

Maps and Satellite Images of the Okavango Delta

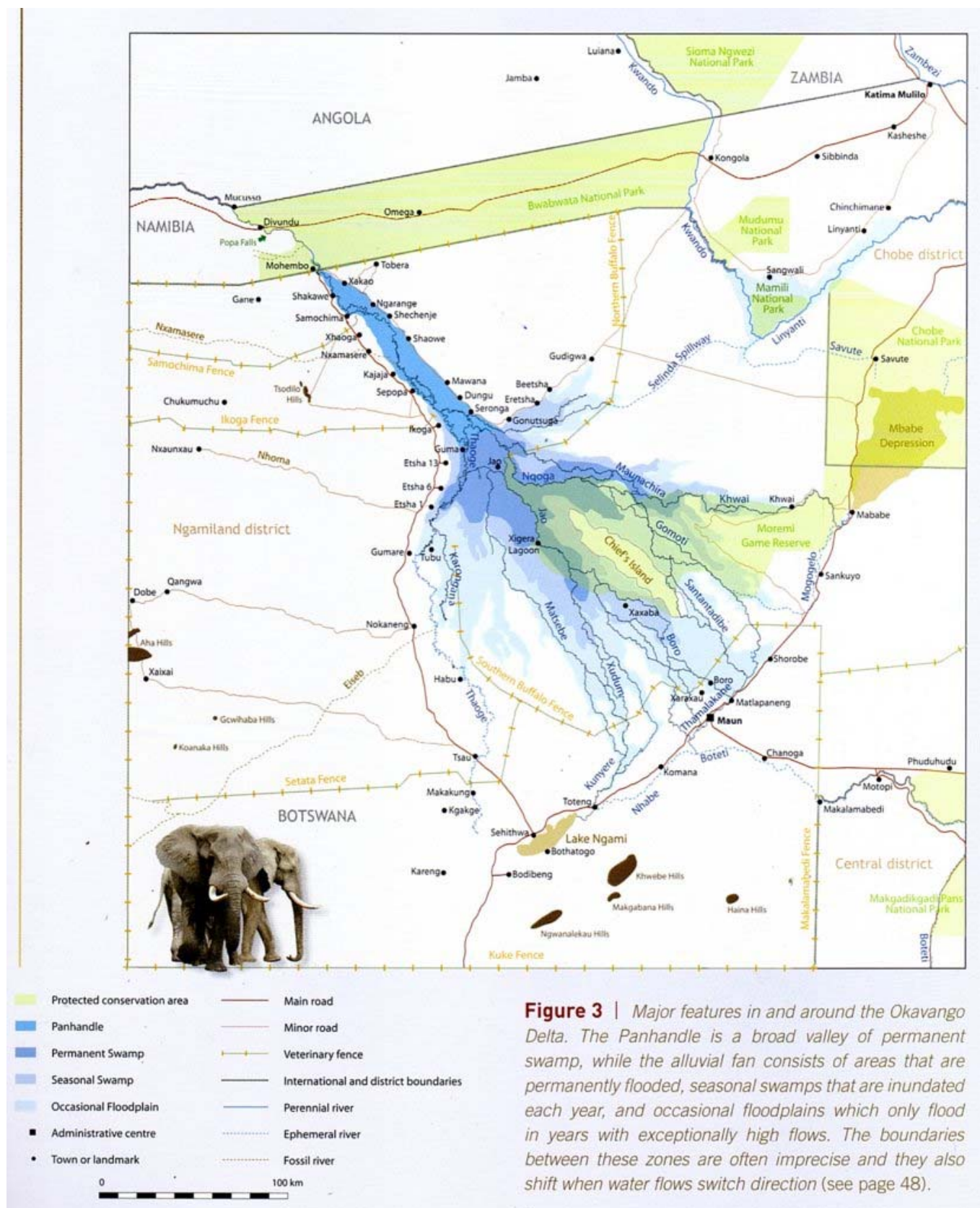


Figure 3 | Major features in and around the Okavango Delta. The Panhandle is a broad valley of permanent swamp, while the alluvial fan consists of areas that are permanently flooded, seasonal swamps that are inundated each year, and occasional floodplains which only flood in years with exceptionally high flows. The boundaries between these zones are often imprecise and they also shift when water flows switch direction (see page 48).

(Illustration from Okavango Delta: Floods of Life by J.M. Mendelsohn *et al.* (2010))

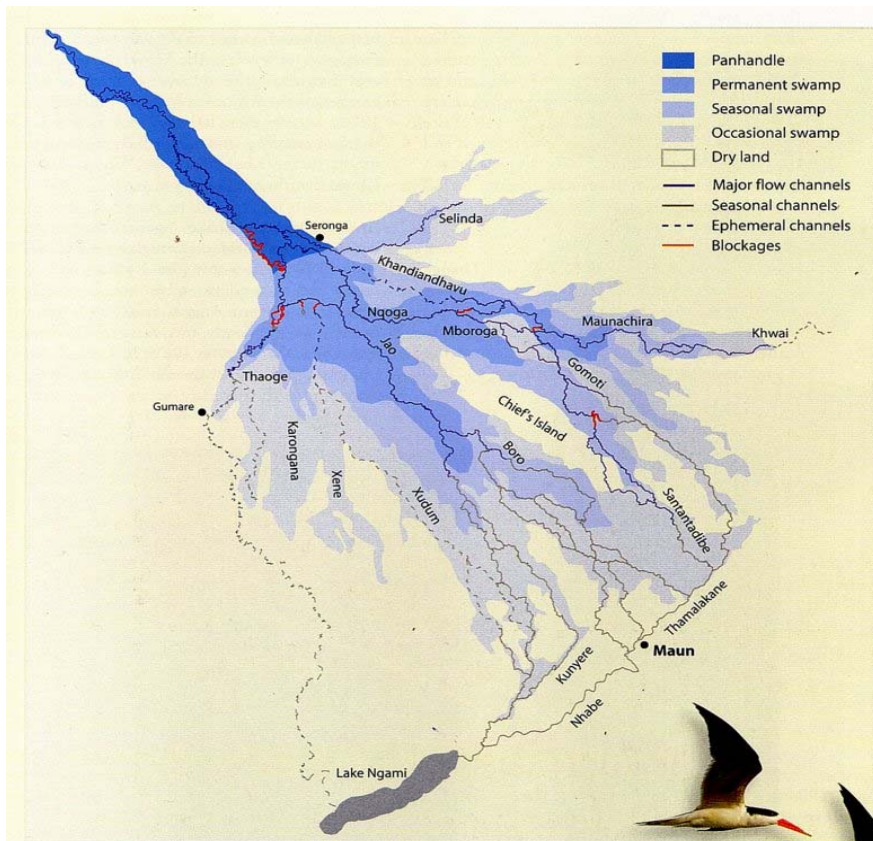
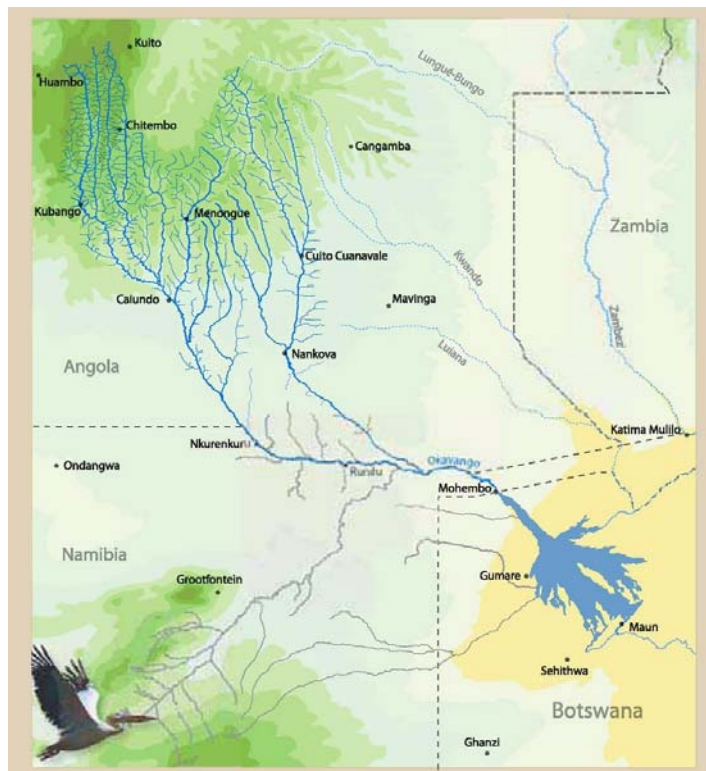


Figure 19 | The main channels and flood zones of the Delta. As the name implies, the Permanent Swamps hardly vary in size from year to year and usually cover about 3,000 square kilometres. Annual changes in the extent of flooding are thus largely in the Seasonal Swamps and Occasional Floodplains. Boundaries between these two zones are usually hard to define, and they also change during wet and dry phases. For instance, the Seasonal Swamps become much more extensive during repeated years of high inflow.¹⁴ Vegetation growth and types are closely related to levels and frequencies of inundation, and so the categories of plant communities described in Chapter 5 are closely linked to these zones.



The course of the Okavango River from its sources in the Angolan highlands, through Namibia's Caprivi Strip and into its delta in the Kalahari Basin in north-west Botswana (Illustrations from 'Okavango Delta: Floods of Life' by J.M. Mendelsohn et al. (2010))

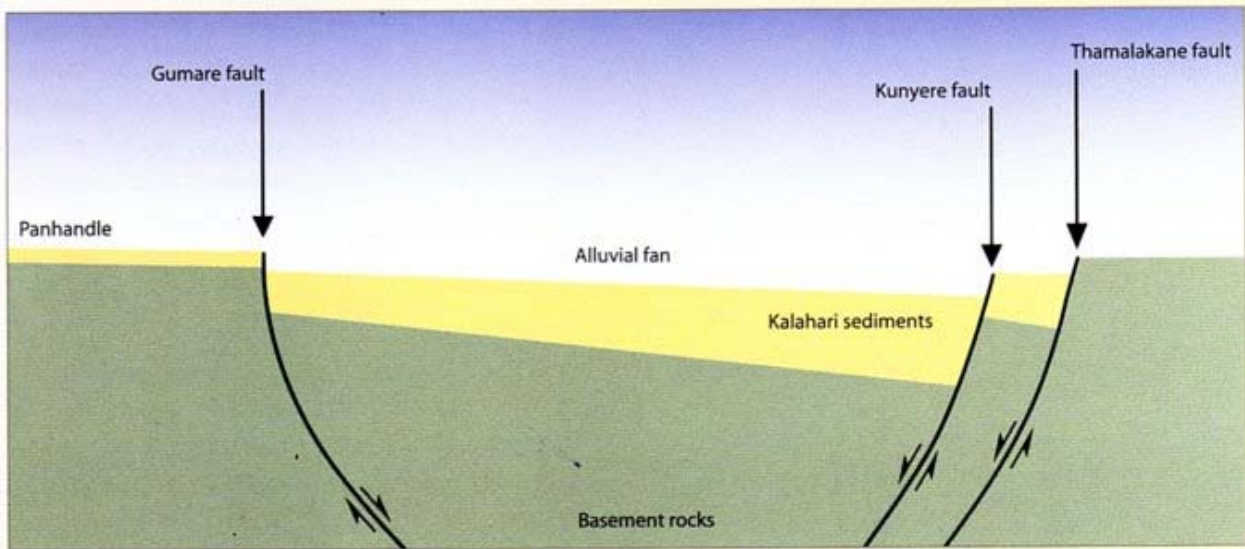
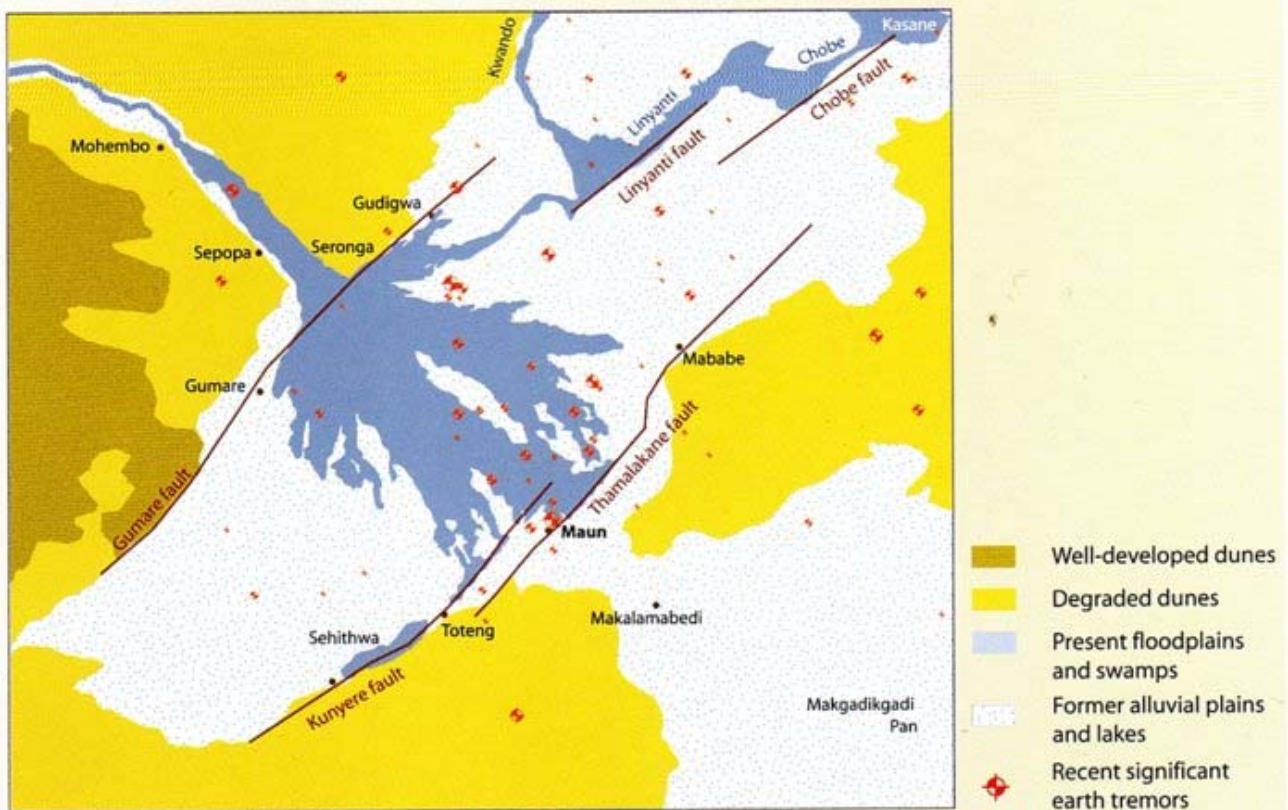
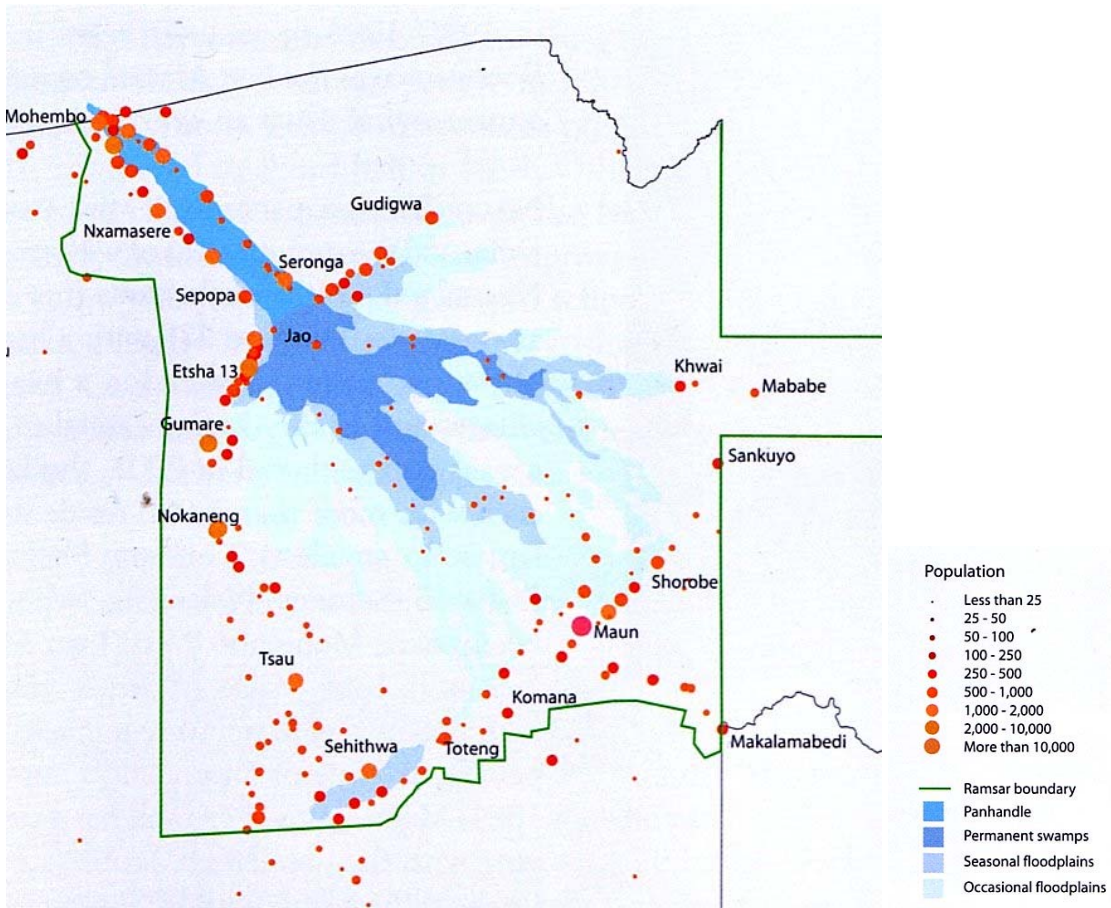


Figure 7 | Cross-section through the Delta from north-west to south-east, showing the layers of rock and sediments, and the three faults that confine the alluvial fan.¹ Elevations along the Panhandle are extremely gentle, the river dropping only about 5 metres over a distance of about 150 kilometres. Over the next 150 kilometres or so from the Gumare to the Thamalakane Fault at the edge of the alluvial fan, elevations drop about 40 metres.

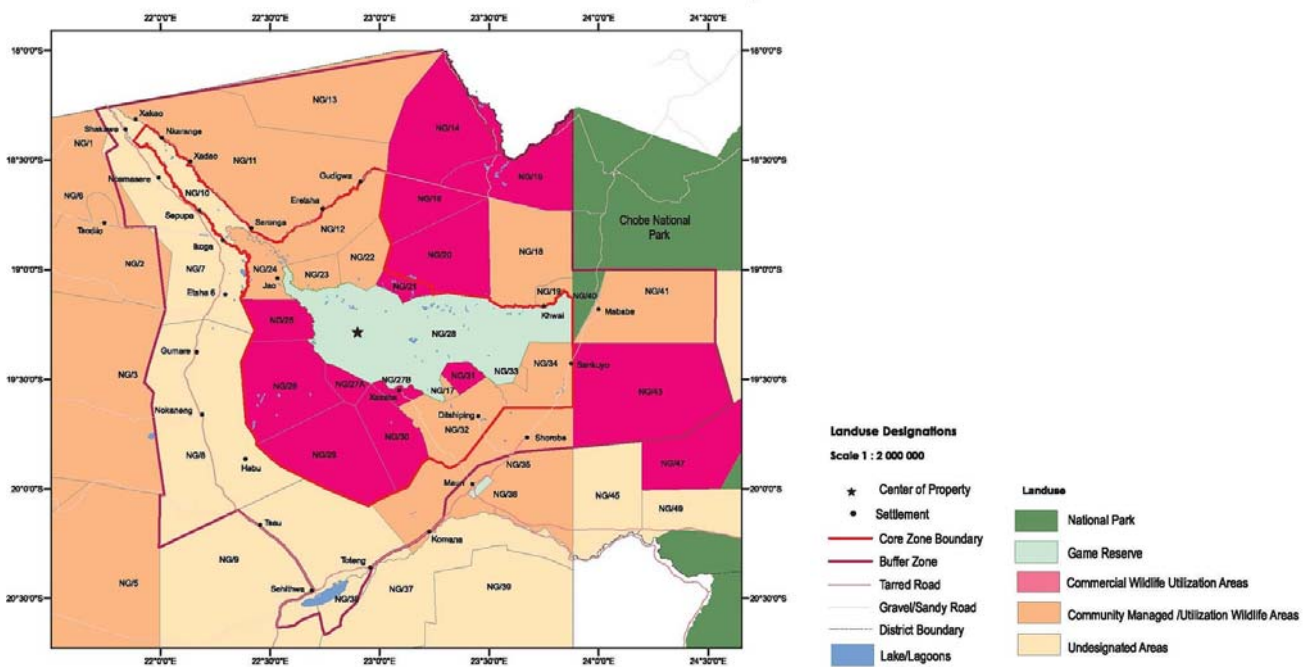
Figure 8 | The surface geology in and around the Delta includes well-developed sand dunes which formed during very arid conditions, as well as massive areas of alluvial sediments deposited during much wetter times by the Okavango, Kwando and Zambezi rivers. Recent earthquakes have ranged in magnitude from 2 (the smallest dots) to 6.7 on the Richter scale.²



(Illustration from Okavango Delta: Floods of Life by J.M. Mendelsohn et al. (2010))



Human population pressure around the Okavango Delta The population of Ngamiland (the area of northern Botswana surrounding the Okavango Delta) has increased 10-fold in 100 years, from around 15,000 people in the second decade of the twentieth century to about 150,000 today. Many of these people live around the fringes of the delta, herding their cattle according to the availability of fresh grass. (Illustration from *Okavango Delta: Floods of Life* by J.M. Mendelsohn *et al.* (2010)).



Map of the world heritage-designated area showing land management units and land-use categories (from UNESCO world heritage nomination dossier developed by the Government of Botswana)



Remote satellite images of the entire course of the Okavango River from its source in the Angolan highlands to its inland delta in the heart of southern Africa's Kalahari Basin.



Most of the Panhandle and upper reaches of the Okavango Delta are composed of permanent swamps with an ever-changing mosaic of lagoons, channels, islands and swamp vegetation. In the dry season, the sandy islands can be completely devoid of vegetation (right of lower picture).



Veterinary fences have been used for decades in Botswana to separate wildlife and cattle, preventing disease transmission to domestic stock. Some of these fences are being removed as they interfere with traditional migration patterns of wildlife, but fence lying to the south of the delta remains in place. Here animal tracks can be seen running parallel to the fence line, demonstrating its effectiveness in preventing the natural movement of wildlife.



Along the Panhandle there is a distinct boundary between the dry woodlands of raised land above the river banks (right of photo), and the extensive perennial green of the permanent swamps that fill its widened course.



Khwai River Lodge is one of many luxury lodges, offering superb facilities and a unique location overlooking a swamp-filled channel teeming with wildlife



Many of the luxury tourist camps in the delta are only accessible by light aircraft, so bush airstrips such as this one at Xakanaka are found throughout. Xakanaka (which lies within Moremi Game Reserve) is one of the few areas that is also accessible by vehicle, so tracks (visible in white) can be seen following along the meandering boundary of the swamp.



At the extreme north-western end of the Panhandle (at Mohembo, near the Namibian border) the Okavango River is constrained through a single channel. Here Botswana's Department of Water Affairs has maintained a monitoring station to record water flow and other parameters over many decades.



The interior of the Okavango delta has very few permanent residents, but people are (in places) crowded along its fringes in villages such as Seronga, on the northern banks of the Panhandle.