



THE REPUBLIC OF ZIMBABWE



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# **Zimbabwe Rhino Management Plan Framework**

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Recommendations from the Department of National  
Parks and Wildlife Management Seminar

Held at the Boulton-Atlantica Centre, Norton,  
Zimbabwe, 12 December 1996

APRIL 1997

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# Zimbabwe Rhino Management Plan

## Acknowledgments

IUCN's Regional Office for Southern Africa was pleased to assist the Zimbabwe's Ministry of Environment and Tourism, the Department of National Parks and Wildlife Management, and the broader group of stakeholders in Zimbabwe's Rhino management and conservation efforts. The mission statement for IUCN's work in Southern Africa, developed by the IUCN membership which includes the Ministry of Environment and Tourism and many of the other stakeholders, specifically targets action to strengthen and integrate approaches for the sustainable and equitable use of natural resources and the conservation of biological diversity. The contribution provided by this Seminar to the Ministry and Department's ongoing review of National Parks and Wildlife Policy clearly contributes to this end. Furthermore, the practical linkages established between the IUCN Membership, Commissions (in this case the Species Survival Commission's African Rhino Specialist Group) and the Secretariat marks an important advance in realising the full potential of IUCN's contribution to the region.

IUCN's intervention was initially conceived by the Secretary for Environment and Tourism, Mr. July Moyo, as a mechanism to bring a broader range of national stakeholders into the ongoing policy review process. The Acting Director of the Department of National Parks and Wildlife Management, Mr. Willis Makombe, with support from several of his staff including Mr. Moses Choto, Dr. Cecil Machena and Dr. Morris Mutsambiwa, provided the leadership and guidance for this seminar.

On the basis of this demand, the Royal Netherlands Embassy in Zimbabwe provided financial support to a series of four policy seminars addressing first rhino management, then elephant management, and thereafter CAMPFIRE and Conservancies, and biodiversity conservation.

Both IUCN's Regional Office for Southern Africa and the selected members of the SSC African Rhino Specialist Group (AfRSG) contributed additional time and resources. Particular thanks is due to Carmel Mbizvo and Stella Mutondoro of IUCN ROSA, and Dr. Martin Brooks, Dr. Holly Dublin and Prof. Nigel Leader-Williams of the SSC AfRSG.

Nils D. Christoffersen  
Seminar Facilitator

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# Background

The Government of Zimbabwe initiated a review of national park and wildlife management policies in 1995, which was marked by a Departmental Seminar, including senior officials of the Ministry of Environment and Tourism, convened from 3-6 October 1995 at the Natural Resources College in Mushandike Sanctuary, Masvingo. The Seminar reviewed all existing policies, with in-depth discussions on specific management issues, and provided preliminary recommendations to the Minister.

Since this event, the Department of National Parks and Wildlife Management has coordinated the ongoing review of policies, and the development of specific recommendations. This review is being assisted by a Technical Committee consisting of MET/DNPWLM personnel, University of Zimbabwe staff and NGO representatives initially convened to assist in the national preparations for CITES.

In November 1995, the Secretary for Environment and Tourism, Mr. July G. Moyo, requested IUCN ROSA to assist in securing external input, from the region and internationally, to the policy review process (*See Annex 1*). Specifically, the Secretary requested IUCN ROSA to seek to assist the Department of National Parks and Wildlife Management in developing strategies and policies for:

- Elephant Management
- Rhino Management
- Biodiversity Conservation
- CAMPFIRE and Conservancies

Further consultations with the Secretary for Environment and Tourism and the Acting Director of National Parks and Wildlife Management in January, 1996, reached agreement on the process to be employed in this project - as detailed below - and on a short-list of expertise drawn from IUCN's Secretariat, Commissions and other relevant regional and international bodies.

## Seminar Process

The Department is the lead agency for managing the policy review process as per the direction set by the Secretary of the Ministry of Environment and Tourism. In this capacity the Department is responsible for the following tasks:

### *Before each Seminar*

- Identifying all relevant documentation for review by the external experts and providing copies to IUCN ROSA for further distribution to the experts;
- Finalising each seminar's participant list and distributing invitations;
- Approving each seminar agenda;
- Reviewing the advance comments provided by the external experts and responding as necessary with comments back to IUCN ROSA to facilitate the structuring of discussion;

### ***During each Seminar***

- Hosting and opening each seminar;
- Participating actively in each seminar, including providing relevant additional information concerning progress on the policy review process since the Departmental Seminar at Mushandike, October 1995;
- Closing each seminar with an assessment of the discussions and recommendations, and a briefing on the remaining steps in the process to complete each subject's management plan and policy framework;

### ***Following each Seminar***

- Review the results (both product and process) with IUCN ROSA to ensure continuing improvement in the Policy Seminar Series;
- Review the draft seminar report provided by IUCN ROSA and revert with comments within 7 days of receipt to ensure timely completion and distribution;
- Manage the completion of the management plan and policy review process, including the completion of new draft policies if and as required by the revised management plans through continued consultation with the relevant stakeholders;
- Table recommendations before the Parks Board.

IUCN ROSA is providing direct technical assistance to the Department, including the following responsibilities:

### ***Before each Seminar***

- Secure the identified and approved external experts;
- Distribute the documentation provided by the Department to the external experts;
- Secure advance comments from the experts and forward them to the Department for review and comment;
- Manage all logistical arrangements relevant to the participation of the external experts, and provide a final briefing based on any response from the Department on their advance comments;

### ***During each Seminar***

- Facilitate the seminar, with an emphasis on optimising the participation and input from the invited stakeholders, drawing on inputs from the external experts as necessary to clarify technical issues or derive lessons learned from similar relevant experience in other countries;
- Maintain a record of the proceedings and the main recommendations.

### ***Following each Seminar***

- Secure final inputs and all necessary notes and documentation from the external experts for the completion of the Seminar Report;
- Draft the Seminar Report, and submit to the Department for review and comment;
- Revise the Seminar Report following receipt of the Department's comments and distribute to all Seminar Participants and other relevant stakeholders as agreed with the Department;
- Provide continued support to the process as defined and requested by the Department within the limits of IUCN ROSA's own human and financial capacity.

# Rhino Management Seminar

## Introduction

The three selected external experts are each members of the African Rhino Specialist Group (AfRSG) under IUCN's Species Survival Commission. They were as follows:

1. Dr. Martin Brooks, Chairman of the AfRSG and Head of Scientific Services, Natal Parks Board, South Africa
2. Dr. Holly Dublin, Senior Conservation Advisor, Africa and Madagascar Programme, WWF International
3. Dr. Nigel Leader-Williams, Professor of Biodiversity Management, University of Kent, United Kingdom.

The documentation provided by the Department for review and upon which the Seminar discussions were based was as follows:

- Parks and Wildlife Act, 1975 as amended 1 August 1990
- Statutory Instrument 362 of 1990 (Sections relevant to the specific seminar)
- Policy for Wildlife in Zimbabwe
- Protected Species of Animals and Plants in Zimbabwe
- Proceedings and papers from the Ministry's review of National Parks and Policy Issues
- Policy on the importation and export of live animals

The full list of participants is attached as Annex 7.

## Opening remarks by Mr. Makombe

The Acting Director of the Department, Mr. Willis Makombe, welcomed all the participants to the days seminar, thanking in particular the attendance of the three external experts, the IUCN ROSA facilitators and the Provincial Wardens.

By way of background to the day's discussions, Mr. Makombe reported that the overall population of black rhinos in the Zimbabwe had plummeted from levels as high as 2000 during the last twenty years to less than 250 by the early 1990's. Poaching was the principal cause of this decline, and the Department reacted by drafting a full Black Rhino Conservation Strategy in 1992, and the following year developed an Emergency Action Plan for the protection of rhinos. The new strategy focused on the capture, dehorning and relocation of rhinos within Intensive Protection Zones inside the Parks and Wildlife Estate, as well as within a few select private conservancies. The second branch of the strategy emphasised captive breeding to rebuild population numbers, including breeding within centres inside Zimbabwe as well as in Australia and the USA. Although not all implementation action under the strategy was successful, the overall impact was positive with population numbers now exceeding 320 black rhinos.

Mr. Makombe noted that the results of the Seminar will be used by the Department in their continued review of existing policies, and in the development of an updated rhino management plan.

## **Goal and Objective of the Seminar**

Nils D. Christoffersen, Regional Programme Coordinator of IUCN ROSA and Facilitator of the Seminar, introduced the goal and objective set for the days discussions. The goal statement was:

*Through a facilitated process with some of the pertinent stakeholders, develop recommendations relevant to the ongoing National Rhino Management Policy and Plan development process.*

Specifically, the Seminar sought to achieve the following objectives:

1. Main challenges facing black and white rhino management in Zimbabwe identified;
2. Existing goals and objectives for black rhino management reviewed and recommended amendments developed - drawing wherever possible on experiences from Zimbabwe and neighbouring Range States;
3. List of elements required in national policy to support the recommended new management plan framework identified; and,
4. Future steps in the policy and planning development process presented and discussed.

Questions and comments were sought on this framework for the discussions. The participants were satisfied with the goal and objectives, but non-governmental participants expressed concern that they were not provided with the background documentation upon which the Seminar was based, in particular the proceedings of the Departmental Seminar in Mushandike. The Acting Director then circulated one copy of this report for use by the participants during the day's discussions.

## **Situation Overview**

Dr. Martin Brooks provided a consolidated presentation of the comments prepared by three external experts on the documentation provided by the Department.

### **Black Rhino Trends in Africa**

Available information indicates that there was in the order of 65,000 black rhino left in Africa as late as 1970. Since the 1980's the total rhino population has suffered a reduction of more than 80% to about 2,400. Within Zimbabwe, the severest decline took place in the 1980's and early 1990's. In response, the Government launched its strategy emphasising IPZ's, Conservancies and Captive Breeding.

### **Key Elements for Rhino Management**

National Management Goals - Each range state needs to establish explicit rhino management goals and objectives as derived from broad-based consultation with all relevant stakeholders. From the documentation provided by the Department, there

is no evidence of any specific plans for the management of white rhinos. If in fact no management plans exist, then clearly there is an urgent need to ensure white rhino management is also addressed in the context of the current review process.

**Partnerships** - Effective and efficient partnerships between the State, Private Sector, Local Communities and NGOs are essential to the management of rhinos. This approach has been adopted in the most successful Range States, namely Kenya, Namibia and South Africa, where it has added resilience to their rhino management conservation strategies. Partnerships between these various stakeholders are best coordinated and managed through a national rhino management committee. Such a committee is best chaired by the State, with the onus placed on the State to ensure that all stakeholders are adequately represented. The committee must first establish a common vision and strategic goals, and thereafter assist in the development of necessary policy and in coordinating, monitoring and fine-tuning the implementation of the management plan. National rhino management committees must establish and maintain good channels of communication with all stakeholders, and respond consistently and efficiently to issues and concerns arising from the stakeholders in accordance with the agreed management plan framework.

**Funding** - As noted above, the State alone has not demonstrated it has the financial capacity to fully protect and conserve African Rhinos. Therefore, it is essential that the State actively solicits, secures and directs financial contributions from the private sector, national and international NGOs, and development assistance organisations. However, it is also critical that the State acknowledges the role played by rhinos in contributing to the generation of tourism income. Throughout most of southern Africa, the Parks and Wildlife Estate within each country is the primary tourism attraction. Therefore, revenue generated by tourism must be channelled back into the conservation and management of this Estate, otherwise the bottom is sure to drop out of this potentially lucrative sector as the Estate, including the diversity of species and the state of the habitat and facilities, declines. The private sector plays a complementary role in attracting foreign exchange and creating jobs, as well as in sharing the costs of rhino management with the State.

**Relocation** - Because cross-border poaching has been a consistent and significant threat to Zimbabwe's rhinos, the first priority for relocation is the movement of rhinos away from international borders wherever adequate protection can not be provided. Thereafter, it is critical that rhinos are relocated to areas providing the best protection and habitat, and of sufficient size to create viable, rapidly growing populations.

**Security** - A variety of studies on the effectiveness of rhino protection efforts suggest that priority should be given to the early detection of poaching and achieving high arrest and conviction rates; the latter acting as a more significant deterrent from the size of the penalty. To be effective, security programmes should include a strong investigations element which utilise informer networks. Informer networks and successful investigations work demand a system of rewards and strong local community relations. In KwaZulu-Natal, most arrests result from information secured from informer networks, but this success is based on the maintenance of a very high degree of confidentiality. However, such efforts must be complimented by adequate staffing in the field with recommended densities in the range of 1 field staff per 10-30 km<sup>2</sup> backed up with additional mobile units. Staff needs to be adequately trained and equipped with radios and weapons in addition to basic field camping



requirements. Furthermore, staff must be motivated to work with good supervision and sufficient pay.

Emergency Actions - Where poaching cannot be adequately controlled, translocation of the rhinos and/or dehorning should be undertaken.

Population Performance - Given the current status of rhinos across Africa, it is important for each Range State to set and pursue ambitious population performance goals. Annual growth rates of 5-7% are achievable and recommended targets for Zimbabwe. Monitoring actual population performance is greatly aided by collaring and ear-notching, with individual records established and maintained. Biological management should focus on maintaining genetic viability within breeding groups and maintaining breeding group numbers below the ecological carrying capacity of the land to maximise population growth. Information on habitat quality and change, as well as on morality rates, etc. should be captured and managed. Research programmes must remain relevant and accessible to decision-making.

Applied Research - In addition to monitoring the performance of populations, research should focus on issues such as habitat evaluation, feeding, causes of mortality, dehorning and law enforcement efficiency.

Capacity Building - As noted above, capacity building programmes are required to maintain effective and motivated staff. Amongst the issues capacity building should focus on are law enforcement, conservation management and applied research. International exposure through participation in the African Rhino Specialist Group and the Rhino Management Group, for example, is also extremely beneficial.

## Open Discussion

Dr. Brooks concluded his overview with a strong recommendation to avoid further investment in captive breeding, either in situ or international, within the context of Zimbabwe's rhino management plan. Captive breeding is very expensive and has generally not achieved the growth rates obtained in well-managed, free-ranging populations. As population performance should be the over-riding priority for Zimbabwe, captive breeding should not be supported unless it can be demonstrated to play an essential educational or eco-tourism role.

This concluding statement provided the focus for the initial discussion on Dr. Brooks' presentation. The following points emerged from the discussion:

- Consensus that captive breeding was not demonstrating desired population performance levels and therefore should not be a priority for rhino management in Zimbabwe;
- Clarification that nutritional and stress related diseases such as anaemia as a result of the artificial environment contributed to the poor performance of captive breeding centres, and that there was so far little success in reintroducing the progeny of captive bred animals into free range management schemes.
- Recognition that captive breeding centres might provide benefits in the form of general environmental education and awareness, as well as training.

Subsequent questions queried the importance of genetic management and the structure and findings of research on conservation success. The experts responded

that genetic management of rhinos in breeding groups was critical to the long-term viability of the rhino population. Current research suggests that one new founder should be introduced to each breeding group ever every 10 years or so (i.e. approximately one per generation).

With respect to action to combat poaching, it was noted that recent research and analysis on conservation success has established the central importance of human and financial resource availability to success in combating poaching. Related to this was the link between rhino conservation success with the existence of a successful eco-tourism industry.

## Identification of Management Challenges

Following the presentation by the experts and the discussion summarised above, Nils D. Christoffersen initiated the sequence of facilitated group discussions with an initial focus on identifying the main challenges facing rhino management in Zimbabwe. The results of this session, summarised in tabular form below, provided the foundation of reviewing and revising the national rhino management goals and objectives in the next session. The single most significant factor emerging from this discussion is the current problems in maintaining effective communication and partnership between the various stakeholders.

GROUP	SPECIFIC ISSUES
Policy, Legislation and Strategy	<ul style="list-style-type: none"> <li>• Need to avoid micromanagement</li> <li>• Accountability needs to be established</li> <li>• Existing rules and principles not being implemented</li> <li>• Greater transparency on management priorities and procedures</li> <li>• Greater clarity on policy and legislation</li> <li>• Need to improve community collaboration</li> <li>• Lack of indemnity for non-governmental personnel</li> <li>• Need to revise legislation to accommodate roles of private sector, especially conservancies</li> <li>• National asset needs one strategy and legislative framework encompassing all partners</li> <li>• Need clarity on policy / plans for communal land and local communities in rhino management</li> <li>• Need to recognise contribution of conservancies to national biodiversity conservation efforts</li> <li>• Need to ensure individual interests do not override national interests</li> </ul>
Operational Management	<ul style="list-style-type: none"> <li>• Lack of plan and policy for white rhinos</li> <li>• Technical and ecological management criteria being overridden by political criteria</li> <li>• Lack of finance to manage Wildlife Estate</li> <li>• Insufficient resources to meet Departmental goals, roles and responsibilities</li> <li>• Need for greater clarity in management and research priorities, and clarity in mechanism for decentralised decision-making against these priorities</li> <li>• Need to design and implement custodianship agreements for rhinos on private land</li> <li>• Some land owners refusing to sign Section 37 Permits</li> <li>• Lack of cooperation among some commercial farmers</li> </ul>

<p><b>Communication and Partnerships</b></p>	<ul style="list-style-type: none"> <li>• Conservancies not appreciate nor respect leadership role of the Department</li> <li>• State not appreciate net cost of rhino conservation being born by the private sector within conservancies</li> <li>• Misconception that rhino conservation is Big Business</li> <li>• Lack of clarity on which partners are welcomed by the State</li> <li>• Need to improve mechanisms and procedures for decentralised decision-making</li> <li>• Confusion on custodianship scheme</li> <li>• Poor communication and trust between stakeholders</li> <li>• Poor dissemination of information to the public</li> <li>• Need for clear communication channels between State and private sector</li> </ul>
<p><b>Security and Management</b></p>	<ul style="list-style-type: none"> <li>• Continued state of emergency for rhinos and urgency of appropriate management response</li> <li>• Need to secure remaining rhinos from continued poaching</li> <li>• Threat from inconsistent and interrupted field management within Parks Estate</li> <li>• Inadequately armed and trained personnel in the field</li> <li>• Lack of implementation of 1993 Emergency Plan</li> <li>• Inadequate utilisation of donated resources</li> <li>• Resolution on de-homing programme needed</li> <li>• Freeze on use of radio collars and relocation activities has created problems for continued monitoring and appropriate management</li> <li>• Need to further develop and maintain informer networks</li> <li>• Poor habitats affecting viability of some rhino groups</li> </ul>

# National Rhino Management Plan Framework

## Black Rhino Conservation Strategy

Following the review of challenges to Zimbabwe's efforts to manage and conserve its rhino populations, attention was focused on reviewing the existing goal and objectives in the Black Rhino Conservation Strategy (January 1992) in light of the current situation.

The following points were raised by the participants in the review of the existing strategic framework:

- The status of rhinos in Zimbabwe and the strategies being employed to protect and conserve them had changed significantly since the Black Rhino Conservation Strategy was drafted, therefore review and revision is urgently required;
- Zimbabwe should have one management plan for both black and white rhino, therefore the goal and objectives should address both species;
- Clear goal and objectives must be established with specific targets (numbers and growth rates);
- The management plan should provide for a clearly defined enabling framework implemented through broad cooperation and collaboration, on the ground, under the leadership of the DNPWLM (with decentralised local authority vested in the Provincial Wardens) and maintained by effective national and provincial rhino management committees (including private sector custodians as members);
- Continuous monitoring and research programmes on the status and performance of individual rhino populations as well as the effects of different management actions are essential - such programmes are greatly enhanced and assisted by notching and collaring activities; and,
- Biological management, for which key variables include genetics, demographics and population densities, must remain paramount to all other management considerations - this demands a flexible strategy which can accommodate population growth and changing conditions.

## Management Goal

Based on the discussion summarised above, the following goal statement was developed and adopted for consideration by the DNPWLM and MET in their development of a new National Black and White Rhino Management Plan:

***To achieve rapid increases in Zimbabwe's Black and White Rhino populations to levels of at least 2000 individuals of each species through meta-population management in suitable habitats throughout the country.***

## Discussion

Until and unless any detailed genetic studies suggest otherwise, Zimbabwe's black and white rhino populations will be managed as single meta-populations with a variety of well-defined and coordinated management strategies in different land areas, including both state and non-state land. National plans and the policies that support them should not unduly differentiate nor fragment management activities within state land (e.g. Intensive Protection Zones) and private land (e.g. Conservancies). Each individual rhino in Zimbabwe must be considered and managed as an integral part of the broader national rhino population, and efforts towards this end must be supported by all relevant stakeholders and decision-makers.<sup>1</sup>

Participants stressed the importance of the goal's emphasis on rapid increases in both black and white rhinos, not merely managing and conserving existing rhinos. Towards this end, priority must be placed on protecting and securing all existing rhinos and thereafter maximising the growth rate of the national meta-population. Wild populations of rhino in large breeding groups were clearly outperforming smaller breeding groups and those captive breeding centres<sup>2</sup>. Therefore, efforts to secure existing rhinos need to be augmented with management action aimed at establishing and maintaining large breeding groups in suitable (i.e. viable and secure) natural habitats. Restrictions and constraints to the relocation of individual animals must be removed to allow the Department and its partners to respond to local security threats or poor population performance experienced by specific sub-populations or individuals. Furthermore, evidence from across the African rhino range states indicates that restrictions on collaring and de-horning are unwarranted and deprive the DNPWLM and other custodians of important tools for security, applied research and monitoring.

Successful rhino management demands the full and effective participation and collaboration of all relevant stakeholders. The Department of National Parks and Wild Life Management is the lead agency with responsibility for managing the implementation of the plan at both national and provincial levels. The DNPWLM must therefore provide leadership in coordinating the action and investments of all interested and relevant stakeholders, and championing the required action, investments and policy changes within the Government of Zimbabwe. In return, all interested and relevant stakeholders need to respect, support and respond to the leadership provided by the DNPWLM. Where capacity constraints within the DNPWLM limit effective delivery of its roles and responsibilities, short to medium term support from other organisations and individuals should be identified and sought by the DNPWLM. Priority must be given to addressing such constraints over the medium to long term through training, staffing, and resource allocations.

## Management Objectives

Of the four objectives established in the Black Rhino Conservation Strategy (1992), important progress has been attained towards achieving the first two related to

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<sup>1</sup> Comments on the draft seminar report from both DNPWLM and non-governmental personnel, noted that special consideration needs to be given to the case of white rhinos which have been purchased and imported by private landowners.

<sup>2</sup> The poor population performance of captive breeding efforts within and outside Zimbabwe suggests that this approach is no longer justified because increasing rhino numbers as rapidly as possible is the primary goal of the national management plan.

conserving and developing viable rhino populations in the Parks and Wildlife Estate and elsewhere in Zimbabwe. Any revision of these objectives should be done in the context of the need to improve the security and protection of rhinos, the need to maximise growth rates, and the need to manage all breeding groups as one meta-population. As noted above, the participants accepted the evidence presented from Zimbabwe, and world-wide, indicating that captive breeding efforts were not achieving results consistent with Zimbabwe's desired national rhino management goal. Therefore the third and fourth objectives listed under the Black Rhino Conservation Strategy (1992) were no longer relevant and should be dropped from the new management plan framework.

With reference to the proposed goal, and the analysis of challenges to Zimbabwe's rhino management efforts, the following objectives, with illustrative requirements, are proposed:

**Objective 1: Establish a mechanism for coordinated and pro-active management and protection of black and white rhino populations.**

This objective specifically addresses the need for a clearly defined and consistently implemented mechanism by which the DNPWLM will establish coordination and guide pro-active responses to all arising management issues, be they of a security, technical, financial, political or information nature. While leadership from the DNPWLM is an absolute requirement, this mechanism must provide for the effective participation, collaboration and dialogue by and amongst all relevant stakeholders (including government, private sector, community and NGO organisations and interests).

**Required Actions:**

- Allocate roles and responsibilities for leadership within the DNPWLM (National and Provincial), and establish a framework for decentralised decision-making relevant to leadership at the Provincial Level with full support from the Ministry of Environment and Tourism and other relevant Ministries / Offices;
- Review and revise (as necessary) National policies affecting the efficient and consistent implementation of the national rhino management plan;
- Achieve internal (across Government and General Public) understanding of and support for Zimbabwe's Rhino Management Programme;
- Secure and dedicate the necessary human, financial and equipment resources to enable the DNPWLM to fulfil its roles;
- Effectively utilise the expertise, equipment and financial resources that exist within the private sector and NGO's in order to undertake approved rhino management activities;
- Establish National and Provincial Rhino Management Committees with members from the DNPWLM and other relevant Government Agencies, Private Sector, Local Communities and their representative organisations, and NGOs (with relevant technical expertise) - Membership on the National Rhino Management Committee should include *inter alia* one (elected) representative from each of the Provincial Rhino Management Committees;

- ⇒ Functions of Management Committees should include general coordination, resource sharing, liaison with armed forces and investigations branches, policy development, and meta-population management recommendations;
- ⇒ Ideally, the Management Committee would be an executive body approved by Government, but failing this it should be established as an advisory body approved by the Minister - The Director of the DNPWLM, in his/her capacity as Chairman of the National Management Committee, must be responsible for championing the recommendations at appropriate levels within the relevant Ministries;
- Review and implement legally binding custodianship agreements governing the management of rhinos on private land.

### **Recommendation**

This discussion concluded with a firm recommendation to the Acting Director of the DNPWLM to seek approval from the Minister of Environment and Tourism for establishing an "National Rhino Advisory Committee" along the lines of the model proposed above to facilitate the further development and subsequent (immediate) implementation of the national rhino management plan.

### **Objective 2: Secure and protect existing and potential populations of rhino throughout the country.**

It was agreed that a "state of emergency" still exists within Zimbabwe with respect to its rhino populations. This position reflects both the persistence of internal and cross-border poaching in the recent past, as well as the severe risks posed to continued viability of Zimbabwe's rhino populations due to the low remaining numbers and the consequent reduction of the genetic pool.

### **Required Actions:**

- Establish an effective "detection" and "deterrence" programme with well-organised and maintained networks of informers (far more important than reaction force and capacity);
- Administer a national reward system locally to maintain confidentiality of informers;
- Develop a pro-active and flexible strategy for improved local community relations (relevant to both IPZs and Conservancies) implemented with the aim of improving local support for rhino management efforts, including informer networks, monitoring, through increased public awareness and understanding;
- Clarify links and improve cooperation between rhino management personnel (state and non-state) and investigations departments, within the country and with neighbouring states;
- Increase and maintain man-power in the field with staff at between 1:10 km<sup>2</sup> to 1:30 km<sup>2</sup>, equipped with radios and weaponry, and additional support from mobile units (e.g. Sinamatela field staffing is effectively at 1:100 km<sup>2</sup> and must be improved);
- Provide similar protection to all rhinos (in line with meta-population management). To this end, clarify and legalise the power vested in private land to protect rhinos

(e.g. extend indemnity beyond the Parks and Wildlife Estate for “Honorary Officers” responsible to the DNPWLM);

- Implement collaring and ear-notching to assist in monitoring rhino movements;
- Ensure adequate de-horning and evacuation capacity exists to respond in emergency situations;
- Secure information with respect to specific numbers associated with specific locations, while recognising that confidentiality of national population totals is not necessary;

**Objective 3: Ensure the effective biological management of existing and new populations so as to achieve growth rates of at least five percent per year.**

This objective focuses on the need to manage all rhinos in Zimbabwe strictly in accordance with the biological management criteria required to maximise population performance. The target of five percent growth per year is set, and should be used as the measuring stick to assess the performance of all rhino sub-populations comprising the national meta-population. Urgent attention needs to be given to populations which over a period of time (2-5 years) are not performing at this average annual rate. It should be noted that this approach provides a strategy of minimum management, once the breeding groups have been established within suitable habitats. Thereafter, the primary management investments required are for monitoring and protection.

**Required Action:**

- Establish and support “rhino factories” (defined as free-ranging breeding groups of 25 founders reproducing at rates of or exceeding 5% per annum maintained below their Ecological Carrying Capacity<sup>3</sup>) to maximise population growth rates;
- Relocate individuals currently existing in small inviable groups and/or in insecure border areas to supplement other groups to achieve optimum size in suitable habitats - at present additional attention needs to be given to relocating fragmented populations of white rhinos;
- Assess potential of new land areas for the introduction and establishment of breeding nuclei, and relocate rhinos as dictated by numbers and population performance in other areas;
- Relocate surplus animals from successful breeding groups as required to avoid inbreeding and reduce intra-specific aggression;
- Introduce one new breeding individual per generation to each sub-population to maintain genetic diversity;
- Continue ear notching, radio collaring and other methods of marking and identification to assist in monitoring individual and population performance.

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<sup>3</sup> While the establishment of Ecological Carrying Capacities warrants further research, as a general rule it is recommended to maintain stocking rates at or below 1 rhino per 15 KM<sup>2</sup> in the dystrophic midlands and 1 rhino per 10 KM<sup>2</sup> in the Lowveld. It is critical to factor drought and other stochastic events into calculations of E.C.C.



#### **Objective 4: Establish and maintain effective monitoring and evaluation programmes for rhino populations**

To achieve the overall goal including the established growth rate targets, an effective applied research and monitoring programme which is directly integrated with management decision-making is essential. In particular, further study and testing is required of the appropriate stocking levels to maximise population growth rates in different parts of the country. Research should look specifically at habitat and nutrition, and the linkages with population performance. Attention must also be given to identifying new areas for relocation and breeding, assessing the cost and benefits of dehorning and radio collaring, and identifying and assessing the factors for determining the effectiveness of law enforcement.

##### **Required Actions:**

- Identify national and regional monitoring and research priorities;
- Identify key variables to monitor for each breeding group in line with priorities - e.g. habitat and nutrition, population performance, etc.;
- Establish monitoring frequency and methodology, with attention given to securing comparative statistics for the key variables from the various breeding groups;
- Maintain and coordinate collaborative research and monitoring programmes;
- Consolidate, synthesise, analyse and interpret available information;
- Develop reports and recommendations relevant to the goal and objectives;
- Monitor and evaluate the implementation of management actions and adapt when and where necessary;
- Ensure regular meetings between research and management, within the country and with neighbouring states;
- Cost and source funds and capacity to maintain research and monitoring programme, both within and outside government;
- Develop and distribute annual (or semi-annual) operational plans and reports for research and monitoring programme.

#### **Objective 5: Develop economic and social sustainability of Zimbabwe's Rhino Management Programme**

While the DNPWLM must have lead responsibility for securing and guiding the economic and social sustainability of the programme, it is clear that external financial and human capacity inputs will be required from the private sector, NGOs and development agencies<sup>4</sup>. Such inputs should be identified, coordinated and managed by the DNPWLM.

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<sup>4</sup> In response to significant concern with respect to the financial resources available to the Department, the Acting Director notified the workshop that the financial situation of the Department was steadily improving since the establishment of the Statutory Fund. However, it was acknowledged that the issue of staffing was still a concern because staffing levels are limited by policy directives rather than financial considerations.

The participants noted the importance of Zimbabwe's wildlife, of which rhinos form an important part, to the national tourism industry and the vast income being generated by this industry. Therefore they recommended that financial and economic analysis be undertaken on the value of rhinos and wildlife in general to the State and that this analysis be used to justify investments (or incentive structures) from the State and other appropriate sectors. The importance of maintaining a consistently high quality tourism product and service was also stressed in this regard, with reference to the well-documented fickleness of the tourism industry throughout other parts of Africa. Furthermore, with respect to individual land holdings (both State and private), it is critical that the overall price and tax structures position rhino conservation and management (in combination with other complementary strategies) as a viable land use option.

With respect to the social sustainability of rhino conservation and management, it was recommended that the DNPWLM hold a separate workshop specifically addressing the role of local communities in contributing to species and broader wildlife management efforts as well as the mechanism by which local communities should benefit from such efforts. Clearly, the national rhino management plan needs to develop strategies by which local communities can derive benefits, including possible employment and share-holdings in rhino/wildlife-based income generating activities. In addition, relevant individuals from affected communities should have representation on the proposed Provincial Rhino Management Committees.

#### **Required Actions:**

- Optimise non-consumptive values;
- Consider consumptive use where it does not interfere with breeding;
- Consider alternative use/sale options for rhino horn stocks;
- Consider State support for the import of breeding stock, (e.g. direct financial support, or indirect support of private sector financed imports through the waiver of custom duties);
- Identify, develop and implement strategies to generate and appropriately distribute benefits to local communities (possible subject of separate workshop);
- Develop and implement outreach, education and awareness programmes targeted at local communities;
- Explore the benefit of establishing a "Business Management" Team within the DNPWLM.

#### **Objective 6: Ensure the immediate and effective implementation, management and monitoring of the national rhino management plan**

##### **Requirements:**

- Develop a project planning matrix detailing a medium (i.e. 5 years) and short-term objective consistent with the strategic management framework developed above - matrix should include specific outputs desired from management action, objectively verifiable indicators, and provide comments on key assumptions or external factors.

- Develop an annual project implementation plan under the auspices of the National Rhino Management Committee, each year, detailing the activities and lead responsibilities for each output, the milestones for each activity, the time frame, and the required human, financial and equipment resources;
- Evaluate progress on an annual basis by reviewing the previous annual workplan and assessing the state of implementation of each activity, problems faced and corrective measures required;
- Submit annual reports and recommendations to the Director of the DNPWLM, and distribute copies to key stakeholders;
- Every two-three years evaluate progress against the medium and long-term objectives, and develop recommendations for revisions to the strategic framework;
- Every fifth year, evaluate the overall effectiveness of the rhino management plan, and pursue broad public consultation on the appropriateness of the strategic management framework.

# Concluding Remarks

## Summary from the Invited Experts

The following recommendations were provided by the representatives of the African Rhino Specialist Group (AfRSG) in the closing remarks, as presented by Dr. Holly Dublin. These are the main points which the AfRSG representatives believe should consider in finalising Zimbabwe's National Rhino Management Policy, and are drawn from the range of experience and information available to the AfRSG from throughout the African rhino range states.

**The workshop covered much positive ground and this summary identifies those issues that require further detailed consideration.**

**Communication:** The establishment of a National Rhino Management Committee through the policy approval process, with appropriate stakeholder representation, chaired by the DNPWLM and with executive power for rhino management issues.

The establishment of local rhino management committees, with appropriate stakeholder representation, convened under the auspices of the DNPLWM (i.e. Provincial Warden) or the appropriate Local Government Authority.

**Partnerships:** The drafting of legal agreements with existing private conservancy custodians through the development of appropriate agreement models for future private and community custodianships.

Rhinos can be effectively conserved through partnerships. It is not necessary, nor advised, that the DNPWLM should try to shoulder this responsibility alone

**Enabling Legislation:** The development of appropriate legislation to allow indemnity and the right for conservancy scouts to carry arms.

Review current penalties for trafficking and illegal hunting - with a view to revising them in relation to foreign currency values of rhinos and horn.

**Financial and Staffing Constraints:** Reconcile the problem of limitations on staffing imposed by the Civil Service Commission with the new financial arrangements allowed through the Statutory Fund. (Note: The Director of National Parks and Wild Life Management indicated that the availability of finance was not a serious constraint following the establishment of the Statutory Fund, however staffing constraints were still an issue.) Also ensure that the Statutory Fund provides sufficient funds for rhino security and biological management (including research).

**Community Linkages:** Ensure that all areas holding rhinos involve local communities, through reward schemes for information, through pride in rhino conservation and through other more direct benefits.

**Security Monitoring Measures:** Reinstate immobilisation for appropriate de-horning, radio-collaring and ear-notching procedures, with immediate effect, in view of the continuing threat to the security of Zimbabwe's rhinos. (Note: Additional details are available on these procedures, and the balance of cost and benefits to rhino conservation in the written comments of the AfRSG invited experts.)

**Law Enforcement Monitoring:** Adopt a procedure for monitoring law enforcement effort and success in relation to available human and financial resources.

**Stocking Rates:** Determine appropriate stocking rates through assessments of ecological carrying capacity in different habitat types. Stock at no more than 75% of ecological carrying capacity to allow for maximum rate of increase.

Assess the impact of elephant densities upon rhino habitats and adjust to prevent competition.

**Continue Dialogue:** IUCN are recommended to continue facilitating the dialogue process between the Ministry, the DNPWLM and the stakeholders towards formulating and implementing policy and plans for rhino conservation.

**Target for Completion of the Policy Process:** Do not lose momentum. Ensure the process is completed and approval obtained from the Minister before the Tenth Meeting of the Conference of the Parties to CITES in June 1997.

### **Comment from IUCN ROSA**

IUCN ROSA offered its assistance to the Ministry of Environment and Tourism and the DNPWLM in order to facilitate dialogue on various policy issues amongst the relevant stakeholders in Zimbabwe. This seminar has been remarkably successful in this regard, but it is imperative that the momentum is not lost and that continued consultation and participation is pursued and maintained by the DNPWLM. Only through broad stakeholder processes can the DNPWLM and its Ministry be assured that its evolving management plans and policies truly respond to the needs and interests of the nation as opposed to those of a few scattered individual interests.

IUCN ROSA will draft a report on the proceedings and recommendations arising from this Seminar for initial review by the DNPWLM, and thereafter for wider distribution and review amongst the relevant stakeholders in Zimbabwe. Upon the completion and distribution of this report, IUCN ROSA's formal facilitation role with respect to the national rhino management plan and policy is completed. However, on behalf of IUCN ROSA and the African Rhino Specialist Group, let me invite the DNPWLM to seek out our additional contribution to the ongoing process. We would be pleased to continue to support this effort through comments on the developing documents or further assistance in facilitating consultation and dialogue.

### **Closing Remarks by the DNPWLM**

Dr. Cecil Machena praised the frank and open discussion which had taken place, and accepted, on behalf of the DNPWLM, the responsibility for completing the process of drafting a new National Rhino Management Plan and Policy.

Dr. Machena remarked on the significant advancements within the DNPWLM since the Black Rhino Management Strategy (1992) and the subsequent Emergency Action Plan (1993) were developed. The DNPWLM is pleased that rhino populations have begun to stabilise, while recognising the continued threat posed from poaching. In the fight against poachers it will be essential to develop strong linkages with the local communities, and put in place mechanisms for their effective participation in all rhino management efforts. Poachers have been securing community support at gun point and through cash payments. It is time to turn this tide and bring communities over to our side.

In some areas, continuous monitoring programmes have been in place and substantial information has been acquired. This information will be used by the DNPWLM in reviewing the results of the workshop, completing the Plan and Policy, and for the effective management of Zimbabwe's rhinos in accordance with biological management criteria.

The DNPWLM anticipates completion of the Draft Seminar Report by mid-January 1997, and the DNPWLM will actively seek out review and comments by those stakeholders who were not able to attend this Seminar. In addition, the DNPWLM is considering a follow-up workshop to review the final rhino management plan and policy before it is submitted to the Ministry.

On behalf of the DNPWLM, Dr. Machena thanked the invited experts, IUCN ROSA, and the participants for the days discussion and product.

# **Annexes**

## **Zimbabwe Rhino Management Plan**

### **Annexes to the Report**

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1. MET Request for Policy Seminary Series, Letter from PS
2. Draft Rhino Management Policy
3. Model Custodianship Agreement
4. Comments from Dr. Martin Brooks
5. Comments from Dr. Holly Dublin
6. Comments from Prof. Nigel Leader-Williams
7. List of Seminar Participants

# Request from MET

*All communications should be addressed to  
"The Secretary for Environment  
and Tourism"*

SECRETARY FOR ENVIRONMENT  
AND TOURISM  
KARIGAMOMBE CENTRE  
53, Samora Machel Avenue  
Harare, Zimbabwe

Private Bag 7753  
Causeway, Zimbabwe  
Telephone: 75172012 757881/5 Vow Ref.:

Our Ref:  
Your Ref:

27 November 1995  
Ref: DA/12/11/jqm

The Director  
IUCN - Rosa  
Box 745  
HARARE

Dear Sir

## ORGANISATION OF SESSIONS TO DISCUSS ISSUES RELATED TO WILDLIFE MANAGEMENT IN ZIMBABWE

Following our discussions I wish to submit to you a document produced by the Department of National Parks and Wild Life Management, Ministry of Environment and Tourism, This document is a series of papers produced by technical experts presenting the Ministry's position on various issues related to wildlife.

In preparation for the Government policy on Wildlife Management we request you to bring together technical experts who will cooperate to comment and critic these papers on issues related to wildlife in this country.

I request IUCN to organize a group of technical experts who can look at the following:

Elephant Management Strategy  
Rhino Management Strategy  
Biodiversity  
CAMPFIRE and Conservancies.

J. G. Moyo  
SECRETARY FOR ENVIRONMENT AND TOURISM



# Draft Rhino Management Policy

## DRAFT POLICY FOR MANAGEMENT OF THE BLACK AND THE WHITE RHINOCEROS IN ZIMBABWE

The black rhinoceros *Diceros bicornis* L. and the white rhinoceros, *Ceratotherium simum* L., are large and spectacular animals of ancient origin, important species within the habitats they occupy and a major part of Zimbabwe's rich natural heritage.

Though basic knowledge is lacking, it appears that Zimbabwe holds only one taxonomic unit of the black rhinoceros, formerly designated as the sub-species *Db minor*. This sub-species was originally widespread throughout the country, but mainly occurred in the more heavily wooded watercourses, both on the plateau and especially in lower lying valleys. Black rhinos disappeared from the plateau as land was cleared for agriculture, but remained widespread in low-lying areas, except where they came into direct competition with man. Thus black rhinos had disappeared from their former ranges around Hwange and Gona-re-zhou by the late 1920s, but still remained widespread in the Zambezi Valley and Sebungwe. When Lake Kariba was flooded in the early 1960s, black rhinos were moved to re-establish the species in Hwange. Large numbers of black rhinos have been lost since 1984, primarily to illegal hunters (i.e. poachers). Indeed, the population has been reduced from 1,600 in 1985 to some 320 in 1995. This loss has been suffered despite Zimbabwe conducting an aggressive - but insufficiently intensive - campaign of law enforcement entailing considerable loss of life, de-horning all its rhinos. With the exception only of the population in Matusadona National Park, all of Zimbabwe's remaining black rhino populations have been created through translocations from insecure areas to safer areas away from international borders. These include Intensive Protection Zones (IPZs) in the Parks and Wild Life Estate (P&WLE) and conservancies established on private ranches.

Zimbabwe also holds the southern white rhino, designated as the sub-species *Cs simum*. White rhinos were formerly numerous in large tracts of open grassland found on the watershed plateau between the Zambezi and Sabi drainages. White rhinos were increasingly cleared from land settled for agriculture and hunted for their horn, but remained in the south-east of the country until the 1910s, when they became extinct. White rhinos were first re-established in Zimbabwe in 1962, and a number of relatively small populations have been established both on P&WLE and on private land. By 1995, the population of white rhinos in Zimbabwe was about 140 animals.

The major requirement for the successful conservation of the black rhinoceros is to allow its populations to recover as quickly as possible from illegal exploitation in the late 1980s and early 1990s. Emphasis will be placed upon consolidating black rhinos in Large Breeding Groups (LBG) (established with 25 founders and allowing rapid expansion to a carrying capacity of 100 rhinos). Within the current state of emergency, LBGs will be retained and consolidated both in IPZs in the P&WLE, and in conservancies on private land, with expansion onto communal land promoted as and where appropriate. The national herd of black rhinos will be managed as a meta-population, with exchanges between areas to maximise reproductive output and minimise loss of genetic diversity. The major requirement for the conservation of the white rhino is to allow its range to expand following their successful re-introduction to

Zimbabwe. Major effort will be expended to provide security to both species of rhinos, through various methods including patrolling, rewarding informers, de-horning and collaring. Thus within appropriate areas of Zimbabwe State and Private Land, the aims of black and white rhino management will be:

- i) to increase black and white rhino populations to 2000 each as quickly as possible by maximising growth rates and maintaining effective security systems (biological management and protection);
- ii) to promote their economic value for tourist game viewing (non-consumptive utilisation); and,
- iii) to encourage their conservation where appropriate through involving local communities (community benefits).

A detailed management plan will be drawn up by the Director of National Parks and Wild Life, in which the aims of rhino management on P&WLE, on private and communal land will be defined. The management plan will be submitted for review and approval to the Minister every three years. A National Rhino Management Committee, comprising of the relevant rhino management stakeholders, will have the power to advise the Director to change management actions within the period of revision of the plan.

Utilisation of rhinos can at the moment only include tourist game viewing. Zimbabwe will abide strictly by the terms of the Convention on International Trade in Endangered Species of Wild Flora and Fauna for exports of any products of black and white rhinos for research or non-commercial purposes. Zimbabwe intends to retain its populations of black and white rhinoceros on Appendix I of the Convention for the foreseeable future. However, Zimbabwe will maintain an open mind on initiatives of other range states to conserve their rhinos, providing these are undertaken within the premises of the Convention and in such a way as not to cause any illegal exploitation of black or white rhinos in Zimbabwe.

The Minister will maintain and strengthen the necessary legislative and institutional frameworks required to implement the protection and management of the black and white rhinoceros. Particular legislative requirements include ensuring that conservancy staff protecting rhinos on private land can carry weapons and enjoy indemnity, that rewards can be paid and confidentiality guaranteed for law enforcement information, and that custodianship arrangements for rhinos on private land are clarified. Particular institutional requirements include ensuring that budgets, staffing levels and capacity within DNPWLM are increased, and that communication and partnerships between stakeholders conserving rhinos as a national asset are improved.

# Model Custodianship Agreement

Contract for the Placement of Black or White Rhinoceros (*Diceros bicornis*) on Private Land

The Department of National Parks and Wild Life Management (here after to be referred to as the Department)

will place

Black Rhinoceros (here after to be referred to as rhino)

on your property on your acceptance of the following conditions:

## 1. CUSTODIANSHIP:

- 1.1 The rhino and their progeny at all times remain the property of the State. Your position will be that of custodian.

## 2. MANAGEMENT:

- 2.1 It is your responsibility to protect the rhinos and to provide for their well-being, including the reduction of competing species as and when necessary.
- 2.2 The rhino population should be monitored (*insert specific approved technique established under research plan*) to provide a population estimate every six months or every year (minimum requirement).
- 2.3 The sex and age structure of the population should be established annually, with appropriate records kept and reports submitted to the Department.
- 2.4 The rhino must at all times be managed according to the approved National Rhino Management Plan. This includes meta-population management through the manipulation of demographics and genetics as required.

## 3. DELIVERY:

- 3.1 The rhino shall be delivered to you on a pre-arranged date. The site of origin, number, sex, age and condition of the animals will be determined by the Department. You are expected to examine the rhino you receive and write a report on the condition of the animals noting any problems or defects that you observe. A copy of this report must be sent to the Department.
- 3.2 There shall be an official record of the hand-over signed by both the Department and the designated Custodian. Both parties shall maintain separate files for each individual delivered.

**4. REGULAR REPORTS:**

- 4.1 Semi-annual written reports providing information specified by the DNPWLM must be submitted. (Details on the report specifications should be attached to the contract.)

**5. INJURY TO / DEATH OF ANY ONE OF THE ANIMALS:**

- 5.1 You shall notify the Department immediately, and certainly within 24 hours, of your becoming aware of any injury to or death of any rhino to allow a timely veterinary examination / post-mortem to be carried out
- 5.2 You shall submit a comprehensive report covering all aspects relating to the injury or death of the rhino to the Department. This report must be submitted within 14 days of you becoming aware of the injury or death.

**6. FAILURE TO LOCATE:**

- 6.1 A frequency of sighting chart must be maintained, which clearly indicates the period of time since each and every individual was last located and identified. You should not allow any rhino to remain un-sighted for a period of longer than \_\_\_\_ months.
- 6.2 If, after attempting to locate a rhino, the animal can not be located after a period of 7 days then the Department must be contacted immediately.

**7. ESCAPE FROM PROPERTY**

- 7.1 If you have reason to believe that any one of the rhino has escaped from your property, the Department must be contacted within 24 hours of your noticing such an escape.
- 7.2 A comprehensive report must be submitted to the Directorate within 14 days of failure to locate escaped animals giving details of when and where the animal was last seen and any other necessary information.

**8. INSPECTION / INFORMATION:**

- 8.1 The Department shall have the right to inspect the animals at any time and to request any information about all rhinos, including their progeny.

**9. SALE OR TRANSFER OF PROPERTY:**

- 9.1 No rhinos may be transferred to another property without prior written approval of the Department.

**10. RIGHT TO CAPTURE AND RELOCATE:**

10.1 The Department reserves the right to capture and relocate any or all of the rhinos within the context of the national policy and plan. This will normally only take place under the following conditions: to remove surplus rhinos; to contribute founders for a new population; in response to an uncontrollable security threat; or in response to the application of poor management practices.

**11. INDEMNITY FROM CIVIL LIABILITY:**

11.1 The custodian of the rhino indemnifies the Department against any claim arising out of injury or death of any person on your property and loss of, or damage to, your property as a result of or in a manner connected with possession of the animals.

**12. CONSULTATION:**

12.1 Consultation may be called for by either party and shall be responded to within \_\_\_\_ days.

13. **CONTRACT:** This contract is effective for five years, and is renewable dependent upon agreement of both parties. The contract may be terminated by either party on giving three months written notice. If terminated, disposal or relocation of rhinos should be immediate following pre-agreed plan of action.

I, \_\_\_\_\_, the lawful owner / authorised agent of the land owner of the farm / farms \_\_\_\_\_ understand the above contract and will abide by the provisions set out in it if the Department of National Parks and Wild Life Management place black and white rhinoceros on the above named farms.

SIGNED at \_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_.

\_\_\_\_\_  
SIGNATURE OF LANDOWNER  
(or authorised agent of landowner)

\_\_\_\_\_  
SIGNATURE OF WITNESS

\_\_\_\_\_  
SIGNATURE OF DIRECTOR OF NATIONAL PARKS AND WILD LIFE MANAGEMENT  
(or his authorised agent)

*Editors Note: This section of the draft report attracted more comment than any other. Several persons within and outside government questioned the need for this model since Zimbabwe already has a custodianship agreement in the form of a Section 37 permit, which directly relates to existing national legislation (while the above model does not). It was suggested that the Section 37 permit also provides more flexibility to address custodianship of existing rhino on private land as well as custodianship within a cooperative (i.e. conservancy) context. This model is retained in the report as a comparative model, which may or may not be useful to the ongoing policy review process. With respect to the model itself, it was suggested that this contract should include: minimum level of security required; legal indemnity for the use of force to protect the rhinos; maintenance of habitat; and maintenance of monitoring programmes.*

# **Comments: Dr. Martin Brooks**

## **CRITIQUE OF THE EXISTING POLICY FRAMEWORK ON RHINO MANAGEMENT IN ZIMBABWE**

**Dr Martin Brooks  
Chairman of IUCN's African Rhino Specialist Group**

**November 1996**

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### **INTRODUCTION**

Comment on the existing policy framework on rhino management is presented against a number of policy statements or opinions drawn from the six documents forwarded for review, as well as on the Short and Medium Term Action plans for Black Rhino (April 1992) and the Black Rhino Conservation Project Conservation Emergency Plan (1993) and knowledge of the strategy being employed by the DNPWLM at the time of the suspension of the policy that I obtained through earlier African Rhino Specialist Group (AFRSG) contact with Zimbabwe.

Paraphrased statements extracted from the six review documents are indicated in this report against bullets (with a document code and page number for reference), with my comments given below. Comments are based largely on information and experience gained through operating as Chairman of both the IUCN's African Rhino Specialist Group and the Rhino Management Group (RMG) of southern Africa. Comment has not been restricted to those issues that deal explicitly with rhino management, but extends to any issue considered relevant in achieving success in rhino conservation that appears in the documentation.

The following documentation codes were used:

**PWZ :** Policy for Wildlife Zimbabwe;  
**BR :** Zimbabwe Black Rhino Conservation Strategy;  
**SNP :** Proceedings of the Seminar on National Parks and Wildlife Management Policy Issues;  
**PIE :** Policy on Importation and Export of Live Animals

Comment on the Zimbabwean Parks and Wildlife Act 1975 and the Regulations under Statutory Instrument 362/1990 is presented separately.

## **OVERALL DIRECTION OF THE MINISTRY OF ENVIRONMENT AND TOURISM**

SNP p4

- **Interests of Zimbabweans are paramount and should be above individual or sectional interests.**
- **Regions 1 - 3 must be reserved exclusively for agriculture.**

*With due respect, and not being familiar with its stated responsibilities, I would strongly suggest that the functions of the Ministry should be to ensure that the environment is protected from unsustainable or damaging practices, to promote and ensure the conservation of biological diversity and the wise use of indigenous wildlife resources, and to provide the framework for tourism, including ecotourism.*

*The conservation of biodiversity, which encompasses living organisms, habitats and ecosystems from the genetic to the landscape scale, is likely to require not only formally protected areas (e.g. Parks) throughout the country, but also a network of informal areas managed for wildlife and other land uses not incompatible with wildlife. A comprehensive plan to determine the most appropriate configuration of land to achieve the conservation goals needs to be developed in conjunction with the other major sectors, such as agriculture, forestry, land settlement, etc.*

*Wildlife on private land, communal land and the Wildlife Estate, must be regarded as a sustainable and competitive land-use in its own right that can make a very significant economic and social contribution to the country, and provide benefits to the local communities. These values are derived from the sustainable use of wildlife resources, the commercialisation of game in all its forms, and ecotourism. As a major attraction to foreign tourists, and especially to serve Zimbabwean residents, wildlife areas need to be located within reach of major centres, and be well distributed throughout the country, not just in regions 4 and 5.*

### **ZIMBABWE'S WILDLIFE LEGISLATION**

*The Zimbabwean Parks and Wildlife Act 1975 and the regulations as framed under Statutory Instrument 362/1990 constitute a comprehensive, well-researched and practical legal instrument highly relevant to the protection and management of rhino.*

*The only major consideration apparently lacking concerns incentives. Provision could be made in the legislation to provide for payment or reward to any person who supplies information in connection with unlawful activity within the context of rhino protection. On a broader scale, incentives could also be considered for communities (landowners) who contribute to rhino conservation.*

## INSTITUTIONAL MODEL

- **Privatisation of National Parks or creation of Parastatal rejected.** SNP p10
- **Cabinet has approved the creation of a Statutory Fund.** SNP p 8

*The two primary conservation models are the Government Department and Executive Statutory Board. The following perspectives are based on a study by John Mugabe on the best institutional conservation model for Kenya (IUCN, 1994) and the experiences of the Natal Parks Board, South Africa (NPB unpublished report).*

*The models are on a par with respect to law enforcement and public accountability, as both are legal entities created through parliamentary process, however Statutory Boards have certain advantages in respect of decision-making flexibility, financing, and attracting and retaining quality staff. These aspects are critical factors in conservation success.*

*The formation of a Statutory Fund will provide some flexibility with respect to financial matters within the Government Department and is fully supported.*

- **Board to be restructured.** SNP p9

*The proposed inclusion of business expertise on the Board is strongly supported. Other expertise/representation that should be considered includes : NGO wildlife, legal, financial, community leadership.*

## ORGANISATIONAL STRUCTURE

- **Research and Management Divisions are separate. The Research Division is not always management orientated and polarisation on critical issues is evident.** SNP p19-20
- **Research and Management should be integrated.**

*The integration of techno-scientific knowledge and expertise into nature conservation decision-making is critical to success, and this is often extremely poorly developed in African wildlife organisations. Failure to provide the framework for such integration results in poor decision-making, and the loss of scientific skills. Scientists must contribute broadly to the organisation through the development of strategies and the provision of advice based on sound biological, ecological and socio-economic information. Any research undertaken must be of a strongly applied nature.*

*The activities of Research and Management staff should be integrated to ensure that conservation management and development programmes are based on sound scientific information and principles. This should be done by developing appropriate operational procedures that require close collaboration, and not by absorbing scientists within the Management Division.*

*The functions of the two divisions need to be carefully defined to ensure*



*fulfilment of the organisation's mission and objectives, and operational guidelines agreed upon at the executive level that will produce interaction and shared understanding. Providing the roles of each division, section and individual staff member have been defined to complement each other, and scientific staff are required to participate in decision-making at every level (from community conservation programmes, Park conservation management programmes and national strategy formulation) through daily contact and representation at appropriate meetings, then the relevance of research staff will improve and polarisation on major issues will decrease.*

*It is recommended that :*

- *the duties and priority tasks of research staff should be determined by scientific supervisors within the framework of organisational policy and the division's agreed role and functions;*
  - *researchers should play a key advisory role within integrated management decision-making teams;*
  - *scientific and technical capacity can only be maintained within a scientific division. This degree of autonomy is required for the development of techno-scientific knowledge and expertise and external partnership arrangements, and the provision of broad strategic direction for the conservation of biodiversity. It also provides a mechanism, based on the broad knowledge of its scientists, for challenging management decisions.*
- **The forming of a Technical Committee for appraising the status of rhino conservation.**

BR p15

*The creation of a Rhino Management Committee is strongly supported. It should comprise senior executive staff, field managers responsible for rhino management within Parks, scientific staff, and managers of rhinos on private land. Consideration could be given to the participation of the non-government conservation movement as well.*

*The proposed Rhino Management Committee would play an important coordinating role with respect to developing and implementing the national action plan for rhinos, and for ensuring good communication between all the stakeholders and within the organisation. It should have a clear terms of reference in terms of the national rhino strategy, and act as the major rhino advisory body for the Department.*

*Zimbabwe has recently become a member of the Rhino Management Group (South Africa, Namibia, Swaziland and Zimbabwe) which shares and develops information and expertise at the southern African level, it participates in the Rhino and Elephant Security Group and is an invited member of the IUCN's African Rhino Specialist Group. These groups all provide direction for effective rhino conservation based on shared expertise and experience.*

## **EXTERNAL STAKEHOLDERS**

- **National and international stakeholders have noble intentions, but assistance is often tied to a political agenda and a conflict of interests often results.** SNP p20-25
- **Management forum for wildlife should be expanded to involve the majority of the people.** SNP p25

*There is a need to differentiate between those stakeholders that hold political or activist philosophical agendas that conflict with the Department's conservation objectives, and those that can play a constructive role. The latter should be encouraged as they can contribute significant funding as well as ecological and conservation management expertise. In particular, contact with the IUCN's African Rhino Specialist Group, the Rhino Management Group and the Rhino and Elephant Security Group should be maintained and increased.*

*In general, the main stakeholders should be included in the development of rhino conservation policy, and be involved in steering committees and working groups to ensure its effective implementation. A process to allow public comment on draft policy prior to adoption could be developed to provide transparency.*

*Consideration could be given to forming local liaison committees for each Park/safari areas where stakeholders can discuss issues and make recommendations to the Department.*

*Strict regulation is required to minimise conflict arising from research, monitoring and management programmes undertaken by outsiders. All research and monitoring projects should be authorised by a senior member of the scientific staff, after due consideration of the objectives and methods by scientists and managers in the field; and a research coordinator assigned to oversee the work. With management operations, the modus operandi must be agreed in advance with the local management team, and the assistance team should always operate under the direct control of a staff member.*

## **RHINO CONSERVATION GOALS**

- **Goal : "To conserve black rhino".**
- **Build up wild populations in large areas to a minimum of 1 000, preferably to 2 000 in the Parks and Wildlife Estate.** BR p4

*These goals will require revision in view of the decline in the black (and white) rhino numbers in Zimbabwe in recent years. A target metapopulation of black rhino of 2 000 is recommended, with management programmes designed to achieve this as rapidly as possible.*

*No definition of the Wildlife Estate could be found, but it was presumed to include only State-owned land (Parks and safari areas). It is suggested that the goal should be seen as a country goal, and include the private sector as a partner. Such a metapopulation approach involving partnerships is being used*

very successfully in Kenya, Namibia and South Africa, the only countries in Africa with increasing black rhino populations.

A conservation goal for the southern white rhinoceros should also be developed.

**BROAD STRATEGIC APPROACH**

IPZ's and conservancies (for black rhino)

Captive breeding

- **8 IPZ's (all >100 rhino; >1000 km<sup>2</sup>)** BR p7

*Reject - obsolete - see below.*

- **Populations <100 relocated to IPZ** BR p7

*Reject - obsolete - see below.*

*For example, it would be highly undesirable in the current situation to take all animals from a well protected and productive large breeding population like Bubiana to an IPZ as i) some animals may die in the translocation and re-establishment process, ii) strategically one is reducing the number of "baskets" and iii) one would be reducing the number of large breeding populations.*

*Given that DNPWLM budgets appear to be declining and given the risks and costs of translocation and re-establishment, animals should only be translocated to other areas when there is a need to do so ( eg overstocking, to prevent inbreeding in a smaller population, or if security breaks down in an area). Given a limited budget, the DNPWLM needs to consider how many IPZ's it can afford to manage at the required intensity. Strategically if resources are limited, experience in the rest of Africa indicates that it is far better to concentrate ones efforts in a few areas where one can be successful, rather than spreading effort too thinly over all areas, and failing.*

- **All populations of less than 100 rhinos on communal land should be relocated, but this conflicts with initiative to promote management of wildlife by rural communities.** BR p7

*Largely obsolete - almost all rhinos have been poached on communal land.*

- **Form breeding nuclei** : **<100 rhino (min 40 founders)** BR p8,23  
   : **controlled exchange between**  
   : **breeding nuclei in Parks, Estate**  
   : **and commercial farming areas**  
   : **50 - 100 km+ from border.**

*Reject-obsolete- see below.*

- **Custodianship** : **receive breeding nuclei** BR p9  
     *This has been implemented.*

*Supported, provided it is either to increase the effective founder number in a potential large breeding area up to 25 or to possibly replace animals removed for genetic reasons from performing satellite breeding populations. Care must be taken not to overstock any areas. Experience has shown that the private sector has and is making a substantial contribution to rhino conservation in a number of range States in Africa.*

*Human empowerment and upliftment is another reason to support custodianship in areas such as the lowveld.*

*The management of black rhino on a custodianship basis has a further major advantage as it enables the DNPWLM to concentrate its budget to achieve success in managing its IPZ's. Together the combination of conservancies and IPZ's can become a winning strategy not only for Zimbabwe's rhino, but also for its peoples.*

- **Movement of rhinos from conservancies to IPZ's only (SNP p38)**

*Reject - rhinos should be translocated to the most appropriate area to best serve the interests of Zimbabwe's metapopulation. This may or may not be an IPZ.*

- **No more moves to conservancies**

*Reject - occasional transfer of new blood will be necessary every generation. In addition two conservancies could become large breeding populations with the addition of more founders. Once again, decisions should be made in terms of what is best for Zimbabwean rhino metapopulation management.*

- **Other strategies**

*I was only sent the Zimbabwe black rhino conservation strategy (Jan 1992) to comment on. However, in my position as Chairman of the AfRSG I am also in possession of the Short & Medium Term Action Plans for black rhino (April 1992). I also know that in 1993 a Black Rhino Conservation Project Conservation Emergency Plan was produced, which was primarily concerned with the operation of IPZ's. Furthermore much has happened since the 1992 strategy was produced, making many of the above recommendations obsolete. For example there are now only about 2-5 animals left on communal land. From only being an insurance policy in 1990, 63% of Zimbabwean rhinos are now managed on a custodianship basis. Also there have been times in the past when budgeting constraints have impacted negatively on the running of IPZ's.*

*I am aware that, in the light of changing circumstances, the policy was modified by DNPWLM staff. This was to take account of the fact that budgets and manpower were limited, and that there were many fewer animals in the country, thus making goals such as setting minimum effective founder numbers of 40 unrealistic. As the AfRSG's Scientific Officer was involved in giving an unbiased opinion of the relative suitability of the Midlands compared to lowveld conservancies for black rhino for the DNPWLM and the Zimbabwe Rhino Custodians Committee, and through my contacts with Zimbabwean*

*colleagues on the AfRSG, I know the basics of the rhino conservation strategy that was being applied at the time management was effectively suspended by the Minister.*

*I feel, therefore, that I should also comment on the desirability and technical merit of the biological strategies which the DNPWLM were trying to implement at the time that policy was suspended.*

*The strategy DNPWLM staff were trying to implement (at the time of policy suspension) was (my wording) :*

- 1) *To maintain a number of "large breeding populations" with the potential to breed up to at least 100 animals in areas of suitable habitat, and to have a net growth rate of at least 3% in IPZ's and at least 5% in conservancies, and to pursue a policy of preventing significant loss of genetic heterozygosity..*

*Supported, although perhaps the goal of a 5% growth rate should apply equally to IPZ's and conservancies given the critical need to maximise metapopulation growth rates. RMG data indicate that the figure of 5% is appropriate, but that one should expect actual growth rates to be higher than this.*

*Large populations are the primary storehouse of genetic diversity, and maintaining a few larger populations is a crucial part of any metapopulation management strategy. Maximising growth rates also minimises loss of heterozygosity, as well as greatly increasing rhino numbers quickly (due to the effects of compounded growth rates).*

*For example, if a 7.2% metapopulation growth rate can be obtained, numbers of black rhino in Zimbabwe will double in only a decade, and increase fourfold in 20 years to 1,300. By way of contrast, an average growth rate of 4.1% will only increase numbers by 50% over a decade and up to 724 in 20 years. In other words just a difference of 3.1% extra growth per year translates into 576 more rhino in just 20 years.*

- 2) *That the desired minimum effective founder number in these large breeding populations should be 25 (down from 40 based on the results of PVA modelling, and also taking the declining availability of founder stock into account).*

*Supported, given the desire and need for a minimum management policy. However, in practice, having the odd large population with an effective founder number of say 20 will not have a major detrimental effect.*

*There are currently only two large breeding populations according to the above definitions (Sinimatella IPZ and Bubiana Conservancy)*

*Save Valley and Matusadona IPZ are also very close to having the required minimum founder numbers and to all intents and purposes should be treated as large breeding populations. That is not to suggest that given the opportunity, further founders should not be added to these populations.*

*Chiredzi river has the potential to become a large breeding population if additional founders are added.*

- 3) Even in a population with 25 effective founders there will be some loss of genetic variability, and therefore one new effective breeder should be added to each population every generation (10-15 years).

*Supported, provided the operations are conducted by experienced experts.*

- 4) That in the case of areas with lower carrying capacities and smaller founder numbers, the areas should be termed "satellite breeding centres", and to prevent inbreeding subadults should be removed before reaching sexual maturity. However these animals could be replaced with new blood provided the minimum growth rate of 5% is being achieved. In other words, poorly performing populations are left to fade away while productive ones are maintained. These populations will act as the source of many animals for the large breeding populations.

*Agreed in principle for the very small populations. However the need to remove offspring decreases as the potential ECC increases. I would recommend that the opinion of genetic experts such as Dr Bob Lacy should be sought to give advice on this policy. The potential mortalities involved in introducing new blood need to be weighed against the genetic advantages and security status of particular areas.*

*In satellite breeding areas with the potential to become large breeding centres, I would recommend increasing their effective founder number so that they become large breeding areas. This would greatly reduce the necessity of future management and increase the number of large breeding populations.*

*Very small satellite populations should probably be consolidated by being moved to other larger IPZ's or conservancies.*

## **CAPTIVE BREEDING**

- **Captive breeding: In situ breeding at Imire and Chipangali Wildlife Orphanage (pvt)**

SNP p79  
BR p11

*Both Imire and Chipangali have failed to perform at over 5% and have therefore made a questionable contribution to Zimbabwe's rhino conservation effort. Following an investigation it may be better to translocate these animals to a protected wild situation (large breeding or potential large breeding populations should get priority). However the possible tourism/educational advantages of animals in these intensively managed centres should be evaluated before any decisions are taken.*

- **Quarantine procedures led to some deaths in Australia.**

SNP p79

*Cannot comment.*

*However I am aware that some Zimbabwean animals that went to the USA died as a result of exposure to creosote in barns in Zimbabwe.*

- **No mechanisms to allow DNPWLM to get back animals for re-stocking.**

SNP p79

*This should be built into the agreement. Relocation from captivity back to the wild is expensive and there are extreme risks attached to restoring captive-bred and raised individuals in the wild. It is recommend that in future animals sent overseas should be sold, or else payment made at market price for offspring. However given the markedly poorer performance of black rhinos in captive breeding centres compared to well-protected ones in the wild, and the fact that captive breeding is primarily a last resort insurance policy should all animals be wiped out in the wild, I would recommend that if at all possible all animals should be relocated to the wild rather than being sent to captivity.*

- **Ex situ and in situ breeding programmes should not be actively supported.**

SNP p 80A

*Supported - see above*

### **RHINO PROTECTION AND SECURITY**

- **Staff density should be 1/20 km<sup>2</sup>.** BR p6
- **1989 cost US\$400/km<sup>2</sup>/year.** BR p6
- **Good intelligence may be more cost-effective than field patrols.** (No indication given that this is being implemented). BR p15
- **Essential receives full police and military support.** BR p15

*As illegal hunting poses the greatest threat to the survival of black rhino in Zimbabwe, both black and white rhinos must be adequately protected. The survival of all rhino species and subspecies depends on:*

- a) The ability of management authorities to prevent, or at least restrict poaching to levels that do not result in population decrease.*
- b) The success of worldwide efforts to minimise the incentives to poach and trade illegally in rhino horn.*

*Major considerations include (ref. draft "Black rhino conservation plan for South Africa"):*

- *develop adequate ground surveillance and reaction capabilities;*
- *improve and maintain good neighbour relations around Parks and conservancies;*
- *develop intelligence networks (this is critical);*
- *investigate and effectively prosecute poaching and horn dealing cases;*
- *secure horn stockpiles.*

*The Department should attempt to maintain sufficient game guards and rangers in the field to secure the existing rhino populations in the IPZ's, and only resort to bringing in the police and armed forces in the case of*

emergency.

*The conservancies should be encouraged to train and equip staff for security work in their areas.*

## DEHORNING

- **No dehorning of rhinos until a full study is done to evaluate effectiveness.**
- **More evidence is required to indicate whether dehorned cows are able to protect their calves from predators.**

SNP p38,  
80A

SNP p38

*There is no need for a study to determine whether dehorned rhinos can successfully protect their calves. Black rhinos which were dehorned on private land in Zimbabwe during the period 1992-early 1995 have been closely monitored and have shown absolutely no negative effects of this intervention. Breeding and survivorship of calves has not been suppressed (as is shown by recent annual growth within the large lowveld conservancies of 8-10%). However some deformation of regrowing horns has occurred as a consequence of infection or splitting of horn bases indicating horns should be trimmed slightly higher (in accordance with the more conservative Namibian procedure).*

*While the populations on private land do not face a significant predation challenge, the Sinamatella IPZ has a high density of lions and hyaenas. After the first dehorning operation was undertaken in this IPZ in 1992, a repeat dehorning operation was undertaken in 1994 and a radio-collaring operation was undertaken in late 1995. On the first dehorning, black rhino cows were ear-notched and identified via implanted transponders. Follow-up operations were therefore able to establish calf survival in the dehorned population. It was found that within the estimated population of 60 rhinos, 17 surviving calves were born at various stages since 1992 and cows showed good inter-calving intervals.*

*Further data which indicate that dehorning did not adversely affect calf survival is contained within detailed reports of these operations available from the Veterinary Unit, DNPWLM.*

*Much of the criticism of dehorning stems from the work of Berger and co-workers in Namibia. However the science and validity of this work has been severely criticised in the rhino conservation community. The sample sizes on which conclusions were drawn by Berger et al is also questionable. Three papers have been sent to Conservation Biology by Zimbabweans to complement a response by Namibian members of the AfRSG. In fact a horned rhino was poached in Kunene by a co-author of one of Berger and Cunningham's papers !*

*An early theoretical review of the possible problems of using dehorning by Millner-Gulland?, Leader-Williams and co-workers used incorrect and overly high mortality rates, therefore invalidating the results of the modelling undertaken.*



*Zimbabwean experience with white rhinos in Hwange clearly shows that dehorning is only one part of a successful strategy as Zambian poachers killed dehorned rhinos there during late 1992 and early 1993 when anti-poaching patrols were suspended due to severe budgetary constraints. With the reduced probability of detection, a reduced reward (in terms of lesser horn harvest) was clearly acceptable to these poachers as over 40% of the estimated population had either never been dehorned or had substantial horn regrowth (Milliken and Du Toit 1994). Conclusion - dehorning is not a stand-alone solution. It reduces the rewards a poacher gets, but the risks of detection also enter into the economic equation that governs poaching.*

*Some additional points:*

- Animals can be ear-notched during dehorning to facilitate monitoring, and can also be fitted with radio-collars to improve the efficiency of monitoring.*
- Dehorning prevents a large quantity of horn from entering the illegal market. Horn stockpiles may benefit conservation departments in future should trade ever be legalised.*
- One suggestion has been to use sport-dehorning to generate revenue to fund dehorning and radio-collaring operations. Approval has been obtained to import such trophies into the USA.*
- Dehorning has been used as part of a successful anti-poaching strategy in Swaziland.*
- Namibians on the AfRSG also support dehorning in principle, and the Namibian country representative on the AfRSG stressed the positive effects that participation in dehorning operations has had on morale.*
- Experience in both Zimbabwe and Namibia has shown that dehorning does not deter tourists or affect their desire to see rhino if the reasons for dehorning are explained to them.*

## **BIOLOGICAL MANAGEMENT**

- No translocation from IPZ's until CC reached.**

BR p7

*Reject - Populations should never be allowed to reach ecological carrying capacity unless there are no potential well-protected areas which can take surplus animals. In Section 6.2.1., I assume that "ecological reasons" means "for the overall good of the species", thus allowing for the management of rhino populations below carrying capacity so as to maximise rates of increase.*

*I recommend that there should be no translocations from large wild breeding populations (IPZ's or conservancies with a potential carrying capacity of 100+ and an effective founder number of 25) unless one of the following conditions applies:*

- 1) the population is at or above 75% of estimated Ecological Carrying Capacity (ECC) ie. above the level of maximum productivity (Maximum Productivity Carrying Capacity - MPCC). Without removals, growth rates are likely to slow or the population to decline due to deteriorating habitat conditions. It is essential to stock populations with a view to maximising*

metapopulation growth rates. More details are given in the Black Rhino Conservation Plan for South African and the draft Continental African Rhinoceros Status Summary and Action Plan compiled by the IUCN's African Rhino Specialist Group (AfRSG).

- 2) Additional animals are required to increase founder numbers in a potential large breeding population (potential ECC of 100+ in suitable habitat) up to a recommended minimum of 25 effective founders.
- 3) It involves the transfer of at least one new effective breeder to each sub-population every generation (ie 10-15 years).
- 4) It involves the transfer of animals to smaller satellite breeding populations which are performing above the desired 5% /annum level to replace animals removed from these populations to minimise inbreeding.
- 5) Adequate protection can no longer be provided (eg if there was a sharp decline in DNPWLM funds in future preventing sufficient patrolling in IPZ's - or private landowners were unable to fund anti-poaching efforts - in which case the animals at risk should be translocated to a safer park until such times as adequate security can be re-instituted).

- **Reliable population estimates are required.**

SNP p80

*Agreed - this is an essential component of good biological management.*

*The best way is to use individual identification (ID) methods. In smaller populations it is possible to know every animal, but in larger populations it may be necessary to use Bayesian Mark-Recapture analysis (RHINO) to accurately estimate numbers from sighting resighting programmes. If dehorning/radio-collaring is practised on a routine basis, the Zucchini-Channing Bayesian Mark-Recapture technique could be used to produce accurate estimates.*

*Ear notching of animals can greatly assist those on the ground to identify more animals and increase the precision of population estimates.*

*The use of the ID training course for Game Scouts can help increase the quantity of quality data. A course has been designed by the Natal Parks Board.*

SNP P80A

*Zimbabwe's recent joining of the RMG and the process of annual RMG status reporting should help assist Zimbabwe to achieve this goal.*

*Technical assistance on rhino population estimation is available from the AfRSG.*

- **Rhinos in unsuitable habitats should be relocated into IPZ's.**

SNP P80A

*Rhinos should preferably be relocated to the area most suitable from the security and habitat perspectives. This may or may not be an IPZ. For example, increasing the effective founder number of the Chiredzi River*

*Conservancy up to the recommended 25 would be a good option. Policy must seek to maximise the growth rate of the Zimbabwean metapopulation whilst at the same time aiming to have as many well protected and monitored large breeding populations as possible.*

*Sale to private landowners is another option; but while this may generate substantial revenue for the DNPWLM, rhinos may not go to the most suitable population - ie there may be a trade-off between revenue generation and metapopulation performance unless sale is very strictly regulated.*

*I fully support the previous policy of the DNPWLM to concentrate the majority of its rhinos in large breeding populations (in IPZ's and conservancies) as this will :*

- 1) minimise the loss of genetic heterozygosity;*
- 2) minimise the need for expensive manipulative management needed in small populations. If there is any limitation on available funds and skills this is a very sensible approach. Under no circumstances should operations be compromised by using inferior techniques or unqualified staff (eg during translocations);*
- 3) translocation mortalities are likely to be reduced.*

*There is a need to differentiate between unsuitable habitat and populations that are performing poorly due to overstocking. In such cases an alternative option is to reduce population size below the estimated maximum productivity carrying capacity (MPCC ≈ 75% ECC).*

- **There should be a clear policy on (capture and) translocation of all species, especially on private land.**

SNP p84

*Agree, but one also needs to be clear on ownership.*

- **Policy on export and import of live animals (separate document)**

*The policy should indicate that it is dealing with wild animals indigenous to Zimbabwe.*

*Movement permits can be used to control sales from private populations.*

*The imposition of a 15% "tax" (in the form of offspring from imported animals) will simply act as a disincentive to the wildlife industry (point 3.4). Why should game be taxed in this way and not other goods such as cattle?*

## **SUSTAINABLE CONSUMPTIVE USE**

Four options for sustainable use need to be considered:

- **Controlled legal trade in horn should be reopened, with revenue being used for anti-poaching.**

BR p19

What would the impact be if Zimbabwe sells to another country; and would it

SNP p29

encourage poaching elsewhere?

*Best done with CITES approval. CITES parties are becoming increasingly aware of the importance of sustainable use. Premature international trade could have significant political/economic effects on Zimbabwe if major western countries do not support trade. I would suggest this should only be pursued after discussion, and in collaboration with, other neighbouring range States.*

- **Farming horn**

Br p19

*The economics needs to be investigated - A non-starter unless it is done with CITES approval.*

- Black rhino sport hunting**
- **Income should be maximised.**
- **Avoid genetic drift.**
- **Use of alternative methods e.g bow hunting**

BR p19  
SNP p66.  
68

*It may be more appropriate to start by seeking authority to hunt white rhinos. Approval would need to be sought from the US, as the largest market, to import hunting trophies.*

*I would strongly discourage the hunting of rhinos using bows as it will be seen to be inhumane. In pursuing sustainable use policies it is important that we do not give extremist animal rightists ammunition to attack sustainable use.*

- **Sale of live rhino could be considered.**  
**Trade in rhino should remain illegal.**

BR p19  
SNP P80A

*Trade in rhino has been a major component of the success in rhino conservation in South Africa and has also generated significant revenue for conservation departments such as the Natal Parks Board.*

*For example, at the 1996 Hluhluwe auction, the total turnover for the sales of 133 white rhino and 6 black rhino was R6,723,937. Estimates of the total turnover of live rhinos in South Africa over the period 1986-96 (corrected for inflation) is around R60 million. Known auction sales of rhino since 1986 in South Africa have generated in excess of US\$13.375 million (not adjusted for inflation). If one includes sales of rhino by North West Environmental Conservation (ex Bop Parks Board) the total turn over is around US\$15 million.*

*Lack of funds has been identified as a problem by the DNPWLM, and in the past has led to patrolling being temporarily suspended in an IPZ with disastrous consequences. Selling rhino is a potential partial solution to this problem and has the advantage that it encourages self-sufficiency rather than a reliance on fickle international donors (whose money may have unwanted strings attached).*

*I would therefore recommend that white rhino should be able to be traded freely. The government may however decide that in order to control movements so that metapopulation growth is maximised, all black rhinos should remain the property of the State for the time being.*

- **DNPWLM should train and equip non-staff to run safari operations for the Dept (presumably within the Wildlife Estate?).**

SNP p67

*This is a specialist field. Rather ensure that adequate revenue is made from individual hunts in Safari Concession areas. It would send mixed messages to become involved in training hunters, so rather let the private companies do this.*

*The key is to accredit professional hunters who have passed the necessary exams and tests. It is essential that only qualified and accredited professional hunters are used for rhino hunts.*

*Funding could be sought to train more black Zimbabwean professional hunters to increase the representativeness of the industry. However quality must not be compromised in any way.*

PWZ

- **No species will be excluded from utilisation unless the Minister is convinced that such exploitation will be detrimental to its survival.**

PWZ  
Section 9

*This should certainly not be applied to the Parks or Wildlife Estate. There is only limited information available on plants on which to base harvest levels, and this also applies to many other major taxa. A more precautionary approach is advised.*

*However it is possible to sustainably harvest a rare species. For example the hunting of a known post-reproductive geriatric male black rhino will not in any negative way affect the performance of the population, but could generate substantial revenue to fund conservation operations and/or undertake community projects.*

### **WILDLIFE INDUSTRY / PRIVATE SECTOR / TOURISM**

- **DNPWLM appears concerned about privatisation and conservancies.**

SNP p10  
SNP p11

*The DNPWLM may benefit from privatisation of some its activities (such the running and management of its tourism facilities).*

*Conservancies also can play role in assisting the DNPWLM conserve biodiversity. Apart from their nature conservation role, the development of conservancies in semi-arid lowveld areas appears to be the best form of land-use.*

- **The DNPWLM appears to be concerned about "outsiders" and especially those who used to be members of the Department.**

SNP p4,5,  
21

*See the section on external stakeholders. In my view there is a need to distinguish between those "outsiders" with an "activist" usually animal rightist agenda who do not have the interest of Zimbabwe or Zimbabwe's wildlife at heart; and those who may be highly skilled or NGO's that are "on sides" and*

SNP p10

could contribute significantly to Zimbabwean conservation.

*For technical jobs it is often desirable to contract out to get the most qualified personnel. Conservation department staff are also usually unable to undertake longer-term applied research projects, and these invariably have to be undertaken by "outsiders". However provided the projects undertaken have been designed to address a conservation management issue, and have been given the backing by DNPLWM research and management staff, outside research can make a major contribution to policy development. Key components of such a strategy involves implementing a system of registering and approving projects in Parks followed by a formal system to consider recommendations that may emanate from such projects.*

*In our experience in South Africa, criticism from "outsiders" may be very positive if it takes the form of constructive suggestions, and should therefore not be rejected out of hand. The secret is to find a liaison forum where input can be made constructively in-house.*

- **Private conservancies carry out game ranching for tourists - generating foreign exchange and employment.**

SNP p10

*This view misses the point that the private sector can also make a contribution to biodiversity conservation, as well as help cover some of the costs of conserving specially protected species. It is also a more sustainable use of the land in such areas than cattle farming and less susceptible to the vagaries of drought.*

- **Concern over uncontrolled development of ecotourism.**

*The DNPWLM must retain control of tourism in Parks and contribute to Need and Desirability studies relating to tourism development in the vicinity of Parks. That is not to say that the private sector should not run certain operations within Parks (eg lodges) - but that rather the DNPWLM needs to set out the ground rules of what type of development and activities are acceptable.*

*It is important to ensure that government is not short-changed in any contract made with concessionaires. It is essential that a US Parks situation where concessionaires make big profits but contribute little to conservation is avoided at all costs.*

- **Conservancies should be limited to regions with low agricultural potential (ie 4 & 5), with those in regions 1 - 3 being closed down.**

SNP 11,12,  
38

*This is a political decision for the government of Zimbabwe. However if there is a desire to create more domestic tourism and provide opportunities for environmental education in the field, there may be a need for some (perhaps smaller) conservation areas nearer centres such as Harare.*

*The continued existence of any conservancies in such zones could be made contingent with attempts to truly integrate them into the local communities and to take down internal fencing that may be preventing free movements of rhinos.*

*It should not be assumed that cattle or other types of agriculture necessarily represent the best long-term land use option in all parts of regions 1 - 3. The problem is that traditional accounting methods generally exclude the biological costs of stocking effects on rangeland productivity. When the longer-term biological costs of overstocking of cattle are taken into account, the apparent superiority of cattle ranching in such areas may be questionable. A study by Kreuter & Workman (1994), for example, concluded that in the long term, partial replacement of cattle by wildlife on Midlands cattle ranches would probably enhance the sustainability of the rangeland use, because of the reduced stocking pressures required for financial profitability in game and mixed systems. It would be worth investigating the viability and desirability of land uses other than agriculture in these regions, as was done in the Zimbabwean lowveld by Price Waterhouse and by Bop Parks and independent consultants prior to the creation of Madikwe Game Reserve in South Africa.*

- **New conservancies must comply with government requirements.**

SNP p38

*Supported in principle. In most South African provinces, game farms are required to be licensed.*

- **Conservancies should operate under licence which would insist on formal, meaningful relationships with surrounding rural communities, with flow of benefits. Also a monitoring programme for specially protected species.**

SNP p13,38

*Supported, providing this does not set 'quotas' for benefits which would interfere with normal free trading. It is in the rhino conservancies' best interests to maintain good relations with neighbours and to create incentives for local communities to support these conservation programmes. It interesting to note that this is already happening in some areas. For example the Save Valley Conservancy is in the process of forming a Community Development Trust to ensure that local communities benefit from the wildlife industry in the conservancy. An innovative scheme is being proposed whereby the conservancy will be restocked with animals and the Trust will receive levies from the conservancy members for the restocked animals, thus giving the local communities a proprietary involvement in the wildlife. Similar mechanisms are being proposed for Bubiana. In addition, these conservancies also provide more higher paying jobs than would be the case under cattle farming. The veld in Save Valley is also being rehabilitated following degradation due to overgrazing by cattle. Valuable FOREX is being generated and the whole enterprise is much less susceptible to the effects of droughts. Food security for surrounding communities is therefore being enhanced by the influx of increased wealth into them. The development of these integrated conservancies in the lowveld of Zimbabwe is a model for successful conservation in many parts of Africa where not only rhinos and the environment benefit, but so do surrounding communities and the country.*

- **Conservancies create a market for surplus wildlife from National Parks.**

SNP p14

*However, the current ban on the private ownership of wildlife prevents National Parks from fully benefitting from the sale of its surplus game.*

- **All animals owned by State.**

SNP p14

*This position on private ownership should be carefully evaluated. The benefits of the ownership of game by the private sector so as to provide for sale by the State could be very important. There would appear to be grounds for allowing private ownership of white rhino.*

- **Conservancies are regarded as being environmentally supportive, with their main role being based on wildlife use; but with social responsibilities. They should complement the National Parks' objectives relating to economic activity and rural development.**

*Agreed. But the role in conserving biodiversity should be stressed more. Refer to contribution of South African private landowners. Private game ranches/conservancies need not be massive to support very significant biodiversity or to generate tourist dollars. However to be successful (low management), large rhino breeding populations require large areas in semi-arid areas such as the lowveld.*

- **No more rhino to be moved to conservancies.**
- **Any rhinos removed from conservancies must go to IPZ's.**

SNP p38

*Rejected. Rhinos should go to the most appropriate destinations to further the aims of Zimbabwe's metapopulation management strategy. These may or may not be an IPZ.*

*It is anyway not desirable as a principle to have all the rhinos either on conservancies or in IPZ's. Splitting rhinos between the private and public sectors increases the resilience of a conservation strategy. This is borne out by the experiences of Swaziland and Kenya.*

- **Indigenisation of ecotourism should be encouraged and legislated for.**
- **"Indigenisation" should be encouraged providing it does not compromise the objectives "protect species diversity" and "maximise income to Department".**

SNP p5,65,  
67

*Supported, provided this does not take the form of legislated filling of quotas.*

*To be successful in the longer term, government effort perhaps should rather concentrate on promoting affirmative action through i) the provision of the necessary training in business and tourism skills, and ii) facilitating access to the necessary credit to those without sufficient collateral to raise capital*



*through the normal banking channels. The development of an equivalent to the South African Small Business Development Corporation, if it does not already exist, could assist in turning this goal into reality, as well as maximising the success rate of "indigenous" tourism ventures.*

- **Conservancy problems:**

SNP p78

- Some did not provide adequate protection leading to game being poached.

*This only occurred in the early days of conservancies and in the worst area all rhinos were removed by the DNPWLM. However in recent years conservancies have had an excellent security record and over the last 6 years have far out-performed rhinos in the State sector where poaching has been much greater.*

- Personnel not protected under indemnity act, making it difficult to deal with poachers.

*Efforts of land owners in rhino conservancies to train and better equip guards should be supported, rather than being prohibited as in the case of the Midlands.*

*In Swaziland the Attorney-General has granted private game guards indemnity on condition this privilege is not abused in any way. Private landowners operate without indemnity in most countries.*

- Some rhinos have experienced nutritional problems due to unsuitable habitat.
- Rhinos have approached or exceeded ecological carrying capacity (ECC) (eg in the Midlands) .

*Determine ECC of such properties, and remove surplus animals as required.*

SNP p78

- No mechanism to allow National Parks to remove animals from conservancies.

*I am not privy to the original agreements. If offered for custodianship, surely the DNPWLM is entitled to remove (at least surplus numbers). A contract or letter of agreement should apply (e.g. Namibia). As far as I am aware the Department has the right to remove animals as it sees fit. The exact wording on the landowners permits to keep rhino needs to be examined .*

- **There should be signed agreements regarding black rhino already in conservancies.**

SNP P80A

*Conservancy members currently have to sign DNPWLM permits to keep rhino.*

- **Excess species to be sold to the best advantage by auction (by DNPWLM).**

SNP p84

*This is supported, but this might require a change in approach towards ownership of wildlife - see above.*

- **There should be restrictions on the export of game, even common species.**

PWZ Section  
7.4.5.

*How can restricting export of common species be justifiably blocked if this is the best economic option? Any such imposition may affect the viability of the business.*

- **A strong policy statement indicating the Government's intention to ensure the equitable distribution of resources and access to opportunities was made in the preamble.**

PWZ

*Economically viable wildlife enterprises run by the private sector can provide many benefits to people and complement rather than detract from the Government's contribution with respect to the conservation of biodiversity, including endangered species such as the black rhino. Every effort should be made to encourage and support such enterprises in Zimbabwe.*

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PMB/lh : 27 November 1996

**RECOMMENDATIONS FOR THE DEVELOPMENT  
OF A NATIONAL POLICY ON  
RHINO MANAGEMENT IN ZIMBABWE**

**Dr Martin Brooks  
Chairman of IUCN's African Rhino Specialist Group  
November 1996**

It is assumed that the black rhinoceros, *Diceros bicornis minor* will be one focus of the proposed National Policy on Rhino Management and so the recommendations for its development given below are restricted to this taxon. However the southern white rhinoceros *Ceratotherium simum simum* as an extremely important taxon and one which in some ways provides more immediate opportunities for innovative management and sustainable use, so the formulation of a policy for the white rhino is also recommended.

Zimbabwe's black rhino population has experienced a decline of about 80% since 1980, with numbers only stabilising at just over 300 animals in the last year or two. Attempts to protect rhinos in the Zambezi valley and other areas within the National Parks failed for a number of reasons, amongst them inadequate funding and staffing. Over the same period, black rhino populations in Namibia and South Africa increased by 99% and 63% respectively, while in Zambia and Mozambique populations crashed to close to extinction. Kenya on the other hand experienced a rapid initial decline, but populations stabilised in the mid 1980's about ten years before those in Zimbabwe. This continental perspective provides the opportunity to learn from the successes and failures in rhino conservation elsewhere in Africa and to adopt those policies and approaches appropriate for Zimbabwe.

Since 1990, the black rhino population on State and communal land has declined by 90% due to heavy cross-border poaching in the Zambezi valley, Sebungwe and the Hwange-Matetsi regions, with the survivors (numbering about 125) now consolidated within Intensive Protection Zones (IPZs) within the Parks. Over the same period, populations on private land have increased by 42% to 170-180. With only 11 of these being added from State/communal land.

For the first time probably in this century, but certainly over the past 10 or more years, the decline in the Zimbabwe black rhino population has been halted. Numbers are low, but not too low to prevent a fairly rapid recovery given the adoption and implementation of the correct policy and management approach. That South Africa's black rhinos have increased almost ten fold since the 1930's indicates that full recovery is possible.

Success will depend on the vision of the leadership within the Ministry and the DNPWLM in adopting the correct policy, the resources that are made available (both financial and human) for its implementation, and the extent to which the collaboration between the major stakeholders can be maximised. But above all, it will depend on the total commitment of all concerned. It is clear from the Proceedings of the Seminar on National Parks and Wildlife Management Policy Issues that the rhino conservation community within Zimbabwe has become polarised; with this division resulting from inadequate communication and an incomplete understanding in some quarters of what is required for effective rhino conservation.

## **POLICY DEVELOPMENT PROCESS**

The process of developing the black rhino policy should be transparent and include all the stakeholders. Everyone needs to be a part from the beginning to ensure that the product gains universal acceptance and there is a feeling of common ownership of the approach adopted.

The following decision-making process is recommended:

- **Define the problem**  
What is the scope of the problem, how do different stakeholders view it?
- **Include all stakeholders**  
Ensure that all relevant stakeholders have been included, e.g. rhino managers from State, communal and private land, rhino ecologists, cooperative funding and advisory bodies such as the African Rhino Specialist Group.
- **Set conservation goals for black rhino**
- **Identify major constraints to goal achievement**  
What are the factors preventing / limiting population increase, e.g. habitat, manpower, funds, scientific data, etc.
- **Draw up list of management options / potential solutions**
- **Analyse and select preferred options**

I would view the Rhino Management Policy Seminar, held on 12 December 1996, to be a preliminary step to enable the Ministry and the DNPWLM to consider their position prior to the development of the policy itself, rather than as a forum where the policy will be defined.

## **KEY ELEMENTS OF THE PROPOSED NATIONAL POLICY ON RHINO MANAGEMENT**

I would envisage that the rhino policy will be expressed in a rhino conservation action plan which will state the conservation goals and the strategic approaches required to achieve them. The key components are likely to be:

### **1. Black rhino conservation goals**

- Numerical target - A metapopulation of 2000 rhinos in the wild could be considered.

- Rapid population increase should also be a major consideration, as small improvements in growth rate can have a very significant effect on population size over a few years; and will also minimise any loss of heterozygosity.

## 2. Role of the Rhino Management Committee

- Terms of reference indicating the composition and role of this advisory group should be set
- Activities could include maintaining the action plan, providing a forum for exchange of information and ideas between the stakeholders, developing conservation strategies to aid goal achievement, advising the DNPWLM on rhino issues.

## 3. Conservation Model

- The strategy of “delegating” part of the responsibility to the private sector, either through ownership or custodianship, has proved to be successful in every African range state where it has been implemented (Kenya, Namibia, South Africa, Zimbabwe). In the case of Swaziland, if it had not been for the private sector, the country would have no rhino left. With proper regulation, the partnership model of State land (IPZs initially) and private land (conservancies) being practiced in Zimbabwe is strongly supported.
- The continued support of captive breeding programmes needs to be re-evaluated in the light of the relatively poor performance of these populations.
- The decision on whether to allow the controlled sale of some black rhinos to the private sector in Zimbabwe should be included.

## 4. Conservation management programmes

- Managing current populations
  - ⇒ Legal and physical protection of the rhino
    - Ground surveillance and reaction capability (staff density 1 per 20 KM<sup>2</sup> in IPZs)
    - Effective intelligence networks
    - Maintenance of good neighbor relations
    - Investigate and prosecute poachers and dealers
    - Secure horn stocks
  - ⇒ Maximise productivity
    - Manage at about 75% of ecological carrying capacity
    - Aim at an average growth rate of at least 5% per year.
  - ⇒ Estimate carrying capacities
    - Critical in selecting areas for re-establishment, setting founder numbers and management at 75% ECC for maximum rate of increase
  - ⇒ Monitor populations
    - Population estimates to within 10% of actual size every 1-3 years.

Monitor population sex and age structure to determine breeding performance, as well as mortalities, on an ongoing basis.

⇒ Dehorning

Dehorn rhino if it is felt that the security programme is unable to control poaching within defined limits and there is a need to further decrease the incentives to poach.

⇒ Maintain genetic diversity

Adopt approaches that will ensure the maintenance of a minimum of 90% of genetic variation over 200 years. This may require the addition of one new effective breeder every generation, i.e. every 10-15 years. Smaller populations will require more intensive management.

Very small populations or sub-populations not in breeding contact as a result of fences/rivers should probably be translocated to large breeding areas.

In the short term (<10 years) population augmentation for genetic purposes should be regarded as secondary to any security considerations.

⇒ Establishing populations

Preferentially select areas with high levels of security and habitat suitability, and with an ecological carrying capacity of at least 100 rhinos, followed by those with an ECC of 50 and above.

Recommended minimum effective founder population is 25.

Initial stocking not to exceed 50% of maximum productivity carrying capacity (i.e. <37.5% of ECC).

Adopt principles and procedures for capture, translocation and establishment.

Always use qualified and experienced personnel for capture and translocation exercises.

PMB/h : 27 November 1996

## **Comments: Dr. Holly Dublin**

Thank you very much for the opportunity to comment on the documentation forwarded to us by the IUCN-ROSA in Harare. It made for very interesting reading.

My comments and recommendations are made in the context of developing a National Rhino Management Policy and, in the case of Zimbabwe, this should include provisions for the conservation of both the southern white rhinos as well as black rhinos because both species are listed in the Act as Specially-Protected and must, therefore, represent conservation priorities for Zimbabwe.

For ease of reference, I will organise my specific comments under headings which relate as closely as possible to those described in the Zimbabwe Black Rhino Conservation Strategy (ZBRCS), January 1992. There will be several additional headings and these will be followed by more general comments about overall development of the next National Rhino Management Policy/Strategy.

### **I. GOALS**

The stated goal (as stated in ZBRCS 1992) is fundamental and requires no significant change, though you may wish to add the southern white rhino and possibly a clause describing the geographical limits in which the goal will be pursued (e.g. on Parks and Wildlife Estate and private Conservancies).

### **II. OBJECTIVES**

I am generally familiar with the changing conditions in poaching activity and the decline in rhino numbers (Towindo, 1995) since the 1992 strategy was launched. As I understand, a sharp deterioration in numbers and distribution occurred in 1992 and 1993 and distribution has been further modified through the extensive translocation programme undertaken between 1993 and 1995. Though these realities are not covered in detail in the documentation provided, there is a clear need to modify the Objectives in the light of true population declines.

I suggest that both Objective 3 and Objective 4 need revisiting. I do not find either to be appropriate under the current circumstances. Zimbabwe must consolidate her remaining rhinos in the State-run IPZ's and the private Conservancies. There would not appear to be the flexibility or available funds to become involved in captive breeding within Zimbabwe and even less so in providing rhinos to external breeding programmes.

### **III. MANAGEMENT AND POLICY ISSUES**

#### **(1) Administration**

It is not at all clear from the documentation provided whether or not the recommended Technical Committee was ever established and, if so, its composition and terms-of-reference. In my experience, the convening of technical National Rhino Management Committees has proven to be very successful. The presence of such a Committee

enables critical decisions to be taken quickly and competently by technically-qualified individuals (from both within and outside of government). All meetings should be carefully minuted to have a written record of decisions taken and the reasons behind such decisions. This allows retrospective evaluation of different actions and their subsequent effectiveness.

The appointment of a National Rhino Coordinator has also proven to be very successful in both Kenya and Tanzania. Namibia has been considering a similar approach for some time. The Coordinator's role, in these cases, involves coordination of both the research and security aspects of rhino management. The benefit of a national-level Coordinator is in his ability to overview the entire situation vis-a-vis all rhinos in the country whether on State or private land. This function is absolutely critical when a country embarks on a meta-population strategy. The Coordinator, in turn, acts as the Secretariat for and reports to the National Management Committee.

It is not clear from the documents provided if a Coordinator ever was appointed within the Research Department. And, if so, how he interfaced with the Operations Coordinator on security matters. It would help to have this clarified at the meeting in Harare.

## **(2) Law Enforcement (staffing and budgets)**

The 1992 ZBRCS lays out some extensive budgeting and staffing requirements for the IPZs. These budget figures were calculated on the basis of estimated costs and staffing levels required for successful conservation of rhinos, at that time (e.g. USD\$200 - USD\$400 per sq. km.). Recently, Dr. Leader-Williams, myself and others have undertaken an extensive review of the true costs of rhino protection and conservation and the figures today are much, much higher than those postulated several years back. We can discuss this in Harare but, I can assure you, it will require significant revising of proposed budget requirements. Therefore, it would be necessary to have the figures on current budget allocations (both from Government and NGO donors) to allow us to look at the most conservation-effective distribution of available funds.

It is not clear what DNPWLM was able to do with regard to staffing levels under the effects of the Economic Structural Adjustment Programme (ESAP). I am sure the conditionalities in Zimbabwe are similar to those imposed by the IMF in many other countries - a severe reduction in the civil service. Was DNPWLM able to secure any exemption from these cuts due to the increased need for personnel in the field? Staffing levels are, of course, every bit as important as equipment but carry heavy cost implications as well. It has been clearly seen in Kenya, South Africa, Namibia and, I would guess, in Zimbabwe, that the establishment of IPZ's, conservancies or sanctuaries does not, in any way, relieve the need for strict law enforcement, it merely allows you to consolidate your protection efforts in the areas containing the most rhinos.

Another topic of concern, which is mentioned in both the ZBRCS (1992, p. 15) and the Proceedings of the Seminar on National Parks and Wildlife Policy Issues (1995, p. 78 and 80A) is the question of indemnity for civilians engaged in anti-poaching and intelligence activities. What are the existing policies and laws governing the use of firearms (for the defense and protection of rhinos) on private Conservancies? With a significant and growing proportion of Zimbabwe's rhinos now living on privately-held land, these are now very important issues. It is not at all clear, from the documentation



provided, how civilians working on behalf of rhino conservation will be legally protected. This issue must be addressed directly in any subsequent National Rhino Management Policy.

### **(3) Captures and Translocations**

In Towindo (1995), it was stated on Page 80A, under Recommendations, that "No more rhinos should be moved to conservancies...". What was the reasoning behind this recommendation? Has this recommendation been enforced? Has this decision also applied to the movement of rhinos between Conservancies (in other words, their redistribution)? It would seem that, with the exception of biological performance in the Midlands Conservancy, rhinos have been doing very well (in some cases better than expected) on other Conservancies. While I definitely support the practice that legal ownership of specially-protected species, like black and white rhinos, should remain with the State, I see very major benefits for rhino conservation through the expansion of Conservancies and the transfer of rhinos between Conservancies.

Decisions on proposed translocations should be judged on the grounds of demonstrated performance in potential recipient locations whether they are privately-held Conservancies or State-run IPZ's. As a rule, these movements may be made on the basis of a long-term plan for distribution and redistribution of animals between sub-populations. However, there may be times when decisions must be taken on a dynamic, case-by-case basis (e.g. due to mortalities from intra-specific aggression) and this is the benefit of having a formalised National Management Committee. As we were not provided with any sort of schedule of movements between sub-populations or a protocol for the process to be followed in making such decisions, it is difficult to assess the capture and translocation strategy from a metapopulation perspective. Therefore, I think this should be discussed, with the data on population performance in front of us, at the meeting in Harare.

The idea of a legally-binding agreement between the State and private Conservancies, setting out the authority, responsibilities and requirements of both parties, in conserving specially-protected species, seems an excellent idea. What is the status of the legal agreements which were to be drafted and signed between the Conservancies and the Government of Zimbabwe? Would it be possible to review a sample of these legal agreements or Memoranda of Understanding so that we might better understand the conditionalities and considerations for conservation of rhinos held on Conservancies?

### **(4) Research**

A well thought out, applied programme of research constitutes an integral part of any long-term management strategy. Of course, such research programmes must be developed within realistic budgetary and staffing constraints. Though research and management (including security) activities functionally may be carried out by different personnel, they must be integrated both in plan and in practice. This integration of research and management can best be done at the National Management Committee level. A well-designed and planned research programme can and should tangibly contribute way towards fine-tuning management action. By way of example, I highlight four such areas of research:

#### ***a. Population performance***

There is not enough detail provided for us to make any statements on the performance of rhino populations either in the IPZ's or the Conservancies. However, a proper assessment of this information is absolutely fundamental to formulating a sound management policy for the next five years.

The ZBRCS (1992) cautions of the need for meta-population management on the basis of genetic limitations. Any future management strategy should equally emphasise the importance of demographic limitations as such constraints have been demonstrated to cause problems for the viability and persistence of small populations.

#### ***b. The effects of dehorning***

In our documentation, there are several references to on-going evaluations of dehorning in both Hwange and Matopos. This research is both applied and of great importance: the findings are crucial to future management decisions and actions. It would be helpful for us to review these findings in order to provide recommendations for or against dehorning in future. For example, if dehorning has been successful as a deterrent to poaching and has not had deleterious effects, then the practice should be continued. If there is evidence that dehorning was a successful security measure but had negative effects on survivorship of individuals or their offspring, then the relative costs and benefits would need to be weighed before deciding on the next step. If the results show that the dehorning had no deterrent effect and it had demonstrably negative effects on survivorship, it would obviously be discontinued. If the results showed that the dehorning had no deterrent effect and no negative effect, then its value as a protection strategy should be reviewed. Will it be possible to get copies of the research findings in time for the meeting in Harare?

#### ***c. The effectiveness of radio-collaring***

Likewise, Zimbabwe's DNPWLM has pioneered a number of innovations in the use of radio-telemetry for monitoring the security of rhinos within IPZ's and Conservancies. Kenya has found radio tracking to be a vital tool in the monitoring of newly-introduced, free-ranging populations and Zaire is now using this technology in Garamba National Park. The difference in both these cases is that the radio tracking is done through the use of horn implants (as neither country subscribes to a policy of dehorning). Development of the collaring technique has been a challenge wherever it has been tried due to the unique morphology of rhinos. It would be most interesting to know the outcome of the research conducted on the radio-collaring of rhinos in Zimbabwe. Is it possible for us to receive the results of this work at or, preferably, before the seminar?

#### ***d. Nutritional needs assessment***

Research into the nutritional needs and forage preferences of rhinos can assist management in determining the appropriateness of existing and potential sites (both on State and private lands) and what optimal levels of stocking can be expected in a given site. Determining the forage preferences, potentially dangerous plants and nutritional requirements of rhinos in target areas, such as IPZ's or Conservancies, is crucial to long-term, metapopulation planning. Such studies are excellent examples of the linkages which can be made between applied research and on-the-ground management to the benefit of rhino conservation.

## **(5) Legislation**

While the Wildlife Act (1975) and the Statutory Instrument (1990) are generally robust and cover most issues, I was not able to find the section on penalties for possession or trafficking in illegal rhino horn (perhaps I just missed it). Have these penalties been revised since 1990, in the light of severe currency devaluation in Zimbabwe? The level of these penalties might affect their power to deter illegal activity. I see two other areas of concern - one at the domestic level and one at the international level.

On the domestic side, there are a number of references to the idea that any revenues from the legal consumptive or non-consumptive use of rhinos and/or rhino products should be channeled back into rhino conservation and, where applicable, to local communities sharing their land with rhinos. However, I do not see any legal instrument which would insure this channeling. I think it is essential. We are all well-aware of the general difficulty of securing these revenues within the management authority when they have traditionally been "captured" by Treasury. Does your new Statutory Fund have provisions for the retention of funds derived from rhino-related activities? If so, how does it guarantee that they will be ploughed back into rhino conservation and communities rather than into general overhead costs of the DNPWLM? I think this is a key point which must be addressed through legislation. It is continually discussed in international fora, as a possible conditionality, in the context of any reopening of legal trade in banned commodities such as rhino horn and ivory. As you probably know, Namibia has just developed a legislative instrument which insures that such funds (as may be derived from the sale of legal ivory) are channeled directly back to elephant conservation initiatives. Perhaps this would provide a suitable model for similar legislation in Zimbabwe.

On the international side, I am not clear on what, if anything, Zimbabwe has done about implementing the provision in CITES Conf. Res. 9.14 which "URGES those Parties that have legal stocks of rhinoceros horn to identify, mark register and secure all stocks" (along with several other measures aimed at controlling illegal killing and trafficking of illegal horn). Perhaps you could brief us on what actions the Government of Zimbabwe has taken prior to, or as a result of, the urgings and recommendations of Conf. Res. 9.14 under their obligations as signatories to CITES.

## **(6) Legalised Trade in Live Rhinos and Rhino Horn**

The ZBRCS (1992) and other documents provided have stressed Zimbabwe's desire to realise some value from the commercialisation of legally-acquired rhino horn, whether it is through "eco-hunting", farming rhino for their horn, the sale of live animals or a small quota for sport hunting. I am wondering if the significant population declines of the early 1990s affected this desire in any significant way.

The Proceedings of the Seminar on National Parks and Wildlife Management Policy Issues (1995), reiterate Zimbabwe's general policy position with regard to the listing of the black rhino in Appendix I of CITES and the ramifications of this vis-a-vis Zimbabwe's ability to generate revenue from various forms of commercial utilisation. Yet, there is a clear recommendation made on p. 80A, #6. that "trade in rhino horn should remain illegal". Does this mean that Zimbabwe will not be submitting a proposal for downlisting of the black or white rhino to COP10? If not, what are the current thoughts on this issue?

Just as it is stated in the ZBRCS (1992), I feel it is appropriate that any future management or policy document should state clearly the long-term vision and underlying philosophy of the Government, whether these aims are achievable currently or not under existing international legal obligations or population constraints.

#### **(7) Illegal, International Trade in Rhino Horn**

It seems clear that the illegal, international trade in rhino horn continues to be driven by market demand in the consumer countries. Although national law enforcement and intelligence operations may go a long way towards controlling illegal trade and trafficking within Zimbabwe's national borders, regional cooperation may be vital to understanding the dynamics of this trade and trying to minimise it. To this end, I would be interested to know more about Zimbabwe's participation in the Rhino Management Group (RMG), Security Sub-Committee and what the Government's position is with regard to the Lusaka Agreement for transborder cooperation on illegal, wildlife-related trade issues.

### **IV. GENERAL COMMENTS**

#### **(1) On the topic of international scrutiny of Zimbabwe's wildlife policies**

Following on from the topic of international trade, I note that the Government and the DNPWLM are keenly aware of the likely pressures (both internal and external) which will accompany the upcoming Tenth Meeting of the Conference of the Parties to CITES in Harare next June. I believe that these concerns are very real and that Zimbabwe will be under more intense and targeted scrutiny than ever before, particularly at an international level. Of course, this is to be expected for any country hosting a high-profile conference of this sort (e.g. The deliberations over Canada's handling of the Atlantic cod issue at the recent World Conservation Congress hosted by IUCN). But it is especially true for Zimbabwe given your intimate and, at times, strained relations with the CITES process, particularly over the elephant issue.

It is an inescapable fact that many eyes will be on Zimbabwe between now and June 1997. Under this intensity of international scrutiny, I would urge the Government of Zimbabwe to be as open and candid as possible about current strengths and weaknesses in the wildlife sector and the challenges confronting the DNPWLM. Only through open dialogue are the true issues ever likely to surface and be accepted for what they are. I think you would agree that the recent African Elephant Range State Dialogue Meeting in Dakar showed that there is a real promise of Africa becoming more united on issues which are still not generally accepted by the "north". I know you will make every effort to build on common ground in Africa (e.g. shortage of funds, shortage of capacity, externally-imposed conditionalities, etc.) as these are the greatest strengths behind all your arguments for sustainable use.

#### **(2) The necessity for monitoring and evaluation of the implementation of the national management strategy**

Any future rhino management strategy should include a component of monitoring and evaluation - both of its effectiveness in terms of increases in rhino numbers and also in terms of its implementation. While the ZBRCS (1992) is a sound document, well-drafted and well-reasoned, there is no formal way, or built-in process, with which to assess the effectiveness of this strategy in meeting its stated goal and objectives. It is

of paramount importance for the Government of Zimbabwe to be able to assess and evaluate the impact of its management and policy decisions before any modifications can be made. In practice, this means that certain indicators of success should be set out against a stated time line. This exercise must be accompanied by optional steps which will be taken contingent on the findings of such evaluations. This process could be clearly spelt out in the new management strategy.

### **(3) Development of an emergency action or contingency plan within the national management strategy**

While it is very reasonable to use a five-year time frame for the development and implementation of a National Management Strategy for rhinos, such a strategy might have to be significantly revised in the light of changing conditions. Sudden and severe bouts of poaching have characterised the onslaught on rhinos across the continent. Therefore, it is essential that any National Management Strategy should contain emergency/contingency plans to be initiated in the event of rapidly deteriorating conditions in any rhino IPZ or conservancy in the country.

### **(4) Building capacity in the rhino management sector**

I think any medium to long-term management strategy should include a section on capacity building. There is really very little point in developing elaborate action plans when there is no clear indication of where the capacity required to implement it will come from. Virtually all African wildlife authorities acknowledge the need for training in specialised matters, such as the management of a metapopulations of rhinos. It would be appropriate to incorporate a description on the type of capacity needed for implementation, what capacity already exists and how any additional needs will be established within DNPWLM over time.

### **(5) Essential, additional information for this Review process was not provided**

I feel some essential, additional documents and information are missing and would have helped us to critique, comment and recommend further action in the area of rhino conservation and management policy for Zimbabwe.

These include:

- The Short and Medium Term Action Plans for Black Rhinos (April 1992)
- The Emergency Action Plan (1993)
- An update on current numbers and distribution both on Parks Estate and within private conservancies of both black and white rhinos
- A general evaluation of the implementation of the 1992 Black Rhino Conservation Strategy
- Minutes of key decisions taken by the National Technical Committee
- Current budgetary and staffing allocations
- An analysis of the effectiveness of the IPZ's and the private conservancies, to date
- Procedures for wildlife capture and translocation outside the Parks and Wildlife Estate in Zimbabwe (date not specified in reference document provided)

- The Decline of the Black Rhino in Zimbabwe, Milliken, Nowell and Thomsen, TRAFFIC (1993)
- An update on the current status of the capture and translocation programme
- The results of research on the effects of dehorning
- The results of research on the effects of radio-collaring
- The review of private Conservancies written by Dr. Leader-Williams
- The review, conducted by the African Rhino Specialist Group, on the suitability and potential of the Midlands Conservancy
- A current record of the amounts and origin of rhino horns in DNPWLM hands

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Dr. Holly Dublin  
Senior Conservation Advisor  
WWF Africa & Madagascar Programme

# Comments: Prof. Nigel Leader-Williams

## INTRODUCTION

Thank you for the invitation to comment upon Zimbabwe's policy for managing its rhinoceros populations. My comments upon the documentation supplied will be in the form of bullet points, commenting upon strengths and weaknesses as appropriate.

## LEGISLATION (1975 ACT AND 1990 REGULATIONS)

### Strengths:

- A generally strong framework
- Black and white rhinos are Specially Protected
- Provisions for Honorary Officers

### Weaknesses:

- No provisions for Honorary non-officer ranks adaptable for use in private land security
- No provisions for private land conservation
- No provisions for rewards for intelligence
- Penalties for trafficking in rhino horn and for illegal killing of rhinos appear insufficiently strong

## POLICY FOR WILDLIFE IN ZIMBABWE (1992)

### Strengths:

- Strong policy statements about conservation and use of wildlife on P&WLE, communal land and private land
- Specific policy statements on black rhino (pp. 32-33)

### Weaknesses:

- No policy statements on white rhino
- Statements on black rhino status now outdated
- Components of black rhino conservation strategy now inappropriate, as follows:
- Components (i) and (ii) should be merged to include metapopulation management of IPZs and conservancies Component (iii) may have other relevance for education and research, but have not been proven as a successful means of population recovery
- Component (iv) has been fulfilled in terms of supplying rhinos to overseas institutions (with typically disappointing results), and as with (iii) is unlikely to prove a successful means of population recovery

## **PROTECTED SPECIES OF ANIMALS IN ZIMBABWE (1991)**

### **Strengths:**

- Good philosophical position to distinguish between Specially Protected and Restricted species
- Black and white rhinos remain Specially Protected

## **POLICY ON IMPORTATION AND EXPORT (UNDATED)**

### **Comment:**

- It may not always be necessary for 15% of offspring to go to P&WLE (#3.3), for example if P&WLE has sufficient of that species. This condition could be couched in terms of an option that the importer must fulfil if its is deemed desirable and necessary

## **ZIMBABWE BLACK RHINO CONSERVATION STRATEGY (JANUARY 1992)**

### **Comments:**

- Now outdated and replaced by Short and Medium Term Action Plans for Black Rhinos (April 1992) and The Emergency Action Plan (1993), which were not supplied for review
- #14 (p3) now redundant with no natural populations remaining in Zimbabwe
- #15 (p3) fall back positions now in place, comprising IPZs and conservancies, particularly those with Large Breeding Groups (LBG)
- #15 (p3) still leaves room for consolidating the existing fall back positions, eg by upgrading Chiredzi River to a LBG, and ensuring that various Midlands Satellite Breeding Groups (SBG) are consolidated
- Need to merge and/or scrap Objectives (i-iv) are discussed above
- #1.1.7 (p6) shows only very low budgets and manpower compared with those that are currently considered effective and necessary in conserving rhinos
- Breeding nuclei (Objective ii, p8-10) is now the current policy position as a result of losses and relocation of large wild populations from border areas

### **Weaknesses:**

- Insufficient emphasis on managing rhinos in P&WLE and private land as a single metapopulation
- Future strategies (p17-19), comprising various sustainable use options, now of questionable political value, given decline in status of Zimbabwe's black rhinos and the upcoming CITES COP to be hosted by Zimbabwe



## **BLACK RHINO MANAGEMENT (IN 1995 SEMINAR PROCEEDINGS)**

### **Comments:**

- Re-iterates objectives of January 1992 and April 1992 strategies and 1993 Emergency Plan for black rhinos, examines problems encountered with implementing these objectives, and makes recommendations for future approaches.

### **Weak arguments:**

- Some conservancies lost a small number of rhinos early on. However, conservancies have not lost many rhinos overall since the time they were established (p78). Nevertheless, there is clear need to enhance the capacity to protect the rhinos held by the conservancies as a national asset - custodianship should be emphasised.
- There appears insufficient evidence to state that dehorning is detrimental to rhinos, in terms of their behaviour or productivity. When used in combination with other law enforcement strategies, it is certainly not as detrimental as a major and unchecked episode of illegal killing.

### **Issues raised:**

Of the issues raised, I suggest the following is appropriate:

- The status of rhinos moved from P&WLE to conservancies appears clear to conservancy owners who correctly regard them as a national asset. Nevertheless, formalised custodianship agreements should be drawn up with conservancy owners to allow metapopulation management of the national herd of black and white rhinos, to the benefit of the rhinos;
- DNPLWM should offer moral, and where possible material, assistance to the conservancies, who co-manage a national asset under supervision of the DNPWLM;
- Rhinos in unsuitable zones and habitats should be moved, providing it is to secure areas with optimum habitat that will benefit management of the national herd;
- Translocation of rhinos to conservancies should continue, in the context of occasional genetic interchange of rhinos for current LBGs. There also seems the opportunity to consolidate another LBG in Chiredzi River (see above); and
- Captive breeding should not be encouraged in the sense of promoting its contribution to population recovery. While the two current centres of Intensive Management may serve other purposes such as education and research, they should not divert funds and other resources from LBGs.

### **Recommendations made:**

Of the recommendations made, I suggest the following is appropriate:

- Rhinos can and should continue to be moved to conservancies when necessary in the context of metapopulation management, eg for relative safety away from international borders, for genetic interchange or to consolidate LBGs and achieve more rapid rates of increase than when SBGs remain unconsolidated;

- Written agreements should be drawn up for custodianship of rhinos by conservancy owners;
- Rhinos in unsuitable habitats should be relocated in the context of metapopulation management to the benefit of the national herd, whether this be IPZs or conservancies;
- Ex situ and in situ captive breeding programmes do not add to population recovery measures, and no more rhinos should be moved overseas;
- The situation in Zimbabwe cannot be considered clear of an emergency. Accordingly, there appears little need to further review and delay the necessary de-horning and collaring programmes; and
- Zimbabwe would be politically unwise to submit a proposal to CITES to downlist its black or white rhinos from Appendix I of CITES for the purposes of engaging in a legalised international trade in rhino horn for the foreseeable future.

## **RECOMMENDATIONS FOR POLICY DEVELOPMENT**

1. Issues raised above suggest there is a need to revise the existing policy for black rhinos and to include white rhinos in that policy revision. A model policy from Tanzania is appended that may assist in that process.
2. Even more important is that any policy should be implemented effectively and expeditiously, Zimbabwe having been a good example of a country with numerous policies and plans on black rhino conservation that become outdated or surpassed before they were published or approved at Ministerial level.

## **CONCLUSION**

I hope these comments are constructive and help the process of policy development for rhino conservation in Zimbabwe, and give a firm basis for implementation of that policy.

N Leader-Williams  
 Durrell Institute of Conservation and Ecology  
 Department of Biosciences  
 University of Kent  
 Canterbury CT2 7NJ  
 United Kingdom

# Seminar Participants

## RHINO MANAGEMENT SEMINAR 12<sup>TH</sup> DECEMBER 1996

1. M. Brooks  
Head Scientific Service  
c/o Natal Parks Board  
African Rhino Specialist Group  
P. O. Box 662  
Pietermaritzburg, 3200  
Republic of South Africa  
Tel: 27-331-471961  
Fax: 27-331-473278
2. H. Charidza  
Provincial Warden  
DNPWLM  
Private Bag 3707  
Marondera  
Tel: 263-4-24714/5
3. E. Chidziya  
Acting Chief Ecologist  
DNPWLM  
P. O. Box CY 140  
Causeway, Harare  
Tel: 263-4-792786-9  
Fax: 263-4-724914
4. M. T. Choto  
Acting Deputy Director  
DNPWLM  
P. O. Box CY140  
Causeway, Harare  
Tel: 263-4-728025  
Fax: 263-4-724914
5. N. Christoffersen  
Regional Programme Coordinator  
IUCN-ROSA  
P. O. Box 745  
Harare  
Tel: 263-4-728266/7  
Fax: 263-4-720738
6. H. Dublin  
Senior Conservation Adviser  
WWF Africa and Madagascar  
P. O. Box 62440  
Nairobi  
Kenya  
Tel: 254-2-332963/332833  
Fax: 254-2-332878
7. R. Du Toit  
TCO Ecologist (Rhino  
Conservancies)  
WWF/ DNPWLM  
P. O. Box CY 1409  
Causeway, Harare  
Tel: 263-4-707624  
Fax: 263-4-730599
8. K. D. Drummond  
Bubiana Group  
Bubiana Chairman  
P. O. Box 15  
West Nicholson  
Tel: 263-16-5603/5  
Fax: 263-9-42478
9. N. A. English  
Warden-Sinamatela IPZ  
DNPWLM  
Private Bag 5941  
Hwange  
Tel: 263-81-2445-20
10. C. Foggin  
Veterinarian, Principal  
Research officer  
Department of Veterinary  
Services  
P. O. Box CY 551, Causeway  
Harare  
Tel: 263-705885

11. K. C. M. Hove  
Provincial Warden  
DNPWLM (Masvingo Province)  
P. O. Box 921  
Masvingo  
Zimbabwe  
Tel: 263-4-3963807/63910  
Fax: 263-4-65239
12. N. Leader-Williams  
Professor of Biodiversity  
Management  
Durrell Institute of Conservation  
and Ecology Department of  
Biosciences University of Kent,  
Canterbury, CTZ 7NJ  
United Kingdom  
Tel: 44-1227-823754  
Fax: 44-1227-827839
13. C. Machena  
Acting Deputy Director (Research)  
DNPWLM  
P. O. Box CY 140  
Causeway, Harare  
Tel: 263-4-792785/9  
Fax: 263-4-724914
14. W. M. Makombe  
Acting Director  
DNPWLM  
P. O. Box CY 140  
Causeway, Harare  
Tel: 263-4-792786/9  
Fax: 263-4-724914
15. G. S. Matipano  
Senior Ranger  
DNPWLM  
P. O. Box CY140  
Causeway, Harare  
Tel: 263-4-792786  
Fax: 263-4-724914
16. W. E. Mavesere  
Acting Provincial Warden  
DNPWLM  
P. O. Box 568  
Gweru  
Tel: 263-54-2531  
Tel: 263-54-2532
17. C. Mbizvo  
Programme Coordinator  
IUCN-ROSA  
P. O. Box 745  
Harare  
Tel: 263-4-728266/7  
Fax: 263-4-720738
18. M. Z. Mutsambiwa  
Senior Ecologist  
DNPWLM  
P. O. Box CY 140  
Causeway, Harare  
Tel: 263-4-724025  
Fax: 263-4-724914
19. L. Mungwashu  
Provincial Warden  
DNPWLM  
P. Bag 7713  
Chinhoyi  
Tel: 263-67-22550  
Fax: 263-67-22550
20. D. Mutape  
Provincial Warden  
DNPWLM (Hwange National  
Park)  
Private Bag DT 5776  
Dete  
Tel: 18-371/2/387  
Fax: 263-18-378
21. S. Mutondoro  
Programme Assistant  
IUCN-ROSA  
P. O. Box 745  
Harare  
Tel: 263-4-728266/7  
Fax: 263-4-720738
22. D. Pitman  
Director  
Zambezi Society  
P. O. Box HG 774  
Highlands  
Harare  
Tel: 263-4-747152
23. J. Rudzuna  
Wildlife Ecologist  
Forestry Commission  
P. O. Box 467  
Bulawayo  
Tel: 263-9-61495

24. A. W. Searle  
Warden I/C Capture/Manager  
DNPWLM (Hwange National  
Park)  
Tel: 263-18-2603
25. I. Sharp  
Mashonaland Branch  
Administrator  
Wildlife Society  
P. O. Box HG 996  
Highlands  
Harare  
Tel: 263-4-747500  
Fax: 263-4-747500
26. C. Stockil  
Chairman  
Save Valley Conservancy  
P. O. Box 396  
Chiredzi  
Tel: 263-317-241  
Fax: 263-317-244
27. R. D. Swift  
Vice Pres Commercial Farmers  
Union  
MBRC and CFU  
P. O. Box 1241  
Harare  
Tel: 263-4-772726 or  
Tel: 263-55-247819  
Fax: 263-4-772745
28. G. S. Tavona  
Provincial Warden  
DNPWLM (Mat South)  
P. O. Box 2283  
Bulawayo  
Tel: 263-9-63646/7  
Fax: 263-9-71080
29. G. H. Tatham  
Chief Warden  
DNPWLM  
P. O. Box CY 140  
Causeway, Harare  
Tel: 263-4-707624/5  
Fax: 263-4-724914
30. S. S. Towindo  
Ecologist  
DNPWLM (Sinamatella IPZ)  
P. Bag WK 5941  
Hwange  
Tel: 263-81-244522
31. K. Wilson  
Director  
Chipangali Wildlife Orphanage  
P. O. Box 1057  
Bulawayo  
Tel: 263-9-70764/72179  
Fax: 263-9-46603