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# COLLABORATIVE MANAGEMENT OF THE ZAMBEZI RIVER BASIN

The Zambezi River accounts for half of the installed hydropower capacity in southern Africa and supports subsistence agriculture and fisheries for three-quarters of the Zambezi Basin's 47 million people. The World Bank's Zambezi River Basin Program is designed to respond to Southern Africa's development needs – namely, to increase food and energy security, boost growth and productive industries, and reduce risks to lives and livelihoods.

In 2010, a Multi-Sector Investment Opportunities Analysis of the Zambezi basin showed that cooperative water development could generate substantial benefits in the region. For example, coordinated operation of existing hydropower facilities could increase energy production by 23 percent without the construction of any additional infrastructure. Improved cooperation could also reduce risks associated with floods that cause losses of an estimated \$1 billion each year. In agriculture, coordinated investments could irrigate an additional 343,000 hectares, boosting coverage in the basin by 45 percent and creating 500,000 new jobs.

CIWA helps bring together a range of commitments within a World Bank-financed \$2 billion portfolio covering the Zambezi Basin – which includes investments such as the rehabilitation of Kariba Dam, preparation of a new investment in hydropower at the Batoka Gorge, advancing irrigated agriculture, and improving flood control measures – by facilitating dialogue among basin countries and driving a cooperative approach to management and development of their water resources.

As part of this World Bank program, CIWA's long-term engagement with the two key regional organizations – Zambezi Watercourse Commission (ZAMCOM) and the Zambezi River Authority (ZRA) – is empowering them with the institutional mechanisms and information platforms to better manage shared water resources and advance high-priority infrastructure investments.



**REGION:**  
Zambezi River Basin



**COUNTRIES:**  
Angola, Botswana, Malawi,  
Mozambique, Namibia, Tanzania,  
Zambia, Zimbabwe



**FOCUS:**  
Collaborative management of water  
resources to secure economic resilience

## RESULTS

Improved collaboration on water resource management has substantial benefits for improving regional energy security and agricultural production, creating jobs, and enhancing economic opportunities and sustainable livelihoods.

- The Zambezi River Authority (ZRA) is finalizing preparation of the **Batoka Gorge Hydroelectric Scheme**, a priority infrastructure investment on the Zambia-Zimbabwe border east of Victoria Falls. CIWA-supported analysis showed the project's delayed implementation resulted in an economic loss of more than \$45 billion. The analysis was critical in breaking an impasse between Zambia and Zimbabwe over a colonial-era debt, motivating the two countries to resume advancement of the project. The project is critical to the region's energy security; it will power more than 1.2 million households in Zambia and Zimbabwe.
- Facilitating closer collaboration between Zambia and Zimbabwe led to the countries' joint investment in the **rehabilitation of Kariba Dam Hydroelectric Scheme**, signed in 2014. This critical, 10-year investment will help bring the dam structure and operations up to international safety standards and ensure its long-term safety and reliability. By forestalling any power production failures and bolstering the Kariba Dam's flood control capabilities, the rehabilitation project will secure the lives and livelihoods of an estimated 4.5 million people.
- The Zambezi Watercourse Commission (ZAMCOM) **member states are advancing equitable utilization, efficient management, and sustainable development** of the basin's resources through the establishment of a permanent ZAMCOM Secretariat in 2011. With multi-donor support, ZAMCOM is revitalizing the Zambezi Water Information Management System to improve information sharing and decision support, thereby strengthening countries' abilities to make informed water management decisions. Additionally, ZAMCOM's Council of Ministers endorsed development of the Zambezi Strategic Plan that will guide efficient management and sustainable development of the watercourse.

*“The Kariba Dam is woven into the social and economic lives of our two peoples. We remain strongly committed to our continued partnership in ensuring that the benefits of regional cooperation flow directly to the people of our countries.”*

— Alexander Chikwanda, Minister of Finance of Zambia and Patrick Chinamasa, Minister of Finance of Zimbabwe.

## CONTEXT

The flows of the Zambezi River exhibit stark seasonal variation and are characterized by cycles of floods and droughts. The increasing variability and aridity brought on by climate change have the potential to cause devastating effects on the region’s economy and the people who rely on the river for food and energy.

Given growing development pressures on the basin’s resources and the impacts of climate change, the need to ensure sustainable management of the river’s waters is more critical than ever. Acknowledging the importance of the basin for energy and food security, the basin’s countries have advanced cooperative management and development for many years, primarily through the ZRA and ZAMCOM.

The ZRA, a binational entity established by Zambia and Zimbabwe, is responsible for the operation and maintenance of the Kariba Dam. ZRA was tasked by the countries to advance preparation of the Batoka Gorge Hydroelectric Scheme and is responsible for identification, construction, operation, and maintenance of new infrastructure of joint interest.

The ZAMCOM agreement, which came into force in 2011, introduced a framework for promoting the equitable utilization, efficient management, and sustainable development of the Zambezi River Basin. Realizing this vision requires a combination of strong institutions to drive this process, information sharing to inform decision making, and infrastructure investments to provide for people’s basic needs and boost economic growth.

## APPROACH

CIWA support builds on the existing collaboration in the basin, utilizing an approach that balances institutional strengthening and advancing sustainable infrastructure development. The World Bank’s Zambezi River Basin Program is envisaged as a series of projects at various levels across different water-related sectors within the basin. CIWA’s support provides an integrating framework to tie together World Bank and other development partner-supported programs in a way that helps the countries meet their stated objectives of promoting the equitable and reasonable utilization of water resources as well as the



efficient management and sustainable development of the Zambezi watercourse. Specifically, CIWA’s support is channeled through two key partners – ZRA and ZAMCOM – as a broad program of support over a ten- to fifteen-year period.

## NEXT STEPS

The next phase of CIWA support in the Zambezi River Basin will continue to provide a balance of support for strengthened water resources management and development, building on the strengths of ZAMCOM and ZRA. CIWA also projects future support to advance key, prioritized investments in the basin’s strategic plan as well as help advance and improve the quality of critical infrastructure investments by ensuring high technical quality, maintaining high standards for social and environmental assessments, assisting the riparian countries in consideration of design and benefits tradeoffs, and adding value as a neutral third-party facilitator.

## ABOUT CIWA

CIWA, the Cooperation in International Waters in Africa program, is a multi-donor trust fund representing a partnership between the World Bank and the governments of Denmark, the European Union, Norway, Sweden, the Netherlands, and the United Kingdom. CIWA supports the governments in Sub-Saharan Africa in unlocking the potential for sustainable and inclusive growth, climate resilience, and poverty reduction through cooperative transboundary water management and development. Since 2011, CIWA has supported improving the social, environmental, and economic sustainability of transboundary investments worth US\$8.9 billion across Sub-Saharan Africa.

