be completed by September 2000. WWF-SARPO would work with the Project Coordinator to outline the rhino conservation models (IPZs, conservancies, community projects, etc.) that have been tested within the region, and to specify the legal and policy issues that are pertinent to each model.

3.) In the light of information that is gathered during the country reviews, TRAFFIC, WWF and AfRSG might well develop a proposal for a regional project to achieve systematic, standardized reporting on horn seizures, to streamline arrangements for biochemical "fingerprinting" of horns of unknown origin, and to revive a project (that was started under CITES but has lost momentum) to develop standardized indicators of success in rhino conservation, measuring changes in levels of illegal hunting and the status of rhino populations in the range states. This will require an investment of manpower during Year 1 to establish the information needs, protocols and funding needs for the system to be put in place in Year 2.

4.) Although various attempts have been made within Zimbabwe, South Africa and Namibia to develop suitable collars for rhinos, no design has yet been perfected to ensure that the collar does not damage the rhino and remains on the animal for long enough to make radiotracking a cost-effective tool for routine monitoring of rhinos. A workshop should be held to pool ideas from about 5-10 regional experts and to plan a co-ordinated programme (for Year 2) for the testing of new collar materials and designs.

5.) On the basis the country reviews, any opportunities for improving and standardizing rhino population databases will be investigated and expertise will be mobilized within the programme to assist range states or the managers of subnational populations in this regard. Zimbabwe has already requested assistance in the development of a national rhino database.

## 3.11 Country reports

3.11.1 Angola – An Overview of Wildlife Status (Nkosi Luta Kingengo)

Area: 1 246 700 sq km. Population: 10 920 000.

Natural Vegetation: Predominantly miombo woodland and other forms of woodlands and grassland savannas, with patches of lowland rainforest in the north, small forest patches on the western escarpment, montane forest in the highlands, and arid subdesert formations in the southwest. Due to this wide biogeographical spectrum, the country is richly endowed with a diversity of species of plants and wildlife, many of which remain to be studied, inventoried and evaluated in order to promote their sustainable use as a part of national development process.

Wildlife is recognised to be a complex natural resource that has positive as well as negative effects in relation to human needs. It has an important role in the nutrition of rural and urban populations, but also has other economic and cultural values.

The instability occurring in the country has encouraged poaching. From 1975 to 1988 hunting was not officially authorised, but from 1989 to date, hunting was legally instituted. In 1998, 140 hunting permits were issued by the Department of Wildlife and Protected Areas of the Institute of Forestry Development (IDF), providing US\$4 916 as income. According to the available data 3 302 animals of several species were shot.

Since 1975, no survey has been carried out to determine the status of the great mammals of Angola, in particular to the black rhino species. The last survey was done in 1971 at Iona National Park during which 30 rhinos were enumerated (Brian J. Huntley, 1973). According to Huntley other information related to the existence of the

species in certain areas of Cunene and Kuando Kubango provinces but no data indicates their occurrence in the north of the country.

The existing data on white rhino refers to the introduction of ten to Kissama National Park in 1968. Since 1975 no white rhino has been found in the Park, so it is assumed that the ten were poached. The two species are classified as protected species in Annex I of the hunting legislation.

The Ministry of Fisheries and Environment is the organ responsible for environmental matters. The Ministry of Agriculture and Rural Development through the Institute for Forestry Development and National Directorate of Agriculture and Forestry has the responsibility of implementing policies and strategies regarding the sustainable use and conservation of wildlife and forestry resources.

During the last 24 years no study had been carried out to determine the status of the wildlife resources in the country due to several factors, like the instability occurring in the country since 1975, and the lack of national plan or programme on wildlife management. In order to ensure sustainable utilisation of wildlife resources and to protect biodiversity, Angola requires technical assistance to outline a national management programme for natural resources focussing on the wildlife and Protected Areas and outlining the role that wildlife can play in the rural development process of the country.

## 3.11.2 Botswana (Isaac K. Theophilus)

Black rhinos are believed to be nationally extinct. We however hope to reintroduce some starting with a deal between Namibia and Botswana. White rhinos were extinct in the 1960s and were reintroduced from Natal in the late 1960s and early 1970s. The population started building up but was severely depleted by heavy poaching in the early 1990s. Government then undertook to capture and translocate all remaining wild populations to secure protected areas. Botswana is currently developing a long-term management plan for rhino conservation. This document is expected to guide all would-be rhino owners. The long-term goal is to reintroduce rhinos back into the protected areas where they will be monitored.

## 3.11.3 Malawi (Gibson Y.A. Mphepo)

First documented evidence of black rhino dates back to 1922 when "they were found virtually everywhere." (Bhima and Dudley, 1996, quoting Dudley and Stead, 1977). In the 60s and 70s when most areas were declared national parks and wildlife reserves, black rhinos existed in 6 out of 9 protected areas (Vwaza, Kasungu, Nkhotakota, Lionde, Lengwe and Mwavi) (Ansell and Dowset, 1988). By 1985, black rhinos only existed in two protected areas: Kasungu and Mwavi (Bhima and Dudley, 1996). By 1990, black rhinos were declared extinct in Malawi (Bhima and Dudley, 1996).

Two mature black rhinos (6 years of age, a male and female) were translocated in 1993 from Kruger National Park to Lionde National Park in Malawi. In 1999, two more black rhinos (a male and a female) were translocated from South Africa to the same park, Lionde

The translocated rhinos were initially kept in bomas to assess their adaptability to Lionde. While in the boma, they were given branches of different grass and tree species to assess their food preference, rate of defaecation and urination and body