### NOMINATION TO THE WORLD HERITAGE LIST

Convention concerning the Protection of the World Cultural and Natural Heritage

Name: MANA POOLS NATIONAL PARK, SAPI AND CHEWORE SAFARI AREAS

Identification No: 302

Date received by WH Secretariat: 23.12.83

Contracting State Party having submitted the nomination of the property in accordance with the Convention: ZIMBABWE

Summary prepared by IUCN (March 1984) based on the original nomination submitted by Zimbabwe. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

1. LOCATION: Northeast of Lake Kariba in the Zambezi Valley, along the border with Zambia.

#### 2. JURIDICAL DATA:

Public ownership under the Parks and Wildlife Act 1975 and managed by the Department of National Parks and Wild Life Management. Mana Pools National Park was established in 1963 (with 2,196 sq km), and the Chewore and Sapi Safari Areas in 1964 (with 3,390 sq km and 1,180 sq km respectively).

# 3. IDENTIFICATION:

All three areas (which total some 6,766 sq km) are part of the Miombo woodland/ savanna Biogeographical Province. They front the lower Zambezi River, and include large areas of the rugged Zambezi escarpment (which rises to over 1,000m from the valley floor). The area contains the last remaining natural stretch of the Middle Zambezi. The geology of the region ranges from the recent river alluvia of the valley floor to the ancient gneisses overlain by thin lithosols. The Mana Pools are former channels of the Zambezi. Much of the Chewore is heavily dissected and the Mupata Gorge (some 30km long) occurs along the northern border of this part of the area. Above the Mupata Gorges the river is broad and sandy, flowing through numerous channels, sand-banks and islands. Mean annual rainfall 700mm falling mainly December-March. Mean annual temperature 25°C.

Well-grassed Brachystegia communities dominate the mountainous escarpment and higher Chewore areas with small but significant riparian communities along the numerous streams. The valley floor is dominated by mopane woodlands or dry highly deciduous thickets known as jesse. Seasonal tributaries crossing the valley floor support extensive riparian communities. On the younger sandier alluvial deposits along the Zambezi are well-developed communities of the Acacia albida with more diverse woodlands containing Kigelia africana and Trichelia emetica on the higher deposits (old islands or levees).

The nominated site has a rich and varied fauna with large mammal populations which concentrate on the flood plains during the dry season when water elsewhere is scarce and when the numerous <u>Acacia albida</u> shed their protein-rich pods. Threatened mammals include black rhino (particularly in Chewore which has numerically one of the most significant populations in Africa), elephant (over 6,500), leopard, cheetah, and wild dog. Other significant mammals include hippo, buffalo (11,000 estimated), lion, spotted hyaena, honey badger, warthog, bushpig, zebra, and several antelope species (including nyala).

A healthy population of the threatened Nile crocodile is also present. Bird life along the river and in the bush is prolific with over 380 species

including Nyasa lovebird, yellow-spotted nicator, white-collared pratincole, banded snake-eagle and Livingstone's flycatcher. Common fish include tiger fish, bream, vundu, kupi, chessa, cornish Jack and lungfish.

# 4. STATE OF PRESERVATION/CONSERVATION:

There are two further contiguous areas, Dande Safari Area (523 sq km) established in 1968, and the Urungwe Safari Area (2,870 sq km) established in 1976. Much of the area had been protected as a non-hunting area since 1930. The areas are fully protected, but with strictly controlled recreational hunting permitted in the safari areas. These areas are being considered for national park status. A Policy Document serves to provide overall guidelines to management of the area and there is an active research programme.

Natural seasonal flooding of low-lying areas was seriously curtailed by the completion of Kariba Dam in 1958. These areas including the rich alluvium and the ecological heart of the area are threatened by a proposed hydroelectric scheme at Mapata Gorge which would create a 85,000ha lake obliterating much of the Zambezi floodplain and halving the carrying capacity of the Mana Pools.

Other problems include poaching especially of fish by Zambian fishermen and destruction of habitats by elephants. The Harare/Lusaka highway passes through the area with associated settlements and there is a private estate on the Zambezi near Chirundu. The area is of limited agricultural potential. There is virtually no permanent human habitation.

The areas provide opportunities to experience great seasonal mammal concentrations in a natural environment and it is ensured that recreational hunting will not impair the essential wilderness qualities and resource values for future generations. Mana Pools National Park has partially developed tourist facilities which are prone to saturation during peak periods. Tourists are permitted to walk through the riparian woodlands within the park.

### 5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST:

The Zambezi Valley nomination, as presented by the Government of Zimbabwe, provides the following justification for designation as a World Heritage property:

a) Cultural property -- not applicable

### b) Natural Property

- (ii) Ongoing geological processes. The 'sand-bank' environment constitutes a good example of erosion and deposition by a large seasonal river (despite recent changes in river flow because of Kariba). There is a clear pattern of vegetation succession on the alluvial deposits. Seasonal movements of large mammals within the valley are of great ecological interest both because of interspecies and intraspecies differences.
- (iii) Exceptional natural beauty. The annual congregation of animals in the riparian parkland alongside the broad Zambezi constitutes one of Africa's outstanding wildlife spectacles.
- (iv) Habitats of rare and endangered species. A number of plant species have their only location in Zimbabwe within the Zambezi riparian woodland, and the riverine environment is also a refuge for birds not found elsewhere in the country. The area is reportedly one of the three most important refuges for the black rhinoceros in Africa, and a number of other threatened species occur here including elephant, leopard, cheetah, wild dog and Nile crocodile.

### WORLD HERITAGE NOMINATION -- IUCN TECHNICAL EVALUATION

# 302 MANA POOLS NATIONAL PARK, SAPI AND CHEWORE SAFARI AREAS (ZIMBABWE)

### 1. DOCUMENTATION

- i) Nomination form and maps
- ii) IUCN Data Sheets
- iii) Consultations: A. Ferrar, H. Eidsvik, P. Jackson, L. Talbot
- iv) Literature Consulted: Policy Document, 1981, Lower Zambezi Valley Parks; Du Toit, R.F., 1984. Some Environmental Aspects of Proposed Hydro-Electric Schemes on the Zambesi River, Zimbabwe. Biol. Cons. 28(1): 13-87.
- (v) Site visit 20-21 May 1983

### 2. COMPARISON WITH OTHER AREAS

Within the Miombo Woodland/Savanna Biogeographical Province there are 43 protected areas according to the latest list held by IUCN's Protected Areas Data Unit (PADU). 17 of these are in Zambia, 2 in Mozambique, 3 in Angola, 3 in Tanzania, 7 in Malawi and 11 others in Zimbabwe. Of this number, however, few are found in riverine locations where better quality soils and seasonal flooding result in more productive habitats than found in plateau areas.

The one area that is also on the Zambezi drainage system and is comparable is the Luangwa Valley (north and south) National Park some 300 km northeast of Mana Pools in Zambia. These parks protect a much less affected and longer riverine strip and harbour a significantly larger number of black rhino (1984 estimate: 3000). Management standards at the moment, however, are on a much firmer footing in Mana Pools.

### 3. INTEGRITY

The three areas, when taken together, form a sufficiently large conservation unit for most ecological processes to continue functioning more or less naturally. The site is well protected by natural barriers from encroachment and alternative land uses. These include the Zambezi River in the north, the steep, broken country of the escarpment in the south and the prevalence of an array of tropical diseases such as sleeping sickness, malaria and bilharzia. These features have resulted in the area never having been popular for human residence and never having been used extensively for livestock grazing.

The major impact on the Lower Zambezi River in recent years has been the reduction in flooding levels caused by the construction of the Kariba Dam. The nomination notes that further research on the ecological post-audit of this development is required.

The major future threat is contained in a proposal for a hydroelectric scheme at Mpata Gorge. This would create a 1500 sq km reservoir that would obliterate the vital core area of the park, halving the carrying capacity for wildlife. IUCN has worked with the Zimbabwe Natural Resources Board to complete a preliminary environmental impact assessment and noted that the proposed dam is unlikely to be considered until the 21st Century.

The area has been under continuous protection since 1930 and is guided by a policy document. Hunting in the Sapi and Chewore Safari areas is closely regulated and is not seen as an inconsistent or damaging use of the site.

### 4. ADDITIONAL COMMENTS

The possibility of creating a transfrontier World Heritage site together with the adjacent Lower Zambezi National Park in Zambia should be pursued as it would greatly add to the completeness and integrity of the site.

### 5. EVALUATION

The mid-Zambezi Valley containing the nominated sites is one of the last areas in southern Africa that is not grossly modified by man. It thus provides a benchmark site for study of the riverine "sand-bank" environment and associated succession and adaptive change (criteria ii). The area also meets criteria iii as the annual congregation of animals in the riparian parkland along the broad Zambezi is one of Africa's outstanding wildlife spectacles. The area also is one of the most important refuges for black rhino in Africa as well as a number of other threatened species (elephant, leopard, wild dog, and Nile crocodile) and therefore meets criteria iv.

# 6. RECOMMENDATIONS

The Mana Pools/Sapi/Chewore area should be added to the World Heritage List on the basis of criteria ii, iii and iv. The Committee should furthermore encourage the Zambian authorities to nominate the adjacent Lower Zambezi National Park for joint inscription on the World Heritage List. The Committee should also express its interest in being kept informed of the possible construction of another dam on the Zambezi at Mapata Gorge which would essentially negate the major value of the area.



