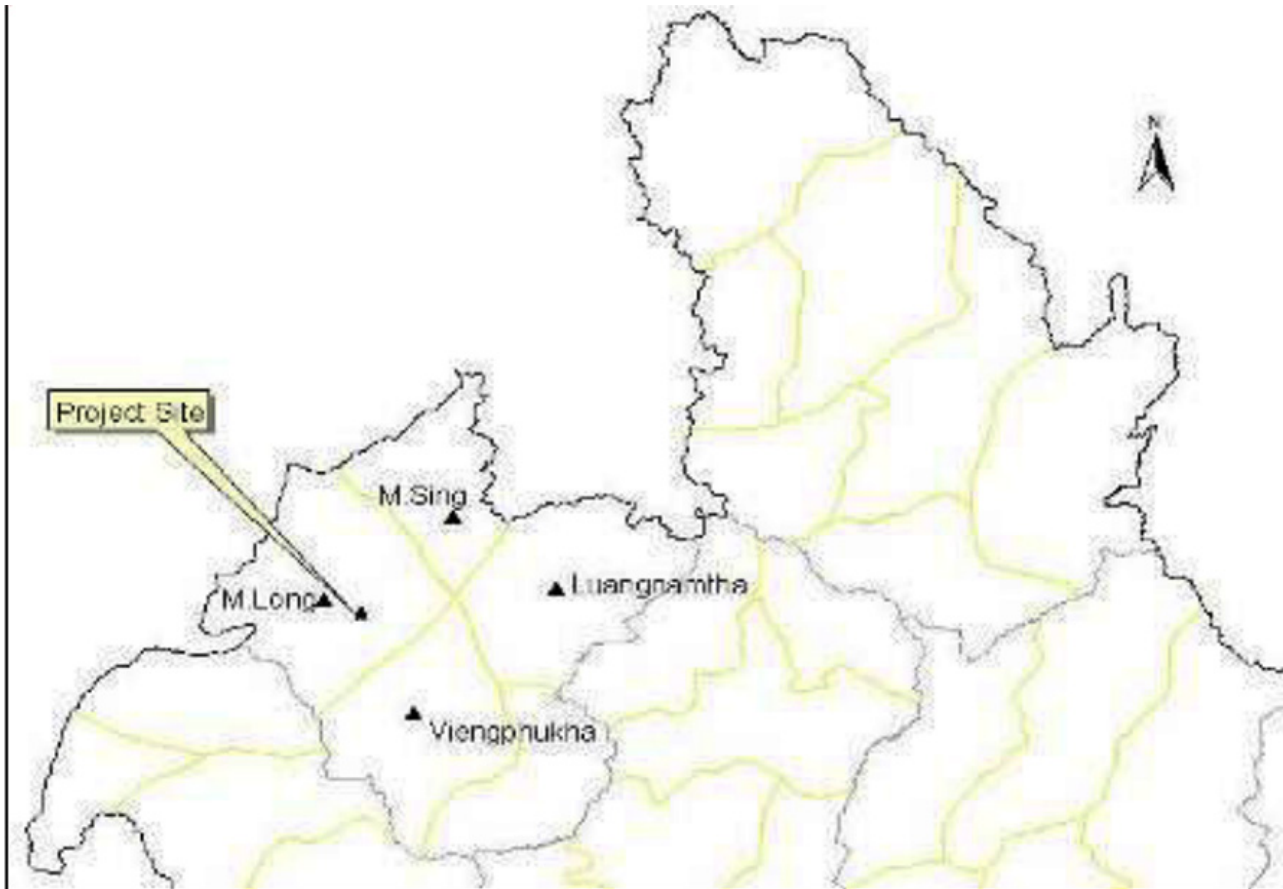
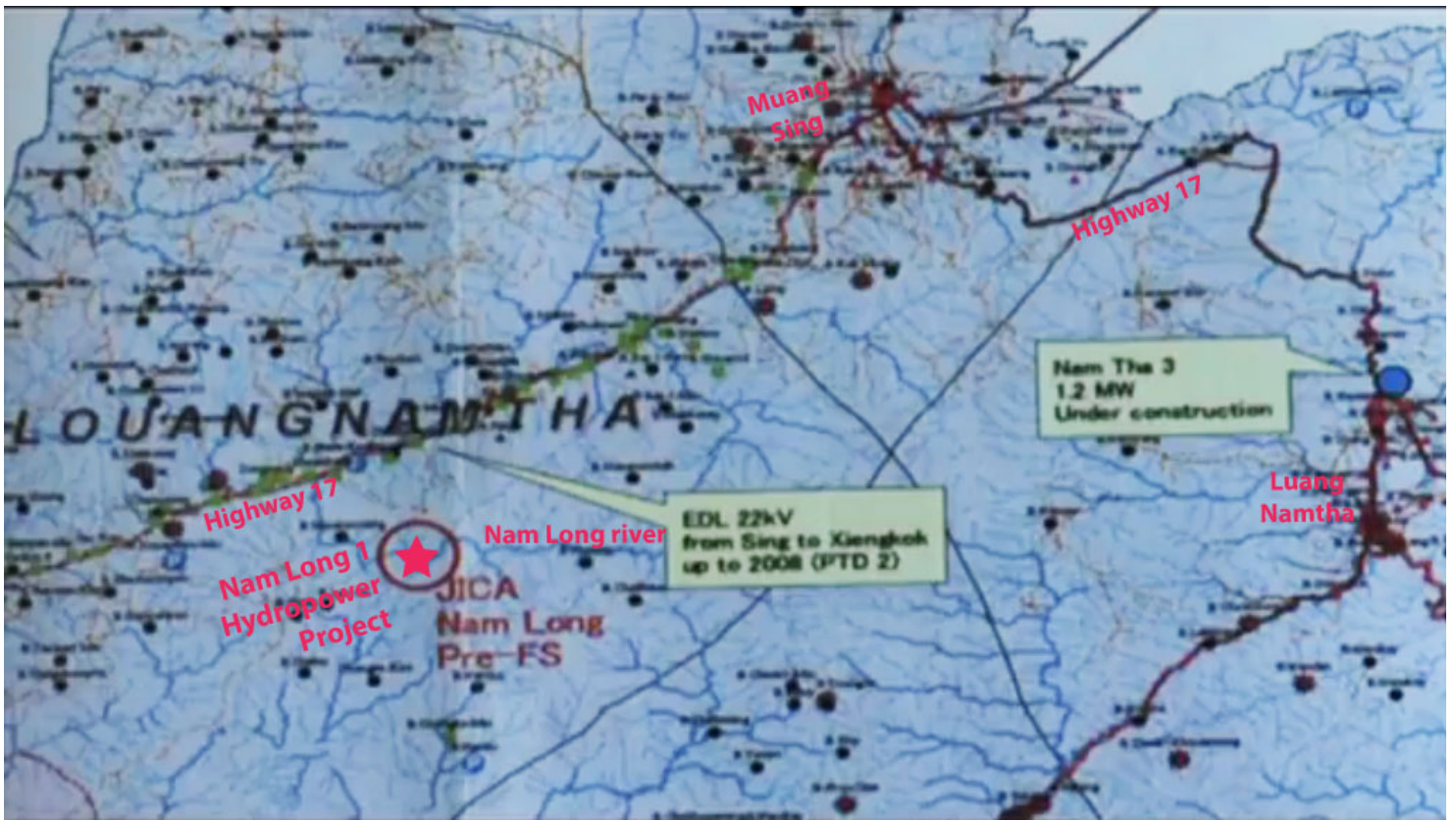


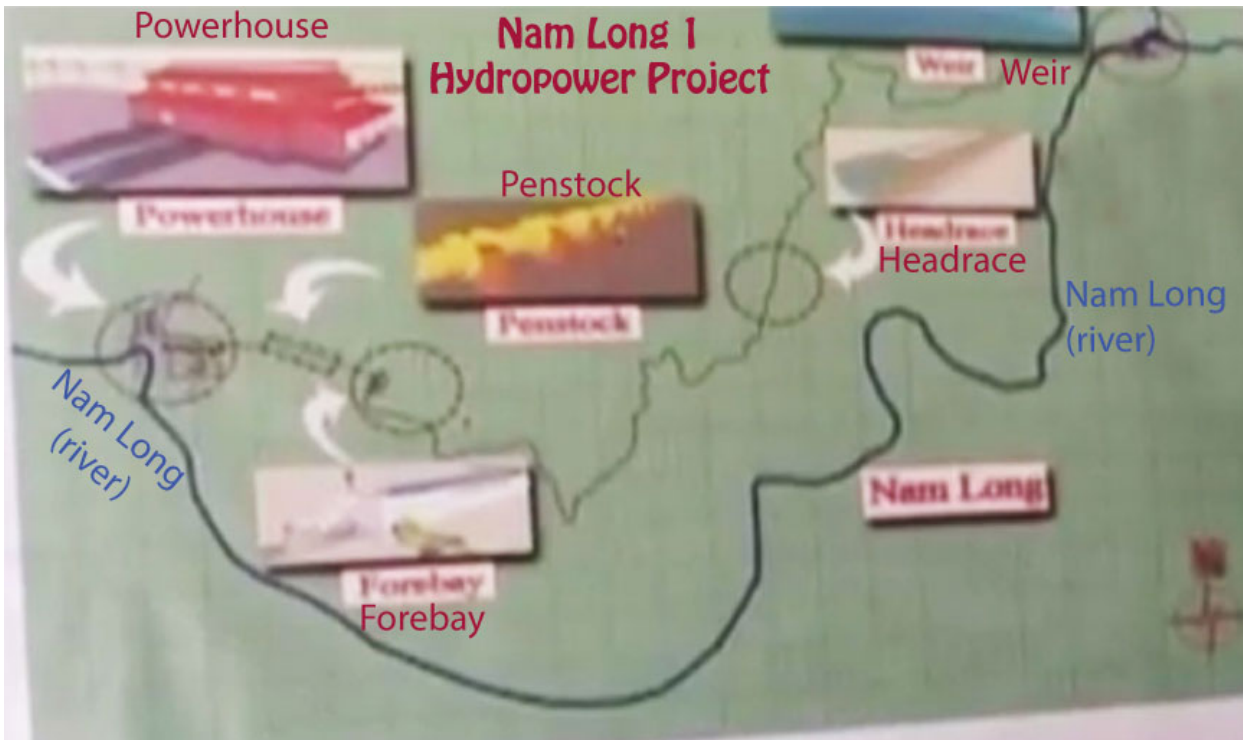
The Nam Long 1 Hydropower project is located 50 km west of Luang Namtha and 9 km northwest of Long District, Luang Namtha Province, Lao PDR. The project is located on the Nam Long river, a tributary of the Nam Ma, which finally discharges into the Mekong River. The approximate coordinates of the project site are: 20° 55' 58" N, 100° 55' 58" E.

Maps showing Nam Long 1 dam location below:





Nam Long 1 layout below:



The project is a run-of-river type. The installed capacity of the project is 5 MW. Estimated annual output of 37 GWh (seems a bit high) will be supplied to the local Luang Namtha grid. As of year 2020 this grid is not connected with the main grid of Lao EDL but connected with China Southern Power Grid through transmission lines.

Nam Long Power Co., Ltd. has been established between Luangpaseuth Construction Sole Co., Ltd. and Electricite du Laos to Build, Own, Operate and Transfer the Nam Long Hydropower Project. The equity share of the Luangpaseuth Construction Sole Co., Ltd. is 80% and the share of EDL-Generation Public Company (EDL-GEN) is 20%.

The project is to operate under a 30 year concession from the Lao government.

The Nam Long 1 Reservoir covers around 22,000 hectares of flooded area. Construction of the dam was completed in late 2013 and generation of electricity began on a commercial scale in 2014. The project required an investment of US\$ 16 million and is currently run by Electricité du Laos.

The project includes a dam/weir (gravity overspill type), a water intake structure equipped with a settling basin, a sand flush, a reinforced concrete headrace channel, a forebay (head basin), a steel penstock, a tailrace and a power house equipped with 2 pelton turbines (2 x 2.5 MW).

- Dam - Type: Gravity Spill Over
- Height: 7 meters
- Length: 50 meters
- Spillway Capacity: 600 cubic meters per second

- Headrace Channel - Cross Section: 2 x 2 meters
- Length: 3,650 meters
- Design Flow: 2.64 cubic meters per second

- Penstock - Diameter: 1.1 meter
- Length: 430 meters
- Wall Thickness: 12 – 15 millimeters
- Water Velocity: 2.64 cubic meters per second

- Turbines - Type: Pelton
- Quantities (set): 2
- Rated Head: 240 meters
- Output: 2.5 MW x 2

- Generator - Type: 3-phase synchronous alternator
- Output: 3,300 kVA
- Rated current: 577A
- Frequency: 50 Hz
- Rated speed: 600 rpm

- Transmission Line - Type: 22kV (Overhead)
- Length: 14 km

Nam Long 1 weir image below:



The project is a Clean Development Mechanism (CDM) project under the Kyoto Protocol and will hopefully result in CO2 emission reduction because it may displace power generation that otherwise would be based on combustion of fossil fuels. The reduction in carbon dioxide emissions is estimated to be 24,035 tons per year. View or download the CDM application PDF file [HERE](#).

Nam Long 1 Powerhouse images below:



Watch documentary video of Nam Long 1 Hydropower project at - <https://www.youtube.com/watch?v=zXXEzvvqAAg>

