

PROPERTY ASSESSMENT FOR INTRODUCTION OF BLACK RHINOS

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When rhino densities get too high, density dependent feedbacks can start operating on the population. A number of factors then can act to depress population growth rates, and maybe even reduce population size.

For example poorer nutrition caused by increased densities can lead to

- A decline in conception rates
- An increase in age at first calving
- An increase in juvenile mortality rate
- An increase in inter-calving interval
- An increase in social problems and especially fighting (esp. males)

Meeting the regional conservation goals requires you to rather take off animals before performance is reduced when densities reach critical levels.

Before being able to bid on auction for black rhinos you will be required by the Natal Parks Board to have your property assessed. One of the main reasons behind such an assessment is to try to ensure that by putting a minimum founder number on your farm you will not be, or soon become, overstocked.

The assessment is split into two sections relating to 1) biological and 2) non-biological assessments.

BIOLOGICAL ASSESSMENT

The biological assessment aims to determine whether your property is big enough to have a minimum long-term carrying capacity of a minimum of 10 animals, and preferably at least a carrying capacity of 13.

It also estimates the ecological carrying capacity with a view to estimating the maximum founder number you can put in. This is normally no more than half of your estimated maximum productivity carrying capacity. To be able to bid on auction the maximum founder number for your population has to be assessed at at least five.

The assessment team should also be able to give you an initial rough estimate of the Estimated Maximum Productivity Carrying Capacity (EMPCC) for your property. This represents the maximum population density at which density-dependent effects are believed to have no negative feedback on individual reproductive performance. EMPCC effectively represents the estimated size of population at which maximum sustainable yield can be obtained. EMPCC is perhaps better known as Estimated Economic Carrying Capacity.

NON-BIOLOGICAL ASSESSMENT

In the case of auctions the decision is simply whether or not each property passes a set of minimum criteria to be allowed to bid. The non-biological assessment is split into a number of subjects. In each subject the assessors are primarily looking for any obvious negative or positive points. In a few cases failure to meet certain criteria may mean you may not be allowed to bid on auction.

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The main topics considered are

1: In-house security/management

Staff Density, Staff Skills, Willingness to Cooperate/Attitude, Apparent Management Competence/Conservation Record, Detection and Reaction Ability, Staff Conditions/Apparent Motivation

2) Socio-political considerations

3) Fencing

Must have or be prepared to put in a fence which at least meets minimum set standards.

4) Veterinary considerations

Only really a problem if anthrax occurs every year.

5) Ability to remove animals in future

Difficult terrain for capture should be listed as an obvious negative factor. This is especially the case for populations with estimated carrying capacities of less than 20. This is because these very small populations will undoubtedly have to be intensively managed in future. This is not sufficient grounds to fail a property on its own.

6) Other minimum standards

Potential areas will FAIL if the following criteria are not met:

In Namibia, farmers must be a *bona fide* land-owners and Namibian citizens, and confirmed by their banks to be in no financial difficulties. In the case of a company-owned farm, the applicant must be the major shareholder. Resident land-owners, and those without criminal records are preferred. In Namibia, the land-owner must be prepared to enter into a contractual agreement with the government about the rhino.

In Namibia the farm currently must be at least 6 000ha; in South Africa the minimum size is determined by the estimated ecological carrying capacity of the vegetation, which must be at least 3 000ha.

The rhinos should be free-ranging. For a number of biological reasons (discussed later) larger areas are preferable to small properties.

The property should be in the range of the black rhino ecotype involved. There should be no chance of mixing of different ecotypes.

GET A MORE DETAILED ASSESSMENT BEFORE BUYING

Before spending vast amounts of money on buying black rhino, it is strongly recommended that you employ a recognised rhino assessment consultant to give you a more detailed assessment. See paper on managing rhinos by Emslie and Adcock in this volume.