

Don Sahong dam, Khone Falls, southern Lao PDR

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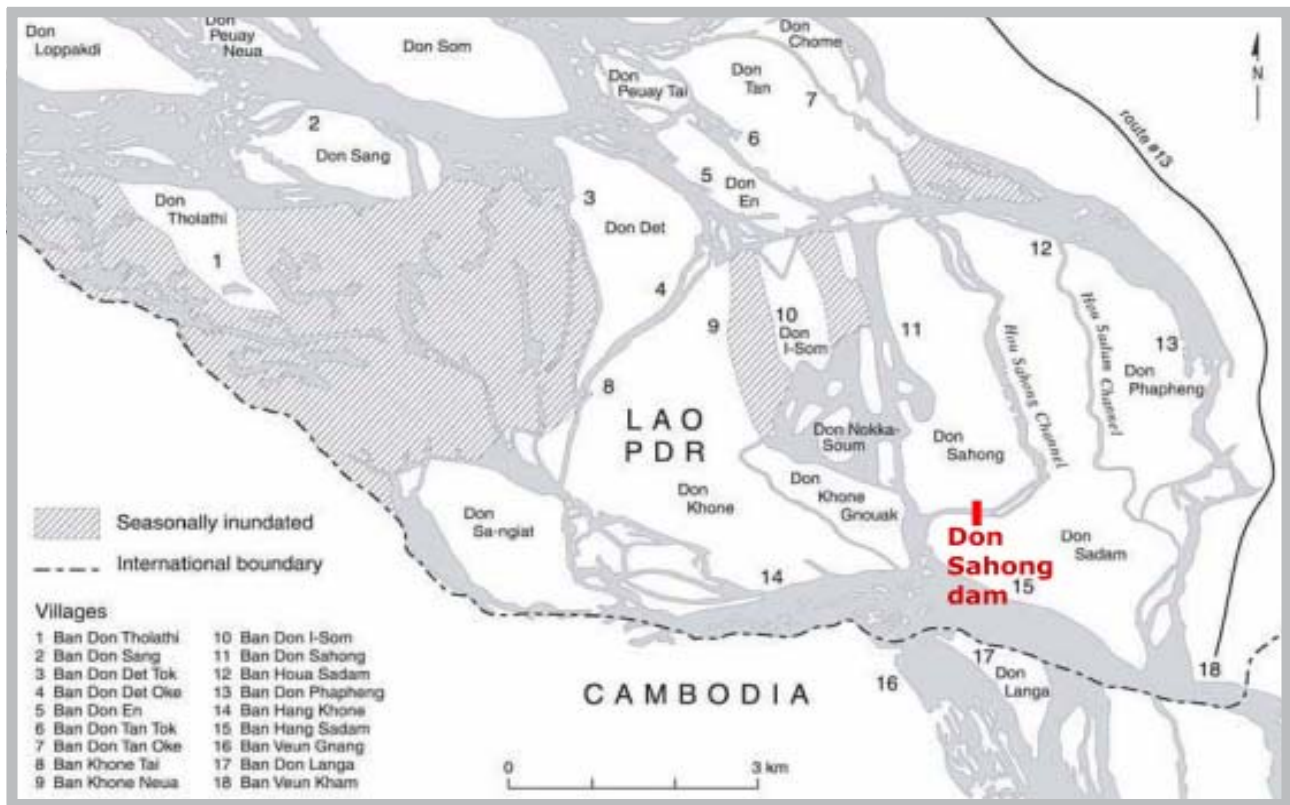


Figure 1: The Khone Falls area, including Hang Khone Village, Southern Laos Map prepared by Ole Hegggen, Geography Department, University of Victoria, Canada. This map is a generalized illustration only. The representation of political boundaries is not to be used for reference purposes.

Of the six proposed dams on the lower Mekong mainstream currently under study, the Don Sahong dam is at the most advanced stage of consideration. If built, Don Sahong would be the first ever dam on the mainstream of the Lower Mekong River (see map).

On 23 March 2006, Mega First Corporation Bhd (MFCB), a Malaysian engineering and construction company, announced that it had signed an agreement with the government of Lao PDR to conduct an 18-month feasibility study for the Don Sahong dam. More recently, it was announced that the feasibility study was completed ahead of schedule. In addition, an Environmental Impact Assessment (EIA) has reportedly been submitted to the Lao government for review. To date, neither study has been released to the public.

According to MFCB, the project is expected to be completed by 2010 at a cost of approximately US\$300 million, and would generate 240 megawatts of electricity for export to Cambodia, Thailand and/or Vietnam. While engineering specifications of the project have yet to be made public,

the project will have more than four times the installed capacity of a dam earlier considered for the site, which was designed to be 26 metres high.¹ The dam would inundate parts of Don Sahong and Don Sadam islands located adjacent to the dam, flooding farmlands and displacing families. Located less than two kilometres upstream from the border with Cambodia, the Don Sahong dam would have inevitably transboundary impacts.

Potential Impacts

Khone Falls is the only major waterfall on the Lower Mekong River and a critical site for sustaining the Mekong's fisheries. An evaluation of potential impacts of mainstream hydropower dams on Mekong fisheries published by the Mekong Secretariat in 1994, describes the Khone Falls as "an ecologically unique area that is essentially a microcosm of the entire lower Mekong River". It goes on to state that "Such a site is so rare in nature that every effort should be made to preserve all of Khone Falls from any development."²

Since 1994, several scientific studies have documented the



Hou Sahong, site of the proposed Don Sahong dam, is a vital site for sustaining the Mekong's fisheries. If built, the Don Sahong dam would have devastating impacts on fisheries and fishery-based livelihoods of people in the Mekong basin.

large-scale fish migrations involving numerous species that pass through Khone Falls, and demonstrated how Khone Falls “serves as a bottleneck for fish migrations in the basin.”³ As some of these studies highlight, Don Sahong dam would block the only channel that fish can easily pass through year round on their upriver migration from Cambodia to Laos; other channels contain waterfalls that are too steep for fish to swim up, especially in the dry season. Blocking this channel - known as Hou Sahong in Laos - would prevent fish migrating between Vietnam, Cambodia, Laos and Thailand, effectively compromising the fishing-based livelihoods of people in all four countries.

In May 2007, more than 30 scientists sent a letter to Mekong government officials and the Mekong River Commission (MRC) expressing concern about the proposed dam's impacts on fisheries. While stating that dam construction anywhere in the Khone Falls area is undesirable, the letter emphasises that the site of the proposed dam is “the worst possible place ... since it is the point of maximum concentration of fish migration in the river that supports the world's largest freshwater fishery.”

A science brief published by the WorldFish Center in June 2007, further emphasises the “social, ecological and economic basin wide implications” of obstructing fish migrations at Khone Falls.⁴ As highlighted in the brief, the Mekong's wild capture fisheries is essential to rural people's livelihoods and food security, contributing between 27 and 78 per cent of animal protein intake in people's diets in provinces bordering the Mekong. In southern Laos more than 80 per cent of households take part in capture fisheries. “Without fish, most families have no alternative way to stay

nourished”⁵ during months when rice is scarce. Capture fisheries is also important to the economies of Mekong countries. In Lao PDR, capture fisheries contributes an estimated 6 to 8 per cent of GDP and in Cambodia roughly 12 per cent. The annual value of capture fisheries for the entire Lower Mekong Basin is estimated to be a staggering US\$2 billion. Citing previous research, the WorldFish Center science brief also emphasises that, “Despite various attempts, there are so far no examples of effective measures in the region to mitigate the effects of dams on fisheries”.⁶

In addition to the dam's devastating impacts on fisheries, a science brief produced by the WWF in September 2007, draws attention to the threat the dam poses to Laos' only year-round population of endangered Irrawaddy dolphins, on which the local tourism economy depends. Located less than two kilometres upstream of the dolphin pool, the dam would lead to loss of critical dolphin habitats and a decline in prey fish, increasing the threat of extinction. Furthermore, as highlighted in the brief, given “[t]he importance of the Hoo Sahong channel for maintaining regional fish population...the impact of reduced fish prey species could extend to the entire population of the Irrawaddy dolphin” in the Mekong.⁷

Research carried out by various scientists, academics, the MRC and environmental organisations, all point to the grave environmental impacts this project would have on fish and fisheries, as well as other aspects of economy and livelihood. The dam's negative impacts on people and the environment would not be confined to the Khone Falls area alone but extend to neighbouring countries. For all these reasons, the Don Sahong dam has no justification.

Endnotes:

- 1 Manusell and Lahmeyer International. 2004. Power System Development Plan for Lao PDR, Final report, Volume C: Project Catalogue.
- 2 Mark. T Hill and Susan A. Hill, 1994, Fisheries Ecology and Hydropower in the Mekong River: An Evaluation of Run-of-the-River Projects. Mekong Secretariat, Bangkok, p.90
- 3 WorldFish Center, The Don Sahong Dam and Mekong Fisheries, A science brief, June 2007, p.2
- 4 ibid
- 5 ibid., p.3
- 6 ibid
- 7 WWF, The Don Sahong Dam and the Irrawaddy Dolphin, A science brief, September 2007, p.6