

Q&A: El Niño drought leaves Zimbabwe's Lake Kariba only 13% full—a disaster for people and wildlife

April 12 2024, by Joshua Matanzima



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Water levels at Lake Kariba in Zimbabwe have dropped dramatically because of the latest El Niño drought. The country's president, Emmerson Mnangagwa, has declared a [national disaster](#).

Historian and social scientist Joshua Matanzima grew up at Lake Kariba and has spent the past 10 years [researching](#) socioeconomic life there. He discusses the impact of the latest drought on the people of the area.

Where is Kariba Dam and what purposes does it serve?

The 280 kilometer long, man-made Lake Kariba is part of the Kariba Dam, which was built between 1955 and 1959 in the Zambezi river basin between Zambia and Zimbabwe. The dam provides [hydroelectric power](#) to the Kariba north power station on the Zambian side and Kariba south power station on the Zimbabwean side. These provide most of the electricity for the two nations.

The remote Kariba Dam, about five hours' drive from Zimbabwe's capital city, Harare, and a three hour drive from Zambia's capital, Lusaka, also supports [fisheries, conservation, tourism and recreation](#). Over [100,000 people](#) live in Kariba town and the Nyaminyami and Binga rural districts. It is also a religious site and locals believe it shelters their ancestors and [Nyaminyami, the river god](#).

Water levels have been falling. What are the causes?

Since the early 2010s, the [El Niño](#) weather pattern has induced droughts and heat waves in the Zambezi region, causing a drop in the water levels at Lake Kariba. EL Niño is an unusual warming of surface waters in the eastern tropical Pacific Ocean that [brings hotter temperatures and much lower rainfall](#) to southern Africa for five months at a time.

By 8 April 2024, the [Zambezi River Authority](#), which owns and manages Lake Kariba, announced that water in the lake had dropped to just 13.52% of its capacity. Water levels in the [lake fluctuate according to](#)

[the rainfall](#)—this time last year, the lake was 21.94% full, but levels dropped as low as 12% in 2015.

What are the four biggest effects on local communities?

Low water levels in Lake Kariba have had a huge impact on the people in the area. The key areas of concern are:

- Survival. Many people survive directly off the lake, by catching and selling fish. The drought reduces fish spawning areas, which means that fishers who live near Lake Kariba catch very few fish during times of drought. [My research has found that during times of drought in Kariba](#), crocodiles take fish from the fishers' nets and destroy the nets. In retaliation, fishers attack crocodiles with [spears](#) and logs, exposing themselves to crocodile attacks.
- Human-wildlife conflict. The area is already a [hotspot for human-wildlife conflict](#). A drop in the water levels results in increased competition over water resources between people and [wild animals](#), resulting in [human-wildlife conflict](#). Animals that normally drink water from far-away river estuaries start approaching the parts of the lake populated by humans. Clashes between [elephants, buffalo, baboons, lions and humans](#) increase as they have to share reduced waterscapes.
- Poaching. There's also an increase in poaching as impala, kudu, waterbuck and duiker move closer to human settlements to seek water and people seek more sources of food and income due to the economic downturn caused by the drought.
- Tourism. Numbers drop off. Game drives along the lake to the estuaries, which have unique flora and fauna and allow tourists a closer view of wild animals and birds, come to a standstill during times of drought. Tourist fishing in the estuaries dries up. The

opening of the floodgates at the dam walls, which were a drawcard for tourism, stops as the water levels are too low for this.

- Long walks to collect water. Water level reductions burden women and children from surrounding fishing camps and villages who fetch water for home use from the lake. [In my research](#), residents of the area say that water levels have dropped so much that fishing camps are now up to 2 km further away from the lake than they were before the drought. Women and children from fishing camps have even been [injured and killed](#) by wild animals as they fetch water in the lake.
- Trade is disrupted. [Cross border traders](#) based in Kariba who do business between Zimbabwe and Zambia are also affected. Kariba traders often cross the border to sell fish in Zambia, but with low catches this is no longer possible. Also, most traders depended on income from fishing to purchase goods from Zambia for resale in Zimbabwe.

What can the government do to help?

Proactive measures are required to minimize harm to lives and livelihoods. Over the long term, droughts could become more severe and the Kariba Dam could stop producing as much power. The Lake Kariba region is a very hot and windy region that can support both [onshore and offshore wind turbines](#) and solar parks. The government must plan for this, so that [local communities](#) can have sustainable electricity with renewable energy projects that support alternative livelihoods.

The national parks authorities in both Zimbabwe and Zambia also need to put in robust measures for decreasing the number of human-wildlife conflicts. This can be done by identifying areas of high animal activity at the [lake](#) and directing humans away from this. Communities are also unaware of the relationship between a drop in [water levels](#) and human-

wildlife conflict, and more awareness should be created about this.

The water governing authorities in the Zambezi area should also draw on local knowledge and practices in times of drought. For example, the authorities could promote the [rainmaking ceremonies](#) by local traditional groups of the Tonga, Shangwe and Korekore. These groups have lived in the area for centuries and believe that water drops are a result of angry ancestral and water spirits, including Nyaminyami, the river god. The governing authorities may want to fund more of such ceremonies as local communities lack funds to enact the ceremonies.

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