

The Sipansihaporas hydropower project, located in Northern Sumatra generates renewable electricity by harnessing the power of flowing water. This run-of-river system is connected to the Sumatra grid, on a national level the project is helping Indonesia reach its 23% renewable energy targets by 2025. On a local level, the project creates job opportunities as well as providing training for workers to learn new skills, the local economy benefits as a result of this.

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DAM PENGATUR UTAMA PT PLN (PERSERO)

The Context

Currently Indonesia is heavily reliant on coal and other non-renewable resources, however the country is aiming to increase the share of renewables in its energy mix to 23% by 2025, and 31% by 2050. The islands that make up Indonesia have significant potential for generating electricity from hydro as there are many rivers and high rainfall.

The Project

The project is located in North Sumatra Province to the south of Medan city, the capital city of North Sumatra province and 12 km away from the district capital city of Tapanuli Tengah. The project harnesses the endless flowing waters of the Sibuluan River and three tributaries to generate clean electricity, sending around 214,000 MWh to the Sumatra grid each year.

The Benefits

As well as reducing GHG emissions by delivering clean energy to the grid, the project boosts the local economy. During both construction and operation phases, various kinds of mechanical work are required, providing employment on a regular and permanent basis for both skilled and unskilled workers. The project owner has organised training sessions to build the skills of the local staff, ensuring they are safe when working. Creating these opportunities is an important factor in alleviating poverty and slowing migration from the region.

Run-of-river hydro systems have a long lifetime and require minimal maintenance









organised so the local staff are skilled to perform regular and safe operation and maintenance



2 turbines

are installed, giving the plant a total installed capacity of 50 MW



214,000 MWh

is sent to the grid each year on average



185,000 tCO₂e

is reduced on average each year thanks to the project



Local jobs

are created by the project during the construction and operation

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

Official name: 50 MW Sipansihaporas Hydro Power Plant, North Sumatra | Registry link: https://registry.verra.org/app/projectDetail/VCS/486 | Registry ID: 486