Laos - National Route 3
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USAID and USDA staff conducted a site visit to Lao PDR's National Route 3 located in the Greater Mekong Subregion (GMS) North-South Economic Corridor. The site visit was carried out as part of USAID's responsibilities under the International Financial Institutions Act, Title XIII, Section 1303(a)(3), which requires USAID to review multilateral development bank (MDB) projects with potential adverse environmental and social impacts.

This report summarizes information obtained from meetings with a variety of stakeholders (e.g. government, NGOs, researchers) in Vientiane, local populations and government officials and available documents. The stretch of National Route 3 visited was from Houey Xai to Luang Namtha to Boten. Other areas branching off of Route 3 also visited were Ban Mom and Muang Sing. The meetings focused primarily on the environmental and social aspects of transportation development. The report does not reflect the views of USAID or of the United States Government (USG), and USAID has not substantiated all comments.

This report is divided into the following sections:
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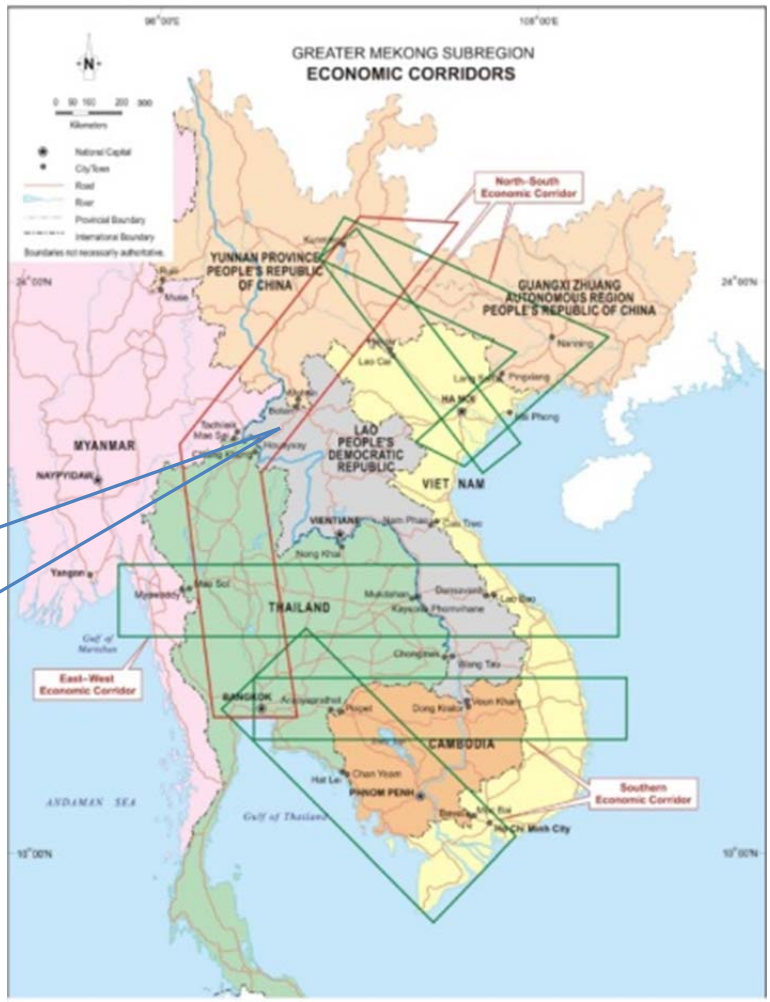

Section 1. Background Information

GMS Economic Corridors: The Greater Mekong Subregion (GMS) countries (Thailand, Cambodia, Laos, Vietnam) have adopted a strategy to enhance trade connectivity and improve competitiveness. Towards that goal, countries are focused on nine priority sectors (e.g. transportation, telecommunication etc.) and three priority geographical areas. The GMS North South Economic Corridor (NSEC) is one of the three priority geographical areas. The NSEC encompasses the area along the main north–south transport routes that link the economic hubs in the central and northern areas of the GMS subregion extending from Kumming, China to Bangkok, Thailand.

Nam Ha National Protected Area (NPA): The Nam Ha NPA is located within the Laos section of the NSEC. The NPA covers 222,400 ha and connects to the Xishuangbanna Biodiversity Conservation Corridor in southern Yunnan Province. It is comprised of three primary areas of high importance (core zones), a buffer zone and management zone. In collaboration with Conservation International conservation activities in China, there are joint patrols of northern sections of Nam Ha NPA and Shiang Yong PA (located in China's Xishuangbanna Biodiversity Corridor) staff. This collaboration was initiated in 2006 to enhance the management of forest fires and elephant border crossing issues.

Since the Wildlife Conservation Society withdrew technical and financial support from the NPA in 2001, it has received very limited attention and funding to mitigate existing and [increasing] new threats which include: deforestation for cropping and rubber plantations, wildlife hunting (consumption and trade); unsustainable collection of nontimber forest products (NTFP) and illegal logging. Management for the NPA consists of 9 staff including the director (1), administrator (1) and rangers (7), which given the size of the area is not adequate to effectively manage the area and its natural resources. There is also a lack of technical capacity and resources to establish wildlife/NTFP monitoring programs and conduct anti-poaching patrols.

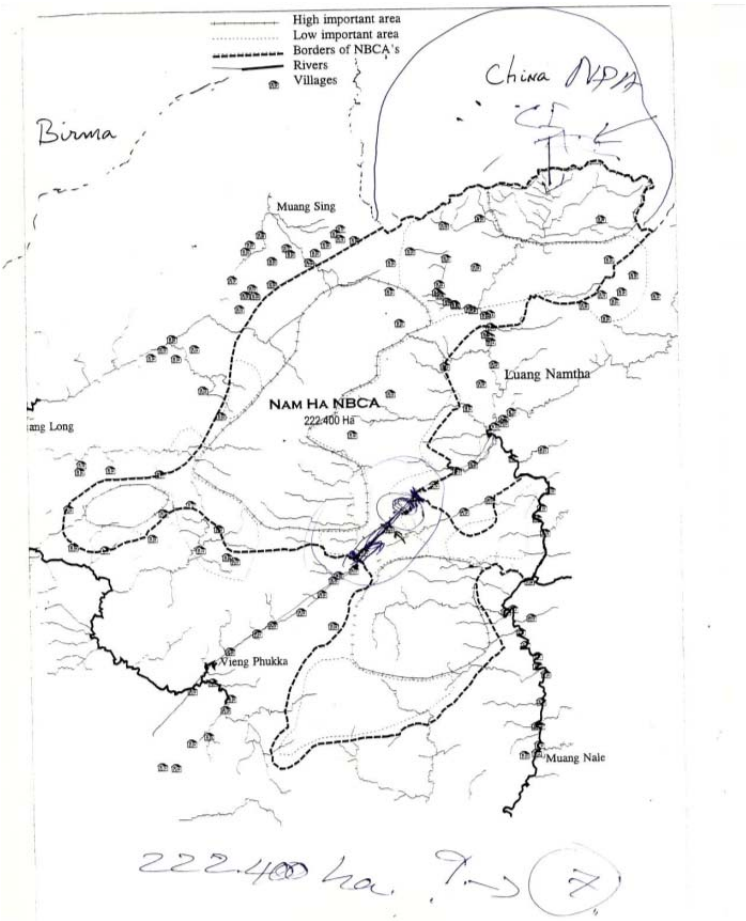

Figure 1. Map of Nam Ha NPA showing core zones (red).

Villages: There are 22 ethnic minority villages inside the NPA, 3 villages are located along Route 3 and at least 30 villages adjacent to the NPA. Household production consists of rice and vegetable crops and small scale poultry and pig farming. Wildlife hunting is still a critical component to rural livelihoods in Laos. Products purchased from outside are primarily clothes and cheap electronics from China and some beverages and toiletries

from Thailand. There are also stretches of rubber plantations within the NPA's management zone of and some rice cropping right next to the buffer zone.

Villagers inside the NBCA usually collect NTFPs daily but reported that it is getting more difficult to find NTFPs and therefore they are required to walk longer distances to find adequate amounts. The most frequently hunted animals were squirrel, bamboo rat, snake and partridge, while the endangered species like tiger and black-cheeked crested gibbon were reported as decreasing in abundance. Some species may avoid areas adjacent to highways due to noise and human activity as they now rarely appear to these villagers, except in the deep forest area.

The road to Muang Sing (Laos-China Border) transects the northern part of the NPA. On the drive to the village, two boys were selling a snake (15,000 kip), a giant squirrel and a slow loris on the roadside. It is reported that wildlife is more commonly available along this stretch of road than on R3 because there is less official scrutiny. The Akha hill tribe lives in this area. They are primarily hunters and have stayed more in the hills than other ethnic groups that have been moved into towns.

Ecotourism: Ecotourism has been marketed as an approach to conserve biodiversity and promote economic development by linking environmentally related enterprises to the promotion of conservation. A study was undertaken and published in 2009, examining whether ecotourism in Nam Ha NPA has contributed to the preservation of the critically endangered western black crested gibbon (*Nomascus concolor*) populations and whether it has enhanced biodiversity in the NPA. The study found that the ecotourism project has failed to preserve gibbon populations; 2005/06 the small populations detected in 2003 surveys were not detected. The study recommended that there needs to be a revenue sharing scheme to address the inequities at the village level of the Nam Ha Ecotourism Project since villages will only receive a benefit when they are visited by trekkers. However, in order to preserve wildlife populations the broader landscape must be protected, not just village by village.

Plantations: The opening of National Route 3 has enabled increased investment of rubber plantations by Chinese investors. It was reported that Luang Namtha Province suspended new approvals of rubber plantations in early 2008 due to environmental issues (rapid deforestation resulting in floods and landslides) and an interest in promoting alternative agricultural products. At that time 100,000 ha was approved of which only 20% had actually been planted. Consequently, approved plantations are encroaching on traditional agriculture patterns.

Figure 2. Aerial view of rubber plantations around Luang Namtha.

Illicit trafficking: A draft report from the UN Office on Drugs and Crimes has identified as an emerging issue the relationship between infrastructure and illicit trafficking in the Greater Mekong Subregion. Although there are several institutions involved in infrastructure and trade facilitation, the draft report focused on ADB since it is one of the lead agencies coordinating and funding investment in infrastructure

and trade facilitation in the GMS. Recognizing that with development there will be some costs, the following issues were identified: environmental damage, involuntary resettlement, spread of HIV/AIDS, prostitution, drug abuse/trafficking, labor exploitation in the form of human trafficking. The study found that there are serious concerns that need to be urgently addressed and systematically included in the planning and risk assessment of agencies that coordinate and finance infrastructure projects. For example:

- The NSEC is close to, and partially transits, the Golden Triangle and nearby communities identified in the annual UNODC Opium Survey as at risk of reverting to opium farming.
- The GMS Economic Corridors overlap with biodiversity areas identified by the GMS Core Environmental Programme with corresponding improved access into forests. Additionally, these corridors also link source countries and destination countries for illicit timber and wildlife trade.
- Based on the UNODC's Database on Human Trafficking Trends, the GMS Economic Corridors link source countries and destination countries.

Recommendations from the report include:

- Systematically include law enforcement and customs concerns into the planning and safeguard processes at the project level of infrastructure development.
- Facilitate information sharing between transport analysts, public security agencies and health officials to provide opportunities for pro-active responses to trafficking and drug abuse.
- Improve cross border cooperation and information exchange, through the Border Liaison Office functions.

Ban Mom is a port town on the Mekong River across from the Myanmar port town of Wang Pong and is located in the Golden Triangle Economic Zone. It is about a 30-60 minute drive north of Huay Xai (R3). The area is developing quickly as a tourist center with the presence of a large Chinese casino, opulent homes along the main road in Ban Mom, luxury vehicles including a black Hummer and a white Mercedes SUV, and a number of new multi-unit residences under construction that will accommodate clientele of the casino. The Myanmar side of the Mekong is also being actively developed with casinos, according to reports. It was reported that human trafficking is a concern in this area as North Koreans and Burmese try to migrate to Thailand via Laos.

Figure 3. Casino development in Ban Mom (left) and casino development directly across the Mekong River in Myanmar (right).

Figure 4. Development in Ban Mom. Private homes (left) and residences to support the casino. (right)

Boten is on the Laos-China border. It is known for its casinos, which are temporarily closed due to serious gambling related crimes. The border checkpoint is still active. It was reported that lignite and various species of timber from Laos and Burma are exported into China. During our visit, one truck loaded with unprocessed round logs passed through Boten into China, in addition to several trucks with timber that had been processed. The export of unprocessed, round logs is illegal in Lao. Products imported from China include: cloth, cheap electronics, motorcycles, fertilizer, fruits/vegetables.

Figure 5. Border crossing at Boten.

Section 2. Project Information

National Route 3: The Laos portion of the NSEC - National Route 3 (R3) – is a ~230 km stretch from Huai Xai in Bokeo Province through 35 km of the Nam Ha NPA to Boten in Luang Namtha Province. It was reported that Laos was initially reluctant to build the road because of the high cost of construction due to its mountainous terrain, combined with limited benefits to Laos. At that time, the road was seen as more beneficial to China and Thailand, with Laos serving as a transit corridor. The various sections of R3 were financed through Thai, Chinese and ADB loans. Construction on the road was started in 2004 and completed in early 2008. The ADB financed a 75 km section of the road, of which 35 km runs through the Nam Ha NPA. Although the ADB loan was closed in June 2009, the ADB remains committed to the safe operation of the road.

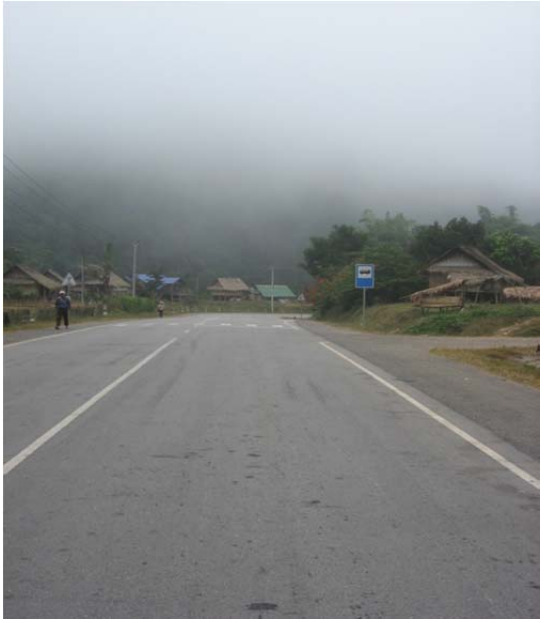

Figure 6. R3 entering a village in Nam Ha NPA.

Road traffic consists primarily of trucks transiting through Laos going to either Thailand or China. Local Lao traffic is

also present e.g. minibuses, private cars and motorcycles. Legal products crossing into Laos from Thailand at Huay Xai include seafood, petroleum and limestone. Lignite mined in the region is trucked into China. However, as a result of poor construction and heavy truck loads, sections of the road west of Nam Ha NPA were under construction at the time of the site visit.

In addition to ADB's financing of the road the following projects and assistance were also provided:

- ADB has supported the Luang Namtha Province, Nam Ha Catchments Area Development Project within the NPA. This project ended in 2009 and an Implementation Completion Memorandum for Japan Fund for Poverty Reduction Grant 9062: Sustainable Agroforestry Systems for Livelihoods Enhancement of the Rural Poor is under review and should be finalized during 2012 second quarter.

  Villagers when asked about the project either said that the project brought them clean water or were not knowledgeable about it. At the time of our visit, we could not determine based on discussions with villagers if the project was still active.

- GMS Sustainable Tourism Development Project is ongoing and will continue through December 2013. The main activities supported by the project in Luang Namtha and Bokeo provinces include: tourism management/hospitality training; guide training; handicraft design, production and marketing; information/education campaigns on biodiversity conservation; tourism related infrastructure improvements and investment promotion. Small infrastructure improvements include the Nam Ha NPA Visitors Center, community market in Ban Chalensouk and tourism facilities improvement at the Nam Eng Cave.

  Villagers in Ban Chalensouk reported that the project started about 7-8 years ago. This village is right outside of the NBCA toward Luang Namtha. About 3-4 households have joined the project. It has helped with income but is not considered a super success. Foreign tourists stay only 1-2 nights.

- Strengthening the Lao government's capacity for environmental monitoring including training on issues related to protected areas and wildlife trafficking, use of geographic information systems and other information gathering techniques, assembling technical expertise and advice, and the development of a manual on environmental monitoring plans and procedures.

  Capacity building, basic training courses were provided to Nam Ha NPA management board and GIS training provided to the technical staff. The GIS training is considered very useful for landscape monitoring but the continuity of GIS monitoring is lacking due to trained staff being relocated to other NPAs.

  The manual of environment monitoring plans and procedures was developed with support of WWF & IUCN (subcontracted from ADB). However, based on further discussions with stakeholders, the

manual has been barely implemented by Nam Ha NPA in collaboration with related government agencies due to very limited human and financial resources.

- To assist officials in monitoring illegal wildlife hunting, trade and slash-burn activities, ADB provided radio-communication sets for use at the police and forestry checkpoints in and near Nam Ha NPA.

  Based on further discussions with stakeholders, rangers and local people in the patrol groups use their personal mobile phones for communication during the patrols.

- ADB stated that measures were implemented during the initial road construction to ensure connectivity for wildlife between the NPA core areas. Within the Nam Ha NPA, two oversized culverts were constructed to serve as both drainage structures and wildlife crossings. One structure is an oversized pipe culvert (1500 mm diameter) and the other structure is a box culvert (3 m x 3 m) for larger species.

  Based on further discussions with stakeholders, ADB and Laos government agreed not to build the culverts because they understood that the existing small culverts within the NPA could be used for drainage and wildlife crossing instead. The small culverts are located in the management zone, and not in the core zone.

- ADB assistance provided capacity building to the Environmental Research Institute; Science, Technology and Environment Agency; Provincial Science, Technology and Environment Unit of Bokeo and Louang Namtha provinces.

There is potential opportunity for continuing support through ADB's Core Environment Program and Biodiversity Conservation Corridors Initiative (CEP-BCI). ADB reported that further support for environmental management strengthening will also be explored under the recently approved Phase II of CEP-BCI. With respect to corridor crossings, ADB stated that the current capacity of Nam Ha NPA staff to undertake monitoring of wildlife crossings will be determined as part of the CEP-BCI. Findings of the ensuing monitoring to be conducted by Nam Ha NPA staff will then serve as the basis for its management board to implement necessary measures to ensure connectivity between the core areas.

Section 3. Stakeholder Issues

R3 has brought a number of positive developments to the surrounding areas. All villagers spoken to highlighted that as a consequence of the road they now have access to: electricity, public transportation, water (through ADB's water catchment project), schools and enhanced access to markets and goods from China and Thailand.

R3 has also brought a number of negative impacts to the more than two dozen villages adjacent to the highway. These impacts include: noise and air pollution from day & night truck traffic and safety issues due to the speeds traveled by the vehicles. Although no villagers reported deaths, at least two boys have been hit by vehicle traffic and the families had to pay for the costs of medical care. Some homes had to be relocated and were compensated by the government.

R3 cuts through 35 km of the Nam Ha NPA, isolating two of its three core biodiversity areas. Since the road has been completed, impacts cited include:

- limited to absence of wildlife movement between the core areas separated by the road,
- expansion of agriculture and rubber plantations outside and inside of the NPA (management and buffer zones),

- increased hunting and NTFP collection
    - easier access to natural resources by urban residents. This is resulting in an increase in the number of outsiders coming into the NBCA to hunt and collect NTFP. There are at least three restaurants in Luang Namtha that serve bushmeat.
    - villagers are hunting and selling wildlife in the markets
    - Chinese middlemen come to the villages to buy wildlife and medicinal plants
- increasing urbanization as villages move closer to the road,
- areas of landslides/erosion

Figure 7. Erosion along R3 in Nam Ha NPA.

Figure 8. Rubber plantation in management/buffer zone.

Correspondence with ADB management provided the following information on several of the issues cited above by stakeholders:

Traffic speed going through villages:

The Ministry of Public Works and Transport (MPWT) have stated that the speed limits through communities are posted on traffic signs and range from 40-60 kph. In general, control of traffic speed is the responsibility of provincial traffic police. MPWT will install additional guardrails and traffic signs on R3 using funds from a WB-financed project. Other measures to reduce speed – e.g. speed bumps are not considered an appropriate intervention for Route 3.

Additional safety measures such as street lights and/or sidewalks:

MPWT will consider the installation of street lighting power by solar cells in areas with high frequency of accidents, especially at road junctions and in high-density community areas. Sidewalks are not considered an appropriate intervention for national roads in rural areas.

Figure 8. Road signage on R3.

Road maintenance:

ADB is discussing with MPWT the issue of erosion and appropriate control measures. At this time, MPWT does not have sufficient funds available; therefore, other financing options are being explored.

Vulnerable livelihood:

Household of local communities depends on access to natural resources. R3 has intensified transportation and access to natural resources. There are higher demands of timber and NTFPs, wildlife consumption, commercial plantations of rubber and other crops from increasing wealth for some sectors of neighbor countries, particularly China that has high population pressure and fast economic growth. However, there is no provincial and local development plan to minimize vulnerability of its infrastructure, ecosystems and natural resources and Nam Ha NPA does not yet have monitoring and evaluation system for wildlife population and impacts from current logging and hunting practices. Local people are still unaware of biodiversity loss and habitat degradation and how it affects their livelihood.

Section 4. Recommendations

- Luang Namtha's provincial and local development plan should be revisited to ensure a more integrated ecosystem based approach to avoiding, minimizing and mitigating impacts of infrastructure and associated development.
- To mitigate transboundary environmental impacts, concerted effort should be put into carrying out a cumulative impact assessment and strategic environmental assessment.
- Budget and staffing support is required to ensure that the Nam Ha NPA is effectively managed. This would require establishing and implementing a NPA monitoring system to gain a better understanding of the status/trends of wildlife populations and current/emerging threats.
- Provide mitigation measures that allow for wildlife movement between Nam Ha NPA's core zones.
- Since R3 increases regional transportation connectivity, there are increased exposures for transboundary forest fragmentation and illegal wildlife and timber trafficking either sourced from the NPA or from other countries and transiting through to China. Measures to address this include:
    - Develop strategy for long-term land use monitoring to control rapid urbanization and ensure sustainable resource and environmental management
    - Establishing and implementing a robust anti-poaching patrol network that covers the entire NPA to enforce existing regulations to control wildlife and NTFP harvesting.
    - Establishing functional road checkpoints on R3 at the borders of the NPA.
    - Expand the Border Liaison Offices mandate to include checking for wildlife and timber with associated training.
    - Strengthening regional collaboration on anti-trafficking networks between ASEAN-WEN and China.
- Systematically assess and implement the recommendations from the UNODC draft report on Illicit trafficking