

The Volta River Basin and the Akosombo Dam



Akosombo Dam as seen from the Volta Hotel. The Akosombo Dam, built between 1961 and 1965, is 366 m. wide, 111 m. high, and 660 m. long. Its reservoir, Lake Volta, is the largest human made lake in the world. *Public Domain Image*

“The story of the Volta River Projects will not be completed without reference to the 80,000 people who had to be moved from their villages and resettled in other areas, because of the formation of the Volta Lake”

– Kwame Nkrumah, 1966

The Volta River is located in the eastern region of Ghana, West Africa, the first nation on the African continent to gain independence from British rule in 1957. Plans to dam the Volta River Valley existed as early as 1915 and were drawn up by 1940. During the African fight for independence and subsequent struggle for economic sovereignty, big dams represented modernity. Construction on the Akosombo Dam began in 1961 and was completed in 1965, creating Lake Volta, which covers 3.6% of the nation of Ghana. While this largest of human created reservoirs worldwide provided some economic benefits, in the form of increased transportation, fishing, and tourism it also displaced approximately 80,000 people, covered grave sites and other heritage resources, and covered fertile farmlands in exchange for nutrient poor soils at the edge of the lake.



Passengers carry their heavy cargo up the Volta to the upper eastern region. *Photo courtesy of Kofi Agorsah*

Flooding to create the Volta Lake Reservoir impacted both people and the environment. Relocated families from approximately 700 villages were placed into 52 settlements prior to the Volta Valley inundation.

Although the dam brought electricity to foreign and locally owned industries, many ordinary Ghanaians did not have electricity in their homes before the 1980s.

Eighty percent of the dam’s hydroelectric output still serves foreign industry, while 20% is used by Ghana and local communities. Rolling blackouts and outages are common.

Akosombo Dam construction tied closely to the aluminum industry and its need for hydroelectric power to process bauxite. Kaiser Aluminum oversaw construction of an aluminum smelter at Tema, currently operated by Volta Aluminum Company (Valco), which also provided funding for dam construction. In return, Valco received tax and trade exemptions and discounted power prices. Additional funding for the multipurpose hydroelectric dam came from Ghana's government, the World Bank, the United States, and the United Kingdom. Ghana's government created the Volta River Authority (VRA) in 1961 to manage development of the Volta River Basin. The VRA is responsible for the reservoir, fishing, transportation, and community welfare. Controversy regarding environmental damage and human displacement continues into the twenty-first century.

Timeline of Volta River Development

- 1899 Survey into commercial exploitation of the Volta Basin begins.
- 1914 Bauxite is discovered near Mpraeso.
- 1939 Investigations of aluminum extraction are conducted by mining engineer, Duncan Rose.
- 1945 West African Aluminum Limited formed by Duncan Rose and Associates.
- 1948 Watson Report recommendd Volta River Project as a national concern.
- 1949 Consulting engineers William Halcrow and Partner survey Volta Basin. They submit their report in 1950.
- 1954 Tema Harbour contract awarded to Parkinson Howard Limited.
- 1957 Ghana gains national independence from British Colonial rule. President Eisenhower agrees to financing the Volta Scheme.
- 1958 Kaiser Engineers commissioned to reappraise project.
- 1960 Volta River Project Secretariat established.
- 1961 Volta River Authority established by Ghana's government.
- 1962 Formal work begins on the Akosombo Dam.
- 1966 Construction of the Valco Smelter at Tema.
- 1969 Financial agreement with International Bank for Reconstruction and Development (IBRD) for expansion project.
- 1969 Negotiation for the sale of power to Togo and Dahomey.

Suggested Reading

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