



The Zambezi River

CHARTING A COURSE FOR THE “RIVER OF LIFE”

The Zambezi River vibrates with life and abundance. Africa’s fourth largest river, the Zambezi supports some of the continent’s largest elephant herds, most expansive wetlands, and a great diversity of fish. The river provides sustenance to more than 40 million people and delivers hydroelectric power to homes as far away as South Africa.

Under growing pressure from mining, urbanization and commercial agriculture, the Zambezi River needs creative solutions now to ensure it continues to provide benefits for people and nature.

In its 1,673 mile journey across southern Africa, the character of the Zambezi River changes with the landscape through which it flows: meandering quietly through swampy plains, dropping dramatically through cracks in the Earth, and zig-zagging through deep gorges before once again opening up into a wide waterway on its journey to the Indian Ocean.

The Zambezi gives life and movement to a dry land as it winds through the plateaus and around the cliffs of southern Africa. One of the continent’s great refuges for large mammals, the river gives rise to great numbers of Cape buffalo, antelope, and hippopotamus. The river’s natural rhythms provide access to fish nursery and breeding areas, and carry nutrients between water and land, enriching both.

The Zambezi River has long provided food, drinking water, and a transportation route for residents, and its annual floods rejuvenated fields with rich sediments. Even today, subsistence agriculture is the primary livelihood for more than 80 percent of residents in the Zambezi watershed,



Zambezi River, Chiawa Game Management Area, Zambia © Brian Richter/TNC

and one-third of the population relies on river fish for food.

UNINTENDED CONSEQUENCES

In the past 50 years, however, the river has undergone dramatic changes. Three large hydroelectric dams have stopped most of the river’s annual floods, largely eliminated natural low flows, and created massive reservoirs that cover a combined area three times the size of Rhode Island. Before the enormous Kariba, Kafue and Cahora Bassa dams were built,

the Zambezi’s annual floods deposited rich sediments on agricultural fields and provided fish with access to the floodplain for spawning and breeding.

The dams constrained the natural flood patterns and adversely impacted life along the river. Local people relocated into the once uninhabitable floodplains, and today we are seeing remarkable differences in how humans and nature interact in the Zambezi basin.

For example, Lake Cahora Bassa holds back sediment and nutrients needed for the near-defunct shrimp fishery in Mozambique's Zambezi Delta. Communities that once planted their crops as the flood waters receded are now dispersed, and people now build homes in the former floodplain.

A RECIPE FOR RIVER FLOW

The Nature Conservancy is working to restore some of the river's natural flows while providing benefits to both people and wildlife in the Zambezi basin. Building on our decades of experience with rivers around the world, Conservancy experts are helping local hydrologists and engineers identify ways to retrofit the existing dams and to plan new dams with accommodations for both hydroelectric power and nature. The Conservancy is collaborating with scientists, conservation organizations, and management authorities to determine how much water the river needs and build community support for these environmental flows. Restoring natural flows will enrich floodplain agricultural lands, and bring back native plants and animals whose populations have been harmed by the taming of this great river.

BUILDING CAPACITY FOR PROTECTED AREAS

In addition to our work on the dams, the Conservancy is working with the African Wildlife Foundation to enhance government and community capacity for managing protected areas along the river.

With over 35 percent of its lands in national parks and other special management areas, Zambia has one of the largest protected area systems in Africa. Unfortunately, these areas are still subject to threats from poaching, tourism development and



Children of the riverside village of Chijata, Zambia. © Brian Richter/TNC

adjacent land conversions that hinder wildlife migration.

Our initial focus is on Lower Zambezi National Park, but we plan eventually to help strengthen management across more than one million acres. We will provide training in conservation planning and protected area management to reduce threats from new tourism and agricultural development. We will also work with partners to protect private and communal lands adjacent to the parks in order to keep important wildlife travel corridors intact and reduce the potential for problematic interactions between humans and wildlife. And we will work with communities to build sustainable livelihoods, ensuring that the benefits of parks and other protected areas fully realized by the people who live in and around them.

GETTING IT RIGHT TODAY

The Nature Conservancy has a track record of finding win-win solutions where water is managed for people and nature. In three years, the Conservancy and partners plan to initiate experiments with annual flood pulses from existing dams. Communities and local management

authorities will have more capacity to manage the extensive network of national parks in the Zambezi River basin.

Human well-being is inextricably tied to the health of freshwater systems. If these systems unravel, their—and our—health will decline. Together, we can initiate a new approach to conserving freshwater resources—so that the Zambezi River can continue to provide the nourishment that people and nature need.

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PLANET

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