



Transboundary, responsibility, and accountability in Laos' Hydropower projects

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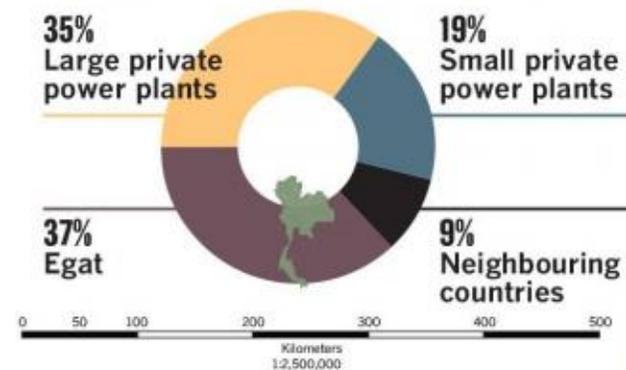
“BATTERY OF ASIA”

JOINT VENTURE DAM AND POWER-PLANT PROJECTS IN LAOS INVOLVING THAI COMPANIES

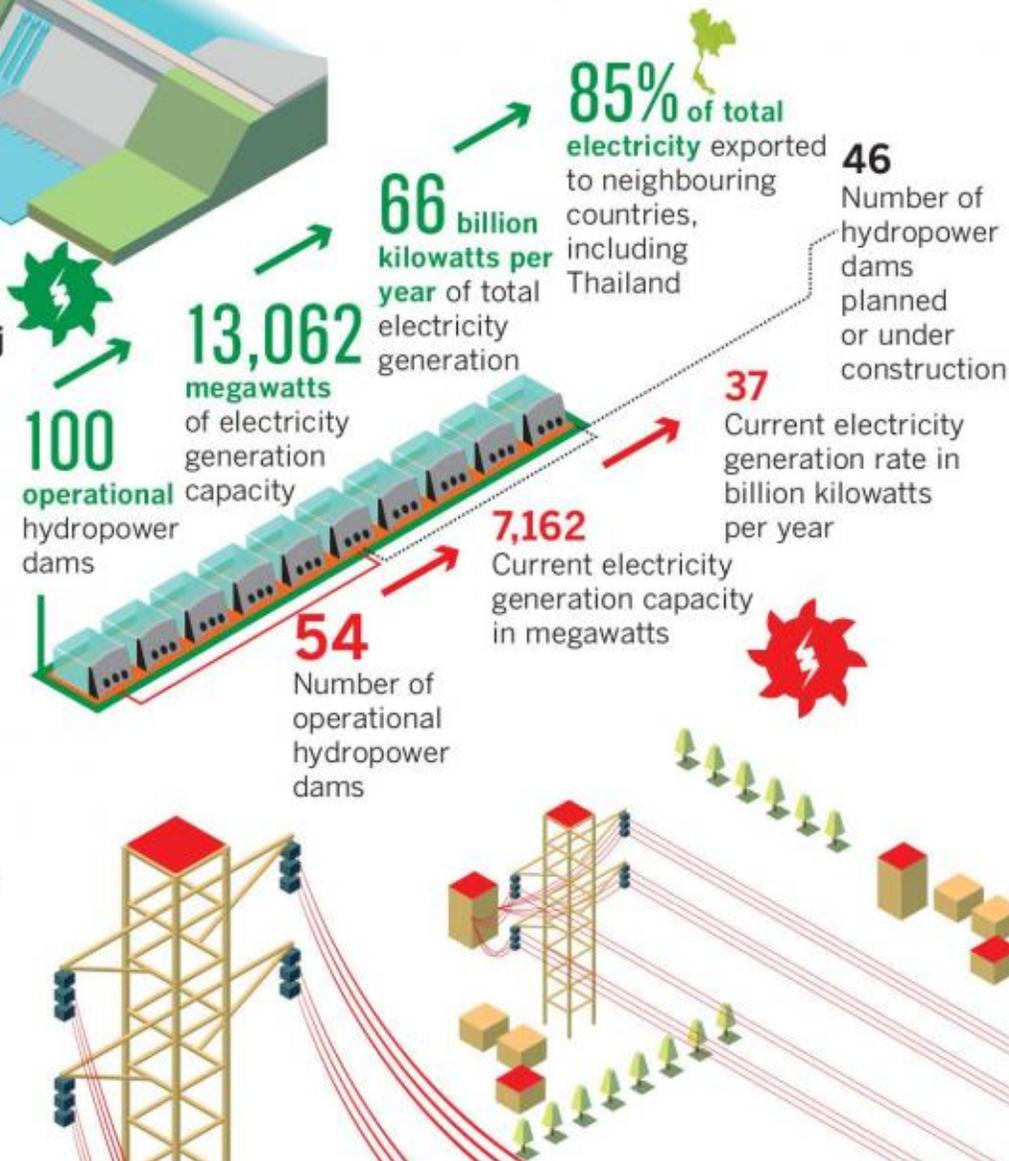
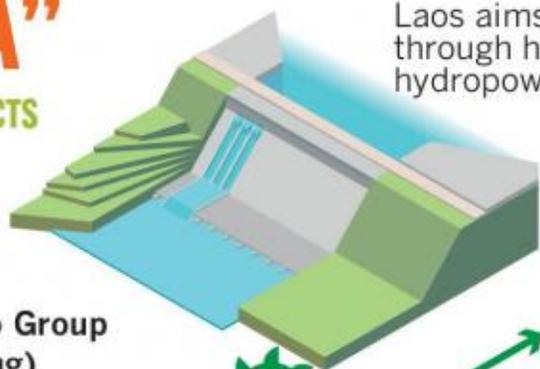
- Nam Ngum 2 Dam **Ch Karnchang**
- Nam Ngum 3 Dam **Ratchaburi Holding**
- Nam Theun 1 Dam **Egco Group**
- Nam Theun 2 Dam **Italian-Thai and Egco Group**
- Xayaboury Dam **CK Power (Ch Karnchang)**
- Theun-Hinboun Dam **MDX**
- Houay Ho hydropower plant **Glow Energy and Hemaraj**
- Xepian-Xenamnoy Dam **Ratchaburi Holding**
- Nam Ngiep 1 Dam **Egat International**
- Sekong 4 Dam **Ratchaburi Holding and B Grimm Power**

The electricity generated from these projects is mainly sold to the Electricity Generating Authority of Thailand (Egat).

SOURCES FOR THE ELECTRICITY SUPPLIED TO THAILAND



Laos aims to become the “battery of Asia”, mainly through hydropower dam development. Its hydropower dam development goals for 2021 are:



Source: Egat, Lao Energy and Mines Ministry, and ABC Laos News
http://www.nationmultimedia.com/detail/big_read/30352407

- ▶ Laos has 4,984 MW of installed hydropower capacity and generated an estimated 22.7 TWh last year. It has a much larger theoretical potential of around 26.5 GW.
- ▶ In the first nine months of 2017, Laos exported 19 TWh of electricity, worth about USD 975 million. This was an increase of 25 per cent compared with the same period in 2016.
- ▶ Over 50 new hydropower projects are under consideration across the country, representing 8,000 MW of additional capacity if all were to be realised. Several projects totalling 166 MW were commissioned in 2017.
- ▶ Driven by strong economic growth, energy demand in Southeast Asia has grown by 60 per cent over the past 15 years. According to the International Energy Agency, the region is expected to grow by a further 60 per cent by 2040.
- ▶ Laos is a key power exporter to the Southeast Asia region. Currently, Laos sells its electricity to Thailand, Cambodia, Malaysia and Vietnam. Thailand is its main market, requiring up to 9,000 MW capacity by 2025.

Source: International Rivers

<https://www.hydropower.org/news/incident-at-the-xe-pian-xe-namnoy-dam-in-laos>

Laos Dam: Problematic but continue effort

- ▶ The dams has happened along with more large-scale project

Laos dam has been problematic because;

- ▶ The impacts on natural resources and peoples' livelihood within the country and regionally
- ▶ The impact directly to the biodiversity of Mekong and the resources with economic value
- ▶ Dams influence on Laos development direction, with less consideration on alternative with small-scale, and do not have much resources left for it. The look of the country changing in the jump speed, expensive goods, Chinese influent. Laos loose the foundation to maintain in a "Laos way".
- ▶ Engaging with large-scale project with lots of outside investors, the corruption occurred without control within two decades.
- ▶ Laos relying on the single buyer of electricity – Thailand. The security on the power business cannot be count as secure with Thailand energy needs and plans.

- 12% of Cambodia GDP came from fresh water fish. 70% of protein for Cambodian people come from fish.
- If 11 dams are built along the lower Mekong mainstream, the result would be an estimated 550,000-880,000 tonnes - equivalent to 26-42% - loss of fish resources.





Fish market, Stung Treng,
Cambodia

Nam Theun 2 Dam



- ▶ The Nam Theun 2 Power Company (NTPC) was established in 2002. Its shareholders are EDF International (40%), the Thai Electricity Generation Company EGCO (35%), and the government of Laos, which has a 25% stake.
- ▶ A BOT (Build-Operate-Transfer) concession agreement was concluded in October 2002, with the Government of Laos granting the EDF-led consortium the right to develop, finance and operate the 1,070 MW hydroelectric power plant for 25 years.
- ▶ In 2004, the construction started and the power plant went into commercial service on April 30, 2010.

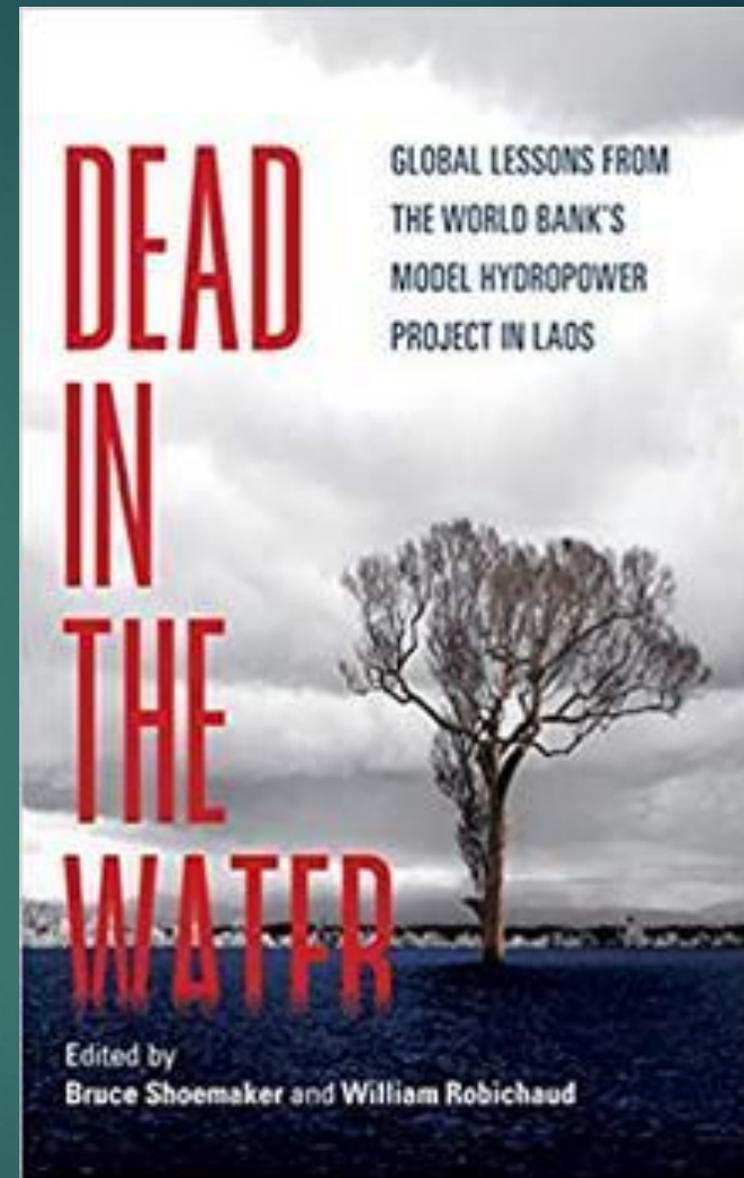
Source: <https://asia.edf.com/en/edf-in-asia/activities/renewable-energies-in-asia/nam-theun-2-power-company-ntpc>





Nam Theun 2 Dam

- ▶ The beginning of the dam era in Laos
- ▶ The project of large reservoir in the richest Nakai plateau
- ▶ There were 12 years of fighting Nam Theun 2 dam, as one of the most unlikely dam to be build
- ▶ The role of World Bank, to give the guarantee to the project
- ▶ The failure being accept, but no return



Dead in the water: Global lessons from the World Bank's model hydropower project in Laos (Shoemaker and Robichaud, 2018)



© 2013 Google

US Dept of State Geographer
Image © 2014 DigitalGlobe

Anlung Chheuteal

Google earth

2006

Imagery Date: 2/25/2009 13°57'13.65" N 105°56'17.08" E elev 239 ft eye alt 36129 ft

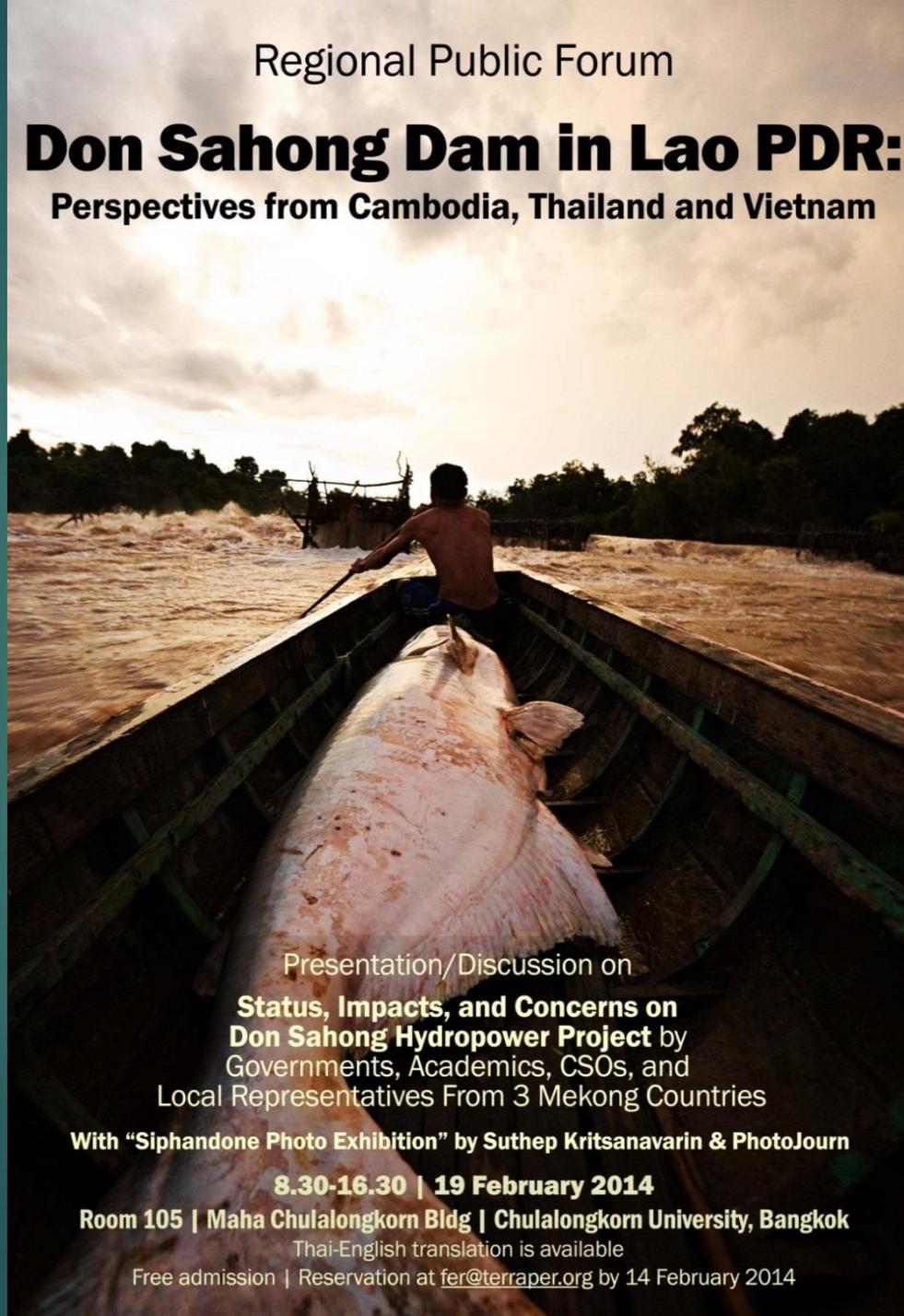


Photo: Suthep Krisnavarin

Regional Public Forum

Don Sahong Dam in Lao PDR:

Perspectives from Cambodia, Thailand and Vietnam



Presentation/Discussion on

**Status, Impacts, and Concerns on
Don Sahong Hydropower Project** by
Governments, Academics, CSOs, and
Local Representatives From 3 Mekong Countries

With “Siphandone Photo Exhibition” by Suthep Kritsanavarin & PhotoJourn

8.30-16.30 | 19 February 2014

Room 105 | Maha Chulalongkorn Bldg | Chulalongkorn University, Bangkok

Thai-English translation is available

Free admission | Reservation at fer@terrapeer.org by 14 February 2014

Xayaburi Dam



- **The first of the 11 dams planned on the lower Mekong**
- Install capacity of 1,285 MW
- The project is developed by Xayaburi Power Company Limited, a subsidiary of the Thai construction company CH. Karnchang Public Company Limited. Ch. Karnchang Public Company is also the leading contractor for the project. A syndicated loan of 80 billion Thai baht (around US\$2.67 billion) is provided by six Thai banks: Bangkok Bank, Kasikorn Bank, the government-owned Krung Thai Bank, Siam Commercial Bank, TISCO and the Thai EXIM Bank).
- Thailand's electricity utility, EGAT has agreed to purchase 95 percent of the dam's electricity.
- **In 2019, commercial operation is scheduled to start**

Don Sahong and Xayaburi

- ▶ The starting of the lower Mekong mainstream dam
- ▶ The building in the most problematic spots, especially Don Sahong with the major lost of Mekong mainstream
- ▶ The role of Malaysia and Thai companies

xe pian-xe nam noy dam collapse

23 July
2018

ເມື່ອເຂື່ອນເຊປຽນ ເຊມ້ານ້ອຍ ແຕກ ເມືອງສະໜາມໄຊຕ້ອງຈົມຢູ່ໂຕບາດານ ຫຼາຍຮ້ອຍຊີວິດຕ້ອງພັງທະລາຍ

◆ 6,000ຊີວິດບໍ່ມີທີ່ຢູ່ອາໄສ ◆ ອີກ100ຊີວິດຕ້ອງສູນຫາຍ ◆

LAOS DAM FAILED, BUILDERS SAW TROUBLE

◆ ຊີວິດ ◆ ຄວາມຫວັງ ◆ ສັດທາ ◆



ການສູນເສຍຄັ້ງຍິ່ງໃຫຍ່ຂອງລາວ
PRAY FOR
ATTAPEU

ໃຜຈະຮັບພິຊອບ

ໂງ່ນໂງ່ນ
V SNAKE NN

NOY SANTHICHAK

By 25 July, 20 people have been killed by the water, a further 100 are missing and nearly 7,000 people have lost their homes.

An estimated 175 billion cubic feet of water was released, from a tributary of the Mekong River.





Financial closure for the 1.2bn project was achieved in April 2014

People in 17 villages in Cambodia are affected





"Regarding the compensation matter, I would like to reassure based on the concession agreement, all incidents are related to the dam construction, must be borne by the project developer 100 percent,"

Minister of Energy and
Mines, Dr. Khammany
Inthirath

Vientiane Time, 26 July 2018

Xe Pian-Xe Namnoy

- ▶ Controversial from the beginning to the end
- ▶ 410 megawatt dam, 90% to sell to Thailand
- ▶ The role of Korean Company and Korean government
- ▶ The controversial construction
- ▶ On 26 July, South Korean President Moon Jae-in ordered a relief team to be sent into the country, a rare order from their President for any accident in foreign country since a South Korean firm was involved in the incident.
- ▶ However, the process to declare responsibility still on going in secret and the defensive manners.
- ▶ Laos dam and the Mekong flood

Pak Beng Dam



The Pak Beng Dam is the northern most of eleven dams proposed for construction on the lower Mekong River mainstream. Located seven kilometers upstream of Pak Beng town, in Oudomxay Province, Northern Laos. The 912 MW project is expected to generate 4,700 GWh of electricity per year, of which 90% will be sold to Thailand and the remaining 10% to Laos' state-owned utility, Electricite du Laos.



Source: International River

This exceptionally beautiful section of the Mekong River is a lush, mountainous area which locals rely on for riverbank farming, fishing and raising livestock. Rapids, pools, and complex riverine ecosystems make it an important habitat for fish and aquatic life. It is expected that 25 villages in Laos and two villages in Thailand will be directly affected by construction of the Pak Beng Dam, with an estimated 6,700 people re-settled

In 2007 China Datang Overseas Investment (Datang) signed a Memorandum of Understanding with the Government of Laos to develop the Pak Beng Dam. Following this agreement, in March 2014, Datang received environmental permits from the Lao Government for the hydropower project, announcing that it would undergo the MRC's Procedures for Notification, Prior Consultation and Agreement (PNPCA) process, as required by the 1995 Mekong Agreement.

A report published late 2015, however, indicates that a Thai energy giant, Electricity Generating Holding Public Company Limited (RATCH), will also be involved in a joint venture with its Chinese counterpart, and possibly be an importer for electricity (798 MW) to Thailand

Pak Beng

- ▶ Negotiation with the Chinese
- ▶ Chinese standard?
- ▶ Reach the Thai movement on Laos dam

In conclusion

- ▶ From the ideology to the reason “We are the river-rich country and dam is our potential”. The debate on ‘rivers for whom’ inside Laos has never happen.
- ▶ The mechanism in Laos has been in order to support and defend for the dam business, not for their accountability. The dam investors knows this fact.
- ▶ The transboundaries impacts are getting heavy, with stronger reaction from neiboring countries through some existing mechanism (MRC and ASEAN)
- ▶ GoL do not prove to be able to bare the responsibility to their own people and neighbors, partly because they do not ‘own’ the projects while having the role with responsibility. The impacts will be far too much for them to respond, however.
- ▶ An accountability has to be at all level from the GoL policies, the process and engagement within the country which can make the work from outside function better. The accountability of the foreign companies and relevant governments have to be there, but not all can be manage by Laos. It has to be another set of working towards them from all level.



Stop

NT2

Dam!

เขื่อน ปาลาฮาย

เพื่อประท้วงโครงการ
เขื่อน NT2
ที่เขื่อน ปาลาฮาย

World Bank
Accountability

World Bank

ประท้วงเขื่อนไซยะบุรี
หน้าศาลปกครอง





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MEKONG COMMITTEE

MINISTRY ENVIRONMENT
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LAO NATIONAL MEKONG
COMMITTEE SECRETARIAT

MR

**ASEAN Civil Society
Conference (ACSC)/
ASEAN Peoples' Forum (APF)
2015
Yangon, Myanmar**



*Photo: Asia-Pacific Research
Network*



*Photo: Focus on the Global
South*







Lao's hydropower generation projects
exported to Thai's national grid



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THE FACT