uNAIBEB (Field Officer), Dora !Nawas Conservancy: rhinos have been translocated to other parts of the world. Why have we not considered parts of Namibia prior to other parts of the world.



Figure 3. Delegates during presentations and discussions on biological management options and case-studies

rdTOIT (WWF), Zimbabwe: Spreading the risk allows us to not have all our "eggs in one basket". Examples were given on what happened in Zambia and should all the rhinos be here, the species would have been lost. This gives you options that allow you to "trade" rhinos to support rhino conservation programmes.

aUARIJE (Field Officer), Omatendeka Conservancy: First you need to reintroduce these rhinos into the conservancy areas where they used to occur. The Kunene Region has not reached the carrying capacity yet. Namibia and Kunene should be first. You cannot give food away while your kids at home are hungry.

rdTOIT (WWF), Zimbabwe: I agree and it is not one or the other, you should first prioritise – you are right. However, with the options available, continental goals can also be met.

2.3.2 Namibian Perspective on Rhino Conservation Programme

2.3.2.1 Presentation by Mr. Pierre du Preez, MET Rhino Co-ordinator for Namibia.

Pierre, as the senior scientist for MET, began by outlining the process behind the translocation of black rhino to Botswana (mentioned in rdTOIT's presentation) – this was a gift from the President of Namibia, originally it had been two and later increased for conservation goals.

Introducing his talk, pdPREEZ stressed the importance to see Kunene in the national perspective when developing a vision for management of black rhino in Kunene. As background, the vision for the Namibian rhino strategy was outlined. Collaboration across the continent was highlighted in the conservation of the white rhino, and the lesson's learnt from this joint

programme. Illegal trade was outlined and how the sub-species occurring in Namibia (*Diceros bicornis bicornis*), is distributed across range states. pdPREEZ outlined the numbers of rhino in the country, between each population, stressing that these figures are confidential and should be treated in an appropriate manner. Here, he highlighted the levelling off of growth of the Kunene population, when compared to that of Etosha National Park.

Biological management principles were outlined in greater detail, including: Maximum Sustainable Yield; Ecological Carrying Capacity; and, that managing at a level that the habitat can sustain gives the best growth. Examples from the National Programme were used to illustrate these concepts. To reach the vision, examples of different growth levels were used to stress the importance of investing in biological management. Also, how this would provide a buffer against poaching; and, would minimise loss of genetic diversity.

Examples of populations of rhino in South Africa, where a delay in investing in biological management resulted in slow growth from 1998, were used to show the loss in the number of rhino occurring in these populations now. The outcome of exceeding carrying capacity, and the resulting loss of rhinos, was described. Here, biological management was described as a mean of investing, with interest building up on the initial capital. To display this, examples were given where populations of rhinos have "eaten" into resources. This factor results as the availability of food and water (resources) is reduced by the increasing number of rhinos, resulting in the condition of animals reducing, which in turn impacts breeding and rhino population growth levels.

The presentation then discussed what factors have a negative effect on a population growth? This included: impact of skew sex ratios on growth; and, how mortalities can reduce growth at different age categories. Indicators of how to measure growth were outlined: calf ratios per cow were outlined and the example of Kunene was used were cows have increased but the number of calves has not proportionally increased. The concept of calving intervals was outlined, giving examples from the SADC region – with an indicator of good breeding being a 2.5 year interval. Pictures of animals in different conditions were used to explain how a reduction in the availability of food can impact calving and the growth of the population.

The role of monitoring, and the use of this information to allow informed decisions on developing biological management strategies were outlined. This stressed the importance of the discussions and planning process we are going through now. In conclusion an example of the successes achieved with the white rhino programme at Waterberg Plateau Park, by incorporating biological management, was shown. For a summary of the slides used in the presentation see Appendix Four.

2.3.2.2 Questions

The following questions, comments and answers were entertained:

bROMAN (Torra Conservancy): Does Kunene not get recognition for assisting in the spreading of rhinos and the increase in numbers?

pdPREEZ (MET), Rhino Co-ordinator: Correct, these rhinos were moved in the 1960's to Etosha and the last translocation took place in 1989. Looking forward, we see this process as continuing on the ground made at the Grootberg meeting in November 2001and the steering committee meetings of the Darwin Initiative Programme.

Chief LKASAONA (Traditional leadership), Warmquella area: During the presentation the figures indicated the increase of rhino numbers in Etosha is faster in comparison to Kunene. What is the reason for this discrepancy?

pdPREEZ (MET), Rhino Co-ordinator: The increase in Etosha is more because of the increased knowledge of all the people involved. Mike will explore this issue further in his talk.

rdTOIT (WWF), Zimbabwe: As an outsider, the issue that growth is slowing in Kunene is a not a failure, it is an indication that the programme has been an incredible success. Management is an active process that all those involved can be proud of.

rLOUTIT: (SRT), Trustee: Also, to add to Pierre, and give further clarity to the Chief, Etosha has been the main donor population and the stimulation of the population has resulted into the increase in numbers.

2.3.3 Kunene Status and Results of SRT Study

2.3.3.1 Presentation by Mr. Michael Hearn, SRT Director of Research

This presentation disseminated the results of the report: Assessment of Biological and Human Factors Limiting the West Kunene Rhino Population, Semester 4-5 Task 5.3-1.1 (Hearn, 2003). A background of the conservation efforts was presented, discussing the suite of approaches undertaken by community, government and private sector stakeholders in the successful conservation of the Kunene black rhino. Unique aspects of this population were outlined. This included this population representing one of only four unreconstructed populations of black rhino in the world – where no rhino have been reintroduced to supplement the population – others include: the remaining animals in Cameroon; the Masai Mara population in Kenya; and, the Hluhluwe-Umfolozi Park population in South Africa.

Current monitoring methods used to assess population performance and distribution were outlined, highlighting the role of SRT teams in gaining access to the often rugged terrain by often innovative means, such as the Camel team based from the village of Khowarib. This highlighted the role of community-based teams in undertaking patrols to monitor the black rhino, emphasising the important role of community members in this conservation programme.

The distribution of rhinos across the range was presented, indicating the ecological factors that impact the population. Home ranges of rhinos were described, how these reflect the distances rhinos must travel in search of food and water, and the availability of these resources in Kunene. Criteria to monitor population performance were described: calving intervals; calving ratios; and, sex ratios of the population and how these are used to monitor population performance. The results of these analyses were presented. (See Appendix Five).

The objectives of biological management for the Kunene population were reaffirmed: to manage rhinos in the current population for good growth; to provide animals to repopulate other arid areas of the historical range; to manage rhinos (and remove) to minimise inbreeding; and, to manage rhinos to maintain good veld conditions for other browsers & rhinos. Also, activities in support of these objectives were outlined, such as research by the SRT/DICE Darwin Initiative Programme and the MET/SADC Rhino Programme training of MET, SRT and community monitoring team. For a summary of the slides used in the presentation see Appendix Five.