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Xe Pian-Xe Namnoy Hydropower Project



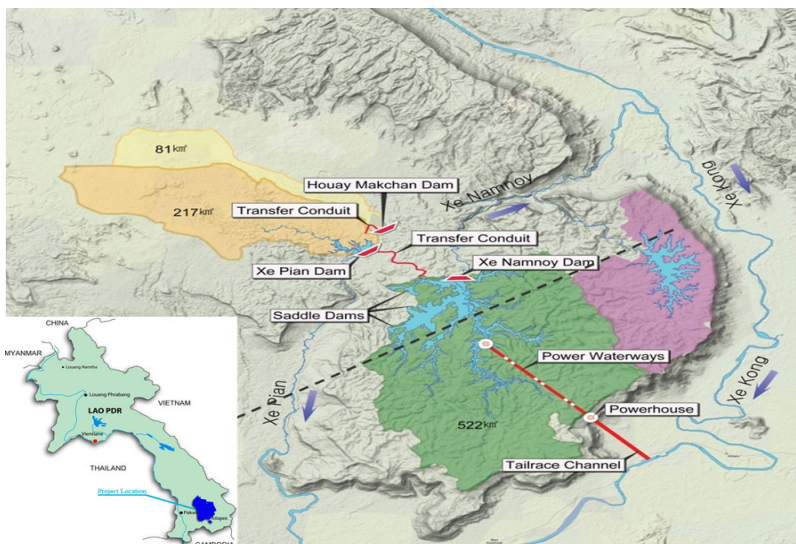
Project Location

The 410MW Xe Pian-Xe Namnoy Hydropower Project is built on the Bolaven Plateau in Southern Laos. Spanning both Champasak and Attapeu provinces, it diverts the Xe Pian, Xe Namnoy and Houay Makchan Rivers, discharging water into the transboundary Sekong River at the southern-most end of the project (1). This requires the building of three main dams:

- the 74m high Xe Namnoy dam with a reservoir catchment of 522 km²;
- the 48m Xe Pian dam with a reservoir catchment area of 217 km², and
- the 8.5m high Houay Makchan dam, with a reservoir catchment of 81km².

In addition, the project incorporates five saddle (auxiliary) dams.

Once operations get underway, ninety percent of the power generated is expected to be exported via cross-border transmission lines to Thailand.



Credit: Xe Pian-Xe Namnoy Hydropower Company website:

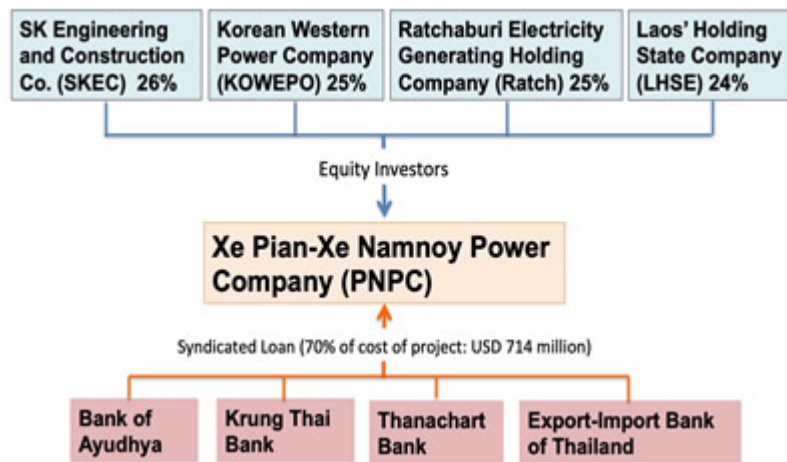
<http://www.pnpclaos.com/index.php/en/project/maps>

Project Proponents and Financiers

Project development is shared by a consortium made up of Korea's SK Engineering and Construction Company (SKEC), Korean Western Power Company (KOWEPO), Thailand's RATCH Group Public Company Ltd. (RATCH) and the Government of Laos' Holding State Company (LHSE). In 2011, they formalized joint ownership under the name Xe Pian-Xe Namnoy Power Company (PNPC) (2).

The project, with initial construction costs amounting to over 1 billion USD, is backed by both debt and equity financing. While 30% of the financing came from equity stakes of the project's four developers, the remaining 70% was secured through a syndicated loan jointly provided by the Export-Import Bank of Thailand along with three Thai commercial banks (Ayudhya, Thanachart and the state-owned Krung Thai) (3). Advice related to environmental and social standards was provided at the early stages of project development by the Asian Development Bank (ADB), as was an initial offer to provide a private sector financed loan through a financial intermediary (later withdrawn and evidently not activated).

Main project developers and financiers involved in the Xe Pian-Xe Namnoy Hydropower Project.



Credit: Mekong Watch 2019

Japan's Connections to Project Financing

Notably, with Japan's Mitsubishi UFJ Financial Group (MUFG) acquiring majority stakes in Thailand's Bank of Ayudhya in 2013 (76.88% share as of March 2020), there are significant Japanese ties implicated in the financial backing of the project (4). Although the syndicated loan agreement for the Xe Pian-Xe Namnoy Project involving Ayudhya was made prior to the MUFG Bank acquisition, with construction ongoing and support for affected communities still required as of early 2020, decision making by Japanese vested interests do influence project developments on the ground. Specifically, with several Japanese nationals holding senior bank management positions at Ayudhya (including that of CEO) (5), and Japan's Government Pension Investment Fund (GPIF) owning shares worth 1,533,942,159 yen (approximately 13.9 million USD) in Krung Thai as well as shares worth 7,303,234,824 yen (approximately 65.6 million USD) in Korea's SK Holdings (the corporate entity providing the majority of financing to the project developer, SKEC) (6), Japan's public and civil society groups have the opportunity – and responsibility – to raise questions about the implications of the project investments on the riparian ecosystems and people affected.

Ongoing Livelihood Concerns of Families Displaced by Project Construction

According to the 2013 version of the project's "Resettlement and Ethnic Peoples' Development Plan", over 2300 people from 8 villages were forced to move as a result of the dam's two reservoirs in Champasak Province. When the Xe Pian-Xe Namnoy Dam was first being considered for development in the 1990s (by the Korean developer, Dong Ah), these communities – a majority of whom are Heuny indigenous peoples (7) – were required by the Government of Laos to move to the designated resettlement site of Ban Chat San (8), located in the Paksong District of Champasak (9). At the time, families were not provided with compensation for the losses of their land, housing, assets or livelihoods, nor were they provided with adequate housing or

infrastructure, such as latrines and water access points at the site. Significantly, people were also not allocated sufficient land to engage in subsistence cultivation or sustained cash crop development. As of early 2020, the project developers have yet to finance infrastructural improvements to meet the needs of the area's residents, or to contribute to the development of durable livelihood options. To retain their subsistence-based livelihoods, many of the families who had been pressured to move to Ban Chat San to make way for the project returned to areas they and their ancestors used in the past for survival, growing upland rice, vegetables and coffee, fishing in nearby streams, and gathering non-timber forest products (for consumption and marketing). However, at present, most of the land they relied upon has been subsumed by concessions – for the dam and its associated facilities, as well as for cash crop plantations and a proposed bauxite processing site (10). The limited expanses of land these families now use are mainly located on the slopes directly above the project's reservoirs and saddle dams. However, this situation means that they are in the precarious position of living in contravention of provisions in the *Law on Resettlement and Vocation* which prohibit project-displaced communities from returning to their original homesteads or living in areas outside of the designated resettlement site. With the project set to begin operations over the course of the coming year, they are faced with firm demands from authorities to make way for a new reservoir watershed conservation area (11). However, as the area is relatively isolated, and has a heavy presence of armed personnel staffing access road checkpoints, little information about the situation they face has been available publicly.

As the resettlement of people on the Bolaven Plateau and ongoing land encroachment have never been subject to meaningful consultation processes or a grievance mechanism, possibilities for them to seek access to remedy are limited. Although some Lao people have sought to publicize information about the uncertainty and frustration felt by these communities via social media, they risk becoming subject to intense threats and intimidation. In at least one case of which Mekong Watch is aware, the imposition of such threats can force people to make the tough decision to go into self-imposed exile.

Project Affected Communities in the Surrounding Areas

More than 2000 people in Champasak were also affected by the loss of land used for agricultural and other livelihood activities to make way for the project's associated infrastructure but were not forced to move. Meanwhile, downstream from the three dams, in Attapeu Province, an estimated 5400 people are expected to experience losses in land and other assets relied upon for livelihood activities once project operations begin (12). In addition, although not addressed by project planning documents, people in villages located further downstream, in northern Cambodia and Lao communities in the surrounding areas are also

affected by the loss of access to wild catch fisheries and other river-based foods.

Expected and Current Project Implications for Local Fisheries

At the time of initial project development by Dong Ah in the mid-1990s, a study by the Wildlife Conservation Society provided evidence that the project risked leading to significant losses in wild catch fisheries for 19 villages in the surrounding area (13). The project's Environmental Impact Assessment, conducted in 2013 by the Lao Consulting Group, similarly brought attention to the considerable impacts on fisheries to be expected from the project. Specifically, it noted the important habitat losses for rare/endemic fish that migrate and spawn in the vicinity of the tailrace channel, expected losses of endemic fish populations that inhabit areas upstream of the planned Xe Namnoy Dam, and severe fluctuations in water flow into the Sekong that would be expected to cause disturbances to migratory fish species downstream towards the border with Cambodia (14). With the construction of the Xe Pian Dam ongoing, by 2018 downstream communities were already alerting researchers of steep declines in seasonal fish catches (15).

Downstream Communities: Impacts of the 2018 Dam Collapse

In July 2018, one of the project's saddle dams in Champasak collapsed after becoming unstable and overtopping. Billions of cubic meters of water cascaded downstream, rapidly inundating the homes of 7000 people, the fields they had cultivated and the wetlands their livelihoods depended upon. According to first-hand accounts, the residents of affected villages were alerted only hours prior to the flooding of the area (16). With little time available and no information about the situation upstream, they had no way to know what precautions to take to protect themselves, their families, belongings and livestock. The surging waters also caused people living downstream along the Sekong River – including in north-eastern Cambodia – and upstream, near the dam's reservoirs, to experience flooding of their fields and losses of cultivated crops. To date, 71 women, children and men are known to have lost their lives as an immediate consequence of the July 2018 saddle dam collapse (17).



Families whose homes were destroyed in the incident were provided with small prefabricated corrugated metal-sheet transitional housing

structures which lack ventilation and proper eating, sleeping or cooking areas. They have been allocated a monthly stipend amounting to less than \$1.00 US per day per person and provided basic, low-grade rice allowances (generally deemed by villagers as more suitable for livestock feed than as an acceptable staple food for household consumption). As of early 2020, they continue to wait for the preparation of housing structures and basic infrastructure in new sites designated by authorities for their resettlement. In the meantime, although people are officially restricted from returning to their previous homesteads (due to provisions of the "Law on Resettlement and Vocation"), many families have decided to do so in order to clear the debris and prepare the grounds for future harvests.

Over the course of late 2018-19, Lao authorities interviewed each household about their lost assets and calculated a set monetary value for compensation using itemized rates. Based on field documentation from Mekong Watch researchers, it appears that in some cases, people were subject to such interview processes two or more times, though methodologies for the resulting calculations were not understood or publicly disclosed. Since then, each family has been provided with a partial installment of compensation, valued at approximately 50% of the worth of losses evaluated. They continue to wait for news of a second installment, hoping the remaining 50% of losses calculated will be paid at some point over the course of the coming year.

Causes of the Collapse: Structural Not Weather-Induced

In the immediate aftermath of the dam collapse, the Government of Laos commissioned an independent investigation into the engineering and technical reasons as well as other related causes that led to the structural failure. The report was completed in March 2019 and has yet to be publicly released. However, some information about the findings has emerged, suggesting erosion of the dam's foundation due to it being built atop porous geological formations, which then resulted in it sliding, cracking and being overtopped (18). A scientific analysis carried out under the auspices of the Blume Earthquake Centre at Stanford University that was publicly released in mid-2019 similarly found that the entire structure of the Xe Pian-Xe Namnoy Dam complex is built on top of "leaky basalt, deep laterite soil lacking drainage and weathered sedimentary rocks,"(19) and that the cracking of the saddle dam was directly caused by these geological characteristics. Information obtained by Korean parliamentarians and released by the Korean English language press has also suggested that measures by SKEC were taken to cut costs and maximize profitability by altering the dam's structural features (for example, saving material costs by lowering the walls of the auxiliary structures) (20). Without clear assurances of safety measures being taken to correspondingly address these structural questions or the construction process being put on

hold to ensure non-recurrence, the risks posed for communities in the area remain significant.

Raising Questions for Justice and Accountability

In an effort to extend solidarity and demands for justice for the thousands of people whose livelihoods have been impacted by the destruction wrought by the Xe Pian-Xe Namnoy Dam, Thai, Korean and international groups have come together to hold the project's proponents and financial backers (including insurance companies) accountable to principles enshrined in international human rights treaties, the *OECD Guidelines for Multinational Enterprises* and the *UN Guiding Principles on Business and Human Rights*. Key amongst these ongoing initiatives is an OECD complaint being advanced by a coalition of Korean civil society and legal advocates through the Korean National Contact Point to raise concerns about the faulty design and construction of the project as well as lack of due diligence on the part of SKEC and KOWEPO. To date, however, communities continue to face uncertain futures in the midst of unresolved damages and the heavy toll of injustice.

Note:

- 1) See: [Xe-Pian Xe-Namnoy Power Co. Project in Brief](#) (n.d.).
- 2) See: [Xe-Pian Xe-Namnoy Power Co. Shareholders](#).
- 3) Inclusive Development International and International Rivers, "[Reckless Endangerment: Assessing Responsibility for the Xe Pian-Xe Namnoy Dam Collapse](#)".(July 2019)
- 4) Bank of Ayudhya PCL, "Corporate Profile Presentation" (Dec. 2019): [Corporate Profile Presentation](#).
- 5) Bank of Ayudhya PCL, "About Us: Executive Officers" (2020): www.krungsri.com/bank/en/Other/AboutUs/ExecutiveOfficers.html.
- 6) See: "[Fiscal 2018: All Shares Held by Japan's GPIF](#)".(2019)
- 7) Although most families are Heuny indigenous/ethnic peoples, some families are of Jrou heritage.
- 8) "Ban Chat San" is a term used throughout the country to refer to resettlement site developments.
- 9) See for ex. Greene, N. and I. Baird, "Capitalizing on Compensation: Hydropower Resettlement and the Commodification and Decommodification of Nature–Society Relations in Southern Laos" (2016); International Rivers, "Power Surge," (2008).
- 10) For information about the bauxite project expected to be built in the area, see <http://en.slacolaos.com>.

- 11) Notably, the families here also report that over past few years, including in 2017, they have consistently faced pressure from authorities ordering them to leave the area.
- 12) See [Chapter 4: Socio-Economic Baseline Household Census Survey and Detailed Inventory, in "Resettlement and Ethnic People Development Plan" \(2013\)](#).
- 13) Roberts, T. and Baird, I.G., "Rapid Assessment of Fish and Fisheries for The Xe Nam Noy – Xe Pian Hydroscheme in Southern Lao PDR" (WCS: 1995).
- 14) See: Chapter 5 and Supplementary Annex 1 of LCG, ["Environmental Impact Assessment: Xe Pian-Xe Namnoy Hydropower Project" \(2013\)](#).
- 15) Baird, I. G., "Human-Caused Dam Disaster in Southern Laos: Considering Catastrophic and Slow Violence," unpublished paper (2019).
- 16) See testimonies and time-flow charts published online, for ex: Rujivanarom, P., "Special report : The deadly wave that changed everything for some Laotians," The Nation (23 Jan. 2019): <www.nationmultimedia.com/detail/national/30362746>; Ives, M. "A Day Before Lao Dam Failed, Builders Saw Trouble," The New York Times (26 July 2018): <www.nytimes.com/2018/07/26/world/asia/laos-dam-collapse.html>.
- 17) Rujivanarom, P., ["Special Report: Compensation talks begin for Lao dam disaster victims,"](#) The Nation (18 Feb 2019).
- 18) Radio Free Asia, ["Lao Dam Collapse Due to Use of Soil: Water Experts"](#) (28 May 2019).
- 19) Richard Meehan and Douglas Hamilton, ["Xe Pian Xe Namnoy: Land stability and dam failure on the Bolaven Plateau, Laos,](#) American Geophysical Union (11 Sept 2019); R. Meehan, ["The July 2018 Laos Dam Failure: a preliminary geotechnical diagnosis,"](#) Blume Earthquake Center, Stanford U. (Oct 2018)
- 20) Seo Young-ji, ["SK E&C's attempts to cut costs led to design changes that resulted in collapse of dam in Laos"](#), Hankyoreh. (15 October 2018)

Photos Credit: Mekong Watch

[Documents]
Factsheet:

- [Factsheet | The Xe Pian-Xe Namnoy Dam Disaster: Situation Update Two Years On](#)
- [Press Release | Two Years After Lao Dam Collapse, Call for Justice Persists](#)
- [Xe Pian-Xe Namnoy Hydropower Project- Updated: March 2020](#)

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