



4,000 islands, known as Siphandone is a microcosm of life in the Mekong River
Photo: International Rivers

The Don Sahong Dam

GAMBLING WITH MEKONG FOOD SECURITY & LIVELIHOODS

The Don Sahong Dam – the second in a cascade of eleven hydropower dams planned on the lower Mekong mainstream – would irreversibly alter fish migrations throughout the lower Mekong River Basin, with potentially devastating consequences for the river's rich ecosystems and the livelihoods and food security of hundreds of thousands of people. Located in Siphandone, Southern Laos, less than two kilometers from the Cambodian border, the Don Sahong Dam threatens a unique microcosm of the Mekong River, which helps to sustain life throughout the entire lower Mekong River Basin.

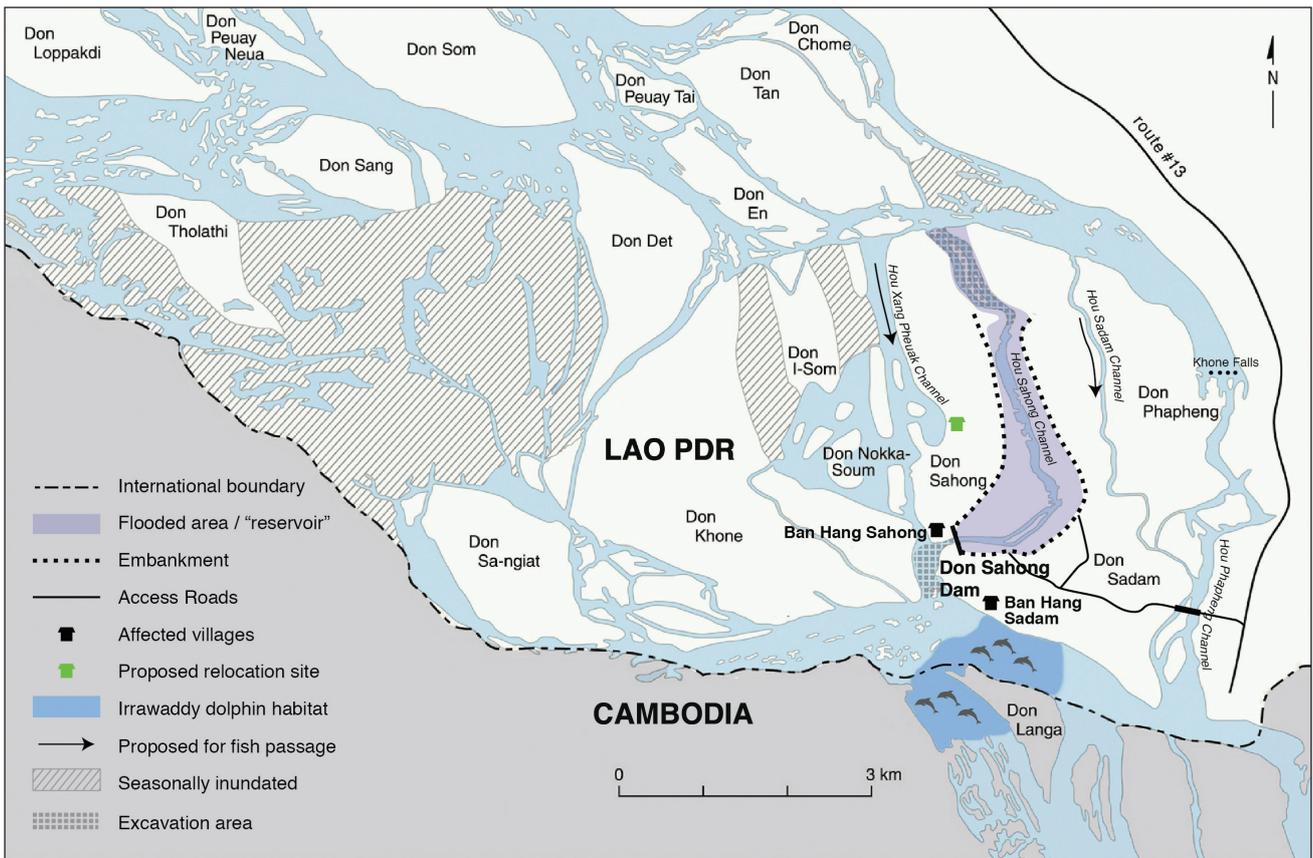
Siphandone is a picturesque section of the Mekong River made up of a series of complex channels winding around small islands and inlets. It is renowned for its abundant aquatic biodiversity and rich fisheries. Scientists have identified the area as a critical bottleneck for fish migration throughout the lower Mekong basin. Located across the Hou Sahong Channel – the main channel in the area that allows for year-round migration of fish both upstream and downstream – The Don Sahong Dam poses a significant risk to fish migration routes throughout the region; threatening the rich local subsistence and commercial fisheries within Laos and the entire Mekong Basin.

A study conducted by the Mekong River Commission (MRC) in 1994 stated that Siphandone was “so rare in nature that every effort should be made to preserve [it] from any development.”

Recognizing the global biodiversity value of Siphandone's unique island-river habitat, the Government of Laos has in the past considered proposing the area as a Ramsar Wetland site. Just downstream, across the border in Cambodia, the Stung Treng wetlands have been a designated Ramsar Site since 1999.

Despite its close proximity to Cambodia, no transboundary impact assessment has been carried out for the project and the measures proposed to mitigate the impacts of the dam, particularly on fish migration, have yet to be proven in the Mekong region. Following in the footsteps of the controversial Xayaburi Dam, the Don Sahong Dam has elicited strong concern from neighboring governments along with communities, scientists and civil society in the region and internationally. The project has faced a contested regional consultation process under the MRC's Procedures for Notification, Prior Consultation and Agreement, and the future of the project remains unclear.





Map of the site of the proposed Don Sahong Dam

THE DON SAHONG DAM

The 25 meter high Don Sahong Dam is expected to generate 260 MW of electricity for internal use and export to Cambodia or Thailand. The project's developer, Don Sahong Power Company, is a joint venture between Mega First Corporation Berhad (MFCB), a Malaysian company and the Government of Laos. In March 2006, MFCB signed a Memorandum of Understanding with the Government of Laos to prepare feasibility studies for the project. It was not until 30 September 2013, that the Government of Laos notified the Mekong River Commission and its member countries' Cambodia, Thailand and Vietnam of its intention to build the Don Sahong Dam. Following widespread concern from neighboring governments, in June 2014 the Government

of Laos agreed to submit the project for Prior Consultation under the requirements of the 1995 Mekong Agreement.

On 15 September 2015, the Don Sahong Power Company entered into a concession agreement with the Government of Laos, to build, operate and transfer the project over a period of 25 years. Following this announcement, on 1 October 2015, Mega First Corporation Berhad announced that a Power Purchase Agreement for the Don Sahong Dam had been signed with Laos' state-owned utility Electricite Du Laos. China's Sinohydro International Corporation has been contracted to construct the project.

FISHERIES & FOOD SECURITY AT RISK

The most significant environmental and socioeconomic impacts of the Don Sahong Dam would be felt by local and regional inland fisheries. The Hou Sahong Channel is the largest and most accessible channel in the Siphandone area, which allows for year-round fish migration. More than 100 species have been reported to migrate through the Hou Sahong Channel. The vast majority of these species are classified as "highly migratory," with some of the species documented to travel from as far as the Mekong Delta in Vietnam. Blocking the Hou Sahong Channel threatens the migration, feeding and breeding patterns of a diverse number of these fish species.

The consequences of such a loss in fish migration would have a significant impact on regional food security. Fish catch is a critical component of the diet and livelihoods of Mekong River communities. Between 40 to 70% of the region's animal meat protein comes from inland fisheries, and studies have shown that this number can increase to up to 80% for communities above and below the Khone Falls. According to research conducted by the Australian National University it would be extremely difficult to replace the protein and calories associated with Mekong fisheries, and would require a



The lives of families in Siphandone revolve around the Mekong River, in particular the fisheries it supports
Photo: International Rivers

KEY COMPANIES INVOLVED IN THE DON SAHONG DAM

Mega First Corporation Berhad (MFCB): Project developer, signed joint venture with Government of Laos to create the Don Sahong Power Company.

AECOM – Was appointed by MFCB in early 2008 as Owner's Engineer for completion of the feasibility study and to provide assistance to MFCB for the Power Purchase and Concession Agreements. In May 2010, AECOM's Contract for the provision of services was extended.

National Consulting Company of Laos – Prepared 2013 project documents, including Environmental Impact Assessment.

Sinohydro International Corporation – Engineering Procurement and Construction Contract.

Pöyry – Hired by MFCB in 2012 to do a review of all aspects of the Don Sahong Dam.

Fisktek – Initially commissioned to review the existing designs for fish passage mitigation measures and provide suggestions for the modifications to the natural channels, Fisktek were then engaged more fully as the principle designers of the upstream fish passage improvements.

significant increase in water and land resources, particularly in Cambodia. In addition, the decrease in fish supply will likely increase fish prices in the market, meaning poorer communities will need to spend more money for fish for consumption.

The extent of fishery loss from the loss of the Hou Sahong Channel cannot be quantified through the existing studies, as there is insufficient baseline data of the fish species that migrate through this area of the Mekong River, as well as the channels and conditions they need to migrate. Furthermore the studies released by the developer have yet to take into account the transboundary impacts of the project both downstream on communities and ecosystems in Cambodia and Vietnam, and upstream in Thailand.

A TESTING GROUND FOR UNPROVEN AND UNCERTAIN MITIGATION MEASURES

The Don Sahong Dam hinges on the measures proposed to mitigate the loss of the Hou Sahong Channel for fish migration. The developers propose to re-engineer nearby channels in the Khone Falls – Hou Xang Phuek and Hou Sadam – by widening and deepening them in places, to replicate the characteristics of the Hou Sahong Channel, and create alternate fish passage routes. However such measures have never been proven to work in the Mekong. The Mekong River Commission's Technical Review of the project notes that limited details about these measures are provided in the project documents. Furthermore, if the measures are not successful, it has not been made clear who would be responsible, or how the impacts would be compensated.

Given the requirements for the level of flow from the Mekong River needed to pass through the Hou Sahong Channel to



Traditional Ly fish traps in Siphandone, near the site of the Don Sahong Dam
Photo: International Rivers

sustain operation of the dam, there is uncertainty how sufficient flow can also be maintained in alternative channels, throughout the year, to allow for both attraction and passage of fish migration. The more water that is required to ensure effective upstream fish passage, the less that is available for hydropower production. Without accurate baseline data or measures for ongoing monitoring it is challenging to understand how problems arising from the project's trial and error approach would be addressed.

The burden of proof must lie with the project developer to explain and prove the efficacy of the dam's design and proposed mitigation measures before construction begins. However project agreements have moved forward without such a basis of scientific evidence, meaning that many uncertainties remain, placing the Mekong's fisheries at risk.

CRITICALLY ENDANGERED IRRAWADDY DOLPHINS

The Don Sahong Dam would be located just one kilometer upstream of a core habitat for six Irrawaddy Dolphins who inhabit a transboundary deep pool between the border of Laos and Cambodia. The Irrawaddy Dolphin pool is one of the areas' main tourist attractions and a key source of income for communities living downstream in Cambodia. The Mekong's Irrawaddy Dolphin population is critically endangered, and fewer than 85 individuals remain, the majority of which are found in downstream sections of the river in Cambodia. Given the close proximity of the dam site to the dolphin pool, construction and operation of the project would significantly increase the risk to this small group of sensitive dolphins, due to the increased noise and activity around the dam site, as well as the risk posed by dry rock bed excavation of the Hou Sahong Channel upstream. The expected impact on fish migration would also have implications for the dolphins' own food supply and subsistence. If the dolphins from this pool were lost it would amount to a significant decline in the Irrawaddy species in the Mekong River. Such a large reduction on such a small overall population would greatly increase the risk of species extinction.

CONTESTED REGIONAL CONSULTATION PROCESS

In September 2013, Laos officially notified the Mekong River Commission and member countries of its intention to build the Don Sahong Dam. In response to concerns over the project's transboundary impacts, voiced by neighboring countries, the Government of Laos agreed to submit the Don Sahong Dam for regional consultation, under the MRC's Procedures for Notification, Prior Consultation and Agreement (PNPCA).



"The Mekong River is Not for Sale" – 2015 International Day of Action for Rivers in Thailand
Photo: International Rivers

However, the process was widely seen as a way for the Government of Laos to legitimize their actions under the 1995 Mekong Agreement. The official start date for the Prior Consultation process was given as 25 July 2014. However the announcement by the MRC was not made until 2 October 2014, nearly three months into the six-month process. Prior Consultation took place without adequate baseline information and with no transboundary impact assessment, meaning that neighboring countries were limited in their ability to assess the real impacts of the project on their use of the river. Additionally there were a large number of concerns raised about the problematic implementation of the Xayaburi Dam's PNCA process, including by the MRC and donor governments, issues that were not addressed or resolved before the process was started again for the Don Sahong Dam.

On 27 January 2015 the MRC's Joint Committee met at the close of the first six-months of the Prior Consultation process for the Don Sahong Dam. At the meeting, Thailand, Cambodia and Vietnam each called for an extension to the Prior Consultation process, requesting further baseline studies and greater assessment of the project's transboundary impacts. The Government of Laos, however, insisted that the Prior Consultation process was complete. As the four countries could not agree, the inter-governmental decision was deferred for discussion at the ministerial level. In June 2015, the MRC released a statement to say that the MRC Council had not been able to reach agreement regarding the Prior Consultation Process for the Don Sahong Dam, and so due to ongoing disagreement the discussion would be taken to the governmental level, for resolution through diplomatic channels. Concerns over the project and the need for further study have since been reiterated by the Government of Cambodia.

A LONG HISTORY OF REGIONAL CONCERN

Since the Memorandum of Understanding for the Don Sahong Dam was first signed in 2006 there has been strong opposition from scientists, Mekong experts, riparian communities, civil society and Mekong Governments towards the proposed project due to its transboundary impacts and implications for regional food security. The governments of Cambodia, Thailand and Vietnam have been vocal in calling for further assessment of the transboundary impacts of the project. Both Cambodia and Thailand have also called for all decisions regarding Mekong mainstream dams to be halted until the completion of two studies, which are underway to assess the impacts of planned dams on the lower Mekong mainstream: The MRC Council Study and the Mekong Delta Study.

THE THAKO WATER DIVERSION PROJECT

The 172 MW Thako Diversion Project was proposed as an alternative to the Don Sahong Dam. Located east of the Khone Falls, the project would not involve building a barrier across any of the channels, but rather would divert a regulated amount of water through a man-made channel built around the Khone Phapheng Waterfall. Comparing the Environmental Impact Assessments for the two projects, the Thako Project has a much lower risk to the biodiversity and ecosystem integrity of the Mekong than the Don Sahong Dam, as it would not sever ecosystem connectivity, allowing sediment to flow downstream and fish to migrate. Additionally it would not require resettlement of local communities. The Don Sahong Dam and Thako project are mutually exclusive, as there is only enough water in the area to build one or the other. Despite a less destructive alternative, the Government of Laos has chosen to prioritize the Don Sahong Dam, at potentially great cost to the Mekong River, her people, and regional cooperation.

For nearly a decade, Mekong communities have spoken out against the planned Don Sahong Dam through public protests, international petitions and workshops. In October 2014 a coalition of national and international NGOs filed a complaint with the Malaysian Human Rights Commission (SUHAKAM) on behalf of communities in Cambodia and Thailand who would be affected by the Don Sahong Dam. The complaint requests that SUHAKAM investigate the social and economic impacts of the Don Sahong Dam on behalf of communities in these countries and that the Commission ensure that Mega First Corporation Berhad, comply with international human rights standards, including the obligation to engage with and inform affected communities.

Despite evident opposition from Mekong people and ongoing regional disagreement between the four Mekong governments, plans to build the Don Sahong Dam have moved forward at a rapid pace, gambling with the future of the Mekong River and her people, and pushing regional cooperation to the brink of collapse.

THE DON SAHONG DAM DOES NOT ADD UP

For just 260 MW of electricity, the developers plan to irreversibly alter one of the most critical sections of the Mekong River; jeopardizing fish migration with serious and irreversible consequences for populations throughout the Mekong River Basin. With so much at stake it is critical that decision-making is based on comprehensive studies, and meaningful regional cooperation and consultation. It is clear that more time is needed to complete ongoing baseline studies at the dam site, a transboundary environmental impact assessment report, as well as basin-wide studies which are underway, to provide a basis for informed decision-making. The companies involved must also demonstrate that the project's proposed mitigation measures can ensure the long-term sustainability of the Mekong River.

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