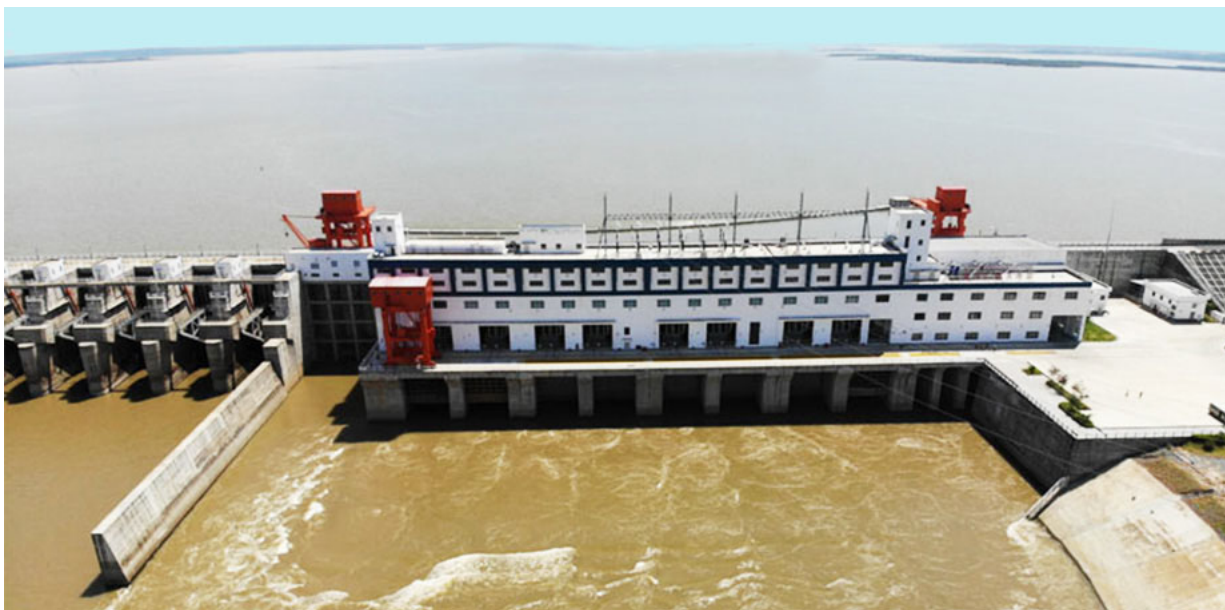


Don Sahong Dam Hydropower Info - by Hobo Maps -

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Don Sahong Dam barrage images below:



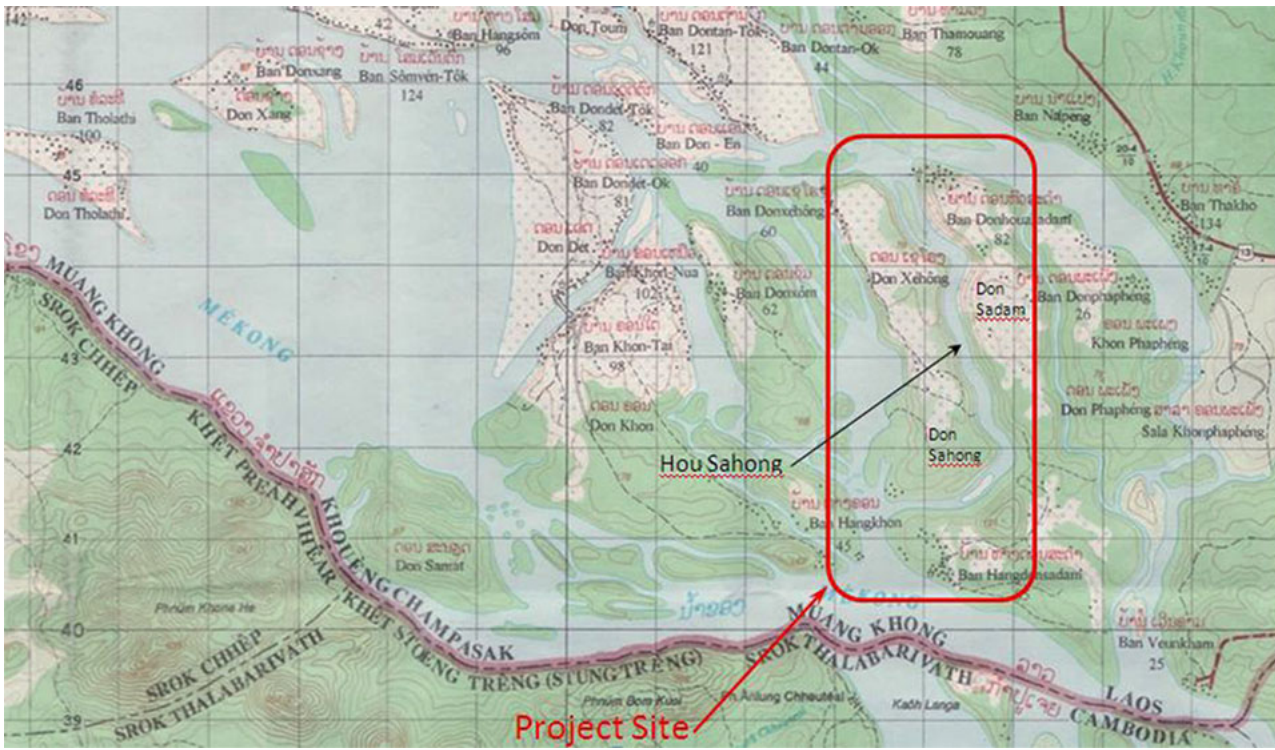
The Don Sahong Dam is a hydropower project on the Mekong River in Siphandone (4000 Islands) area of Champasak Province, Lao PDR, less than two kilometers upstream of the Lao-Cambodia border. It is a run-of-river type hydroelectric project at the downstream end of the Hou Sahong channel between Don Sahong and Don Sadam islands.

The dam structure is 22.5 meters high and has capacity of 260 MW from four bulb turbines 65 MW each. Most of the produced electricity is hoped to be exported to Cambodia and Thailand. A dedicated 195 MW power transmission line connecting the power station with Cambodia was commissioned in early 2020.

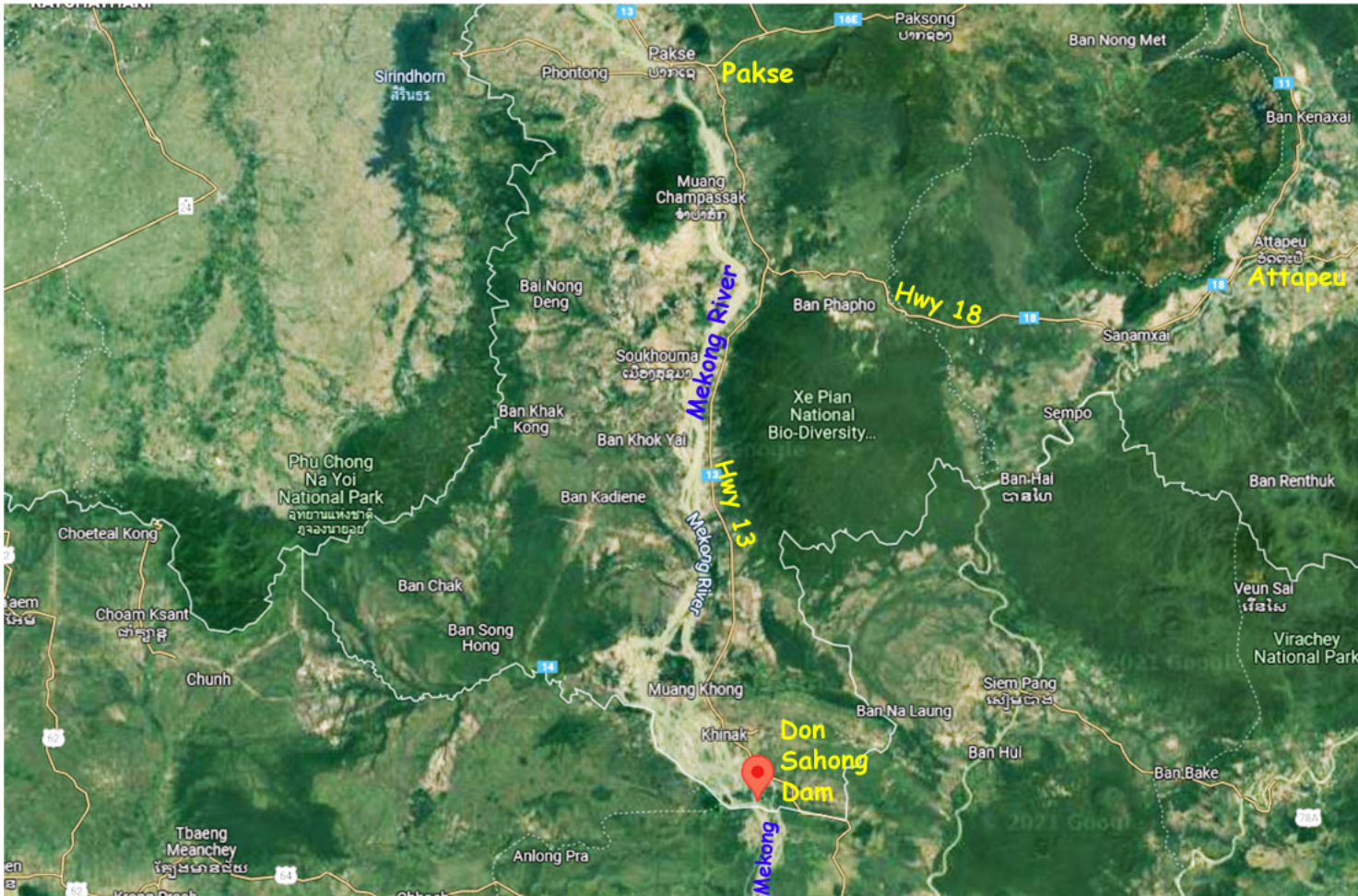
The developer of the Don Sahong Dam is Mega First Corporation Berhad, a Malaysian company. The Don Sahong Power Company has an agreement with the government of Laos on a build, operate and transfer basis (BOT) with a concession period of 25 years.

An engineering, procurement and construction contract with Sinohydro was signed on 15 October 2015 allowing the start of construction. The hydropower plant began commercial operations in January 2020.

Don Sahong Dam Hydropower Project location below:



Satellite image of Don Sahong Dam location below at coordinates - 13°56'38.4"N 105°57'21.6"E (13.944, 105.956)



The project takes advantage of a natural fall of about 20 meters in the Mekong River along a tectonic feature known as the ‘Great Fault Line’. The gross head on the project varies between 13 to 21 meters depending on seasonal variation in flows. The Mekong River is braided in this area of southern Laos with about seven main channels and many more sub-channels flowing across the fault line. The Don Sahong Project is located on the 5 km long Hou Sahong channel about 2 km west of the Mekong main channel.

The project has a 260 MW power station in a concrete barrage dam structure at the downstream end of the Hou Sahong channel. Embankments have been built along the upriver islands of Don Sadam and Don Sahong that border the Hou Sahong. A small reservoir or headpond is contained within the sidewall embankments of these two islands.

A powerhouse barrage dam spans the 100 meter wide Hou Sahong with a height of 30 meters and is located about 130 meters upstream of the outlet of the Hou Sahong. The sidewall impounding embankments are about 7 km long with height decreasing from 22.5 meters at the downstream end down to nothing at the upstream end.

The project causes water to back up in Hou Sahong channel creating a headpond with a surface level that will vary somewhat with the level of the Mekong upstream. The top of the dam is set at 76.9 meters above sea level which is above the maximum level that the Mekong historically achieves at the upstream entrance to the Hou Sahong channel. The surface level of the reservoir is expected to vary about 3.2 meters during the year with its highest level in August-September and lowest level in April-May each year.

### The Project Features

- Location: Hou Sahong channel, Khone Falls area, Champasak Province, Lao PDR.
- Owner: Don Sahong Power Company Ltd., Lao PDR
- Cost: US\$ 500 million (estimate)
- Maximum Capacity: 260 MW
- Energy Generation: 2,000 GWh per year
- Turbines: 4 x 65 MW - bulb type
- Rated Head: 17.8 meters
- Rated Discharge: 1,600 cubic meters per second
- Dam Height (max): 25 meters
- Embankment Length: 6,800 meters
- Headpond Volume: 12 million to 25 million cubic meters (seasonal variation)
- Catchment Area: 553,000 square kilometers
- Headpond Level: 70 to 73 meters above sea level (seasonal variation)
- Commercial Operating Date: January 2020

Although Hou Sahong Channel is on the Mekong River it is only one of many channels and on average channels only about 15% of the total Mekong flow.

The developers propose that Don Sahong Dam be considered as a diversion project rather than as a mainstream dam. With the natural channel configuration and the fish and sediment passages physically separated from the Hou Sahong, they suggest the Don Sahong Dam project is not a mainstream dam in the same sense as Mekong full-barrage projects like the Sayaboury Dam.

Images below are screen shots from this Don Sahong aerial video - <https://www.youtube.com/watch?v=rkFi0GN-UmI>

Don Sahong channels shown below before construction of hydropower project began:



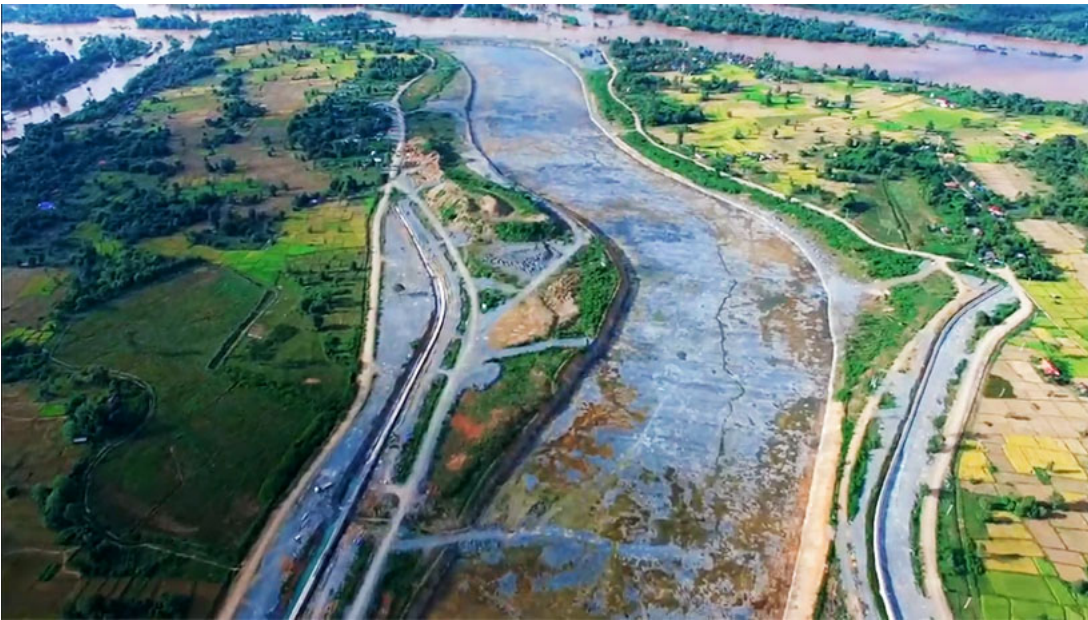
Don Sahong resettlement village at bottom of image below:



Don Sahong embankment structure image below:



Don Sahong head pond channel dredging and embankment shown below:



Don Sahong project location at bottom of map below:





Overhead satellite image of Don Sahong Dam Site



