is our intention to have both white and black rhinos released freely in their natural habitat where they occurred in the past.

### **Discussion**

Mr Maige asked when Botswana could move to RMG. Mr du Toit said that Botswana had a shown commendable effort, but did not want to move them out of the RRG too quickly. Mr Theophilus said that the DWNP had received many approaches from private sector for introduction of rhinos, but did not want to get too excited about these. Botswana wanted to continue with government-to-government deals on rhino for now. Mr Daconto asked that the experience from Botswana be fed towards reintroduction planning and implementation in other RRG countries.

# 2.7 Malawi (Roy Bhima)

### Introduction

Malawi has one population of black rhinoceros, *Diceros bicornis minor* that is located in fenced sanctuaries in Liwonde National Park. Three pairs of male and female were introduced from South Africa in 1993, 1998 and 2000. The first pair produced two male calves in 1997 and 1999. The second pair produced a calf in early 2000. Another calf was born in October 2001. Two deaths have since occurred. In 2000 the first male adult died and a pregnant female from the third pair died. The rhino population is currently seven. Prior to the introductions in Liwonde National Park, the species had been declared extinct in 1990. In the 1980s the species was confined to Kasungu National Park and Mwabvi Game Reserve only. Kasungu National Park had between 10 and 20 individuals in 1984 (Jachmann, 1984) while Mwabvi had 6-7 individuals. In 1990, these animals were not seen anymore.

# **Strengths**

The introduction of the rhino in Liwonde National Park is intended to build a strong population in the country. As a critically endangered species worldwide and in the country, the rhino was declared a protected species soon after it was introduced in the country. This meant that the species would be accorded appropriate management priority. This ensures adequate protection to the species. The population is kept in a fenced sanctuary and protected by a team of six scouts. The park has one Warden, a Research Officer and five scouts' camps. These will ensure that the rhino are given the right attention in all areas of management.

There has been the Malawi Frankfurt Zoological Society (FZS) Project in the park that has conducted scouts training programmes. These have assisted with the patrolling of the park to ensure that poaching is controlled. The Department of National Parks and Wildlife has recently signed a new ten-year contract with FZS to assist it with various areas of management. The project will improve some infrastructure of the park that will be beneficial to the management of the rhino. It will soon be constructing a 50 km electric fence along the eastern boundary between June and September 2002. This will assist with the control of illegal entrance into the park. The intention of the project is to fence the entire park. Roads of the park will also be developed to improve accessibility to various areas of the park. The project will also enhance community-based management to improve relationships with neighbouring communities. The presence of the project in the park will definitely be of great importance.

Ecological work in the park has been carried since the park was established. The vegetation was first mapped in the 1970s and has been monitoring the vegetation inside and outside the rhino sanctuary all along. We worked together on the first pair of rhino that came in 1993 and published a paper titled "Observations on two introduced black rhinos in Liwonde National Park" in 1996. Efforts to monitor the vegetation and the rhino are still going on.

### Weaknesses

The major weakness affecting development of rhino conservation is funding. Although the DNPW has provided a rhino scout team to protect the rhino, it has not provided any extra funding to the Liwonde National Park recurrent budget for the Park Warden and the Research Officer to undertake other routine work such as inspections, monitoring movements and controlling fires. The Warden and the Research Officer are located 30 km away from the rhino sanctuary and often, they have not been able to visit the

sanctuary because of lack of funding. Because of the same problem, the focal point has not been able to visit the sanctuary as well.

The Department has relied a lot on the support it has received from the "J&B Circle of Friends". This is a group of businessmen who have voluntarily supported the rhino project. Although the J&B Circle of Friends has supported the project all along, their support is not guaranteed to continue forever. Secondly, some of the activities that this group undertakes for the rhino are not reported to the Park Warden.

The rhino population is currently very small. Its recovery rate is very low and would be affected by inbreeding. Translocation costs have been paid by others such as the South African Parks Board and the J&B Circle of Friends. The DNPW will not afford to pay any translocations and will continue to rely on others. This is a major weakness.

### **Opportunities**

The South African National Parks Board and the Malawi Department of National Parks and Wildlife have had a very good relationship that has led to the transfer of some rhino from South Africa to Malawi. The South Africans provided the rhino and did the capturing and transfers. It is hoped that this relationship will continue to exist.

The J&B fraternity, which includes the "Care for the Rare" (UK) Programme and the "Circle of Friends", have contributed to the funding. The "Care for the Rare" Programme funded some of the transportation from South Africa while the "Circle of Friends" have funded transportation from Chileka Airport in Blantyre to Liwonde National Park and have supported the rhino on a daily basis in the park. The role that the FZS Management Project will play has been pointed out under "strengths" above.

The Wildlife and Environmental Society of Malawi (WESM) has provided some expertise to the management of the rhino in Liwonde. Dr. Cornell Dudley, who is a member of the Society, has done some ecological monitoring in the park and the sanctuary in particular. Dr. Dudley has continued to render his time to undertake some ecological surveys in the park, although travelling from Blantyre to the park has become expensive.

### **Threats**

The heavy reliance of the Liwonde Rhino Project on external funding as has been shown above is an issue of concern. This cannot be relied upon completely as the donors may provide their funding on an ad hoc basis and the DNPW may not have a say on how the funding would be used. It is important that the DNPW must have its own rhino funds that it may use as it so wishes.

Poaching is a threat. Many wire snares intended to kill animals have been recovered from the park. None have been collected from the rhino sanctuary yet. It is important to maintain strict anti-poaching activities both in the rhino sanctuaries and in the park at large. Any laxity may lead to the poaching of a number of rhino individuals before the law enforcement team realises. Poachers have also set the park on fire. Fires have gone into the sanctuary causing a threat to the lives of the rhino. These illegal fires can be controlled by firebreaks and early burning programmes.

As the rhino numbers increase, the rhino sanctuary may become too small resulting into stress. There would be need to increase the size of the sanctuary. Dudley (2002) suggests a carrying capacity of 8-10 adults for sanctuary 1 and 2 and 4-6 adults for sanctuary 3. There is pressure to limit the building of additional sanctuaries as this may hinder east-west movements of elephants in the park. The present rhino number for the whole sanctuary is 7. With new translocations and reproductions, the sanctuary will soon reach its capacity. It is therefore important to start thinking seriously about how the rhino will be treated as the population grows.

# SADC rhino programme activities

The SADC rhino project has supported work on the rhinos in Liwonde. Support has been given to undertake some ecological work. A report titled "Ecological evaluation for Liwonde National Park, Malawi with respect to the development and management of a viable population of black rhino (*Diceros bicornis minor*)" (Dudley, 2002) was recently based on funding from SADC rhino project. The DNPW got some

funding from the SADC rhino programme through a proposal that I wrote but the funding did not reach us as it was mixed up in the banks. The purpose of the proposal was to develop a management plan for the rhino. We hope that this problem can be resolved and that we can get our funding.

#### References

Bhima, R. & Dudley, C.O. (1996) Observations on two introduced black rhinos in Liwonde National Park, Malawi. *Pachyderm* (21) 46-54.

Dudley, C.O. (2002) Ecological evaluation for Liwonde National Park, Malawi with respect to the development and management of a viable population of black rhino (*Diceros bicornis minor*). 25pp.

Jachmann, H. (1984) Status of the Mwabvi rhino (Diceros bicornis). Nyala 10(2): 77-90.

### **Discussion**

Mr Tjibae observed that the rhino sanctuary at Liwonde was very small, and asked if expansion was a problem. Mr Jiah said that the sanctuary comprised fenced areas within the park. Mr Sefu added that there had originally been three fenced areas, each with a pair. The fence had been subsequently collapsed between 'sanctuaries' 1 and 2, followed by the loss of one animal from fighting. The final pair was still located in sanctuary 3. Mr Sefu acknowledged that the creation of the sanctuaries had severely affected the movements of elephant in the park, and there were plans to move with the new agreement to upgrade the park fence towards removing the internal sanctuary fences.

# 2.8 Mozambique (Felismina Longamane Langa)

#### Introduction

Mozambique, as a developing country, recognises the importance of Natural Renewable Resources in general, and Wildlife in particular, by its contribution for economic development of the country. Due to its economic, scientific, ritual, as well as medicinal value, wildlife contributes directly or indirectly to improving the living conditions of communities. This fact has contributed to a high level of illegal hunting leading to extinction of several species, including the black and white rhino.

# **Strengths**

# Policies and Law

The Mozambican Government, through the Policy on Forest and Wildlife (DNFFB, 1996), acknowledges the importance of Mozambique's natural resources with objectives being "the protection, conservation, development and the rational use of forest and fauna resources for economic, social and ecological benefits of the present and future generations of Mozambicans". The new law of Forest and Wildlife was approved by parliament on 7 July 1999, but for its effective application it needs a regulation that is now under the Ministerial Council for approval. The law allows any singular person or collective to reintroduce wildlife and the Government gives special incentives for this, to be defined (article 29).

# Strategic plans

Even without a national plan for rhino recovery, the recently created Limpopo National Plan has a 3-year programme for wildlife reintroduction to take place from 2002 up to 2004. Within this plan it is expected to reintroduce in the last year 30 White rhino. We also have a private initiative for rhino breeding (including other species) in Gaza Province. This project is still waiting for approval.

## **Opportunities**

KNP would be ready to support DNAC through its own expertise in the establishment of joint management plans within the working group and to assist through capacity building and training of field staff. The 30 rhinos to be reintroduced will be offered by Kruger National Park. For this operation the Limpopo National Park has secured funds from donors.

# **Threats**

In case of reintroduction of rhino, the main threat is the weakness of law enforcement.