

RENEWABLE ENERGY FOR THE ISLAND OF SUMATRA INDONESIA

**Climate change mitigation and community
benefits with run-of-river hydropower**



Located in the southern, rural part of Indonesia's largest island, Sumatra, this grid-connected hydro project generates renewable electricity from the nearby Musi River, replacing fossil fuel-based power. The project continues to support local jobs and new income streams, and has helped fund infrastructure improvements as well as a reforestation program in the project area.

The Context

Covered by dense tropical forests, the Indonesian island of Sumatra is home to numerous species and provides fertile ground for growing rice and other commodities such as coffee, cacao, cinnamon, and palm sugar. New employment opportunities and economic activities are limited due to lack of infrastructure and poor access to electricity. At the same time, the growing demand for energy poses a threat to the unique ecosystem of the island.

The Project

This project is a grid-connected, run-of-river hydro plant built on the upper reaches of the Musi River, near the port city of Bengkulu. The hydro plant uses a natural height difference of about 400 meters to generate 210 MW worth of renewable electricity. To further safeguard the natural landscape, a reforestation program has been set up in the catchment area. Local communities, farmers, and NGOs are also engaged in the development of the project through annual stakeholder meetings, earning the project the coveted Social Carbon certification.

The Benefits

This project tackles the problems of poor access to employment and energy, as well as unsustainable economic development in Indonesia. Quality jobs and upskilling opportunities have been created in a rural region historically dominated by farming. Project revenue has been reinvested into supporting a local orphanage and building new roads, bridges and a traditional market place, giving local farmers better access to both their paddy fields and additional income streams.

In addition to quality employment and upskilling opportunities, the project is generating sustainable electricity, protecting local ecosystems, and mitigating global warming.



50 jobs

created in managing the operation of the hydro-project, in addition to part-time employment opportunities offered during the construction phase.



2 drawbridges

repaired, along new construction of trash basins and roads. In addition, financial aid has been provided for the construction of a public transport terminal, a mosque, and a traditional market place.



Free training

for locals on composting and creating organic fertilizer from invasive aquatic plants, providing free fertilizers to farmers and maintaining a healthy ecosystem around the hydro plant.



500,000 tCO₂e

reduced by the project annually, directly contributing to climate change mitigation.



± 20 ha

have been reforested as part of a dedicated program in the project area that supports a healthy, natural ecosystem.

For more information on the UN Sustainable Development Goals, please visit: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Official name: 210 MW Musi Hydro Power Plant, Bengkulu | **VCS link:** http://www.vcsprojectdatabase.org/#/project_details/487 | **VCS ID:** 487