

WORLD HERITAGE NOMINATION - IUCN SUMMARY

509: VICTORIA FALLS/MOSI-OA-TUNYA

Summary prepared IUCN (April 1989) based on the original nomination submitted by the governments of Zambia and 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

The site includes the Victoria Falls (or Mosi-Oa-Tunya), and the surrounding lands within the Mosi-Oa-Tunya National Park in Zambia, and the Victoria Falls and Zambezi National Parks in Zimbabwe, a total of 65,180ha. The Mosi-Oa-Tunya National Park (6,880ha) lies within the Livingstone District of Southern Province (Zambia), and the Victoria Falls (1,900ha) and Zambezi (56,400ha) National Parks within the Hwange District of Matabeleland North Province (Zimbabwe). 17°56'S, 25°55'E

2. JURIDICIAL DATA

The whole site is in public ownership, with responsibility vested in the Department of National Parks and Wildlife within Zambia, and the Department of National Parks and Wild Life Management within Zimbabwe. Protection within Zambia is assured through the provisions of the National Parks and Wildlife Act 1968, and in Zimbabwe through the Parks and Wild Life Act 1975. While in Zimbabwe the Department of National Parks and Wild Life Management remains the administrative agency, in Zambia the administrative authority is the Livingstone District Council under the terms of the Decentralization Act 1980.

3. IDENTIFICATION

The falls are the most significant feature within the nominated area, and when the Zambezi is in full flood they form the largest curtain of falling water in the world. At this time over 500 million litres of water per minute go over the falls, which are 1708m wide, and drop 99m at Rainbow Falls in Zambia. At low water flow can be reduced to around 10 million litres/minute, and the river is divided into a series of braided channels that descend in many separate falls. The parks also contain the Zambezi river for some 5km below the falls, and over 35km above the falls.

Below the falls the river enters a narrow series of basaltic gorges. Since the uplifting of the Makgadikgadi Pan area some two million years ago, the Zambezi River has been cutting through the basalt, exploiting weak fissures, and forming a series of retreating gorges. Seven previous waterfalls occupied the gorges below the present falls, and the Devil's Cataract in Zimbabwe is the starting point for a further retreat. Above the falls the river is considerably wider, and contains a number of islands. While the river lies on basalt, most of the area above the falls is Kalahari sands, which form undulating country in the remainder of the area (mainly Zambezi National Park), with two extensive vlei systems draining towards the river below the falls.

The riverine 'rainforest' within the waterfall splash zone is of particular interest. It is a fragile ecosystem of discontinuous forest on sandy alluvium, dependent upon maintenance of abundant water and high humidity resulting from the spray plume. Typical Kalahari woodland covers much of the sand sheet

between the open grassed v^lges in the Zambezi National Park, while a mixed scrub community has developed on the basalt areas giving way to riparian vegetation along streams, at springs, and especially along the Zambezi. Mopane woodland has developed in valleys where the underlying basalt has been exposed. Approximately 30 species of large mammal have been recorded within the parks, over 400 species of bird, 65 species of reptile, and 21 species of amphibian. The falls form a geographical barrier between the distinctive fish faunas of the upper and middle Zambezi River, and 84 species have been taken from the river above the falls, 39 species below.

Stone artefacts of Homo habilis from 3 million years ago have been found near the falls, as have stone tools indicating prolonged occupation of the area in the Middle Stone Age (50,000 years ago). Weapons, adornments and digging tools indicate the presence of hunter-gathering communities in the Late Stone Age (from 10,000 to 2000 years ago), displaced about 2000 years ago by farmers using iron tools, who kept livestock and lived in villages.

4. STATE OF PRESERVATION/CONSERVATION

The immediate vicinity of the falls area is well preserved, the railway/road bridge being the primary artificial visual intrusion and generally considered to be well sited and designed. Development is fairly low key, and kept to footpaths and other means of access. While there is no danger of catastrophic change in the national parks, there has long been a gradual deterioration of the environment in Mosi-Oa-Tunya.

The Victoria Falls and Zambezi National Parks are managed in accordance with the national parks policy and regulations, and there is a specific policy document for the Victoria Falls-Matetsi complex. Killing, disturbance or removal of or damage to wildlife is prohibited (although fishing without licence is allowed), and livestock and domestic animals are excluded. Management policy gives high priority to maintenance of healthy riparian habitats, optimal conditions for game, and reasonable stability of the various ecosystems. The principal objective guiding management of the Mosi-Oa-Tunya National Park is to conserve the falls area in its natural state. Mosi-Oa-Tunya is not regarded as a major area for wildlife conservation, although the policy is that wildlife should be protected and visible to tourists insofar as is possible.

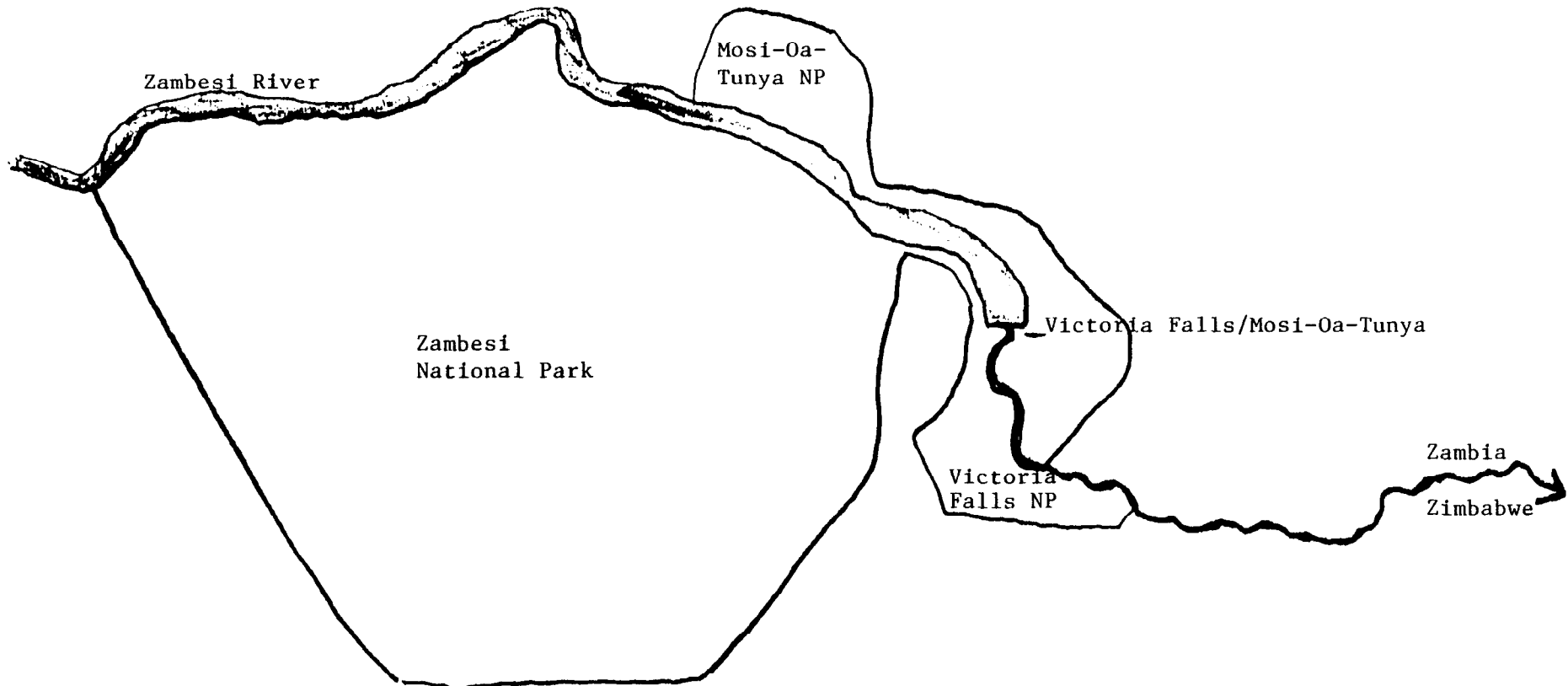
5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST

The nomination, as presented by the governments of Zambia and Zimbabwe, provides the following justification for designation as a World Heritage property:

b) Natural property

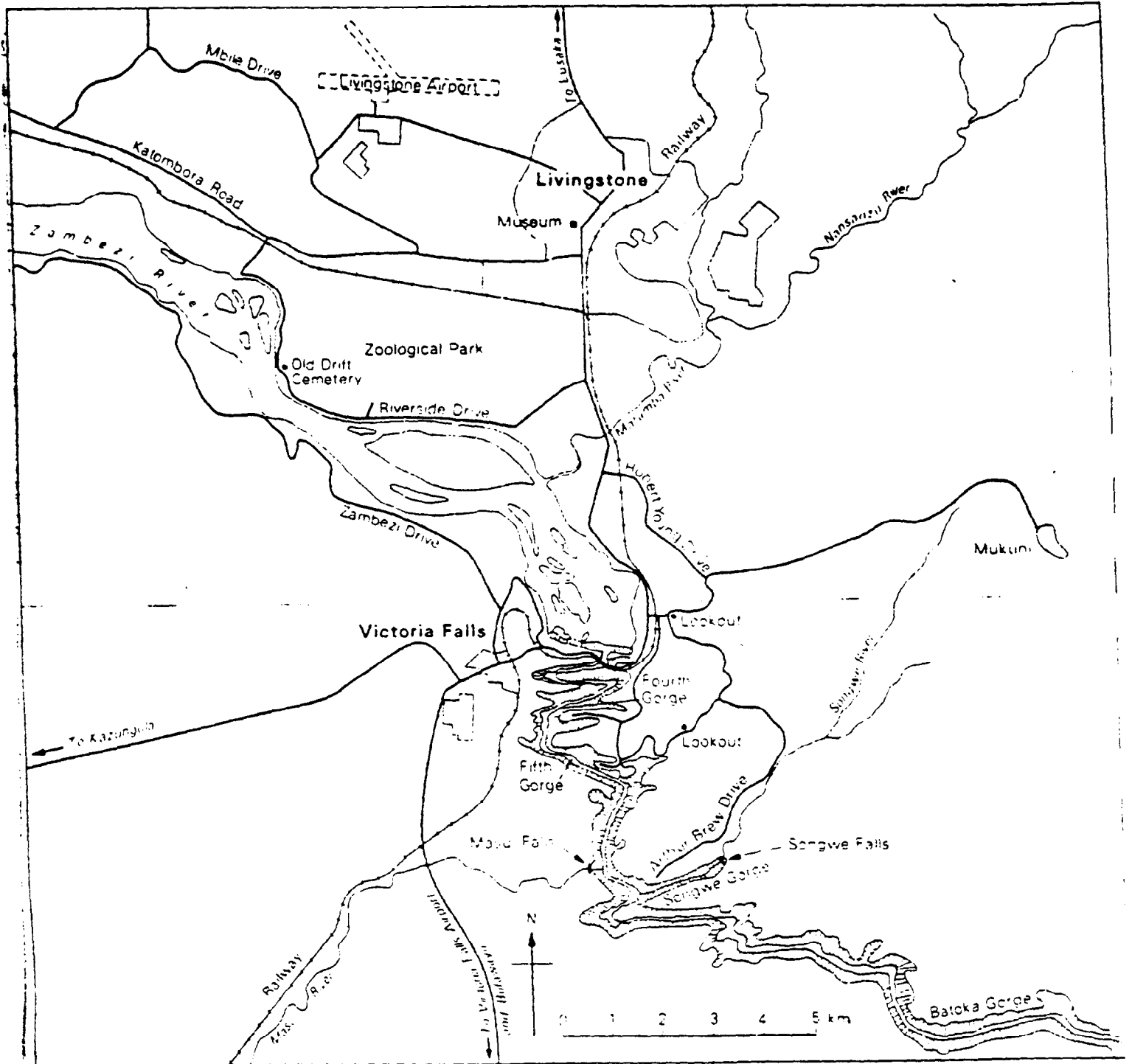
iii) Superlative natural formations. The Victoria Falls or Mosi-Oa-Tunya is the world's greatest sheet of falling water, with a river some 2km wide falling into and flowing through a series of narrow gorges. A small patch of rainforest has become established opposite the falls, and is supported by spray.

5080p



Scale 1:250,000

Victoria Falls/Mosi-Oa-Tunya World Heritage Nominated Area



WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

509 VICTORIA FALLS/MOSI-OA-TUNYA (ZAMBIA/ZIMBABWE)

1. DOCUMENTATION

- i) IUCN data sheets for Victoria Falls, Zambesi, and Mosi-Oa-Tunya National Parks
- ii) Additional literature consulted: IUCN/UNEP 1987. Review of the Protected Areas System of the African Realm
- iii) Consultations: G. Child, IUCN Southern Africa Regional Office
- iv) Site Visit: J. Thorsell, J. McNeely. 1983

2. COMPARISON WITH OTHER AREAS

Within the two biogeographical provinces in which the nominated property falls, there are some 140 protected areas covering 24 million hectares. The three national parks nominated do not themselves stand out in terms of their overall conservation importance in Africa. But it is the singular feature of the Victoria Falls that is the focus of this nomination. The falls are truly one of the most spectacular in the world in terms of their scale and scenic setting. They form a curtain of falling water that is 1708 m wide and 99 m high. By comparison, the Iguazu falls World Heritage site in Argentina/Brazil extends over 2700 m and is 80 m high. There are many other falls which are higher (eg. Angel in Venezuela at 980 m, Mardalsfoss in Norway at 655 m, and Sutherland in New Zealand at 580 m) and the annual water flow at the Boyoma Falls in Zaire is greater than the Zambesi. A distinction of the Victoria Falls is the series of narrow gorges which follow a zig-zag course below the Falls. In terms of their dramatic visual and scenic impact and their natural setting, the Victoria Falls are the most impressive on the African continent and are an equal match to those found at Iguazu.

3. INTEGRITY

Discussion of integrity is best divided in two parts: the immediate area of the Falls and the surrounding national parks. Firstly, conservation efforts to maintain the natural setting of the immediate Falls area go back to legislation enacted on both sides in the mid-1930s. This resolute action has largely kept the natural spectacle intact with the exception of the railway and road bridge across the second gorge. On the Zambian side, a channel has been cut into the river bed of the Zambesi to supply water for electricity generation. The water diverted from the main channel during the dry season is evident in the relatively low flow over the Zambian side of the Falls that is noticeable during this period. The other impacts of this activity are visual in the form of powerlines and some scattered buildings. Another intrusive element are several customs and immigration buildings whose visibility could be lessened through some careful landscaping. Otherwise, developments around the Falls have been limited to footpaths with major hotels and urban developments kept at a judicious distance.

The three parks surrounding the site act as a natural buffer to the Falls. Zimbabwe's Victoria Falls National Park includes the western half of the Falls and extends down through the main gorges. It is well protected with no serious management problems. Above the Falls, on the south side of the Zambesi River, is the Zambesi National Park. Except for a narrow riverine strip along the Zambesi, this park extends inland to encompass a rolling woodland containing typical African wildlife such as elephant, wildebeest and giraffe. This park is also well-managed.

Zambia's Mosi-Oa-Tunya National Park comprises the left bank of the river as well as the eastern half of the Falls and extends down through the fifth gorge. This park has been severely impacted by cattle grazing and encroachment of small scale cultivation and numerous buildings. Zambia's Department of National Park and Wildlife has worked with IUCN to prepare a management plan to address these problems but resources are not available to implement the recommendations.

In summary, the natural qualities of the immediate Falls area have been largely kept intact. There have been pressures to commercialise the area but these have largely been resisted. The nearby towns of Victoria Falls and Livingstone have been located at a sufficient distance and do not directly impinge on the visual spectacle of the Falls. The only major problem relating to integrity of the falls area is the need for strengthening the management of the Mosi-Oa-Tunya National Park to restore several inconsistent features and to ensure it functions as an adequate buffer.

4. ADDITIONAL COMMENTS

As the Victoria Falls/Mosi-Oa-Tunya are shared by two countries, it is being nominated as a single site by both State Parties. This is an initiative to be commended and it is hoped that such cooperation will be extended in future to include the formation of a permanent joint Zambian/Zimbabwean World Heritage liaison committee.

5. EVALUATION

The Victoria Falls/Mosi-Oa-Tunya site is one of the world's most spectacular waterfalls and still exists in a natural condition only partially affected by man. The site clearly meets natural criterion (iii) as a superlative natural feature. It also meets criterion (ii) as an exceptional example of significant on-going geological processes. The Falls and associated gorges are an outstanding example of river capture and the erosive forces of water that are continuing to sculpture the hard basalts. The site does not meet criterion (iv) as it is not a particularly important habitat for species. Although one species (the Taita falcon) is scarce, it is not regarded as threatened.

The only questionable aspect of the nomination relates to the boundaries of the site and the inclusion of the three adjacent parks. The focus of the property's values is clearly on the Falls and the downstream gorges. This suggests that all of the Victoria Falls National Park, the southern half of Mosi-Oa-Tunya, and a small portion of the riverine strip of Zambesi National Park should define the limits. The rest of the parks area acts to protect a portion of the watershed of the Falls but, extending 35 km from the Falls themselves, bears little functional relationship. There are some practical considerations such as uniformity of law and existing land classification but the extent of the values which are clearly of World Heritage calibre is more in the order of 6000 ha rather than the 65,180 ha area nominated. The true function of the total area is to act as a buffer zone to the core feature as suggested in Operational Guidelines (paragraph 17).

6. RECOMMENDATION

Victoria Falls/Mosi-Oa-Tunya should be inscribed on the World Heritage list as the site of the falls, the gorges below them and the more immediate areas surrounding them meets criteria (ii) and (iii). The Government of Zambia and Zimbabwe deserve to be commended in demonstrating their commitment to cooperating in management of the site through the joint nomination.

In the light of this, the Bureau has recommended the inscription of the site and requested the States Parties concerned to reduce the limits of the nominated property to include the Victoria Falls National Park, the southern half of Mosi-oa-Tunya National Park, and a small portion of the riverine strip of Zambesi National Park in order to better concentrate on core features of the Falls area and the downstream gorges.

At time of writing, the States Parties have not responded to this request.

2602J October 1989

