



The Tatay River Hydropower Dam (TRHD)

Tatay River in the Cardamom mountains of Cambodia - JM
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The Tatay River Hydropower dam is a 246-megawatt (MW) hydropower dam located in the Thma Bang District of Cambodia's western Koh Kong Province. The dam was built from 2010 to 2015 under a 42-year Build-Operate-Transfer agreement between the Cambodian government and Cambodian Tatay Hydropower Ltd., after which the ownership will be transferred to the Cambodian government. Financed under a US\$540 million loan from the China Export-Import Bank (EXIM Bank), the dam was inaugurated in December 2015.

Project Background

The project was the first time the China National Heavy Machinery Corporation invested in a foreign BOT project. Although the Tatay project was conceived before BRI's official launch in 2013, sufficient data exists to conceptualize it as a BRI project. Upon its inauguration, the Tatay project was the sixth hydropower dam financed by China in Cambodia, closely following the completion of the 388-megawatt Russei Chrum dam in the same province. By 2016, China had invested over \$1.6 billion in Cambodian hydropower, with a net capacity of 928-megawatts. As of 2021, all hydropower projects in Cambodia have been financed by China, although several additional dam projects, currently under MoU study, are slated to be financed by other foreign partners, such as Korea, Russia, Vietnam, and Thailand.

The project required the excavation of 7 million m³ of earth and 900,000 m³ of stone, for an active water storage capacity estimated at 322 m³ and an overall reservoir capacity of 439 million m³. The main features of the project are two adjacent concrete face rockfill dams, a gated overflow spillway equipped with a chute and flip-bucket, and an 11 km long, 8 m diameter headrace tunnel. A power generation system sits on the left bank, adjacent to a three-hole spillway, and connects to the national grid via a 63 km transmission line, allowing electricity to be sold at a rate of 7.45 cents per kilowatt-hour to the Cambodian state-owned Electricité du Cambodge.

Since operationalization, the dam's three generators have an annual production capacity of 849 GWh. This represented almost 24 percent of Cambodia's total hydropower generation (3,493 GWh) and ten percent of Cambodia's total domestic electricity production (8,513 GWh) in 2020. The Cambodian government applauded the project for the local jobs and economic advancement it provided, in addition to flood protection, energy security, affordability, and reliability.