The Nam Theun II Hydroelectric Project Lao PDR: Information and Questions Oct. 1995

Recommended Citation

Grainne Ryder, "The Nam Theun II Hydroelectric Project Lao PDR: Information and Questions Oct. 1995", Aprenet, May 28, 1996, https://nautilus.org/aprenet/the-nam-theun-ii-hydroelectric-project-lao-pdr-information-and-questions-oct-1995/

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The Nam Theun II Hydroelectric Project
Lao PDR:
Information and Questions

Project Background

In October 1995, the Nam Theun 2 Project developers prepared their own public information bulletin on the proposed BOOT (Build-Own-Operate-Transfer) which contains the following information:

I: THE PROJECT DEVELOPERS:

NAM THEUN 2 PROJECT DEVELOPMENT GROUP (PDG)

TRANSFIELD HOLDINGS, a leading Australian engineering company with activities throughout Asia, annual turnover in excess of AUD$1.3 billion and orders in hand in excess of AUD$4.1 billion.

ELECTRICITE DE FRANCE, the world's largest electricity utility as measured by both installed capacity and quantities of energy distributed, with assets of US$114 billion and turnover in 1993 in excess of US$31 billion.

ITALIAN-THAI DEVELOPMENT, the largest construction company in Thailand and the biggest civil engineering company in South East Asia, with total assets of 9.2 billion Baht and turnover in 1993 of 11.6 billion Baht.

JASMINE INTERNATIONAL, a leading provider of turnkey telecommunications engineering works in Thailand, with total assets of US$490 million and turnover of US$114 million.

PHATRA THANAKIT, one of the leading financial institutions in Thailand, with total assets of US$ 1.6 billion.

PDG RESPONSIBILITIES

THE PDG is responsible for the development, design, construction, operation and maintenance - namely the process designer, turnkey contractor, operator and equity investors. The PDG is arranging funding for the GoL to take a 25 percent share in the project.

The members of the PDG will be shareholders in the Nam Theun Electricity Company (NTEC). The shares in the company are divided as follows: Government of Lao PDR (GoL)(25%), Transfield (10%), Electricite de France (30%), Ital-Thai (15%), Phatra Thanakit (10%), Jasmine International (10%).

THE GOVERNMENT OF LAO PDR has granted the PDG the exclusive mandate to develop Nam Theun 2 and will grant the Nam Theun Electricity Company the concession. The government will also be an equity participant in the project.

THE ELECTRICITY GENERATING AUTHORITY OF THAILAND (EGAT) will, through the Power Purchase Agreement, commit to purchase on a pay-if-available basis, the electricity output of the project.

II: PROPOSED CONTRACTUAL STRUCTURE

CONCESSION AGREEMENT Signed by the GoL and the Nam Theun Electricity Company (NTEC)

PROCESS DESIGN AGREEMENT Signed by the process designer (EDF) and NTEC

TURNKEY CONTRACT Signed by Transfield, Ital-Thai, Jasmine, EDF, and the NTEC

POWER PURCHASE AGREEMENT Signed by EGAT and the NTEC

LOAN AGREEMENTS Signed by local and international lenders and the NTEC

OPERATION AND MAINTENANCE AGREEMENT Signed by EDF (or a subsidiary) and the NTEC

III: FINANCING PROPOSED BY NAM THEUN 2 PDG

The total estimated project cost including financing, inflation and interest during construction, is approximately $US1.1 billion. It is proposed that this will be financed 30 per cent through equity and 70 percent through debt.

The PDG has identified the following sources as potential financiers:

EXPORT CREDIT AGENCIES These will be approached to provide direct funding or loan guarantees for the financing of all major imported equipment packages.

THAI FINANCIAL INSTITUTIONS These are expected to support the project because of its importance to EGAT and to ensure Thailand's ongoing access to additional electricity generating capacity. From the lenders' perspective, the strong credit position of EGAT is reinforced by the rapid development of commercial and economic relations between Thailand and Lao PDR.

INTERNATIONAL PROJECT FINANCE BANKS AND MULTINATIONAL AGENCIES (WORLD BANK) These are expected to be attracted by the commercial strength and importance of the project and by the strength and experience of the developers.

INTERNATIONAL COMMERCIAL BANKS International commercial banks will be invited to lend to the project through a co-financing structure with bilateral and multilateral agencies.

END OF PDG BULLETIN

IV: STATUS OF NAM THEUN 2 FINANCING

Three leading commercial banks - Barclays (UK), Societe General (France) and Deutsche Bank (Germany) have expressed interest in investing but only if the World Bank will provide a guarantee. These banks are expected to raise half the project cost with the rest sourced from Krung Thai bank, Thai Farmers Bank, and Phatra's lending department.

The GoL is expected to have an "equity stake" of about US$ 90 million.

"The GoL has asked the World Bank group to provide financial support for the Nam Theun 2project through a combination of A and B loans from the IFC, and partial risk guarantees from the Bank. Our position is that only on the basis of preparation of acceptable standards would the Bank Group appraise the project and subsequently decided whether ir can participate in its financing. In particular, the project would have to comply with our policies, as set forth in Operational Directives, concerning the environment, resettlement and indigenous peoples. . . . The Bank would need to satisfy itself that the macroeconomic implications of this large investment, including the risk it will impose on the Government in terms of borrowings and guarantees and the impact it would have on terms of trade and income distribution, can be managed. A pre-condition for Bank consideration of this project would be an open, transparent participatory process in conducting the studies and consultation needed to satisfy the above Bank concerns."

WORLD BANK DELAYS DECISION

"If the developers cannot clearly satisfy environmental requirements of the World Bank within six months, EGAT will cancel its plans to purchase electricity from this project," said Preecha Chungwatana, EGAT governor.

EGAT TRANSFERS POLITICAL/ENVIRONMENTAL RISK TO LAO PDR

In September 1995, Thai Foreign Minister Kasem Kasemsri stated that buying power from Nam Theun 2 was a good idea because it would not have to deal with the negative consequences of building another dam in Thailand.

LACK OF PRIVATE SECTOR INTEREST

In an interview with the Financial Times, a senior economist for Standard Chartered Bank's southeast Asia department said, "I am struck by the lack of private sector interest in many of these [Mekong] projects. If they were viable, there would be a lot more activity and interest from the private sector."

COMMERCIAL FINANCING "DIFFICULT" WITHOUT WORLD BANK GUARANTEE

In an interview with The Nation, the Nam Theun 2 Project Manager, Hans-Gerd Fischer said: "Without a guarantee from the World Bank, it will be very difficult to secure financing that will enable the project to get off the ground."

COMMERCIAL BANKS NOT "COMFORTABLE" WITH POLITICAL RISK IN LAO PDR

A source with Phatra Thanakit, one of the Thai partners and financiers of the PDG, has expressed confidence that the World Bank will provide a political risk guarantee for the project:

"These commercial banks do not feel comfortable about participating in a Lao project unless a political risk guarantee is provided by the World Bank. . . . If the construction of the Nam Theun 2 dam cannot continue due to political reasons such as nationalization or changes of rulers and policy, the World Bank guarantee would assure our lenders that the debts would be paid."

V: NAM THEUN 2 DEVELOPERS UNDERESTIMATE PROJECT RISKS AND COSTS

RESERVOIR AREA OFF BY 107 SQUARE KILOMETRES

In December, 1995, The Nation broke the story that the PDG had been using inaccurate maps to estimate the area flooded by the Nam Theun 2 project. The maximum area flooded is now estimated at 447 square kilometres, which is 107 square kilometres or one-third more than originally estimated.

INADEQUATE HYDROLOGICAL DATA

An independent review of the hydrological data for Nam Theun 2 found that the data available "is not sufficient to fully assess the [dam's] viability. . . and potential impacts to water resources and related natural/human resources."

PLANT FACTOR TOO HIGH

The dam's economic justification is based on the assumption that it will produce power with an efficiency, or plant factor' of 81 per cent. The world average hydropower plant factor is only half this level; very few dams achieve such a high level of power production. Several decades of reliable streamflow data would be needed to assume such a high plant factor. In the case of Nam Theun 2, only 7 years of rainfall data are available for parts of the Nam Theun basin; using rainfall data to estimate streamflows is prone to many uncertainties.

NO AGREEMENT WITH DOWNSTREAM THEUN-HINBOUN DEVELOPERS

The 210 MW Nam Theun Hinboun project, partly financed by the Asia Development Bank and Nordic aid, is under construction downstream of the proposed Nam Theun 2 project. The amount of hydroelectricity produced will depend upon the amount and timing of flows released from the Nam Theun 2 to the downstream Theun channel. The Nam Theun 2 PDG reports state however that the Nam Theun 2 project will utilize 85 percent of the annual flow of Nam Theun (note that "utilization" means diversion of the Theun flow to a power plant situated in another river basin, the Xe Bang Fai where the water is to be released after passing through the turbines). According to the Knoop review, the hydrological data used by the PDG shows that the operation of Nam Theun 2 would reduce the output of the downstream dam by 32 to 40 percent during four months of a year with average rainfall. Yet from a review of the PDG documents, there appears to be no contract or agreement to date between the PDG and the Nam Theun-Hinboun power company concerning flow, and the sharing of hydrology risks between the two sites.

INADEQUATE ENVIRONMENTAL ASSESSMENT AND RESETTLEMENT PLANS

In an interview with The Nation, Soukata Vichit of the Science, Technology and Environment Office (STENO) in Vientiane, which is responsible for reviewing the environmental assessment produced by the Nam Theun 2 PDG, says the potential contamination of water and fish caused by polluted water discharged from the reservoir is alarming. "It is quite shocking that to date there has been no study of the inundation and impact on the ecology, fishing and farming in the basin."

UNRELIABLE ELECTRICITY DEMAND PROJECTIONS FROM EGAT

JULY 1995: EGAT announces that it overestimated its demand for electricity by the year 2000 by 7000 MW and would therefore have to cut back on the amount of power it will purchase from neighbouring countries.

OCTOBER 1995: The Thai government agrees in principle to buy up to 6000 megawatts more from Lao PDR. The assurance from Thailand is important for Laos as a guarantee to investors in hydro-power project will have a market for their product. EGAT and EdL have decided to use British law to settle any disputes.

FEBRUARY 1996: In the first round of bidding to participate in EGAT's Independent Power Producers' programme, 32 consortia proposed to sell over 30,000 MW to the state power utility by the year 2002. EGAT intends to buy 1,380 MW from private producers before 2000 and about 4,000 MW after 2002.

VI: WORLD BANK ROLE IN PROJECT ASSESSMENT/1995

1995: World Bank mission to Lao PDR finds developers' assessment of the project inadequate. Construction start-up and financial closure delayed.

The Mission was led by J. Shivakumar and included Jamil Sopher, Gloria Davis, John Shilling, Robert Goodland, Enrique Crousillat, Glenn Morgan, Kathryn McPhail, Concepcion del Castillo, Thomas Walton, Bill Smith, Mostafa El-Erian, Rachel McColgan-Mohammed, Arnaud Guinard, Linda Schneider.

The Bank Mission recommended that the following studies be conducted. Note that two of the four studies, economic impact and alternatives, were to be financed using an existing IDA credit to the Ministry of Industry but the GoL has refused to authorize them. The PDG is conducting the environmental and social studies, using various consultants (Acres International (Canada), CARE International, IUCN, Wildlife Conservation Society (USA)); the studies are due to be completed mid-1996.

1. ECONOMIC IMPACT STUDY - (i) an anlysis of the economic return of the project including sensitivity analysis; (ii) an analysis of the micro-economic impacts of the project on the economy; (iii) an analysis of the macro-economic impacts of the project on the government budget, external balances and exchange rate; (iv) an analysis of the financial and external exposure risks faced by the Government as a result of undertaking such a large project.

2. ENVIRONMENTAL ASSESSMENT AND MANAGEMENT PLAN (EAMP) - Detailed National Biodiversity Conservation Area Management Plan and Indigenous People's Plan. Military logging is to be brought under control, detailed management plan for area around the reservoir, consultation with local people etc.

3. ANALYSIS OF POWER SECTOR DEVELOPMENT ALTERNATIVES - to determine whether or not the Nam Theun 2 project is the most favourable strategy for providing 1500 MW of hydroelectricity to Thailand (6-8 months). This is to include ". . . a Public Participation Program, whereby the views of stakeholders will be taken into account in formulation, screening, and selection of alternatives." (World Bank Aide Memoire, November 1995. p.2).

4. SOCIAL ACTION PLAN - detailed resettlement and development plans.

OTHER WORLD BANK RECOMMENDATIONS TO THE GoL:

The Bank requires the appointment of a Dam Safety Panel, and an Environmental and Social Impact Review Panel.

The Bank requires that the GoL notify Cambodia, Thailand and Vietnam about the project since the Mekong River is an international waterway and, although the Nam Theun tributary is situated wholly in Lao PDR (the beneficiary state/prospective borrower), the Lao PDR is not the lowest down stream riparian. Notification by the Government to the Joint Committee of the Mekong River Commission is equally required pursuant to the terms of the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin (April 1995).

The GoL has officially requested a project management advisor be recruited to assist the GoL's Committee on Energy and Electric Power to bring preparation of the project in line with World Bank's standards and policies.

VII: NAM THEUN 2 PROJECT DEVELOPMENT 1989 - 1995

1995: Government of Lao PDR and PDG finalize with EGAT (in February) the tariff for the project and major commercial principles for the Power Purchase Agreement (PPA).

1994: Nam Theun 2 Project is included in the supply commitment of 1500 megawatts to be developed in Lao PDR for sale to Thailand.

1993: The GoL awards Transfield (they were involved in the construction of the Thai-Lao-Australian Friendship Bridge across the Mekong) a mandate to develop the project. Transfield forms the PDG and PDG then signs a project development agreement with the GoL.

1993: The GoL and the Royal Thai government sign an agreement to cooperate in development of 1500 MW capacity in Lao PDR and purchase of power by Thailand by the year 2000.

1991: Snowy Mountain Engineering Corporation of Australia and a World Bank-appointed panel of experts recommend Nam Theun 2 as the "best option" for a hydro-electric project in Lao PDR.

1989: SMEC conducted a UNDP- and World Bank-funded feasibility study recommending that the project be built.

End/Project Information 28/05/96 Compiled by Grainne Ryder Probe International 225 Brunswick Avenue Toronto, Ontario, CANADA M5S 2M6. Fax 416 964 8239 Phone 416 964 9223 ext.228 eprobe@web.apc.org

VIII: COMMENTS/QUESTIONS

1) The PDG bulletin states that commercial banks will be invited to lend through a co-financing structure with bilateral and multilateral agencies. How will this, or could it, work?

2) The PDG states that international project finance banks will be attracted by the commercial strength and importance of the project. Which banks?

3) The Nation (23/06/95) reports that half the cost of Nam Theun 2 will come from the Krung Thai bank and the Thai Farmers Bank. Will these banks be backed by public sector somehow?

4) The BOOT model, proposed by the developers and various interested parties, is not privatization. This proposed

scheme would remove private risks and transfer them to public ratepayers and taxpayers in Lao PDR and donor countries.

5) The commercial banks have stated they will not get involved in this BOOT without a guarantee from the World Bank, export credit agencies etc. The investors are worried about political risk in Lao PDR: fear of nationalization of assets, and civil strife. Because the risks are real, the World Bank proposes to shield investors from these risks; this compromises the judgement of private investors about the viability of the project.

6) Has the Nam Theun Electricity Company been formed legally and if not who signed the concession agreement for Nam Theun with the GoL?

7) Which party will take responsibility for the hydrology risk associated with Nam Theun 2?

8) Out of the list of agreements (see page 2), which have been finalized and signed, and by whom?

9) Would any of the proposed World Bank guarantees require a counter-guarantee from the government of Lao PDR? How would that work?

10) What exactly does "pay-if-available" mean for both parties - EGAT and the NT Electricity Company?

11) How will the Lao government finance its equity in the project?

12) Who would be responsible for the guarantee given by the Bank? (A Phatra Thanakit insider said that the PDG would have to pay 1.4 per cent of the US$ 100 million annual guarantee coverage premium to the World Bank. He also said the World Bank agreed to give 1 percent, or US$1 million, as a grant to the Lao government for its cooperation in counter-guaranteeing the project -- The Nation, 7 February 1996) What is this grant for "cooperation"? How does the counter-guarantee work?

13) What is the advantage to the private sector of having the government as an equity partner? Do they get access to financing below commercial rates? Ie through IFC? IDA, technical assistance grants, government bailouts....?

14) What is the official rationale/advantage to the GoL in being a partner? (Political control/ownership/sovereignty? Control could be better achieved by regulating the investors at arms length with good contracts and laws to protect the interests of citizens?

15) Lao PDR is ranked as an IDA-recipient country and would be the first IDA country to receive a bank guarantee if Nam Theun 2 were to proceed. World Bank guarantees are usually provided to members of the World Bank.

WORLD BANK: "There are limitations to what we are able to do with Laos. Laos is an IDA recipient country and the bank's guarantees are for IBRD countries. The question that has to be resolved internally is whether the bank can guarantee an IDA country." [Jamil Sopher in an interview with Nantiya Tangwisutijit, The Nation, 7 February 1996.]

Has the IDA guarantee question been resolved?

16) The Bank's Aid Memoire states that the European Commission is financing a study to rank potential hydroelectric projects taking into account environmental factors. The study was to be completed by January 1996 and conducted by Lahmeyer International (Germany). Has this study been completed? Will this publicly-financed study be made available for public review?

17) Norplan of Norway has conducted a Water Management Plan for the Nam Theun/Nam Hinboun river basin due to be completed December 1995. Will this publicly-financed study, paid for by NORAD, be made available for public review? How does this plan affect/relate to the operations at Nam Theun 2?

18) Norconsult of Norway has conducted the "Energy Sector Study Promoting Subregional Cooperation in Cambodia, Lao PDR, Myanymar, Thailand, Vietnam, and Yunnan province of PRC," published in 1994 by the Asian Development Bank. This study recommends expansion of hydropower development in Lao PDR and other countries to meet Thailand's power demand (rather than coal). Will this publicly-financed study be made available and widely distributed for public review in the Mekong region? Has this study been endorsed by the Mekong River Commission?

End/Questions/comments
28/05/96
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