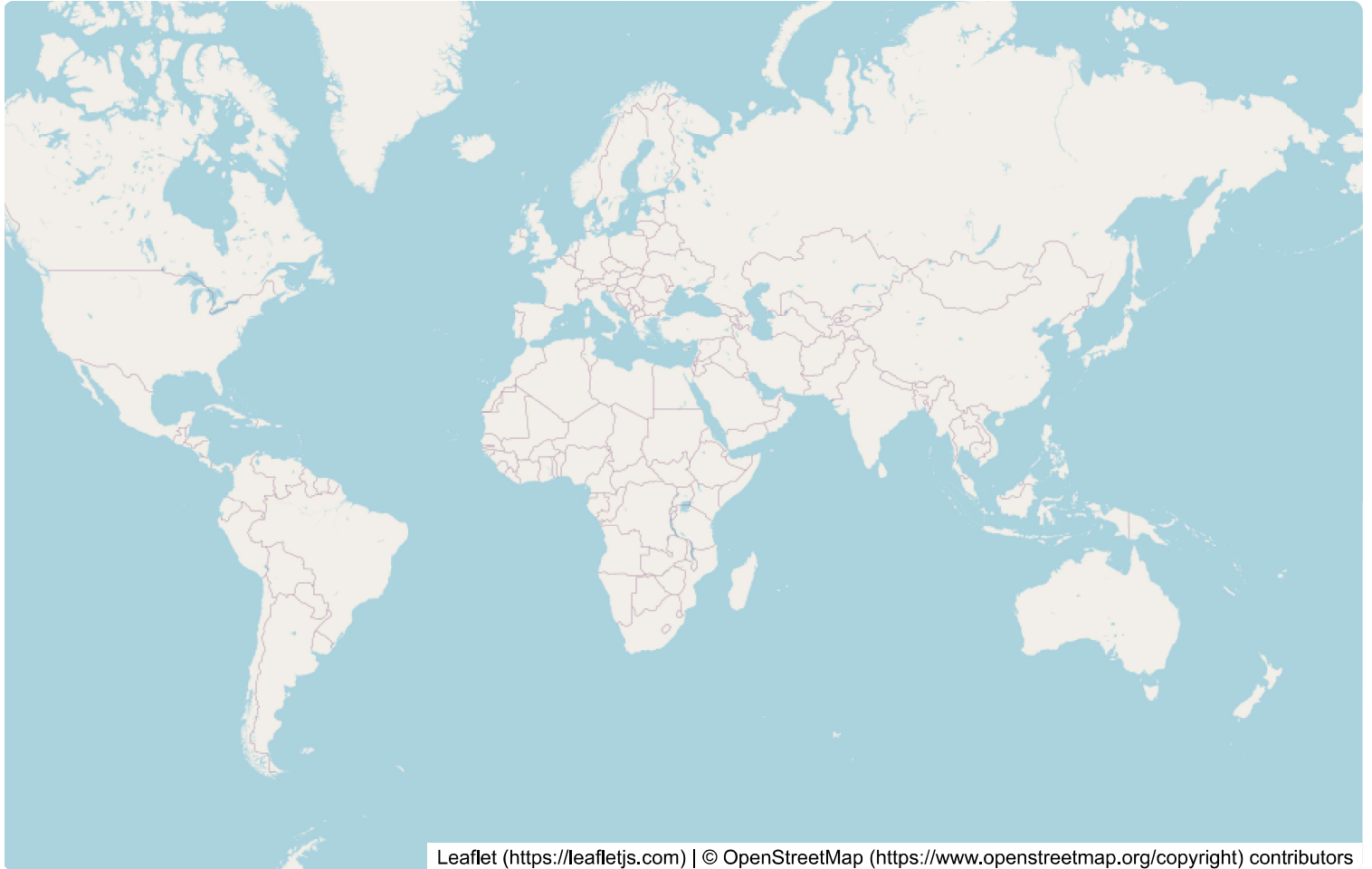


Nam Ngum 2 dam displaced over 6,000 ethnic minorities in Vientiane, Lao PDR



Description:

On its path to become the “battery of Asia”, Laos has planned a series of major dams along the Nam Ngum River, a tributary river of the Mekong. The Nam Ngum 2 dam, located in Vientiane province, is among those already in operation, just 35km north-east of the downstream Nam Ngum 1 dam [1].

The project was first planned during the 1990s, when feasibility studies and Environmental Impacts Assessments (EIA) were conducted by Finnish engineering company Pöyry, which would later on become supervising engineer [2], in spite of an apparent conflict of interests. Put on ice during the Asian financial crisis, the project received again momentum in March 2006, when agreements to move forward were signed with a consortium of developers (see project details) [1]. EIAs were completed, but not disclosed, violating National Hydropower Policy [3]. Construction started at the end of 2006, and as of end of December 2010, the dam, awarded with the International Milestone Rockfill Dam Project Award [2], was ready to produce electricity for export to Thailand [4]. However, when the dam’s reservoir of 12,200ha was first filled with water, water levels of downstream Nam Ngum 1 dam dropped so much, requiring to import electricity from Thailand to cover the shortfall [3].

During construction, no less than 6,100 people from 17 villages, largely ethnic minorities Phuan, Tai Dam, Tai Deng, Khamu and Hmong, needed to be displaced [3;5]. People were unable to participate in the planning of the so-called “focal sites” [5]; common resettlement areas for all different ethnic groups, which were reported to lack sufficient access to land to support livelihoods [1]. Others reported evidence for human rights abuses in the procedure of how evictions occurred [5]. Downstream impacts include reduction of fish stock in the Nam Ngum 1 dam reservoir, on which more than 9,000 people depend, while the Nam Ngum 2 reservoir has little potential for reservoir fisheries [1]. In addition to the well-known environmental impacts of dams, such as blocking of migratory fish species and other irreversible changes in aquatic and riparian ecosystems, the transmission line was constructed within the Protected Area Phou Khao Khuay NPA, leading to further habitat fragmentation within the park [3].

Finnish company Pöyry presents the dam as a success story, in which, during the peak construction period no less than 6,000 persons were employed for the dam, hence, providing substantial local employment [2]. This short term employment, however, needs to be contrasted with an irreversible economic, social, cultural and ecological loss, jeopardizing more than 6,000 indigenous people, which are carrying the costs for the benefits of a few companies, the Lao government and energy-demanding Thailand [4].

Basic Data

Name of conflict:

Nam Ngum 2 dam displaced over 6,000 ethnic minorities in Vientiane, Lao PDR

Country:

Lao PDR (/country/lao-pdr)

State or province:

Vientiane

Location of conflict:

Xaisomboun district

Accuracy of location

HIGH (Local level)

Source of Conflict

Type of conflict. 1st level:

Water Management

Type of conflict. 2nd level:

Dams and water distribution conflicts
Land acquisition conflicts

Specific commodities:

Land (/commodity/land)

Electricity (/commodity/electricity)

Water (/commodity/water)

Project Details and Actors

Project details

Nam Ngum 2 dam is a concrete face rockfill dam with a high of 182 meters [2] and a width of 485m [6]. The reservoir expands over 12,200ha. The construction was completed at the end of 2010 and commercial operation started in March 2013 [6].

The installed capacity amounts to 614 Megawatt (MW) and the dam has an annual production of 2220GWh [2].

The investment size was reported to amount to \$832 million [2].

The project is a BOT project (build-operate-transfer), in which the ownership will be transferred to Lao PDR after several decades of operation [1].

The produced energy is sold by agreement to the Energy Generating Authority Thailand (EGAT). Therefore, a 98km transmission line(230/500kV) needed to be constructed [2], partly located in protected areas [1].

The dam is operated by Nam Ngun 2 Power Company Limited.

According to International Rivers [3], as of 2010, the involved developers held the following shares: CH. Karnchang (Thai) 28.5%; EdL (Laos) 25%; Ratchaburi Generating Co. (Thai) 25%; Bangkok Expressway PCL (Thai) 12.5%; Shlapak Group (USA) 4%; PT Construction & Irrigation Co., (Laos) 4%; TEAM Consulting Engineering (Thai) 1%.

Finnish company Pöyry conducted feasibility studies and impact assessment, and later became supervising engineer [2].

Other consultants were TEAM Consulting Engineering and Management Co., Ltd. and ATT Consultants Co., Ltd [7]

Technology (turbines) was supplied by Japanese Mitsui and Toshiba [3].

Project area:

12,200

Level of Investment:

832,000,000

Type of population

Rural

Affected Population:

6,100 displaced; 9,000 directly affected by reduced fish stock

Start of the conflict:

01/03/2006

End of the conflict:

01/03/2013

Company names or state enterprises:

Electricity Generating Authority of Thailand (EGAT) (/company/electricity-generating-authority-of-thailand) from Thailand (/country-of-company/thailand)

CH Karnchang Public Company Limited (CH Karnchang PCL) (/company/ch-karnchang-public-company-limited) from Thailand (/country-of-company/thailand)

Pöyry PLC (Pöyry PLC) (/company/poyry-plc) from Finland (/country-of-company/finland)

TEAM Consulting Engineering and Management Co., Ltd. (TEAM) (/company/team-consulting-engineering-and-management-co-ltd) from Thailand (/country-of-company/thailand)

Bangkok Expressway Public Company Limited (/company/bangkok-expressway-public-company-limited) from Thailand (/country-of-company/thailand)

Nam Ngum 2 Power Company Limited (NN2 PCL) (/company/nam-ngum-2-power-company-limited) from Lao PDR (/country-of-company/lao-pdr) - hydroelectricity, dams

Electricite du Laos (EdL) (/company/electricite-du-laos) from Lao PDR (/country-of-company/lao-pdr) - electricity, energy

ATT Consultants Company Limited (ATT) (/company/att-consultantscompany-limited) from Thailand (/country-of-company/thailand) - consultancy, engineering, architecture

Shlapak Group Co Ltd. (/company/shlapak-group-co-ltd) from United States of America (/country-of-company/united-states-of-america) - hydroelectric dams

PT Construction and Irrigation Company Limited (/company/pt-construction-and-irrigation-company-limited) from Lao PDR (/country-of-company/lao-pdr) - infrastructure development, energy, mining

Toshiba (/company/toshiba) from Japan (/country-of-company/japan)

Mitsui & Co Ltd (/company/mitsui-co-ltd) from Japan (/country-of-company/japan)

International and Finance Institutions

Kasikorn Bank (/institution/kasikorn-bank) from Thailand (/country-of-institution/thailand)

Bangkok Bank (/institution/bangkok-bank) from Thailand (/country-of-institution/thailand)

Siam Commercial Bank Public Company Limited (SCB) (/institution/siam-commercial-bank-public-company-limited) from Thailand (/country-of-institution/thailand)

Krungthai Bank PCL (/institution/krungthai-bank-pcl) from Thailand (/country-of-institution/thailand)

Environmental justice organizations (and other supporters) and their websites, if available:

International Rivers (and likely others)

Conflict & Mobilization

Intensity

Unknown

Reaction stage

In REACTION to the implementation (during construction or operation)

Groups mobilizing:

International ejos

there were likely also other groups mobilizing, though no information could be found so far.

Forms of mobilization:

Involvement of national and international NGOs

Public campaigns

Impacts

Environmental Impacts

Visible: Biodiversity loss (wildlife, agro-diversity), Food insecurity (crop damage), Loss of landscape/aesthetic degradation, Surface water pollution / Decreasing water (physico-chemical, biological) quality, Large-scale disturbance of hydro and geological systems, Reduced ecological / hydrological connectivity

Potential: Groundwater pollution or depletion

Health Impacts

Visible: Mental problems including stress, depression and suicide

Socio-economical Impacts

Visible: Displacement, Loss of livelihood, Land dispossession, Loss of landscape/sense of place

Potential: Loss of traditional knowledge/practices/cultures, Social problems (alcoholism, prostitution, etc..), Specific impacts on women, Violations of human rights

Outcome

Project Status

In operation

Conflict outcome / response:

Migration/displacement

Do you consider this an environmental justice success? Was environmental justice served?:

No

Briefly explain:

The project went on.

Sources & Materials

Related laws and legislations - Juridical texts related to the conflict

Water and Water Resources Law, LAO PDR

<http://faolex.fao.org/docs/pdf/lao7478.pdf>

References to published books, academic articles, movies or published documentaries

[1] International Rivers, 2008. Power Surge: The Impacts of Rapid Dam Development in Laos. Report (accessed 10/03/2015)

http://www.internationalrivers.org/files/attached-files/intl_rivers_power_surge.pdf

[3] International Rivers, 2010. Existing and planned Hydropower Projects. (accessed 10/03/2015).

http://www.internationalrivers.org/files/attached-files/laohydro2010_sept_final.pdf

[4] Middleton, C. (2012). Transborder Environmental Justice in Regional Energy Trade in Mainland South-East

Asia. ASEAS - Austrian Journal of South-East Asian Studies, 5(2), 292-315.

http://www.seas.at/aseas/5_2/ASEAS_5_2_A7.pdf

[5] Sengkham S., 2007. Resettlement Impacts of Nam Ngum 2 Hydro-power Project on Community Culture. Report. (accessed 10/03/2015)

<http://rightslinklao.org/wp-content/uploads/downloads/2014/05/Resettlement-Impacts-of-Nam-Ngum-2-Hydro-power-Project-on-Community-Culture.pdf>

Links to general newspaper articles, blogs or other websites

[9] TEAM consulting company on the project (accessed 10/03/2015)

<http://www.teamgroup.co.th/index.php/en/credentials/projects/water-resources-a-hydropower/79-nam-ngum-2-hydroelectric-power-project-lao-pdr.html>

[2] Pöyry communication: Nam Ngum 2: Award-Winning Hydroelectric Power Plant in the remote forests of South East Asia. (accessed 10/03/2015)

http://www.poyry.com/sites/default/files/namngum2_a4_success_story_en.pdf

[6] Website of PT Sole Company (accessed 10/03/2015)

<http://www.ptsole.com/nam-ngum-2>

Related media links to videos, campaigns, social network

Video on reduced fish stocks in the downstream Nam Ngun dam reservoir

<https://www.youtube.com/watch?v=4nStsV5klDU>

Meta information

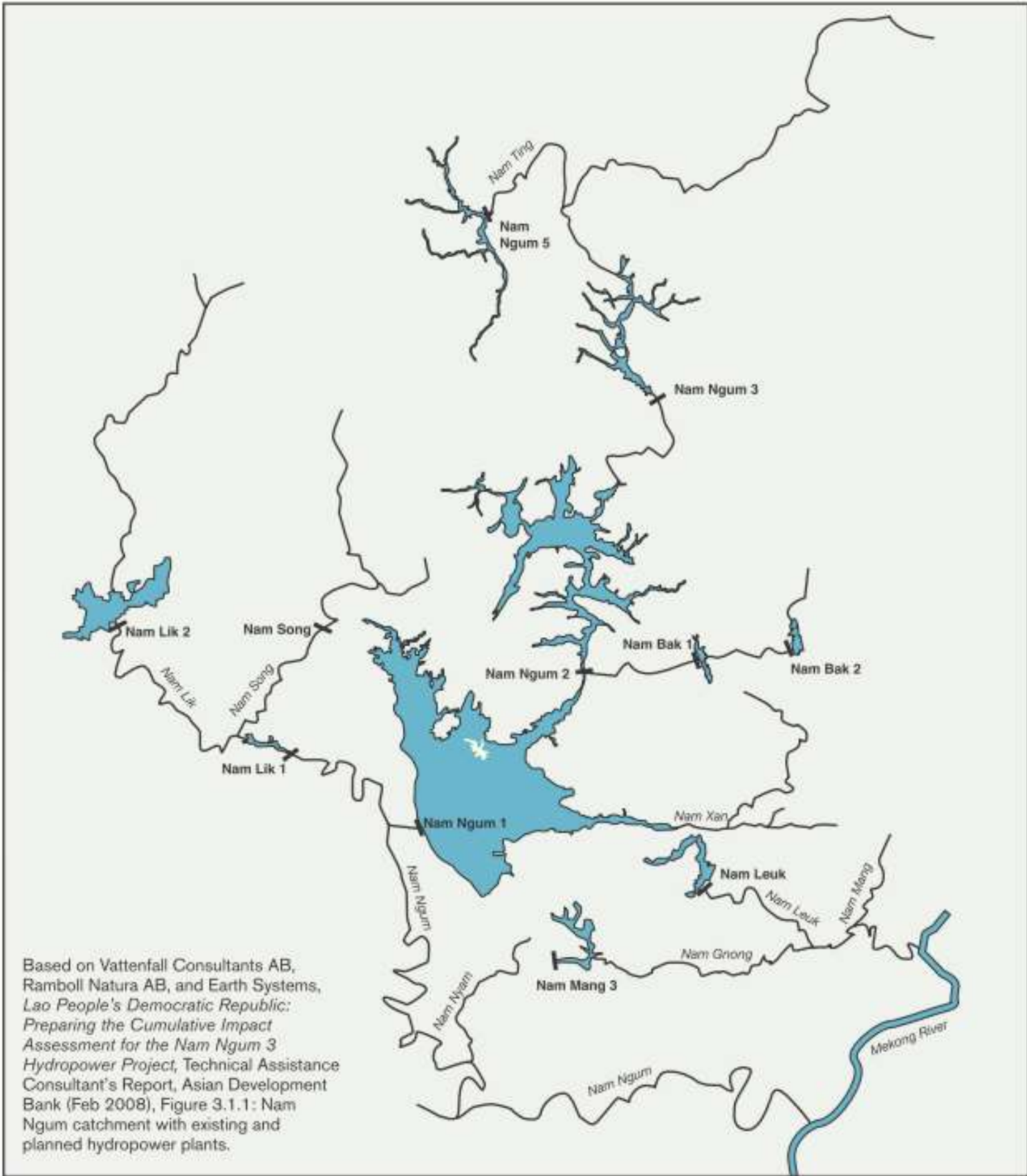
Contributor:

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Last update

18/08/2019

Images



Based on Vattenfall Consultants AB, Ramboll Natura AB, and Earth Systems, Lao People's Democratic Republic: Preparing the Cumulative Impact Assessment for the Nam Ngum 3 Hydropower Project, Technical Assistance Consultant's Report, Asian Development Bank (Feb 2008), Figure 3.1.1: Nam Ngum catchment with existing and planned hydropower plants.

Map of the Nam Ngun dams

Source: See International Rivers, [1]



Nam Ngun 2 dam

Source: <http://www.ptsole.com/nam-ngum-2>



Construction of the Nam Ngun 2 dam

Source: <http://www.ceat.or.th/2010/images/stories/member-proj/team/30.jpg>