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Resettlement Lessons from the Nam Ngiep II Project in Lao PDR

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A successful resettlement program ensures that people affected by project development are better off in their new location. Developers of the 180 MW Nam Ngiep II project provide details, results and lessons learned from recent resettlement work.

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Construction of the 180 MW Nam Ngiep II hydropower project, located on the Nam Ngiep and Nam Sen rivers in the Lao People's Democratic Republic (Laos), affected 407 people and some physical assets. The approach of the Lao government and project developer China International Water & Electric Company (CWE) to resettlement and compensation of these affected people can serve as an example for future hydropower and other large infrastructure projects, in Laos and the wider region.

Dams and hydropower projects, built to provide electricity for industrial purposes and urban growth, also provide irrigation water for agricultural development. They may improve local conditions, promote socioeconomic development, and create benefits for certain categories of people (such as urban consumers or commercial farmers). But they https://www.hydroreview.com/2016/12/01/resettlement-lessons-from-the-nam-ngiep-ii-project-in-lao-pdr/ also can affect people living nearby, resulting in their displacement or resettlement.

Hydro developers should make every effort to both reduce the negative effect of new development and improve the life of project affected people (PAP), making them instead beneficiaries.

This photo provides a general view of the Nam Ngiep II hydropower project in Laos.

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Description of the project

The Nam Ngiep II Hydropower Project is in Phaxay district, Xiengkhouang Province. Nam Ngiep II was built solely to provide needed electricity to central Laos. Work on the site commenced in October 2011, and the facility was commissioned in December 2015. It was financed and built, and is operated, by CWE as a build-own-operate-transfer (BOOT) scheme, and the hydro project produces an average of 723 GWh of electricity per year.

Construction of the Nam Ngiep II project involved building a concrete tributary dam 20 m high to divert water through a 7 km-long tunnel from the Nam Ngiep River to the Nam Sen River (see Figure 1). The main dam, on this river, is a 70.5 m-high clay core rockfill dam that created a reservoir with storage capacity of 163 million m³. Water impounded behind this larger dam is then diverted for about 11 km to the powerhouse, which contains three Francis turbine-generator units.

The main dam for Nam Ngiep II was built about 4 km downstream from the existing Ban May village, meaning its inhabitants had to be resettled. A total of 66 households (407 persons) were affected by construction of Nam Ngiep II. These households depended on a range of livelihood activities: cultivation (primarily rice), vegetable farming, hunting, fishing, and handicraft. These livelihood sources were compensated for using a Resettlement Action Plan (RAP). Other physical assets lost as a result of hydro project

Resettlement Lessons from the Nam Ngiep II Project in Lao PDR - Hydro Review construction included 5,878 trees, 51.42 hectares (ha) of agricultural land, one school, one clinic, 1 ha of sacred forest, and 2 ha of cemetery forest.

This project uses water from two river systems, with Nam Ngiep Dam diverting water to the reservoir behind Nam Sen Dam. From there, water flows to the powerhouse 11 km away.

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RAP and implementation

Many social and environmental resettlement efforts were undertaken to meet Laos policies and laws regarding hydropower projects. In addition to the RAP, the package of documents created for the Nam Ngiep II resettlement work included:

- Environmental Impact Assessment (EIA)
- Social Impact Assessment (SIA)
- Watershed Management Plan (WSMP)
- Ethnic People Development Plan (EPDP)
- Environmental Management and Monitoring Plan (EMMP)
- Social Development Plan (SDP).

These documents were completed in 2010 by National Consulting Company (NCC) in Laos.

Data sources

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Chinese and local experts jointly completed field work and data collection. Information and data used in planning the RAP came from seven sources:

- 1. Interpretation of land use maps for villages directly/indirectly affect by the project
- 2. Stakeholder's meetings in Xiengkhouang Province and in affected villages
- 3. Socio-economic census of potential households to be relocated
- 4. Preliminary inventory of assets of households to be relocated
- 5. Interviews of 96 household heads and representatives of potentially directly/indirectly affected villages in the project area
- 6. Focus group on social issues among interest groups in the village, including Lao Women's Union
- 7. Consultation with village leaders and women's groups on the resettlement site and related developments at the new site

Legal basis

The policy and legal framework for the RAP, and the entitlement matrix that was used as the basis for preparing the RAP, are based on Decree 192/PM on Compensation and Resettlement of People Affected by Development Projects, as well as associated Lao policies, practices and technical guidelines in the Regulation on Resettlement and Compensation. Also relevant are the Laos Land Law, Forestry Law and Electricity Law.

Wherever a gap exists, provisions and principles adopted in the RAP for this project supersede the provisions of relevant decrees currently in force in Laos.

The RAP was prepared as a guideline for the government of Laos to use for implementing compensation and resettlement for the Nam Ngiep II project. It addressed a variety of aspects: policy; principles of resettlement; entitlement to compensation; livelihood restoration; and monitoring and evaluation, including institutional and management arrangements of the resettlement works.

Surveys were conducted to determine assets owned by the households in the affected village. Chinese and local

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Resettlement and compensation for lost assets

Cash compensation for resettlement can be an unsatisfactory arrangement because once the money is spent, people may be left worse off than before. PAPs of the Nam Ngiep II hydro project were given the choice of either receiving cash compensation and resettling themselves elsewhere or being moved to official resettlement areas, with housing provided.

The resettlement site chosen was Ban Poung Thathom, which has an area of 117.5 ha and is in the same province as the original village. The resettlement village includes electrification, domestic water supply, a school, a hospital, a market, and other public buildings, as well as 54 ha of farm land with an irrigation system.

Houses

Houses were designed and constructed with the active participation of the PAPs. The PAPs were ethnically Thai Dam and Khmu, and two prototype house styles were developed for the two groups, with comments and suggested changes from the PAPs incorporated in the final designs.

These houses, an improvement on the majority of PAPs' existing houses, feature a wooden floor, wooden and concrete columns, a corrugated iron roof, a wooden frame and paneling walls.

By the end of 2015, 61 households and 382 persons (including eight newborn babies) were located in the resettlement village. Five households chose to move by themselves.

School and hospital

Compensation must be made for the structures that belong to the village as a whole. There was one school and one clinic in Ban May. Compensation for community

structures involves support for physical relocation of the structures, and the new buildings are constructed from new materials at the resettlement site.

The school and hospital were put into operation on Sep 1, 2013, and Feb. 16, 2015, respectively.

Productive trees

According to the 2009 survey, 5,878 fruit trees were likely affected by construction of the Nam Ngiep II hydro project. Commercial trees were reported to be very few in number. Trees producing edible and industrial products, which were listed during asset registration, were compensated for with both cash and replacement seedlings. The budget in this RAP was an average of US\$12 per tree. These PAPs may elect to receive cash compensation only for the lost assets if they do not have land available to plant the replacement seedlings.

Land

Land was compensated for with new land at the resettlement site or cash payment. Each household was allocated 1 ha of farm land with a slope gradient not more than 25%, including an irrigation system.

Cash payment was based on the statistics of historical annual agricultural land use, agricultural production and agricultural commodities prices, produced by the District Agriculture and Forestry Office. This data can be used to determine standards for the productivity of land and equitable cash compensation. The payments also considered the annual updates of the standards to keep in line with inflation and the current situation.

This aerial view pictures the resettlement village

where project affected people were relocated.

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Schedule for work

The Nam Ngiep II resettlement work took place in three phases:

Phase I – Oct. 1, 2011, to May 30, 2013

- Organization of resettlement management unit
- Resettlement site planning
- Resettlement contract negotiation
- House and facility building
- Resettlement mobilization
- First phase of <u>compensation</u> for lost assets

Phase II – May 31, 2013, to Jan. 31, 2015

- Temporary resettlement
- Infrastructure construction
- Relocation movement and further negotiation
- Land preparation and establishment, as well as irrigation system for 35 ha
- Second phase of <u>compensation</u> for lost assets

Phase III – Feb. 1, 2015, to Dec. 31, 2015

- Livelihood restoration and improvement
- Irrigation system for further 19 ha

By July 14, 2013, all PAPs were resettled, there were no villagers in the reservoir area, and the Nam Ngiep II hydropower project was operating normally. The final takeover of the resettlement village occurred on May. 13, 2016 (ahead of the original schedule of the end of 2016).

conditions of people affected by the Nam Ngiep II project development. **The new houses were built to improve living**

conditions of people affected by the Nam

Ngiep II project development.

Livelihood improvement

Nam Ngiep II Hydropower Project Company of CWE wants to ensure that the resettled households can improve their living conditions and standard of living by developing a range of livelihood opportunities. Apart from agriculture, the resettlers from the Nam Ngiep II project can choose from such options as raising livestock, raising silkworms and weaving, and establishing a local dyeing plant for wool and clothes.

Besides access to available land and a diversity of income sources, one principal benefit of resettlement schemes is – or should be – that of better access to services such as irrigation water, transport, education, medical care, social services and market links. Facilitating provision of these services is one of the main justifications behind moving people into concentrated residential areas.

To ensure PAPs are able to undertake the chosen livelihood option in their new location, measures were taken by Nam Ngiep II Hydropower Project Company:

- New training center and demonstration bases were built for training, extension and technical support for resettling families.
- An agreement between Nam Ngiep II Hydropower Project Company and Lao's National University was signed for lasting technical supervision and capacity building of resettled people.

Houses in the old village are pictured here.

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The result of resettlement should not simply be displacement but rather, resettlement with development. Resettled people should be better off than before in a number of specific ways, such as income levels and diversity of income sources (both agricultural

and non-agricultural), access to services and infrastructure, property rights and security of tenure in the resettlement area.

Many lessons were learned during the Nam Ngiep II Hydro Project resettlement work. They include the following:

- The resettlement scheme and site were adjusted several times because responsibility was shared by several government departments and several provinces and districts. The key institutional constraint confronting the attempt to achieve resettlement was the role of overall authority coordination.
- Apart from governmental agencies at all levels of authority, a wide degree of participation of PAPs in the planning of and preparations for resettlement – such as women (and through them, children), the elderly, indigenous peoples, and ethnic minorities – provided an important way to uphold their interests.
- PAPs need several years of dedicated support and extension services before they will be proficient at farming and other skills. Strong extension services from the Nam Ngiep II Hydropower Project and national and provincial authorities in Laos will help ensure the resettled people discussed in this article are able to survive economically, identify with the new area, and form a community.

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More

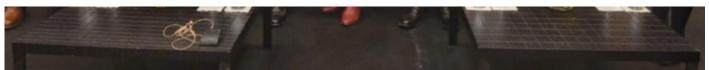


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