

Rhinoceros ownership and attitudes towards global horn trade legalisation within South Africa's private wildlife sector

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SUPPLEMENTARY MATERIAL 1 Survey given to participants.

Incentivizing Rhino Conservation among Private Landowners in South Africa

Private landowners in South Africa play an important role in rhino conservation.

However, trade policy prevents landowners from earning revenues from the sale of rhino horn.

In this survey, we will ask you about how legal trade in rhino horn should be structured. We will also ask you for your opinions about rhino conservation in South Africa.

We will analyse the data collected from this survey to make policy recommendations. A report will be sent to Wildlife Ranching South Africa (WRSA), the Professional Hunters' Association of South Africa (PHASA), and the Department of Environmental Affairs.

The survey will take approximately 25–35 minutes to complete.

The survey is voluntary and you may withdraw at any time. You do not have to answer any questions you do not wish to. **Your answers will be kept anonymous and cannot be traced back to you.** No personally identifying information will be collected.

There are no anticipated risks of participation in the survey. There are no direct benefits to you from participating in the survey. You must be 18 years or older to participate.

If you agree to participate in this survey, please click on the arrow at the bottom of the page.

If you have questions about this study, please contact the principal investigator, Elena Rubino:
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If you have questions about your rights as a research participant, please contact the University of Florida IRB Institutional Review Board office at:
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1 Do you participate in a commercial wildlife-based business in South Africa (for example, hunting, breeding, tourism)?

- ☐ Yes
- ☐ No

2 First, we would like a little background information on your participation in the wildlife industry.

Please consider **only the income you earn from wildlife**. Out of 100%, what percentage of this income do you earn from:

- _____ Trophy hunting
- _____ Biltong hunting
- _____ Live sales of plains game
- _____ Live sales of rare species and/or color variants
- _____ Ecotourism (e.g. photographic tourism)
- _____ Game meat production/culling
- _____ Other (please specify)

3 Which of these options describes you? (You may choose multiple)

- ☐ I own land used for my wildlife operation
- ☐ I lease land used for my wildlife operation
- ☐ I contract with landowners to use their land for hunting
- ☐ I manage land used for wildlife operations
- ☐ I own or work in a business involved in the wildlife economy (for example, professional hunter)
- ☐ Other (please explain) _____

4 Are you currently a member of any wildlife industry organizations? (You may choose multiple)

- ☐ Wildlife Ranching South Africa (WRSA)
- ☐ Professional Hunters' Association of South Africa (PHASA)
- ☐ South African Hunters and Game Conservation Association (SAHGCA)
- ☐ Other (please explain) _____
- ☐ I am not a member of any wildlife industry organization

There has been much debate about removing the CITES trade ban on rhino horn trade.

Removing the CITES ban and the national moratorium on horn trade would allow rhino owners to sell rhino horn legally. Please indicate your level of agreement with each of the following statements:

5 "I believe that legalizing the global rhino horn trade (i.e. removing the CITES trade ban) will benefit **rhino owners**."

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

6 "I believe that legalizing the global rhino horn trade (i.e. removing the CITES trade ban) will benefit **rhino conservation**."

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

7 "I believe that legalizing the global rhino horn trade (i.e. removing the CITES trade ban) will **reduce rhino poaching**."

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

8 "It would be acceptable to me if global horn trade legalization led to intensive rhino farming."

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

10 Do you think that interacting with the **SA Department of Environmental Affairs** causes a risk of poaching?

☐ Definitely yes

☐ Probably yes

☐ Maybe

☐ Probably not

☐ Definitely not

☐ I don't know

11 Do you think that interacting with your **provincial** environmental department causes a risk of poaching?

- ☐ Definitely yes
- ☐ Probably yes
- ☐ Maybe
- ☐ Probably not
- ☐ Definitely not
- ☐ I don't know

12 How concerned are you that land reform may negatively impact your wildlife business? (please slide along the bar)

(1) Not at all concerned (2) A little concerned (3) Concerned
(4) Very concerned

13 In which provinces do you own, lease, or manage land? (You may choose multiple)

- ☐ Eastern Cape
- ☐ Free State
- ☐ Gauteng
- ☐ KwaZulu-Natal
- ☐ Limpopo
- ☐ Mpumalanga
- ☐ Northern Cape
- ☐ North West
- ☐ Western Cape
- ☐ I do not own, lease, or manage any land

14 Which category best describes your income (before taxes) in 2016?

- ☐ R1 000 000 or less
- ☐ R1 000 001 - R2 000 000
- ☐ R2 000 001 - R3 000 000
- ☐ R3 000 001 - R4 000 000
- ☐ R4 000 001 - R5 000 000
- ☐ R5 000 001 - R6 000 000
- ☐ R6 000 001 - R7 000 000
- ☐ Greater than R7 000 000

15 How important is your game operation to your total income?

- ☐ Very important
- ☐ Important
- ☐ Moderately important
- ☐ Slightly important
- ☐ Not important at all

16 Approximately how much land do you own, lease, and/or manage, in total?

- ☐ I do not own, lease, or manage any land
- ☐ < 100 ha
- ☐ 100 - 500 ha
- ☐ 501 - 1000 ha
- ☐ 1001 - 2000 ha
- ☐ 2001 - 3000 ha
- ☐ 3001 - 4000 ha
- ☐ 4001 - 5000 ha
- ☐ > 5000 ha

17 What is your gender?

- ☐ Male
- ☐ Female

18 What is your age?

- ☐ 18-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46-55
- ☐ 56-65
- ☐ 66-75
- ☐ 76 or older

19 Do you currently have rhinos on your property?

(Your answers to all questions will be kept strictly **anonymous and confidential**. Your answers **cannot** be traced back to you.

We ask because we are documenting the financial costs and risks associated with owning rhinos. These costs are poorly documented and are often not considered in policy debates.

We will ask you about these costs in the following questions. This information is necessary to generate economically sound policies.)

- ☐ Yes
- ☐ No
- ☐ I do not want to answer

20 How much do you currently spend per month (in ZAR) on **only security** to protect your **entire rhino herd**?

You may write in an estimate **or** select a range.

- ☐ Monthly estimate (ZAR) _____
- ☐ Less than R50 000
- ☐ R50 001 - R100 000
- ☐ R100 001 - R150 000
- ☐ R150 001 - R200 000
- ☐ R250 001 - R300 000
- ☐ Greater than R300 000
- ☐ I do not spend any additional funds on rhino-specific security

Consider all of the **other costs** to manage your rhino herd, for example: supplementary feed costs, permit costs, management plan/consultant costs, veterinary costs, insurance costs, dehorning costs, and horn storage costs.

21 Approximately how much do you spend on non-security related costs per month (in ZAR) to manage your **entire rhino herd**?

You may write in an estimate **or** select a range.

- ☐ Monthly estimate (ZAR) _____
- ☐ Less than R50 000
- ☐ R50 000 - R100 000
- ☐ R100 001 - R150 000
- ☐ R150 001 - R200 000
- ☐ R250 001 - R300 000
- ☐ Greater than R300 000
- ☐ I do not spend any additional funds on my rhino herd

22 Do you currently dehorn your rhino herd?

- ☐ Yes
- ☐ No

23 Are your security costs and other rhino-related expenses greater than the revenue you generate from your rhinos?

- ☐ Always
- ☐ Almost always
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

24 Do you ever consider removing rhinos from your land?

- ☐ Frequently
- ☐ Occasionally
- ☐ Rarely
- ☐ Never

In addition to the financial costs involved in rhino ownership, there are also risks to consider.

25 How concerned are you that owning or managing rhinos impacts the safety of your...(please slide along the bar)

Family:

- | | | |
|--------------------------|------------------------|---------------|
| (1) Not at all concerned | (2) A little concerned | (3) Concerned |
| (4) Very concerned | | |

Guests:

- | | | |
|--------------------------|------------------------|---------------|
| (1) Not at all concerned | (2) A little concerned | (3) Concerned |
| (4) Very concerned | | |

Employees:

- | | | |
|--------------------------|------------------------|---------------|
| (1) Not at all concerned | (2) A little concerned | (3) Concerned |
| (4) Very concerned | | |

26 How concerned are you that your rhinos will be poached?

- | | | |
|--------------------------|------------------------|---------------|
| (1) Not at all concerned | (2) A little concerned | (3) Concerned |
| (4) Very concerned | | |

27 How concerned are you about government decisions related to rhinos?

- | | | |
|--------------------------|------------------------|---------------|
| (1) Not at all concerned | (2) A little concerned | (3) Concerned |
| (4) Very concerned | | |

28 How concerned are you about injury risks to your rhinos during the dehorning process?

- | | | |
|--------------------------|------------------------|---------------|
| (1) Not at all concerned | (2) A little concerned | (3) Concerned |
| (4) Very concerned | | |

29 Despite the costs and risks associated with rhino ownership, the private sector is a significant contributor to rhino conservation in South Africa.

Why do you keep rhinos on your land? (You may choose multiple)

- ☐ They are good grazers and/or browsers for my land
- ☐ I want to have all of the species native to the area on my land
- ☐ I want to have the Big 5 on my land
- ☐ They are attractive to visitors
- ☐ I offer rhino hunting
- ☐ I consider rhino horn to be a potentially valuable financial investment
- ☐ I am passionate about rhino conservation
- ☐ Other (please specify) _____

You have indicated you do not currently own rhinos.

30 How much do each of the following factors affect your decision about whether or not to own rhinos?

The size of your land:

(1) Not at all concerned	(2) A little concerned	(3) Concerned
(4) Very concerned		

Safety concerns for your family:

(1) Not at all concerned	(2) A little concerned	(3) Concerned
(4) Very concerned		

Safety concerns for your guests:

(1) Not at all concerned	(2) A little concerned	(3) Concerned
(4) Very concerned		

Safety concerns for your employees:

(1) Not at all concerned	(2) A little concerned	(3) Concerned
(4) Very concerned		

Concerns about rhinos being poached:

(1) Not at all concerned	(2) A little concerned	(3) Concerned
(4) Very concerned		

Concerns about government decisions related to rhinos:

(1) Not at all concerned	(2) A little concerned	(3) Concerned
(4) Very concerned		

31 Have you ever owned rhinos?

- ☐ Yes (I used to own them)
- ☐ No (I never have)

32 Why do you no longer own rhinos? (You may choose multiple)

- ☐ They were too expensive to keep
- ☐ I felt having rhinos put my ranch in danger
- ☐ I lost at least one of my rhinos to poaching
- ☐ I used to live on another property
- ☐ Other _____