



May 12, 2010

Mr. Robert B. Zoellick
President
The World Bank

Mr. Haruhiko Kuroda
President
Asian Development Bank

Dear Mr. Zoellick and Mr. Kuroda

Re: Commercial Operation of the Nam Theun 2 Hydropower Project in Lao PDR (2)

Thank you for the letter dated April 8, 2010 prepared by Mr. Anthony Jude and Mr. Patchamutu Illangovan. We appreciate your management's detailed response to our letter. This letter contains a response to your letter, and also includes some more fundamental and ongoing concerns about the project. Overall, we are concerned that the World Bank (WB) and Asian Development Bank (ADB) continue to fail to recognize the risks that Lao communities affected by the Nam Theun 2 Hydropower Project are facing, including the risks of food and water insecurity as a result of the dam.

But first, we wish to address allegations that our letter contains "several factual inaccuracies". The information we cited in our previous letter, in particular the number of functioning boreholes in a number of villages, was obtained from villagers or village leaders. We are glad to hear that there are more boreholes than villagers thought in these villages. In the future, we will try to verify information through other channels, whenever possible. However, even if the WB and ADB's report on the number of boreholes is correct, the fundamental problem remains that there are insufficient alternative water sources in Xe Bang Fai villages since power production started, and we would like to note that the other major points that we raised are still valid, as we will illustrate below.

In short, we still believe that the start of the project's commercial operations in mid-March this year is not consistent with the environmental and social requirements that the WB and ADB must comply with. Furthermore, these environmental and social obligations should not be compromised by or traded with "the broader development objective of the project".

Downstream Impacts: Xe Bang Fai

Water quality changes

Your response mentions that project water releases have only had small impacts on the water quality in the river to date. Of course it is hard for us to gauge this since no water quality data is being released to the public.

However, your response contradicts what was written in the Social Development Plan (SDP) produced prior to project approval. According to the SDP, "An increase of maximum background TSS [total suspended solids] concentrations between 44 and 70 mg/l during the dry season to between 90 and 95 mg/l [caused by NT2] is well above 10 % of the seasonal mean concentration and more than 10 above background level."¹ In fact, the reported values represent a substantial range of increase in TSS between 22 and 51% or 26 and 53%. As such, water quality standards will be exceeded during the dry season on a weekly basis when nearly all fish productivity in the Xe Bang Fai mainstream takes place, and as a result "**significant impacts on fish productivity can be expected**" (NTPC 2005b, Vol.3 Chapter 4: 20).

According to the SDP, high productivity of snails, shrimps, and mussels and upstream spawning migration of fish in the dry season depends on a high density of aquatic plants, phytoplankton, and periphyton; however, TSS concentrations and resulting turbidity hamper sunlight penetration, specifically the critical Photosynthetic Active Radiation (PAR), hampering the productivity of aquatic plants, phytoplankton, and periphyton in the Xe Bang Fai River (NTPC 2005b, Vol.3 Chapter 4: 38). Therefore, if TSS levels are similar to those usually found during the wet season as the letter states (approximately 60 to 120 mg/l), significant impacts on fish productivity and other aquatic products can be expected.

One important impact is the decreased visibility of prey for fish species due to high TSS levels. Reduced visibility of prey can lead to reduced fisheries productivity in the downstream reaches of the Xe Bang Fai River. Other concerns with the altered patterns of TSS include decreased UV light entering the Xe Bang Fai water column leading to increased survival of pathogenic microbes normally attenuated by UV light, and decreases in sediment deposition required for basic nutrient replenishment for species in the

¹ "Australia and New Zealand require for suspended particulate matter/turbidity (equivalent to TSS) any changes that are not more than 10 % of the seasonal mean concentration. [...] In Canada the increase of TSS concentrations should not be more than 10 above background level." (NTPC 2005b: 17).

downstream aquatic food web.

Information dissemination on water quality

The letter says that “villagers were educated about the importance of clean water and sanitation” rather than warned not to drink the river water. We are glad to hear that villagers were educated about the importance of clean water and sanitation. However, the SDP clearly states, “The water in the areas downstream the power station might not be suitable for human consumption, or even domestic use, during the first years of operation” (NTPC 2005b, Vol.3 Chapter 5: 15). The Downstream Implementation Plan also explicitly states, “During the first years of operation and especially during the dry season, the water in some sections of the Xe Bang Fai might not be suitable for the same domestic uses as prior to NT2 discharge” due to increased turbidity, the presence of organic matter, and the possible presence of sulphur compounds (NTPC 2008: 24). It is well known that increased turbidity (e.g. > 1 Nephelometric Turbidity Units (NTU) by USEPA standards, or > 5 NTU by WHO standards) greatly increases the probability of infection from waterborne pathogens that can be concentrated on or in TSS, particularly in the absence of UV light attenuation. If the villagers were not warned about the risks of using river water for human consumption or domestic use prior to commercial operations, this is in fact a serious neglect in duty by the Nam Theun 2 Power Company (NTPC).

Nevertheless, the villagers we talked to clearly have a fear about the quality of the water. As the color of the river water has changed and water quality data is not publicly available, this fear seems reasonable. It is important to remember that if villagers are expected to continue to use the river water every day, they are taking risks to their health. Water quality monitoring data should be made public and villagers should appropriately be informed about results of the water quality monitoring.

Provision of alternative water

The Concession Agreement (CA) specifies that “[a]lternative sources of domestic water of appropriate quality will be developed prior to the Commercial Operations Date” (NTPC 2005a, Section 4, Part 2: 120). In addition, in order to mitigate the impact on water quality, the Downstream Implementation Plan states, “The Downstream Program is required to provide alternative water supply to those villages [downstream along the Xe Bang Fai] whose current water supply may be impacted by operation of NT2” and NTPC promises “approximately 1 borehole will be provided for each 20 households” in the downstream Xe Bang Fai area (NTPC 2008: 44-47).

However, in Ban Mahaxai Tai, 283 households are sharing 6 water pumps, which means 47 households are sharing each pump. In Ban Navang Tai, 72 households share each pump and in Ban Boeungxe, 41 households share each water pump. This is clearly less than was committed by NTPC in their downstream implementation plan, and less than is sufficient to meet the water needs of the villages. The villagers we interviewed complained that the water from the boreholes is insufficient.

Compensation for river bank gardens

The letter says, “The compensation process is currently under way and final compensation payments for specific areas of riverbank gardens [...] will be completed in the coming months” and admits that the compensation process for river bank gardens has not been completed yet, as we note in our letter to you of March 26. Given this reality, we are puzzled as to why NTPC would have allowed the project to commence full operation without completing the compensation process for river bank gardens, in violation of the World Bank’s Resettlement Policy. This is particularly concerning as the response states that the banks “have been concerned about the pace of implementation of the riverbank garden compensation program.” We agree that the compensation process should be done thoroughly; however, we also feel it is irresponsible to allow full commercial operation to occur in violation of World Bank policy.

Our interviews confirm that villagers have been informed about impacts to their vegetable gardens. However, many villagers who have riverbank gardens above the new water level also stopped cultivating their riverbank gardens between January and March this year due to fear of flooding and erosion. How are these people going to be compensated for their losses?

Serious erosion has been occurring downstream along the Xe Bang Fai River as a result of the fluctuating water levels since December 2009, when the power company began test operations. Once again, no compensation has been paid for the riverbank gardens that were washed away. According to our interviews, villagers have not been well-informed about the compensation mechanisms for loss of riverbank gardens caused by erosion. **Compensation for more than eighty villages along the Xe Bang Fai River is a very complicated process, and as a result NTPC should explicitly inform all villagers about the process of compensation for lost gardens and how to access the grievance mechanism.**

Downstream monitoring

The letter states that the International Financial Institutions that visited the project areas during the first week of March 2010 concluded “effective erosion, water quality, fish catch, and socioeconomic monitoring systems were in place”. However, if the monitoring systems are effective, as you claim, why has erosion along the Xe Bang Fai River not been recorded by the NTPC and why has compensation for losses of riverbank vegetable gardens not been paid yet? In addition, if the monitoring systems are effective, why are villagers not being informed about the results of water quality monitoring? The current monitoring systems seem to have some deficiencies.

According to our interviews, the villagers have not been adequately informed about the grievance mechanism. Villagers who lost their vegetable gardens to erosion told us they were not aware of who to complain to about these losses. Villagers who were complaining about shortages of domestic water were

also unaware of how to file a complaint with the grievance mechanism. As the impacts to the Xe Bang Fai River intensify over the coming years, it is urgent to establish workable monitoring systems and grievance mechanisms.

Adequacy of Downstream Program

There are broader unresolved concerns about the adequacy of the Downstream Program. The Xe Bang Fai River, and the watersheds, tributaries, forests, wetlands and floodplains of the Xe Bang Fai basin are the foundation of the means of livelihood security of the people living in this area. The people living in the Xe Bang Fai River Basin are able to achieve levels of food security and economic self-sufficiency due to the natural wealth of the river basin and people's knowledge (Shoemaker, Baird & Baird 2001: 59).² Due to the full operation of Nam Theun 2 Hydropower Project, downstream communities along the Xe Bang Fai River will have to face impacts to their livelihoods as a result of changing water quality, quantity, velocity, temperature, and fluctuation in water levels on the Xe Bang Fai River. These impacts include increased erosion, loss of riverbank gardens, reduction in fish catch and increased duration or depth of the annual flood cycle, and changes to the entire ecosystems along the Xe Bang Fai River that riparian villagers rely on.

For this reason, the current downstream livelihood restoration program is totally inadequate. In the peak fishing season in May and June, according to our interviews on March 17, 2010, a fisherman in Ban Navang Tai, on the lower Xe Bang Fai River, can expect to catch up to 40-50 kg of fish on their best day, earning \$60-\$100. In Ban Veunsananh, in the middle Xe Bang Fai River, a fisherman can expect to catch about 12-24kg of fish in a good day in the high season, earning \$20-\$50 a day, according to our interviews.³ But each household is only entitled to \$100-\$250 in compensation for fishery and aquatic products losses that are expected to last a lifetime. As we have been saying for many years, the current compensation mechanisms and amounts are insufficient to address the actual losses.

In addition, NTPC wrongly assumes that aquaculture can be a direct replacement for lost capture fisheries, which ignores local experience and the fact that cultured fish do not have the same economic, nutritional, or cultural value in the diets of Lao villagers. Due to the costs of purchasing fish seed and food, the poorest families would most likely miss out on the benefits of this activity. The Panel of Experts' (POE's) fifteenth report also states that "there are households which are not accessing the credit opportunity, [...] either because the options are limited in their area or because they [...] are not

² In the words of a female elder of a village in Mahaxay district: "I was able to raise five grandchildren because I could catch fish, shells, and crabs in the stream during the dry season and find bamboo shoots, rattan shoots, and wild vegetables in the area near the stream. I fished in the rice fields during the rainy season. I have not had much money but my grandchildren and I have been able to survive." (Shoemaker, Baird & Baird 2001: 59)

³ Big fish can be sold between 17,000 kip and 25,000kip and small fish can be sold between 2,000 kip and 8,000 kip. Exchange rate is \$1=8,500kip (May 5, 2010)

prepared to take the risk of not being able to meet repayments. (McDowell, Scudder & Talbot 2009: 18) It is urgent to make the Village Income Restoration Funds more accessible and relevant particularly to the poorer households.

The delays and inadequacy of the Downstream Program highlight a broader and more fundamental issue, which is the lack of funding for the Program and the Program's duration. As the POE's fifteenth report recommends, the Government of Laos, NTPC and the International Financial Institutions should "reconsider the volume of funds required to meet in full CA livelihood restoration obligations" and "allocate funds accordingly" in the Xe Bang Fai and Khamkeut downstream area and project lands. The report also states, "The big hurdle on the downstream side is the chronic shortage of funds for livelihood restoration and associated activities. The POE has been convinced from the original negotiations on funding that the sum of \$16 million was inadequate to meet the project's CA obligations to the large number of downstream villages expected to be impacted by the turbined waters." It concludes that a belief that these obligations can be met by Commercial Operations Date and within the existing budget is "simply unrealistic" (McDowell, Scudder & Talbot 2009: 17). The POE's latest report also states "the POE is convinced that the \$16 million allocated to the XBF is inadequate to meet CA requirements for offsetting adverse project impacts to over 100,000 XBF riparian and hinterland people" (McDowell, Scudder & Talbot 2010: 32).

The Nam Theun 2 Power Company's downstream compensation and mitigation program will terminate in 2015, after five years of commercial operation. As we describe above, the current downstream program is obviously insufficient to address the impacts occurring in the Xe Bang Fai River. In the case of the Theun-Hinboun Hydropower Project in central Laos, after more than decade of commercial operation, the impacts on downstream villages have still not been fully compensated, and livelihoods have still not been restored. This demonstrates that it takes a long time to restore lost livelihoods from hydropower projects, and that five years is an insufficient timeframe to expect the program to have achieved its desired outcomes.

Impacts on Nakai Plateau

The poor planning that led to irrigation systems being unfinished at the time of commercial operations reveals a broader concern regarding the lack of planning and foresight that went into developing the Social Development Plan on the Nakai Plateau, the constant delays in implementing livelihood restoration programs over the past five years, and the continued problems in finding sustainable sources of livelihood for resettled villagers.

We understand that the Concession Agreement requirement that irrigation be provided prior to COD was one of the benchmarks to ensure that resettled people had opportunities for food cultivation and income generation at the time of commercial operations. We believe that resettled people continue to suffer from

a lack of livelihood and income generation options now, even after full operation of the dam has begun. Resettled families continue to face a serious risk of future food insecurity. The latest POE report confirms that the Panel continues to be concerned about the sustainability of the Nakai Plateau livelihood restoration program (McDowell, Scudder & Talbot 2010: 16).

According to the Living Standard Management Survey in Nakai resettlement sites conducted by NTPC in May/June 2009 and partially presented on the World Bank website⁴, households reported that the top four improvements in the Nakai resettlement sites are housing, roads and community buildings, education, and healthcare. In contrast, the top four things that became worse in the resettlement sites were: access to forests and Non-Timber Forest Products; access to land and quality of land; access to water or river; and employment. The results of the survey are consistent with interviews with Nakai households by civil society groups, including us, in the last ten months.

Resettlers in the Nakai Plateau report that they are struggling with lack of access to forests, the river, Non Timber Forest Products, land, and the quality of land, and a fundamental lack of access to natural resources. Natural resources are basis of people's livelihoods. A man in Ban Sop Hia told us that "it is hard to find food in the resettlement site."

Rice harvests in the 0.66ha of allocated land continue to be insufficient and several villagers in Ban Sop Ma, Ban Sop Hia, Ban Nong Boua Kham, and Ban Nakai Tai reported that they could harvest only 140-180kg of rice from their land last year. In Ban Sop Ma, a villager reported that 14 out of 67 households could not harvest any rice at all in their land because of the poor quality of the soil, and that they would try to plant corn next year. The original resettlement plan was for people to grow cash crops and not rice; however, resettlers are not being given enough training in how to grow cash crops and there are no ready markets to sell their produce to. Therefore, villagers have resorted to growing upland rice. In spite of what was written in the original Resettlement Action Plan, it is nearly impossible to develop paddy fields on the Nakai Plateau, and the installation of irrigation systems, finding markets for commercial crops, and restoration of livelihoods are overly delayed. The latest POE report states, "The POE's concern has been growing, for example, that the commendable increasing emphasis on the cultivation of more vegetables, and a wider range of vegetables, has not been linked heretofore to equal emphasis on how those vegetable are to be marketed and/or processed." (McDowell, Scudder & Talbot 2010: 26)

Prior to resettlement, villagers went to the forest to find food if they did not have enough at home. But for now, the forests are far away from most of the resettlement sites and it is more competitive to collect non-timber forest products there due to the huge loss of rich forests under the reservoir. Thus, many

⁴ <http://blogs.worldbank.org/eastasiapacific/nam-theun-2-how-are-the-resettled-people-doing-overall-in-their-own-words-part-2-of-2>

villagers rely on reservoir fishing to earn money to buy rice. The POE report states, “At present the reservoir fishery is the major contributor to the incomes and therefore well being of the resettlers.” (McDowell, Scudder & Talbot 2010: 20) However, the POE also reports that there are well-founded fears of outsiders encroaching upon reservoir fisheries, and there is the added concern about the sustainability of fishing yields. (McDowell, Scudder & Talbot 2010: 20-21) Thus, reservoir fishing should not be seen as a long-term solution to restoring livelihoods for most of the resettlers.

In addition, there is no fundamental solution for grazing land for buffaloes and cows in the resettlement sites. If villagers use the drawdown zone or 0.66ha for grazing or growing forage, they won't have enough land for vegetable growing or other products. The Social Development Plan also states, "the exact nature of this drawdown zone of the reservoir is difficult to predict, and will only be known after some years of operation of the reservoir [...]". (NTPC 2005b, Vol.2 Chapter 12: 16) Even compensation payments for dead buffaloes and cows have not been completed, more than a year after many died. As a consequence, many villagers are concerned about the sustainability of their livelihoods.

Conclusion

The World Bank, Asian Development Bank, and other project funders promised that people would be better off as a result of Nam Theun 2. The involuntary resettlement policy of both the World Bank and Asian Development Bank stipulates that project-affected should not be economically and socially worse-off after resettlement. Yet, the results to date are not encouraging. Your institutions have allowed the project to start operating in violation of its legal agreements and World Bank policy, thereby missing a very critical point in the project to which environmental and social safeguards were tied. If your institutions are serious about ensuring livelihood restoration for the people affected by the Nam Theun 2, then the following actions should be taken:

- Operation of the dam should be suspended until legal requirements in the downstream areas have been met;
- Funding for the downstream program should be dramatically increased and the length of the program should be extended for at least the next 10 years;
- Livelihood restoration activities in all affected areas should rapidly be scaled up; and
- Monitoring data on water quality, fish and other aquatic products catch, erosion, nutritional status, socio-economic changes, and others including the Living Standard Management Survey, the evaluation of the savings and credit scheme, and the Food Consumption Monitoring Program should be disclosed.

The World Bank, Asian Development Bank and other project funders are fully responsible for restoring the livelihoods of affected communities and we will continue to monitor project implementation. Construction of Nam Theun 2 has been completed, but the real work of rebuilding affected people's

lives has only just begun. Thank you for your attention and we hope we can count on a response to this letter by June 11, 2010.

Sincerely,



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