A large African elephant with prominent white tusks stands on a stone platform. The elephant is positioned under a thatched roof made of dried grass and bamboo poles. The background shows a clear blue sky with scattered white clouds and some green foliage. The elephant's trunk is hanging down, and its large ears are spread out. The stone platform is built with rough-hewn stones and has a flat top surface.

**‘People are killed in  
Chobe every month’**



## PLAN TO REDUCE CONFLICT

# Benefits and burdens

**Wildlife in the north of Botswana is doing so well that, increasingly, local people and animals are getting in each other's way. A Wageningen plan aims at harmonious cohabitation – and at ensuring that locals benefit from game tourism.**

TEXT RIK NIJLAND PHOTO GETTY/DAVID CAYLESS

If children in Parakarungu or Satau villages in northern Botswana walk home from school in the afternoon, their parents are nervous. From four o'clock onwards, one herd of elephants after another walks through the villages en route to a watering place on the river. A confrontation with these short-fused giants can be fatal, so the only safe mode of transport is by car.

Botswana is proud of its wealth of game. Across most of the continent, elephants are not faring well, but in this southern African country the population is booming. Twenty-five years ago there were 30,000 elephants in Botswana; now there are around 130,000. One of the elephant hotspots is Chobe National Park and the surrounding nature areas, in the far north of the country. Besides about 50,000 elephants, the park is home to lions, leopards, zebras and the

biggest population of wild dogs in Africa. Tourists come from all over the world to stay in lodges and enjoy this wealth of game. Tourism has become one of the country's main sources of income. But the success of nature conservation here has its downside, says Theo van der Sluis of Wageningen Environmental Research. Together with Elmar Veenendaal of Wageningen's Plant Ecology and Nature Management chair group, he drew up a land use plan for Chobe District. 'In and around game parks, there are more and more conflicts between the growing human population, economic activities such as tourism and farming, and the large numbers of wild animals. People are killed in Chobe every month. Of the 368 "problem animals" registered in 2014, 142 were elephants which had trampled crops, and 119 were lions which had killed livestock.' >

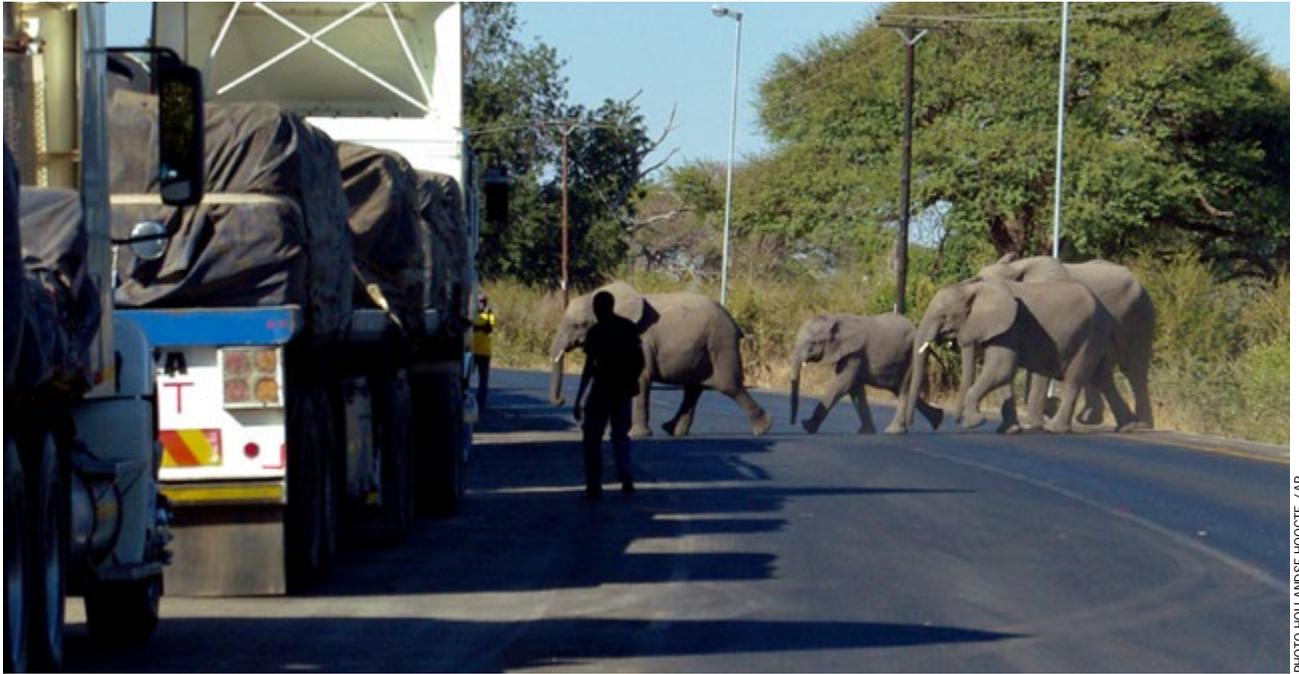


PHOTO HOLLANDESE HOOGTE / AP

Elephants cross the main highway in Northern Botswana, leading to Zambia.

Protecting wildlife is a major priority for Botswana. The army deals with poachers severely, and President Ian Khama has banned big game hunting by tourists, partly in response to international opinion. ‘But that hunting did make millions every year, and some of the profits went to local people,’ says Van der Sluis. ‘Thanks to the ban, the residents of Chobe District – several tens of thousands of people – have seen their incomes fall. Whereas on the other hand, the number of incidents is increasing, with herds of elephants or buffalo trampling the maize, millet and beans, for instance, or

Development Programme UNDP, which supports the game parks in northern Botswana, therefore issued an invitation to tender for the formulation of a land use plan that would regulate the cohabitation of humans and animals in the district, as well as steering the development of tourism and agriculture in the right direction. Landscape ecologist Van der Sluis and vegetation ecologist Elmar Veenendaal – both of whom lived in the country for years – won the tender for writing this plan at the end of 2016. They formed a multidisciplinary team of 11 people: experts from Wageningen,

says Van der Sluis. ‘In Wageningen we opt for a broad approach in order to integrate knowledge about the landscape and the people, to draw stakeholders into the process, and to take various different interests into perspective. The key question was: how can tourism grow sustainably, with more people benefitting from it, and nature continuing to be protected?’

Although the diamond mines are still Botswana’s main income source, tourism comes a close second. Chobe District – 23,000 square kilometres, two thirds of it national park and forest reserves – is especially dependent on visitors from abroad. There is no mining in this region.

## ‘There is increasing conflict between humans and wildlife around parks’

grazing livestock falling prey to lions and hyenas. Often, people are utterly distraught.’

These rising tensions are a headache for the Chobe Land Board. The United Nations

from the University of Botswana, and from the district itself.

‘Land use planning is often based on reasoning from the perspective of one sector alone – forestry or tourism, for instance,’

### ZONING

The land use plan that Van der Sluis and Veenendaal drew up with their colleagues provides for spatial zoning: there are zones where tourism can grow, zones that need to remain accessible for the wildlife, and zones where there is more scope for farming. This plan gives the Chobe Land Board criteria for assessing land use planning permission applications.

To give an example: the plan proposes setting limits to the development of Pandamatenga, a large farming area some-

times described as the bread basket of Botswana. Expanding this crop farming area is a national priority. And that is perfectly feasible, say the researchers, but only to the west, not to the north. In that direction, space is needed to maintain a nature corridor for wildlife migrating between Botswana and Zimbabwe. Crop farming there would also irrevocably disturb the hydrology in a crucial valley, the research team concluded. This land use plan is more than a district plan indicating what is and is not allowed in each section of the map. The authors also outline the opportunities for the local population to play a bigger role in the tourism sector. Tourism could be spread out more, for instance. Most of the lodges are located in the north around the district town of Kasane; there is scope for some new hotels or camps further into the interior. The plan also argues in favour of small-scale irrigation for market gardening. The cooks at the lodges are eager to get hold of fresh produce: vegetables would therefore be much more lucrative than the traditional maize crop. To prevent the elephants from playing havoc with these fields as well, the farmers must be allowed to erect fences. There is also a need for more flexible provision for compensation for damage by wildlife.

### SMALL-SCALE TOURISM

But the biggest change in the land use plan is the proposal to branch out into a new market segment. The plan identifies areas with small villages for small-scale tourism from which local people will benefit more. 'The focus at present is on high-end tourism,' says Van der Sluis. 'Luxury accommodation with prices of up to 2000 dollars a night. To run a hotel like that, you need investors and trained staff from outside the district. But you could also consider simpler accommodation, run by a local community. At the moment people tend to assume that accommodation for westerners has to be super deluxe. But there is a market for smaller scale, cheaper tourism too, as tourism organizations and safari companies confirm. One idea might be to rent out a couple of lit-

tle houses with views over the river, for 50 dollars a night, or to set up campsites for touring South Africans in the smaller villages a few dozen kilometres away from Kasane. There is only a tiny bit of that going on at present, and it could be stimulated more. That would enable the locals to get some of the benefits of tourism, and therefore indirectly of the many elephants. And it would spread the tourism better.'

### HUNTING

Isn't it also time to allow hunting again? 'You can see that the tall trees along the river have disappeared and the riverbanks look more and more trampled, but there is still no serious erosion in Chobe,' responds Van der Sluis. 'Hunting is a highly sensitive topic in Botswana; we mention it as an option, but that is primarily a political decision.' The writers of the land use plan have no fear that their report will end up in a bottom drawer. 'I presented our plan this spring to 25 people from a wide range of government organizations and NGOs,' says Van der Sluis. 'They were enthusiastic. The Chobe Land Board and the provincial government are in no doubt at all that something must be done. And that the local population should not just be left to shoulder the burdens resulting from tourism but should also enjoy a share of the benefits. Of course, I don't know what goes on behind the scenes, but Botswana is a well-organized country with an excellent reputation: it is not for nothing that it gets called the Switzerland of Africa. Besides, I expect the UNDP will be prepared to support new developments.' ■

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