Concurrently, concerns have arisen over rhino protection in Zimbabwe's stateland areas. Monitoring systems within the Intensive Protection Zones have become less effective because of declining government expenditure, loss of expertise, reduced tourist operations, waning donor interest, weakened coordination among stakeholders, and so on. The fact that these areas may no longer be considered intensively protected was driven home when poachers entered a national park base at Matusadona IPZ (Lake Kariba) on 28 March 2002 and used an agricultural carbamate pesticide to poison two semi-tame rhinos in pens. They succeeded in killing one, then removed its horns, stole fuel and escaped undetected.

Recent press statements have suggested that some 50 rhinos, black and white, have been poached during the land invasions. As detailed above, the known losses (as of early May 2002) are considerably fewer than this figure and do not include any white rhinos, but there definitely must be rhino snaring cases that have not yet been detected. Although the press coverage may be somewhat alarmist, it is clear that the snaring problem is worsening. Zimbabwe's collapsing economy, food shortages associated with the current drought and decline of commercial agriculture, political violence, lawlessness and unemployment, particularly in rural areas as farm labourers lose their jobs, are all factors that obviously create the socio-economic environment for increased snaring and a potential flare-up of rhino poaching on an organized, commercial basis.

Because this rhino crisis is intertwined with the overall political difficulties that currently afflict Zimbabwe, the opportunities for intervention by local and international conservation agencies are very limited. The Zimbabwean minister of Environment and Tourism is receptive to the strong expressions of international concern that he regularly receives and has publicly expressed his own concern. But his ministry has thus far been unable to implement or influence any significant measures to reduce the level of poaching and habitat loss. WWF has been able to provide professional assistance and funding support for emergency veterinary responses when rhino snaring cases are detected, but this measure simply deals with the symptoms of the problem rather than its causes.

One step towards addressing underlying causes rather than symptoms is for conservation agencies to support options for communities to become involved in sound business ventures based upon the wildlife potential of the conservancies. Definite prospects exist for wildlife-based land reform in lowveld conservancies, but these options are being foreclosed by the current pattern of 'fast-track' dryland agricultural resettlement. Development of more sustainable wildlife opportunities entails ongoing technical assistance and must be backed up by significant outside funding. But these possibilities are stalled until official policies on wildlife-based land reform and on the role of conservancies become sufficiently clear and conducive.

## Renewed threat to Kenya's rhino conservation efforts

## Martin Mulama

Rhino Programme Coordinator, Kenya Wildlife Service PO Box 40241, Nairobi, Kenya email: biomass@kws.org

The illegal trade in rhino horn in the 1970s and 1980s that reduced the world's black rhino population to fewer than 2500 by the early 1990s remains a serious potential threat. This threat is especially ominous in Kenya, where in the last quarter of 2001, six black rhinos (about 10% of the estimated population) in Tsavo East National Park were slaughtered by poachers for their horns.

The Tsavo East free-release rhino population was established in July 1993, after the rhino population

there had been virtually wiped out, when four rhinos were translocated from Nairobi National Park and five rangers and an officer were assigned to this new rhino unit. The objective of the free-release programme was to introduce black rhinos through experimental release followed by intensive monitoring of their movements and behaviour. The experiment was to test the feasibility of establishing large numbers of rhinos (> 20) without the need for electric fencing. More rhinos were moved in and by the end of 1994, 20

rhinos had been translocated in. The ranger force remained the same, only that there were between four and five additional rangers on attachment from other sections of the park. The rhinos were well monitored, with signals being picked up from 12 out of 19 transmitters, despite tracking from the air having lapsed between August and October 1994.

Although KWS went, to some extent, against recommended practice by free-releasing rhinos in such a huge area, it was believed that the rhinos would not widely disperse and the intent was to set up an IPZ. At the time, many argued that the rhinos were probably more vulnerable in the free-release area than in sanctuaries. But rhinos from other sanctuaries were performing well, especially in Nairobi National Park, and their surplus had to be put somewhere. Tsavo East was selected.

The effort to restock the free-release area was a costly investment, with 48 rhinos having been introduced by the end of 1999.

The population had settled well and adapted to new areas; 11 births and 4 deaths were recorded, the deaths unrelated to poaching. According to records since the

free-release area was established, the population in November 2001 was estimated to be 53.

As is the case with most government institutions, resources for effective monitoring of endangered species have been dwindling. The aerial coverage in Tsavo East had become irregular, and the pressure on the monitoring staff continued with the expanding range of the free-ranging rhinos. The number of rhino monitoring staff fluctuated within the year, recording an annual average of 8 men between 1993 and 2001 with a peak of 10 men in 1996, including those on attachment, despite the fact that the rhino numbers were increasing. As part of regular monitoring, a census was done in October 2001 in which 47% of the estimated rhinos were physically seen, and much fresh rhino spoor and other signs were also recorded. No rhino carcasses were recorded during this census, although five relatively fresh elephant carcasses were seen.

The rhino monitoring team and the entire Kenya Wildlife Service (KWS) security network were put to test when four rhinos (three adults: one male, one female, one unknown; and a calf) were poached be-



Mariah and her calf: victims of the November 2001 poaching in Tsavo East. KWS rangers are seen in the background.

tween 24 and 29 November 2001. When the carcasses were found, the horns had been taken. Security was immediately intensified in the rhino range and in Tsavo East National Park as a whole. In early December 2001, the KWS intelligence team arrested one person in possession of three fresh-looking rhino horns in a Mombasa Hotel, presumably where he was arranging to sell the horns. His arrest led to that of another person in whose house the horns had been hidden. The coastal town of Mombasa is believed to be a major outlet for illegal trade in wildlife products.

The poachers appear to be well organized. In January 2002 poachers killed another two rhinos whose horns have not been recovered. This did not demoralize the determined KWS rangers. In mid-February,

they killed one poacher, arrested a second, and recovered a pair of rhino horns plus firearms and ammunition. Security has been tightened in all the rhino sanctuaries, and KWS is taking all necessary measures to prevent further poaching of rhinos. The search for the poachers, suspected to be of Somali origin and using G3 firearms, continues.

The Tsavo East incident is the first case of rhino poaching in a national park in over eight years, although two rhino mortalities caused by poaching were recorded in 2000: one in Lelata/Naikara near Masai Mara National Reserve and the other in the Kitchich area, between Maralal town and Samburu National Reserve in northern Kenya. Community scouts monitor these rhino populations and managed to recover the horns.

## Reintroduction of white rhinos to the Moremi Game Reserve

## Moremi Tjibae

Department of Wildlife and National Parks Box 131, Gaborone, Botswana

During the 1980s and early 1990s the first and substantial reintroduced population of white rhinos in Botswana (95 animals moved from Natal Parks Board from 1967 to 1980) was affected by poaching to such an extent that rhinos nearly became extinct in the country for a second time. Against a background of increased cross-border poaching, the Department of Wildlife and National Parks decided to translocate all the remaining rhinos into a secure sanctuary. Between 1994 and 1996 seven rhinos were captured at Chobe National Park and Moremi Game Reserve and translocated to Khama Rhino Sanctuary near Serowe. Reinforced by further animals moved from South Africa, the Khama Rhino Sanctuary population has increased to 18 animals. Two other nature reserves stocked with rhinos have since been established in the south-east and west of the country. In the last year there have been reports of one or two white rhinos moving over large areas in the north-east of Botswana, remnants from the original reintroduction of the 1970s.

In collaboration with a private concessionaire, the Department of Wildlife and National Parks has now reintroduced white rhinos to Moremi Game Reserve. To date five rhinos have been successfully reintroduced. Three were purchased by the concessionaire from Mokolodi Nature Reserve, and a lonely single bull was relocated from Gaborone Game Reserve. The fifth animal was an isolated rhino captured from Chobe National Park and relocated in Moremi Game Reserve. The rhinos have adapted well to their new environment and have established territories. Currently the Department of Wildlife and National Parks is expecting 31 more white rhinos (19 females and 12 males) to be introduced into Moremi Game Reserve as part of an agreement to exchange roan antelope for white rhinos from South Africa National Parks. The addition of this second group of rhinos into Moremi Game Reserve will form a viable breeding population in the area, which has very good expansion potential for developing a large wild population. A critical area of concern to the Department of Wildlife and National Parks is the security of these reintroduced rhinos. Measures have been taken to ensure their safety: the rhinos are being accorded maximum protection through high-intensity ground monitoring and surveillance, in addition to daily routine water-borne and aerial patrols.