

**Review of the Nakai – Nam Theun Social and Environmental Management Framework and First Operational Plan (SEMFOP-1)¹
for the Nam Theun 2 Hydropower Project**

Compiled by Environmental Defense²

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¹ SEMFOP-1 version of October 2004, downloaded November 23, 2004 from the website of the Nam Theun 2 Power Company: www.namtheun2.com.

² Analysis provided by various independent experts with extensive experience working in conservation and development in the region. They have requested anonymity.

SUMMARY

Most of the watershed of the proposed Nam Theun 2 (NT2) dam project lies within the Nakai-Nam Theun National Protected Area (NNT NPA), the largest protected area in Lao PDR. As part of the NT2 project, a government body called the Watershed Management and Protection Authority (WMPA) has been established to manage conservation in the NNT NPA, based on a Social and Environmental Management Framework and First Operational Plan (SEMFOP-1). The management of NNT NPA will be funded primarily by contributions from the Nam Theun 2 Power Company (NTPC) of US\$1 million per year.

This document reviews the SEMFOP-1 management plan recently drafted for the NNT NPA, which covers the period from January 2005 to September 2011. As an evaluation of the potential for success of the watershed management plan, the review assesses the SEMFOP's conceptual foundation and the technical details and implementation strategy built upon that foundation.

Based on the experience of other conservation and development initiatives in Lao PDR, the following issues have not been adequately considered in the SEMFOP for NNT's management:

1. The management of the Nakai Nam Theun 2 National Protected Area (NNT NPA) will be funded primarily by contributions from NTPC of US\$1 million per year. The provision of substantial funding alone is unlikely to result in the sound management of NNT. The main constraint to improved management of the area is poor institutional commitment and a lack of secure property rights for local people, not funding. If funds are used inappropriately, greater environmental degradation and negative impacts on the livelihoods of NNT's residents are possible and perhaps even likely.
2. Protected area management and rural development have poor track records in Lao PDR. Independent monitoring of the SEMFOP, with linkages between funding and performance, is essential. Yet the monitoring arrangement proposed in the SEMFOP fails the test of independence, and linkages are stated only vaguely and in brief.
3. The SEMFOP proposes to use part of its funding to improve access into NNT. However, some of the most significant threats to the protected area, such as unsustainable wildlife trade, unsustainable commercial sale of some NTFPs (e.g., rattan), illegal encroachment logging, and excessive population growth, are likely to be made worse, not better, by increased access. This is especially true in light of the additional pressure on NNT that will result from the settlement of a dam construction community of a perhaps 20,000 near the protected area.
4. The NNT NPA has several inherent management advantages, such as partial insulation from the insatiable market for natural resources, low population density, remarkably diverse agricultural systems, and the relatively stable, secure livelihoods of many of its residents. The SEMFOP does not adequately focus on simply protecting these advantages.

CONCEPTUAL FOUNDATION OF THE SEMFOP

The SEMFOP is based on the premise that an uninterrupted flow of US\$1 million per year (from the Nam Theun 2 Power Company, as specified in the Concession Agreement) to a government management authority, *with no link to performance*, is likely to result in sound, long-term management of the protected area. Given the difficulty in achieving effective protected area management in Lao PDR to date, despite the attempts of a variety of models and projects, we question the wisdom of this approach. If the SEMFOP is funded without concrete links between funding and outcome, the likelihood of success is low regardless of the technical details included in the plan. This is not so much a criticism of Lao PDR, but a simple acknowledgement of the nature of human institutions.

However, the constraints are even greater in Lao PDR where the principal limiting factor to improved protected area management has not been insufficient funding, but rather insufficient interest and commitment amongst the responsible line institutions. Such deficiencies are unlikely to be corrected by an unconditional payment of US\$1 million per year. The more likely scenario is that the funds will be spent, whenever possible, on the demonstrated, pre-existing priorities of the institutions that comprise the WMPA, such as the Ministry of Agriculture and Forestry (MAF). While the policies of such institutions commendably espouse national poverty alleviation and sustainable natural resource use, in many cases faulty implementation has undermined biodiversity conservation and rural livelihoods. Logging, road construction, industrial tree plantations and village consolidation are some of the activities most familiar to the institutions comprising the WMPA, but they are contrary to good management of the NPA.

While optimistic advocates might argue that using hydropower revenues for protected area management and rural livelihoods development should at least be attempted, such an arrangement has already been tried in Lao PDR. The Nam Leuk Hydropower Project was funded by the ADB and built with the stipulation that one percent of revenues would be used to protect the Phou Kha National Park. However, Electricité du Laos admits that these revenues have not been fully disbursed due to inadequate institutional capacities in managing the funds and implementing the proposed management plan.³ In a review of Nam Leuk, the ADB's Operations Evaluation Department found that "there is anecdotal evidence that the PKK Park is being further deteriorated by parties that have found illegal means of access to the PKK Park. It appears that the system adopted at present lacks the necessary planning, management, accountability, and performance indicators that are desired for such an endeavor."⁴ These are not the preconditions for global 'best practice' in the conservation of NNT NPA.

SEMFOP'S PURPOSE, OBJECTIVES, GOALS

Part 1 of SEMFOP-1 outlines the plan's purposes, objectives, strategies and principles. It first posits an indispensable relationship between the NT2 project and conservation of NNT NPA. The opening section (1.1 Background) concludes with the assertion, "Without this funding [from NT2], the NPA would have no future as an intact Protected Area." But this is probably not true, if meant to imply that NT2 revenue is the sole potential source of funding for NNT's management. In fact, for years the prospect of the NT2 project has *deflected* potential funding sources from NNT. For example, in the 1990s both the Dutch government and the Forest Management and Conservation Project (FOMACOP; a multi-million dollar

³ Letter from Viraphonh Viravong, Electricite du Laos, to Susanne Wong, International Rivers Network, 11 April 2003.

⁴ Asian Development Bank, *Nam Leuk Project Performance Audit Report*, June 2004, pp. 24-25.

forestry and protected area initiative administered by the World Bank) apparently considered and rejected support to NNT due to its link to NT2. In addition, the Government of Lao PDR (GoL) apparently did not accept the establishment of a conservation trust fund under FOMACOP, which could have provided funds in perpetuity for management of NNT and other NPAs in Lao PDR.

Given that NNT NPA is, in the SEMFOP's own terms, "widely regarded as one of the most important protected areas in Asia", it is unlikely that the GoL could not find long-term donor support for NNT's management if it demonstrated a commitment to protection of the area. In fact, donors have already poured tens of millions of dollars – probably more than NNT will get from NT2 in the 30-year life of the project – into nearby but smaller and less important protected areas in Vietnam (Pu Mat and Vu Quang). If, as the SEMFOP asserts, NNT has no future as a protected area, then it will not be for lack of management funds. But as it stands, that is all the NT2 project has to offer, which comes at considerable cost; namely, the loss of most of the Nakai Plateau and much of the Nam Theun river.

In fact, the case for NNT's protection as an "offset" for habitat that will be lost or degraded due to the NT2 project is incomplete. Section 1.4.1 and an accompanying table lists the habitat types that will be lost in the 3.5% of the protected area to be inundated by the reservoir, and argues that they are of minor conservation significance. Yet one habitat type is not discussed at all: the Nam Theun river (and its adjacent wetlands), which is one of only two, slow-flowing Mekong tributaries of its size in Lao PDR. There is no discussion of what might be considered adequate compensation for the loss of the Nam Theun river and its associated biota in the section concerning NT2 offsets.

The SEMFOP's stated "Purpose" (Section 1.2; presumably equivalent to 'goal') is "to ensure the effective, long-term protection of the biodiversity and watershed values of the Nam Theun 2 catchment while at the same time safeguarding the well-being, traditional livelihoods and culture of its human inhabitants". However, biodiversity conservation invariably requires some trade-offs and some forgone opportunities. Which of the "purposes" of the SEMFOP is to be pre-eminent: biodiversity conservation or livelihood enhancement? There will be occasions when decisions must be made to favor one over the other and a clear statement of which goal is the paramount (though not exclusive) for NNT would strengthen the SEMFOP. It would serve to guide decision-making and provide clear direction to the plan's implementing agencies and their staff.

Section 1.3.1, "Fundamental Principles of the Strategy", outlines the primary components of the SEMFOP's strategy. The section focuses almost exclusively on the traditional livelihoods of the area's residents as the primary impediment to conservation. There is no reference, for example, to cross-border poaching or the threat of illegal logging, even though a number of studies in NNT in the last ten years have concluded that such outside threats are probably more severe than those from within. Although the issues are discussed later in the SEMFOP, the failure to consider the significant external threats as part of the strategic approach to the area's management is a major shortcoming in the articulation of the plan's vision.

RELEVANT EXPERIENCE IN LAO PDR

Part 2 of the SEMFOP describes approaches and methods to be used during the plan's implementation. While the emphasis on community participation and participatory methods is encouraging, the implementation of these principles in the NNT will not be easy. Meaningful participatory management is possible only if civil society is sufficiently empowered, which is unlikely to be the case for local villagers

living in and around the NPA, and in Lao PDR generally. A weakness of the SEMFOP, and especially of Part 2, is insufficient acknowledgement of the constraints to successful participatory rural development in Lao PDR, and the failure to plan for these constraints.

The SEMFOP describes its methodology as Participatory Integrated Conservation and Development (PICAD), and states that PICAD “is generally accepted and already widely used by relevant GoL agencies for resource management throughout the country” (Section 2.1.1). Anyone with experience in rural development in Lao PDR will recognize this to be a considerable overstatement. The SEMFOP states that PICAD has “been tested and refined for use in NPAs throughout Lao PDR”, but fails to note that PICAD has not been successfully adopted and sustained in a single NPA of which we are aware.

The SEMFOP explains that the development of PICAD has drawn heavily from both negative and positive lessons from recent PICAD-type projects in the region, and provides a list of publications consulted. However, one critical document missing from the list is a post-project analysis of FOMACOP. This analysis concludes that the likelihood of participatory natural resources management succeeding within the top-down political environment of a one party state, such as Lao PDR, is low.⁵

The SEMFOP does include a discussion of the failures of the FOMACOP and indicates that the SEMFOP will be better. Among the listed flaws of FOMACOP are that “artificial ‘project’ structures within FOMACOP, meant that real authority was never adequately devolved through normal government channels to the provincial and district level” (Section 2.1.1.1). However, the WMPA is also an “artificial structure” outside normal government channels. In fact, the SEMFOP notes that “there is no precedence for such an authority in the Lao PDR”, and thus “the WMPA’s relation to other Government institutions will require time to evolve and develop” (Section 6.1.2). It is therefore not clear how the institutional shortcomings of the FOMACOP will be avoided in the case of the WMPA.

The three-year District Upland Development and Conservation Project (DUDCP) in NNT was funded by a World Bank loan and designed to be a sort of ‘mini-SEMFOP’. Staff and consultants on the DUDCP project reported significant misuse of project funds, with crippling impacts on project performance to the point where the World Bank almost cancelled the project after a mid-term review. If such activities occurred in NNT *before* the World Bank’s appraisal of NT2, it is unrealistic to assume that the same problems will not occur during the SEMFOP’s implementation.

The SEMFOP also notes that under FOMACOP, “promises and deadlines for village development activities were broken time and again, creating serious problems for field staff in building rapport and actively involving villagers in project planning” (Section 2.1.1.1). Yet this problem repeated itself in the subsequent DUDCP in NNT. The GoL has many priorities and needs, and the result is a pattern of reluctance to release funds (e.g., World Bank loans or grants, and presumably hydropower revenues) for intangible conservation and sustainable management activities, even when funds have been earmarked for conservation. The SEMFOP fails to explain how the problems with the FOMACOP and DUDCP will be avoided during the SEMFOP’s implementation in NNT.

⁵ Claridge, G., “Participatory Processes and Co-Management in the FOMACOP Conservation Sub-Program: Experience and Lessons Learned.”

INCREASING ACCESS TO THE NNT

Limited access is the principal reason NNT has the most extensive forest cover of any protected area in Lao PDR or Vietnam. It is inconsistent with lessons learned about conservation in the tropics to propose that management funds be used to build new access routes into the area, regardless of how “limited” the new access routes are initially proposed to be. This is particularly important in light of the recent construction of the Ho Chi Minh Road down the length of the Annamite Mountains in Vietnam, paralleling the Lao border. The consensus among conservationists working in Vietnam is that the road’s principal purpose is the increased exploitation of Annamite forest resources on both sides of the border. Branch roads have already crossed the border to extract resources from some areas of Lao PDR. The benefits and risks of improved access to the NNT must be considered in not just an immediate, local context, but also in a longer-term, regional one.

NNT’s ethnic groups have lived there for hundreds and in some cases thousands of years, with standards of living that may be better than those of many other rural areas in Lao PDR. This is due in large part to their near-exclusive access to relatively abundant forest resources. Nevertheless, the SEMFOP declares that increased access to the NPA is “required” (Section 2.1.6.1) to:

- “market household supplies from Nakai District as an alternative to the current trans-boundary supply route … as the current transboundary traders either hunt wildlife or exchange goods for wildlife”;
- “facilitate the transport (export) of produce to the Nakai plateau and beyond”;
- “facilitate the provision of rice and other essentials from Nakai”;
- “improve access for development, management and patrolling personnel and goods”.

While it is laudable that the indigenous residents will remain in the NPA, it would be imprudent to increase access to commercial markets for their natural resources, at least until effective management of the NPA is in place. Excessive commercial exploitation of several natural resources (e.g., rattan) is recognized as a problem for sustainable management in the NNT (and throughout Lao PDR).

In regards to orienting trade away from the Vietnamese border, increasing access to Nakai only opens up a *second* market for wildlife from the NNT, which is more likely to exacerbate the wildlife trade problem, not reduce it. Villagers will now have two choices of markets, with competing Vietnamese and Nakai middlemen bidders. This is particularly significant following the recent upgrading of National Route 12, which passes near Nakai on its way to Vietnam and will likely become a significant artery of the transborder wildlife trade.⁶

The SEMFOP proposes to build tractor-tiller tracks to interior villages in NNT, which means the villages will still be one or two days’ travel from the Nakai Plateau. Contrary to the untested hopes of the SEMFOP, it will not be economically viable for watershed villagers to invest the time and fuel to travel to Nakai to sell vegetables. Greater access of this sort could increase the trade of more valuable items, such as wildlife and some NTFPs, but is unlikely to affect the trade of items like cabbages and chilis. A brief study of the radius from which market produce is sourced today in Nakai’s market would show this. Furthermore, Nakai Plateau villagers will increase their production of cash crops as part of the project’s

⁶ Nooren, H. and G. Claridge (2001). *Wildlife Trade in Laos: the End of the Game*. Netherlands Committee for IUCN, Amsterdam.

resettlement plan. It is not clear how NNT villagers would be able to compete with Nakai villagers in this market, or if the market would be able to absorb the “export” of NNT villagers’ produce in addition to vegetables produced on the Plateau.

While new access routes will facilitate improved travel for patrolling personnel, it is precisely these routes that will require significantly increased monitoring and ranger patrols. Some of the greatest threats to NNT, such as unsustainable wildlife trade, unsustainable commercial sale of some NTFPs (e.g., rattan), illegal encroachment logging, and excessive population growth, are likely to be made worse, not better, by increasing access to the area. The Asian Development Bank (which is also a partner in NT2) has acknowledged the failure of its own project to control increased illegal entry to and resource exploitation in Phou Khao Khouay NPA following construction of the Nam Leuk dam. At a minimum, a solution to the problem in Phou Khao Khouay should be demonstrated prior to any discussion of opening new routes into NNT. Finally, the SEMFOP does not address how improved access could exacerbate the pressure on NNT that will result from the construction of the NT2 dam (with perhaps 20,000 workers and followers migrating to the Plateau and other areas).

Overall, the management strategy of the SEMFOP focuses too much on solving NNT’s assumed problems, and not enough on preserving the area’s many advantages – e.g., its partial insulation from the insatiable market for natural resources, its remarkably diverse agriculture, and the relatively stable, secure livelihoods of many of its residents. The SEMFOP would benefit from less reliance on a set menu of standard rural development interventions (‘roads and rice paddies’), and more objective analysis of the problems and opportunities specific to NNT.

ETHNIC MINORITY DEVELOPMENT PLAN⁷

A large proportion of the SEMFOP is devoted to solving what it apparently believes is the principal threat to NNT; namely, “unsustainable livelihoods” of its “poor” residents. But research on NNT livelihoods and their relationship to the resources of the NPA is thin. The DUDCP project concluded, for example, that there is not a significant food security problem in most NNT villages, despite the assumptions made in the SEMFOP. It seems likely that large sections of the SEMFOP were written or compiled by authors with training foremost in agriculture, rather than in the conservation of tropical biodiversity and protected area management. The SEMFOP’s fundamental strategies and approaches reflect this bias.

Some of the SEMFOP’s proposed solutions to perceived livelihood problems are worrisome, and even inconsistent with other parts of the management plan. The overall strategy of the SEMFOP is to reduce local reliance on natural resources. However, if this is achieved, it may remove local residents’ motivation to conserve the forest and its resources. It may be preferred, from a conservation perspective, to maintain residents’ reliance on a healthy forest, if sustainable management regimes are in place or can be developed.

The SEMFOP also provides insufficient analysis of the extent to which its proposed solutions might create additional problems. For example, it emphasizes the development of irrigated rice paddies.

⁷ Because the contributors’ expertise does not lie in social anthropology, discussion of the social aspects of the SEMFOP is confined to a few broad issues.

Irrigation requires the damming and diversion of streams, yet the SEMFOP contains no discussion of the impact this could have on local fisheries, which constitutes villagers' main source of protein.

This is not to say that NNT's residents cannot benefit from the sensitive introduction of livelihood innovations. However, it is important to acknowledge that the livelihoods and culture of NNT's residents are complex, and have evolved in some cases over thousands of years to fit the opportunities and limitations of the NNT environment (soils, seasons, etc.). Outsiders have a poor understanding of these systems. Attempts to improve local livelihoods elsewhere in Lao PDR – and local agricultural systems in particular – have frequently met with failure, leaving villagers worse off. The SEMFOP's guiding principles in its livelihood programs should be to 'do no harm' and 'learn first, before deciding what to teach'.

BIODIVERSITY MANAGEMENT AND CONSERVATION FRAMEWORK

The SEMFOP refers to often-cited constraints to biodiversity protection in Lao PDR, such as the lack of government capacity. It should be noted that numerous programs have been implemented to improve the capacity of protected area management institutions in the country. However, little progress has been made because of repeated failures, such as training people outside the target group, poor motivation and lack of institutional back-stopping, and minimal commitment from both trainees and their home institutions.

The SEMFOP itself notes that "NPA staff normally come from diverse and often irrelevant backgrounds, they are poorly trained and motivated and tend to be rotated to other un-related positions on a regular basis" (Section 4.1.2.2). These issues have been identified repeatedly by protected area consultants and donor agencies in Lao PDR, but they still persist. Experience has shown that lack of training *per se* is not the issue – NPA staff have been trained and re-trained by numerous well-funded projects. However, the government institutions themselves seem to have little interest in biodiversity conservation and therefore the skills of their trained staff are rarely used. The SEMFOP model offers no viable solution to this problem.

An approach proposed by the SEMFOP (Section 4.3.1.1) is to contract a short-term consultant to train patrol rangers in Wildaid principles. However, this approach has failed in most other PA management projects in Lao PDR. Training and capacity development are likely to be effective only when provided systematically over a period of several years, rather than delivered in a centralized 'one-off' training event. The NNT DUDCP project showed that continued reinforcement and long-term supervision are needed for trainees to consolidate existing skills and confidence levels and to acquire new ones. Secondly, although effective in some countries, some of the Wildaid principles may not be suitable if the SEMFOP proposes to adopt non-confrontational approaches.

Section 4.1.2.2 observes that the "majority of NPAs have no 4-wheel drive vehicle, insufficient motorcycles and very little basic equipment", but does not acknowledge the fact that those that have such equipment use them infrequently for conservation-related activities. In short, tangible solutions (training sessions, vehicles) are unlikely to solve the intangible constraint of weak motivation for protected area management.

One of the animals of highest conservation concern potentially threatened by NT2 is the globally endangered white-winged duck (WWD). In Section 4.3.3.5, the SEMFOP summarizes the core of its

WWD conservation strategy as the capture of remaining birds and collection and incubation of any eggs. Yet, this program is in direct opposition to the Environmental Assessment and Management Plan (EAMP) for the NT2 project area, which concludes, “It is quite meaningless to pour huge sums of funds into a translocation or an ex-situ program to conserve the Nakai Plateau [duck] population, given that there are between only 10 to 20 breeding adults... Instead, both human and financial resources should go to protecting and conserving the biodiversity of NNT NPA as a whole, which undoubtedly would have direct benefits to the remaining white-winged ducks” (NT2 EAMP, p. 108).

It is troubling that at such a late date in NT2’s development the project lacks consensus on a basic strategy for conservation of the single most endangered species affected. The EAMP’s approach is probably more realistic, more likely to succeed, and more cost effective, and the SEMFOP should be brought into alignment with it.

The NT2 project will inundate most of the habitat of 200 to 300 elephants living on the Nakai Plateau. There is already some problem of human/elephant conflict in the area, including occasional killings of the Plateau’s human residents by elephants. NT2 will squeeze both people and elephants onto a much smaller fraction of the Plateau. The consequences are unpredictable, and although elephant impact mitigation is not the responsibility of the SEMFOP, the document states that this “will probably be the most obvious wildlife mitigation problem from inundation, and the problems will start as elephants react to disturbances from construction of the dam” (Section 4.3.3.6). Despite impending construction activities, a mitigation plan has not been developed yet. For the elephant conservation and management plan, the SEMFOP proposes an elephant survey based on mark-recapture methods. This demonstrates a basic lack of understanding of biological science in preparation of the document. Mark-recapture is only appropriate with small animals, or those that can be readily identified individually from photographs (e.g. tigers, from their individual coat patterns).

Finally, the SEMFOP includes no mechanism for monitoring conservation of the Nam Chat-Nam Phan Provincial Protected Area (NCNPPA), formerly known as the proposed Northern Extension to NNT NPA. NCNPPA is a relatively small area of high biodiversity conservation significance, contiguous with the northern end of NNT NPA. It was originally proposed as an extension to NNT based on its high biodiversity value, and then within the context of the World Bank’s participation in NT2, as compensation for inundation of the Nakai Plateau. Section 1.4.4 of the SEMFOP lists a number of technical reasons why the proposal to add the Northern Extension to NNT died, but does not state the principal one: the GoL and the Bolikhamxay Province would not accept it for reasons that remain unclear. As a compromise, the province made it a provincial protected area and prepared a conservation management plan. Since the area was originally linked to NT2 and NNT, the SEMFOP should at least include some explicit conservation monitoring of the area to ensure that it remains protected.

MONITORING OF IMPLEMENTATION

Given the track record of Nam Leuk in Phou Khao Khouay, and of protected area management projects in general in Lao PDR, independent monitoring of the SEMFOP’s implementation is essential. The SEMFOP proposes the establishment of an Independent Monitoring Agency (IMA), which each year would evaluate the WMPA’s implementation of the SEMFOP, and submit a report to the World Bank, the WMPA Board of Directors, and NTPC (Section 6.5.4). Yet, the IMA will be appointed (with approval by the World Bank) and paid by the WMPA, and thus fails the test of independence. Some other shortcomings of the IMA proposal are as follows:

- The IMA's reports will go, in apparent confidentiality, to just three agencies (WMPA, World Bank, and NTPC), each of which will have vested interests in ensuring that the SEMFOP's implementation appears to be successful. In the interests of transparency and public confidence, the IMA's unedited reports should be released publicly at the same time they are presented to the WMPA, the World Bank and NTPC.
- Lao nationals will comprise half the IMA, yet it is unlikely a Lao national would write a report critical of a government institution or its officials, such as the WMPA and its Board. This compromises the independence of the IMA.
- Only two international experts (one environmental expert and one social expert) are proposed for the IMA. At the very least, a remote sensing expert needs to be added, to annually monitor forest cover and infrastructure development in NNT. This is among the highest monitoring priorities for the protected area.

The SEMFOP states that the Concession Agreement between NTPC and the GoL allows for WMPA budget disbursements to be withheld if problems identified by the IMA are not rectified. Greater clarity and specificity are needed, however, on the circumstances and mechanisms through which funding would be suspended.

STAFFING

The SEMFOP's stated strategy (Section 1.3) is “to create an effective watershed management authority that can work effectively with local communities to implement a range of programs to protect the watershed”. Given the few success stories of effective institutional leadership in protected area management in Lao PDR (due perhaps, least of all, to a shortage of funding), paramount in the discussion of SEMFOP's strategy should be an indication of how the WMPA will overcome this constraint.

The SEMFOP is an extremely ambitious program, particularly in the context of Lao PDR. A review of proposed staffing gives some insight into the likelihood of successful implementation, and it is not encouraging. For example, according to the Operational Plan (Part 6), nineteen national wildlife specialists – 4 professionals and 15 technicians – are required for implementation of the SEMFOP. However, not even one quarter of this number of specialists exists in all of Lao PDR, and there are no institutions to train additional experts. Expatriate technical assistance (TA) will also not fill the shortfall, with only one “Biodiversity Conservation Specialist” allocated to the project, for just 60% of its first phase (and quite possibly none thereafter). This is not necessarily to argue that more foreign technical assistance should be allocated to the project. However, without the provision of additional qualified TA, the scope of the SEMFOP should be scaled back to match available Lao technical capacity.

Finally, despite the significant constraints to achieving the SEMFOP's goals, the document confidently states that “NPA management will be well advanced by the time dam construction begins” (Section 4.3.1.10). Construction could begin within the year (and, in fact may have already begun; drilling of the tunnel between the proposed reservoir and the power station reportedly underway), yet in the best of circumstances it will take several years to establish professional and effective management as envisioned in the SEMFOP. Particularly worrisome for NNT's future is the community of perhaps 20,000 or more construction workers and their support community that will migrate to the dam site and areas close to the

NPA. It will be an economy driven by cash wages and, if experience is any guide, the labour force will be dominated by Vietnamese and Chinese, who tend to be more intensive wildlife consumers than Lao. Control of the impacts of this community is the responsibility of NTPC. Yet the motivation and expertise they will bring to the task is unknown, and it is unlikely the SEMFOP and the WMPA will be ready to meet the challenge. We can only note how unfortunate it is that, given the past ten years of movement towards NT2, the decade-long window of opportunity was not used to establish more effective management of NNT in advance of the project.

CONCLUSION

The SEMFOP is too ambitious given the limited professional and cultural experience with participatory development and biodiversity conservation in Lao PDR. Since the threats to NNT's biodiversity are much better understood (and often easier to deal with) than threats to its rural livelihoods, management should initially focus on priorities such as:

- Alleviation of a few clear, pressing threats to the area (e.g., outside poaching of wildlife and NTFPs);
- Gradual development of staff management capacity, including motivation and a relationship of trust with villagers;
- Careful study of more complex, ambiguous issues, such as food security, before proposing interventions.

In general, the plan is also hampered by misplaced emphasis in two areas: conceptually, emphasis on funding as the limiting constraint (and thus main solution) to protected area management in Lao PDR; and, technically, emphasis (although not explicitly stated) on interventions in the livelihoods of the watershed's residents as the main priority for management of NNT. The latter is of particular concern given the difficulties in Lao PDR (and elsewhere) that have been experienced in implementing rural assistance that does more good than harm, especially in the agriculture and land-use sectors.⁸

It may be possible to correct the misplaced conceptual emphasis by the establishment of explicit, direct linkages between performance and funding (which, we would note, is the normal situation for institutions of almost any kind). This could help create the necessary motivation for effective conservation of NNT's biodiversity. The misplaced technical emphasis on 'fixing' rural livelihoods should be reoriented to focus first on identifying and preserving NNT's intrinsic advantages (e.g., limited access, generally diverse and stable livelihoods) before rushing ahead to alter them.

⁸ See, for example: State Planning Committee (2000), *Poverty in the Lao PDR: Participatory Poverty Assessment*; and NAFRI Uplands Workshop Resource CD (2004).