

**LAO PEOPLE'S DEMOCRATIC REPUBLIC  
NAM THEUN 2 MULTIPURPOSE PROJECT**



**REPORTS 18A AND 18B OF THE  
INTERNATIONAL ENVIRONMENTAL AND SOCIAL  
PANEL OF EXPERTS**

12 February 2011 and  
15 July 2011

**DAVID McDOWELL  
THAYER SCUDDER  
LEE M. TALBOT**

**LAO PEOPLE'S DEMOCRATIC REPUBLIC  
NAM THEUN 2 MULTIPURPOSE PROJECT**

**REPORT 18A  
OF  
THE INTERNATIONAL ENVIRONMENTAL AND SOCIAL  
PANEL OF EXPERTS**

**LEE M. TALBOT**

12 February 2011

**REPORT 18A OF THE INTERNATIONAL  
ENVIRONMENTAL AND SOCIAL PANEL OF EXPERTS**

**For the Nam Theun 2 Multipurpose Project  
Lao People's Democratic Republic  
12 February 2011**

**CONTENTS**

<b>LIST OF RECOMMENDATIONS</b>	<b>1</b>
<b>1. INTRODUCTION</b>	<b>3</b>
<b>1.1 The Panel's Mandate</b>	<b>3</b>
<b>1.2 Panel Activities</b>	<b>3</b>
<b>1.3 Acknowledgements-Appreciation</b>	<b>3</b>
<b>2. THE WATERSHED AND THE WMPA</b>	<b>4</b>
<b>2.1 Introduction</b>	<b>5</b>
<b>2.2 The WMPA</b>	<b>5</b>
<b>2.2.1 Prime Minister's Decree #471</b>	<b>5</b>
<b>2.2.2 Livelihood Issues</b>	<b>6</b>
<b>2.2.3 Health</b>	<b>6</b>
<b>2.2.4 Family Planning</b>	<b>7</b>
<b>2.2.5 Education</b>	<b>7</b>
<b>2.2.6 Agriculture</b>	<b>7</b>
<b>2.2.7 General</b>	<b>7</b>
<b>2.2.8 Law Enforcement</b>	<b>8</b>
<b>2.3 The International Monitoring Agency</b>	<b>9</b>
<b>2.4 The Watershed Access and Restriction Framework</b>	<b>9</b>
<b>2.5 Domestic Water Buffalo in the NPA</b>	<b>10</b>
<b>2.6 World Heritage Status</b>	<b>10</b>
<b>2.7 The Nakadok Mining Site</b>	<b>10</b>
<b>3. THE THONG KONG ROAD</b>	<b>11</b>
<b>4. SAWMILL AND SALVAGE LOGGING</b>	<b>12</b>

**Cover Photo: Resettler children at Ban Done.**



## LIST OF RECOMMENDATIONS

The POE recommends:

- **1/18A** That action be taken as soon as possible on the proposal for the Wildlife Conservation Society and/or other competent organizations specialized in nature conservation to provide the WMPA with expertise, TAs and possibly other assistance, to be funded from sources independent of the WMPA annual budget.
- **2/18A** That WMPA follow up on the recommendations of the NTPC Health Program Management Unit for a cost effective and efficient health program for the watershed.
- **3/18A** That WMPA undertake an expanded family planning program in the village clusters with particular emphasis on education.
- **4/18A** That WMPA continue its efforts to cultivate closer collaboration between the various project livelihood teams so that the lessons and techniques of each is shared with the others.
- **5/18A** That WMPA complements the work of the NTPC Social Scientist with their own program to support the Vietic groups living in the watershed in line with the requirements of SEMFOP
- **6/18A** That the WMPA and their cooperators as called for in Decree 471 take prompt action to remove and exclude the Vietnamese poachers from the forest and grassland area south of Ban Nameo, and protect the area's unique assembly of wildlife; and that this action be an early part of a needed major makeover of the WMPA's law enforcement activities, which should involve, among other things, provision of Technical Assistance, possibly on a long term basis.
- **7/18A** That WMPA finalize the Watershed Access and Restriction Framework with increased attention to the access restrictions of the SEMFOP and their rationale, and that WMPA ensure that those restrictions are monitored and enforced.
- **8/18A** That the WMPA and its Board act decisively to remove the water buffalo which remain in the NPA by whatever means are necessary as soon as possible.
- **9/18A** That GOL initiate the process of applying for World Heritage status for the NNT NPA without delay.
- **10/18A** That the WMPA continue to monitor the Nakadok site to make sure that commercial mining operations are not restarted.
- **11/18A** That the Thong Kong road be made totally impassable to wheeled traffic in the most cost effective way.

The POE strongly recommends:

- **12/18A** That since the claims of remaining "salvage logs" in the reservoir

**have been proven false, all search for “salvage logs” be stopped immediately, the Phonesack (“Nancy”) sawmill be decommissioned and removed from the Plateau now, along with its logging barges, and that the old BBKP sawmill also be removed.**

## **1. INTRODUCTION**

This is report 18A of the International Environmental and Social Panel of Experts (POE or the Panel) for the Nam Theun 2 (NT2) Multipurpose Project in the Lao People's Democratic Republic. The members of the Panel are D. K. McDowell (consultant, Otaki, New Zealand), T. Scudder (Professor Emeritus, California Institute of Technology, USA) and L.M. Talbot (Professor, George Mason University, Virginia, USA). The two main goals for this early 2011 POE mission are to assess the reservoir drawdown situation for augmenting cultivation and grazing for the resettlement villages, and to examine conservation and development and the work of the Watershed Management and Protection Authority (WMPA) in the Nakai Nam Theun National Protected Area (NPA). Since the period of maximum drawdown is anticipated to be later in the year, the POE is undertaking this mission in two parts. D.K. McDowell and T. Scudder will come in June-July, and L. Talbot has come in January and February. This Report 18A covers the mission of L. Talbot.

### **1.1 The Panel's Mandate**

The Panel derives its mandate from the Concession Agreement. This is a 600 page legal document which assigns the POE a contractual responsibility to provide independent review of, and guidance on, the treatment of environmental and social issues associated with the Project, along with some executive functions, and after the Implementation Period of nine years or more, to determine whether the Project's environmental and social goals have been met. The POE remains a standing body for the period of the concession. The POE submits its findings to the Government of Laos (GOL) Minister of Energy and Mines and the Standing Deputy Prime Minister, addresses recommendations to the GOL, Nam Theun Power Company (TPC) and the International Financial Institutions (IFIs), and is required to assess the extent to which NT2 meets the requirements of the safeguard policies of the World Bank and the Asian Development Bank on such issues as the environment, indigenous peoples and resettlement with development.

### **1.2 Panel Activities**

POE Member Lee Talbot arrived in Vientiane on January 25. After meetings with representatives of the GOL Department of Energy Promotion and Development (DEPD), NTPC, World Bank, Wildlife Conservation Society (WCS), Fauna and Flora International (FFI) and the Saola Project, he proceeded to Nakai on January 27. January 28 was spent in discussions with the WMPA Secretariat at their headquarters in Oudomsouk, and with Elizabeth Mann of the Asian Development Bank (ADB), NTPC's Environment and Social Director Ruedi Lüthi, Marcel Frederik and other NTPC staff.

The next two days involved visits to Lak Sao including a meeting with the Vice Governor of Khamkeut District, the Old Sop Hia village site on the Reservoir, WMPA road check points at Thalang, Pakatan, and Phonsaat, the northern Peripheral Impact Zone (PIZ) and the site of previous commercial mining activity at Nakadok.

January 31 through February 2 were spent in a visit to the Navang Village Cluster to see the livelihood activities in Navang and nearby cluster villages, including health, education, agriculture and access activities, and some patrol activities. Areas visited on February 3 included the WMPA Nam On reservoir check point and the Thong Kong road to determine if attempts to make it impassable had been successful. The Thaphaiban and Teung Village Clusters were visited February 4 through 8. Livelihood activities including health, education, agriculture and access were examined along with some of the conservation patrol activities.

On February 9 following meetings with the WMPA Secretariat in Oudomsouk and the Vice Chairman of the WMPA Board of Directors in Thakhek, Dr. Talbot returned to Vientiane. The next four days were spent in document review, report preparation, consultations with the CEO of NTPC, Jean-Pierre Katz, NTPC staff, the non-governmental conservation organizations, and a Wrap Up meeting with GOL agencies including DEPD and WMPA, the NTPC and the IFIs.

From February 16 through 22 Dr. Talbot returned to the watershed, proceeding up the Nam Noy and Nam Pheo to Ban Nameo and thence southward to the forest and grasslands near the base of the Phou Vang mountain range, areas never previously visited by the POE, particularly to assess the conservation status of the area and the degree of Vietnamese poaching. Following debriefing meetings with the WMPA Secretariat and the World Bank, he returned to Vientiane.

### **1.3 Acknowledgements-Appreciation**

The POE expresses its appreciation for the organizational time and energy devoted by WMPA Director Thong Eth and staff, and NTPC, particularly Pat Dye, to setting up a full and worthwhile schedule. It is grateful to the Vice Governor of Khammouane Province, the CEO of NTPC, Jean-Pierre Katz, Ms. Keiko Miwa, head of the World Bank Lao Office and William Rex of the World Bank, Thong Eth Phayvanh, Director of the WMPA Secretariat, and the Deputy Governor of Khamkeut District for their insights and time. It also wishes to express appreciation to the Deputy Directors of WMPA, Sukhatha Vannalath, and Dr. Tiemme Vannasouk who accompanied Dr. Talbot on the field visits and provided valuable information and assistance, as did WMPA's Phoukhaokham Sengphavanh and NTPC's Phalim Daravong in the field visit after the visits to village clusters. As has always been the case, the POE received consistently friendly hospitality and assistance from all the Lao and others it has had the pleasure of meeting.

## **2. THE WATERSHED AND THE WMPA**

### **2.1 Introduction**

In its previous reports the POE has described the Nam Theun National Protected Area (NPA) and its globally significant biological and cultural diversity, along with the threats it faces, so that will not be reiterated here. As we have noted before, since the start of the NT2 project, conservation of the biodiversity of the NPA and protection and rehabilitation of forest cover in the watershed have remained a fundamental objective. They are also a primary reason for the involvement and support by the World Bank and other international financial institutions and key environmental organizations. This is in part because protection of the NPA is an explicit offset under the World Bank's OP4.04 requirements for the area to be inundated, but it is also because of the clear global importance of conserving the area's biological diversity. In a somewhat similar fashion, protection of the area's cultural diversity has been an important objective of the project.

### **2.2 The WMPA**

The Watershed Management and Protection Authority (WMPA) was established to ensure conservation of the NPA and its values. The WMPA and its challenges also have been described in detail in the previous reports and will not be duplicated in detail here. We will note, however, that this mission was undertaken at this time because of the importance of the NPA and the WMPA and the challenges facing them.

#### **2.2.1 Prime Minister's Decree #471**

A principal focus of this POE mission is the implications for WMPA of Decree #471/PM, the "Prime Ministers Decree on the Management and Protection of Nakai Nam Theun National Protected Area and Nam Theun 2 Watershed Area." This new Decree updates and augments the previous Decree #39. The new decree adjusts the organization structure, role and legal status of the WMPA; and also defines the new boundaries of the watershed and protected area and the rules, regulations and principles for its protection and management. In POE report #17 we referred to this decree with appreciation, but it was not formally issued until after the conclusion of that mission.

This decree profoundly changes the nature of the work of WMPA. The decree emphasizes that most of the work is to be done by cooperators who are other government bodies such as the District Forestry Office, Army, and Police, as well as other organizations including NGOs. The WMPA is to provide overall guidance and coordination and it directs, oversees and monitors the cooperators' work to carry out the requirements of the Socio-Environmental Management Framework and Operation Plan (SEMFOP). As a result WMPA staff must be coordinators, planners, organizers, managers, supervisors and monitors – not the people who try to do most of the work themselves.

Consequently WMPA requires a substantially smaller staff and one with capabilities and expertise that are quite different from many of the present staff.

The WMPA Board and Secretariat are very aware of these implications and they have started the process of planning for it. We understand that the Board will soon issue a directive specifically about the new arrangements under the Decree. The successful implementation of the various parts of this new decree has the potential to respond to many of the concerns about WMPA that the POE has expressed in the past. It has the potential to represent a turning point in the protection of the NPA, but only if the effective cooperation of the other government agencies specified in the Decree is truly realized and an effective system of monitoring of the results is set up.

To help with this transition as well as to provide other forms of assistance, the POE has recommended that arrangements be made for NGOs such as the Wildlife Conservation Society and Fauna and Flora International, to provide short term assistance in terms of various experts, assistance with development of performance indicators for WMPA's cooperators, issues of the integration of conservation and development, training, and other ways. They also could provide worldwide links with researchers and volunteers who might wish to assist and carry out environmental and social research and other work here. Such an arrangement would require independent funds, not the WMPA budget. Details and a Memorandum of Understanding would need to be worked out with the WMPA Secretariat and approved by the WMPA Board.

The POE has discussed this possibility with the Chairman and Vice Chairman of the WMPA Board, the WMPA Secretariat and the NGOs involved and it appears that the proposal would be welcomed if the details can be worked out satisfactorily and the funds be found. While these initial discussions have focused on urgent conservation issues, the same approach would be appropriate for social research and issues.

**The POE recommends:**

- **1/18A That action be taken as soon as possible on the proposal for the Wildlife Conservation Society and/or other competent organizations specialized in nature conservation to provide the WMPA with expertise, TAs and possibly other assistance, to be funded from sources independent of the WMPA annual budget.**

In this context, the POE wishes to congratulate Thong Eth and his staff for their stance in welcoming researchers, volunteers and others to assist them with the NPA, and to express appreciation to the WMPA Board for supporting them. This is a most significant and welcome development.

**2.2.2 Livelihood Issues:**

**2.2.3 Health:** The NTPC Health Program Management Unit has published the results of a survey conducted in January of this year, comparing the health status of the villagers in Ban Nahao village in the Navang Cluster with the populations of the resettlers on the plateau. Nahao village was considered to be a comparable village to the resettled population before the resettlement process. The differences in health status between the two populations are striking, with very significant improvement in the status of health of the resettled population.

The survey report made a series of recommendations to implement a cost effective and efficient program with WMPA to improve the health of populations in the watershed. We understand that WMPA plans to proceed with implementation. Consistent with the new decree, this would involve channeling WMPA funds through the District Health Office. We hope that this also would involve Dr. Pany and her people.

**The POE Recommends:**

- **2/18A That WMPA follow up on the recommendations of the NTPC Health Program Management Unit for a cost effective and efficient health program for the watershed.**

All villages have medicine boxes and there are now health centers in each cluster, In addition one new health center is being constructed in Ban Nameo because it is so remote from the Teung Cluster center at Ban Noy. The WMPA has provided gravity fed clean water sources in several villages, including those near Navang and Ban Noy.

**2.2.4 Family Planning:** One area that requires significant additional effort is family planning, or birth spacing. While family planning materials are available at the main health centers in the clusters, it appears that there is a significant need for education on the health and livelihood aspects benefits involved, particularly in the more remote villages of the southern clusters where improved access to family planning materials is also needed.

**The POE Recommends:**

- **3/18A That WMPA undertake an expanded family planning program in the village clusters with particular emphasis on education.**

**2.2.5 Education:** The WMPA objective of having at least one primary school in each village appears to have been achieved. There are secondary schools in Navang and Ban Noy.

**2.2.6 Agriculture:** It is clear that the health efforts in the resettlement area have been remarkably successful and that their experience can be applied to the watershed populations. In the same way, it would be desirable for the WMPA staff who deal with other aspects of livelihood to establish closer cooperation with the highly successful NTPC livelihood teams in the resettlement area, project area and downstream Xe Bang Fai areas, as was recommended in POE Report #17, recommendation 25/17. The POE notes, however, that some significant improvements have been achieved by WMPA efforts in the watershed, and that they have held some joint meetings and workshops with the NTPC livelihood people. It would also be desirable for WMPA to examine other areas of livelihood activities that could apply to the watershed. An example would be in the area of NTFP cultivation. One possibility would be study tours to the Nam Kading protected area to see how their successful NTFP programs might be adapted to the watershed.

**The POE Recommends:**

- **4/18A That WMPA continue its efforts to cultivate closer collaboration between the various project livelihood teams so that the lessons and techniques of each is shared with the others.**
- **5/18A That WMPA complements the work of the NTPC Social Scientist with their own program to support the Vietic groups living in the watershed in line with the requirements of SEMFOP.**

WMPA has established revolving funds for livestock in each cluster. These have provided pigs, goats, poultry and some cattle. There are demonstration farms in each cluster where, among other things, different improved strains of rice are tried so that the villagers can see the results and choose preferred strains.

**2.2.7 General:** WMPA has constructed two-story headquarters buildings with areas for meetings in each cluster. They have provided large numbers of solar cells so that most houses observed have electricity at least for lighting. Motorbikes are very numerous in the cluster centers and there are numbers of two-wheel tractors. New or recent

house construction using good wooden planking is apparent in all villages visited. One gets the impression of significant recent increases in personal wealth. Before the reservoir was filled Vietnamese traders were found throughout the watershed. Now goods from Oudomsouk are available and in most cases, are cheaper than those carried down from Vietnam. One result is that there are far fewer Vietnamese traders reported in the village clusters, except in the more remote eastern villages of the Teung Cluster where Vietnamese trade goods remain generally cheaper because of the longer transport from the reservoir.

**2.2.8 Law Enforcement:** Law enforcement and biodiversity conservation in the watershed are probably the areas of greatest concern in terms of the ultimate success of the overall NT2 Project. When the WMPA was established the biodiversity of the NPA had been under particularly heavy pressure for over two decades. The area is vast, the WMPA staff small, and in spite of WMPA's efforts the loss of biodiversity has continued, most particularly in terms of the larger terrestrial animals, but also in terms of some trees and other plants. The poaching pressure is formidable. It remains particularly severe from Vietnam, and heavy from the PIZs, probably from some enclave villages, and increasingly from the resettlers because of much easier access for them by boat across the reservoir.

WMPA has set up several ranger stations near the vulnerable Vietnam border. Staff from one of these ranger stations reported that they had collected about a thousand snares in the past two months, but they spoke of the Vietnamese poachers living in the NPA and moving to avoid the WMPA patrols. In the area south of Ban Nameo the POE found that the Vietnamese poachers appear to have almost total freedom of movement. Heavy Vietnamese activity in the area was reported by people from distant villages, as well as those living nearby. While visiting this area the POE heard shots every day and encountered recently occupied poachers' camps that could accommodate around 100 persons along the main trails. One camp included a meat drying and smoking structure that had been very recently used and could handle several deer or the equivalent. In one hour near one camp 105 snares were collected, one of which held a dead jungle fowl. Numerous other snares were found including one with a dead Large Antlered Muntjac, one of the rarest mammals in the world. Wherever they grew near the trails rosewood trees had been cut and planked or sectioned by chain saws, and piles of cut rosewood were found frequently both in the camps and elsewhere.

When questioned the Ban Nameo village authorities either said that there had been one patrol a year in the area, or that there had been no patrols for over two years. It was also reported from a variety of sources that the village authorities of this and nearby villages cooperated with the Vietnamese poachers. It seems clear to the POE that the WMPA law enforcement in this important area has failed completely.

The forest and grassland area south of Ban Nameo appears to be one of the most important and valuable areas in the whole watershed from the standpoint of larger mammals. Among the species seen, heard, or indicated by recent dung and footprints were gaur, large-antlered muntjac, sambar, wild pig, and gibbons. It is still not too late to save the area's biodiversity if vigorous action is undertaken very soon. Otherwise the veritable army of Vietnamese poachers will wipe out the larger wildlife and the rosewood. In view of the area's importance the POE plans to revisit it at the first opportunity.

It would appear that the equivalent of a concerted military sweep of the whole area within 20 or more km. of the border would be needed to at least partially clear it of Vietnamese poachers, and the problem of keeping them out would remain. The use of chain saws should be rigorously prohibited in the protected areas. Fauna and Flora International are developing a Trans-Border Project with WMPA and WCS, and this should help. The problem of village authorities' cooperation with the Vietnamese poachers should be addressed promptly. Since they come under the jurisdiction of the Nakai District Governor, and he is a member of the WMPA Board of Directors, that Board would appear to offer a solution.

## **The POE Strongly Recommends:**

- **6/18A That the WMPA and their cooperators as called for in Decree 471 take prompt action to remove and exclude the Vietnamese poachers from the forest and grassland area south of Ban Nameo, and protect the area's unique assembly of wildlife; and that this action be an early part of a needed major makeover of the WMPA's law enforcement activities, which should involve, among other things, provision of Technical Assistance, possibly on a long term basis.**

The much expanded cooperation with GOL cooperators such as DAFO, army and police, called for in the new decree, offers great promise if they are properly deployed, supervised and monitored. Since there appear to be few WMPA staff with expertise and motivation in law enforcement, it is important that those with such abilities and attitudes be deployed in that critical area. In that context it appears clear that one of the ways the NGOs can be of most help to WMPA is in the area of law enforcement, including augmenting the work of WMPA in establishing and applying performance indicators and standards of performance and providing training in evaluating the performance of the cooperators.

### **2.3 The International Monitoring Agency**

The POE wishes to congratulate the WMPA Secretariat for the selection process that it has established to replace the departed members of the International Monitoring Agency (IMA). The process included representatives of the NTPC and IFIs, and it appears to have identified outstanding candidates. The POE would suggest that the WMPA consider a similar process to deselect members of the IMA should that need arise.

### **2.4 The Watershed Access and Restriction Framework**

In the light of current conditions the POE has again reviewed the Watershed Access and Restriction Framework (WARF) that the WMPA is preparing, and discussed it with the WMPA Secretariat. Among the points noted were the need for the WARF to cover monitoring of the access tracks to make sure they are not being misused, the need to register and provide identification for the many boats of the enclave villagers, and the need to realistically and explicitly recognize the threats to the integrity of the protected area that any tracks pose. Many of the tracks visited on this mission had been significantly improved, often with bridges, and they are heavily used by motorbikes, two-wheel tractors and foot traffic. Many of the tracks seen were of a standard to accommodate four-wheel vehicles which would be disastrous to what biodiversity is left in the NPA.

In this context, the POE was surprised and disturbed to find a four-wheel drive truck in the Teung Village. Reportedly it had been purchased some (two or more) years earlier from Vietnam by the village headman to transport rice and other goods for his shop. Reportedly it has not been operational for some time (although the tires were fully inflated) but the fact that an individual in the NPA could buy and operate a four wheel vehicle is most disturbing. It is absolutely not consistent with the restrictions on access that are contained in the SEMFOP and shows that these restrictions are not being enforced. It also shows that the access tracks being developed by WMPA allow four as well as two wheel vehicles, and consequently present a real threat to the integrity of the NPA unless they are very carefully monitored and the access restrictions in the SEMFOP rigidly enforced.

### **The POE Recommends:**

- **7/18A That WMPA finalize the Watershed Access and Restriction Framework with increased attention to the access restrictions of the SEMFOP and their rationale, and that WMPA ensure that those restrictions are monitored and enforced.**

### **2.5 Domestic Water Buffalo in the NPA**

As the POE has noted before, the resettlers' buffalo in NPA remain a threat to the native wildlife and vegetation, the artificial salt licks constructed for the elephants, and the artificial wetlands. Perhaps more important, they remain an excuse for villagers to enter the NPA for poaching of wildlife and for illegal collection of rosewood. Recently 145 buffalo were rounded up and returned to the resettler area with assistance from NTPC, but a large number remain. The Governor of Khammouane has set three deadlines for the resettlers to recover their animals and none have been met. The most recent such order stated that any animals remaining after the end of 2010 would become property of the state. The POE feels that they should be totally removed by whatever means are necessary as soon as possible.

### **The POE recommends:**

- **8/18A That the WMPA and its Board act decisively to remove the water buffalo which remain in the NPA by whatever means are necessary as soon as possible.**

### **2.6 World Heritage Status**

The POE has consistently recommended that GOL apply for World Heritage Status for the NPA, and in past reports we have detailed the rationale for this recommendation. We understand that GOL has now initiated the process of applying for World Heritage Status for the Phouhinnamnor NBCA. We are most disappointed that GOL still has not applied for that status for the NNT NPA, and we renew our past recommendations for that action.

### **The POE recommends:**

- **9/18A That GOL initiate the process of applying for World Heritage status for the NNT NPA without delay.**

### **2.7 The Nakadok Mining Site**

The Mission visited the site in the NPA near Nakadok Village where the Phonesack Company previously had initiated mining. It is clear that all commercial activity in that part of the NPA has been stopped, and although there had been little if any attempt to restore previous natural conditions, the natural forest and bush vegetation was taking over. There is some of the previous artisanal river bed mining by villagers in the valley bottom but not up the side valleys. During the commercial activity the company had constructed a number of service buildings in the side of the valley but outside the NPA boundary. These include a very large equipment maintenance shed, office building, about four barracks for workers and some other structures. Except for the office building where several guards apparently stay, the buildings do not appear to be currently in use. It is clear, however, that commercial operations could be restarted quickly if they were allowed to do so. Consequently it is important that WMPA continue to monitor the situation as they are doing at present.

**The POE Recommends:**

- **10/18A That the WMPA continue to monitor the Nakadok site to make sure that commercial mining operations are not restarted.**

**3. THE THONG KONG ROAD**

During the NT2 project construction a now-abandoned salvage logging road was constructed from the southwest of the Nakai Plateau down the escarpment near the village of Thong Kong. The agreement was that after the salvage logging use it would be rendered impassable to wheeled vehicles because otherwise it provided uncontrolled access to the plateau and the Village Forestry Association lands and resources . Past POE missions have found that although attempts had been made to cut the road, it was still passable to two wheeled vehicles, and therefore still provided access to the NPA and Village Forestry areas. Inspection by this mission showed that motorbikes can and do still use the road to access the plateau and reservoir. It has been suggested that instead of trying to rebuild the existing but ineffectual road cuts, an engineer identify a single place on a very steep slope where a short section of road could be removed thereby totally stopping wheeled traffic.

**The POE Recommends:**

- **11/18A That the Thong Kong road be made totally impassable to wheeled traffic in the most cost effective way.**

#### 4. SAWMILL AND SALVAGE LOGGING

The POE was most disappointed to see that the Nancy (Phonesack) sawmill remained in place and apparently in operation on the plateau, and that some of the logging barges also remain. Their continued presence was noted and commented upon unfavorably by some attendees at the NT2 Inauguration Ceremony on December 9<sup>th</sup>. We understand that the company or the company's contractor had claimed that some 1,600 logs remained tethered in rafts in the reservoir and that the sawmill had to stay in operation to process them. In our Report #17 the POE noted that no such logs had been reported to us. The claim was also disputed by others. Given the controversy, GOL appointed a committee to solve the issues of remaining logs. The committee examined the reservoir and particularly checked the GPS locations the company had given for the locations of the rafts of logs. None were found. The company, or contractor, also claimed that large numbers of logs remained sunk on the bottom of the reservoir. They provided a barge but their divers were only able to find one single sunken log.

It seems proven that, as we wrote in Report #17, the argument of the need to remove existing logs is not legitimate, and it appears to the POE merely an excuse to maintain the sawmill in operation. We consider there is no legitimate reason for the mill to remain. The only trees readily accessible to it are in the Village Forestry Association area and the NPA. Logs from outside the area can be trucked about 20 km. down to the very large Phonesack mill facility near Gnommalath, and this is being done regularly with logs from the Phonesack mine area north of the NPA.

As long as the Sawmill remains on the plateau it is a threat to the forests of the NPA and the Resettlers. During this mission in the watershed the POE was frequently told that the Nancy mill was continuing to solicit and buy rosewood from villagers in all the clusters. We have been informed that the Governor of Khammouane recently asked the manager of the Phonesack sawmill to remove it. We hope that this happens soon, and the POE reiterates its strong recommendation that the sawmill should be decommissioned and removed, and the remaining logging barges be removed, now. The POE has also heard reports that the smaller but still operational former BPKP sawmill just south of Oudomsouk is being used to process trees illegally cut from the Village Forestry Association lands. The former BPKP sawmill also should be decommissioned and removed.

#### **The POE strongly recommends:**

- **12/18A That since the claims of remaining “salvage logs” in the reservoir have been proven false, all search for “salvage logs” be stopped immediately, the Phonesack (“Nancy”) sawmill be decommissioned and removed from the Plateau now, along with its logging barges, and that the old BBKP sawmill also be removed.**



View of Ban Nameo, nearest village to open grasslands.



WMPA - constructed track to the Teung Cluster - wide enough to accommodate 4 wheel vehicles.



Giant muntjac dead in poacher's wire snare.



Health centre at Ban Navang.



Planting new strains of rice in WMPA demonstration padi in Thapaiban Cluster.



Primary students in WMPA built school in Makeuen.



Dead red jungle fowl caught in one of the more than 100 Vietnamese poachers' snares found by POE group.



View of previously undescribed biodiversity - rich grassland.



Demonstration vegetable plot at Thong Noy. Note bamboo irrigation pipes.



POE's Lee Talbot with freshly shed skin of an eight foot king cobra.



New wooden house under construction in Thong Village, Thapaiban Cluster. Note traditional house opposite and a completed wooden house in the



Bridge being constructed, Nam Noy. Will accommodate 4-wheel vehicles.

**LAO PEOPLE'S DEMOCRATIC REPUBLIC  
NAM THEUN 2 MULTIPURPOSE PROJECT**

**REPORT 18B  
OF  
THE INTERNATIONAL ENVIRONMENTAL AND SOCIAL  
PANEL OF EXPERTS**

**DAVID MCDOWELL  
THAYER SCUDDER**

15 July 2011

**REPORT 18B OF THE INTERNATIONAL  
ENVIRONMENTAL AND SOCIAL PANEL OF EXPERTS**

**For the Nam Theun 2 Multipurpose Project  
Lao People's Democratic Republic  
15 July 2011**

**CONTENTS**

<b>LIST OF RECOMMENDATIONS</b>	<b>1</b>
<b>1. INTRODUCTION</b>	<b>3</b>
1.1 Panel Activities	3
1.2 Acknowledgements – Appreciation	4
<b>2. THE XE BANG FAI DOWNSTREAM PROGRAM AND THE NAKAI PLATEAU</b>	<b>5</b>
2.1 Introduction	5
2.2 The Downstream Program	5
2.3 Administrative Issues Relating to Further Implementation and Handing Over of the Downstream and Nakai Plateau Livelihood Programs	10
2.3.1 Strengthening the Resettlement Management Unit (RMU)	10
2.3.2 Immediate Extension of Key Contracts	12
2.4 Downstream and Nakai Plateau Research, Extension and Livelihood Development	12
2.4.1 First and Second Generation Resettler Capacities and Interests	12
2.4.2 The Need for Viable Micro-financing Systems in the Downstream Area and on the Nakai Plateau.	14
2.4.3 Continuity in Research, Trials and Seed Multiplication after 2012 including Research on Grasses and Crops for the Drawdown Area, Trials of Flood Tolerant and Floating Rice, Further Institutional Development of Seed Multiplication Capacities, and Continuity with Fisheries Co- Management and with Contract Farming.	15
2.4.3.1 Research and Trials on Grasses and Food Crops for the Drawdown Area	16
2.4.3.2 Trials of Submergence-tolerant and Floating Rice and Further Institutional Development of Seed Multiplication Capacities	19
2.4.4 Avoiding Conflict between the Cluster Approach on the Nakai Plateau and the CA Requirement that Livelihood Emphasis be on Individual Resettlement Villages and Households	20

<b>3. OTHER LIVELIHOOD-RELATED ISSUES</b>	<b>24</b>
<b>3.1 Water Gates and Wetland Management</b>	<b>24</b>
<b>3.2 Village Forestry Issues</b>	<b>24</b>
<b>3.3 Monitoring and CA Income Requirements</b>	<b>28</b>
<b>3.4 The Use and Misuse of SERF</b>	<b>29</b>

## LIST OF RECOMMENDATIONS

The POE recommends:

- **1/18B** That GOL, NTPC and the IFIs negotiate and sign a Cooperative Agreement to work together in addressing a wide range of issues to better realize the potential of the Xe Bang Fai (XBF) river basin.
- **2/18B** That the relevant GOL national and provincial authorities, in the interest of ensuring decentralized coordination and overall coherence of new Xe Bang Fai activities as substantial new resources become available, review the present institutional arrangements for coordinating and monitoring development activities and design, set up and fund under the National Project Steering Committee's Secretariat a two province oversight sub-secretariat utilizing the expertise of a strengthened RMU.
- **3/18B** That NTPC managers take urgent steps to retain staff needed for ongoing management of livelihood programs in particular and for training of Lao replacement staff by offering them immediate extensions of their Downstream and Nakai Plateau contracts for a minimum of eighteen months and preferably beyond that time.
- **4/18B**
  - (1) That a concentrated endeavor be made by NTPC to ensure that the teething problems of the new irrigation system are quickly addressed and righted, that a simple procedure for covering future mechanical breakdowns be set up, perhaps funded from SERF (see below), that before the next dry season there be training and practical demonstration sessions in every resettlement village to convince farmers of the utility of the new irrigation systems, to cover also use of low tech irrigation systems like submersible pumps in gully dams and in accessible zones of the reservoir, and to include instruction in basic repair of broken down devices.
  - (2) That the NRO pay more attention to the emergence of the type of off-farm enterprises that second generation resettlers are developing or need education, business planning assistance and credit to initiate.
- **5/18B** That urgent steps be taken not only to review and restructure the existing VIRF micro-credit system in the downstream area but to review also the handover proposals and their timing. If the proposal for LWU management of the system, desirably with RMU involvement, is to proceed then an intensive planning, recruitment and training program must be mounted fast. In any event the timetable for the handover must be attenuated well into 2013 and beyond.
- **6/18B**
  - (1) That in the case of the Nakai Plateau, it be recognized that the need for both inland and drawdown resettlement area research and extension requires that continuity of NRO agricultural staff be maintained, to the extent possible, through 2015 regardless of whether

**or not two of the three NRO research stations are handed over to GOL or other agencies. In making this recommendation, the POE understands that all three NRO research station managers have both extension and research qualifications so that their experience can be adapted as required during the handing over process.**

- (2) That in the case of the Downstream Program, the Khammouane, Mekong and Small Holder projects of the IFIs be adapted and broadened to include not just continuation and handing over to GOL and village control DSP's rice trials and rice seed multiplication activities, but also continuation and handing over of the DSP's fisheries co-management and contract farming activities.**
- 7/18B That Nakai District and NTPC (improving their cooperation and learning from the too slow commencement of NTPC DSP's handing over to GOL) commence planning during the second half of 2011 for the handing over of NRO activities, the NTPC health program and the new schools to the Government of Laos no later than November 2014. Aided by the 10 provincial officials and with RMU coordination across line departments with NT2 responsibilities, the District Governor and his staff should seize now the opportunity to commence planning and budgeting for GOL takeover of the resettlement program.**
  - 8/18B That the World Bank's Mekong Project or the Chinese Funded Project include a carefully designed wetlands management component.**
  - 9/18B That the VFA manager be encouraged to approach the furniture enterprise manager interviewed by the POE to determine whether they can negotiate a partnership agreement under which the entrepreneur would, in return, for example, for VFA timber quota, work with the VFA to train workers to eventually set up and manage a commercial VFA furniture factory. That, at the same time, serious consideration be given to implementing POE recommendation 16/17 in our January 2011 report calling for an independent study of the equitability and appropriateness of the (punitive) range of taxes and levies imposed on a village-level organization like the VFA and modifications be made accordingly.**
  - 10/18B That the project criteria and selection committee for SERF be reconstituted to bring in a majority of village representatives, that a set of selection criteria for projects be agreed as a matter of urgency and that a low technology approach be followed where appropriate in order to make the funds go further.**

# **1. INTRODUCTION**

## **1.1 Panel Activities**

POE Members David McDowell and Thayer Scudder arrived in Vientiane over the weekend of June 11-12. As initially planned, the main purpose of this POE mission was to examine the condition and use by resettlers of the Nakai reservoir drawdown area before reservoir filling during the 2011 rainy season. Subsequently the POE was requested to address the implications of the recommendation of the May 25 Asian Development Bank (ADB) - World Bank (WB) Mid-term Review that handing over of the Xe Bang Fai Downstream Program from NTPC to the Government of Laos be accelerated to accommodate the proposed withdrawal of NTPC from downstream activities at the end of 2012.

All-day meetings on June 13 focused on discussions with NTPC's Downstream Program's environment and social (E & S) staff. A meeting was also held at the Asian Development Bank to assess how ADB's Small Holder Project might assist NTPC in meeting the Concession Agreement requirement that livelihoods of downstream villages and households adversely affected by the NT2 project be restored. After further meetings with the Minister of Energy and Mines, representatives of the GOL Department of Energy Promotion and Development (DEPD), NTPC, and the World Bank including the Bangkok-based Country Director, the POE proceeded to Thakhek the afternoon of June 16. June 17 and 18 were spent on all-day visits to the lower XBF basin and to project affected villages in Mahaxai District, with an evening meeting June 17 with the Khammouane Vice Governor, provincial departmental staff and the Resettlement Management Unit's Director and Deputy Director. Further meetings were held the morning of June 19 with NTPC Downstream Staff and the RMU, after which the POE traveled to the Wooden Guest House on the Nakai Plateau, with a brief stop in Gnommalath to visit the Thathod Irrigation Project.

Accompanied by the NTPC Gender specialist and a junior colleague, June 19 – 24 POE activities concentrated on visits to central and southern resettler villages. Also visited were the Phonesack and BPKP sawmills and the three furniture factories which GOL had ordered closed, as well as the WMPA's proposed ecotourism site near the reservoir junction of the upper Nam Theun. Meetings were held with the Nakai District Governor and District Working Group staff, NTPC Nakai Resettlement Office staff, the RMU director and the manager of the Village Forestry Association. A tele-conference was also held with the NTPC Board Chair. On Friday June 25 the POE traveled to Lak Sao with stops to assess fishing activities and the drawdown area in several northern resettler villages and to visit with the headman and villagers in the Vietic village of Pakatan. The POE returned to Vientiane from Lak Sao on Sunday June 26. Meetings held June 27-29 with emphasis on the Downstream Program included further discussion with the NTPC Board Chair, the retiring NTPC Chief Executive Officer, the new NTPC CEO and E&S Director Ruedi Lüthi and his staff. A further meeting was held with the Minister of Energy and Mines and, at the special request of the POE, with Deputy Prime Minister Somsavat Lengsavad. The usual POE wrap-up meetings were held with GOL, NTPC, the Asian Development Bank, and the World Bank on the morning of June 29 and with DEPD in the afternoon. The POE departed Laos on June 30.

## **1.2 Acknowledgements - Appreciation**

The POE expresses its appreciation for the organizational time and energy devoted by NTPC E&S Director Ruedi Lüthi, downstream manager Francois Demoulin and staff, Nakai manager Marcel Frederik and staff, and, particularly Pat Dye, to setting up a full and worthwhile schedule. It is grateful to the Vice Governor of Khammouane Province, the Nakai District Governor, and RMU Director Sivixay Soukkarath; the retiring CEO of NTPC, Jean-Pierre Katz, and new CEO Michel Robino; Annette Dixon, World Bank Country Director, Keiko Miwa, World Bank Country Manager and William Rex; and Asian Development Bank Country Director Chong Chi Nai and ADB consultant Elizabeth Mann. Special thanks go to Minister of Energy and Mines Soulivong Daravong for meeting twice with the POE, to Deputy Prime Minister Somsavat Lengsavad, and to NTPC's Phalim Daravong who accompanied the POE in the field. As has always been the case, the POE received consistently friendly hospitality and assistance from all the Lao and others it had the pleasure of meeting.

## **2. THE XE BANG FAI DOWNSTREAM PROGRAM AND THE NAKAI PLATEAU**

### **2.1 Introduction**

The social and environmental programs of the NT2 program are approaching a key point in their evolution. Plans are just that. Implementation and outcomes are what matter in the end. The original NT2 Social Development Plan envisaged that by this time the income and sustenance of the Nakai resettlers would be largely derived from well-established agricultural crops on new and partially irrigated (for dry season cultivation) plots plus livestock raising, from dividends earned by the processing and sale of Village Forestry Association (VFA) timber and - though with less confidence - from the harvesting of reservoir fish. In reality the main sources of income at the moment appear to be from illegal and unsustainable collection of rosewood from the reservoir and the watershed, with reservoir fishing a second source. Some serious rethinking on income sources is called for.

Rethinking by all parties is also called for in regard to the next crucial phases of the social program, the phases which will determine the sustainability or otherwise of the overall program and hence the validity of NT2 as a pilot project for other multipurpose projects like this. The first phase is consolidating further the social, and particularly the livelihood, programs on the Nakai Plateau and the XBF downstream areas in preparation for their handing over to GOL agencies. The second and parallel phase is the mounting of intensive, adequately financed programs of capacity building to help ensure the success -by no means guaranteed - of the handover.

In short, the social and environmental program is now facing, in the view of the POE, the most serious set of decisions in the project's history. If NT2 is to maintain its position as the top hydroelectric power project of the year as voted recently by a global industry poll then the impending round of decisions is crucial.

### **2.2 The Downstream Program**

At present there is a disconnect emerging on the timing and funding fronts for these two last phases, most notably in regard to the Downstream Program. The view of the POE, set out in detail in the report below, is that just as fostering development in general cannot be rushed, neither can consolidating livelihood programs or the handing over process. Both take time. A revised strategy and timetable must be negotiated at this point among the parties and a trilateral agreement reached among the NTPC, the IFIs and the GOL to map the way forward to 2015 and to long term sustainability. The task will not be easy. Granted the understandable emphasis on making NT2 fully operational as a hydro project there is a tendency on the part of NTPC as well as GOL and the IFIs to consider the project as a success. However, the environmental, social and livelihood components are still far from being successful; and could well fail to meet CA requirements and well-intentioned NTPC, GOL and IFI financial, compensation and development efforts to date.

The historical origins of the Downstream Program's funding disconnect lie in the inadequacy of the provision made in the Concession Agreement (CA) for the Downstream Program. Against the advice of the POE, the legal team drafting the CA

and some World Bank participants consulted on the matter, the Lenders' representatives declined to raise the provision beyond what amounted to a spending cap of US\$16 million. This was always going to be inadequate given the other undertakings by the company. Furthermore, the decline in the value of the US\$ since signature of the CA and inflationary trends have translated into much less funding in terms of the Lao Kip and real purchasing power. The CA had no provision to cover these developments.

A further major weakness of the CA as it relates to project affected downstream villagers (PAPs) in the Xe Bang Fai basin is that there is an inherent incompatibility between the limited funding provision and the requirement to "at least restore livelihoods of Project Affected Persons in the downstream areas on a sustainable basis".[CA Schedule 4, part 4.5.1 (b)]. While the CA discusses how undisbursed funds from the \$16 million are to be used for PAPs at the end of the Resettlement Implementation Period (April 2015), no discussion occurs concerning procedures to be followed should the \$16 million prove inadequate to restore livelihoods. This incompatibility between available funds and the restoration requirement is now expected to occur at the end of 2011.

The opinion of NTPC and the International Financial Institutions is that expenditure of the \$16 million ends Company obligations under the CA even though restoration of livelihoods of affected people has not been achieved. When the POE asked the CA's drafters for an informal opinion on this issue, they replied that legally the Company's opinion probably was correct. The POE reluctantly accepts this interpretation. Our reading of the CA, however, is that morally and ethically the Company, the Government of Laos and the IFIs continue to have an obligation to see the livelihood restoration process completed.

The global experience is that successful restoration requires various levels of both compensation and development in 159 villages before NTPC hand over management of their XBF Downstream Program to GOL no later than April 2015. In its 4 April 2008 Report 14, the POE recommended for both the XBF downstream and Nakai Plateau NTPC programs that:

"...detailed planning commence for addressing the gradual handover of NTPC assets to GOL and the handing over of NTPC staff responsibilities to GOL provincial, district and village staff... Almost without exception the experience elsewhere with asset handover ... has been unsatisfactory with the governments involved losing out ... Such a handing over process should also include a careful assessment on the part of GOL of the increased staff requirements to finance, manage and develop assets at the time that they are received. The POE has observed a worrisome gap between NTPC and GOL expectations as to the speed with which the handing over of assets and staff responsibilities can occur."

Three years later GOL and NTPC delays continue with the handing over process. The Asian Development Bank and the World Bank, in the May 25 2011 Aide Memoire on their March 2011 Midterm Review of NTPC's Downstream Program, concluded that the handing over process need be accelerated granted expected

utilization of the \$16 million budget “around the end of 2011.” An accelerated transition program was recommended from “Mid-2011 to end 2012” so that GOL and affected villages can manage the program, with its restoration requirement, during the 2013 – 2015 period.

The POE believes that such an accelerated handing over process is both premature and unrealistic. It is premature because there remains a good deal of uncertainty about final impacts of the project. The Aide Memoire which first set out the accelerated handover timetable itself acknowledges the uncertainties. It states that the exact range and extent of impacts can only be known after the fact, recognizes that the combination of different impacts may have a cumulative effect on ecosystems and/or livelihoods, notes that the DSP’s fish catch monitoring program indicates that NT2 operations are having a significant impact on downstream community fish catches and catches per unit effort while concluding that it remains too early to determine the full range of project impacts. That the Mid-Term Review decided to recommend an accelerated timetable for the handover despite the uncertainties over final impacts appears at best illogical to the POE.

It is also unrealistic. Indeed the POE believes that the handing over process at the recommended speed will fail in that the CA livelihood restoration requirement will not be met. International experience supports this belief, while in Laos handing over the NTPC health program provides a good example of the time, staff and capacity issues involved. From 2005 the NTPC health team has been stressing the handing over process. By 2008 GOL accepted that the health program was theirs as opposed to being NTPC’s. Today, three years later, the handing over process has yet to be completed due to GOL budgetary, staffing and capacity issues. Moreover, agreement has still to be reached on a final handing over strategy. Yet handing over the NTPC health component is an easier task than handing over to GOL and village households a diversified program of livelihood activities.

Furthermore, the rush to complete a too rapid handing over process has weakened previous cooperation and goodwill between GOL, NTPC and the IFIs. GOL, believing – as does the POE - that NTPC’s implementation responsibilities should continue until the CA restoration requirement has been met, has not yet met the expectations of the NTPC and IFIs that government would contribute additional finance from its Fiscal Year 2011-2012 budget. NTPC, on the other hand, notes that already it has added additional finance to downstream development activities, including funding prefeasibility studies for irrigation projects along the Nam Kathang, agreeing, at its 24 June 2011 Board Meeting in Paris, to contribute a further \$2.3 million to continue the NTPC Downstream Program during 2011 for 92 villages and to add the 67 hinterland villages yet to be covered, willingness to monitor and assess the Downstream Program at the end of each quarter during 2012 (which intimates the possibility of additional resources on the Company’s part), and is committed to funding monitoring programs through April 2015.

The World Bank emphasizes that GOL underestimates the extent to which the Downstream Program has begun to raise living standards, as opposed to restoring livelihoods as the CA requires, and to bring development to that majority of non-project affected villages through research programs dealing, for example, with

submergence-tolerant rice and rice seed multiplication. In other words, NTPC has already made some contributions that go beyond CA requirements.

Although broadly sympathetic to the GOL case that dealing with downstream impacts is primarily NTPC's responsibility, the POE notes that the CA is a partnership agreement and that both parties have agreed to take steps to reach the mutually agreed Resettlement Objectives and to "use their best endeavours" to help resettlers to reach their village income targets and PAPs to restore their livelihoods, both on a sustainable basis. The GOL has already done much in this regard and the POE has been solemnly assured that it remains engaged in endeavoring to identify additional funds for the 2011-2012 financial year and beyond. The POE trusts that these endeavors will be successful soon, for there is an important reputational issue at stake here for the GOL. The POE suggests that the so-called "windfall" funds made available to GOL by NTPC during 2011 could provide a source of additional such funds for the upcoming financial year.

The problem in the short term, as noted in paragraph 2.2 above, is that a disconnect has emerged on both timing and funding fronts in relation to the XBF downstream work. The opinion of the POE is that there is some substance to the view that in some respects the NTPC has gone beyond CA requirements in its downstream work and that GOL need acknowledge NTPC's goodwill to date and commit to further increasing in the upcoming financial year the capacity building, staff quota and budget requirement for a successful downstream handover process. The POE is convinced that the innovative program will fail unless all parties - NTPC, GOL and the IFIs - are committed to implementing the downstream livelihood restoration requirement.

**The POE recommends:**

- **1/18B That GOL, NTPC, and the IFIs negotiate and sign a Cooperative Agreement to work together in addressing a wide range of issues to better realize the potential of the XBF basin.**

A prototype for such an agreement was sent by the NTPC Board Chair to the POE on 4 November 2010 (see Appendix I in the POE's 17<sup>th</sup> Report). It outlined for Nakai Plateau resettlers ten environmental and social commitments "to move forward in a positive manner with our partners to meet the environmental and social objectives of the Nam Theun Project."

Bearing in mind that funding responsibilities and time commitments between the three parties would vary, the following points indicate the context within which a Cooperative Agreement could be negotiated and signed:

- Planning, implementing, handing over and monitoring the existing river basin development program for the Xe Bang Fai which has been initiated under the current NTPC Downstream and Project Lands Programs.
- Working within an institutional structure for overseeing development of the XBF basin.

The POE favors basing such a structure on existing GOL institutions and programs rather than creating an entirely new organization. At present three institutional structures exist. The first, specifically designed for NTPC's XBF Downstream Program, involves the Resettlement Committee with oversight provided by the NT2 Steering Committee chaired by the Minister of Energy and Mines with the active involvement of Deputy Prime Minister Somsavat Lengsavad, and with the Resettlement Management Unit (RMU) as secretariat (see section 2.3.1. on POE recommendations for strengthening the role of the RMU).

A second structure is outlined in PM Decree 293, dated 15 June 2010, on "Establishment and Activities of River Basin Committee." It covers such a committee for each of Laos' river basins and comes under the jurisdiction of the new Ministry of Natural Resources and Environment.

Overshadowing the first two institutional structures are two recent Prime Minister Decisions. Ref. 09/PM dated 25 January 2011 appoints a "National Project Steering Committee for the Development Project on Water Resources at Downstream Nam Theun 2 Powerhouse, Xe Bang Fei and Xe Bang Hieng Basins," while Ref. 15/PM dated 7 February appoints a Secretariat to that Committee.

The Chairman of this high level and multipurpose development committee will be the Deputy Prime Minister, with the Vice Chairmen the Head of the Government Secretariat and the Minister of Agriculture and Forestry. Other members are the Ministers of Planning and Investment and of Finance, the Governors of Khammouane and Savannakhet Provinces and the Vice President of the Water Resources Environment Administration. The Chairman of the Secretariat will be the Director of the Irrigation Department of the Ministry of Agriculture and Forestry. The three Vice-Chairmen will be the Deputy Director of MAF's Planning Department, the Deputy Director of Planning of the Ministry of Planning and Investment and the Deputy Director of External Finance Relations of the Ministry of Finance. Three additional members will be the Deputy Director of the Water Resources Department, the Deputy Director of the Energy Development and Promotion Department and the Deputy Director of the Bridge-Road Department of the Ministry of Public Works and Transport.

Though the brief description of the Committee's purpose emphasizes irrigation and flood management, the composition of the Committee and the Secretariat indicate a multi-purpose development focus as does the relationship of intended development to "national socio-economic development." The primary source of a funding will involve a Chinese financial program of over one billion dollars.

In a June 28 2011 meeting the POE discussed with Committee Chairman and Deputy Prime Minister Somsavat Lengsavad ways in which the Committee's development program in the Xe Bang Fei basin could incorporate the NTPC Downstream Program, the GOL Resettlement Management Unit, and the following IFI programs.

- Implementing the continuation and expansion of the ADB Small Holder Project but with much better coordination with the Downstream Program. The anticipated addition of 20 more villages, for example, should include a majority of DSP villages and the overall program should be better coordinated with the DSP in the lower XBF basin.
- Expanding the World Bank's Khammouane Development Project to cover a wider range of agricultural, fishery, and livestock activities in Gnommalath and Mahaxai Districts.
- Ensuring that the XBF portion of the World Bank's proposed Mekong Integrated Water Resource Management Project, expected to receive Board approval in October 2011, takes notice of the Chinese offer, so that a coordinated approach is taken for XBF integrated development.
- Recruitment of Ravinder Malik as a POE consultant to assess within the XBF basin the potential multiplier effects of the NT2 project and the various development initiatives outlined above. The POE first suggested Malik's recruitment to GOL, NTPC and the IFIs in 2009. The recent formation of the National Project Steering Committee under the Deputy Prime Minister makes Malik's appointment especially appropriate at this time since he is perhaps the leading international expert dealing with the potential of large dams to achieve major multiplier effects from large dams.

In 2008 the World Bank published *Indirect Economic Impacts of Dams: Case Studies from India, Egypt and Brazil* which was the first major work addressing potential multiplier affects of dams. One of the four editors, Malik was involved as coauthor of six of the book's ten chapters. He was the only co-author to deal with quantifying indirect economic impacts, and assessing the multiplier affects of both large dams and small village check dams. The POE believes that his advice to GOL, NTPC and the IFIs would be invaluable.

## **2.3 Administrative Issues Relating to Further Implementation and Handing Over of the Downstream and Nakai Plateau Livelihood Programs**

### **2.3.1 Strengthening the RMU**

The challenges noted above and the emerging requirement to ensure greater cohesion across the raft of XBF programs suggest to the POE that the time has come to strengthen both the coordination and budgeting roles of the Resettlement Management Unit (RMU). At the moment the mandate and powers of the RMU, which should logically be the basic coordinating mechanism of the E & S programs, are limited not to say circumscribed. Its very existence is tenuous to a degree and it is partially dependent on resources and support from the Provincial authorities to carry out its work. It is working in six Districts in two Provinces. There is no way that the existing RMU could assume the demanding task of bringing together a cohesive development strategy across an entire river basin plus the Nakai Plateau (itself virtually an extension of the XBF basin now that most of the waters of the Nam

Theun have been diverted into the XBF) and across a plethora of agencies including the multilaterals and the substantial new element which the availability of Chinese funds represents.

Three of the alternative ways in which the RMU might be strengthened are set out in section 2.2 above. A key factor will be the decisions made and arrangements come to in regard to selecting a single institutional structure for overseeing development of the XBF basin as a whole, assuming this is agreed upon. The first option---a relatively modest adaptation of the existing structure to serve largely the needs of the XBF Downstream Program---would involve a strengthened planning and operational mandate and staff for a RMU reporting to the Resettlement Committee, with oversight provided by the NT2 Steering Committee and the active involvement of DPM Somsavat Lengsavad. The drawback would be that a river-basin approach pulling in all programs would not be achieved.

The second option would be based on the as yet untried model for river basin development designed by the old WREA involving the establishment of a provincially based River Basin Committee which would presumably now come under the new Ministry of Natural Resources and the Environment, with, the POE would recommend, the active involvement of the Deputy Prime Minister. A method of bringing in the second Province in the XBF basin (Savannakhet) would need to be devised by the respective Governors. The model seems a little cumbersome and over-designed.

The third option, favored by the POE, would involve integrating a strengthened RMU as a sub-Secretariat for the Xe Bang Fai basin, and perhaps eventually for the Xe Bang Hieng basin, under the Secretariat of the National Project Steering Committee. Such integration would provide the Vientiane-based Secretariat with a provincially-based coordinating and monitoring unit.

What would be involved for the RMU? It would need a new name, a new home and substantial additional expertise in areas like irrigation, flood management and integrated socio-economic development at the village level. A possible name, given its new functions, could be the XBF Sustainable Development Unit or Agency. A logical new home would be either the Khammouane Provincial Ministry of Agriculture and Forestry or the Provincial Ministry of Investment and Planning, or the Provincial Ministry of Finance. New and additional funding would be needed for the new agency to carry out its diverse functions involving, for example, monitoring the implementation of the programs and projects planned by the Secretariat and approved by the Deputy Prime Minister's Committee, the review of the programs and projects of other entities, and cooperation with the representatives of other countries and international organizations.

Part of its budget, covering its residual responsibilities for the Downstream and Nakai livelihood programs, would come from that part of the NTPC budget allocation which has supported its work thus far but a substantial balance would need to come from GOL sources---perhaps the Chinese loan. It would presumably be fully merged into its Lao parent Ministry by April 2015.

**The POE recommends:**

- **2/18B That the relevant GOL national and provincial authorities, in the interest of ensuring decentralized coordination and overall coherence of new Xe Bang Fai activities as substantial new resources become available, review the present institutional arrangements for coordinating and monitoring development activities and design, set up and fund under the National Project Steering Committee's Secretariat a two province oversight sub-secretariat utilizing the expertise of a strengthened RMU.**

**2.3.2 Immediate Extension of Key Downstream Project and Nakai Plateau Contracts**

The welcome (though still inadequate) decision of the NTPC Board to add a further \$2.3 million to Downstream funds to the end of 2012 clears the way for immediate action to renew or extend the contracts of key expatriate and Lao staff vital to the task of building the capacity of GOL staff to take over management of the project programs in due course. It would be damaging were already trained staff to be lost at this crucial time because they faced uncertainty over their futures for the next eighteen months. With the lack of decisions up till now some will (prudently enough) have been looking around for alternative employment at this time---and other hydro projects will snap up trained people fast as they have done in the past. Fast footwork on the part of Downstream and Nakai Plateau managers is called for.

**The POE recommends:**

- **3/18B That NTPC managers take urgent steps to retain staff needed for ongoing management of livelihood programs in particular and for training of Lao replacement staff by offering them immediate extensions of their Downstream and Nakai Plateau contracts for a minimum of eighteen months and preferably beyond that time.**

**2.4 Downstream and Nakai Plateau Research, Extension and Livelihood Development**

**2.4.1 First and Second Generation Resettler Capacities and Interests**

There is a requirement for a fresh and updated assessment of the resettlers' capacities, both strong and weak, their needs and interests. This will help focus the activities of the Village Extension Workers, will guide the development of a needed new vocational training center on the site of the old Ital-Thai facility in Gnommalath or the Phonesack sawmill on the Nakai Plateau and will serve to measure the degree to which the CA requirements for training of PAPs are being met. In summary, it is timely to look at what the resettlers are doing well and why and where the emerging gaps may be.

One area where, on the POE's observation, there has been good progress is in bringing the 0.66 ha plots into production. Though the picture is not consistent from village to village and some villages are more obviously preoccupied with the quick returns from rosewood collection and fishing, 60 percent of resettler households have

cleared their plots and sown crops; a high proportion in rain-fed rice. Though they have largely followed the no-tilling aspect of the agro-ecological model recommended, most have in effect not carried out recommended mulching but have reverted to techniques akin to the slash-and-burn system of old. This was predictable: it is what they know, the system they have followed for decades and it is successful so long as fields can be rotated. But there are no longer unlimited new areas to break in while used plots lie fallow for years. The lesson seems clear: resettlers who have been required to adapt to a whole new way of life over the past five years will go back to their old unsustainable ways if they are not convinced of the efficacy of the new ways. There is work to be done by the village extension staff to encourage the farmers into more intensive agricultural techniques.

There is much less progress to report in regard to the use of the new, relatively high tech and expensive irrigation systems installed as required by the CA to supply dry season water to 0.16 ha of the 0.66 ha plots. At the last count only a hundred or so farmers out of just over 1,300 households used the new irrigation systems during the 2010/2011 dry season. Some chose instead to use old irrigation methods near their homes (where they could keep an eye on crops while they matured) and, having experienced the rapidity with which hillside soils absorb water through percolation, tended to use hoses to sprinkle their dry season vegetables and fodder crops.

This was not solely due to a failure on the farmers' part to adapt to new and strange methods. The reality is that several practical problems arose in the new irrigation systems: bores dried up much faster during the dry season than anticipated and pumps broke down, one apparently being put out of service by lightning strikes. More use should also be made of more basic irrigation systems, such as more gully dams (15 have been completed to date) which the resettlers have knowledge of how to make and use.

As more and more second generation resettlers grow up in an NT2 project environment and receive an education, their goals and interests are changing. While the interest of some has already moved beyond becoming farmers and fishers, none the less local, national and international employment opportunities are such that a village-based livelihood will continue to be the only family-supporting option for the large majority. It should be the responsibility of the NT2 project to anticipate their changing interests by offering a wider range of village-based farm and off-farm occupations as well as more accessible post-secondary school education to train second generation resettlers to diversify village occupations and to qualify for employment elsewhere.

It is essential for the current process of participatory village planning to take a forward looking stance that incorporates the goals and interests of the second generation. GOL and NTPC have a responsibility to provide the expertise and funding to initiate a wider range of farm and off-farm activities. Already suggested farm activities include more emphasis on agro-forestry and cultivation of non-timber forest products, with recruitment of a NRO specialist to push those activities.

NRO training in off-farm employment continues to emphasize a relatively limited range of activities primary for women – fish processing, weaving, gill-net mending, hairdressing, and handicrafts, for example. Those activities must not be

neglected; indeed they need be increased along with improvements in marketing (the POE noted the complaint of one weaver that while the price of weaving material can and has been increased, there had been no accompanying increase in the price set for the woven goods).

As for a wider range of non-farm activities, emphasis need now be placed on training carpenters, electricians, masons and mechanics for maintaining resettler houses and equipment, village appearance, water supplies and structures, and access roads.

Project assistance in the form of credit and expertise is also required to help second generation men and women start a wide range of businesses. As during previous visits the POE noted a gradual increase in village-based non-farm enterprises. One example in Nakai Neua was the new workshop of the headman's son to repair vehicles, motor bikes and boat engines. In Thalang a young woman entrepreneur, with only a grade 5 education, was setting up an ice plant capable of making block ice for fisheries and cube ice for home consumption; a facility which put the NT2 project's still closed ice plant to shame.

**The POE recommends:**

- **4/18B**
  - (1) **That a concentrated endeavor be made by NTPC to ensure that the teething problems of the new irrigation system are quickly addressed and righted, that a simple procedure for covering future mechanical breakdowns be set up, perhaps funded from SERF (see below), that before the next dry season there be training and practical demonstration sessions in every resettlement village to convince farmers of the utility of the new irrigation systems, to cover also use of low tech irrigation systems like submersible pumps in gully dams and in accessible zones of the reservoir, and to include instruction in basic repair of broken down devices.**
  - (2) **That the NRO pay more attention to the emergence of the type of off-farm enterprises that second generation resettlers are developing or need education, business planning assistance and credit to initiate.**

**2.4.2 The Need for Viable Micro-financing Systems in the Downstream Area and on the Nakai Plateau**

It is regrettable that at this advanced stage of livelihood development in the Downstream areas the existing micro-financing system is still having to be tweaked while on the Plateau there is still no effective credit system available to villagers. The establishment, with high-level Ministerial intervention, of a commercial bank agency in Oudomsouk is a welcome development this year but it is no substitute for partially subsidized credit systems along the lines of those set up elsewhere in the developing world. While a new share-holder based micro credit system has been designed, rules and regulations have yet to be finalized, and effective implementation remains to be

seen. High priority must be accorded this prerequisite for fostering development and innovation at the village level, including off-farm enterprises for second generation resettlers.

It is particularly important to get the systems up and running quickly because the XBF Downstream proposal is that a GOL agency with no track record in such work be handed the task of managing and running a newly restructured Village Investment and Restoration Fund (VIRF) system by the end of 2012. Of all the proposals for handover this is surely the most unrealistic both in conception and timing. The Lao Womens' Union (LWU) is an iconic organization in the country and has done much good work for women's causes. Because rural credit systems are so important to women farmers and innovators the LWU is a not inappropriate organization to be involved in aspects of credit management. But it currently has inadequate experience in the credit sector and even its own staff has misgivings about the capacity to handle the handover proposals.

If the GOL decides to stay with the LWU proposal then additional organizational resources and funds from both NTPC and GOL will be called for to mount the intensive planning, recruitment, training---on and off the job---and set-up costs involved. NTPC itself admits that the LWU has limited capacity especially on the management side and that it is not possible to set up new VIRFs for all the 67 XBF downstream villages in the time and with the resources available. They appear to be planning only to establish VIRFs in 5-10 of these villages and to draw on capitalization of savings funds (from redirected allocations) to provide start-up finance. GOL has no immediate plans to contribute.

This is a recipe for program failure. NTPC and GOL have to get together at a senior level and review the handover proposals and their timing. Were funds available, RMU, which has seven volunteers working on credit issues, might have a role in bringing the parties together and initiating urgent planning. High-level provincial intervention is required to ensure decisions are taken quickly. The timetable for Downstream handover of the VIRF system must be revised.

**The POE recommends:**

- **5/18B That urgent steps be taken not only to review and restructure the existing VIRF micro-credit system in the Downstream area but to review also the handover proposals and their timing. If the proposal for LWU management of the system, desirably with RMU involvement, is to proceed then an intensive planning, recruitment and training program must be mounted fast. In any event the timetable for the handover must be attenuated well into 2013 and beyond.**

The requirement for further action on the micro-credit front on the Plateau is also urgent. It is to be hoped that the lessons of the Downstream experiments will have been learned and will be applied in setting up a viable system for the resettlers. The POE will review progress in both zones during its next visit.

**2.4.3 Continuity in Research, Trials and Seed Multiplication after 2012 including Research on Grasses and Crops for the Drawdown Area, Trials of**

## **Submergence-Tolerant and Floating Rice, further Institutional Development of Seed Multiplication Capacities, and Continuity with Fisheries Co-Management and with Contract Farming**

It is essential, in the XBF Downstream and Nakai Plateau handing over process, that the current, and necessary, shift toward extension not be at the expense of ongoing research. Median multinational estimates of the international rates of return from agricultural research are 37 percent, with a 50 percent rate of return in the Asia-Pacific region. Such a high rate of return would suggest that generally speaking agricultural research is too restricted. Relatively long lead-times between agricultural research and increased productivity can be significantly reduced where research targets village concerns, and research and extension are closely linked, as has been the case with rice research and trials sponsored by the NTPC Downstream Program.

### **2.4.3.1 Research and trials on grasses and food crops for the drawdown area**

The POE's June 2011 visit was timed to coincide with the first major drawdown of the reservoir since the beginning of commercial operations. By June 22 the reservoir had drawn down from over 535 meters above sea level to 529 meters. The 529 meter level may well be the lowest during 2011 since a tropical storm during the last few days of the POE's Nakai Plateau visit caused water levels to rise to 530 meters.

The Nakai Reservoir has one of the largest drawdown areas associated with large dams world wide; a drawdown that may be further increased if flows into the XBF are increased in the future. On the other hand, the high grazing and crop potential for extensive dam-related drawdown areas in Africa and elsewhere in the tropics cannot be generalized to the NT2 reservoir because of its relatively high plateau location and because of risks associated with rapid rises of water levels in a relatively shallow reservoir during the drawdown period. Unexpectedly high rainfall during 2010, for example, flooded out resettlers' experimental fields of submergence-tolerant rice just prior to harvesting with the result that only a few households were willing to plant such rice in 2011.

Five pictures illustrate the extent and vegetative cover of drawdown areas in June 2011. They also illustrate the extent to which the nature of the drawdown area varies from one village to another; such variation being one reason why ongoing research and trials are essential. The first two pictures, immediately upstream from Khone Ken, illustrate the grazing potential for buffalo toward the end of the dry season when grazing tends to be scarce in hinterland areas. For this village, at least, the potential is significant in that it suggests that NRO preference for cattle for all villages should be more adapted to individual village conditions.



Buffalo grazing on DDZ near Khone Ken



Extensive DDZ pasture area upstream from Khone Ken

The next two pictures, taken at Bouama and Phonesavang, suggest that the Khone Ken situation may only apply to areas with extensive and relatively flat floodplains (as at Nakai Tai) and/or access to island grazing. Both pictures show the lack of vegetation, and especially forage, in the lower drawdown area. While the availability of moisture and the likelihood of improved soil quality would be good for crop agriculture, the cropping season - aside from submergence-tolerant rice and/or floating rice - would be too short before flooding would occur. The possibility of future grazing late in the dry season should not be written off, however, including consideration of broadcasting research-tested grass seed. Meanwhile, the POE applauds NTPC's ongoing vegetable, short duration rice, and fodder crop (especially the 106 households piloting para grass in 14 villages) DDZ trials.



Little forage on lower DDZ near Bouama



Contrast between lower and upper DDZ forage at Phonsavang

No snap judgments, however, should be made simply because experience elsewhere is that it takes five or more years for a climax drawdown vegetation to arise. Another uncertainty affecting future grazing and crop agriculture is the extent to which growth is influenced by remaining moisture in the upper drawdown area versus early rainfall. How the drawdown vegetation evolves over the next few years will have major implications for grazing as well as ease of crop cultivation and hence for zoning village drawdown areas for agriculture and livestock management. Consideration should be given to use of remote sensing to monitor DDZ fodder growth and floating sedge mats.

As the Bouama picture shows, grass (or, less desirably, a species of sedge) is beginning to emerge in the lower drawdown area. On the other hand, the Phonsavang photo illustrates the tendency for a variety of species to appear at this point in time in

the upper drawdown area. The last picture illustrates the beauty and potential of an underutilized portion of the drawdown area between Nakai Tai and Nam Nian.



Underutilized DDZ near Nam Nian

#### **2.4.3.2 Trials of Submergence-tolerant and Floating Rice and Further Institutional Development of Seed Multiplication Capacities**

The POE is impressed with the Downstream Program's rice trials. They have potential not just for NT2 Project affected people but for floodplain villagers throughout Laos. Their continuation through April 2015 should further involve developing GOL rice research and seed multiplication abilities and village seed multiplication capacity. On the institutional side, the Downstream Program favors first upgrading the capacity of Savannahket's Thasamo Research Institute with eventual handover to the existing and strengthened research institute in XBF District.

**The POE recommends:**

- **6/18B**
  - (1) That in the case of the Nakai Plateau, it be recognized that the need for both inland and drawdown resettlement area research and extension requires that continuity of NRO agricultural staff be maintained, to the extent possible, through 2015 regardless of whether or not two of the three NRO research stations are handed over to GOL or other agencies. In making this recommendation, the POE understands that all three NRO research station managers have both extension and research qualification so that their experience can be adapted as required during the handing over process.**
  - (2) That in the case of the Downstream Program, the Khammouane, Mekong and Small Holder projects of the IFIs be adapted and broadened to include not just continuation and handing over to GOL and village control DSP's rice trials and rice seed multiplication**

**activities, but also continuation and handing over of DSP fisheries co-management and contract farming activities.**

#### **2.4.4 Avoiding Conflict between the Cluster Approach on the Nakai Plateau and the CA Requirement that Livelihood Emphasis be on Individual Resettler Villages and Households**

The POE is impressed by the extent to which GOL has participated in the Nakai Plateau handing over process since the POE's October 2010 visit. At the Provincial Level, the Governor has sent 10 senior provincial officials, drawn from different government departments, to help the Nakai District Governor, his staff and the District Working Group improve their capacity to take over the NRO development process no later than November 2014.

Within the NRO, the success of a research program to improve soil conditions and develop crop rotations has now enabled the program to place more emphasis on extension. A recent RMU evaluation of 18 village extension workers (five women and 13 men) rated five as good (a score between 8 and 10) and none as weak (four and below). Each worker was evaluated by the village headman, the District Governor and fellow extension workers. Salaries, as promised, are being paid by NTPC.

At the village level all have completed the participatory land use planning (PLUP) effort and all villages have commenced the village development planning process. During PLUP nearly 3000 additional hectares were identified for allocation to large households and second generation households. Now that land titling has been completed for household and 0.66 hectare plots, the next step is for the District PLUP team, with RMU supervision, to finalize village boundaries. This is reportedly imminent.

On June 24, the POE had a long and best-ever meeting with the Nakai District Governor, District Working Group staff and the RMU. The major issue discussed was the POE's concern that the government administrative policy for all districts to follow a policy of aggregating villages into clusters (three in regard to the 16 resettler villages) risked being a "top down" policy that was inappropriate for extension work at village and household levels where a "top down" approach need be integrated with an equally important "bottom up" approach derived from active household and village participation that emphasizes local experience and known capacity for adaptive management along with knowledge and labor constraints. Though the POE concern remains that local experience and participation may continue to be underemphasized, the District Governor, whose professional training was in agricultural economics, noted our concern and emphasized that district staff must work with each village and each household.

When District Working Group members were asked by the POE to discuss their concerns, most of the same issues came up that have been raised over the years during previous meetings with district staff. All require still more cooperation between the district government and NTPC. DWG officials complained, for example, that they were not involved in siting of the five ice plants and village fish landing points. Because the NRO is well aware of such complaints, the POE suggests that the time has come for NTPC to reach a settlement (specifying, for example, why some

claims will be rejected, others met and still others to involve partial assistance) with the District authorities on each issue that was brought up. Those that Nakai District, the RMU and the NRO can handle with RC approval include POE-verified poor construction of the Sop Ma primary school and understandable village complaints over how their temples were replaced.

More complicated issues such as how to deal with cows and boats for households that received none require further discussion between the district government, the RMU, NRO, and the affected households. On cows, the POE agrees that current carrying capacity restricts provision of additional cows. On the other hand, rather than a “one fits all” cash for cow policy, the POE would suggest discussing with each household their preference for a livelihood substitute activity. The same suggestion applies also for those households that did not receive boats. The POE is not sufficiently well informed to suggest ways to fund, staff and maintain the important work of the three operational research stations/demonstration farms other than to emphasize, in the POE opinion (see Recommendation 6/18B1), the continued importance of ongoing research combined with extension activities.

Other issues require NTPC central management and Board involvement. An example involves vehicular access across the flood control channel to New Oudomsouk “A” village and the current site of the Reservoir Management Secretariat. As with the Nakai Tai-Nadene access road to Nakai District villages in the Nam Hinboun drainage, the POE believes that NTPC has a responsibility to cooperate with GOL to resolve what is a NT2 project-relevant issue and hence requires partial NTPC financing. What the GOL has in mind, and which extends well beyond any NTPC obligation, is a major bypass road which will divert through traffic around Old Oudomsouk and would play a major role in long overdue Oudomsouk town planning.

Just as improved cooperation between GOL and NTPC is needed, so too is improved cooperation within the NRO team. Especially important is improved cooperation between all farm and off-farm production and marketing activities, and between community development and livelihood activities. Village extension workers need address a wider range of household and village livelihood issues (in Khone Ken villagers told us that the extension worker dealt mainly with the 0.66 ha fields and not at all with additional lands being cultivated). More importance should be given to greater involvement of the gender specialist and the social scientist in team activities and much more importance given to incorporating the Ahoie families in Nam Nian and New Sop Hia into a culturally relevant livelihood development program as recently emphasized by the Lenders and ADB-WB inspection visits. A greater NRO focus on poorer and more vulnerable families would also accord with its CA obligations.

**The POE recommends:**

- **7/18B That Nakai District and NTPC (improving their cooperation and learning from the too slow commencement of NTPC DSP’s handing over to GOL) commence planning during the second half of 2011 for the handing over of NRO activities, the NTPC health program and the new schools to the Government of Laos no later than November 2014. Aided by the 10 provincial officials and with RMU coordination across line department with NT2 responsibilities, the District Governor and his staff**

**should seize now the opportunity to commence planning and budgeting for GOL take over of the resettlement program.**

In addressing recommendation 7/18B the POE wants to bring to the attention of GOL, NTPC and the IFIs, as well as to the WMPA, that the WMPA's current re-organization emphasizes handing over NPA development activities to Nakai District's Department of Agriculture and Forestry. In other words, Nakai District will be responsible at the same time for taking over NRO activities as well as WMPA development activities. The risk of failure on both fronts is there since Nakai District, we suspect, is being asked to accomplish far more than any other rural district in too short of time. Especially difficult for the district will be getting the necessary budget and increased staff quota.

The POE believes that special attention need to be paid to three sustainability risks that could adversely affect the livelihood of the 16 villages of resettlers.

The first risk involves outside companies, immigrants and more experienced and better capitalized households in the resettled villages and in Oudomsouk. While significantly reducing the capacity of the Phonesack sawmill and closing down the BPKP Nakai Plateau sawmill has been an important GOL accomplishment, the Government still has been unable to fully complete the necessary dismantling of the Phonesack sawmill. The Government also has been unable to limit, let alone stop, illegal fishing and poaching of VFA timber by immigrants. Any solution will require more central government attention and provincial assistance from the police and the military. Even more difficult to deal with is illegal taking of resettler assets by Oudomsouk traders and the apparently increasing dominance in the Nakai reservoir fishery of households claiming, rightly or wrongly, to be Oudomsouk residents.

The second risk involves the NRO handing over to Nakai District the many livelihood activities before the District has the necessary staff quota, capacity and budget to meet Concession Agreement requirements.

The third risk involves staff quota, capacity and budgetary problems associated with handing over primary and secondary schools in resettler villages to the District Department of Education. The POE continues to emphasize the threat that the second generation problem poses to the sustainability of the resettlement program. Of a number of potential solutions to the livelihood problems of newly married second generation families, surely one of the most important is to provide newly married couples with sufficient education to improve their chances of finding employment outside Nakai District and/or develop the skills to start non-farm businesses within the district. Such a solution requires not just a continuation of current schools and opening of more secondary schools but also encouraging, and assisting, graduates to acquire the education necessary for them to staff the new schools on the Nakai Plateau and to start off-farm business enterprises. Steps in the right direction would be for Nakai District to play an active role in recommending to government the establishment of a skills training centre in

Oudomsouk. It has been suggested to the POE that the physical plant and residential and office facilities at the Phonesack sawmill could be remodeled to provide such a skills training centre.

### **3. OTHER LIVELIHOOD-RELATED ISSUES**

#### **3.1 Water Gates and Wetland Management**

The POE met with Huay Lo and Huay Saypay village committees responsible for managing two of the five water gates being rehabilitated by the DSP. Both gates had initially been built by the government for flood control purposes rather than to increase agricultural and fisheries production through improved regulation of flood waters entering, and retreating from, those tributaries and adjacent wetlands and natural ponds. Moreover, the high banks of both tributaries limit what development potential the two flood gates might have achieved.

More aware now of why DSP officials are concerned about the high construction and O&M costs, and skeptical of the development potential of XBF water gates, the POE nonetheless believes that the extent of lower XBF wetlands and their water retention capacity during the dry season warrant more consideration of the role that flood gates in carefully sited locales might play in tapping into the wetlands and their connecting tributaries' potential for rainy season cultivation of submergence-tolerant and floating rice, for flood recession agriculture of high value crops and for fisheries. Figure 1 (page 26) shows a lower XBF rainy season wetland area of 31,750 ha while Figure 2 (page 27) shows a dry season wetland area of 1,794 ha.

#### **The POE recommends:**

- **8/18B That the World Bank's Mekong Project or the Chinese Funded Project include a carefully designed wetlands management component.**

#### **3.2 Village Forestry Issues**

In spite of the very welcome and supportive actions by the GOL in requiring and initiating the shutting down of the Phonesack sawmill and three furniture factories in Oudomsouk, the removal of the charcoal making plant near Sop Phene (accomplished), the removal or parking on land of logging barges from the reservoir and the imminent conversion of the VFA into a Limited Liability Company, it cannot be said that the forestry sector of the project is in a sound position. The uncontrolled and wholesale plunder of the reservoir's and watershed's rosewood resources by anyone with a chainsaw, a boat or even a motor cycle does not foster a sustainable management atmosphere or ethic and it is clear that a high proportion of Nakai resettlers is heavily engaged in this pillage. They undoubtedly receive much higher returns from collecting and selling rosewood than from the small dividends earned by contractual harvesting of their own forests, a fact which they freely acknowledge. As already noted, the rosewood gathering does swell the present income, and property accumulation, of most resettlers including some of the poorest, but it is not a sustainable activity and what such uncontrolled removal of a wild hardwood does to the ecology of the catchment forest is not yet fully understood.

The villagers appear to have no feeling of ownership of their forests. Perhaps because of continuing opposition in some official circles to giving authority to villagers to own and operate a forest enterprise, the range of activities set out in Volume 2 of the SDP has not happened. Of the planned harvesting from production

forests, the controlled forest grazing, the farming of domesticated NTFPs and value-added activities like furniture-making only the first has eventuated---and it is done under contract by an outside company. The dividends per household amount to around \$100-\$150 per year on average and this may not be sustainable indefinitely given the degradation of parts of the VFA forests owing to the continuing unauthorized removal of timber by resettlers themselves and by poachers.

Given the dearth of GOL experience in setting up and running successful community-owned and run forest enterprises, the future may lie in simply accepting that supervised contractual harvesting is the best prospect for the short-term; but that engaging a qualified NGO for some years to help organize, manage and train villagers to eventually take over the operation may be the most productive way ahead – an option that the POE has also suggested for the NPA. Part of the exercise will involve convincing villagers that, now that the PLUP program is helping define and demarcate village boundaries, they own the demarcated VFA forest and have a collective interest in protecting it from poachers no matter where they come from. (A recent international conference in Lombok, Indonesia heard that the Asian countries which had given truly enforceable forest rights to many local communities – India, China, Vietnam and South Korea – have found that granting of local control to forest communities is a key element in enabling them to make progress toward more sustainable management of their forest resources).

In the interim the POE is of the view that progress on the value-added front may be achieved most surely by engaging the private sector. We visited the three furniture factories required to shut down. One has not been operating for several years. A second was a very small operation, did not appear on inspection to be using rosewood and, since it provides a few jobs in Oudomsouk, might well be allowed to survive. The third was a highly successful venture run by an enterprising and competent furniture-maker---again with no evidence of him using illegal rosewood. He has an extensive local client base and turns out a range of products, mainly desks, tables, chairs and decorated doors and windows of an attractive design.

Such an enterprise should not be shut down, for it performs a useful function in employing staff and meeting a proven need in the Oudomsouk community. Instead the POE suggests that the VFA manager be authorized to approach the enterprise manager to determine whether they may negotiate a partnership agreement under which, for example, the entrepreneur is given a small portion of the VFA timber quota for his trade use and in return trains an agreed number of people as furniture-makers (and a manager) to eventually set up a profit-making VFA furniture factory. Whether and how they split profits in the meantime would be up to them to settle. Both potential participants saw attractions in the idea.

FIGURE 1: LOWER XBF WETLANDS IN WET SEASON

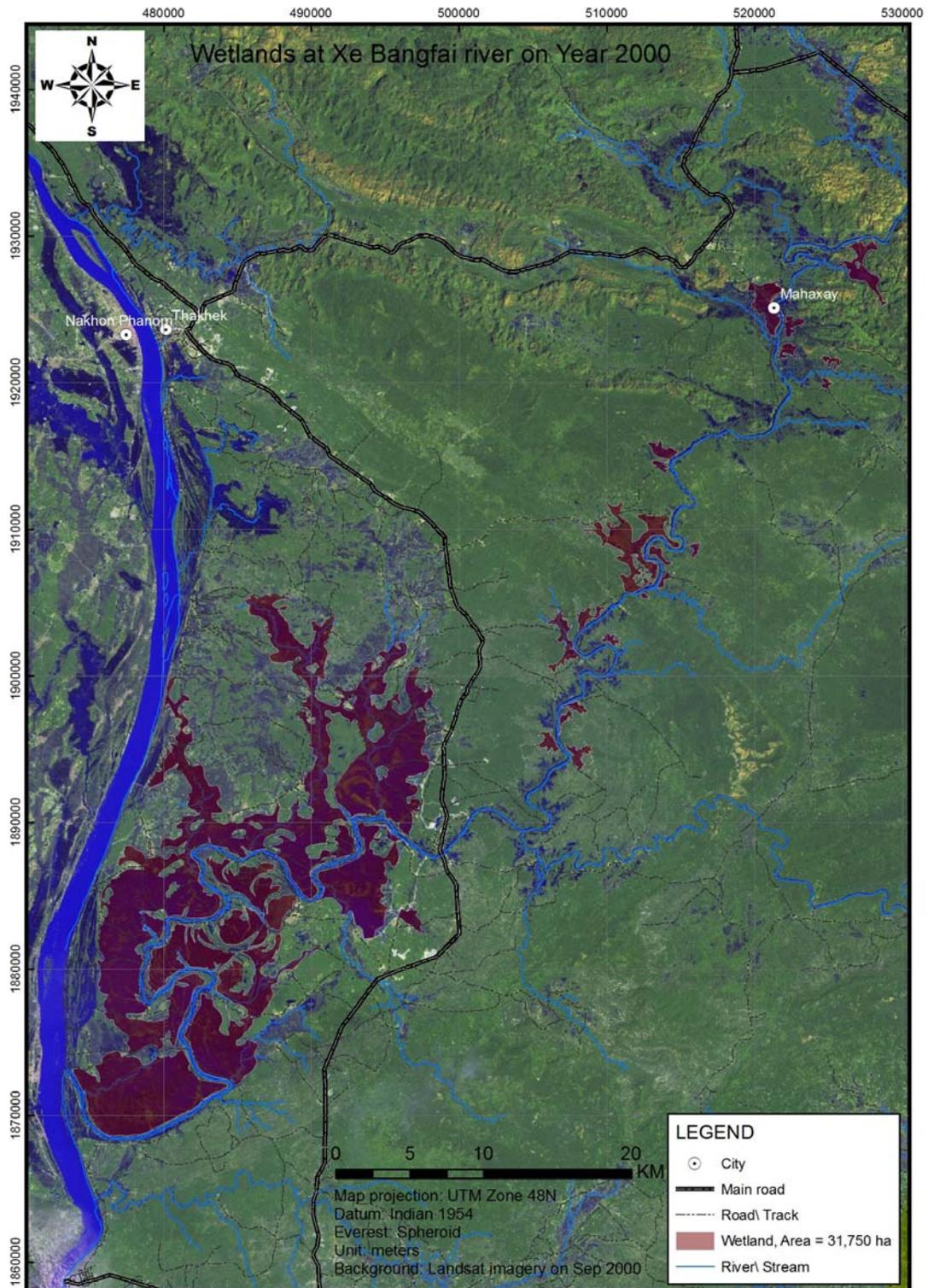
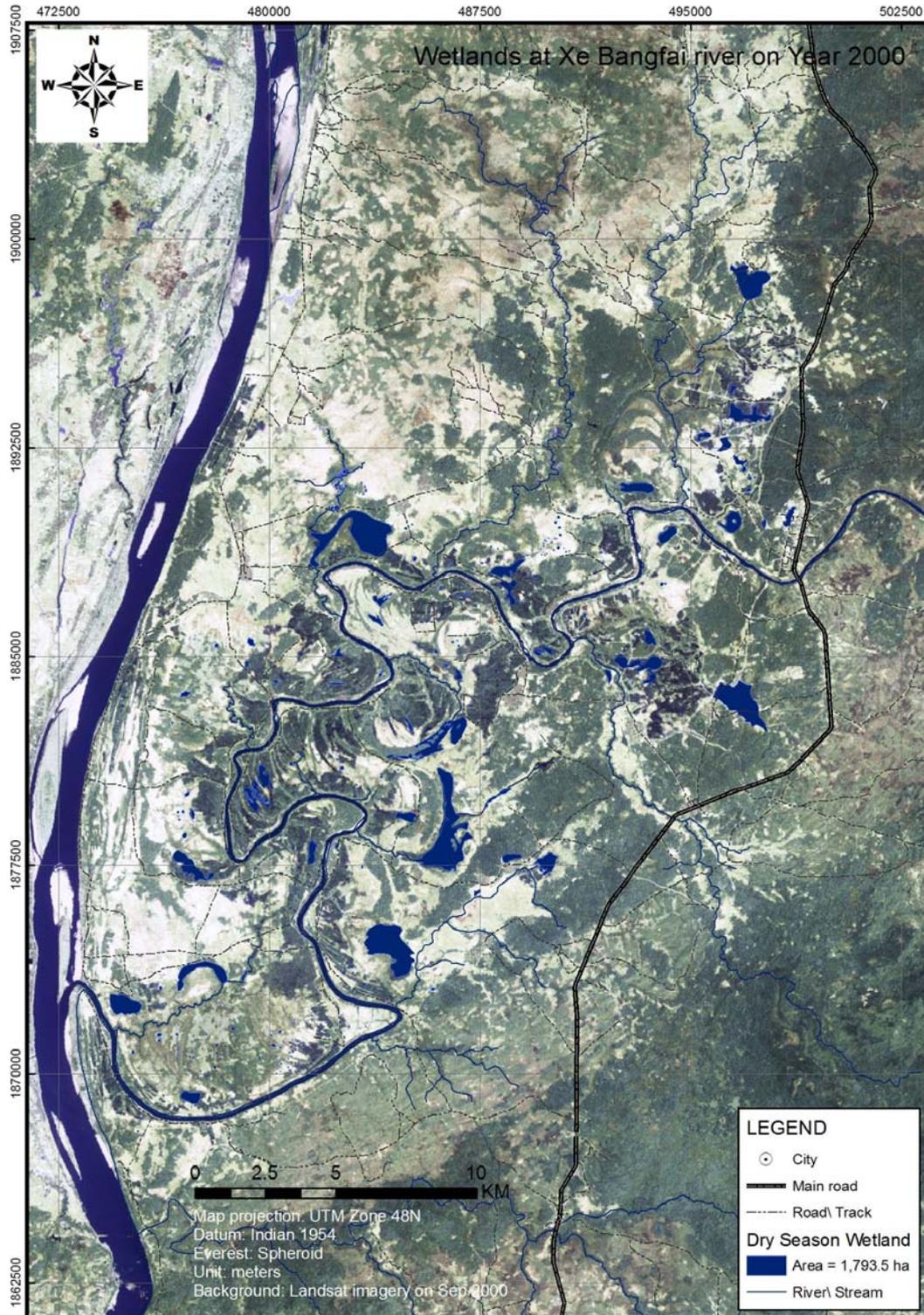


FIGURE 2: LOWER XBF WETLANDS IN DRY SEASON



## The POE recommends:

- **9/18B That the VFA manager be encouraged to approach the furniture enterprise manager interviewed by the POE to determine whether they can negotiate a partnership agreement under which the entrepreneur would, in return, for example, for VFA timber quota, work with the VFA to train workers to eventually set up and manage a commercial VFA furniture factory. That, at the same time, serious consideration be given to implementing POE recommendation 16/17 in our January 2011 report calling for an independent study of the equitability and appropriateness of the (punitive) range of taxes and levies imposed on a village-level organization like the VFA and modifications be made accordingly.**

There remains the issue of enforcement of the regulations about protection of VFA forests from poaching. The renewed resolve of GOL and provincial authorities to reduce rosewood poaching should extend also to protection of VFA forests. At the moment enforcement is negligible. Giving effect to the new resolve will require strict oversight of the whole enforcement system and the prosecution of those undermining it, not least at checkpoints.

### 3.3 Monitoring and CA Income Requirements

After years of over-ambitious attempts to set up a socio-economic monitoring system for the project which works, NTPC is to be commended for finally establishing a practical system which not only tracks long term production and income trends by household and village but, as important, identifies trends in living standards between the more comprehensive Nakai LSMS exercises. Proxy indicators of household expenditure through the recording of a limited basket of goods, for example, provide early warning of potentially damaging trends.

A Monitoring Unit of five, four being trained Lao including a database specialist, with external specialist help, is putting in place a system which will be invaluable for District and NTPC Livelihood and Community Development managers, village leaders and national and international monitoring agencies. Furthermore, the multiple systems will provide a basis for assessing in due course whether the Resettlement Objectives and Provisions have been achieved, including the objectives of materially improving resettlers' livelihoods on a sustainable basis, restoring livelihoods of PAPs on a sustainable basis [CA Schedule 4 Part 1: paras.3.1 (c) and (d)] and attaining the resettler household and village income targets set out also in CA Schedule 4. Attaining such targets in a sustainable way (i.e. not simply on the basis of windfall rosewood harvesting) will be a key element of decisions on when to close out the Resettlement Implementation Period.

Also of use to field managers is the work of a newly engaged nutritionist. Dr. Jutta Krahn has some interesting preliminary findings. She points out, for example, that it is conceivable that there can be declining poverty in the resettlement villages but increasing food poverty. More rice is being bought on the Plateau than is produced there, with the poorer groups producing less rice having to buy a greater proportion of

their rice supplies – a burden on household cash reserves – and having the highest dependency on wild foods. Dr. Krahn notes that food poverty may increase due to low nutritional knowledge and traditional beliefs and recommends that NTPC provide advice and practical help to address these issues.

### **3.4 Use and Misuse of SERF**

Last year the POE hailed the innovatory Social and Environmental Remediation Fund (SERF), recommended that a body be set up to oversee the selection of small practical projects and that an intermediate or low technology approach be followed, not least to make these valuable funds go further. As far as the POE was able to ascertain, there has been little progress since. A committee has been set up, apparently made up largely of District officials with no village representatives, and no project selection criteria agreed. The risk is that the SERF will slip into becoming merely a source of funds to supplement Departmental operational budgets.

Resettler representation on the committee is important to ensure that their priorities are reflected in the selection criteria and funding decisions. This is another example where a bottom-up process needs to be established. Beyond the much needed low cost waste disposal system mentioned by POE last year and the procedure for covering irrigation breakdowns referred to above (covered specifically in the CA, along with maintenance of resettlement assets, which the POE would argue extends to help with painting the increasingly rusty village roofs) resettlers will have their own ideas for projects focused on daily remediation problems.

#### **The POE recommends:**

- **10/18B That the project criteria and selection committee for SERF be reconstituted to bring in a majority of village representatives, that a set of selection criteria for projects be agreed as a matter of urgency and that a low technology approach be followed where appropriate in order to make the funds go further.**

-----



Women fishers on the Xe Bang Fai tell their story.



Harvesting the XBF mainstream now calls for more skilled fishers and more expensive gear.



Submergence resistant rice shoots ready for transplanting.



POE's Ted Scudder conferring with XBF fishers and officials.



Successful aquaculture venture inland from the XBF.



Rice planting Thakod.



Skilled widow farming her 0.66 hectare plot near Ban Done.



An Oudomsouk couple return to landing at Khon Ken after a successful fishing expedition.



Rehabilitated floodgates on XBF tributary.



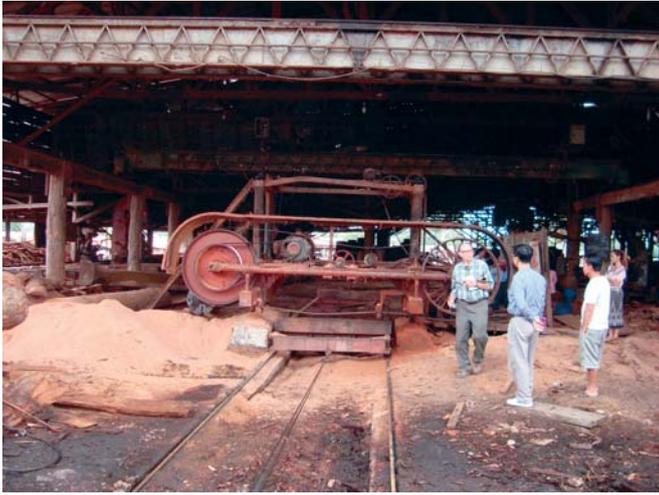
Low tech but effective submersible pump irrigates Phonesavang house garden.



Grandmother and granddaughter talking to POE at Phonesavang.



Ahoe family waiting out rainstorm at their new shop in Nam Nian.



Bandsaw and trolley still not dismantled at Phonesack sawmill, Nakaitai.



New enterprises: a hairdressing salon in Oudomsouk.



Children of a Sop On master farmer picking chillies for sale.



Project market place now rented by a retailer from Vientiane.



Young petrol retailer at Ban Thalang.



POE is all ears at Ban Done.