

PRELIMINARY REPORT

Predation induced livestock loss adjacent to the Kruger National Park: livestock farmers' perceptions on DCAs, the compensation scheme, and moving forward.



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FOREWORD

This report, part of an approved SANParks research project (*Predation induced livestock loss adjacent to the Kruger National Park – monitoring the scale, scope and the impact of compensation*), was prepared on behalf of South African National Parks (SANParks), Kruger National Park (KNP) and its surrounding communities, to specifically elicit livestock farmers' (i) perceptions concerning DCAs around the KNP, (ii) experiences with the Livestock Damage Compensation Scheme, and (iii) ideas on moving forward (Objective 2 - Research Question 2 of SANParks research project). This report is meant to provide information and guidance to both KNP/SANParks and neighboring communities concerning the Monitoring and Evaluation of the 'KNP Protocol: Compensation for Livestock Deaths Resulting from Human-Wildlife Conflict' [ver. 12b, December 2013, Section 8]:

In accordance with the principles of a strategic adaptive management approach, an objective driven Monitoring and Evaluation (M&E) programme with appropriate indicators will be developed. The aim of the M&E programme is to systematically monitor and evaluate the impact of the implementation of this protocol as well as of the broader human wildlife conflict management and mitigation programme. Outcomes and lessons learnt from the M&E programme will continually inform implementation specifically when adaptation in strategy is required for more effective outcomes.

This M&E programme was more recently formalized within the strategic adaptive management objectives of the KNP under its new Draft Management Plan 2018-2028 (specifically Objectives 8.10 – Human-wildlife conflict and 8:14 - Research, evaluation and co-learning).

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1. EXECUTIVE SUMMARY

The long history of damage-causing animals (DCAs) which exit the Kruger National Park (KNP) and other protected areas, inflicting damage on persons and property, increasing probability of disease transfer between wildlife and livestock, and seriously undermining the livelihoods of local communities, remains a contentious issue. Conflicts of this nature that are not adequately resolved assure the maintenance of a tense relationship between the park and communities. Responses to the DCA problem at KNP have been multi-faceted including increased efforts in maintaining and upgrading the fence along sections of the western boundary of the park, partnering with provincial departments to improve DCA control outside the park, and initiating a wildlife damage compensation scheme with local communities, which entails financial retribution given to affected farmers who have previously lost livestock to DCAs originating from the park (2008-2014). A corollary scheme compensates for valid claims commencing from 2014.

This report presents preliminary findings of a study undertaken to elicit livestock farmers recent experiences with DCAs and the compensation scheme itself, as well as their ideas for various stakeholders to further minimise human-wildlife conflict and improve the compensation scheme. This study is one of a number of steps necessary to develop a strong inclusive and participatory M&E program. What is required at this stage, is collectively continuing to navigate the way forward to appropriately and responsibly act on its results. This will entail an ample measure of goodwill and foresight, the continuous building of relationships within and across institutions, adequate allocation of necessary resources, and effective self-mobilization and engagement between stakeholders.

Although it is perceived by participating livestock farmers that DCA incidents have dampened in recent years, the drivers of the conflict continue to demand adequate attention. In addition, although the compensation scheme is seen as a good measure for mitigating conflict, it suffers from process challenges, and delivering what has been perceived as promised. A number of specific recommendations for relevant stakeholders are presented by workshop participants to mitigate DCA conflict and impact, and improve the Compensation Scheme.

2. RESEARCH OBJECTIVES

One of the main purposes of strategic adaptive management is to purposefully learn and strategically adapt over time. This learning, however, needs to take place throughout both the planning and implementation stages of a management cycle, and involve regular feedback loops. Learning is backed by the continuous monitoring and evaluation (M&E) of relationships of management actions and system responses (Linkov et al. 2006). Evaluation and reporting of the results contributes to the reassessment of the problem, compares the actual outcomes to forecasts and interpreting the reasons underlying any differences, and revisits the policy before adapting it to the new cycle (Clark et al. 1996; Maris & Béchet 2010). Within this framework, and guided by both the objectives and indicators identified in workshops from 2014 (Anthony & Swemmer 2015) and within the draft KNP Management Plan 2018-2028, the following three broad research questions, and associated sub-questions, served as the avenues of investigation for this study:

A. What are the current (post-2014) perceptions of livestock farmers bordering Kruger National Park concerning damage causing animals (DCAs)?

- Has there been a change concerning DCAs in villages in the last 3 years (2014->)? More / less / same?
- What DCA species are involved?
- Livestock vs crop damage?
- Time of year? Time of day?
- What do farmers think are the reasons for any changes noticed?
- If farmers encounter a DCA, what do they do?

B. What have been the experiences of livestock farmers bordering Kruger National Park with respect to the Livestock Damage Compensation Scheme to date?

- What has been livestock farmers' personal experience, or that of people they know, regarding the DCA Compensation Scheme?
- Are payments being made in villages? Pre/post 2014?
- How are these payments being made?
- Has the Compensation Scheme met livestock farmers' expectations? Why or why not?

C. According to livestock farmers bordering Kruger National Park, what should be the actions going forward with respect to reducing human wildlife conflict and improving the compensation scheme?

- What suggestions do farmers have for livestock farmers to collectively reduce conflict, and manage the impact of DCAs more effectively?
- What suggestions do farmers have for KNP to reduce conflict, and manage the impact of DCAs more effectively?
- If applicable, what suggestions do farmers have for other institutions to reduce conflict, and manage the impact of DCAs more effectively?

3. METHODS

Focus Group Workshops

As recommended by Jeffery et al. (2006), focus groups were selected to elicit livestock farmer-based perceptions concerning DCAs since 2014, experiences with the livestock damage compensation scheme, and ideas for moving forward.

Three main themes were explored in the workshops (see Section 2), namely:

1. The current situation (post 2014) regarding DCAs in the neighbouring villages, as perceived and experienced by livestock farmers;
2. Livestock farmers' experiences with regards to the compensation scheme so far; and
3. Suggestions for various stakeholders for going forward with respect to reducing human-wildlife conflict and improving the compensation scheme.

All workshop participants were initially briefed on the research ethics and purposes of the workshop (see below). Workshop participants were provided with lunch.

Ethics Protocol

An ethic of research involving human subjects should include two essential components: (1) the selection and achievement of morally acceptable ends, and (2) the morally acceptable means to those ends (Ritchie & Lewis 2003; Marvasti 2004). The first component is directed at identifying acceptable ends in terms of research benefits for participants and relevant groups, and for the advancement of knowledge. The second component is directed at ethically appropriate means of conducting research. Thus, the moral imperative of respect for human dignity translates into a number of important principles in research ethics, which were adhered to in this research's protocol and were approved by both the Central European University, and SANParks. These included respect for free and informed consent, and respect for privacy and confidentiality.

4. RESULTS

Four workshops of approximately 2.5 – 3.0 hours each in length were conducted from 21-25 May 2018, consisting of:

- 4 community forum areas [Makuya (Venda), Hlanganani (XiTsonga), Phalaborwa (XiTsonga, Pedi), Lubambiswano (SiSwati)]
- 2 provinces (Limpopo, Mpumalanga)
- 35 participants [5-12/workshop; 26 male (74.3%); 9 female (25.7%)]
- 13 villages represented (Makuya=1, Hlanganani=2, Phalaborwa=5, Lubambiswano=5)
- 25 (71.4%) attendees who had submitted a livestock damage compensation claim form
- 7 (20%) attendees who had attended similar workshops in 2014 (see Anthony & Swemmer 2015)

Table 1 below summaries responses to the various questions posed to workshop participants, and detailed reports of each workshop can be found in Appendices I-IV.

Table 1: Summarized responses to workshop discussions from participants. Letter codes denote workshop(s) where observation was made (H=Hlanganani, L=Lubambiswano, M=Makuya, P=Phalaborwa).

A. What are your current (post-2014) perceptions concerning damage causing animals (DCAs)?	
Has there been a change concerning DCAs in your village(s) in the last 3 years (2014>)? More / less / same?	<ul style="list-style-type: none"> • DCA incidents generally lower than before 2014, but with some variation with respect to location and species (e.g. higher in Musunda (M) in 2016-2017, hyena same (H))
What DCA species are involved?	<ul style="list-style-type: none"> • lion > elephant > leopard + jackals and baboons (M) • hyena > lion > leopard (H) • elephant > lion > hyena > buffalo (P) • lion > hyena > leopard > crocodile +elephant & hippo (L)
Livestock vs crop damage?	<ul style="list-style-type: none"> • mostly livestock, but also crop damage (M,H,P,L)
Time of year? Time of day?	<ul style="list-style-type: none"> • lions mostly at night, but also sometimes during day (L), or when cloudy or rainy (H) • lions mostly in winter (L), but difficult to determine in some areas as mostly associated with fence condition (L) • hyena all year round (H) • elephant 24/7 and specifically during marula season (P) • buffalo 24/7 and specifically during rainy season (P)
What do you think are the reasons for any changes you have noticed?	<ul style="list-style-type: none"> • fence damage due to elephants, poachers, and floods (esp at rivers) (M,P,L) • lions dig under fences (M,P) • cattle sometimes stray and are killed (P,L), but there's even been cases where cattle are killed in kraal (L) • elephants attracted to marula and melons (P) • hyena stay in culverts under bridges and roads without returning to KNP; come out at night (H) • ranger vacancies in MNR means lower fence patrols (M)

	<ul style="list-style-type: none"> • hunter permits take too long (up to 7 days) and hunters only want trophy animals which are not necessarily the DCAs (M) • MNR fence problematic because there's no electricity at MNR (even within camps) (M)
If you encounter a DCA, what do you do?	<ul style="list-style-type: none"> • contact KNP/LEDET/MNR. If attended, then photos taken. If KNP/LEDET/MNR don't come, contact Tribal Authority. MNR / TA mostly contacted now as LEDET unreliable. They confirm damage, which is given to LEDET, who also record initial phone call even if they cannot attend. (M) • report to Hlanganani Forum village representative and LEDET, and take photo. LEDET comes to verify. KNP/LEDET co-operates (H) • we're supposed to report to KNP/LEDET to verify (take photos of spoor and carcass) (P) • take photo, and call MTPA to come and verify (L)
B. What have been your experiences with respect to the Livestock Damage Compensation Scheme to date?	
What has been your experience, or that of people you know, regarding the DCA Compensation Scheme?	<ul style="list-style-type: none"> • thankful for R5000/cattle, but R7000 was the original agreement (M), and should be R8500-R10000 (L) • only some cattle/cases compensated with no reason why others were not (M,H) • KNP/farmer agreement was clear in past, but now KNP has changed because they're relying too much on LEDET records which are often absent because they don't attend (M,H) • payment period too long (M,H,P, L) • reporting system is too complicated, especially when some elements missing (H) • difficult to take photos if one doesn't have a good camera or phone (M) • some livestock are lost and carcass only found later when evidence for DCA is difficult to find (H) • some forms not signed (P)
Are payments being made in your villages? Pre/post 2014?	<ul style="list-style-type: none"> • mostly pre-2014 (M), although some never knew of pre-2014 payments (P) or not all were paid (L) • some post-2014 payments made (H,P), although none that participants are aware of (L)
How are these payments being made?	<ul style="list-style-type: none"> • bank transfer, which largely works fine (M,H,P,L), but is difficult for some pensioners who often try to rely on younger people to do it (M)
Has the Compensation Scheme met your expectations? Why or why not?	<ul style="list-style-type: none"> • in part, yes, as some payments are being made, but payment price is too low (M,HP,L), they take too long (M,P,L), and not all are being paid (without justification) (M,P,L) including those from before 2000 (L) • damage by leopard (H,L), cheetah (H), hyena (H), hippos (L), and baboons (L) should be covered, as well as crop damage (L)

	<ul style="list-style-type: none"> • Letter of Apology expected (P), but not necessary if payment made (H)
C. What further actions should be taken to reduce human wildlife conflict and improve the compensation scheme?	
<p>What suggestions do you have for livestock farmers to collectively reduce conflict, and manage the impact of DCAs more effectively?</p>	<ul style="list-style-type: none"> • don't leave livestock unattended in bush, especially at night (M,H,L) • provide watering sources for livestock away from KNP and/or to prevent animals from traversing near KNP fence (H,P) • experiment with rotational grazing(?) (P) • fencing of grazing land to constrain cattle when they stray (P) • report poachers (P) or others who cut fence (L)
<p>What suggestions do you have for KNP to reduce conflict, and manage the impact of DCAs more effectively?</p>	<ul style="list-style-type: none"> • pay market value of all livestock lost to DCAs (M,P) • shorten payment waiting period (P) • before moving forward, pay all outstanding claims, not just some (M) • stick to your promise! (M,P) • relax reliance on LEDET for records (M,H) • employ more villagers to reduce poverty to reduce poaching for meat (M) • maintain fence in better condition (H) and electrify (L) • increase security against poachers who cut fence (P) • cover leopard and crocodile damage under scheme (P) • when luring DCA lions, recognize that non-DCA animals may also be lured (H) • follow-up on fence maintenance of MR/LNR (P)

<p>If applicable, what suggestions do you have for other institutions to reduce conflict, and manage the impact of DCAs more effectively?</p>	<p><u>MNR (M):</u></p> <ul style="list-style-type: none"> • needs upgraded fence and proper maintenance including more staff to patrol fence and maybe cement underneath to prevent digging under <p><u>LEDET (H):</u></p> <ul style="list-style-type: none"> • regionalize (under-resourced) rangers so they can better respond to various areas • speed up attendance time, as if LEDET takes too long, it is tempting to take meat from carcass (which is against protocol) because if left too long, there is no meat nor compensation <p><u>MR/LNR (P):</u></p> <ul style="list-style-type: none"> • needs improved fence maintenance (& electric fence) • increase security against poachers who cut fence • do what you promised <p><u>Govt (L):</u></p> <ul style="list-style-type: none"> • erect 2nd fence between KNP and villages <p><u>TransNet (L):</u></p> <ul style="list-style-type: none"> • railway fence needs to be better maintained
<p>D. Other questions and comments</p>	
<ul style="list-style-type: none"> • Some villages not represented at workshop because there is ongoing political conflict with KNP (M,H) • When we look at a KNP employee, it's not good, because relationship with KNP is now 'shaky' because they didn't stick to original agreement (especially a few individuals). (M,L) • When will we receive the remaining money that was <u>personally</u> promised from KNP? (M, L) • Does KNP have a budget for DCA compensation? (M) • If KNP is collecting money from even other countries, why can't we be compensated? Where is that money going? (M) 	

- Where is the R2000 (R7000 – agreed price minus R5000 price given) being spent? (M)
- If KNP doesn't meet their end of the agreement, how can we take legal action? (M)
- many villagers see KNP rangers as the same as LEDET rangers > they don't differentiate between the two (H)
- we were told leopards cannot be stopped from exiting reserves. So, if leopards have a right to kill our animals, why can't we kill leopards? (P)
- case: participant (with a prosthetic leg) was asked by LEDET to accompany them to track elephant when he called regarding elephant in village area. He felt they were putting his life in danger. They found elephant, and shot it when it approached them. He was asked by LEDET to cut off its head. Now, he's afraid to report to LEDET. (P)
- What happens if a DCA is walking along middle of Groot Letaba River? Which LEDET should I call? Giyani or Phalaborwa, as river is jurisdictional border? (P)
- Communication between farmers and Phalaborwa Forum needs to be strengthened. (P)
- Poachers are doing 'their own business' and work at 'odd hours' and are never seen by farmers. Thus, poaching level is independent of compensation scheme. (L)

5. THE WAY FORWARD

As in my previous report (Anthony 2014), I would like to preface this section with a reminder that research can be politicized because the things one measures, how one frames questions, and how one interprets the results, may favor one stakeholder over another. Doolittle (2003) extends this idea to highlight that some stakeholders will often use 'outsiders' to legitimize their claims over contested resources. This can become a serious problem if the resulting information is misused or misleading (Lund 2014). This continues to be evident, as it was claimed that some villages had communicated that they did not want to participate in the workshop due to ongoing 'political' conflicts with KNP. Thus, I continue to attempt to remain impartial as an honest broker of information and willingly 'relinquish control over the outcome of negotiations between stakeholders' (Treves et al. 2006). A second cautionary note, which I first raised in my 2014 report, concerns the idea of an 'audit culture', in which outwardly fine M&E practices may become impartial with institutional 'self-checking' of performance, leading to social consequences for governance and power (Strathern 2000; Wahlén 2014). It is my hope and strong recommendation that *with genuine good will and foresight, this preliminary report and its findings will be utilized by the relevant parties for positive and complementary, rather than competitive, purposes.*

Conventionally, M&E was conducted by outside experts using quantitative indicators with little involvement of local stakeholders. In more inclusionary approaches, such as that being championed by KNP/SANParks, local stakeholders are invited to not only define the methodology, but also contribute to the actual monitoring, and acting collaboratively on the results. Theoretically, this approach should work well, but requires a relatively high level of input from experts in the preliminary stages, and a clear definition of how the M&E system is to evolve (Niemela et al. 2005). For example, local people do not always understand the concept of M&E, and by extension, the benefits they could receive. The same can be said of various people and departments within the same organization (Wahlén 2014). Thus, developing a comprehensive framework of long-term participatory monitoring, ensuring local interest, and offering incentives are key issues to be addressed and this preliminary report is one step towards that end, but parties would be wise to note that *substantial and sustained resources and capacity building will be required to design, launch and implement a participatory M&E system within KNP's strategic adaptive management framework.*

Overcoming these challenges necessitates *continued effective self-mobilization and engagement between KNP/SANParks and its neighboring communities.* Emerson et al. (2009) demonstrated that such engagement is vital to not only reaching agreement, but also is a major contributor to the quality of agreement, and improved working relationships among parties.

Using this framework, I present below consolidated findings of the three broad research questions posed to livestock farmers at the workshops. Each should be given ample consideration by all stakeholders to address both the conflicts and impacts associated with DCAs, and the implementation of the Compensation Scheme.

A. What are the current (post-2014) perceptions of livestock farmers bordering Kruger National Park concerning damage causing animals (DCAs)?

The positive news is that in almost all cases, farmers have perceived that DCAs, and associated DCA incidents, have decreased since 2014. There is some variation with respect to species and location, but this aspect can be attributed to better patrolling and maintenance of border fences, and is likely also influenced by biophysical factors. Predominant DCA species continue to be lion, elephant, and hyena, but a number of other species were also noted as problematic and causing livestock and crop loss. Not surprisingly, lions primarily attack livestock at night and during the winter. Elephants are perceived to be most problematic during marula and melon season (February/March), and continue to break through the border fences of KNP, Makuya Nature Reserve, Letaba Nature Reserve, Mthimkhulu Reserve, and that of the TransNet railway. Hyena are perceived as problematic year round with some residing outside protected area borders.

The primary driver of DCA incidents is believed to be problems with the border fences, with contributing factors being poor (or absent) patrolling and maintenance, fence cutting by poachers, damage caused by floods, and/or lack of electricity. Other notable reasons include cattle (sometimes unattended), marula and melons in close proximity to protected area fences, all of which act as lures to DCAs.

With respect to farmer knowledge of DCA encounters, there is widespread knowledge of farmers of the protocol and what to do if they encounter DCAs, demonstrating adequate communiqué for those responsible for communicating the protocol within the communities. However, it was noted that the competency of LEDET in some areas is questionable with respect to attending cases.

B. What have been the experiences of livestock farmers bordering Kruger National Park with respect to the Livestock Damage Compensation Scheme to date?

Although appreciative of compensation when it occurs, the majority of workshop participants expressed their concern and strong dissatisfaction with a number of issues pertaining to the Compensation Scheme, namely:

- a) the R5000 compensation per cattle lost to predators is too low. Most believed that the original agreement was to be at least R7000, and some even thought it should be higher, but at least 'market value'.
- b) there was almost universal confusion as to why some claims had been compensated and others not. This includes from the same claim, and across claims from the same areas.
- c) the waiting period from claim submission to payment is believed by most to be too protracted (up to 1.5 years and growing in some cases).
- d) the reporting system is felt by some to be too complicated
- e) in some areas, the competency of LEDET's role in claim verification is in question. This is exacerbated when farmers do not have good enough phones or cameras to take photos, or when some livestock are lost and the carcass only found later when evidence for DCAs is difficult to find.

Most payments that have been made in the villages was for claims for incidents pre-2014 (although not all have been paid – see above). Some noted that post-2014 payments have been made, but are few and sporadic. All participants acknowledged that the method of payment (bank transfer) is an acceptable mode, but there were some minor concerns for pensioners and/or others who don't have an account.

Livestock farmers who participated in the workshops stated that, in part, yes, the Compensation Scheme has met their expectations, but only where/when payments are made. As noted above, the payment price is considered too low, they take too long to process, and not all claims are being paid (without justification) including those from before 2000 which some farmers expressed their concern with, as they had been promised that payments would be made for all valid cases even prior to 2008 (this is indicated in Forum meeting minutes). Farmers also noted that damage by leopard, cheetah, hyena, hippos, and baboons should be covered, as well as crop damage. Finally, there were differing opinions as to whether a Letter of Apology is expected (see Anthony 2014).

C. According to livestock farmers bordering Kruger National Park, what should be the actions going forward with respect to reducing human wildlife conflict and improving the compensation scheme?

In addition to KNP and livestock farmers, a number of other stakeholders were identified as having some role and responsibility in mitigation of DCAs. These are categorized below.

Livestock farmers

- improve animal husbandry by ensuring livestock are not left unattended in bush, especially at night, and keeping livestock away from protected area fences by provision of watering sources elsewhere and/or secondary fencing
- experiment with rotational grazing, particularly in dry seasons;
- reporting poachers or others who cut fence

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- stick to your promise, and make the necessary payments for all that were promised, according to market value, and within a reasonable time period
- maintain border fence in better condition and electrify where possible, including stepping up security against poachers who cut fence
- reconsider the role that LEDET has in incident verification and claim form completion, particularly when they do not attend cases, or are inadequate whilst in the field
- cover other sources of damage under scheme (eg leopard, crocodile, elephant)

LEDET:

- speed up time to attend DCA incidents
- regionalize (under-resourced) rangers so they can better respond to various areas

Makuya Nature Reserve:

- upgrade fence and ensure proper maintenance including more staff to patrol

Letaba Nature Reserve / Mhtimkhulu Reserve:

- improve fence maintenance (particularly electricity)
- increase security against poachers who cut fence

TransNet:

- railway fence needs to be better maintained

The next steps necessary to act upon the participatory M&E program are in the hands of the multiple stakeholders concerned with the DCA issue, primarily KNP/SANParks, LEDET, livestock farmers and other community members adjacent to the park. It is my hope that they will co-operatively chart the way forward to meet their own (and each other's) objectives for this compensation scheme, and for alleviating conflict.

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APPENDIX I. MAKUYA WORKSHOP RESULTS

A. What are your current (post-2014) perceptions concerning damage causing animals (DCAs)?	
<ul style="list-style-type: none"> • Has there been a change concerning DCAs in your village(s) in the last 3 years (2014->)? More / less / same? 	<ul style="list-style-type: none"> • DCA incidents higher in Musunda in 2016-2017, but now lower in 2018 • lions roaming around at present time
<ul style="list-style-type: none"> • What DCA species are involved? 	<ul style="list-style-type: none"> • lion > elephant > leopard • jackals and baboons both kill young goats and sheep
<ul style="list-style-type: none"> • Livestock vs crop damage? 	<ul style="list-style-type: none"> • mostly livestock, but also crop damage
<ul style="list-style-type: none"> • Time of year? Time of day? 	<ul style="list-style-type: none"> • mostly at night, but sometimes during day if DCA number large • mostly in winter, but difficult to determine as mostly associated with fence condition
<ul style="list-style-type: none"> • What do you think are the reasons for any changes you have noticed? 	<ul style="list-style-type: none"> • some elephants and leopards escape from Makuya NR (MNR), inflict damage, then return to reserve • some animals enter KNP from Zimbabwe • ranger vacancies in MNR means lower fence patrols (was especially problematic between June 2016 and June 2017 when high number of lions outside fence, which killed ~60 cattle) • hunter permits take too long (up to 7 days) and hunters only want trophy animals which are not necessarily the DCAs • MNR fence problematic because (i) floods damage fences at rivers, (ii) lions dig under fence especially where ground is wet, and (iii) there's no electricity at MNR (even within camps).
<ul style="list-style-type: none"> • If you encounter a DCA, what do you do? 	<ul style="list-style-type: none"> • contact KNP/LEDET/MNR. If attended, then photos taken. • if KNP/LEDET/MNR don't come, contact Tribal Authority • MNR / TA mostly contacted now as LEDET unreliable (new mandate only 1 month old). They confirm damage, which is given to LEDET, who also record initial phone call even if they cannot attend.
B. What have been your experiences with respect to the Livestock Damage Compensation Scheme to date?	
<ul style="list-style-type: none"> • What has been your experience, or that of people you know, regarding the DCA Compensation Scheme? 	<ul style="list-style-type: none"> • thankful for R5000/cattle, but R7000 was the original agreement (some breeds are worth much more)

	<ul style="list-style-type: none"> • only 1 of 4 cattle compensated on same claim form, with no reason why other 3 were not compensated • a list of all DCA incidents with claimants since 2008 was submitted to KNP, but only some were compensated. Why? • KNP/farmer agreement was clear in past, but now KNP has changed because they're relying too much on LEDET records which are often absent because they didn't attend • payments take too long (even forms submitted in 2016 still not paid). Meanwhile, people are dying... • difficult to take photos if one doesn't have a good camera or phone
<ul style="list-style-type: none"> • Are payments being made in your villages? Pre/post 2014? 	<ul style="list-style-type: none"> • mostly pre-2014
<ul style="list-style-type: none"> • How are these payments being made? 	<ul style="list-style-type: none"> • bank transfer, which largely works fine, but is difficult for some pensioners who often try to rely on younger people to do it
<ul style="list-style-type: none"> • Has the Compensation Scheme met your expectations? Why or why not? 	<ul style="list-style-type: none"> • in part, yes, as some payments are being made, but payment price is too low, they take too long, and not all are being paid (without justification)
C. What further actions should be taken to reduce human wildlife conflict and improve the compensation scheme?	
<ul style="list-style-type: none"> • What suggestions do you have for livestock farmers to collectively reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • don't leave livestock unattended in bush, especially at night
<ul style="list-style-type: none"> • What suggestions do you have for KNP to reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • pay market value of all livestock lost to DCAs • before moving forward, pay all outstanding claims, not just some • stick to your promise! • relax reliance on LEDET for records • employ more villagers to reduce poverty to reduce poaching for meat
<ul style="list-style-type: none"> • If applicable, what suggestions do you have for other institutions to reduce conflict, and manage the impact of DCAs more effectively? 	<p><u>MNR:</u></p> <ul style="list-style-type: none"> • needs upgraded fence and proper maintenance including e.g. more staff to patrol fence and maybe cement underneath to prevent digging under

D. Other questions and comments

- Some villages (eg Bennde Mutale) not represented at today's workshop because there is ongoing conflict with KNP
- When we look at a KNP employee, it's not good, because relationship with KNP is now 'shaky' because they didn't stick to original agreement (especially a few individuals).
- Does KNP have a budget for DCA compensation?
- If KNP is collecting money from even other countries, why can't we be compensated? Where is that money going?
- Where is the R2000 (R7000 – agreed price minus R5000 price given) being spent?
- If KNP doesn't meet their end of the agreement, how can we take legal action?
- When will we receive the remaining money that was personally promised from KNP?

APPENDIX II. HLANGANANI WORKSHOP RESULTS

A. What are your current (post-2014) perceptions concerning damage causing animals (DCAs)?	
<ul style="list-style-type: none"> Has there been a change concerning DCAs in your village(s) in the last 3 years (2014->)? More / less / same? 	<ul style="list-style-type: none"> less DCAs now since before 2014 no lions seen in last 3 years (Mashobye), but 1-2 lions and leopard seen in Makahlule in 2018 lots of hyena killing goats, donkeys and pigs (as before 2014)
<ul style="list-style-type: none"> What DCA species are involved? 	<ul style="list-style-type: none"> hyena > lions > leopard
<ul style="list-style-type: none"> Livestock vs crop damage? 	<ul style="list-style-type: none"> livestock
<ul style="list-style-type: none"> Time of year? Time of day? 	<ul style="list-style-type: none"> lions mostly at night, when cloudy or rainy all year round for hyena
<ul style="list-style-type: none"> What do you think are the reasons for any changes you have noticed? 	<ul style="list-style-type: none"> hyena stay in culverts under bridges and roads without returning to KNP; come out at night
<ul style="list-style-type: none"> If you encounter a DCA, what do you do? 	<ul style="list-style-type: none"> report to Hlanganani Forum village representative and LEDET, and take photo LEDET comes to verify KNP/LEDET co-operates farmers know the protocol
B. What have been your experiences with respect to the Livestock Damage Compensation Scheme to date?	
<ul style="list-style-type: none"> What has been your experience, or that of people you know, regarding the DCA Compensation Scheme? 	<ul style="list-style-type: none"> none present had submitted a form since 2014 sometimes LEDET takes weeks to come, or wait at wrong location for DCA process is slow (up to 1 year for payments) reporting system is too complicated, especially when some elements missing some claims paid, others not. Not sure of reason for non-payment (no verification?) some livestock are lost and carcass only found later when evidence for DCA is difficult to find
<ul style="list-style-type: none"> Are payments being made in your villages? Pre/post 2014? 	<ul style="list-style-type: none"> last payment made in Mashobye was in 2017 last payment made in Hlomela, Nkhavale, Block C, Matiyani and Mhinga was in 2018
<ul style="list-style-type: none"> How are these payments being made? 	<ul style="list-style-type: none"> bank transfer, which is OK
<ul style="list-style-type: none"> Has the Compensation Scheme met your expectations? Why or why not? 	<ul style="list-style-type: none"> R5000 too low; R7500 more realistic leopard/cheetah/hyena damage should be covered Letter of Apology not necessarily needed, but compensation!

C. What further actions should be taken to reduce human wildlife conflict and improve the compensation scheme?	
<ul style="list-style-type: none"> • What suggestions do you have for livestock farmers to collectively reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • improvement needs to take place to ensure that livestock are kraaled at night • provide watering sources for livestock away from KNP and/or to prevent animals from traversing near KNP fence
<ul style="list-style-type: none"> • What suggestions do you have for KNP to reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • loosen requirement for LEDET verification a bit • maintain good fence • employ foot patrols to check and fix fence • when luring DCA lions, recognize that non-DCA animals may also be lured
<ul style="list-style-type: none"> • If applicable, what suggestions do you have for other institutions to reduce conflict, and manage the impact of DCAs more effectively? 	<p><u>LEDET:</u></p> <ul style="list-style-type: none"> • regionalize (under-resourced) rangers so they can better respond to various areas • speed up attendance time, as if LEDET takes too long, it is tempting to take meat from carcass (which is against protocol) because if left too long, there is no meat nor compensation
D. Other questions and comments	
<ul style="list-style-type: none"> • many farmers from other villages absent from today's workshop as situation between KNP and some farmers is 'political' • many villagers see KNP rangers as the same as LEDET rangers > they don't differentiate between the two 	

APPENDIX III. PHALABORWA WORKSHOP RESULTS

A. What are your current (post-2014) perceptions concerning damage causing animals (DCAs)?	
<ul style="list-style-type: none"> • Has there been a change concerning DCAs in your village(s) in the last 3 years (2014->)? More / less / same? 	<ul style="list-style-type: none"> • less DCAs since 2014 in Bbaula, Makhuva, Sabulane, Mushiyani, and Phaulabeni,
<ul style="list-style-type: none"> • What DCA species are involved? 	<ul style="list-style-type: none"> • elephant in Mbaula, Mushiyani, and Makhuva • lion in Sabulane and Mbaula • hyena in Mushiyani • buffalo in Makhuva, Mbaula, and Phalaubeni
<ul style="list-style-type: none"> • Livestock vs crop damage? 	<ul style="list-style-type: none"> • both
<ul style="list-style-type: none"> • Time of year? Time of day? 	<ul style="list-style-type: none"> • elephant: 24/7; mostly during marula season (Feb/Mar) • lion: night: winter • buffalo: 24/7; rainy season
<ul style="list-style-type: none"> • What do you think are the reasons for any changes you have noticed? 	<ul style="list-style-type: none"> • elephants attracted to marula and melons • elephants break Letaba Nature Reserve (LNR) and even KNP fence; LNR fence OK, but porous at rivers; Mthimkhulu Reserve (MR) fence poor • lions crawl underneath net at Klein Letaba River • lions attracted to cattle which graze or traverse along LNR and KNP border fence • some cattle stray and spend overnight in veld
<ul style="list-style-type: none"> • If you encounter a DCA, what do you do? 	<ul style="list-style-type: none"> • in past, when lion killed cattle, we used to take meat • in past, we called Kobus who would set up a camera trap to see how large lion was (for hunting); we received R1000 from him • now, we're supposed to report to KNP/LEDET to verify (take photos of spoor and carcass)
B. What have been your experiences with respect to the Livestock Damage Compensation Scheme to date?	
<ul style="list-style-type: none"> • What has been your experience, or that of people you know, regarding the DCA Compensation Scheme? 	<ul style="list-style-type: none"> • pre-2014: we have no knowledge of that scheme, nor of the possibility of retrospective payments • post-2014: we call LEDET who assist to take photos and we submit form • payment period has ranged from 1 month to over 1.5 years (still waiting) • some claim forms were not signed

<ul style="list-style-type: none"> • Are payments being made in your villages? Pre/post 2014? 	<ul style="list-style-type: none"> • yes, only post-2014
<ul style="list-style-type: none"> • How are these payments being made? 	<ul style="list-style-type: none"> • OK by bank transfer (R5000 for cattle, R3000 for donkeys)
<ul style="list-style-type: none"> • Has the Compensation Scheme met your expectations? Why or why not? 	<ul style="list-style-type: none"> • still waiting for some payments which haven't come; waiting period is too long • price was supposed to be R7000. We even had meeting in 2017 at Punda with KNP spokesperson William Mabasa, in which farmers indicated they wanted R7000 and Mabasa said "we'll see what we can do", but there's been no word yet since then. • we received no Letter of Apology, but it's important
C. What further actions should be taken to reduce human wildlife conflict and improve the compensation scheme?	
<ul style="list-style-type: none"> • What suggestions do you have for livestock farmers to collectively reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • report poachers • provide alternative water sources to draw cattle away from fence • experiment with rotational grazing(?) • fencing of grazing land to constrain cattle when they stray
<ul style="list-style-type: none"> • What suggestions do you have for KNP to reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • waiting period for payment is too long • leopard and crocodile damage should be covered under scheme • follow-up with LNR/MR fence maintenance • increase security against poachers who cut fence • do what you promised with respect to payments
<ul style="list-style-type: none"> • If applicable, what suggestions do you have for other institutions to reduce conflict, and manage the impact of DCAs more effectively? 	<u>MR/LNR:</u> <ul style="list-style-type: none"> • needs improved fence maintenance (& electric fence) • increase security against poachers who cut fence • do what you promised
D. Other questions and comments	
<ul style="list-style-type: none"> • we were told leopards cannot be stopped from exiting reserves. So, if leopards have a right to kill our animals, why can't we kill leopards? • case: participant (with a prosthetic leg) was asked by LEDET to accompany them to track elephant when he called regarding elephant in village area. He felt they were putting his life in danger. They found elephant, and shot it when it approached them. He was asked by LEDET to cut off its head. Now, he's afraid to report to LEDET. • What happens if a DCA is walking along middle of Groot Letaba River? Which LEDET should I call? Giyani or Phalaborwa, as river is jurisdictional border? • Communication between farmers and Phalaborwa Forum needs to be strengthened. 	

APPENDIX IV. LUBAMBISWANO WORKSHOP RESULTS

A. What are your current (post-2014) perceptions concerning damage causing animals (DCAs)?	
<ul style="list-style-type: none"> Has there been a change concerning DCAs in your village(s) in the last 3 years (2014->)? More / less / same? 	<ul style="list-style-type: none"> less cattle have been killed since 2014. In fact, so far 0 in 2018.
<ul style="list-style-type: none"> What DCA species are involved? 	<ul style="list-style-type: none"> lions > hyena > leopard > crocodile (killed 5 cattle) elephant and hippo also problematic
<ul style="list-style-type: none"> Livestock vs crop damage? 	<ul style="list-style-type: none"> both, but livestock loss greater than crop loss
<ul style="list-style-type: none"> Time of year? Time of day? 	<ul style="list-style-type: none"> winter highest night-time worse, but some cattle even killed by lions during day
<ul style="list-style-type: none"> What do you think are the reasons for any changes you have noticed? 	<ul style="list-style-type: none"> fence damage due to elephants, poachers, and floods (esp at rivers) cattle sometimes stray and are killed, but there's even been cases where cattle are killed in kraal
<ul style="list-style-type: none"> If you encounter a DCA, what do you do? 	<ul style="list-style-type: none"> take photo, and call MTPA to come and verify most (but not all) farmers know protocol as there was a workshop on it; more workshops are welcome
B. What have been your experiences with respect to the Livestock Damage Compensation Scheme to date?	
<ul style="list-style-type: none"> What has been your experience, or that of people you know, regarding the DCA Compensation Scheme? 	<ul style="list-style-type: none"> long payment period (up to 1 year) R5000 too low (R8500-10,000 more realistic) MTPA comes quickly, forms completed and submitted, but they just sit in Skukuza
<ul style="list-style-type: none"> Are payments being made in your villages? Pre/post 2014? 	<ul style="list-style-type: none"> pre-2014: most paid but not all post-2014: no payments made that we're aware of
<ul style="list-style-type: none"> How are these payments being made? 	<ul style="list-style-type: none"> through bank transfer, which works fine if someone has bank account
<ul style="list-style-type: none"> Has the Compensation Scheme met your expectations? Why or why not? 	<ul style="list-style-type: none"> Lubambiswano Forum DCA records start in 2000, and farmers were promised compensation by KNP from 2000, not 2008 (it's even in Forum meeting minutes) price is too low as pregnant cows not considered, nor calves who eventually died of cows that were predated R5000 not reflective of 'market-value' we expected payments for incidents from 2000, not just 2008

	<ul style="list-style-type: none"> • crop damage should also be compensated • damage caused by leopard (even surplus killing), hippos, and baboons <u>from KNP</u> should also be covered • payment period should be no longer than 2 months • relationship with Compensation Committee is good as their work is satisfactory to farmers
C. What further actions should be taken to reduce human wildlife conflict and improve the compensation scheme?	
<ul style="list-style-type: none"> • What suggestions do you have for livestock farmers to collectively reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • cattle should be put in kraal at night • report fence cutting to Dept. of Agriculture patrolling fence
<ul style="list-style-type: none"> • What suggestions do you have for KNP to reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • electrify fence • reduce lions coming to villages, although things seem to be improving
<ul style="list-style-type: none"> • If applicable, what suggestions do you have for other institutions to reduce conflict, and manage the impact of DCAs more effectively? 	<ul style="list-style-type: none"> • government should erect 2nd fence between KNP and villages • TransNet railway fence needs to be better maintained
D. Other questions and comments	
<ul style="list-style-type: none"> • Why are correctly completed claim forms sitting in Skukuza and not being paid? • Relationship with KNP better when payments are made. In contrast, there is 'no' relationship with Kruger when payments are not made. • Poachers are doing 'their own business' and work at 'odd hours' and are never seen by farmers. Thus, poaching level is independent of compensation scheme. 	