WWF BRIEF 2014

DON SAHONG DAM

SUSTAINABLE SOLUTIONS EXIST

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The Thako Water Diversion Project - A sustainable solution to the Don Sahong Dam

An innovative alternative to the Don Sahong Dam exists. However, the chance to generate power from the Khone Falls depends on a choice between a great leading-light option, or a risky, environmentally, socially, and economically destructive option.

The Don Sahong Dam

Located 1.5 km north of the Cambodia-Laos border, the 260MW Don Sahong dam will block the only channel in the Khone Falls area that allows for year-round fish migration, threatening a diverse number of fish species and putting the world's largest inland fishery at risk. The proposed Don Sahong dam will affect approximately 30% of these wild fisheries and is therefore posing a serious threat to Cambodian and Laotian people and their fisheries, with repercussions for food security and the region's economy, given that capture fisheries is estimated at between US$1.4-3.9 billion per year.

The dam will also increase the extinction risk of the entire Critically Endangered Mekong population of the Irrawaddy dolphin due to the probable extirpation of the dolphin group in a downstream transboundary pool, and changes in water and sediment flow, and interrupted migration of dolphin prey.

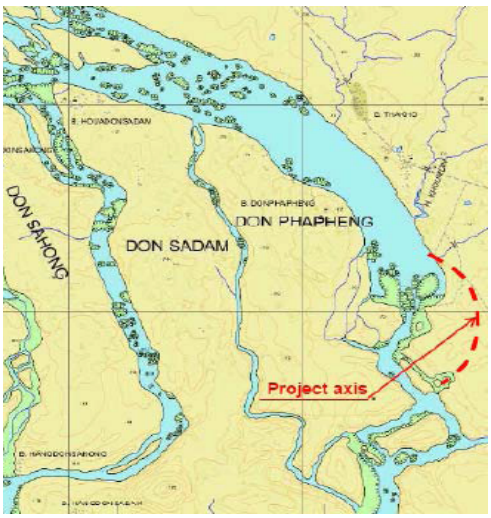
The negative impacts of Don Sahong dam have been extensively documented, in particular in eight scientific publications and reports including the MRC's Strategic Environmental Assessment of hydropower on the Mekong mainstream. All the research to date indicates that the dam proposal is not sustainable.

However, an alternative to the Don Sahong dam exists, called the Thako Diversion Project.

What is the Thako Diversion Project?

The Thako Diversion Project would have an installed capacity of 86 MW or 172 MW depending on final design specifications and be a true run of river water diversion located East of Phapheng Falls (also known as Khone Falls).

The project uses the unique natural geographical features of the Phapheng area and innovative technology to generate approximately the same amount of electricity as the Don Sahong dam but at lower cost and with far less impacts.



The Thako Project would not involve building a barrier across any of the channels of the mainstream Mekong River in the Khone Falls area of southern Laos. Instead, a reasonable, regulated and monitored amount water would be diverted through a man-made channel built around the Khone Phapheng Waterfall.

A sustainable alternative

Thako appears to be a much more viable and sustainable option to the Don Sahong dam, most notably as the project has no impact on river connectivity (as it will have no dam and no reservoir).

It is well established that barriers created by dams and the alterations from reservoirs on water flows, water quality, sediment, nutrient and fish movement are associated with the largest negative social and environmental impacts from hydropower projects. Thus, avoidance of such destruction is a much better option than any form of mitigation.

The project is promoted by an experienced and responsible developer who has extensively studied and modelled the design for all dimensions of sustainability and made substantial efforts to act in a constructive and transparent manner with all interested stakeholders. This approach has resulted in a hydropower project, which will have negligible impacts on fish migration. Therefore would not cause transboundary problems, and thus, be of minimal concern for Cambodia, even if situated only 3 km from the border.

The Thako project is not expected to cause any negative impact to the Laos dolphin population located one kilometre downstream nor the Cambodian population farther downstream.

Additionally, there will be minimal changes in the flow distribution between different channels and the Thako project allows a return to exact natural flow distribution at any time by only closing the gate of the intake channel. In comparison, the Don Sahong would irreversibly change the repartition of flows, even if floodgates were left open and the reservoir kept empty as the project construction will remove large volumes of bedrock to take water away from the Papheng channel and permanently redirect to the Hou Sahong channel. Construction of the Thako project would not create the need to resettle a single household whilst the, Don Sahong dam would forcibly relocate 63 people from 2 villages.

By commissioning the Thako project, the price of electricity generated would be cheaper, provide a better return on investment for its developer and the Government of Laos (GoL) and allow more affordable and reliable electricity to be passed on to the consumer.

It is largely established, based on irrefutable facts, that Thako has a much lower risk to biodiversity and the ecosystem integrity of the Mekong while still generating significant amounts of clean and very affordable electricity with low financial and reputational risks to all parties involved.

Conclusion

Thako and Don Sahong are mutually exclusive options as they compete for the same water. If one of those two projects is built, the other will not be financially viable. Unfortunately, the GoL has priotized the Don Sahong Dam. Even though readably available facts clearly demonstrate Thako is

a much better option and without a process to involve downstream countries in the decision making even if they are directly concerned with this decision.

Given the impending high risk and widespread impacts to the Mekong river ecosystem and the livelihoods of Cambodian communities who depend upon its resources should the Don Sahong dam go ahead, and the clear proven comparative advantages of Thako, WWF supports technologies such as the Thako Diversion Project as a sustainable alternative for hydropower electricity generation. WWF supports a process to allow meaningful collaborations between all Lower Mekong countries to jointly review and reach consensus on which project should be selected.

Further information

For more information on the Thako Project visit: www.thakosustainablehydro.com.

Role of WWF in the project

WWF produced the Initial Environmental Examination (IEE) for the developers Compagnie Nationale du Rhône (CNR) and Electricite du Laos (EDL). The IEE was delivered in 2009 with all of the recommendations from WWF being accepted. These recommendations included (but were not limited to):

- The initial consultation and the preliminary impact assessment highlighted four main areas of concern to be studied further during the Environmental and Social Impact Assessment (ESIA) and feasibility level: Hydrology, Fisheries, Land Use, and Tourism.
- The ESIA should be prepared to analyze the cumulative impact of hydropower schemes in Siphandone Wetlands area (including the Thako HPP project and the Don Sahong Hydropower project), and other potential hydropower development studies.
- Communities should benefit from hydropower projects. For the Thako HPP project, this could include short-term and long-term benefits for the villages in the impacted area.
- WWF also suggested that all project reports for Thako be public documents available online to all interested parties.
- WWF suggested that a panel of independent expert be set up to advise the project throughout all stages of its development.

The IEE prepared by WWF served as the Terms of Reference of the Environmental Impact Assessment (EIA) that was conducted by Earth System Laos.

A panel of independent experts was subsequently set up which included one expert in each of the following fields: sustainable hydropower, fisheries and tourism. WWF was offered the expert role in sustainable hydropower. The panel members were invited to key meetings with the GoL and project consultations and were permitted to review and question project direction at any time with content posted uncensored on the project web site.

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