a family, a fortune... As they multiply, they also overlap, crowd each other out and even oppose. In a single park there will be an organization working on carnivores, one defending ungulates, another that protects elephants, one that prevents the conflicts they generate, one working to "sanctuarize" the lake when another promotes sustainable fishing, a foundation that helps the state when the other wants to replace it by the private sector, one that gives voice to the communities and another one who only talks to supra-state institutions...

What's the matter, you say? Well, considering that each has its structural costs, the accumulation of these costs happens to the detriment of our objectives. Each NGO, in its own time, will have to ensure its survival and this will be done by puncturing the means otherwise devolved to action. In this concert of discording voices, the park manager, and his partners no longer understand which direction to take. And end up jumping on the train of the highest bidder, changing wagons at every new opportunity, constantly rewriting their strategy out of understandable opportunism.

What can be done? Who can do it? I do not know. But it is necessary to clarify the role, the place, the value of each stakeholder and to get rid of those - superfluous or illegitimate- who divert the otherwise indispensable means. In Africa, it is probably necessary to reinforce the contribution of organizations that are born on the ground and to limit the top-down approach of those whose agendas, philosophy or costs are sometimes

contradictory to local realities or needs. But will we have the courage to do so?

Papaco is also on:

Twitter = @Papaco_IUCN
(https://twitter.com/Papaco_IUCN)

And on:

Facebook = facebook /IUCNpapaco
(https://www.facebook.com/IUCNpapaco)

Please also visit the IUCN-GPAP (IUCN global PA program) webpage and read the newsletter:
https://www.iucn.org/theme/protected-areas/our-work/newsletter

OUR ONLINE TRAININGS

Join the MOOC on PA management!

Direction 4 of the Roadmap for African PAs

A session of our **MOOC** (massive open online course) on **Protected Areas management** is online **until end of June**. The course is **free** and is organized in **7 modules.** Successful learners get a **Certificate** at the end of the course. It's not too late to join us!

Register on:
http://papaco.org/enroll-to-the-mooc-gap/

Watch the teaser:
https://www.youtube.com/watch?v=10SQ2DRGWoQ

Join the MOOC on Ecological monitoring!

Direction 4 of the Roadmap for African PAs

A new session of our **new MOOC** on **Ecological Monitoring** has started on the **2nd of May 2017**. The course is **free** and is organized in **4 modules** that can be followed at your own pace. Registrations are still open.

Register on:
http://papaco.org/how-to-join-the-em-mooc/

Watch the teaser:
https://www.youtube.com/watch?v=TbXrSO5_Ktg&feature=youtu.be

Both sessions of the MOOCs will be open until end of June 2017

In May, we have reached 10,000 learners who enrolled to our MOOCs!

MOOC – Ecological Monitoring: testimonial from our valedictorian (session February-April 2017)

My name is Serge MEDJO ETOUNKO. I was born on the 7th October 1990 in Avebe-Esse, a village in Southern Cameroon. In 2015, I graduated as an engineer in Fishery Sciences, at the University of Douala, in Yabassi. I have always had a passion for nature and especially for the sustainable management of its resources.

The MOOCs help me develop and expand my field of expertise. The course on Ecological Monitoring allowed me to understand several

concepts related to protected areas' management in general and to marine protected areas in particular. I have studied the course in detail through the documentation provided and the personal research I have done and I am pleased to know that my dedication has paid off (*Serge graduated with the highest score: 92/100*).

Looking for new opportunities, I currently work as a volunteer in environment and sustainable development NGOs. I have several volunteering experiences too in the management of live resources and wetlands, the field I would like to work in, and I am open to opportunities allowing me to expand my area of expertise.

If you have any interesting opportunities for Serge do not hesitate to contact him by e-mail: sergemedjo007@yahoo.fr

Find mor information about both our **MOOCs (PA management and ecological monitoring) on www.papaco.org,** at the page « trainings »

Also, join our **Group MOOCs** on **Facebook**: **https://www.facebook.com/groups/208309996241190/**

And like our papaco **Facebook page** **https://www.facebook.com/IUCNpapaco**

Our MOOCs are developed in cooperation with the Ecole Polytechnique Fédérale de Lausanne

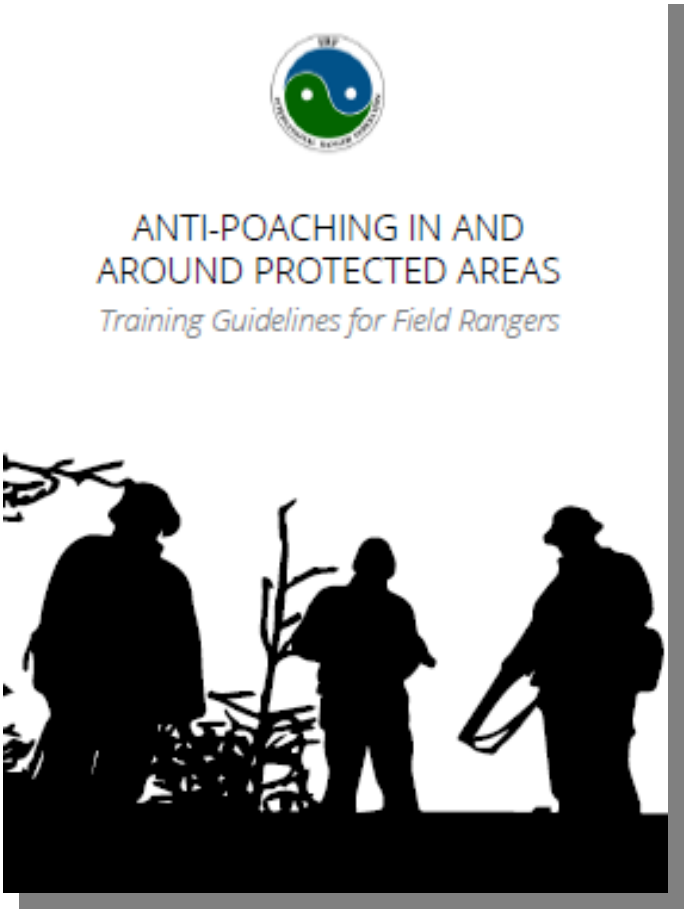
Anti-poaching in and around protected areas: training guidelines for field rangers

By Lotter, W.D., Roberts, K., Singh, R., Clark, K., Barlow, C., de Kock, R., Steiner, K., Mander, D., Khadka, M. et Guerrero, J. (2016).

The Papaco has recently coordinated the translation of the guidelines on anti-poaching for field rangers, in and around protected areas. The full book is online on www.papaco.org. This NAPA presents a few extracts of the guide, focusing on the introduction and two illustrative examples: values and ethics, and collaboration of communities.

Introduction

These guidelines for anti-poaching training for field rangers have been compiled in a consultative manner with subject-matter experts, and provide a benchmark standard of basic best practice for anti-poaching field ranger trainers and training institutions. This document provides a standard for training field rangers or their functional equivalents, as the case may be (for example, environmental military police in parts of South America), that covers the basics of operations and the tactics required for them to successfully carry out anti-poaching operations in the field. The standard will ensure that anti-poaching training manuals may adequately introduce the concepts and specifics of law enforcement, tracking, teamwork, conservation, first-aid and court procedures to the field ranger. Field ranger basic training is the most important part of the development of field rangers. It prepares them for the actual circumstances that they will encounter during the day-to-day tasks to be performed once employed as field rangers.



This document also provides guidelines on how to ensure that the suite of skills introduced and covered will allow for the maximum safety of field rangers during anti-poaching operations. The document is mostly applicable to large parts of Africa and Asia based on current circumstances, but it is also applicable to parts of other continents such South America and elsewhere wherever the illegal wildlife trade and levels of poaching are serious.

The scope of this publication includes: an overview on anti-poaching training for field rangers and increasing their job effectiveness; a brief section on how to use the document; pre-training preparation (with guidelines on the various essential steps such as identifying training needs, pre-selection,

selection and logistics); and overviews, core competencies required and assessment criteria for each module that anti-poaching field rangers need in order to be trained. The specific training modules include the policy, principles and philosophy, which encompass topics ranging from values and ethics to conservation, human rights, use of force, and community collaboration. Modules on protecting and maintaining area security cover the criteria required for adequately training and assessing mental and physical fitness, first aid, field craft and legal issues and practices. Operational enforcement skills covers a wide range of essential modules such as patrols, night operations and wildlife crime information gathering, as well as some electives, for example waterborne operations, which are not applicable to all trainees and their job situations. Monitoring and record-keeping requirements are also specified and, finally, post-training activities such as evaluations and reviews of the training as well as annual reviews of operations and of potential training needs, are also included in the scope of the document.

Example 1: values and ethics

Overview

Values are those ideas and concepts within each of us that we deem important. They help us decide right from wrong, and help define who we are and what we stand for. They originate from our families, traditions, religion, elders and friends. They are formed early in life, and reinforced by our life experiences. It is important to develop a set of personal values but it is even more important to understand that values can change throughout your life. Understanding one's own values should keep oneself open to understanding and respecting the values of others. Understanding and being open and accepting of the values of others discourages conflicts based on misunderstanding.

Ethics are defined as the 'standards of conduct and moral requirements' necessary to function within an organization or profession. The protection of biodiversity is a unique responsibility within an organized society. Few other groups of people within society have a mission as specific as a ranger, which requires them to protect and defend wilderness areas at ground level. Because rangers are entrusted with this important and fundamental authority, this lawful duty must be exercised with restraint and within high ethical standards.

Core Competencies to acquire

• What values and ethics are;
• The factors that shape an individual's values;
• The difference between individual and organizational values;
• How ethics affect the way rangers do and should behave;
• What corruption and abuse of authority are;
• The differences between professional, personal and work ethics;
• Various examples of appropriate work ethics;
• The importance of impartiality and integrity; and
• How values affect decision making.

Assessment Criteria

• Explain what values and ethics are;
• List four factors which shape an individual's values;
• List four characteristics which would be deemed universally as being good values;
• Explain the difference between individual and organizational values;
• Give an example of corruption or abuse of power;
• Discuss the difference between professional, personal and work ethics;
• Participate actively in group discussion about examples of appropriate work ethics; and
• Explain how values affect decision making and what we regard as right and wrong.

Box 1 Key Conservation Principles

Theories and tenets in the field of conservation biology that pertain to anti-poaching rangers include:

• Species are interdependent: if one species becomes reduced or extinct, this can negatively affect other species that interacted with it, often in ways that that are difficult to foresee.
• Extinctions of keystone species can have long-range consequences: the extinction of one species will lead to the extinction of other species.
• Ecological complexity is good: habitat diversity and ecological processes influence and have high value to all species.
• Biotic diversity has intrinsic value: species have value in themselves, whether or not they provide economic benefit to humans.

Example 2: community collaboration

Overview

A good relationship with local communities is a critically important part of protected area management and wildlife protection. Knowing how to interact with local communities to produce and maintain a positive relationship and an environment conducive to conservation and to reduce poaching is a very important skill. Although the strategy and programme for community outreach is designed and managed at different and higher levels of protected area management, this module covers approaches for anti-poaching field rangers to take part in helping to prevent poaching before it happens through effective collaboration. It also covers how the anti-poaching ranger can contribute to resolving poaching violations after they have occurred, through minimizing potential conflict with local communities and maximizing the role they can play in resolving poaching cases.

Core Competencies to acquire

• The perspectives and motivating factors of neighboring communities in relation to how wildlife and protected areas are perceived by and affect them;
• The importance of good community relations and how they may greatly influence anti-poaching, negatively if neglected and positively if appropriately practiced;
• To identify influential people in communities (village heads, elders, government officials, other respected individuals) who can help reduce poaching;
• To liaise and collaborate with community members to prevent poaching before it happens;
• To negotiate with community members and achieve their collaboration with resolving poaching violations after they have occurred; and
• The role of informants and principles of working with them effectively.

Assessment Criteria

• Explain the importance of good community relations and give examples of how they can be applied to influence improved anti-poaching, and of how they could have a negative impact and worsen the poaching problem if neglected;
• Describe an example of how to collaborate with community members to prevent poaching before it happens;
• Explain how to negotiate with community members and achieve their collaboration to resolve poaching violations after they have occurred; and
• Briefly outline the role of informants and the principles of working with them.

Box 2 Community collaboration facilitates more poacher arrests than patrols

The Ruvuma Elephant Project (REP) includes the Selous-Niassa Wildlife Corridor, five community managed Wildlife Management Areas, five Forest Reserves and a Game Reserve. The REP area is approximately 2,500,000 ha in total extent. It forms an important ecological corridor and is dominated by miombo woodland, interrupted by wetlands, open woodland and riparian forest. This area supports typical miombo species, including substantial numbers of elephant (*Loxodonta africana*), buffalo (*Syncerus caffer*), sable (*Hippotragus niger*) and wild dog (*Lycaon pictus*).

Using DNA fingerprinting of ivory seizures in Hong Kong and Taiwan, Wasser, et al. (2009) provided strong evidence that much of the ivory was poached from a relatively small area on the border of Tanzania and Mozambique that included the

Selous and Niassa protected areas. This was similarly a hotspot during the previous international ivory poaching crisis in the 1980s.

The aerial census of the Selous Game Reserve (World Heritage Site) ecosystem, which was conducted in late 2013, estimated the elephant population at 13,084. This represents a dramatic decline from 2006 when the population was estimated to be at 70,406, and a major decline from the estimated 2009 census population of 38,975 (TAWIRI, 2014).

Roe, et al. (2014) noted that law enforcement strategies tend to overlook how involving local people in conservation, for example as community game guards, can boost more formal law enforcement approaches. Their paper further stated that, 'Ultimately, the illegal wildlife trade will be best controlled not by guns and rangers but by solutions that respect and make partners of local communities and landowners, through providing sound incentives and opportunities to value and conserve wildlife'.

At the protected area level, participation by neighboring communities in poaching is one of the key issues to be addressed to achieve effective wildlife protection. It is extremely difficult for commercial poachers to be successful without community participation in various forms, filling the roles of guides, porters, informers, etc. Local community participation in commercial poaching is the manifestation of a problem that is caused primarily by: the need for cash; lack of viable alternatives; lack of understanding of the importance and value of conservation (and living wildlife); and lack of good relationships between community members and protected area authorities. The REP realized that these causes all needed to be recognized and treated before any long-term success could be expected. Conducting patrols and related law enforcement activities are essential, but address a symptom and not the root causes of why most of these people are poaching. Similarly, focusing on operations to defeat poaching groups within the protected areas alone is also a reactive, not a proactive, strategy.

In reality it is more difficult to locate and surprise poachers in a large protected area, compared with informer-led actions in the villages or towns where they live and spend the majority of their time. At least equivalent attention must be given to working in villages and towns and with the people in communities that surround the protected areas.

At the time when the REP started in late 2011 and in early 2012, poaching levels were very high. Routine patrols were instituted from the outset, which are conducted by joint teams of community game guards (Village Game Scouts) working with District and National Government wildlife staff and law enforcement officers. In addition to that, a concerted effort was made to engage with the community, understand their concerns and perceptions of wildlife conservation and how it affects them, establish good relationships and involve them in the Project.

Interventions implemented included providing direct assistance to local farmers for livelihood protection (for example, human-elephant conflict mitigation), supporting income-generating activities for the Wildlife Management Area communities (chili pepper farming and beekeeping), and implementing a syllabus on conservation education at local schools. The REP has also involved local people extensively and has provided incentives and opportunities for participation for as many individuals and groups as possible, including paying financial rewards to anyone who provides assistance or helpful information that furthers the objectives of the Project.

Training provided by the REP to Village Game Scouts, rangers and other applicable staff included a strong emphasis on community collaboration. The importance of establishing and maintaining positive relationships with local communities was taught in the training, as well as approaches of how to: liaise and collaborate with community members to prevent poaching before it happens; negotiate

with community members and achieve their collaboration with resolving poaching violations after they have occurred; and recruit and work with informants.

Results from patrols and other law enforcement interventions implemented since Project inception until early 2014 included: the seizure of 1,582 snares; 25,586 illegal timber (pieces); 175 elephant tusks; 805 firearms; 1,531 rounds of ammunition; six vehicles; 15 motorcycles; and the arrest of 563 people. The good results achieved have continued and as of 2015, the data from ongoing foot patrols and aerial surveillance indicate very low levels of poaching within the REP area and a stable to slightly increasing population of elephants and other wildlife species.

The success of the REP has been enhanced significantly by the great extent of community participation and tangible support it has enjoyed. Several community members have voluntarily surrendered illegal firearms that formerly were used in poaching incidents. More than 85% of all arrests and seizures of illegal weapons and ivory has been achieved with the collaboration of, and information received from, members of the local communities. The numbers of people arrested in the field through routine patrols decreased dramatically from the first year of the Project, as has the discovery of carcasses and ivory. The vast majority of arrests over the past two years have been due to information received from community informants, have occurred outside of the protected areas and have been made before additional illegal wildlife killing occurred within the REP area.

More on www.papaco.org

A lion in the WAP complex

Contribution of lion trophy hunting to the conservation of the species in the protected areas they inhabit: discussions on how experts see it in a different way in West Africa.[1]

A synthesis based on an article published by H. Bauer, P. Henschel, C. Packer, C. Sillero-Zubiri, B. Chardonnet, E. A. Sogbohossou, H. H. De Iongh, and D. W. Macdonald in PlosOne, 21 March 2017

In 2016, Bouché et al. recommended[2] the continued reliance on sport hunting of African lions (*Panthera leo*) for the conservation of the W-Arly-Pendjari Protected Area complex (WAP), a transfrontier area shared by Burkina, Benin and Niger. However, a recent article by H. Bauer et al. states that their survey techniques are inappropriate for providing precise estimates of lion population size at the scale used in their model, and their suggested quotas are excessive; consequently, their conclusions are unsupported.

1) Bouché et al. findings and comments

High incertitude on the number of lions

Bouché et al. present lion numbers based on lion spoor (pugmarks) found while driving on unpaved roads and converted to lion numbers using a widely-adopted methodology. However, it was demonstrated that calculations based on fewer than 30 separate spoor yield unreliable results (Coefficient of Variation (CV)>20%), so surveys should be designed to attain this minimum. Although their 2014 survey provided robust estimates across the entire WAP complex (based on 97 independent spoor records), their research effort was not adequate for separate consideration of each of the 16 Hunting Zones (HZs).

Only one HZ (with 12 spoors) had a CV of 41%, in the remaining HZs CVs had an average of 105%. Nine HZs had 0 or 1 spoor, thus a CV could not be calculated, but if we use the mean value of 105%, we would find an estimated range of 18 to 414 lions in all HZs combined. The confidence interval for almost every separate HZ includes a value of zero, thus it is impossible to make inferences about HZ-specific sustainable hunting quotas from these data.
The data requirements for the analyses attempted by Bouché et al. are unlikely to be obtained through spoor transects.

[1] http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0173691
[2] http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155763

Unreliable percentage of adult males

In a parallel argument, Bouché et al. claim that any lion footprint over 12cm long represents a large adult male, and estimated a total of 168 large adult males (equivalent to 40% of the population of lions over 1 year old). They then suggest that a quota of 10 large adult males would fall safely below the recommended offtake of 10% of males as recommended.

A pride in the WAP ecosystem

However, the precise relationship between age/sex and spoor size is unknown, and their result suggests a demographic profile for the WAP population that has never been reported elsewhere, uniqueness that, at the least, raises caution over its validity. For comparison, the proportion of adult males in other populations was 16% in Etosha, Namibia and 22% in Maasai Mara, Kenya.

Including protected lions from the National Parks inside the hunting quota

Secondly, by taking a percentage of the entire population for quota setting, Bouché et al. are including lions from the NPs in the quota for the HZs through the so-called vacuum effect. Lion hunting in adjacent HZs has previously been shown to have adverse effects on lion sub-populations in the National Parks of WAP and elsewhere. For instance in 2014 the lion density in Pendjari NP was 2,6 lions/100km²[3] while the density in the 4 surrounding HZs was only 0,3 lion/100 km².

Using inapplicable ratio for quota setting

The recommended harvest rate of 0.5 lions per 1,000km² is widely adopted but was calculated for areas with lion densities of *ca.* 5 lions per 100km², recent evidence suggests that this rate is not appropriate for lower densities as shown by the very high extinction probability in an area with two lions per 100km².

Despite WAP having only 1.6 lions per 100 km², Bouché et al. show that harvest rates exceeded 0.5 lions per 1,000km² in almost all HZs in all years. Both the lion hunting quota and harvest in Burkina Faso are the least cautious in Africa, as measured by various parameters.

Bouché et al. have tried to argue that harvests have been sustainable but nevertheless recommend a lower quota of 10 lions, corresponding to 1 lion per 1,000km², which is recommended only for the high density population in Selous. Bauer et al. have argued above that the data do not support their findings. Past off-takes may only have been sustainable as lions were drawn in from adjoining national parks through the so-called vacuum effect.

A male in Pendjari NP

2) Lion quota setting

Moving away from the analysis at HZ level, Bauer et al. can derive alternative quota using their estimate of 190 lions in HZs plus 228 lions in NPs.

- One method is to use Packer (2011) adapted for the local lion density, thus 0.16 lions per 1,000km², giving a quota of 1.6 lions per year, more practically formulated as 3 lions in two years.
- An age based approach based on the review above with around 10% of the male population above 6 years would give 19 individuals, giving a quota of 2 based on Loveridge (2007)
- Yet another approach is to take 2.7 to 4.3% of the adult male population (from Creel, 2007), approximately 1 or 2 lions.

Quota were recently reduced to 11 (5 in Benin, 6 in Burkina Faso), while this is an improvement, quota for all HZs combined (Benin and Burkina Faso)

[3] A density higher than in Zambia's Kafue and Luangwa NPs (2 lions/100 km²)

should not exceed 2 lions per year, using internationally recommended quota setting approaches.

3) Economics of lion hunting and Protected Areas management cost

It is important to introduce a proper quota, but there is a much bigger issue with the claim of Bouché et al. that management of HZs may collapse if lion trophies cannot be exported. Whichever quota is used, income for the hunting outfitter at current market price is only around 15,000 USD per lion and its economic impact, including any increased price for non -lion trophies, is unlikely to provide significant benefits. Lion hunting packages and trophy fees are still by far the lowest on the continent in Benin and Burkina Faso, even though West Africa has by far the rarest lions, belonging to a distinct sub-species, and listed as Critically Endangered.

Bauer et al. doubt that hunting will remain a viable management model in the long term, not based on normative but on economic arguments. Continuing to kill Africa's rarest lions for such perversely low revenues represents a market failure and will not further lion conservation. Lion persistence in WAP is most strongly linked to the number of patrol staff and average annual management budgets per km², and minimum operations budgets for site protection of 125 USD/km² (excluding ranger salaries) are needed to assure lion persistence. This translates to an absolute minimum of 1.3 million USD (excluding ranger salaries) for all HZs. Total management costs have risen from around 200 USD/km²/year in the 2000, to an average for African savanna Protected Areas of $830 ± $285/km²/year (2016), partly in response to human population growth and a surge in poaching.

4) Trophy hunting model collapse

The trophy hunting model collapsed in Central African Republic, is currently disintegrating in Cameroon, and could soon fail in WAP owing to the low revenues achieved. Revenues in WAP only cover a fraction of total management costs, which is also observed in other areas.

Prior to 2012, net profitability of trophy hunting was marginal in Zambia and Namibia and negative in Mozambique. In Tanzania net profit was 158 USD/km/year with the former management cost (200 USD/km²/year), but is now negative with the current cost. At present, 31% of Tanzania's hunting blocks are unleased, and 40% of Zambia HZ area are encroached by local communities.

5) Need for new approaches to wildlife conservation

Overall, trophy hunting may have contributed to the persistence of the Critically Endangered lion population in WAP to some degree. But the situation is precarious, making it particularly important that recommendations are based on the highest quality data. Bauer et al. doubt that trophy hunting will make a meaningful contribution.

In the face of the enormous challenge to find long term funding for large tracts of Protected Areas across Africa, new approaches to wildlife conservation are urgently needed…

NAPA – CONTACTS **www.papaco.org and www.iucn.org**

geoffroy.mauvais@iucn.org Program on African Protected Areas & Conservation
beatrice.chataigner@iucn.org PAPACO - Program Officer
marion.langrand@iucn.org PAPACO – Program Officer