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Opening Laos: The Nam Theun 2 Hydropower Project

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Opening Laos: The Nam Theun 2 Hydropower Project

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Introduction

In early 2010, the Nam Theun 2 (NT2) project --- the largest hydropower plant in Lao PDR ---- went into operation after a five-year construction period. Touted as a "world class project" according to Patchimuthu Ilangovan[3], the Country Manager of the World Bank in Laos, the Nam Theun 2 is expected to generate approximately US$2 billion in revenues through taxes, dividends and royalties for the Lao Government over a twenty-five year operating period. This constitutes about 7-9% of the country's annual budget and will be a key resource that will finance the development programs of Laos, specifically its drive to reduce poverty.

As per update from the World Bank, the first revenue stream amounting to US$600,000 revenues from electricity sales to Thailand has been already received by the Lao Government in June 2010.[4] An additional US$6.5 million was expected to bring in revenues in late 2010. To ensure that revenues are utilized to fund development programs, the World Bank assisted in the creation of the Poverty Reduction Fund, while the Asian Development Bank is working closely with the Lao Government on streamlining reporting systems to ensure effective revenue management and accountability mechanisms.

Despite this early economic success, the Nam Theun 2 hydroproject has not been without controversy. Since the idea of the project began in the early 90s, various groups sought to oppose the project on the basis of environmental and social concerns. The World Bank, one of the project's major financiers, agreed to postpone the project while putting together a comprehensive package of compliance measures that consisted of i) an Environmental Impact Assessment and mitigation measures to address environmental degradation; ii) a Social Impact Assessment, addressing in particular the sensitive issues of relocation of affected communities and a corresponding compensation policy; and iii) an extensive multi-stakeholder process that involved consultations among a diverse set of stakeholders including the communities who were directly affected by the project.

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[2] Paper presented at the first workshop of the New Approaches to Building Markets in Asia research project, Lee Kuan Yew School of Public Policy, National University of Singapore, 17-19 April 2011.

[3] Interview with P. Ilangovan, World Bank-Laos, March 26, 2010

[4] Revenues From Nam Theun 2 Hydro Project Now Working For People Of Laos As Communities In Project Area See Benefits, Says New Report. http://siteresources.worldbank.org/LAOPRDEXTN/Resources/293683 1162551857057/NT2BoardUpdate_July2010_Eng.pdf. (Downloaded on 23 Sep 2010)

Further, the NT2's massive financial requirements required private sector financing due to the limited financing capacity of international financial institutions. The result of extensive negotiations yielded a complex web of partnerships that involved the Government of Laos, the World Bank, the Asian Development Bank, and seven international private sector partners to provide technical and financial expertise. The Nam Theun 2 Power Company spearheaded by a French contractor was established as the implementing unit to oversee the construction, implementation and eventual turn-over of the project after twenty-five years under a Build-Own-Operate-Transfer agreement with the Lao government.

Opening the Lao economy to regional electricity trade with Thailand signaled a new phase in the country, least of which is a phased process of gradually moving Laos from a Soviet-style centrally planned economy to one governed increasingly by market forces. This process required two distinct sets of instruments: 1) political risk guarantees; and 2) risk mitigation measures. Such instruments fall within a larger framework on political modernisation, which is concerned, in the broadest sense, with state capacity to promote the overall goals of socio-economic development (Coleman and Almond 1960; Eisenstadt 1960; Powell 1962; Pye 1962; Ward and Rustow 1962; Verba 1964). More specifically, political modernization refers to a process of *rationalization,* here supplied by Talcodt Parsons' (1967) convenient typology of six pattern variables that differentiate traditional political systems from modern ones. Political modernisationists emphasize functional differentiation and the adoption of achievement criteria and propose moving away from functional diffuseness and ascription that typifies most traditional polities (Almond 1963).

Concomitantly, the work of Samuel Huntington's work on *Political Development and Decay* (1965: 393-405) emphasized *political institutionalization* rather than merely political development --- a variant within the modernization discourse that has come to be known as "modernization revisionism" (Randall and Theobald 1999). The characteristic features of strong political institutions, Huntington argues, are scope, adaptability, complexity, endurance, autonomy and coherence --- all of which are neatly absent in political systems in developing countries though they might exhibit features frequently associated with modern political forms. Thus, regardless of a country's level of political development, political risk guarantees are deployed as part of a "development discourse and analysis" (Jarvis 2010: 7-8) in order to minimize and reduce the pernicious effects of developing country policies and practices that are detrimental to the effective and transparent conduct of business, promote an environment conducive to economic growth, assist investors in undertaking well-informed decisions in uncertain political environments; and where possible, eliminate the burdens on economic actors who must weigh the costs of undertaking business decisions in a politically risky environment. All these, Jarvis argues, are imperatives of investment-seeking governments regardless of their level or state of political development, and thus correspond to the Huntingtonian thesis of strong political institutions.

In contrast, Carroll (2010: 2) employs a critical view of political risk instruments through the lens of a Socio-Institutional Neo-liberalism (SIN) framework which "attempts to extend the logic of the market into social life" in support of capital accumulation and protection. Carroll's study on comparative investments by multilateral institutions in the Baku-Tblisi-Ceyhan oil pipeline in Central Asia reveals the same logic of social neoliberal technocracy and corporate social responsibility as that deployed in Laos. The net effect of these instruments is heightened, rather than reduced risk, among communities and the potential for social conflict.

Further, political risk instruments are propagated by the "doyens of market expansion in the underdeveloped world" (Carroll: *Ibid.),* an agentic perspective that foregrounds the expanded role of public institutions particularly the international financial institutions, the private sector, and the state. This interplay among development actors result in the formalization of market processes via contracts and concession agreements that in turn generate oppositional forces among a plethora of transnational non-government organisations whose sustained advocacy on counter-proposals for development heightens social conflict and political risk rather than abates it. At best, such instruments serve to provide a ground for contestation among different social groups rather than ameliorate anxieties and concerns among them.

Whereas political risk guarantees refer to the macroeconomic and political contexts of managing and regulating investments, risk mitigation measures are derived from a conceptual model that is rooted in ethical questions about the potentially inequitable distribution of the benefits and losses of development programs. Most immediately, these measures seek to minimize, reduce, and prevent negative consequences of state and investor activity at the community and household levels.

Involuntary displacement is a specific instance of directly implicating social justice and equity principles, trumping the much-abused principle of the "greater good for the larger numbers." Cernea (2000: 13) proposed an Impoverishment, Risk, and Reconstruction (IRR) framework that makes it imperative for development policy-makers and planners to distribute benefits equitably, to employ an "equity compass" in instances where relocation is unavoidable, and to exact a full sharing in the benefits of growth not just on economic but more importantly on moral grounds. Thus, "socially responsible resettlement" *(Ibid.)* is a prescription to "counteract lasting impoverishment and generate benefits for both the national and local economy." Further, concrete cases have been pointed to in support of successful relocation (e.g., post- conflict reconstruction in Azerbaijan 1996; Ramial Resettlement and Rehabilitation in Orissa 1986) as countervailing evidence to critics and cynics alike that all relocation is always a negative experience. Finally, the IRR framework incorporates the notion of "social re-articulation" among resettled communities ---- an element that is missing in conventional risk analysis of development projects and is possibly the most difficult measure to implement and assess.

Yet Cernea's insistence on its inclusion within the IRR framework provides what he considers a complete and comprehensive template for the avoidance of impoverishment, the management of risks, and the promotion of positive reconstructive efforts for affected populations that have been dislocated.

This essay is divided into the following sections: section 1 presents a historical context of the Nam Theun 2 hydropower project. Following Carroll (*Ibid*.), this section will provide details of the different development actors that include the international financial institutions, the Lao and Thai governments, and private investors --- all of whom have had a shared interest in exploiting the hydropower potential of Lao for nearly two decades. Emphasis is placed on the interests to return to dam construction but within a new framework of addressing environmental and social concerns and creating a global regulatory framework for hydropower development. Section 2 discusses the specific instruments of political risk guarantees and risk mitigation measures, with special focus on the compensation schemes for relocated populations. Finally, section 3 discusses a new generation of problems and challenges which require the appropriate institutional responses. Whatever material benefits might have accrued to displaced communities ought to be balanced against the larger requirement of reducing overall poverty in the country and moving Laos along the path to modernity. Despite all the mitigation measures that have been adopted at great expense to all partners, these efforts are meaningless without addressing the larger imperative of poverty reduction.

A Cautionary Tale: The History of the Nam Theun 2

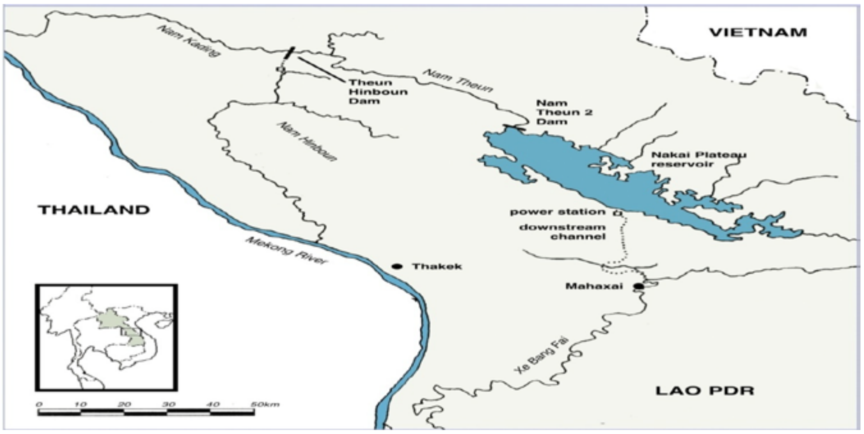
According to the Nam Theun 2 Power Company (NTPC), the hydropower potential of the Nam Theun River was identified as early as 1927 in the French bulletin *L"Eveil Economique de l'Indochine*. However, preparations for the Nam Theun 2 project only began in earnest in the early 1980s when the Mekong Secretariat, the forerunner of the present-day Mekong River Commission, engaged the services of Motor Columbus, a Swiss engineering firm, to investigate the hydropower possibilities of the Nam Theun river. This was in response to the successful construction and implementation of the Nam Ngum Hydropower project in Laos in 1971 under the auspices of the Mekong Secretariat, and laid the groundwork for subsequent hydropower development in Laos.[5]

The Nam Theun 2 was developed in the Khammouane province in the Lao PDR (See Map 1 below). Upon completion it will have an installed capacity of 1070Megawatts (MW). It dams the Nam Theun river –a tributary of the Mekong River and creates the Nakai reservoir. The dam has an approximate height of 40 meters and upon completion, creates a 450-km reservoir on the Nakai plateau with a holding capacity of 3,910 million cubic meters

[5] http://www.namtheun2.com/images/stories/EAMP/preface.pdf (downloaded 10 June 2010)

of water.[6] The dam and the reservoir have resulted in the dislocation of approximately 1,240 families who live in the plateau.

Map 1



Source: http://www.internationalrivers.org/en/southeast-asia/laos/nam-theun-2/map-nam-theun-2-project-area?size=_original (downloaded 21 May 2010)

Viewed within the wider context of national and regional development, Laos is one of the poorest countries in Southeast Asia. Compared to its immediate neighbors, particularly Thailand, China and Vietnam, it has certainly lagged behind in most development indicators. Deprived of natural resources unlike its bigger and wealthier neighbours, Laos regards the exploitation of its hydropower potential for energy exchange to Thailand and Vietnam as the strongest logic for national development. Table 1 below indicates Laos' economic position vis-à-vis selected countries in Asia. Interestingly, Laos has enjoyed positive annual growth rates over a fifteen-year period, positive increases in GDP per capita incomes, and progress in HDI rankings. This is accounted for by electricity exports mostly to Thailand which contribute 30% of total export earnings, thus strengthening the argument for a development strategy anchored on the exploitation of the country's hydropower potential. Also, the strategy is based on increased energy demand from Thailand. For the period 2000 – 2002, Thailand's demand for energy grew annually at 20%, outpacing its GDP growth rate of 11.7% during the same period. Also, the need to diversify Thailand's energy sources and reduce its dependence on natural gas prompted both governments to enter into an energy exchange agreement over a long-term period.[7]

Table 1. Selected Indicators, Lao PDR and Selected Countries

[6] Summary of the Concession Agreement. *Ibid.,* p. 6

[7] Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Lao People's Democratic Republic for the Greater Mekong Subregion: The Nam Theun 2 Hydroelectric Project. Asian Development Bank. RRP: Lao 37734. March 2005. P.1

COUNTRY	GDP Per Capita Income PPPUS$				GNI (billions)	GNI Per Capita	GDP Per Capita Annual Growth Rate (%)		HDI Rank			
	1998	2001	2005	2007	2008	2008	1975-2001	1990-2005	1998	2001	2005	2007
China					3,899.3	2,940						
Lao PDR	1,734	1,620	2,039	2,165	4.7	750	3.4	3.8	140	135	130	133
Thailand	5,456	6,400	8,677	8,135	191.7	2,840	5.4	2.7	76	75	78	87
Vietnam	1,689	2,070	3,071	2,600	77	890	4.9	5.2	108	109	105	116
Cambodia	1,257	1,860	2,727	1,802	8.9	600	2.1	5.5	136	130	131	137
Myanmar	1,199	n/a	n/a	904	n/a	n/a	1.8	5.5	125	131	132	138

Sources: Compiled from World Development Report 2011; UNDP Human Development Reports. 2000, 2003, 2007/2008, 2009

The Asian Development Bank was eager to be part of the "opening" process of the Lao economy through scaling up its loan activities in Laos. It extended a small loan in 1987 to the Lao government (US$15 million and a supplementary loan of US$3 million to cover cost overruns[8]) to construct the 45MW Xeset Hydropower plant. Construction began in 1988 and was completed in 1991, supplying electricity to the provinces of Saravane and Champassak in southern Laos. What was significant about this project was it marked the first ever electricity trade to Thailand, buying up surplus production from Laos, and laying the foundation for subsequent energy exchange between the two countries. It also constituted strategic elements in what would later come to be known as the Greater Mekong

[8] http://www.adb.org/Documents/PCRs/LAO/16161-LAO-PCR.pdf (downloaded 9 April 2011)

Subregion regional cooperation program --- an initiative of the ADB that comprised five countries and two southwestern provinces in China.[9]

Electricity trading that began with the Xeset Hydropower Project laid the incipient framework for the subsequent formalization of investment in the energy sector. In response to increased energy demand from Thailand, a Memorandum of Understanding (MOU) was signed by both countries for the provision of electricity to Thailand up to 1,500 MW. In 1998, the Lao PDR and Vietnam signed a MOU to export 2,000 MW to Vietnam. By December 2007, the governments of Laos and Thailand renewed the trading agreement to extend electricity supply to Thailand up to 7,000 MW by the year 2020. Because of its strategic geographic location and its hydropower potential, Laos has been designated as the "battery of Asia" whose primary markets for its sale of electricity are Thailand and Viet Nam.

Building on the success of electricity trading between the two countries, the Government of Laos invited the World Bank in 1994 to participate in the project as a source of project financing for the equity participation of the Lao Government, and also to serve as country-risk loan guarantor. The World Bank responded by requesting for a preliminary environmental assessment, which was carried out by NTEC TEAM Consultants of Thailand. Two other reports in 1994 and 1995 on hydrological flows during the dry season prompted the World Bank to enumerate a set of additional concerns, among them, the need for a Study of Alternatives, an Economic Impact Analysis, and an Environmental and Social Project as an intrinsic component of the hydropower project.[10]

In November 1996, the World Bank developed the Nam Theun Social and Environmental Plan (NTSEP) funded through an International Development Association (IDA) credit to the Lao Government and constituted a portion of the government's equity holdings in the project.[11] An initial set of studies sought to identify a number of environmental impacts due to the construction of the project. Among others, the studies recommended the development of the Nakai Nam Theun National Biodiversity Corridor Areas (NNT NBCA). The World Bank agreed to set up a fund for a management plan of the NNT NBCA. The plan was developed by the International Union for the Conservation of Nature (IUCN) and the Wildlife Conservation Society (WCS).

However, the 1997-98 Asian financial crisis delayed the project especially with regard to the revised energy demands of Thailand. Over the next ten years, the Lao government continued to express its interest in developing the project and commissioned several studies to test alternatives. In 1998, Lehmeyer and Worley International, a German

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[9] Interview with Morita Noritada, former Director General of the ADB and considered architect of the GMS regional cooperation program. Interview on 9 July 2009, Bangkok

[10] *Ibid.*

[11] http://www.namtheun2.com/images/stories/EAMP/chapter%203_sml.pdf Environmental Impact Assessment of the EAMP (downloaded 10 June 2010)

consulting firm specializing in the design of hydropower projects throughout the world, undertook a Study of Alternatives. This was followed in 2000 by a World Bank-commissioned study on the ranking of potential hydropower projects in Laos.

Still hesitant due to the rather tainted history of hydropower projects and a long hiatus in hydropower projects, the World Bank waited for the outcome of the report of the World Commission on Dams to obtain guidance on its so-called "strategic priorities" consistent with those put forward by the WCD report.[12]

In response to the WCD report, the World Bank the World Bank designed and subsequently issued an Operations Manual that clearly articulated a set of policies related to the following: i) Safety of Dams (OP/BP4.37); ii) Environmental Assessment (OP/BP4.01); iii) Natural Habitats (OP/BP4.04); iv) Physical/Cultural Resources (OP/BP4.11); v) Indigenous Peoples (OP/BP4.10); vi) Involuntary Resettlement (OP/BP4.12); and vii) Projects on International Waterways (OP/BP7.50).[13]

In 2001, a shareholder agreement was signed among the sponsors. The following year, in September 2002, the Nam Theun 2 Power Company Limited (NTPC) was established under Lao PDR law. The Concession Agreement signed on 3 October 2002 serves as the project's overarching framework and grants to the Nam Theun Power Company (NTPC) the rights to all activities for the entire twenty-five duration of the project until it is turned over to the Lao Government. The agreement also includes other items such as water and land usage rights, electricity supply to Energy Generating Authority of Thailand (EGAT) and the Electricite Du Lao (EdL), and provision for a Dam Safety Review Panel. Of crucial importance is Section 4 of the agreement which identifies the environmental and social obligations of the Nam Theun 2 Power Company, consistent with the Environmental Assessment and Management Plan, the Resettlement Action Plan, and the Social and Environmental Management Framework and Operational Plan (SEMFOP).[14]

In 2003, a Purchase Power Agreement (PPA) was signed between the EGAT and EDL. In this agreement, 95% of the energy will be sold to the EGAT while the remaining 5% will be retained by Laos for domestic energy consumption. The relatively long history of energy exchange between the two countries has been scaled-up by the Nam Theun 2 project which,

[12] The World Commission on Dams was created in 1998 to review the effectiveness of dams in terms of development goals and objectives, and to draw up internationally-accepted standards and guidelines for future dam projects. It consisted of twelve members representing governments, industry, academia, and civil society. It was disbanded in 2000 but during its brief lifespan, it reviewed experiences from 1,000 dams in 179 countries. In its final report, the WCD identified seven strategic priorities which constitute a global framework for the design, construction, and implementation of dam projects, namely: i) gaining public acceptance; ii) comprehensive options assessments; iii) addressing existing dams; iv) sustaining rivers and livelihoods; v) recognizing entitlements and sharing benefits; vi) ensuring compliance; vii) sharing rivers for peace, development and security.

[13] http://go.worldbank.org/97G8KOUHBO (downloaded on 10 May 2010).

[14] Summary of the Concession Agreement Between the Government of the Lao PDR and the Nam Theun 2 Power Company Ltd. November 2005 http://siteresources.worldbank.org/INTLAOPRD/Resources/293582-1092106399982/492430-1092106479653/SummaryofCA.pdf (downloaded on 21 May 2010)

up until its completion in early 2010, has been restricted to small-scale scale exchanges. With the PPA, the two countries thereafter signed additional Memoranda of Agreement that will provide electricity sales to Thailand of up to 5,000 MW up to 2015 and another 2,000 MW after 2015.[15]

The last item in a string of strategic priorities before embarking on the final agreement with the World Bank and the ADB was an elaborate series of multi-stakeholder workshops held in four countries --- Bangkok, Tokyo, Paris, and Washington, DC, in addition to various consultations throughout Laos. Of particular note were the consultations with the villagers in Nakai Plateau who have been approached by diverse stakeholders including the World Bank, the ADB, various international NGOs, academics, the media, and other interested parties. These consultations represent a first-ever attempt by international financial institutions to generate a broad consensus around a hydropower project, and to address environmental and social concerns.

Having completed a round of comprehensive studies, safeguard documents, project financing activities, multi-stakeholder workshops and community consultations, the project commenced construction in June 2005. Over a gradual period of two years, relocation of villagers on the Nakai Plateau was carried out, to coincide with the preparation of the relocation site and the building of homes. The construction period lasted approximately four years, safely on schedule as indicated by the NTPC. By March 2010, the first four turbines went into operation, and electricity transmission to Thailand began, thus heralding the start of a different phase in Lao's economy. NT2 represented a renewed to revive dam construction by the World Bank after a hiatus of over a decade.[16] Its resuscitation however is markedly pronounced in terms of its departure from previous practice.

The Anatomy of Political Risk in Laos

Political risk, according to Jarvis (2010: 6-7) is a "praxis-driven ontology" that is intimately tied to the exercise of power, and thus usually refers to the "activities of governments (and/or its agencies) whose decisions, politics, edicts and rulings create outcomes that distort, impact, change or adversely affect the interests of stakeholders (economic and non-economic actors)." Especially in countries that have yet to move along the path towards institutional and capacity build-up, political risk guarantees constitute an interim step to allow financing partners to mobilize capital within a framework of protecting investments under uncertain environments. According to the Multilateral Investment Guarantee Agency (MIGA), a member of the World Bank group, the key forms of

[15] The Thai-Lao Relationship on Electricity Supply. http://www.namtheun2.com/index.php?option=com_content&view=article&id=54&Itemid=60 (downloaded on 17 May 2010)

[16] http://www.whirledbank.org/environment/dams.html (downloaded on 10 May 2010); http://ipsnews.net/africa/interna.asp?idnews=28170[5/10/2010]

political risk in the infrastructure, oil and gas sectors are the following: i) expropriation through administrative or legislative actions by governments at national and sub-national levels that result in confiscation or nationalisation; ii) breach of contracts such as revocation of licenses and concessions; iii) inconvertibility and non-transfer of currency into foreign exchange; and iv) war or terrorism that result in blockages, stoppages, closures or interruption of business activities.[17]

With respect to the NT2, the role of the multilateral banks was crucial in terms of providing multilateral guarantees against political risks as a pre-requisite for the dollar lenders to support the project. The World Bank financed a total of US$150 million comprising an International Development Agency (IDA) grant for the Social and Environmental Project, a partial IDA risk guarantee of US$42 million for a syndicated loan to the commercial operator, and MIGA guarantees of US$91 million for a syndicated commercial loan covering political risks in Laos and Thailand. The activities covered by the grant were: i) support for resettling and restoring livelihoods of communities that were affected by the project;ii) environmental management including wildlife; iii) restrictions and regulation against unsustainable use of watershed from NT2, including on wildlife trade; and iv) support monitoring of the project, by both the environmental and social panel, as well as the Dam Safety Review panel.

The Asian Development Bank co-financed the project through a US$50 million direct loan, a US$42 million Political Risk Guarantee, and a US$20 million public sector loan to the Government of Laos. The total debt guarantees from the multilateral bank amounted to US$186 million which, though relatively small compared to the amounts provided by the private sector, played an important role for the project to go forward.[18]

Revenues were to be received in two currencies – half in Thai baht and half in US dollar, to lend more stability to the project, in the absence of a long-term market rate between these currencies.[19]

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[17] Mitigating Risks in Oil, Gas and Mining. Multilateral Investment Guarantee Agency (MIGA). http://www.miga.org/documents/OGM.pdf

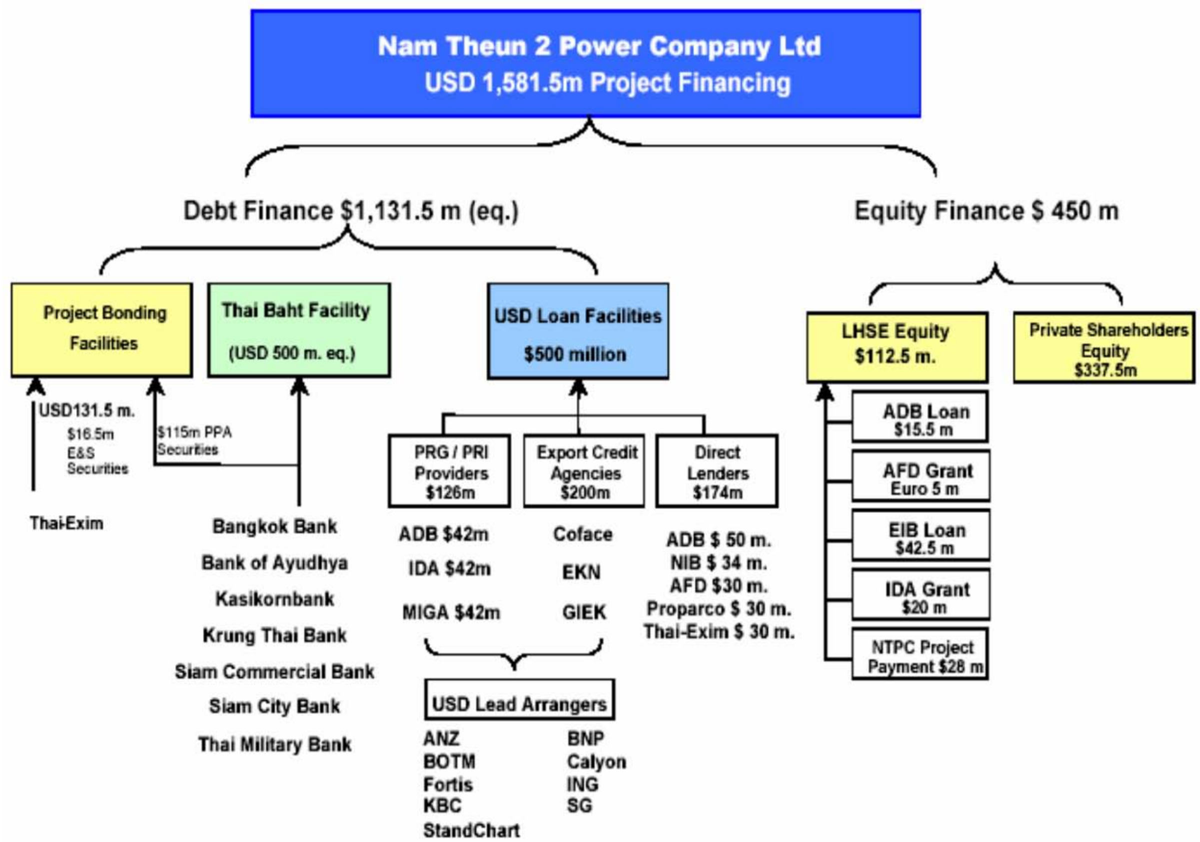
[18] Hydropower in Asia: The Nam Theun 2 Project. http://www.miga.org/documents/NT206.pdf (downloaded 19 May 2010); Nam Theun 2 Revenue Management Programmatic PER Discussion Paper 1. The Asian Development Bank. Updated draft. 15 Feburary 2010

[19] The total estimated base project cost of NT2 is US$1.25 billion net of contingencies. A total finance package of $1.58 billion was put forward in May 2005. The project is funded by a combination of: i) multilateral agencies, who have provided both loans and political risk guarantees, principally, the World Bank; the Multilateral Investment Guarantee Agency (MIGA), the Asian Development Bank; ii) export credit agency support from COFACE of France, EKN of Sweden and GIEK of Norway, Nordic Investment Bank, Agence Française de Développement (AFD), PROPARCO, Export-Import Bank of Thailand; iii) nine international commercial banks (ANZ, BNP Paribas, BOTM, Calyon, Fortis Bank, ING, KBC, SG and Standard Chartered); and iv) seven Thai commercial banks (Bangkok Bank, Bank of Ayudhya, Kasikornbank, Krung Thai Bank, Siam City Bank, Siam Commercial Bank and Thai Military Bank).

Private sector participation consisted of the following: i) Electricité de France International (EdFI) of France (35% share), functions as the Head Contractor of the project. It provides technical assistance to the project in addition to financing and coordinating functions of the Nam Theun 2; ii) Government of Laos (25% share), represented by Lao Holding State Enterprise (LHSE), holds the shares of the Lao Government in NTPC (replacing the EDL) and will be responsible for receiving the revenues from the electricity sales of Nam Theun 2; iii) Electricity Trading Public Company Ltd. (25% share) is the first independent power producer in Thailand and will supply generating capacity and electrical energy to EGAT under long-term power purchase agreements; and iv) Italian-Thai Development Public Company Ltd. (15% share) is the principal sub-contractor under the Head Construction Contract and is the first publicly listed infrastructure company in Thailand (see Figures 1 and 2).

Figure 1

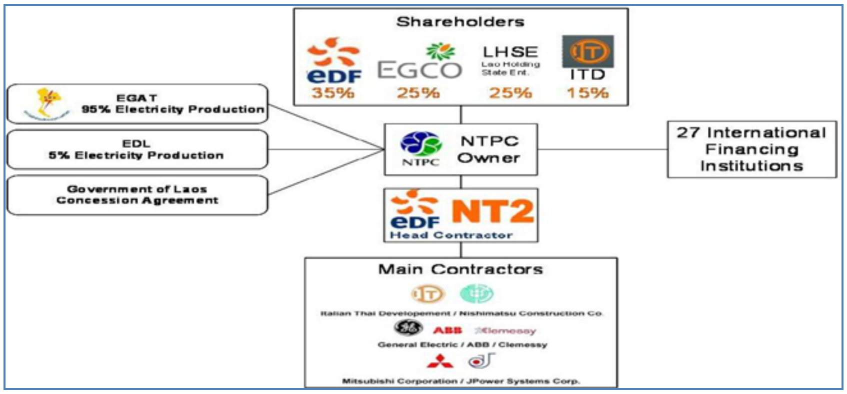
Nam Theun 2 Financing Structure



Source: Nam Theun 2 website (www.namtheun2.com)

Figure 2

The Nam Theun 2 Power Company (NTPC)



Source: Nam Theun 2 website (www.namtheun2.com)

What makes Laos so politically risky? First off, Laos' socialist economy does not inspire project developers and financiers who worry about expropriation and nationalisation. This constitutes the country's most basic political risk. In addition, Freedom House undertook a Political Risk study in 2006 with the NT2 hydroelectric dam as a backdrop for its study. Specifically, Freedom House itemized the following political risks: i) its 1991 constitution that renders the Lao People's Revolutionary Party (LPRP) as the only legal political party and all levels of government. Its National Assembly, according to Freedom House, is a "rubber stamp" and despite elections being held every five years, all candidates are vetted by the LPRP, leaving no room whatsoever for competing parties and/or candidates; ii) Laos ranks very poorly in Transparency International's Corruption Perception Index (77 out of 159 nations in 2005), with rampant corruption observed in the logging and mining sectors; iii) there is no freedom of the press, an extremely low circulation of the three state-owned newspapers, one government-controlled radio station, heavily-restricted internet access and no alternative media sources; iv) religious and academic freedoms are non-existent; v) the judicial system is presumably corrupt and controlled by the LPRP; vi) widespread use of torture especially among political prisoners who have been arrested and held for long periods without trials; and finally viii) persecution against the Hmong ethnic tribe for its active support of the United States against the Communist Pathet Lao in the 1970s.[20] Further there is no civil society whatsoever and the only associations permitted are non-political ones, e.g., water user associations, peasant producer associations, school clubs, and the like. Freedom House awarded a score of 7 to Laos, representing the lowest level of freedom. Its civil liberties score is 6, and its status is Not Free.

Further, there are a number of risks that have a direct bearing on investor confidence. First, Laos has low levels of foreign exchange reserves as well as limited resource to debt financing, rendering it non-credit worthy and potentially ineligible for

[20] Freedom in the World – Laos (2006). Freedom House. http://www.freedomhouse.org/uploads/ccr/country-7211-8.pdf (downloaded on 9 April 2010).

commercial loans. Second, the rule of law is wanting and Laos' legal framework leaves much to be desired. Its civil and criminal codes were promulgated only in 1989 and 1990 respectively.[21] The Judiciary has little, if any, independence since the National Assembly appoints the president of the Supreme People's Court and the public prosecutor upon recommendation of the state president. Judges are appointed by the National Assembly standing committee as recommended by the president of the Supreme People's Court who in turn is recommended by the state president. In brief, all appointees ultimately emanate from one source ---- the state president. It is estimated that it will take at least a generation before the rule of law is applied in Laos.[22]

Patronage politics constitutes "the core of Lao political culture" [23] and thus pose serious risks to investments in terms of a operating in a climate of formal rules, policies, and procedures. Appointments to the LPRP, for example, are effected through a network of patron-client networks that consist of family members, schoolmates and affiliates, party connections, and the like. Many of these networks are connected through intermarriage among families. Thus, while the party follows a typical Leninist cellular structure, with party cells permeating all government ministries and the four mandated mass organisations,[24] the operational reality on-the-ground is one of accommodations and horse-trading among patron-client networks that compete for lucrative contracts.

In recent years, Laos undertook a series of measures that would facilitate its economic transition. The most significant was the New Economic Mechanism (NEM) which provided the foundation for decentralizing administrative controls on pricing, production, and wage controls. In effect, all administered prices were abolished, along with it, the multi-tiered exchange rate.[25] Also, the passage of the Electricity Law in 1997 provided a regulatory framework for private sector financing among independent power producers (IPPs) and served as an initial attempt to rationalize business activity in the power sector.

Given the depth and breadth of political risks, it was necessary for the multilateral institutions and the export credit agencies (ECAs) to provide political risk cover. According to Allen and Overy, a project finance and construction law firm based in Bangkok which drafts and reviews Purchasing Power Agreements (PPAs) and Concession Agreements (CAs) for projects throughout Southeast Asia, the specific political context of Laos make political

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[21] Martin Stuart-Fox. Laos. p. 14. http://www.freedomhouse.org/uploads/ccr/country-7211-8.pdf (downloaded on 9 April 2011)

[22] *Ibid.* p. 17

[23] *Ibid.,* p. 4

[24] The four officially-sanctioned mass organisations are the Lao Front for National Construction, the Lao Women's Union, the Lao People's Revolutionary Youth Union, and the Federation of Lao Trade Unions. In Martin Stuart-Fox. *Ibid.*

[25] Ronald Bruce St. John. Power Trumps Reform. Institute for Policy Studies. Washington, DC. 18 December 2006. http://www.ips-dc.org/articles/laos_power_trumps_reform (downloaded on 9 April 2011)

risk mitigation a "key feature" of Nam Theun 2, without which funding commitments for the project "would otherwise be difficult."[26]

Risk Mitigation Measures

The most controversial aspects of the hydropower project involved social issues, particularly with respect to the communities who have been resettled and faced loss of land and livelihood. According to the Summary Environmental and Social Impact Assessment report, there are five major areas where potentially affected communities are located (see Map 2):

- Reservoir area on the Nakai plateau. This is the primary impact of the project, and will affect 1,298 households, housing 7,788 people, across 17 villages over the period of 2005-7[27]. Of this number, 1,128 households are going to be relocated. In addition, 560 hectares of land and 139 hectares of other cropland/forest/fishing land will be inundated. Residents of the plateau will experience disturbances due to construction activities, health risks, human trafficking due to influx of workers (approximately 800 workers with an additional 3,200 camp workers), and marginalization of vulnerable ethnic communities.
- Nam Theun below the Nakai Dam. No permanent villages until 50 km. downstream but there will be an impact on fish diversity and abundance in this part of the river, affecting 166 villages housing 60,000 people from 10,378 households. These are fishermen and hunters from nearby villages who rely on this part of the river.
- Xe Bang Fai River. Along the Xe Bang Fai river are 89 mainstream villages that will be affected to varying degrees. The Xe Bang Fai can be divided into four zones:

- Upstream of Xe Bang Fai --- projected limited impact but will experience higher water levels due to backwater effects;
- Upper Xe Bang Fai --- 12 villages with 852 households will be most affected including loss of river gardens, erosion of riverbanks, and loss of productive lands;
- Middle Xe Bang Fai --- 12 villages with 704 households will experience the same impacts as the upper Xe Bang Fai residents but to a lesser degree;
- Lower Xe Bang Fai --- 53 villages with 5,003 households will experience flooding of riverbank gardens and possible changes to fisheries.

The upstream area of the Nakai-Nam Theun National Protected Area (NTT-NPA) including the watershed. Although the communities living here will not be directly affected by the project, the creation of the Nakai Reservoir will improve access to this area, which houses some of the remotest and poorest communities in Lao. Hence, there is a risk of increased pressure on land here for timber, agricultural and wildlife resources, which, if

[26] Ben Thompson – Allen and Overy Laos and Thailand: Exploring Cross-Border Hydropower Projects. Infrastructure Journal. 17 May 2010.

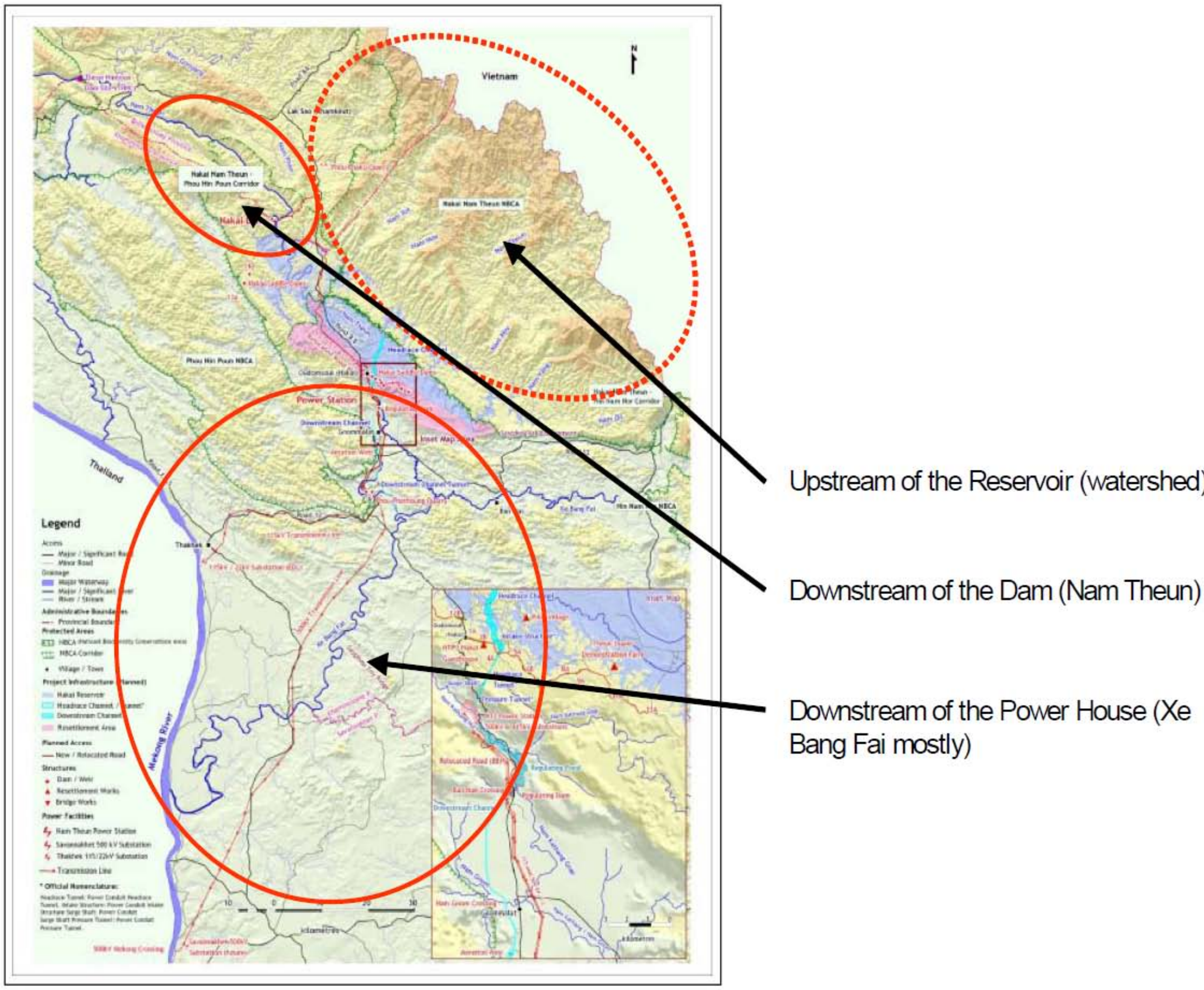
[27] Social Development Plan Final draft. Asian Development Bank. March 2005

unchecked, could result in adverse impacts for the existing communities –estimated to be around 5,800 people across 31 villages. Also, increased sedimentation affects both the project and the communities who will depend on the reservoir for their water consumption needs.

Project lands: the handover of lands to the NTPC for construction will cause disturbances, land and livelihood losses. The project requires exclusively 2565 hectares of land for the construction of infrastructure, some of which will be permanently lost (approximately 520 has.), others temporarily used for construction (approx. 843 has.). The project lands are expected to impact only a limited numbers of households (1,042 households housing 6,157 people across 79 villages), who are to be relocated within short distances. Construction of the regulating dam and regulating pond are in areas that do not have any settlements, so that water released from the power station will have minimal impact.

Map 2

Zonal Map of Affected Areas
Nam Theun 2 Hydropower Project



Source: Downstream Implementation Plan, NT2 Power Company Document Number NTPCSK 140702000004A. 8 April 2008. http://www.namtheun2.com/images/stories/Social/NT2%20DSIP_080408_PUBLIC_Final.pdf (downloaded 7 June 2010)

To address the potential negative environmental and social impacts of Nam Theun 2, the World Bank and the Asian Development Bank proposed a series of mitigation measures contained in a suite of documents, namely: i) the Environmental Assessment and Management Plan (EAMP); ii) the Social Development Plan (SDP); and iii) the Social and Environmental Management Framework and Operational Plan (SEMFOP) for the Protection of the Nakai Nam Theun-Protected Area.

The most contentious portion of the project was the social impact on villagers, particularly their resettlement and compensation. According to the Summary

Environmental and Social Impact Assessment (SESIA) report, extensive assessments were undertaken in the five affected areas, with proposed mitigation measures corresponding to the affected area.

The ADB attempted to resolve the thorny issue of relocation and compensation through the formulation of the Resettlement Action Plan (RAP). This forms a central component of the Social Development Plan (SDP). A separate Ethnic Minority Development Plan in the SDP contains specific mitigation measures for minority groups who suffer from more vulnerabilities than the other relocated groups.

The fundamental principle guiding relocation and resettlement is the projected income target of each household per year, established at USD 1200 (in 2002) per year, significantly higher than the poverty line of USD 800 per year per household. This enshrines the principle that all those relocated should be better off within four years of having been relocated. Further, a set of legal entitlements is awarded to the each of the relocated households that include provisions for livelihood options, cleared agricultural land measuring 0.5 hectare for each resettled household, and a range of supportive infrastructure to include domestic water supply, irrigation, electricity, schools and community facilities. These legal entitlements are contained in the Concession Agreement, shown as Figure 3 below.

In advance of the relocation activities was the establishment of a Pilot Village. The newly constructed homes and complementary support infrastructure provided a foundation for further fine-tuning of the relocation programme ahead of actual resettlement. It also allowed for a comparative analysis of the costs and benefits of existing units and the newly-proposed ones. A Panel of Experts and an International Advisory Group monitors the implementation of the mitigation measures. Also, an International Advisory Group (IAG) appointed by the President of the World Bank in 1997 aims to provide independent reports to the President and the Board of Executive Directors concerning the environmental and social aspects of the project.

To complement all these efforts, a series of consultation processes on the Nam Theun 2 project began in earnest in 1996. For the period 1996-2003, there have been over 250 public consultations as part of other activities that included research, information dissemination, village meetings, seminars, Rapid Rural Appraisals (RRAs) and Participatory Rural Appraisals (PRAs). The bulk of these activities occurred in 1998 and was undertaken by the Nam Theun Electric Company (NTEC), the predecessor of the NTPC.

In anticipation of displacement of villagers living in the Nakai Plateau, the NTPC identified a group of stakeholders on a geographical basis. In addition, several other stakeholders not living within the immediate vicinity of the proposed project were also identified, and would constitute the roster of stakeholders at national, regional, and international levels that would form part of and participate in an extensive multi-year consultation process.

Figure 3
Summary of Legal Entitlements as Defined in the Concession Agreement

Compensation	Entitlements
Housing	The provision of housing with a minimum area of not less than the existing house area of $42m^2$, whichever is the greater, in a location acceptable to the owner. Housing includes all materials, electrical wiring and basic fixtures. Housing with two families and 7 or more people have the option have the option to have two houses. Labor, transportation and material costs associated with dismantling existing houses and constructing new ones. Sheds, other outbuildings and fencing will be provided to the household.
House/Farm Land	A total of 0.66 hectare irrigated farm-land per household, of which 0.16 hectare should be developed as paddy rice area. Additional 0.5 hectare per household of rain-fed cropping/grazing land (and at least 1 hectare for the first new generation of resettled families in the reservoir drawdown zone and/or upland degraded forest areas, if agricultural systems in these areas are feasible, and dependent on family labor and ability to work the land. All land will be titled jointly in the name of both the husband and wife.
Infrastructure	Year-round household water supply and electricity to all houses; irrigation water and distribution system to the farm plot boundary, road access to house/farm plots; school access within 3 km; and clinic access within 5 km.
Services	Transportation of all household assets to new location; health check for all household members prior to and after move; access to RMU for advice; and use of Grievance Procedures for complaints.
Cash	A one-off cash allowance to cover moving time and disturbance of USD15 per person; and compensation for fruit trees lost.
Production Assistance	Support to a range of livelihood options, including access to production forest, NTFPs, grazing land and reservoir fisheries; tools, all equipment and all inputs (100% support for first 3 years, the 50% support for next 3 years) for agriculture and forestry; training and technical support for agriculture, forestry, fisheries and support for the economically inactive and vulnerable households from communal forestry revenue.
Food Support	Rice and protein supplements during the transition period, for those genuinely in need.

Departees	Those wishing to relocate elsewhere will receive a one-time payment for the value of the land, trees, production and structures lost, plus transportation and disturbance allowances.

Source: Social Development Plan (SDP), Volume 1, Final draft March 2005, Executive Summary

According to the NTEC, these consultations consist of Phase I of the overall Public Consultation, Participation and Disclosure (PCPD) process. Phase II of the PCPD process occurred during the period May – August 2004 and were held in four different countries, as follows: Bangkok , Paris, Tokyo, and Washington DC. These consultations were a culmination of several rounds of village and district-level consultations and workshops prior to the international consultations.

James R. Chamberlain carried out several studies on behalf of Care International and the International Union for the Conservation of Nature (IUCN) during the early years while the project was still under deliberation. As the project reached implementation stage, Dr. Chamberlain issued a report as an independent consultant to assess the quality of the different consultations, particularly those held in 2004 prior to project construction. Among others, he observed that while these processes did take into account the views of the affected populations in the plateau, the responses of the villagers were "ritualized agreements with the official representatives of the government."[28] He mentioned previous reports from the World Bank in 2004[29] that reviewed the Phase I consultations and the inadequacies of these processes, summarized as follows: i) Past consultation processes were not meaningful due to lack of stakeholder inputs, lack of transparency particularly with regard to full disclosure of information on the proposed project, and dominance of foreigners in the consultation processes rather than Lao nationals; ii) Limited capacity and institutional framework to ensure that inputs from villagers were incorporated into the project design iii) Lack of a detailed consultation plan particularly a comprehensive stakeholder map. iv) Lack of local capacity especially among Lao government officials in the planning and implementation of the consultation processes

Language problems

Phase II of the consultation process was therefore meant to address the problems of Phase I through a more-inclusive design process that involved more stakeholders, oriented towards the participation of the villagers and training of Village Facilitators (VFs) at the

[28] James R. Chamberlain. *Proposed Nam Theun 2 Hydroelectric Project. Assessing the Quality of Local Consultations*. Unpublished manuscript. 2005., p. 5

[29] World Bank. Summary of Public Consultations undertaken previously by GoL and NTPC (Compiled from reviews undertaken by Pamornrat Tansanuanwong (July 2003), Leila Al-Hamad (March 2003) and Keiko Miwa (November 2001). Quoted in James R. Chamberlain. *Ibid.* 2005., p. 6

district level, the incorporation of village-level grievance procedures to handle disagreements and conflicts, and a clear focus on environmental and social safeguards, specifically addressing the issues of relocation and compensation. Mr. Anek Nabutara, a Thai national working with a NGO during that time, re-designed the process and facilitated several village forums prior to the four international consultation workshops in 2004.

The new consultation design departs from the previous one in terms of its "recursive" character. That is, the design has a circular flow of information from the village which is its intended starting point. This avoids the excessively top-down character of previous consultation designs employed in Phase I. Further, this new design requires training of local facilitators in conjunction with the local district officials. Together, they comprise the District Resource Teams (DRTs). These teams included the officials from the NTPC and an international NGO in Thailand, all of oversaw the conduct of the consultations and carried out wrap-up workshops that incorporated the findings and recommendations from each of the consultation areas.[30] These inputs were then fed into the larger consultations in Bangkok, Tokyo, Paris and Washington, DC.

Chamberlain's assessment report concluded that by and large, the village-level consultations were transparent, balanced and meaningful. To the extent that villagers' inputs and perspectives were considered, if at all, the report stated that revisions to the SEMFOP and SDP documents have been incorporated particularly with regard to the administration of the National Protected Areas (NPAs), the transition from swidden to paddy-based agriculture, and potential inter-ethnic conflicts.[31]

Despite the generally positive tone of the report, challenges remain. The transition from consultation to village-level planning is a difficult one. Incorporation of "local knowledge" is not an easy task, particularly when it includes cultural beliefs that might have no "rational content" in terms of project planning but continue to dominate village values and practices. Second, the consultation process itself remains a contentious issue. Criticisms in the press and from NGOs range from how the project was conceived and consulted with local communities, to the negative impact it has had on the local communities. The former concerns the poor political systems, weak legal system and absence of an independent media in Lao. Hence, the feasibility of conducting a fair social mitigation plan for the locals is still an unresolved question.

There is also criticism about consulting activities coming too late in the process, difficulty of doing consensus building across such a diverse ethnic community, and the absence of information regarding impact to all the parties involved, especially those living further downstream. Finally, several international NGOs and advocates remain opposed to

[30] Chamberlain, *Ibid.*, p.10

[31] For a comprehensive discussion of the impact of the village-level consultations, see James R. Chamberlain, *Ibid.*, 2005, pp. 17-26.

the project based on their view that “dams are modern dinosaurs” and hydropower development is not the most appropriate development strategy for Laos to pursue.[32]

Progress and implementation

A recent annual joint report by the Nam Theun 2 supervision mission to the boards of the World Bank and the Asian Development Bank indicate overall positive progress in the implementation of the environmental and social development programs in the Nakai Plateau, the downstream areas, and the watershed protection areas. Towards the latter part of 2010, the report continues, an additional US$6.5 million is expected to bring in revenues for the project which in turn will fund poverty reduction and environmental protection programs in Laos.

The joint supervision mission reported on the status of the resettled villagers, indicating completion of the resttlement in 2008 and progress on community infrastructure and services. Five rounds of Living Standards of Measurement Survey were conducted during the period between August 2006 and June 2009. Results indicate improvement in the lives of resettled villagers. There is a clear reduction in the number of vulnerable households and improvement in living standards as indicated by ownership of certain assets (see Figures 10 and 11 below).

Also, comparative income data reveal increases in personal income during the period 2006 – 2009, well above the baseline incomes in 1998. Composition of incomes reveal a shift towards fisheries, with Project Wages as an income source declining over the survey period. Fisheries constitute nearly half of income sources in 2009 (44%) while project wages as a share of income declined from 26% to 17%.

See Figures 12, 13, and 14 below.

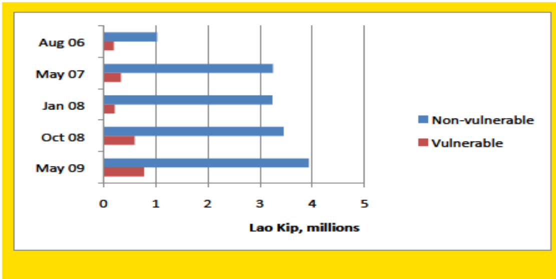
Figure 10: Median value of assets per household (excluding boats provided by the NTPC)

Data from the Living Standards Measurement Surveys, NTPC

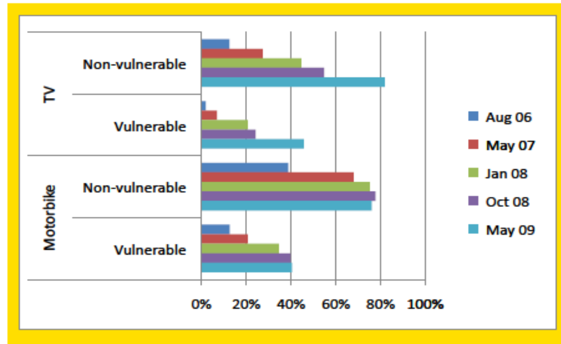
Figure 11: Percentage of households owning motorbikes and televisions

Data from the Living Standards Measurements Surveys, NTPC

[32] World Rainforest Movement. Dams: Struggles Against Modern Dinosaurs. April 2003.



Vulnerable households are those identified by district and NTPC staff as being likely to find it difficult to increase incomes because of household characteristics such as lack of labor or disability.

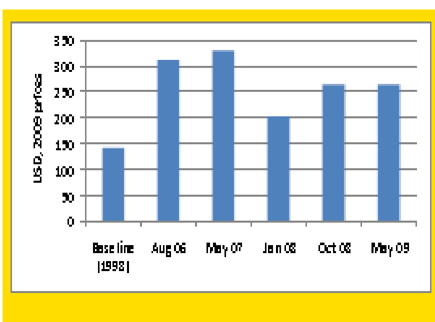


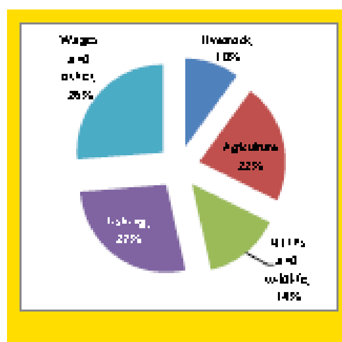
Source: Update on the LAO PDR Nam Theun 2 (NT2) Hydroelectric Project. Joint Report of the World Bank and the Asian Development Bank. 5 July 2010

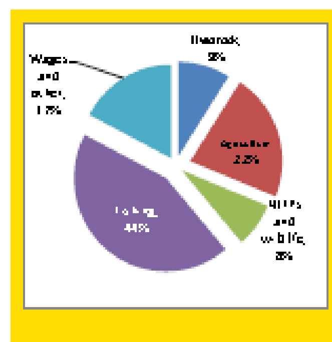
Figure 12
Yearly Income Per Person, 1998-2009
Share of Each Livelihood Pillar
Measurement Surveys, NTPC

Figure 13
Average Income Share
Data from the Living Standards
Aug/Sep 2006

Figure 14
Average Income
of each livelihood pillar
May/June 2009







Source: Update on the LAO PDR Nam Theun 2 (NT2) Hydroelectric Project. Joint Report of the World Bank and the Asian Development Bank. 5 July 2010

Complementing the joint supervision mission report is the Panel of Experts' (POE) latest report[33] which provides an update on the status of the implementation of the environmental and social mitigation measures. The report was issued two months before

[33] Sixteenth Report of the International Environmental and Social Panel of Experts. 25 Feburary 2010. http://www.poweringprogress.org/download/Reports/16th_POE_Report.pdf (downloaded 5 October2010)

the Commercial Operations Date and contains specific recommendations directed particularly towards the Government of Laos. The report indicates "extremely encouraging" results in terms of providing for the welfare of the local people. However, there are also serious concerns specifically with reference to the Nakai-Nam Theun National Protected Areas (NNT NPA) which the POE describes as requiring urgent action on the part of the Government of Laos. The most serious challenges are mining and logging operations within the NT-NPA. The POE strongly urges the government of Laos to enact a Presidential Order or a Prime Ministerial Decree to address immediately the incursions within the NPA. It also recommends the National Assembly to draft a binding National Law that would criminalize logging and mining within the NNT NPA area.

As the Nam Theun 2 project becomes fully operational, the next generation of governance challenges will need to be addressed by the Government of Laos, the financial institutions, and the NTPC. Foremost among these challenges is the creation of mechanisms to ensure that the revenues generated by the electricity sales to Thailand will be utilized for poverty reduction and development purposes. This remains the topmost priority in this project. Towards this end, the World Bank and the Asian Development Bank have undertaken a series of steps prior to the completion of the NT2. These include:

1. The identification of eligible programs derived from the Government's policy priorities, to include basic education, basic health care, rural roads, and local development initiatives through a participatory planning process;
2. The creation of the Poverty Reduction Fund and the Environmental Defense Fund;
3. Technical assistance to support the Ministry of Finance through the strengthening of the budget classification and monitoring systems on budgetary outlays;
4. Capacity building for the State Audit Organization to conduct performance audits.

Further, a dedicated "NT2 Revenue Account"will be managed by the Government of Laos' Treasury, and all NT2 revenues will be paid directly to the NT2 account. To ensure that funds from NT2 are appropriately tracked into the budgetary system, a "Source of Funds" coding block will be established.[34]

In the years to come, NT2 will need to demonstrate the long-term impact on poverty reduction and overall development. This will provide conclusive evidence whether the governance processes and mechanisms established by the project will have produced the desirable results for Laos and its citizens.

[34] Lao PDR Nam Theun 2 Revenue Management Programmatic PER Discussion Paper I (updated 18 February 2010). Asian Development Bank.

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