

## ZIMBABWE LOWVELD: DEHORNING EXPERIENCE

### RAOUL DU TOIT – INTERNATIONAL RHINO FOUNDATION

The end-2010 total of black and white rhinos in the Zimbabwe Lowveld conservancies was 530. Poaching in these areas has declined since 2008 due to 1) concerted action against poachers, facilitated by intelligence systems, resulting in a higher proportion of poachers being arrested or killed in armed encounters; 2) strategic translocations of rhinos. Strategic dehorning of rhinos has also been undertaken. An average of 62 rhinos (black and white) have been dehorned in Lowveld conservancies each year over the past three years.

The dehorning is undertaken to reduce reward for poachers within a reward / risk equation:

$$\text{Poaching pressure} = \frac{\text{Reward to poacher (illegal sale of horn)}}{\text{Risk to poacher (of being arrested or killed)}}$$

Dehorning reduces the amount of horn that the poacher can obtain by killing a rhino and therefore the payment that he receives from the sale of the horn (which is increasingly sold at a price per kilogramme rather than a price per horn). However, strong anti-poaching effort to maintain the risk to the poacher is essential since if the risk he faces is low, then he will accept a low reward, therefore he will still poach dehorned rhinos. Can we say if dehorning is effective in reducing rhino mortality? The overall annual mortality rate of dehorned rhinos in four Lowveld conservancies (9.1 %) has been less than the annual mortality rate of horned rhinos in the same areas (14.1 %) suggesting that dehorning has been effective.

In Lowveld populations, 100 % dehorning of rhinos has never been undertaken due to the high cost of doing so. Instead, dehorning has been opportunistic (i.e. when rhinos are immobilised for other reasons such as translocation, treatment of injuries, ear notching, etc.) or strategic (e.g. dehorning rhinos that live near a main road that poachers tend to use).

Displacement of dehorned rhino bulls from their home ranges has not been detected during the intensive monitoring that is undertaken in Lowveld conservancies. The social interactions of rhinos are more complex and more long-term than is appreciated by those who view rhinos simplistically as solitary, highly aggressive animals that fight a lot and need intact horns to do so. Another suggestion is that dehorned rhinos will have a higher rate of calf mortality than horned rhinos, due primarily to a reduced ability to defend their calves against predators. However, the average intercalving interval for a sample of 23 dehorned black rhino cows in Lowveld conservancies was found to be 31.2 months (2.6 years compared to an average of 2.76 years for horned rhinos within 85 black rhino populations that have been closely monitored by the Southern African Development Community (SADC) Rhino Management Group), and natural population growth rates have consistently been over 7 % per annum. Therefore it appears that dehorning has not had an adverse effect on population growth in these populations.

In general therefore, the Zimbabwean experience suggests that dehorning can be effective in reducing poaching of rhinos unless the risk to poachers of being detected is so low that it is still worth the poachers obtaining horn stubs. It also suggests that behavioural and ecological effects arising from dehorning are not significant in relation to the greater risk of horned rhinos being poached.