

## APPENDIX A: BRIEF DESCRIPTION OF LOWER ZAMBEZI-MANA POOLS TFCA AND MAP

### Location and Constituent Parts

The proposed TFCA lies in the Zambezi Valley, approximately midway between the lakes formed by the Kariba Dam upstream in the Republic of Zambia and the Republic of Zimbabwe, and by the Cahora Bassa Dam downstream in Mozambique. The international border between Zambia and Zimbabwe follows the course of the Zambezi River. The constituent parts of the proposed Transfrontier Park are the Mana Pools National Park and surrounding areas on the south bank of the Zambezi in Zimbabwe, and the Lower Zambezi National Park and surrounding areas on the north bank in Zambia.

Mana Pools National Park was proclaimed in 1963 and covers 2,200 km<sup>2</sup>. The TFCA is part of an open ecosystem consisting of the Hurungwe and Charara Safari Areas to the west, and the Sapi and Chewore Safari Areas to the east. The entire complex is a proclaimed World Heritage Site. The Lower Zambezi National Park is 4,092 km<sup>2</sup> in extent, and is also flanked by Game Management Areas (GMA), to the west is Chiawa GMA (2,344 km<sup>2</sup> in extent) and to the east Rufunsa GMA (3,179 km<sup>2</sup> in extent). There is unimpeded movement of wildlife throughout these areas.

### Description

The Zambezi River, for almost its entire length along the northern border of Zimbabwe lies in a rift valley. This valley is known as the Gwembe trough upstream of the Kariba Gorge, and as the Zambezi Valley downstream. The valley starts to widen from where it emerges from the Kariba Gorge at Nyamuomba Island at an altitude of 600 m. From this point to the Mupata Gorge at 350 m altitude, about 178 km to the east, the Zambezi is a wide (up to 2 km), shallow, slow moving river flowing through spectacular wildlife country. The Mana Pools and Lower Zambezi National Parks are contiguous for about 25 km along the river. In the Mana Pools National Park the valley is up to about 40 km wide.

The Southern wall of the Zambezi Valley, in Zimbabwe, forms a distinct escarpment that rises to 1,288 m above sea level. The escarpment to the north is the same height, but rises sharply, much closer to the river. The northern escarpment angles away from the Zambezi to the north-east to connect with the western wall of the rift valley trough in which the Luangwa River lies.

This northern escarpment bisects the Lower Zambezi National Park, the north-western half lies on the plateau, and is mainly covered by miombo woodland with some deciduous thicket and occasional strips of riparian forest. The escarpment is very steep in places and generally inaccessible. The northern valley floor, between the escarpment and the Zambezi is fairly flat and covered by a mosaic of *Colophospermum mopane* deciduous thicket and *Faidherbia albida* (formerly *Acacia albida*) woodland. The Zambezi is a wide, but well-defined river along this stretch with sandbars, shallows and small islands covered by *Cynodon* lawns kept short by hippo and fringed by *Phragmites* reeds. There are extensive stands of *Faidherbia* woodland on the south bank as well as many oxbow lakes that are recharged by floods, open coarse floodplain grassland and patches of riparian forest. To the south and east, in Zimbabwe, the escarpment zone starts as broken country with numerous *Combretum* dominated savannah covered hills, which gradually get larger and coalesce to form the escarpment with miombo woodland.

The valley vegetation is very similar in the two national parks. The floodplain woodlands are characterised by *Faidherbia albida* trees growing in dense groves, and forming a continuous canopy with a very open grass under-storey dominated by *Panicum maximum*. Other prominent trees on the floodplains are *Trichilia emetica*, *Kigelia africana*, *Tamarindus indica* and *Lonchocarpus capassa*. *Hyphene natalensis* palms are scattered in clumps or occur as single specimens. Termite mounds are common and a marked

feature of the environment. The grass layer is well used and by the end of the dry season has been grazed down to a short *Cynodon* lawn with occasional tall tussocks of *Setaria* species. The main species responsible for the grazing pressure are hippopotamus, African elephant, buffalo, impala and waterbuck. Further away from the floodplain the vegetation is dominated by tall *Colophospermum mopane* woodland on sandy or clay soils. At the foot of the escarpment on the north bank, and the beginning of the escarpment hills to the south there is a band of dense thicket known colloquially as “jesse”. It is a deciduous dry forest or thicket with a dense shrub layer. The most characteristic genera are *Combretum*, *Pterocarpus*, *Acacia*, *Xeroderris*, *Commiphora*, *Dalbergia*, *Dichrostachys* and *Berchemia*.

The miombo woodland, mainly in the Lower Zambezi National Park of Zambia, and peripherally on the escarpment in the south of Mana Pools, is characterised by *Brachystegia bohemii*, *B. allenii*, and *Julbernardia globiflora*. Associated tree species are *Piliostigma thonningii*, *Monotes engleri*, *Pericopsis angolensis*, *Azelia quanzensis* and various *Combretum* spp.

The climate of the Zambezi Valley is generally extremely hot and humid. Temperatures can be as high as 44°C in November. The dry season is generally much cooler and more pleasant with minimum temperatures of 2°C being recorded. Rainfall varies from about 600-900 mm.

The Zambezi Valley has large numbers of the typical large mammals of the system. The bulk of the biomass is probably still made up of African elephant, hippopotamus and Cape buffalo. Other common species are waterbuck, impala, kudu, eland, bushbuck, warthog and zebra. Small numbers of roan antelope and sable antelope still occur (mostly on the north bank) and the area supports the most western occurrence of nyala antelope. The larger predators are well represented by lions, leopard, cheetah, African wild dog, and spotted hyaena. The Valley was in former years a stronghold of the black rhinoceros, but they were subjected to fierce and sustained poaching pressure for many years. Today the species is no longer found on the north bank and there are few left on the south bank. Many rhino were removed for their safety from the south bank by the Zimbabwean authorities and placed in conservancies elsewhere in the country. The elephant population of the proposed TFCA is large (17 000 - mostly on the south bank) and there is constant movement of animals across the Zambezi. At one time the Mana Pools population was characterised by a higher than usual occurrence of tuskless females.

Though being an important area for birds (over 400 species) the proposed TFCA does not meet the A1 Category Criteria for globally threatened species of birds. However, the area comfortably meets the A3 Criteria for an IBA holding significant numbers of Zambezian Biome species. As the Zambezian Biome birds are more characteristic of the miombo woodlands they are found more on the plateau and escarpment areas rather than in the Zambezi Valley itself, although a few occur in the mopane woodlands. Among these are Racket-tailed Roller, White-bellied Sunbird, Paradise Whydah and Long-tailed Glossy Starling. The area is particularly important for large populations of Lilian's Lovebird, the banks of the Zambezi provide habitat for well over 10,000 Carmine Bee-eaters and lesser numbers of White-fronted Bee-eater. The sandbanks and islands of the Zambezi support about half of the southern African population of African Skimmer. Lower Zambezi holds 14 of the 56 birds of this biome found in Zambia, while Mana Pools and adjoining areas holds 7 of 23 species found in Zimbabwe. There is a wide range of water bird species present (90), but numbers are not particularly large. Of special interest are Rufous-bellied Heron, Woolly-necked Stork, White-crowned Plover and Pygmy Goose. The river is also a good area for African Fish Eagle and Pel's Fishing Owl. The thickets support Shelley's Sunbird, Livingstone's Flycatcher and Crested Guinea fowl - three local rarities. Like all large, protected areas, the proposed TFCA is important for raptors (especially Dickinson's Kestrel) and other large birds like Southern Ground Hornbills.

