Maputaland-Pondoland-Albany Hotspot CEPF

Small grant project - final report

Dr Bob Smith & Dr Freya St John, Durrell Institute of Conservation and Ecology

Project Title and Request
Project Title Establishing a rhino conservation learning network for private and communal landowners
CEPF Region – Please list the CEPF region where your project will be implemented. CEPF funding regions are described on www.cepf.net. Maputaland-Pondoland-Albany Hotspot
Project Duration – Enter the approximate time period of your project. 8 weeks
Strategic Direction from the CEPF Ecosystem Profile – Enter the single strategic direction this proposal aims to address. Use the exact number, such as 1, 2, etc. and wording from the ecosystem profile for this region found on www.cepf.net. **4. Create an enabling environment to improve conservation and management of Maputaland-Pondoland-Albany priority sites.** 4.2 Establish and strengthen institutional arrangements that will increase and coordinate civil society participation and facilitate lessons sharing to promote linkages that ensure effective conservation action at a broad scale.

Organization Information
Organization Legal Name University of Kent
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Organization Chief Executive – Provide the name and contact information for the chief executive or person who is authorized to sign contracts on behalf of your organization. Ruth Woodger Research Contracts Manager Research Services, Registry University of Kent Canterbury, Kent CT2 7NZ, UK R.P.Woodger@kent.ac.uk

Executive Summary

- One quarter of South Africa's rhinos are found outside state protected areas and the current poaching crisis could severely impact land-owner willingness to stock these threatened species. This has serious implications for the Maputaland-Pondoland-Albany hotspot (MPAH), a rhino conservation stronghold where rhino-based tourism provides important economic benefits. Thus, there is an urgent need to understand more about how rhino owners are responding to the poaching crisis and how they share information and expertise. This report describes results from a scoping project that investigated these issues by focusing on two related components.

- The first project component investigated the potential for developing an online questionnaire-based monitoring system to measure the factors influencing rhino managers' decision making. This would be a partnership with the Private Rhino Owners Association (PROA) and would provide vital data to understand how current issues and policies influence the choices made by managers over whether to stock rhinos.

- The second project component investigated the potential to develop an online protected area (PA) social network system that could be used by a range of groups, such as rhino managers, Biodiversity Stewardship Programme participants and state PAs in Mozambique and Swaziland. This PA social network system (provisionally named "OurPark") would act as a platform for social learning networks and would help build links between PA staff, visitors and neighbours.

- To discuss the opportunities for developing these two online systems we visited South Africa for a 2 week period in October 2012. We met with the chair of the Private Rhino Owners Association, rhino conservationists from Ezemvelo KwaZulu-Natal Wildlife, as well as experts from the African Rhino Specialist Group and from several rhino conservation NGOs. We also met with rhino managers from four reserves in Zululand and land-owners involved in the Biodiversity Stewardship Programme.

- There was strong support among the managers for developing the online questionnaire to collect data on rhino manager decision making. Based on their feedback, we produced an initial version that contains 32 questions and covers topics relating to stocking levels, perceptions of poaching and approaches for reducing poaching pressure. This questionnaire is now hosted online and we plan to work with PROA and other organisations to distribute it widely amongst rhino managers. This initial survey would provide a snapshot of the current attitudes and perceptions of rhino managers and illustrate the value of this approach.

- We identified a number of ways in which OurPark could be used by conservationists in the MPAH. Its main advantage is that it would let smaller, less well-funded conservation areas, such as Biodiversity Stewardship Programme participants and state PAs in Mozambique and Swaziland, create off-the-shelf websites, social network and social learning platforms within hours. We found that using such a system was less of a priority for the rhino managers, who are focused on tackling poaching on the ground and rely on face-to-face contact to share information. However, these managers did feel OurPark

would be useful for sharing scientific documents and information from specialist groups, such as Project Rhino KZN or the KwaZulu-Natal Wild Dog advisory group.

- The next step in providing this support is to develop the OurPark software to provide a cheap, easy-to-use online social network and social learning system for protected areas. This should involve working with groups of different CEPF project partners to ensure that the software is relevant for their needs and provide initial support, so they can produce and maintain their own sites. Based on experience from other projects, we think this project should be rolled-out in four stages and involve: (i) Biodiversity Stewardship Programme participants; (ii) state and private protected areas in Mozambique and Swaziland; (iii) state, private and communal protected areas containing rhinos, and (iv) all other protected areas in the MPAH.

Project Rationale

Background

The population recovery of rhinos in South Africa is one of conservation's greatest success stories. From the beginning, conservationists sought to include private landowners in these recovery projects, as this increased the land available for rhinos and broadened the skills and funding base. They did this, in part, by helping develop financial incentives based on ecotourism, trophy hunting and live sales, and this helps explain why 25% of rhinos in South Africa are currently found on private and communally managed land. Thus, the involvement of these landowners remains critical for rhino conservation in South Africa. This is especially the case in the Maputaland-Pondoland-Albany hotspot (MPAH) which is at the forefront of widening the benefits of conservation to people, through increasing the number of rhinos on private and communal land. However, this means the financial viability of some private and communal reserves depends on maintaining healthy populations of rhinos.

This is why the current spate of rhino poaching in South Africa is a key threat to successful rhino conservation and the financial viability of many private and communal reserves in the MPAH. This poaching has been driven by an increased demand for rhino horn in Asia so that, despite considerable enforcement efforts, 448 rhino were poached in 2011 and 668 were poached in 2012. Such poaching presents an obvious direct threat to rhinos in South Africa but, just as importantly, it also undermines the incentives that encourage people to keep rhinos on their land. These landowners risk losing their animals through poaching and face higher enforcement costs and economic uncertainty. Thus, it is not surprising that there is already anecdotal evidence that some reserve managers are selling the rhino they own, or are putting off decisions to stock more.

It is significant however that this evidence is anecdotal because, while conservationists have developed increasingly sophisticated means of monitoring rhino numbers, there are no equivalent coordinated systems for understanding the critical human element underpinning the success of rhino conservation. To date, there are no networks in place which allow private and communal land owners to **systematically share experiences and lessons learnt** through their active involvement in rhino conservation and management. Nor are there systems in place measuring the levels of landowner-support for rhino conservation over time.

This lack of systematic approaches concerning the human dimensions of rhino conservation is critical, particularly in light of the growing threat posed by poaching that may influence levels of landowner-support for rhino conservation. The absence of such systems means that the opinions, expertise and concerns of this important stakeholder group are not being coherently shared or presented. This makes it difficult for the voice of landowners to be heard in the development of rhino conservation practice and policy and further undermines confidence in the economic incentives that are critical for encouraging landowner support.

Despite this, South Africa is rightly heralded for its rhino conservation success story. Having brought them back from the brink of extinction, many people continue to help secure the long-term future of these species. This is especially the case within the MPAH, where national and provincial government and local and international NGOs are working closely with civil society stakeholders who stock rhino on private and communal reserves. This creates the ideal conditions for a project that develops a **conservation learning network** to

bring people and organisations from across the hotspot together over rhino conservation. This network would facilitate the exchange of knowledge and skills between stakeholders, promote collaboration, and measure the level of landowner-support for rhino conservation over time. Moreover, such an approach could be applied more widely and be used by conservationists throughout the MPAH to share information and build links.

Project development

Initial project plan

This scoping project was a response to these two issues and investigated the feasibility of developing: (1) a system to monitor the factors that influence the managers of private- and communally-owned land to stock rhinos, and; (2) a platform for conservation area managers to support social learning networks and share relevant information with stakeholders. Our original work plan was based on there being no existing networks for private rhino owners, so we sought to meet with potential project stakeholders and partners in the MPAH to discuss the potential for establishing such systems. However, after speaking to Dr Richard Emslie from the IUCN African Rhino Specialist Group and Dr Keryn Adcock we found out that the Private Rhino Owners Association (PROA) had plans to develop such an approach and were in the process of collecting similar types of information. Based on this information and further discussions with Richard Emslie and Pelham Jones from PROA, we decided it would be better to amend our proposed actions so that out project built on this existing work.

This new project approach sought to work with PROA to develop our rhino-owner decision making monitoring system. Such collaboration would let us gather data from the majority of private rhino owners in South Africa and so meant we did not need to investigate approaches to set up monitoring systems from scratch. PROA has also established a number of regional groups and these, together with regional partnerships between rhino owners and provincial conservation agencies, play a role in maintaining social learning networks. Therefore, we decided it would be better to switch our focus to assess the feasibility of setting up an online system to support such learning networks, for rhino managers and more widely. Thus, we developed a draft set of alternative actions that were approved by Dr Roelie Kloppers from CEPF (see Appendix 1) and described below.

Final project approach

Based on our discussions with various experts and stakeholders, our proposed actions consisted of three main components. The first component involved gathering background information on rhino conservation, the current poaching crisis and the issues facing managers of private- and communally-owned reserves. The second component focused on developing the rhino-owner decision making monitoring system. The third component assessed the potential for producing an online conservation social network system, which could be used by rhino managers and a broad range of conservationists to share information and raise awareness. These three components are described in more detail below:

1) **Discussing options with stakeholders and local experts**. The rhino poaching crisis in South Africa is widely recognised as an important problem both nationally and internationally. In response, a number of organisations have developed anti-poaching strategies and projects and it is important to understand these systems before

developing any type of monitoring or social network projects. Therefore, the first part of this project is to meet with people from relevant organisations at the national, provincial and local level to understand more about the conservation context. More specifically, we will meet with representatives from groups representing South African organisations, with staff from the provincial conservation agency and rhino managers on private- and communally-managed land in KwaZulu-Natal and with representatives of rhino conservation groups in the Zululand region of KwaZulu-Natal.

2) **Developing a rhino owner decision-making questionnaire**. It is vitally important to understand the factors that predict the decisions made by rhino managers about their rhino stocking levels. The most efficient way to collect these data is to develop a short questionnaire and this second part of the project will produce a preliminary system for final consultation. The first draft of the questionnaire will be produced before visiting South Africa and it will then be discussed with a number of relevant experts and refined to produce a final version. We will also discuss the best way to collect this information, in terms of how to distribute the questionnaire and collect the responses.

3) **Investigating options for an online social network**. Conservationists based on privately- or communally-owned reserves often work with a network of colleagues and stakeholders. In addition, they need to share a wide range of information about the reserves they manage and relevant conservation issues with reserve neighbours and tourists. However, their time is generally very limited and they often lack the information technology support that is available to government conservation agencies. This part of the project will involve producing screenshots of mock-up online social network system designed for conservationists to share information and expertise within specialist groups, neighbours, visitors and other relevant stakeholders. We will then discuss the options for using this software with rhino managers and other managers and owners of reserves and conservancies in KwaZulu-Natal.

Project results

1) Discussing options with stakeholders and local experts.

Our first meeting was in Johannesburg with Pelham Jones, the chair of PROA. He provided us with a great deal of important information about the background to the rhino poaching crisis, how different groups were responding and how PROA originated, its current management structure and its future plans for representing its members and informing conservation policy at the local, national and international level. In addition, he described the type of data that PROA are collecting and how it was working with other organisations to produce a coordinated response to the rhino poaching crisis.

Our next set of meetings was in the Zululand region of KwaZulu-Natal. We were based at Somkhanda Game Reserve and during this trip we met with rhino managers from Somkhanda, Zululand Rhino Reserve, Phinda Game Reserve and Thanda Game Reserve. Our discussions were very wide ranging and we gathered information on general management, rhino conservation and rhino poaching. We also discussed the social networks used by these rhino managers to share information, with a particular focus on Project Rhino KZN and the Wildlife Security Initiative.

Our third set of meetings took place at the Symposium of Contemporary Conservation Practice, which was held at Midmar and brought together conservation scientists and managers from throughout the Province. At this meeting we met with rhino conservation experts from the Endangered Wildlife Trust, Ezemvelo KwaZulu-Natal Wildlife, the Wildlands Trust and WWF South Africa. These discussions provided us with more background information about rhino conservation issues in KwaZulu-Natal and South Africa, as well as the international response from donors and practitioners.

Finally, we were able to meet with other recipients of CEPF funding and learn more about the different projects that are taking place within the MPAH. In particular, we participated in a workshop that was led by the South African National Biodiversity Institute on how to share information and create a social learning network amongst the CEPF projects.

Developing the questionnaire

The draft questionnaire was developed by Freya St John, based on her experience of collecting sensitive data on conservation in South Africa and her knowledge of social science methods. Input was provided by Bob Smith, who has experience of working in several protected areas in South Africa. We then showed this questionnaire to ten rhino experts (six from private reserves, three from state conservation agencies and one from IUCN) who read through the content and made suggestions on improving the results. Finally, we updated the questionnaire based on this expert feedback. We also asked these experts for their advice on the best method for collecting the data and whether it would be better to use a paper version delivered through the post or to use an online version.

All of the experts agreed that using an online version would be the most suitable approach, which will make it much easier to distribute the questionnaire and collect and collate the data. Based on this, an online questionnaire has been developed and is shown in Appendix 2. It consists of 32 questions under sections named “About you”, “About the reserve”, “Reasons for stocking rhino”, “Incentives and barriers to stocking rhino” and “The contribution of private reserves to rhino conservation”.

We sent this final version to Pelham Jones and Richard Emslie to seek final approval and now plan to distribute the questionnaire to PROA members and other rhino managers in South Africa.

Social Network software

Based on discussions with experts in computer programming and online social network design, we produced a mock-up of a possible online system using the Balsamiq software. This mock-up consisted of a “Protected Area” page, which contained “Updates”, “Maps & Sightings”, “Photo albums” and “Park info” sections and a “Group” page, which contained “Updates”, “Shared resources”, “Forum” and “Members” pages. We then produced a 4 page brochure that described the project background, the rhino poaching crisis, the need for online social networks and social learning networks and the budget needed to produce an initial system (see Appendix 3).

We showed the brochure and discussed its contents with Pelham Jones from PROA and the rhino managers in Zululand. They were all interested in the project and expressed support for developing the software, but they all stressed that most rhino managers were based in the field and had a strong focus on anti-poaching strategies, so they would have little time to create and maintain such a site. In addition, they relied on face-to-face meetings and phone calls to share information and would not use an on-line system as an alternative. Moreover, most of the rhino reserves already had websites that they used to describe their work and provide tourist information, and in some cases they used public relations companies to manage their social media outputs. Instead, they suggested that OurPark could be used to share information and documents between people belonging to different management groups, such as Project Rhino KZN or the KwaZulu-Natal Wild Dog advisory group, and could act as a useful resource for scientists working in these reserves to share information.

We also discussed OurPark with reserve managers and Biodiversity Stewardship Programme participants at the Conservation Practice Symposium and participated in the discussion on how to create a social learning network between the different CEPF projects in the MPAH. Once again there was a wide array of opinion: some people were reluctant to use online systems because of a lack of time or a preference for face-to-face interactions; some people were interested but stressed that such a system would have to be easy to use and some people were enthusiastic about its potential. In particular, several people thought there was great potential for using this system to provide a platform for small conservation projects to set up websites, share information and support social learning networks.

Conclusions and next steps

Rhino owner questionnaire

We were very happy with the progress we made during our scoping visit. All the rhino managers we met were very supportive of our plans and provided incredibly useful feedback on our draft questionnaire. We are confident that we have developed the basis of a successful monitoring system and our first aim is to conduct an initial survey to provide a snapshot of the current attitudes and perceptions of rhino managers and illustrate the value of this approach. Thus, our next steps will be:

1. Ask PROA to send out a link to the online questionnaire to their members and ask their regional representatives to encourage participation at a local level.

2. Publicise our project and use personal links to further raise the profile of the project amongst rhino managers and encourage participation.

3. Analyse the questionnaire results and produce a report showing our initial findings.

Social network software

Based on our discussions, we felt that OurPark could be used by rhino managers but this was a relatively low priority given the current need to focus on anti-poaching activities. However, we also felt that the OurPark system would be ideal for supporting a MPAH Learning Network, as it would let different CEPF projects share information and expertise, as well as provide a platform to share information with the outside world. One of its main

advantages is that it would let smaller, less well-funded PAs, such as Biodiversity Stewardship Programme participants and state PAs in Mozambique and Swaziland, create off-the-shelf websites, social network and social learning platforms within hours. Therefore, we recommend the next steps in the project should be:

1) Develop the OurPark software to provide a free, easy-to-use online social network and social learning system for protected areas.

2) Work with groups of different CEPF project partners to ensure that the software is relevant for their needs and provide initial support, so they can produce and maintain their own sites. Based on experience from other projects, we think this project should roll-out the process in the following four stages, given their relative need for online resources and capacity:

    a) ***Biodiversity Stewardship Programme participants***. Owners and managers of these protected areas are often well educated and dynamic individuals, but they lack the capacity to set up their own online systems and are not currently part of any larger management networks. Working with this group would address this capacity gap and feedback from participants would help strengthen the initial version of OurPark

    b) ***State and private protected areas in Mozambique and Swaziland***. These protected areas generally have limited budgets and so have not been able to afford access to the type of online systems used in South Africa. Working with this group would strengthen the online presence of these protected areas and help foster links with similar projects in South Africa.

    c) ***State, private and communal protected areas containing rhinos***. Many of these protected areas already have websites so this third stage would focus on the online groups part of OurPark, to provide the most relevant platform to foster a social learning network.

    d) ***All other protected areas in the MPAH***. The eventual aim is that all state, private and communal protected areas within the hotspot would have pages on the OurPark website.

Acknowledgements

We would like to thank Mark Gerrard, Roelie Kloppers, Kevin McCann and Tyrone Milne for all their help with organising our trip. We would also like to thank all of the rhino experts for giving us some of their valuable time and sharing their knowledge and wisdom.

Appendix 1: Correspondence about changes to proposed actions

Discussions about changes to the project were largely done over the phone but were initiated through the following emails:

----------Original Message----------
Sent: 15 June 2012 17:11
To: 'Roelie Kloppers'

Hi Roelie,

Sorry that I missed you when I was in KZN but I had some really useful conversations with Pete Goodman, Richard Emslie and Keryn Adcock about our rhino project. Richard and Keryn mentioned the Private Rhino Owners Association (PROA) and said I should get in contact with Pelham Jones. Apparently, PROA are already setting up an online community for rhino owners that they will use to collect data on rhino numbers, etc and so they might be interested in including some of our attitude and socio-economic questions. This would be great but it would mean slightly changing the focus of that part of the project. Does that sound OK?

PROA will also have a social learning and information sharing section on their website, so I don't think it makes sense to replicate their efforts. But I'm not sure how this fits in with your plans to provide such a resource for some of the key CEPF-funded projects in the MPAH. Would you still like us to talk to people from specific CEPF projects about their learning and networking needs? Do you have a specific type of approach in mind?

Best wishes, Bob
----------Original Message----------
Sent: 03 July 2012 11:26
To: Bob Smith

Hi Bob

I am very flexible on this and suggest you follow the advice of Pete and others. If we can integrate current CEPF-funded grantees into an existing network and add something to that network, then GREAT!

Regards, Roelie
----------Original Message----------
Sent: 11 September 2012 17:57
To: Roelie Kloppers

Hi Roelie,

Freya and I are planning our trip to KZN for our CEPF project. As part of this, we'll be attending the Ezemvelo Symposium as it will be a great opportunity to catch up with you and the other folk. We will also meet Pelham Jones in Jo'burg to discuss options for including our rhino owner attitudes monitoring questions in the new Private Rhino Owners Association database.

In addition, we'd like to talk to rhino owners about options for setting up a more general learning network/social network project and think this should initially focus on the Zululand/Maputaland reserve. Does that makes sense to you? If it does, please can you recommend who we should contact to see if we can visit them in mid-October to discuss our ideas. We'd like to talk to private and communal reserve managers and owners.

Best wishes, Bob

Appendix 2: Questionnaire

PILOT_Exploring the role of private reserves in rhino conservation

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Page 1 of 9

Welcome

To all managers of private reserves stocking rhino,
Currently the international community is generally unaware of the importance of the private sector in conserving rhino species in South Africa. However, as running costs and risk levels increase, so do stories of people considering quitting the business.

This questionnaire is designed to collect information about the considerable contribution of the private sector to rhino conservation. The overall results will be publicised to help inform government and the international community.

Critically, this study will highlight how changes in incentives and regulations influence private rhino ownership, and the potential consequences for rhino conservation in South Africa.

This survey is ANONYMOUS. We do not ask for your name or contact details.

It only takes a few minutes to complete. There are just 32 short questions.

Note that once you have clicked on the CONTINUE button at the bottom of each page you can not return to review or amend that page

Continue >

PILOT_Exploring the role of private reserves in rhino conservation

University of Kent

Page 2 of 9

Data Protection Statement

Data will be held in an encrypted format by the Durrell Institute of Conservation and Ecology, University of Kent, UK.

A report summarising results at the province level will be made available to survey participants.

Clicking 'Continue' indicates you consent to participate in this survey.

Continue >

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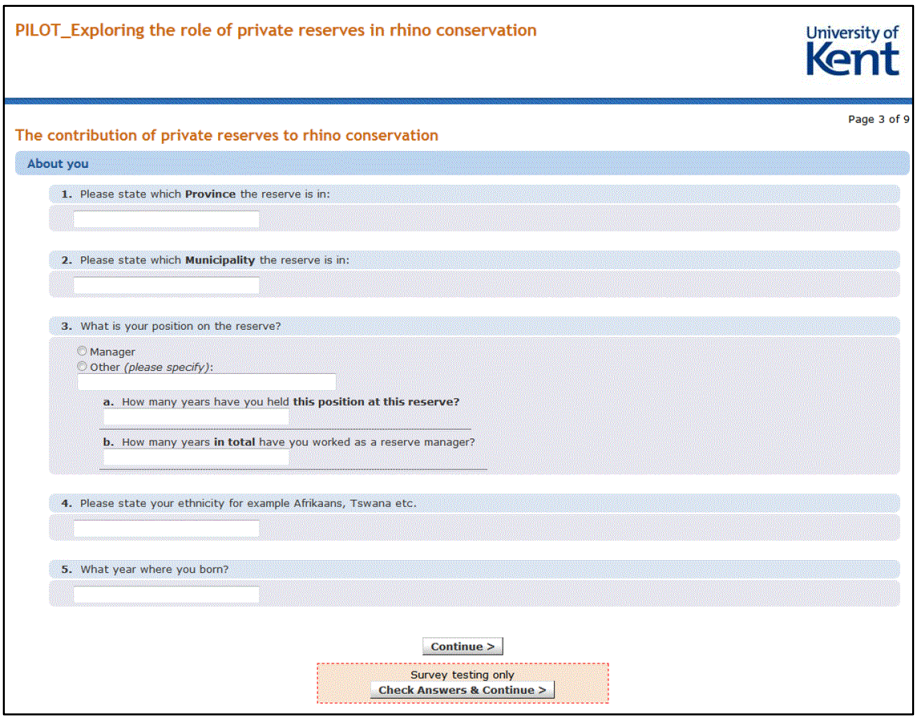

PILOT_Exploring the role of private reserves in rhino conservation

University of Kent

Page 3 of 9

The contribution of private reserves to rhino conservation

About you

1. Please state which **Province** the reserve is in:

2. Please state which **Municipality** the reserve is in:

3. What is your position on the reserve?

- Manager
- Other *(please specify)*:

a. How many years have you held **this position at this reserve?**

b. How many years **in total** have you worked as a reserve manager?

4. Please state your ethnicity for example Afrikaans, Tswana etc.

5. What year where you born?

Continue >

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About the reserve

6. Indicate the reserve type *(please select one)*

- ○ Private game
- ○ Private cattle & game
- ○ Communal game
- ○ Communal cattle & game
- ○ Other *(please specify)*:

Is the reserve linked to other reserves?

- ○ Yes
- ○ No

i. What type(s) of reserves is it linked to? *(select all that apply)*

- ☐ Private game reserve(s)
- ☐ Communal game reserve(s)
- ☐ State owned reserve(s)

7. What is the reserve size in hectares?

8. What business activities take place on the reserve? *(select all that apply)*

- ☐ Photographic tourism
- ☐ Wildlife production (live sales)
- ☐ Hunting - excluding rhino
- ☐ Hunting - including rhino
- ☐ Other *(please specify)*:

9. Approximately how many **white rhino** do you stock? *(please select one)*

- ○ None
- ○ 1-4
- ○ 5-9
- ○ 10-19
- ○ 20-50
- ○ 51-100
- ○ >100

10. In the last 12 months have your **white rhino** numbers: *(please select one)*

- ○ Remained the same
- ○ Decreased
- ○ Increased

11. In the last 12 months have you: *(select all that apply)*

- ☐ Bought any white rhino
- ☐ Sold any white rhino
- ☐ Hunted any white rhino
- ☐ Lost any white rhino to poaching
- ☐ None of these (numbers have remained the same)

12. Approximately how many **black rhino** do you stock? *(please select one)*

- ○ None
- ○ 1-4
- ○ 5-9
- ○ 10-19
- ○ 20-50
- ○ 51-100
- ○ >100

13. In the last 12 months have you **black rhino** numbers: *(please select one)*

- ○ Remained the same
- ○ Decreased
- ○ Increased

14. In the last 12 months have you:
(select all that apply)

- ☐ Bought any black rhino
- ☐ Sold any black rhino
- ☐ Hunted any black rhino
- ☐ Lost any black rhino to poaching
- ☐ None of these (numbers have remained the same)

15. Have you yourself seen rhino poaching directly on this, or another reserve? *i.e. have you seen the carcass of a poached rhino within a few days of the poaching incident? (please select one)*

- ○ Yes
- ○ No

16. Has a rhino been poached on this reserve in the last 3 years? *(please select one)*

- ○ Yes
- ○ No

17. Please indicate **how much you agree or disagree** with the following statements:

	Indicate how much you agree or disagree				
	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
a. ToPS permit application procedures for rhino management operations are vulnerable to security breeches	○	○	○	○	○
b. A centralised national ToPS permit system accessed by a small number of security-cleared individuals should be established	○	○	○	○	○
c. I am satisfied with the speed with which ToPS permits are issued in my province	○	○	○	○	○
d. Enforcement is too costly for me to continue stocking rhino	○	○	○	○	○
e. Regulations surrounding security (e.g. having to use private security companies) reduces the level of enforcement I can deploy	○	○	○	○	○

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University of Kent

Page 5 of 9

Reasons for stocking rhino

18. Why did you **start** stocking rhino? Please select **all reasons that apply to you,** then rank the ones you have selected

	Select all that apply	**Rank ONLY the items you selected** *1 = main reason, 2, 3 etc.* **You need to enter 0 for items you have not selected**
a. For hunting	☐	
b. For photographic tourism	☐	
c. For live sales	☐	
d. For conservation of the species	☐	
e. Other	☐	

19. How do your rhino contribute to reserve income? Please select **all that apply to you,** then rank the ones you have selected

	Select all that apply	**Rank ONLY the items you selected** *1 = main source of rhino income, 2, 3 etc.* **You need to enter 0 for items you have not selected**
a. Through hunting	☐	
b. Through photographic tourism	☐	
c. Through live sales	☐	
d. Other	☐	

20. What are your **main incentives** for stocking rhino? *(Optional)*

21. What are the **main concerns** that you have about stocking rhino? *(Optional)*

22. Please indicate **how much you agree or disagree** with these statements:

	Indicate how much you agree or disagree				
	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
a. I have sufficient financial resources to stock rhino	○	○	○	○	○
b. I have adequate habitat to stock rhino	○	○	○	○	○
c. I have sufficient knowledge and skills to stock rhino	○	○	○	○	○
d. These days I think rhino should be stocked on reserves where suitable habitat, security & management exists	○	○	○	○	○

23. Please indicate **how much you agree or disagree** with these statements:

	Indicate how much you agree or disagree				
	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
a. The current level of **rhino poaching reduces** the chance that I will **buy** more rhino	○	○	○	○	○
b. The current level of **rhino poaching increases** the chance that I will **sell** my rhino	○	○	○	○	○
c. The current **market price** of rhino **decreases** the chance that I will **buy** more rhino	○	○	○	○	○
d. The current **market price** of rhino **increases** the chance that I will **sell** my rhino	○	○	○	○	○

Continue >

Survey testing only
Check Answers & Continue >

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University of Kent

Page 6 of 9

Incentives and barriers to stocking rhino

24. Items listed below represent concerns that some people currently have about stocking rhino. Please select all that are **currently concerns to you,** then rank the ones you have selected

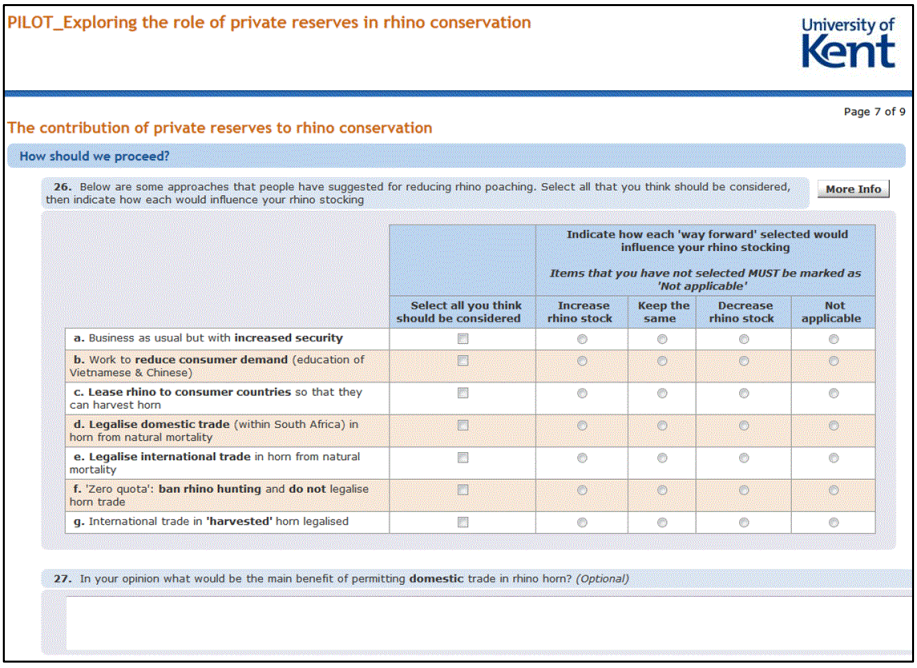
	Select all that are concerns to you	**Rank ONLY the items you selected** *1 = Highest concern, 2, 3 etc.* **You need to enter 0 for items you have not selected**
a. Cost of enforcement	☐	
b. Limited area of suitable habitat	☐	
c. Risk of losing assets	☐	
d. Current level of poaching in the area	☐	
e. Risk to safety of family and staff	☐	
f. Risk of low market value when selling rhino stock (via auction or private sale)	☐	
g. Not willing to accept the risk of experiencing rhino poaching on own reserve	☐	
h. Trend in poaching in recent years	☐	

25. For some people, items listed below represent incentives for buying rhino now. Please select all that are **incentives to you now,** then rank the ones you have selected

	Select all that are incentives to you	**Rank ONLY the items you selected** *1 = Highest incentive, 2, 3 etc.* **You need to enter 0 for items you have not selected**
a. Current market value of rhino is an incentive to buy rhino	☐	
b. Profit from hunting rhino is an incentive to buy rhino	☐	
c. Profit from photographic tourism is an incentive to buy rhino	☐	
d. Profit from live sales is an incentive to buy rhino	☐	
e. Contributing to conservation of rhino is an incentive to buy rhino	☐	

Continue >

Survey testing only
Check Answers & Continue >



PILOT_Exploring the role of private reserves in rhino conservation

University of Kent

Page 7 of 9

The contribution of private reserves to rhino conservation

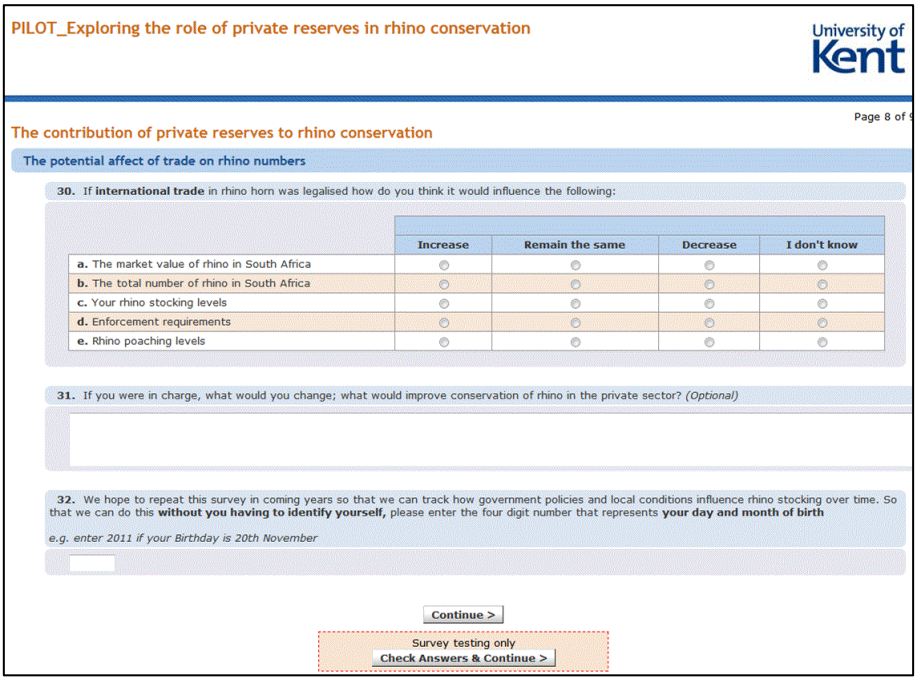
How should we proceed?

26. Below are some approaches that people have suggested for reducing rhino poaching. Select all that you think should be considered, then indicate how each would influence your rhino stocking

More Info

		Indicate how each 'way forward' selected would influence your rhino stocking *Items that you have not selected MUST be marked as 'Not applicable'*			
	Select all you think should be considered	Increase rhino stock	Keep the same	Decrease rhino stock	Not applicable
a. Business as usual but with **increased security**	☐	○	○	○	○
b. Work to **reduce consumer demand** (education of Vietnamese & Chinese)	☐	○	○	○	○
c. Lease rhino to consumer countries so that they can harvest horn	☐	○	○	○	○
d. Legalise domestic trade (within South Africa) in horn from natural mortality	☐	○	○	○	○
e. Legalise international trade in horn from natural mortality	☐	○	○	○	○
f. 'Zero quota': **ban rhino hunting** and **do not** legalise horn trade	☐	○	○	○	○
g. International trade in **'harvested'** horn legalised	☐	○	○	○	○

27. In your opinion what would be the main benefit of permitting **domestic** trade in rhino horn? *(Optional)*



PILOT_Exploring the role of private reserves in rhino conservation

University of Kent

Page 8 of 9

The contribution of private reserves to rhino conservation

The potential affect of trade on rhino numbers

30. If **international trade** in rhino horn was legalised how do you think it would influence the following:

	Increase	Remain the same	Decrease	I don't know
a. The market value of rhino in South Africa	○	○	○	○
b. The total number of rhino in South Africa	○	○	○	○
c. Your rhino stocking levels	○	○	○	○
d. Enforcement requirements	○	○	○	○
e. Rhino poaching levels	○	○	○	○

31. If you were in charge, what would you change; what would improve conservation of rhino in the private sector? *(Optional)*

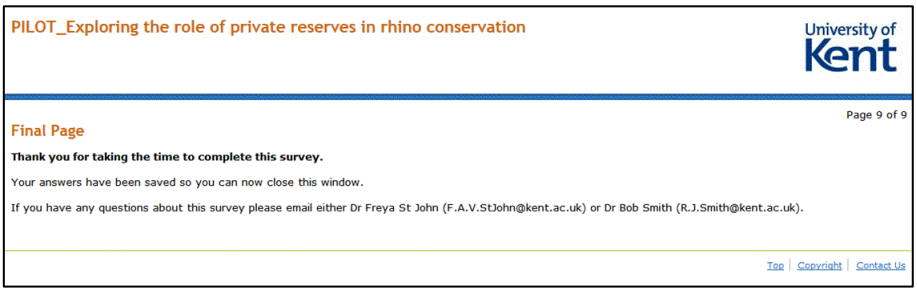
32. We hope to repeat this survey in coming years so that we can track how government policies and local conditions influence rhino stocking over time. So that we can do this **without you having to identify yourself,** please enter the four digit number that represents **your day and month of birth**

e.g. enter 2011 if your Birthday is 20th November

Continue >

Survey testing only

Check Answers & Continue >



PILOT_Exploring the role of private reserves in rhino conservation

University of Kent

Page 9 of 9

Final Page

Thank you for taking the time to complete this survey.

Your answers have been saved so you can now close this window.

If you have any questions about this survey please email either Dr Freya St John (F.A.V.StJohn@kent.ac.uk) or Dr Bob Smith (R.J.Smith@kent.ac.uk).

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Appendix 3: Social Learning Network software

The OurPark Project

Context

There are more than 130,000 protected areas, covering 13% of the Earth's land, and these are vital for conserving nature, creating jobs and encouraging the wise use of natural resources. This impacts the lives of millions of people but there is no easy way for the staff, visitors and neighbours of these protected areas to communicate and share information, despite the increasing availability of online and mobile technology that is connecting the planet.

This issue is particularly relevant for private- and communally-managed game reserves in the province of KwaZulu-Natal in South Africa. This community of reserve managers face a number of challenges and the current rhino poaching crisis means that all these protected areas are under huge pressure to protect both their animals and staff and share information with the wider world.

This is why we have launched the OurPark Project, creating an effective, quick and easy-to-use system allowing game reserves to connect with each other and their visitors and neighbours. OurPark will be based on an online social networking system and will let people share information and expertise. In doing so, it will give a voice to the conservation community and strengthen links with the outside world.

About the OurPark website

The OurPark Project will create a social network website so that each game reserve can rapidly produce a unique page for their protected area.

Their **Protected Area page** will let them connect with their conservation partners, visitors and neighbours and help their community share news and information and display maps and photos.

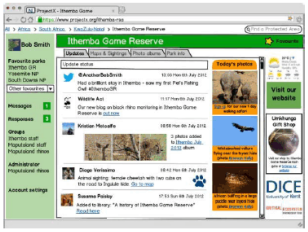
The website will also support **Group pages**, which will have restricted access and allow individuals from different Protected Areas to come together under themed groups to swap advice and experience and share resources.

Protected Area page components

News feed and status updates

This component will let people share the latest news about the Protected Area by adding status updates and by posting the latest relevant information from Twitter and Facebook.

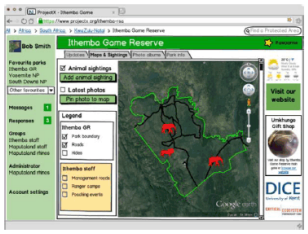
The component will also provide information about any new content on the page, such as photos and information about the Protected Area.



Maps

This component will show the location of recent animal sightings, allowing tourists to add data while in the Protected Area and other visitors to identify the best places for animal viewing.

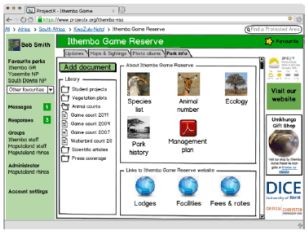
It will also show the Google Maps image of the Protected Area, together with the Protected Area boundary, roads and camps. Extra maps can be included with access restricted to certain groups.



Park information

This component will let people discover a wealth of information about the Protected Area. This could include illustrated species lists, data on animal numbers, a description of the Protected Area's history and ecology and the Management Plan.

The page could also include links to the Protected Area website, containing definitive information on park facilities, tariffs and on-line booking.

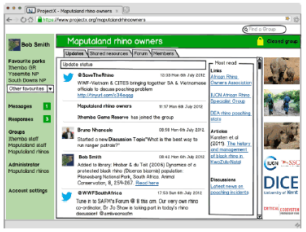


Group page components

News feed and status updates

This component mirrors that of the Protected Area page and will also let people share the latest news about the Group by adding status updates and by posting the latest relevant information from Twitter and Facebook.

It will also provide information about all the new content on the page, such as photos and information about the Group.



Shared documents

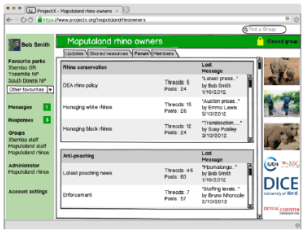
This component acts as an on-line resource for information that is relevant for the group. It will let members archive important forms and document templates, save important and interesting website links and share scientific articles.

This component could also store student dissertations and other work that was funded or supported by the group.

Forums

This component will let group members discuss topics of interest and share their insights and expertise.

It will also act as an archive of important information, so that group members can search for solutions to current problems based on the past experiences of others.



Proposal scope

This proposal covers the pilot phase of the project which would last 12 months and cover 5 private and community game reserves in South Africa. With new income sources, this would be followed by a phase two project to maximise the pilot benefits by expanding the number of game reserves in the social network and adding to the website functionality.

Technology

The OurPark Project will be at the forefront of technology-based conservation planning, public scientific data collection and biodiversity communication. It will be developed using an open source technology stack at the cutting edge of web application development, making it easy to add modifications and new features. The OurPark Project will run in the client's web browser, eliminating the need for software installation.

Fundamental to the development of the OurPark Project is collaboration and integration with existing applications, information, site feeds and social networking sites (Twitter, Facebook etc). The website will combine these with real time information through the application components: social media, maps, photos, group discussions and park information. This will form an information system to promote public engagement and provide decision support for conservation managers.

Component	Technology
Website	PHP / HTML(5) / CSS(3) / AJAX / jQuery
Mobile / tablet website	jQuery Mobile / HTML(5) / CSS(3)
Database	PostgreSQL with PostGIS
Maps	Google Maps API 3 / GeoServer /OpenLayers

Budget

This budget would develop the core components of the Protected Area and Group pages.

	Cost (US$)
Collaboration with South African partners	22,080
Software design and development	21,500
Software hosting, technology and maintenance	4,570
Project management	10,330
Total	**US$58,480**