condition were also examined. They are currently kept in a 1.5 hectare sanctuary fenced with electrified wire. An artificial water hole was dug to avoid water shortage during the dry season. The rhinos are heavily guarded by law enforcement scouts working on shifts. Research is being done to monitor their movements, food preference and interaction with other mammals.

The rhinos have adapted well to Lionde. Body condition has improved, they are feeding on the dominant vegetation type, mating, interacting well with other mammals etc. The first female translocated has given birth twice (both young are females)

There have been a few problems: some tree species, such as *Euphorbia ingens*, are heavily browsed to the extent of dying; overbrowsing is likely to occur if the size of the sanctuary remains as it is now.

The rhinos will remain in the sanctuary until their security can be assured in the wider area of the park. Funds permitting, future translocations are proposed for other protected areas where rhino existed some time back. The size of the sanctuary will have to be increased with the increase in number of the rhinos and other mammals in the sanctuary.

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## 3.11.4 Mozambique (S. B. Mahanjane and F. Longamane)

In Mozambique wildlife has traditionally been an integral component of livelihood systems of the people. It has provided meat and skins as well as being an important part of ceremonies and culture in general.

Portugese settlers hunted for sport, meat, skins, ivory and horn as they spread into the interior of the country. In the nineteenth century and early twentieth century, the big game hunters were still prevalent. Combined effects of commercial hunting meant that the numbers of large mammals had declined to such an extent that the colonial authorities established some protected areas. The relative isolation of the Niassa Reserve from any major centres of population may have protected to a limit extent the wildlife population during the 1960s and 1970s when illegal off-take in the rest of Mozambique is said to have been high.

As the Maputo Special Reserve was offering habitat in good condition for rhino, in 1969 70 white rhino were introduced from Umfolozi Game Reserve, South Africa. After a few years the species was extinct once more. During the civil war period, mammal populations in the country were severely affected.

Rhinos in Mozambique are presently rare and almost extinct. However, some areas still provide sporadic reports on rhino presence, such as:

The presence of black rhino within the Niassa Game Reserve, in Angonia District (Tete Province), and in Coutada 16 as well as in Massingir District in Gaza Province;

In November 1995, spoor of black rhino was found near the Meulu River in the Niassa Game Reserve in Northern Mozambique;

In May 1994, the locals around Montepuez in Cabo Delgado Province spoke of the existence of rhino in northern Mozambique. Enquiring en route from Nyamapanda

through Tete, Malawi, Milange, Molumbo, Gurue, Alto Molocue, Nampula, the general view on rhino in the north seemed to be positive. However, nobody seemed to be able to confirm these reports.

Judging from evidence and talking to the Mecula administrator, the population of rhino in Niassa is assumed to survive around the east and west banks of the Lugenda, stretching from the junction of the Lugenda and Metapire Rivers in the west, across to the southbound road to Marrupa. The lack of restriction on human habitation and/or settlement in the Reserve can only be undermining the present game population. Nevertheless settlement seem to have progressed in the form of large villages which could mean potential for Integrated Conservation Development Projects (ICDP) or CBNRM projects. There was no sign of permanent human settlement in the rhino area, but according to the local authorities, there is a reasonable flow of people from Tanzania and the neighbouring province of Cabo Delgado. In September 1996 the last black rhino was seen in the Niassa Game Reserve by the staff and after that it is not known if the species is still present. The rhino was seen at 11°57'S, 38°10'E.

The information from Tete Province indicates that in Angonia District there are some black rhino. A religious group reported to DNFFB from 1995 to 1996 that some people tried to sell fresh rhino horns. After the information our staff member travelled to the site and the local people who were asked suggested the existence of rhino in small numbers in the middle of the forestry area where accessibility was difficult. Unfortunately, nobody was able to verify the reports.

From Gaza safari operators, in January this year, we were informed that the Coutada 16 area has two white rhino and another one was killed last year. Also this year a report from Gaza Province showed that a man was arrested and accused of killing a rhino whose horns he was found with. There are another three poachers accused of killing rhino in the area. Near the area where they were arrested, the guards saw part of the head of a rhino and the poachers said that they burned the head with the horn, which is not true, because it was possible to see that the horn was removed before burning the head.

There are two possibilities for the survival of the Mozambique rhino gene pool.

The setting up of an intensive protection zone of at least 100 ha within Niassa Game Reserve, where black rhinos could be re-introduced. This area should be electrically fenced and have guards to intensively patrol the area in order to discourage poachers. Once boundaries have been set up, it would be beneficial to arrange for villagers from villages in Niassa, situated outside the IPZ, to be paid to guard the area surrounding the IPZ. Monitors and guards should then be hired to protect the IPZ interior.

For the white rhino in Coutada 16, as the area is under a TFCA project it is expected that it will be divided to form a protected area and concessions for ecotourism. The rhinos could be given intensive protection in the protected area.

For such projects to be successful, rhino specialists from other countries should train the locals.

## 3.11.5 Namibia (P. Erb and R. Loutit)

Namibia has 700 black rhino in formal conservation areas, communal land and on private farming land. This makes Namibia one of the four important range states for black rhino together with South Africa, Kenya and Zimbabwe. Namibia has 163 white rhino.

The rhino conservation goals in Namibia are: