



MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT
Natural Resources and Environment Inspection Agency
LAO PDR

March 2018



Independent Monitoring Agency

Quarterly Site
Inspection Report
Q4-2017 and Q1-2018



Report Date	:	13 March 2018
Report Period	:	Q4 2017 (Sep-Dec 2017) – Q1 2018 (Jan-Mar 2018)
Project Status	:	Construction Phase

1. Snapshot Overview

This report covers Q4 of 2017 (Sep-Dec 2017) and Q1 of 2018 (Jan-Mar 2018), providing assessment and feedback from the IMA Team on the compliance of the NNP1 with regard to environmental and social measures to address the impacts created by the project.

The project has made significant strides toward the completion of construction works in preparation for impoundment. As of the time of writing, the project has completed 97% of concrete placement at the main dam RCC, and has reached 80.9% of total dam height at the left bank of the dam. Concrete placement at the main powerhouse is similarly 99% complete, while the re-regulation dam is nearing completion. The project expects to initiate impoundment on schedule.

The IMA team has reviewed 89 social and environmental obligations and finds that there are no non-compliance items. While this demonstrates significant improvement over the last assessment period, the IMA finds a number of areas of partial-compliance and other issues that require attention, particularly as regards the slow progress of biomass removal. Of all items reviewed, the IMA finds 11 items of partial-compliance with regard to environmental obligations, including those pertaining to Erosion and Sediment Control, Water Availability and Pollution Control, Emission and Dust control, Spoil Disposal Management, Biomass Clearance and Watershed Management Regulations.

The summarized findings of Compliance and Partial Compliance with regard to environmental and social obligations are summarized in the tables below and in further detail in the Appendixes (please note the codes on the left margin, which relate to the item code in the Annexes).

2. Introduction

The assessment carried out by the IMA Team addresses issues of compliance and non-compliance with regard to the environmental and social obligations of the NNP1PC as specified in Annex C of the Concession Agreement, the ESMMP-CP and associated documentation and plans. This section (Introduction) provides an overview of key issues and a brief introduction to the IMA Team involved in this assessment. Section 4 (Methodology) provides details of the assessment process carried out in delivery of this review and its report. Section 5 provides a summary of findings, broken down by compliance (this is addressed only briefly, for reasons explained above), partial compliance and non-compliance, together with recommended actions to address partial- and non-compliance. Section 6 communicates key lessons-learnt during the assessment, focusing specifically on those lessons which may enhance future reporting on the part of NNP1PC in order to improve future IMA assessment. Section 7 details future activities planned by the IMA Team. Annexes are provided as attachments to this main report providing details of all items and assessment of compliance with justification for each as prepared by each member of the IMA Team.

3. IMA Team members involved in the mission

Team leader and resettlement expert, Mr. Chareun, is Lao born Australian citizen and has studied and worked in Australia for nearly 30 yrs. Since 1998 he has been living and working in Laos. He is one of founders of Chareun & Associates (environmental consulting company) with 25 years of experience in environmental management including. He has extensive experiences in Laos- mainly hydro projects –ESIA & Resettlement Implementation, infrastructure development. Being a native of Laos, his has in depth understanding of the Lao governance system and the needs & cultural sensitivity of the project affected communities. Chareun leads the IMA team in periodic reviews while bearing direct responsibility for review of resettlement and other social and environmental measures and compliance.

Livelihoods and social development expert, Thongdeuane Nanthavone, PhD. He has extensive experiences in social planning for development. From 2003, after the first degree, he worked for an international NGO (BTC) for four years before joining the University of Queensland, Australia for the Master degree in 2008 and PhD in 2010. With an educational background in Development Practice, his consultancies have been focusing on: program design, monitoring and evaluation. He also work on situation analysis/mapping, stakeholder mapping, need/capacity need assessment. For the last few years, he has been involved in the resettlement and compensation work including designing, monitoring and evaluation of resettlement and compensation programs, social development programs, ethnic development plans and livelihood and income restoration schemes.

National Environmental Expert and Deputy Team Leader, Mrs Khamsy Chansamai, MSc, Lao National with relevant experience as environmental manager in large development projects and long standing working relationship with MONRE and key competence in capacity building, facilitation and coordination with government organization. Mrs. Khamsy's technical responsibilities cover regulatory compliance and institutional components related to environmental performance. She is also the IMA team's coordination or point of contact for both MONRE and NNP1PC.

Micah Ingalls, PhD, a highly experienced in tropical ecology and natural resource governance. He has substantial experience in the region, particularly in Laos, in senior managerial and technical positions under (not only) the World Wide Fund for Nature (WWF), the United Nations Development Program (UNDP), the Food and Agriculture Organization (FAO), the Mekong River Commission and GiZ. He also provides strong professional experience and advanced training in forest governance, biodiversity management and ecosystem service valuation. Dr. Ingalls has detailed understanding and strong professional experience in livelihood assessment, methods of rural appraisal, and community evaluation as pertains to natural resource dependent communities. He serves as International Environmental Expert responsible for the review of the biodiversity management and offsets, watershed management and other environmental aspects and components.

Ms. Anita Bousa is a legal advisor who has been engaged to provide technical assistance in the development and preparation of the latest Decree on Compensation and Resettlement from Investment Project No. 86/PM. Anita has significant expertise in environmental and social aspects and a strong professional history of environmental and social project management. She is responsible for assessment of various environmental and social aspects of the project, in collaboration with Micah.

4. Methodology

The IMA Team carried out a detailed review of all social and environmental obligations on the part of the project, with particular reference to Annex C of the CA and the ESMMP-CP and associated Sub-Plans and Site-Specific ESMMPs. IMA review methodology for this reporting period includes:

- Conducted a meeting with Natural Resources and Environment Inspection Agency (NREIA) in MONRE to briefly present on focused obligations for the IMA mission;
- Reviewed of the ESD January 2018 Report and listening to the progress presentation by TD, EMO, SMO and Watershed Management Team;
- Conducted field inspection of some construction sites, Site Reservoir Clearance Area, Phouhomxay Village (resettlement, infrastructure development, livelihood activities and other social developments activities) and zone 2UR (Inspection of Livelihood activity in Hatsamkhone Village and Inspection of newly constructed houses at Pou Village);
- Discussed with Resettlers in Phouhomxay village and Self-Resettlers in Paknjong village,
- Conducted meetings RMU, EMU and WRPC Offices in Xaysomboun province and RMU office in Borikhamxay province;
- Conducted debriefing meeting with NNP1PC and NREIA in MONRE to report on IMA Review and Inspection Findings and discuss solutions for areas of concern.

5. Key Findings

For this reporting period or the quarter 1 (Jan-Mar) of 2018, there are eighty-nine 89 obligations (43 for environmental obligations and 46 for social obligations) were reviewed against the ESD Monthly Jan 2018 Report and verified during field mission on 5-7 Mar 2018. The IMA's review and mission finds that the Company has made significant improvement from the previous IMA's review and mission which results in no any non-compliance findings were detected during this reporting period and apart from seventy-eight (78) compliance findings (32 environmental obligations and 46 social obligations), there are 11 partial compliant related to environmental obligations (Erosion and Sediment Control, Water Availability and Pollution Control, Emission and Dust control, Spoil Disposal Management, Biomass Clearance and Watershed Management Regulations). Beside compliance findings, there are some areas of concerns for the company and government agencies to take into consideration for immediate action in order to avoid the delays and con-compliances. The summary of compliance findings are summarized in table 1 below. The details environmental and social compliance checklists are in Appendix 01 and 02.

Table 1 Number of compliance findings during this reporting period¹

¹ Compliance Level Status:

1. **Compliant:** The item under consideration has been adequately dealt with in the CA's Annex C and is fully consistent with relevant laws, regulations and guidelines. For the Complaint, justification is needed for partly, in-progress and fully compliant.
2. **Partially Compliance:** The item under consideration is insufficiently dealt with in the CA's Annex C. This may mean that descriptions or explanations given are unclear or lacking in detail sufficient to allow the Review to make a judgment. Important Partially Compliant items will need to be revised by the Company.
3. **Non- Compliance:** The item under consideration has not been addressed and is a serious non-compliance or breach of Annex C of the Concession Agreement (CA). If not rectified within the specified time period, penalties may be applied.

Obligations	Compliance	Partial Compliance	Non-compliance	Total
Environmental obligations	32	11	0	43
Social Obligations	46	0	0	46
Total	78	11	0	89

5.1. Compliance with Obligations

Progress has been made against several key social and environmental obligations on the part of the NNP1PC, while several areas noted as non-compliant in the previous assessment have now been addressed. NNPC1 has established the majority of its required units, teams and other elements related to the institution of the project. Communication among GoL/MoNRE/DESIA and NNP1PC generally appears to function well, except where we have noted this (with regard to timely reporting, monitoring and sharing of plans). The environmental monitoring trial among EMU and NNP1PC has been implemented formally since 2015. IAP and LTA have conducted the individual monitoring and advised to NNP1PC since 2013. The key areas of full compliance are as follows:

- Preparation and approval of SSESMMPs and Decommissioning Plans for all construction sites, while some of the environmental plans are still on internal improvement, updating ESMMP-CP report had been revised and submitted to MoNRE for approval.
- Solid waste management and operation of standard landfill for NNP1 and Phouhomxay village.
- NNPC1 has completed the assets registration and compensation according to plan. In Zone 3, additional compensation payments made for Hatsaykham PAPs as a result of addendums to the Compensation Policy Number 1003, issued by the PRLRC in 2016. In Zone 5, all payments of compensation for Hat Gniun and Somseun PAPs have been made. In Namyouak Village in Zone 2LR Asset registration is ongoing with 7 households yet to register their assets. The NNP1PC and PRLRC have been working with the PAPs closely. In Zone 2UR, Asset registration for all 222 households was completed, compensation is nearly fully completed.
- The livelihood activities and compensation for the persons affected by the construction of the Project access road well progressed. Livelihoods teams were installed in Zones 2LR and 2UR. In Zone 2UR, construction of market, bus stop, agricultural access road and suspended bridge were on course to completion. The total number of 164 participating in the livelihoods program with some activities began in 2016 such as integrated fish raising started to yield products. New activities such as integrated goat raising with fodder crop plantation and cash crop cultivation got off to a good start with good progress made.
- Significant efforts appear to have been made to revise and update assessments and plans with regard to watershed management, land use plans and biodiversity in the project area and in the offset site, which are now more or less on track
- Implementation of gender, education, health, cultural awareness and heritage preservation activities are on-track.
- Sharing of data and information to government and good coordination and working relationship with EMU, RMU and WRPC.

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- **Watershed Management Planning:** The draft WSMP has been revised and updated by the project following the Sept. 2017 consultation meeting with GoL authorities. There are some slight delays in approval due to the reorganization of the WRPO and the WRPC. There is no clear answer about re-establish the WRPC and WRPO.
- **Watershed Boundary Delineation:** Watershed boundary delineation has progressed, according to Provincial authorities. Demarcation on the ground is progressing as planned.
- **Biodiversity Offsets:** Biodiversity Options have been presented to the provincial authorities and the WRPO (Jan 2018), who have agreed with the options. Final presentation will be made to the BOMC in Q1 of 2018. Expect to have the first draft of BOMP in March. First Pre-BOMP activities already implemented and the second pre-BOMP activities proposal is approved by ADB, only waiting for disbursement.
- **Fisheries Monitoring Programme:** The fisheries monitoring programme has been established and is doing a good job of collecting data.
- **Xaysomboun ISP:** The draft is now being revised at the national level. Expect to have the meeting to improve the plan by the end of March, 2018.
- **Assurance of no hunting or trafficking of wildlife:** Regulations and management structures are in place to ensure that local wildlife is not hunted or harvested. Monitoring is being carried out by the project. The functions of the wildlife protection team are being performed by the EMO team to ensure compliance with SP10.14 and 14.11.
- **Surface Water Quality:** TSS rates for surface waters were fine, and within limits. Total coliform levels are at or below standards for all sites, though faecal coliform is high for one site (NNG02), upstream of the project. COD rates were within acceptable limits.
- **Groundwater Quality:** All parameters at the monitored boreholes complied with the groundwater quality standards.
- **Sharing of Social Development and Management Plans:** the project has now shared plans relating to Gender, Youth, Cultural Awareness, Labour, and Health and is fully compliant.
- **Implementation of Social Development and Management Plans:** the project is progressing well with regard to the above-mentioned plans and is fully compliant.

Detailed assessment of compliant obligations is provided in the Appendixes 1 and 2. While the main report document focuses on partial compliance issues and areas of concerns, rectification of which is important and vital, this should not minimize the important positive achievements of the NNP1PC, which are commendable.

5.2. Areas of Concern and IMA Recommendations

Findings in this section relate to those items wherein the IMA determines that the NN1 Project is fully compliant with the terms of the Concession Agreement and associated Annex C, but for which there are important delays or other reasons for concern. Findings in this category should not be viewed as compliance issues. Rather, they are included here to highlight potential risk areas.

Table 2 Area of Concern for Social obligations

Area of Concern	IMA Recommendation
<p>Agricultural access roads in 2UR have been well designed and construction go according to plan. The area of concern is that the road appear to be “narrow and tall”, this could have been related to limitation in land acquisition for access road construction. The narrow and tall roads are built with steep slopes, thus prone to erosion.</p>	<p>Integrating bio-engineering into the design. This is not too late as the bio-engineering can be done after the construction have completed.</p> <p>Road use and maintenance committees have to be established in advance of hand-over of roads to communities for monitoring and support from the project. From experience where, the road use and committee hardly function properly without the project supervision.</p>
<p>Access to social services such as education for self-resettles become an area of con as it occurred that there are over 90 families self-settled in Ban Parkyong, Thathom district. Yet this is a designated place by the government, a visit to this villager finds that the primary school does not have enough chairs to accommodate new comer children</p>	<p>For government, to double check the statistics of students and provide enough space for all students.</p>
<p>Health care program was well designed except there is no health care service provider assessment. The assessment will examine the quality of healthcare service providers and healthcare seeking behaviour of the communities. The assessment will provide insights for healthcare program to refocus its resources for better outcome.</p>	<p>Project can to conduct the health centre service delivery catchment survey. this will be a baseline survey for awareness raising and access to Health centre's issues that might need to be improved. Doing so will lead to increase in healthcare seeking behaviour and improve health indicators which are part of the criteria for poverty graduation.</p>
<p>Education program seems to have quantity-based indicators such as enrolment rate or dropout rate. These do not tell if students learn from school which is what matter most. Learning outcome indicators should be monitor as well such as capacity to read with comprehension at grade 3 and 5.</p>	<p>We suggest to conduct a learning outcome test in resettlement and impact areas. So that project knows the quality of teaching and learning and can identify areas for improvement. At the moment learning outcome in the project impact areas are poor; this will impact continuation to secondary school. We would like the project to improve learning outcome at primary school level so that student further their secondary school. This is also the criteria for poverty graduation and the project have obligation to eliminate poverty in project impact area.</p>
<p>There are a lot of activities going with livelihood program. Observations and</p>	<p>We suggest the company to conduct an agriculture value chain analysis. This will allow the company to</p>

Area of Concern	IMA Recommendation
interviews with community members show that some of the activities may not fit well with the market demand or even self-consumption.	understand what is best for the community produce. The analysis will examine market potential for goods and services, also what people can produce that will give them profit. It will analysis also what activities can be economically viable for the communities.

5.3. Partial Compliance Findings

Findings in this section are those wherein progress has been made but delays and underperformance against obligations are noted, or where insufficient evidence has been made available to the IMA Team to render a clear compliance assessment. In the view of the IMA, these findings do not constitute non-compliance as such, but are areas of concern that should be monitored. Refer to table 2 for the Partial Compliance Findings.

Table 3 Partial Compliance Findings – Environmental Obligations				
ID	Compliance Checklist	Justification/ Verification	Source of Verification	IMA Recommendation
E1.3	The Public's Right to Information	Information released as requested. However, late released of approved or final documents and not well organized. No communication or information centres in the Phohomxay village.	Website page and Onsite inspection	Establish a clear communication procedure/mechanism between ESD and NNP1 communication team required. Information centre shall be provided at Phouhomxay village and host village and information shall be regularly updated. Information uploading in the company website shall be more organized.
E1.4	Standards: (i) Compliance with Standards, (ii) Updating of Standards (iii) Updating of Best Available Techniques and Best Practices; Allocation of Costs.	No written notification of the updated Additional Standards has been submitted to Natural Resources and Environment Inspection Authority (NREIA).	ESD Jan 2018 Report and Interview of NREIA	Submission of written letter to Govt and report in the ESD monthly report ref change in Decree on Criteria for the Poverty Graduation and Development
E2.1	Environmental Management System	No information reported in the Jan 2018 Report. ISO 14001:2015 covers the following topics with regard to environmental management systems: - Context of the organization - Leadership - Planning - Support - Operation - Performance evaluation - Improvement	EMO Jan 2018 Report and on-site checking	The Company shall prepare and at all times implement its Environmental Management System ("EMS") in strict compliance with the Standards and meeting all requirements of the ISO EMS Requirements. For the introduction of the ISO 14001 standard, you need: - a manual - procedures - records
E2.3	Reporting: Monthly and Annual Reports	Late submission of monthly, quarterly and annual reports. The latest report received by DESIA is EMO Dec 2017 Monthly Report	Interview of DESIA staffs and NNP1 website	Recommend to share most recently ESD Monthly Report (Eng version) to MONRE via email - IMA will copy new MONRE email every communication with ESD.

Table 3 Partial Compliance Findings – Environmental Obligations				
ID	Compliance Checklist	Justification/ Verification	Source of Verification	IMA Recommendation
E3.1	Erosion and Sediment Control	Drainage system at the Main Powerhouse and sediment pond at RCC Plant is full. Poor spoil disposal management - pushing excavated spoil off the Nam Ngiep River Bank at Aggregate Crushing Plant (Quarry site). Slope erosion risk of the Agriculture Access Roads.	On-site inspection 7 Mar 2018	Clean up at RCC plant's sediment ponds and drainage system at the main powerhouse. No more pushing excavated/spoil off the Nam Ngiep River Bank and slope stabilization is needed. Ensure decommissioning work and slope stabilization at the power house tailrace channel.
E3.2	Water Availability and Pollution Control	Several camps cited by project company for non-compliance with regard to effluent discharge. The January 2018 Monthly EMO report includes a table noting infractions and recommended corrective actions. However, in overall the surface water quality is compliance but some parameters are still exceed the standard e.g. ammonia and total nitrogen from the camps.	Monthly EMO Monitoring report January 2018 and meeting with NNP1 on 5 March 2018	NNP1 should take more action for permanent solving this issue, and keep continuous action under the improved design,
E3.3	Emission and Dust control, and Project Personnel Health Program	Dust monitoring result at main Powerhouse is exceeding the National Standard and dust emission occurs during site inspection at Aggregate Crushing Plant. However, all staffs were advised to wear dust masks while working in the area.	Monthly Monitoring report May 2017 and IMA Site inspection 6 Mar 2018	Strictly Implement dust and control measures at Aggregate Crushing Plant and Main Powerhouse. All staffs working in these areas must wear PPE. Health check for staffs working in dusty sites is recommended.
E3.8	Landscaping and Re-vegetation (Decommissioning plan)	Several Landscaping and Re-vegetation and Decommissioning plan have been submitted to ESD but there are several empty camps with old equipment left at site.	On site inspection 6 Mar 2018	NNP1PC should strongly instruct the Contractor to comply with the approved plan. Develop a combined decommissioning and rehabilitation schedule for all sites - this will be easy for monitoring. Removal and clean-up of construction waste and unused equipment shall be started asap.

Table 3 Partial Compliance Findings – Environmental Obligations				
ID	Compliance Checklist	Justification/ Verification	Source of Verification	IMA Recommendation
E3.9	Spoil Disposal	Poor spoil disposal management - pushing excavated spoil off the Nam Ngiep River Bank at Aggregate Crushing Plant (Quarry site). Slope erosion risk of the Agriculture Access Roads.	On-site inspection 7 Mar 2018	No more pushing excavated/spoil off the Nam Ngiep River Bank and slope stabilization is needed. Ensure the SSES MMP compliance for all spoil and borrow sites - rehabilitation work esp.
E4.2	Watershed Management Regulations	The draft regulations have undergone additional consultation and revision. The approval of the final regulations has been delayed until February 2018. There will be 2 sets of regulations, Xaysomboun and Bolikhamxay. Base on discussion with WRPO in BLX on 5 Mar, the draft regulation is finalised but still waiting to get approval. For Xaysomboun, base on discussion with WRPC on 6 March the special committee is revising the regulation, and still no conclusion on the artical of action againts violation. Expect the regulation to be finalized in April. A critical issue is that there are reports of salvage logging and timber extraction outside of the reservoir area, within the catchment. This needs to be investigated immediately.	Jan 2018 EMO Monthly Report, page 27-28, dissusion with WRPC on 6 March 2018.	Concerned government agencies need to look into the issue of alleged salvage logging and timber extraction from outside the reservoir area. This should be a high priority. Draft regulations should be provided to IMA to facilitate advisory role and provide feedback. Progress against this obligation is significantly delayed. Regarding the illegal logging, we (IMA) has consulted with MONRE (Natural Resources and Environment Inspection Agency) and MONRE advised the NNP1PC to submit formal report with all evidence to MONRE, who will then send a formal letter to DoF/DoFI alerting them to the issue, and asking for them to rectify this.

Table 3 Partial Compliance Findings – Environmental Obligations				
ID	Compliance Checklist	Justification/ Verification	Source of Verification	IMA Recommendation
E8.1	Biomass Clearance in the reservoir	Biomass clearance is delayed. According to the Jan 2018 Monthly report. In consultation with the project company, it is expected that all vegetation will be cleared but that burning and removal may not be completed for approx 240 hectares of the reservoir area prior to impoundment. The company expects that the remaining vegetation can be cleared as floating debris. the original total area for biomass clearance was reduced from 1,912 to 1,640 (for more detail see Hendar PPT). The contractors will stop the work by the end of March, expected for the total clear of 1,400 ha. For the remain 200 ha, the contractors finished the cutting of the trees but may not be able until becoem to the ash	Jan 2018 EMO Monthly report page 28, consultation with NN1PC on 6 March 2018	The company needs to run the BIORAM modelling, to assess the potential implications of this, including feasibility of the contingency plan (removal of floating debris), and the implications of non-removal with regard to water quality (anoxic conditions) and methane emissions, etc. The project should then invite MONRE to participate in the model assessment and a workshop to consider implications

6. Lesson Learnt

In the IMA's previous assessment, the issue of non-disclosure and delayed disclosure of reports, plans and other information has been significantly improved, except where noted. The disclosure of draft monitoring reports to the IMA has allowed for a more realistic and timely assessment of compliance. Previous recommendations pertaining to addressing outstanding areas of concern and coordination between the project, monitoring agencies and the IMA have generally been heeded and compliance has improved. However, salvage logging outside the reservoir area and delayed progress on biomass removal appear to have been long-standing issues, but full disclosure of these was not made until now. While the IMA appreciates this (late) disclosure, the IMA would recommend that in future such issues be disclosed to the IMA much sooner to support addressing the issues in a timely manner and would remind the project that intentional non-disclosure presents a risk of breach of compliance.

7. Follow up Activities

The next Quarterly Site Inspection is scheduled in May 2018. In the next Quarter (Q2 of 2018), the IMA Team will conduct the inspection of construction sites and meeting with EMUs, RMUs and WRPCs in both provinces Borikhamxay and Xaysoumboun to assess compliance with environmental and social conditions and measures.

8. Annexes

1. Annex 01 Periodic Compliance Review Checklists_ Environmental Obligations
2. Annex 02 Periodic Compliance Review Checklists_ Social Obligations
3. Annex 03 IMA Quarterly Site Inspection Agenda
4. Annex 04 List of Participants
5. Annex 05 NNP1PC Work Progress Presentations
6. Annex 06 EMO Monthly Report January 2018 Final
7. Annex 07 SMO Monthly Report January 2018 Final
8. Annex 08 Salvage logging Reference Documents

Annex 01 Periodic Compliance Review Checklists_ Environmental Obligations

Annex 02 Periodic Compliance Review Checklists_ Social Obligations

Annex 03 IMA Quarterly Site Inspection Agenda

Annex 04 List of Participants

Annex 05 NNP1PC Work Progress Presentations

Annex 06 EMO Monthly Report January 2018 Final

Annex 07 SMO Monthly Report January 2018 Final

Annex 08 Salvage logging Reference Documents
