

Nam Ngiep 1 Power Company Limited Responses to Independent Advisory Panel Report No. 8

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Nam Ngiep 1 Hydropower Project (Lao People's Democratic Republic)

Prepared by Nam Ngiep 1 Power Company Limited for the Asian Development Bank.

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Nam Ngiep 1 Hydropower Project

Response to the Independent Advisory Panel Report Number 8 of 13 January 2017

Site Visit 11-18 December 2016

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AO	02 February 2017	Viengkeo Phetnavongxay Vilayhak Somsoulivong Marcel Frederik	Peter G Jensen	Prapara Pan-Aram	Draft submitted to IAP and ADB
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Response to the Independent Advisory Panel Report Number 8 of 13 January 2017 (Site Visit 11-18 December 2016)

Introduction

This document contains the response of Nam Ngiep 1 Power Company to the findings and recommendations of the Independent Advisory Panel (IAP) expressed in their Report No 8 of 13 January 2017. It should be noted that where NNP1PC is silent about a statement, comment or recommendation of IAP, this does not imply acceptance or agreement.

The Nam Ngiep 1 Power Company is committed and obligated to strictly comply with the environmental and social safeguards of ADB and the Government of Lao PDR. In particular, as a borrower of loans from ADB, the Company, in accordance with the ADB Safeguard Policy Statement of 2009, is required to engage an Independent Advisory Panel to monitor the project and provide balanced and objective technical opinions on the Project's compliance with the environmental and social safeguard requirements of ADB and the Government of Lao PDR.

In the period from 11-18 December 2016, the IAP conducted their eighth monitoring mission to the Nam Ngiep 1 Hydropower Project. The findings and recommendations of the IAP are publicly available and their reports can be downloaded from the website of Nam Ngiep 1 Power Company, <http://namngiep1.com/>

The Nam Ngiep 1 Hydropower Project is located on the Nam Ngiep River, which flows about 160 km from the mountainous area of Xieng Khuang Province in the centre of Lao PDR through Xaysomboun Province to the plains of Borikhamxay Province until its confluence with the Mekong River. The Project consists of a 166 m high main dam and a smaller 20 m high re-regulating dam downstream of the main dam. The Project will have two powerhouses, one at the main dam with an installed capacity of 272 MW and the other powerhouse at the re-regulating dam with an installed capacity of 18 MW. The main dam will form a 70 km long and 67 km² large reservoir which will inundate four villages in the lower part of the reservoir and impact agricultural land belonging to three villages in the upper part. The re-regulating pond formed by the small dam will inundate one village.

The construction works started in August 2014 and the overall progress of work is about 50.7% complete. The inundation of the reservoir is planned to start in July 2018 and the Project will commence generation of electricity by January 2019.

The Company is working closely with the Government of Lao PDR at all levels, international organisations and local people to adhere to the Company's obligations under the Concession Agreement, national legal framework, Lenders' environmental and social safeguard policies and international best practices. The ultimate goal is to avoid and minimise the Project's footprint on the environment, and in line with the policies laid down in the National and Provincial Socio-Economic Development Plans, contribute to the long-term sustainable development of the country and in the Provinces where the Company operates.

For further reading and understanding about the environmental and social management of the Project, please visit the Company Website <http://namngiep1.com/> where detailed information about the design and progress of implementation of the environmental and social management plans and programmes are available.

Nam Ngiep 1 Power Company's Response to Report Number 8, dated 13 January 2017 of the Independent Advisory Panel on the Nam Ngiep 1 Hydropower Project, Lao PDR

Independent Advisory Panel Eighth Site Visit, 11-18 December 2016

Summary of Resettlement Issues

No.	Resettlement Issue	Status	IAP comments and recommendations	Level of concern ¹	NNP1PC Response
R1	Depleted and degraded soil at the Houay Soup resettlement site is the single most important issue for PAP to be resettled Need to redesign land use in the Houay Soup resettlement area.	PAP from Ban Hatsaykham have moved into the HSRA and are planning to cultivate their allocated lands during the 2017 wet season. NNP1PC has begun to revive the demonstration farm (Pilot Plan).	Significant progress continues to be made. IAP will monitor on a routine basis.	Closed	<ul style="list-style-type: none"> NNP1PC appreciates the recognition of the hard work undertaken on the item. The Company is committed to continue to improve the soils of the lands allocated to Resettlers at the HSRA
R4	Many PAP in Zone 2LR have stated repeatedly that they prefer not to resettle at the Houay Soup resettlement area; that instead they will self-resettle.	<ul style="list-style-type: none"> Based on CA, NNP1PC is responsible for: (i) resettling PAP at Houay Soup; or, (ii) paying cash to PAP for self-resettlement based on unit compensation rates Official cut-off-date for the project area is 11 April 2014 	The IAP reminds NNP1PC that resettlement should take place no less than one year before reservoir inundation. Recommendations <ul style="list-style-type: none"> The IAP recommends that NNP1PC should continue to work with GOL officials to resolve all resettlement issues in zone 2LR. 	High	<ul style="list-style-type: none"> NNP1PC works and coordinates closely with the PRLRC, RMU of Xaysomboun and Hom District to resolve issues related to Resettlement. The GOL will take the leading role and make

¹ Level of Concern: Low - action recommended within 6 months; Medium - action recommended within 1-2 months; High - immediate action recommended

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	<p>Payment of compensation to PAP in 2LR is significantly delayed.</p>	<ul style="list-style-type: none"> • 59 PAP households agree to move to HSRA • 287 PAP households will self-resettle • 21 families refuse to register their assets. The GOL is negotiating. • For PAP refusing to decide, GoL will require resettlement at HSRA 	<ul style="list-style-type: none"> • NNP1PC should increase staff assigned to prepare self-resettlement plans in consultation with PAP at all impacted locations. • The IAP recommends that NNP1PC work with RMU to accelerate consideration of self-resettlement plans and payment of compensation. • Self-resettlers should be offered an opportunity to receive/reject occupational training related to self-resettlement plans. • NNP1PC should advise GOL officials about the availability of Community Development Funds to support development at self-resettlement sites following COD. 		<p>decision with support from NNP1PC to resolve the issues;</p> <ul style="list-style-type: none"> • Noted. Since December 2016, NNP1PC has increased its presence in Hom district and Zone 2LR and mobilized additional staff to be based there and assist with preparation of compensation and support PAPs to prepare their Self-Resettlement Plans. • However, preparation of a Self-Resettlement Plan is the responsibility of a household choosing Self-Resettlement, as clearly stated in the REDP-U2LR and PRLRC Notice 008 dated 04 January 2017. NNP1PC can only facilitate the process of preparation but by definition cannot tell a PAP how to undertake their own self resettlement. Approval of Self-Resettlement Plans is the sole prerogative of the GoL. NNP1PC can only facilitate the process. • Noted. Community Development Funds are intended for the

No.	Resettlement Issue	Status	IAP comments and recommendations	Level of concern ¹	NNP1PC Response
					<p>maintenance and future expansion of public infrastructure at the HSRA, Zone 5 and Zone 2UR following COD. Potential allocation of part of these funds to support infrastructure development at self-resettlement sites needs to be agreed by all stakeholders prior to this being committed.</p>
R5	<p>Need to monitor the quality of resettlement infrastructure at HSRA, specifically housing and water supply</p> <p>Significantly delayed payment of compensation to PAP self-resettlers from Hatsaykham</p> <p>Significantly delayed consideration and approval of self-resettlement plans</p> <p>Significantly delayed resolution of grievances submitted by PAP self-</p>	<ul style="list-style-type: none"> • 24 PAP households from Ban Hatsaykham have moved to HSRA • 22 PAP households have chosen self-resettlement • 16 PAP households remained at Hatsaykham in December 2016 • Some PAP from Hatsaykham displayed anger with NNP1PC and the RMU about (i) delayed compensation payments; (ii) delayed resolution of grievances; and, (iii) lack of an effective arbitration process based on Lao legal procedures. • The SMO is deficient in meeting “all of the Company’s social obligations” and maintaining “the SMO with such numbers of management and professional staffs that are suitably qualified and skilled as will enable the Company to meet the objectives set for it in” the CA (Section 23); and, failing to meet the Company’s responsibilities 	<ul style="list-style-type: none"> • The IAP is pleased that the resettlement of Hatsaykham PAP has been executed well by SMO • The IAP was surprised that self-resettlers from Hatsaykham have not been treated with the same level of attention as resettlers, particularly regarding (i) timely payment of compensation; and, (ii) resolution of outstanding grievances. • Delays and lack of adequate attention to compensation and grievance issues are creating unnecessary social tension. <p>Recommendations</p> <ul style="list-style-type: none"> • The IAP recommends that E&S management immediately focus on resolving outstanding compensation and grievance issues. Not doing so will cause additional social tension 	High	<ul style="list-style-type: none"> • NNP1PC is always treating resettlers and self-resettlers in full accordance with applicable compensation policies. Compensation payments to all Hatsaykham households acknowledging the compensation policies issued by the PRLRC were made as soon as practicable, irrespective of their resettlement preference. Similarly, Grievance hearing have been conducted in September 2016 on outstanding grievances from Hatsaykham village, without ANY distinction between resettlement choice. Emergency rice

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	resettlers from Hatsaykham	including providing “prompt and fair compensation for all PAPs in accordance with policy and entitlements”.	<p>and lead to non-compliance with the CA.</p> <ul style="list-style-type: none"> • The IAP recommends that the quality of resettlement infrastructure at HSRA, specifically housing and water supply should be inspected by NNP1PC before the sub-contractors’ warranties expire. • The IAP recommends that NNP1PC inform 16 self-resettlement PAP that resettlement at HSRA remains an option. • The IAP recommends again that NNP1PC document an understanding with Bolikhan District and Bolikhamxay RMU that if self-resettlement leads to poverty/vulnerability, PAP can be resettled at Houay Soup even if they already received compensation; but PAP will receive fewer benefits. NNP1PC should clarify and document its duties. 		<p>distributions were made to the households of Hatsaykham from April to November 2016 in equal amounts to Resettlers and Self-Resettlers.</p> <ul style="list-style-type: none"> • Noted. As of December 2016, the SMO management has even further increased its focus on completing compensation and will continue to do so until compensation is completed. • Conducting final inspections of infrastructure prior to the expiry of a defects warranty period is a standard practice in construction works, which NNP1PC applies for all infrastructure constructed by NNP1PC. • Of the 5 Self-Resettlers who, in April 2016, wanted to (and where accepted to) change their final choice and resettle to the HSRA, only one household actually changed their resettlement choice. A house is currently under construction for this household.

No.	Resettlement Issue	Status	IAP comments and recommendations	Level of concern ¹	NNP1PC Response
R7	<ul style="list-style-type: none"> Livelihood restoration of PAP in three villages in Zone 2UR Policy level clarification is needed related to islands in the NNP1 reservoir and use of drawdown zones Role of NNP1PC in developing replacement agricultural lands for PAP 	<ul style="list-style-type: none"> Detailed demarcation of the full supply level of the reservoir has been completed Livelihood development team at 2UR has been strengthened and livelihood restoration program is progressing 	<p>Recommendations</p> <ul style="list-style-type: none"> NNP1PC Technical Division should consult with district officials and inform PAP about policies related to claiming and developing islands and drawdown zones in the NNP1 reservoir. NNP1PC managers and Thathom district officials and the Xaysomboun RMU should consult about developing agricultural replacement land for PAP at 2UR. 	Medium	<ul style="list-style-type: none"> Noted Following surveys of two potential areas, no suitable agricultural replacement land which can be developed into paddy rice fields was identified. During the Final Choice survey, 99.5% of all PAPs in 2UR expressed their preference for cash compensation over replacement land. Except the one household choosing land for land replacement, NNP1PC considers the case on replacement land closed after cash compensation payments have been completed.
R8	<ul style="list-style-type: none"> Effectiveness of the Xaysomboun RMU Effectiveness of the Hom District Coordinating Committee (DCC) Increased tension between PAP in 2LR and NNP1PC, Xaysomboun RMU, and Hom DCC 	<ul style="list-style-type: none"> Although field activities of the Xaysomboun RMU have improved, 21 PAP households remain unwilling to register their assets Consideration of PAP self-resettlement plans is slow Authorization of compensation payments is delayed because of slow processing of self-resettlement plans by RMU Hom DCC is knowledgeable and significantly more effective, with good support from NNP1PC 	<ul style="list-style-type: none"> Serious tension remains between PAP in 2LR and NNP1PC, Xaysomboun RMU, and Hom DCC Failure to resolve these issues and decrease tension urgently may delay resettlement, impoundment, and COD. <p>Recommendations</p> <ul style="list-style-type: none"> The IAP recommends that E&S management immediately focus on resolving outstanding compensation and grievance issues. Not doing so will cause additional social tension and lead to non-compliance with the CA; and, may delay COD 	High	<ul style="list-style-type: none"> Noted. Since December 2016 NNP1PC has increased its presence in Hom district and mobilized additional staff to be based there for the preparation of compensation and support to PAPs to prepare their Self-Resettlement Plans. The SMO manager is currently spending 60-80% of his time based in Zone 2LR

No.	Resettlement Issue	Status	IAP comments and recommendations	Level of concern ¹	NNP1PC Response
R10	<p>Outstanding grievances from PAP at Ban Hatsaykham (Zone 3)</p> <p>Outstanding grievances from Ban Hat Gniun (Zone 5)</p> <p>Significantly delayed compensation payments and slow resolution of PAP grievances are causing intense tension in Zone 5 and near the HSRA</p> <p>Cutbacks in RMU budgets</p>	<ul style="list-style-type: none"> • Payment of compensation to PAP self-resettlers from Hatsaykham is significantly delayed • Resolution of grievances submitted by PAP self-resettlers from Hatsaykham is significantly delayed • Payment of compensation to Ban Hat Gniun PAP impacted at the HSRA is significantly delayed • Resolution of grievances submitted by PAP from Ban Hat Gniun is significantly delayed • Cutbacks in RMU budgets in XSB and BKX may result in a lower level of willingness of RMUs to process self-resettlement plans; and district grievance committees to consider grievances efficiently 	<ul style="list-style-type: none"> • The IAP understands that NNP1PC is obligated by the CA to arbitrate / negotiate with PAP before formal grievances are filed. NNP1PC may already be in violation of the Law on Resolution of Economic Disputes (2005). • The BKX RMU reports that NNP1PC personnel have not undertaken arbitration at the village level in more than six months; nor have NNP1PC staff followed the GOL's procedure under the arbitration decree. • Only after NNP1PC provides evidence that arbitration has failed should grievances be filed and the formal grievance process be used. <p>Recommendations:</p> <ul style="list-style-type: none"> • The IAP recommends that NNP1PC-SMO take immediate action to pay overdue compensation and to resolve long outstanding grievances. • The IAP recommends that NNP1PC resolve the land compensation issues immediately, wherein previous compensation payments may need to be reviewed; and, additional payments made to PAP in zones 3 and 5 who have land that has been impacted. • The IAP recommends that NNP1PC management should provide guidance to EMO and SMO management regarding budgets for the RMU, DCC, and the District Grievance committees. Cutting RMU budgets during this critical 	High	<ul style="list-style-type: none"> • Noted. As of December 2016, the SMO management has even further increased its focus on completing compensation and solving valid grievances and will continue to do so until compensation is completed.

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			time, prior to resettlement, impoundment, and COD, may not be warranted.		

Summary of Indigenous Peoples' Issues

No.	Indigenous Peoples' Issue	Status	IAP comments and recommendations	Level of concern ²	NNP1PC Response
S1	<ul style="list-style-type: none"> Livelihood Programs Agricultural products and markets 	<ul style="list-style-type: none"> The livelihood program supports important activities for PAP. In Zone 5, Ban Thaheua, programs have significantly improved the quality of life of PAP. Their lives are much better than in the past. They earn more money from programs and better manage and adjust to the modern economy. In Zone 2UR, PAP of Ban Pou requested Project support for the village as follows: village water supply tanks; village meeting hall; vegetable and mushroom growing; fish, chicken, pig, and duck raising; better school classrooms; and, a community market. The PAP require organic and mixed agricultural farming. According to PAP of Ban Pou, the most important issues are village water supply tanks and village meeting room. 	<p>Recommendations</p> <ul style="list-style-type: none"> The IAP recommends that the livelihood programs be supported strongly, specifically: improved rice seed and modern planting techniques, fish, duck, pig, and chicken raising, mushroom, rattan, and vegetable growing; all are important sources of food and generate income for the PAP. The PAP of Zone 3 are satisfied and appreciate the programs. PAP of Zone 2UR also request Project support. The PAP in the 2 zones might exchange information with one another. The livelihood programs are about building good image and reputation for the Project. The Project should support the livelihood programs for the PAP in every zone as much as possible. 	Very high	<ul style="list-style-type: none"> Since 2014, NNP1PC has been providing strong support to the Livelihood Program in all project Zones. As per REDP-U2UR, during 2017, the 2UR programme is scheduled to scale-up the pilot programmes (65 pilot farmers involved during 2016) to involvement of 161 households.

² Level of Concern: Low - action recommended within 6 months; Medium - action recommended within 1-2 months; Urgent/Very High/High - immediate action recommended

Summary of Social Issues

No.	Social Issue	Status	IAP comments and recommendations	Level of concern ³	NNP1PC Response
S2	Hmong graves removal and compensation	<ul style="list-style-type: none"> • There remain 9 IP Hmong graves in Ban Namyouak of Zone 2LR where 24 PAP households refuse to register their assets with the Project. • 22 IP Hmong graves in Ban Pou, Zone 2UR have requested compensation from the Project and RMU. • According to the elder of Ban Pou, these 22 graves are situated at 321 and 322 m.a.s.l. (full supply level is 320 m.a.s.l.). PAP are worried about potential flooding. The uncertainty of the water level causes PAP to worry about this issue. If they are suddenly flooded, then the PAP cannot remove themselves immediately. 	<p>Recommendation</p> <p>The IAP recommends that the Project and RMU take the issue into consideration seriously. In the IP Hmong belief, a soul of a dead will inhabit his grave forever. Destruction of the grave means his soul will be destroyed. Then the soul is unhappy and it will return to its family and make the family to get sick and unhappy, as well.</p>	Very high	<ul style="list-style-type: none"> • Noted
S3	<ul style="list-style-type: none"> • Resettlement to Houay Soup Resettlement Area (HSRA) and self-resettlement 	<ul style="list-style-type: none"> • 24 PAP families from Hatsaykham moved to HSRA after the 2016 wet season. The official moving day was 12 November 2016. According to PAP: In general, they are satisfied with HSRA; buildings, infrastructure, and land (quality of soil). 	<p>Recommendation</p> <p>The IAP recommends that compensation be paid to PAP of the 4 villages of Zone 2LR as soon as possible. There will be several households (or many households) in Zone 2LR who are waiting and considering to resettle to Houay Soup.</p>	Very high	<ul style="list-style-type: none"> • NNP1PC works and coordinates closely with the PRLRC, RMU of Xaysomboun and Hom District to resolve issues related to Resettlement. The GOL will take the leading role and make decision with support

³ Level of Concern: Low - action recommended within 6 months; Medium - action recommended within 1-2 months; Urgent/Very High/High - immediate action recommended

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		<ul style="list-style-type: none"> It was the first time that the PAP mentioned that the soil of HSRA is fine and it will be better when it is used for a few years and it will give better yield because the PAP will apply fertilizer every year. Some PAP expanded their houses since they have more family members. 	<p>The IAP insists the Project should continue to improve the soil and infrastructure at Houay Soup as planned. This will convince more PAP of the Zone 2LR to move to Houay Soup.</p>		<p>from NNP1PC to resolve the issues;</p> <ul style="list-style-type: none"> See Response to R4 and R8 As of December 2016, the SMO management further increased its focus on completing compensation and solving valid grievances and will continue to do so until compensation is completed. NNP1PC strictly follows the compensation process step by step in full compliance with legal and contractual requirements; and NNP1PC is putting all efforts into ensuring that this process is executed in a smooth and orderly manner without undue delays and as expeditiously as practically possible. <p>NNP1-PC will continue improving soil in SHRA for agricultural purpose;</p>
S4	<p>Food security is still the most important issue for IP Hmong at all sites. Rice is the most important staple food for the Hmong people.</p>	<p>PAP of Ban Namyuak, Zone 2LR who choose self-resettlement have requested the Project to provide rice for them for one year after resettlement. According to the PAP,</p>	<p>Recommendation</p> <p>The IAP again recommends that NNP1PC comply with the Concession Agreement.</p>	High	<ul style="list-style-type: none"> NNP1PC has always acted in compliance to the Concession Agreement to its best knowledge and follows the compensation policies set by the PRLRC.

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		this is to ensure that they can survive in the first year after self-resettlement.			PRLRC Notice 008 dated 04 January 2017 instructs NNP1PC to extend the rice support from the previously agreed 3 month to 12 months. NNP1PC will implement this instruction.
S5	Dust in the villages	The PAP of Zone 5 (Ban Hat Gniun) complained about the dust along the road in the village and requested the Project to water it.	Recommendation The IAP recommends that the Project apply water to the roads around Ban Hat Gniun regularly, particularly in the dry season. Eventually, the Project may wish to consider paving the roads around this growing village.	High	<ul style="list-style-type: none"> NNP1PC has requested the contractor to apply water to roads as required by their Contract to reduce dust.
S6	Drug abuse, prostitution, crimes, etc. are occurring at an increasing rate in Zone 3.	PAP from Zones 3 and 5 blocked the road to HSRA during the 8th IAP site visit, temporarily not allowing the IAP to enter HSRA. The IAP could not meet PAP and visit the HSRA as per the itinerary. Drug abuse, prostitution, crime, etc. issues were not discussed because of limited time at HSRA. The IAP observed that some karaoke bars had closed. This is a good sign; drug abuse, prostitution, and other crimes, etc. may be reduced. This indicates good work by the Project and local authorities who regularly monitor and prevent these issues.	Recommendation The IAP recommends that Lao Law be enforced and complied.	High	<ul style="list-style-type: none"> Enforcement of the Lao law is the sole prerogative of the Government of Laos. NNP1PC will continue to support the presence of 6 police officers (of whom 2 are female) at the police post (build by project funds) in Hat Gniun village.
S7	Compensation and unit compensation rates	Compensation: (1) 11 PAP households choosing self-resettlement to Ban Nonsomboon report having received	Recommendation The IAP recommends that asset compensation be paid as soon as possible. The delay of asset	High	<ul style="list-style-type: none"> See response to R8 and S3 NNP1PC strictly follows the compensation process step by step in full compliance

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		<p>compensation for only 50% of their assets from the Project.</p> <p>(2) In Zone 2LR and 2UR, PAP report receiving only IP grave compensation payments.</p> <p>(3) Several PAP of Ban Hat Gniun, Zone 5 have requested compensation for their land used in HSRA.</p> <p>(4) PAP at Ban Hat Gniun asked why the GOL allowed only IP Hmong to resettle in HSRA. They have lost their land used in HSRA and now they do not have any land.</p>	<p>compensation payment has created tension, problems, and issues among the PAP, the Project, the GOL, and others. Firstly, the compensation payment should be paid to the PAP of Zone 3, Zone 5, and Zone 2LR.</p>		<p>with legal and contractual requirements; and NNP1PC is putting all efforts into ensuring that this process is executed in a smooth and orderly manner without undue delays and as expeditiously as practically possible.</p>
S8	HSRA and self-resettlement	<ul style="list-style-type: none"> • 24 PAP households of Hatsaykham gradually moved to HSRA after the 2016 wet season (on 12 November 2016). • IAP had very limited time to meet the PAP in HSRA during the 8th IAP visit since blockage of roads by PAP. In general, however, PAP are satisfied with buildings, infrastructure, and land at HSRA. • Ban Hat Gniun village elders met with the IAP regarding PAP who owned land in HSRA, who were requesting additional compensation. According to them, PAP have land use certificates and land was used after 2012 for shifting cultivation. One elder of Hat Gniun asked why the GOL 	<p>Recommendation</p> <ul style="list-style-type: none"> • The IAP strongly recommends that the Project complies with Lao Laws and the Concession Agreement. • The Project and the GOL should investigate and consider the facts and compensate PAP at Hat Gniun as soon as possible. 	Very high	<ul style="list-style-type: none"> • See response to S4 NNP1PC has always acted in compliance to the Concession Agreement to its best knowledge and follows the compensation policies set by the PRLRC. • Please see response to S3

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		<p>allowed only IP Hmong to resettle in HSRA. This situation may create a conflict between lowland and the Hmong in the future.</p>			
S9	<p>In Zone 2LR: Currently 24 PAP households in Ban Namyouak refuse to have their assets registered by the Project.</p>	<ul style="list-style-type: none"> • These 24 IP households give the same reasons for not cooperating, namely: (1) unit compensation rate is low; (2) GOL does not find any good and proper resettlement site for them; (3) They require the Project to pay cash to them (not open a bank account as is required by the CA). • They have communicated directly with the Central Government. • Another 13 PAP households from Ban Namyouak prefer to join this group. I was informed that the wife of the leader of the 24 hhs is a sister of the headman of Ban Namyouak and she is the chair of the Lao Women's Union group in the village. • The situation has improved. The number of PAP households who had joined the group has been reduced. And the IAP IP specialist's meeting with them was very positive. 	<p>Recommendation</p> <ul style="list-style-type: none"> • The IAP recommends that the GOL and the Project use every effort to avoid any conflict with 24 PAP households in Ban Namyouak. • The IAP recommends that all parties use every possible approach and effort to find a solution together. Participation by individuals, local, provincial, and national authorities is needed. • The IAP met the 24 households and they are friendly. They are human like us. They need justice, peace, a better life, and they are not dangerous people. 	Very high	<ul style="list-style-type: none"> • Noted.

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S10	Collaboration with the GOL	According to RMU chairmen, collaboration between the Project and RMU has been difficult over the last six months. There were insufficient meetings between the two sides; usually there is a meeting each month. The RMU objected to financial inflexibility by the Project.	Recommendation The IAP recommends that there should be regular meetings between the RMU and the Project. This includes fostering better communications and being more flexible with the budget.	Very high	<ul style="list-style-type: none"> Noted
S12	Asset registration	Detailed demarcation completed		Closed	<ul style="list-style-type: none">
S13	Community participation	<ul style="list-style-type: none"> PAP participation with Project and GOL has improved. Activities have moved forward, specifically: assets survey and registration, IP graves registration, and livelihood programs; crimes have been reduced. PRLRC follows a participatory process to establish unit rates consistent with ADB requirements NNP1PC has good staff to engage PAP to participate in all activities. 	Recommendation Continue to encourage PAP to participate at all levels of activities with the Project and the GOL.	Medium	<ul style="list-style-type: none"> NNP1PC continuous to involve PAPs in the various livelihood and social programmes
S14	Grievance issues	Currently, there are about 457 grievances covering more than 900 issues, of which only 127 issues have been resolved. Most issues are from Zone 2LR, Zone 3 and Zone 5. The Project uses the Government grievance mechanism to deal with the issues. The procedure is slow and this has caused the boycott of a meeting with the IAP in 2LR and road blockage to HSRA during the 8 th IAP site visit.	Recommendation The IAP recommends that the Project and local and provincial authorities take these issues into serious consideration. Additional staff is required to address these issues.	High	<ul style="list-style-type: none"> Most grievance cases were raised by PAPs during a short period prior to the IAP mission, resulting in a high number of outstanding grievances during the mission. NNP1PC and local and provincial authorities take these issues serious. NNP1PC has assigned 2 staff to the Grievance Team in December 2016 and will

No.	Social Issue	Status	IAP comments and recommendations	Level of concern ³	NNP1PC Response
					recruit additional staff in January 2017. In order to ensure a proper process and allow for a careful investigation into each and every Grievance case will require time.
S15	Reopened: Cut-off date	Although this issue was closed, many PAP of Zone 2LR and Zone 5 (Ban Hat Gniun) still refuse the unit compensation rate for some assets, saying that they were the first groups to sign the agreements about 2 years ago and at that time the asset compensation rate was low. The PAP of Ban Sopyouak have not signed asset registration forms, complaining about the low unit compensation rate for pineapple, banana, papaya, galangal, and house fences.	Recommendation The IAP recommends that the Project and RMU should investigate and take these issues into serious consideration and finalize the issues together with all parties.	Very high	<ul style="list-style-type: none"> NNP1PC will continue to support the RMU of both Xaysomboun and Bokikhamxay provinces to finalize unit rates of the items that were not included in the compensation policy issued by the PRLRC. Once agreed upon, the PRLRC will issue a declaration on the unit rates.
S16	Reopened: Asset registration	Asset registration remains an issue for Zone 2LR, the 24 households in Ban Namyuoak, who refuse to have their assets registered; and, 13 households who have their assets registered but they have not signed the agreement yet.	See recommendation for S9 above	Very high	<ul style="list-style-type: none"> See response for S9 above
S17	PAP petition	During the 8 th IAP site visit the IP specialist had three meetings with IP Hmong in four villages in Zone 2LR. <ul style="list-style-type: none"> PAP complained that the GOL, ADB, and the Project had lied to and cheated them. For example, policy 	Recommendation The IAP recommends that the GOL and Project comply with the Concession Agreement.	Very high	<ul style="list-style-type: none"> NNP1PC has always acted in compliance to the Concession Agreement to its best knowledge and follows the compensation policies set by the PRLRC.

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		<p>on houses: The cost of new houses built by the Project at HSRA is too expensive, while the compensation for old houses is too low.</p> <ul style="list-style-type: none"> • Another example is the land price in the old villages is calculated at a low price compared to land outside the project area. • These inconsistencies will cause PAP to become more poor. They cannot afford to buy good land when they move out. • They said that when GOL officials visit them, they are told that they will be forced to move out. 			

Summary of Environmental Issues

No.	Issue	Status	IAP comments and recommendations	Level of Concern ⁴	NNP1PC Response
E1	There are four hydropower projects under construction or operating that will affect water quality, water use and water availability along the Nam Ngiep river. An organizational arrangement is needed to manage the watershed resources and enable communications and cooperation between the hydropower companies.	<ul style="list-style-type: none"> • The Watershed Management Plan (WMP) started in May 2015 is on-going. The focus of the action plan is to undertake necessary surveys and establish the Watershed Management Office (WMO). Overlapping concessions, cumulative and trans-boundary impacts from hydropower, mining, and other development projects within the watershed necessitate consideration of an integrated management and monitoring plan for the Nam Ngiep watershed. • NNP1 Watershed Team has been meeting with MONRE and provincial and district officers, to discuss watershed management issues. • The Biodiversity Specialist attended meetings in Vientiane during the period 12-15 December at the Ministry level, Government of Lao PDR, together with ADB representatives, to conclude 	This environmental Issue is now being handled by the Biodiversity Specialist. See Summary of Biodiversity Issues and Annex 4: Biodiversity Issues		<ul style="list-style-type: none"> • See B11

⁴ Level of Concern: Low - action recommended within 6 months; Medium - action recommended within 1-2 months; Urgent/Very High/High - immediate action recommended

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		<p>a fully integrated WMP (integrating data from the ISP, biodiversity information, fisheries management plan and watershed management activities). This topic is subsequently covered by the Biodiversity Specialist in Annex 4: Biodiversity Issues.</p>			
E2	<p>NNP1PC is expected to contribute to capacity building of MONRE and assist in establishing the EMU staffed by provincial and district representatives from project affected areas.</p>	<ul style="list-style-type: none"> IAP discussions with the EMU of Bolikhamxay indicate that NNP1 is the priority project for GOL. EMU wants to continue to join in the monthly monitoring site visits to contractors' camps and construction work sites. Funds have been received at DONRE from NNP1PC to permit payment of daily allowances to the EMU for joint site visits. The EMU will utilize NNP1PC monthly monitoring data as its database for reporting to DONRE and for writing compliance monitoring reports. EMU confirms that it is receiving NNP1PC monthly monitoring reports (in English and Lao). 	<p>Recommendations</p> <ul style="list-style-type: none"> The IAP is satisfied with the efforts the EMO is making to include training for the EMU in compliance monitoring and monthly reporting. This same type of training (capacity building) is being extended to the EMU of Xaysomboun Province. Both EMUs are receiving training in lab testing procedures and field sampling methods to permit them to carry out compliance monitoring whenever environmental sampling and testing equipment is made available to the districts. This training will enable the District EMUs to develop monitoring reports (both provinces) which can then be sent to NNP1PC and MONRE and include assessments of the adequacy and effectiveness of implemented mitigation measures and the monitoring program being made by the company. The training program in compliance monitoring for the Xaysomboun EMU should include the Biomass Removal Plan. The EMO should use joint site inspections of the biomass removal work as part of its capacity building efforts in the 2017 AIP. 	Low	<p>Noted.</p> <ul style="list-style-type: none"> In addition, note that training on environmental monitoring was conducted by IMA to both EMUs and concerned staff at MONRE. The official training programmes on compliance inspections and water quality monitoring is part of the Terms of Reference of the IMA. EMO has engaged EMU staff from both provinces in field inspections and water quality monitoring by regularly sharing schedules so that they can participate. The training was carried out as part of on the job training to EMU staff provide by EMO. EMO is carrying out a chlorination test for IHI, Song Da 5 Camp No.1 and No. 2 where the chlorine contact tank and monitoring tanks were

No.	Issue	Status	IAP comments and recommendations	Level of Concern ⁴	NNP1PC Response
		<ul style="list-style-type: none"> Capacity building of the EMU, both Bolikhamxay and Xaysomboun Provinces, is continuing with the building of the new Environmental laboratory at the Owner's Base Camp. EMU personnel from both provinces attended training sessions at the Owner's Base Camp led by trainers from UAE and Thailand. Training included theory and hands-on experience in using laboratory equipment to test water quality parameters of BOD, suspended solids, turbidity, and fecal coliform organisms. Training sessions were planned for a period of one week. 	<ul style="list-style-type: none"> It is important for the Bolikhamxay EMU to see improvements being made to the wastewater treatment plants at the various construction camps and to verify that improved treatment systems are producing an effluent that meets Lao effluent standards. This includes the new effort to utilize chlorine disinfectant as a final treatment step to achieve acceptable wastewater effluent quality. More frequent monitoring of effluents from the WWTPs is needed (once per week) until the EMO is satisfied that the chlorine feed systems are properly controlled and the chlorine residual is within acceptable limits. The EMU should be included in discussions with communities on management of solid wastes and witness the solid waste landfill at HSRA, Community Waste Recycle Bank at Hat Gniun, and waste feeding program for pig rearing at Hatsaykham village. The IAP commends NNP1PC for its efforts to include separation, recycle and reuse of all waste materials, with the goal to create new job opportunities for community members (raising pigs with waste food, making compost for soil improvement, and selling various kinds of wastes to recycle industries that meet acceptable environmental management standards). Separation and recycle will save considerable landfill capacity and result in cost savings for the company as well as creating new jobs, income and new product opportunities for the resettlement communities. 		<p>completed during the peak and off-peaked periods to guide the field dosing by Contractors. These will be monitored closely to understand the impact of chlorination on total coliforms and residual chlorine. EMU staff will be involved in the laboratory tests and field monitoring.</p> <ul style="list-style-type: none"> EMO has encouraged and invited EMU staff to participate in the waste management discussions with villagers in the host villages and HSRA. This will be continued. Previously, the NNP1 Xaysomboun Watershed and Reservoir Protection Office (WRPO), DONRE of Hom District and DONRE of Tathom District have regularly joined site inspection for biomass clearance work with NNP1PC. Starting early 2017, a joint inspection has also included DAFO of Hom and Tathom District particularly to deal with trees with diameter of more than 20 cm. It should be noted that Xaysomboun DONRE is also member of Xaysomboun EMU, NNP1PC will continue to involve

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			<ul style="list-style-type: none"> Similar planning and training should be included for the EMU of Xaysomboun as resettlement work proceeds in the province. The AIP 2017 should include the training programs to be introduced to the EMUs of both provinces. Training includes joining in monthly joint inspections made by EMO together with Contractor and involvement in discussions of proposed changes by Contractors to correct outstanding environmental issues and non-compliances. The two EMUs can thus witness the compliance and monitoring approach used by the EMO to ensure that the Contractor and all Sub-contractors meet with the conditions of Annex C of the CA and the ADB SPS. IAP again recommends that NNP1PC convene a workshop combining the EMUs of both provinces and MONRE to review duties of the EMU for the Nam Ngiep watershed. MONRE should be invited as the workshop organizer to review “lessons learned” from Nam Theun 2 and Theun-Hinboun projects, and include the expanded mandate of MONRE to oversee integrated environmental conservation interests of water, forest, and biodiversity protection at the regional level. Site visits to witness mitigation measures and analyze findings should be considered for capacity building efforts of the project. 		<p>Xaysomboun DONRE focal person in the joint inspections as part of on the job training on biomass clearance.</p>
E3	<p>Management of the environment is not in compliance with (1) the CA Obligation 2.2: Obligation to Implement</p>	<ul style="list-style-type: none"> The Main Contractor (CWC) is obligated to manage and oversee the environmental, health and safety (EHS) obligations of the CWC and 	<p>The IAP finds that the CWC is still non-compliant with ADB’s Environmental Safeguards and IFC Performance Standards. CWC’s non-compliance is the borrower/client’s (NNP1PC) non-compliance as far as ADB and other lenders are concerned.</p>	High	<ul style="list-style-type: none"> EMO and TD are together monitored regularly the compliance issue. A meeting was conducted at NNP1

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	<p>Environmental Measures which states that the Company (NNP1PC) must ensure that the HCCEMMP is prepared by the Head Construction Contractor in accordance with the Concession Agreement . . . ; and ensure that the Head Construction Contractor implements the approved HCCEMMP; and, (2) ADB Safeguard Requirements 1: Environment, Section 2. Environmental Planning and Management, para. 15, which states that when a third party's involvement (meaning a contractor, or an operator of an associated facility) will influence implementation of the EMP, the borrower/client (meaning NNP1PC) has control or influence over the actions and behavior of the third party, and will collaborate with the</p>	<p>its sub-contractors in accordance with the CA and the ADB Safeguards. The IAP still finds that sub-contractors are carrying out environment activities without adequate supervision of the CWC (Mr. Santi Sayakoummane, Environmental Specialist; Mr. Taguchi Tomohiro, EHS Manager; and Mr. Lester Palarca, Safety Engineer) and environmental issues are not being managed in accordance with international best practices and commitments of the ESMMP-CP.</p> <ul style="list-style-type: none"> • Sub-contractors are selling recyclable wastes to dealers whose facilities have not been checked and verified by the EMO as meeting acceptable environmental protection standards. • CWC is still dependent upon NNP1 to provide all technical inputs, environmental monitoring, and reporting, plus meeting with the Sub-contractors to implement acceptable solutions to upgrade and 	<p>Recommendations</p> <ul style="list-style-type: none"> • NNP1 must continue to pressure the CWC to carry out its environmental management obligations both for the CWC and its sub-contractors in accordance with international "best practices". This means that the Technical Department (TD) must work closely with and support EMO requests for improved CWC environmental actions to manage both their obligations and those of their sub-contractors. • The IAP recommends that the EMO halt sale of recyclable materials by the sub-contractors to outside private sector recycle firms until such firms have been visited by the EMO and their facilities approved as meeting international acceptable environmental standards. Sub-contractors must understand that solid and hazardous wastes can only go to recycle firms approved by the EMO. • The TD working with the EMO must resolve construction and operation problems with the wastewater treatment plants (WWTP) of the sub-contractors and the CWC Camp. Design drawings and technical guidelines of the Environmental Engineering Consultant should be clearly followed and implemented. Only the WWTP of the Owner's Camp is properly operating. • The revised wastewater treatment plant of Song Da 2 Camp 1 is now constructed according to the drawings but needs a chlorine feed system that will ensure operation efficiency and produce an effluent meeting the Lao effluent standards. • Song Da 2 Camp 1 facility, once confirmed to be operating in accordance with Lao effluent 		<p>Management level to discuss the compliance issue.</p> <ul style="list-style-type: none"> • Noted. An official letter will be submitted to the Contractors instructing them to ensure that recyclable items are only sold to external vendors that have been audited by NNP1PC-EMO and found to have acceptable environmental management according to local and international standards and regulations; • Noted. By the end of December 2016, WWTS has been improved at a new Kenber Camp, IHI Camp, Song Da 5 Camp No. 1 and No. 2 in accordance with the design prepared by consultant. The remaining camps will be completed by the end of February 2017. • Noted. NCR2 was issued to the HM Hydro's Contractor (Lilama10) which has drawn their attention in improving the system by February 2017. Other camps are under close supervision by EMO including the Song Da 5 Camp No. 1 and No. 2 which have already completed the improvements. If

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	<p>third party to achieve the outcome consistent with the requirements for the borrower/client.</p>	<p>improve wastewater treatment plants. CWC is thus not operating in accordance with ADB Safeguards or IFI Performance Standards.</p> <ul style="list-style-type: none"> • The effluents from the CWC and sub-contractors' wastewater treatment plants (WWTPs) do not meet Lao effluent standards. The GOL thus has the right to impose penalties on the Company for breach of its obligations regarding environmental safety. • Hazardous and recyclable wastes from the various work areas are being sold by some sub-contractors to outside private sector recycle companies. These private recycle firms must have their facilities visited and approved by the EMO. Such wastes cannot be sold to the "highest bidder" unless the waste recycling company making such bids has been visited and approved by the EMO as having environmental protection facilities that 	<p>standards, can be used as a "model waste treatment plant" for other sub-contractors. There are still 8 sub-contractor wastewater treatment plants not constructed per Consultant's drawings.</p> <ul style="list-style-type: none"> • The EMO should issue a non-compliance for construction of the wastewater treatment plants and follow up with penalties until the plants are corrected and shown to be working properly. • Installation and operation of a chlorine feed system for the effluent to achieve Lao standards is likewise required. Guidelines, monitoring, training, and supervision by EMO staff will be required to ensure that the chlorine solution is fed at appropriate levels and that a chlorine residual of <1 mg/L is maintained in the effluent. This activity will require 1-2 full days of inputs by both Environmental Compliance and Environment Monitoring teams at each wastewater treatment plant. • EMO needs to increase the frequency of sampling to check on adequacy and operation of the chlorine feed system and record residual chlorine at different times of day. This will require is a full time monitoring team (2 persons) designated to monitor the WWTP effluents (9 locations). The effluents from WWTPs should be sampled frequently until effluents meet with Lao discharge standards. 		<p>it is found that these systems do not function properly, ONCs or NCRs will be issued to the Contractors with instructions to rectify the issues. Both Environmental Compliance and Monitoring teams are working closely on this. As mentioned above that the laboratory tests are being carried out for priority camps that have completed their WWTS improvements (Song Da 5 Camp No.1 and No.2, IHI Camps and Kenber Camp) and follow up on a weekly basis. The other locations will continue to be monitored on a bi-weekly basis.</p>

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		meet international accepted standards.			
E4	Management of wastes from construction sites and camps of sub-contractors is now compliant with guidelines of the ESMMP-CP and the requirements of Annex C of the CA. NNP1 has constructed a proper sanitary landfill and approved a SSESMP for the Landfill Management Plan. A copy has been submitted to MONRE (<i>Clause 68 of Annex C to the CA</i>).	Lao and International standards have now been met with regards to project solid wastes management, handling and disposal. 1) Solid wastes from all construction sites and camps are properly separated to maximize recyclable wastes for reuse or sale to recycle firms; 2) The disposal pits are lined and have a leachate collection system; the leachate treatment is designed to maximize leachate evaporation and observation wells have been constructed to monitor any possible leachate discharge; 3) Waste from sub-contractor septic tanks is collected and disposed consistent with international standards in the spoils disposal area #6. 4) It is understood that CWC is operating the landfill as part of its contract with NNP1PC in lieu of paying a solid waste disposal fee	The IAP is satisfied with the construction works of the project landfill and the leachate system. The landfill meets international standards. Likewise, the IAP is satisfied with the disposal method and management of septic tank wastes in the spoils disposal area #6. The EMO needs only to record solid wastes being generated and to verify the disposal process being used by CWC and its sub-contractors. The solid waste landfill issue is now considered closed. Remaining is continuing support and training for villager solid wastes recycle and reuse activities. Recommendations <ul style="list-style-type: none"> The focus of the solid wastes collection and treatment system for the remainder of the construction and operation phases of the project should continue to be maximizing separation and recycle of waste materials. It is far more economic for NNP1PC to continue to invest in a recycle industry (separation, compaction and recycling technologies for reusing solid wastes) than in expanding the sanitary landfill to meet projected solid wastes generation volumes throughout the CA. The IAP commends the EMO on its efforts to separate and recycle wastes from contractors as well as communities and to support and encourage villagers to collect and separate wastes from service areas for recycle. The Community Waste Recycle Bank should be financially supported by the EMO and SMO until it is shown that the operation can be managed sustainably by the village committee itself. 	Closed Issue resolved in accordance with the CA	<ul style="list-style-type: none"> Noted.

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		<p>both for CWC and its subcontractors. CWC responsibility includes administering the landfill (compacting and covering disposed solid wastes with soil). The EMO continues to check on disposal wastes from the sub-contractors to ensure that all recyclable materials are being removed and that the sanitary landfill is being operated according to approved Guidelines.</p> <p>5) The Project landfill issue is now considered closed.</p>	<ul style="list-style-type: none"> Utilization of project wastes should be expanded to include utilization of all food wastes for raising pigs or worms and making compost. Technical and financial assistance should be provided until operations are sustainable, and then responsibility turned over to the Community Waste Recycle Bank. Recycle activities will promote future livelihood development, save on investment and operation costs at the sanitary landfills, and create a healthier and cleaner environment for communities. The AIP 2017 should focus on expanding the “green technology” approach to manage solid wastes from contractors and from all project impacted communities. The EMO needs to continue its surveillance of the CWC and all sub-contractors to ensure that they follow the Guidelines for hazardous materials and hazardous wastes separation, identification, and storage. The IAP recommends that NNP1PC consider building a hazardous waste storage facility at the sanitary landfill for future hazardous wastes and materials from two power houses and Base Camp. These hazardous materials should be consolidated at one location and managed consistent with international best practices. 		
E5	Cooperation and support from TD to EMO is necessary to implement corrective actions by CWC and sub-contractors on outstanding	Visits to construction camps and work sites by the IAP and LTA Environmental Specialists showed improved awareness and attention to environmental issues by some sub-contractors. Inspection monitoring is taking	<ul style="list-style-type: none"> The new Environmental Lab will permit a more comprehensive and relevant ambient monitoring program by the Compliance Monitoring team. Review of EMO Monitoring and Inspection Team activities is showing improved support and cooperation from TD to implement corrective 	Medium	<ul style="list-style-type: none"> Noted. A management meeting chaired by MD was conducted in November 2016 to discuss the pending non-compliant issues. A management mission will be

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	<p>environmental issues in a timely manner.</p> <p>Compliance Monitoring frequency and parameters to be monitored needs to be re-evaluated in the 2017 AIP.</p>	<p>place regularly between EMO, CWC, and sub-contractors, with scheduled meeting times so that contractors can respond to non-compliances with agreed upon corrective actions within an acceptable time frame for implementation.</p> <p>Outstanding environmental issues remain as follows by CWC and its sub-contractors:</p> <ul style="list-style-type: none"> Constructed wastewater treatment plants do not follow the guidelines recommended by the Consulting Engineer. Treatment efficiency is inadequate and the effluent does not meet standards. Poorly designed sediment collection ponds have inadequate retention time and do not adequately separate suspended solids from discharge waters. These ponds are full of sediment, showing lack of regular cleaning and maintenance. Rainwater runoff from surrounding areas is permitted into sediment collection ponds thereby 	<p>actions by CWC and sub-contractors on environmental issues. However, this corrective action needs to focus on outstanding environmental issues of sediment control from the construction areas (particularly the gravel preparation and concrete preparation production areas and the quarry) in addition to the long outstanding issue of inadequate and poorly built wastewater treatment systems. TD needs to insist the CWC and its sub-contractors follow the design drawings and specifications of the environmental engineering consultant and build the required treatment systems to meet the standards specified in the consultant's reports.</p> <p>Recommendations</p> <ul style="list-style-type: none"> The IAP strongly endorses the involvement of NNP1PC EMO Environment Managers in field inspections to ensure full cooperation of senior EHS manager support from CWC and its sub-contractors. Outstanding environmental issues should be monitored more frequently using relevant parameters to verify adequacy of mitigation measures and to document results. This can now be more timely and relevant with completion of the Environmental Laboratory at Owner's Base Camp. The overall environmental monitoring program needs to be revised and updated in a new 2017 AIP. The monitoring program should be flexible and modified to clarify the extent of an adverse environmental impact or to prove acceptability 		<p>organized in early 2017 to witness and discuss corrective actions for the pending issues with Contractors;</p> <ul style="list-style-type: none"> EMO Deputy Manager regularly stays overnight at the Owner's Village and joins the weekly and monthly site inspections, EMU missions and lead the compliance monitoring. Senior Environment Specialist joins the site inspection from time to time. Noted. The AIP 2017 for Environmental Monitoring will focus on carrying-out in-house lab analysis for E.Coli, BOD₅, TSS and Total Coliforms as well as establishing QA/QC, Guiding and advising lab safety protocols; and improving lab analysis techniques to achieve the lab analysis validation with an external lab. Besides completing the lab construction by February 2017 and meeting the increased frequencies of environmental monitoring schedules, the Environmental Monitoring team is focusing on resolving environmental issues at the RCC

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		<p>reducing treatment efficiency</p> <ul style="list-style-type: none"> Inadequate removal of sediment from sediment laden waters prior to discharge to the Nam Ngiep river has decreased quality of the river water. 	<p>of an implemented mitigation measure for both the Contractor and the Owner.</p> <ul style="list-style-type: none"> The IAP recommends that compliance monitoring focus specifically on resolving environmental issues being addressed (i.e., separate monitoring program [parameters, frequency, location, time]) for each outstanding issue. The Environmental Monitoring team needs to focus more intensely on the issue working together with the Environmental Compliance team until a satisfactory result is obtained at the test site. The monitoring program is then updated and considered as a “standard” for that issue. The program is duplicated at a second site with the same environmental issue until that site problem is resolved. Example: for sediment removal problems, this requires the use of a jar test apparatus at the problem site. For chlorine feed systems, this requires the testing of a chlorine residual at site every hour or more frequently until the feed dose and flow rate are controlled at steady rates. Feedback from test results will impact facility design, facility construction, or equipment operation and thus the TD and relevant sub-contractor must be informed what changes should be made to modify the system. The EMO should be issuing more non-compliances at higher levels of urgency and penalizing CWC and its sub-contractors for non-compliance to resolve long outstanding issues in a more timely manner. 		<p>Plant’s sediment ponds and WWTS in camps. A jar test apparatus has been deployed since 18 January to understand the effectiveness of the RCC Plant’s sediment pond operation and will continue until the end of February 2017. Noted.</p>
E6	The Biomass Removal Plan for the reservoir has	<ul style="list-style-type: none"> NNP1 has obtained a site specific ESMMP from the 	The IAP is concerned that the biomass removal plan has lost valuable time to achieve its targets given the	High	<ul style="list-style-type: none"> Noted.

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	<p>been approved by all parties and the selected contractor, LAUNC, has set up camp in Ban Sopyouak, Hom District, to start biomass clearance blocks and develop an effective work force and management team.</p> <p>Outstanding is the issue of payment to the villagers for cutting and removal of biomass from lands previously belonging to the villagers. Villagers have expressed their opposition to the biomass removal plan until they are paid by the Company and receive full compensation owed to them.</p>	<p>BRP Contractor for each of the 18 priority biomass removal areas. The SSES MMP contains updated biomass removal maps and plans for using NTFPs.</p> <ul style="list-style-type: none"> A government approved UXO clearance team has been employed to clear designated areas of residual explosives prior to any biomass removal. Villagers can collect cut biomass and plant rice on cleared biomass areas prior to inundation. Villagers and government officials blocked access to the land by the Contractor during the months of November/December thereby causing a significant delay in the implementation plan. Villagers insisted that they receive payment for the land that they will lose when the reservoir is inundated prior to biomass removal. Local government agencies have also expressed their interests to obtain and utilize logs of 20 cm diameter or greater and 	<p>work stoppage in the last quarter of 2016. NNP1PC must resolve the outstanding local government and villager payment issues urgently so work can continue at an increased pace. The Removal Plan by the selected LAUNC Contractor needs revision and additional supervision by the Manager. EMO monitoring should be increased to ensure timely payment of compensation for land so that biomass clearance can proceed without further delays. Involvement of local villagers, training, provision of safety equipment, and an attractive daily wage has enticed local villages to participate as laborers for the contractor. Villagers should be assisted to store waste timber for future beneficial use at their new resettlement areas.</p> <p>Recommendations</p> <ul style="list-style-type: none"> The IAP advises that SMO and EMO staff should discuss and assist each resettlement village (or interested villagers themselves) to make a storage area for safeguarding useful removed biomass for future self or community use. The EMO/SMO auditing team needs to be familiar with and oversee the Environmental and Social Safeguards of the BRP as described in the <i>Code of Practice for Biomass Removal</i> (pgs 49-56 of the BRP for NNP1, July 2015). The IAP recommends that the EMO review the <i>Code of Practice</i> with the BRP Contractor to ensure that there is no use of hazardous materials within the reservoir area, no maintenance of vehicles, zero tolerance for hunting or poaching of any kind, etc. and that he understands what he must do to implement the <i>Code of Practice</i>. 		<ul style="list-style-type: none"> SMO and EMO have cooperatively work together on getting the biomass clearance activity in progress. Noted.

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		<p>requested approval by the Contractor (and Project Owner) prior to permitting further work to proceed by the BRP Contractor.</p> <ul style="list-style-type: none"> The expected biomass removal progress is thus delayed in the 2016-17 dry season. It is not clear if the lost time can be made up by utilizing mechanized methods to remove cut biomass and have villagers gather cut biomass that they will utilize in the future. The Company has been asked to speed up payments so that work can proceed during the 2017 dry season. 	<ul style="list-style-type: none"> Compliance monitoring work will require a team of dedicated EMO staff to work within the reservoir area and the AIP 2017 needs to address this activity in detail. 		
E7	<p>Sediment retention basins and controls are inadequate for the quarry area, aggregate preparation, and the RCC Plant Operation. Sediment basins are too small, baffles inadequate or missing, and removal of sediment (cleaning of basins) insufficient and infrequent thus causing large sediments loads to be discharged to river.</p>	<p>Contractor and sub-contractors have installed poorly constructed drainage runoff systems and sediment retention basins. Requests by EMO for improvements have been slow in coming and remain inadequate. Monitoring of effluents continues to show non-compliance with Lao water quality standards. Recommendations of LTA continue to be ignored.</p>	<p>This issue was a major environmental non-compliance during the 2016 wet season. The start-up of the main dam RCC Plant Operation (continuous concrete preparation and pouring works) in May 2016 multiplied the amounts of sediment produced by the project works which were further compounded by the onset of the wet season and the large volumes of runoff water that entered the sediment retention basins.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The IAP recommends that the TD working with EMO study drainage lines and works in and around the quarry, aggregate and concrete 	High	<p>Noted.</p> <p>TD and EMO is undertaking a comprehensive review of the water flows of the RCC Plant and CVC Plant to fully understand the volumes from processes and runoff, and how best to separate clean from dirty runoff and for the proper design of the sediment retention ponds. In this connection, the CWC has been requested to provide information and propose detailed designs of the systems.</p>

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	Suspended solids load in discharge waters excessive and significantly exceeds water quality standard of receiving waters.		<p>preparation plants during the 2016-17 dry season and prepare a site map showing where new works or improvements are needed to limit and control the volume of runoff entering sediment retention basins. This revised drainage map should be a focal point for Contractors to review and improve and agree upon an action plan.</p> <ul style="list-style-type: none"> • The 2017 AIP currently being prepared needs to be modified to include a comprehensive sediment control system for the work areas supporting the main dam construction. The modified 2017 AIP should likewise be discussed with the Contractor to obtain his cooperation and inputs to complete the needed modifications to the site drainage systems and to the sediment retention basins. • The revisions to these facilities should be undertaken by the Contractor prior to the start of the 2017 wet season expected in June 2017. • The EMO needs to purchase a “jar test apparatus” for the Environmental Laboratory and to utilize this equipment in the field to monitor at site sediment loads at key sediment retention basin locations to determine which coagulant aids work best and how much (dosage level) is needed to reduce excessive sediment loads to acceptable limits prior to discharge of sediment basin effluents to the river. These coagulant aids are similar to what the Right Tunneling Co., Ltd. utilized in their treatment to remove excessive suspended solids prior to discharge of the effluent to the river. Heavy sediment loads were effectively 		

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			<p>treated and removed from waters collected during the excavation of the bypass tunnel. A similar use of coagulant aids can be applied without the large investment of treatment tank and sludge dewatering equipment. These chemicals would be utilized during the next rainy season (2017) to limit sediment loads to the river. The revised sediment basins and controls would be designed to handle the dry weather flows associated with the RCC plant operation.</p>		

Summary of Biodiversity Issues

No.	Biodiversity Issue	Status	IAP comments and recommendations	Level of concern ⁵	NNP1PC Response
B1	Options for implementing a biodiversity offset (long-term issue)	Watershed biodiversity surveys completed: no suitable offset site in watershed. Three other sites proposed by provinces also not suitable	<ul style="list-style-type: none"> Nam Chang-Nam Xang agreed as primary offset site Verify suitability of Nam Chouane-Nam Xang in BKX and/or another suitable site outside project provinces. 	Completed Closed	
B2	Activities along the dam access road need to be managed to reduce impacts (on-going issue)	Degradation, logging and forest clearance for agriculture along access roads. EPF grant allocated (Dec 2015). On-going for life of project	<ul style="list-style-type: none"> Work with provincial authorities to limit forest clearance along new dam access road (still an issue). Company to monitor effectiveness of PONRE implementation of EPF grant. 	High	<ul style="list-style-type: none"> Noted. A subproject was signed between EPF and BLX province to implement the Houay Ngoua PPA management activity. However, the recent institutional change (forest division moved from PONRE to PAFO) is delaying the implementation of the sub-project.
B3	Workers and construction traffic removing forest resources, illegal logs and wildlife	Prohibition of illegal harvesting and trade is covered in the Developer's Code of Conduct (ongoing issue)	<ul style="list-style-type: none"> The Developer should enforce a zero-tolerance policy on illegal logging, hunting and wildlife trade by the employees of the Developer, Contractor, and all sub-contractors. Ongoing need: EMO to report on any infractions 	High	<ul style="list-style-type: none"> There was record of incident at biomass clearance area in which contractor staff involved in illegal fishing practice. NNP1 EMO immediately investigated the case and demanded Contractor to take disciplinary measures for this incident up to expulsion for the staff from the Project work. In the first quarter of 2017, EMO will conduct another training on the zero-

⁵ Level of Concern: Low - action recommended within 6 months; Medium - action recommended within 1-2 months; Urgent/Very High/High - immediate action recommended

No.	Biodiversity Issue	Status	IAP comments and recommendations	Level of concern ⁵	NNP1PC Response
					tolerance policy on illegal logging, hunting and wildlife trade in.
B4	Introduction of potentially invasive species as part of reforestation, agriculture schemes	Plans for aquaculture in reservoir to improve livelihoods (ongoing)	<ul style="list-style-type: none"> NNP1PC should check to make sure proposed species to be introduced are NOT potentially invasive Need careful review to ensure no introduction of exotic species with likely negative impact on native fish fauna. 	Low	<ul style="list-style-type: none"> Noted. Measures to prevent introduction of invasive species will be included in the NNP1 reservoir management plan, which will be prepared in 2017
B5	<ul style="list-style-type: none"> Monitoring of biodiversity Capacity of provincial and district EMUs for monitoring Community engagement in monitoring 	<ul style="list-style-type: none"> Biodiversity values are not monitored by anyone EMUs in project provinces have limited capacity and resources Hmong villagers have good local knowledge Long-term issues 	<p>Reservoir will give access to new areas above water line</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Additional wildlife surveys should be undertaken in the upper watershed during construction to define protection and monitoring needs Hmong villagers should be hired to assist with monitoring biodiversity within resettlement areas and nearby forests Strengthen capacity of provincial EMUs to monitor impacts on biodiversity and environment (still valid for 	<p>Medium</p> <p>High</p>	<ul style="list-style-type: none"> Noted. NNP1 Watershed Management Plan is expected to be approved and implemented starting in the first quarter 2017 with some activities relevant to these recommendations such as (but with focus on key species critical for achieving no net loss of biodiversity): <ul style="list-style-type: none"> - Conduct wildlife and habitat survey within the target area and engage management measure with local communities. - Conduct an awareness raising and train local authority (including the EMU) on wildlife and habitat protection. - Setting up specific regulation for wildlife hunting and trading

No.	Biodiversity Issue	Status	IAP comments and recommendations	Level of concern ⁵	NNP1PC Response
			BIORAP) On-going for project life		
B6	Appropriate and integrated Watershed management activities Initiate development of ISP for XSB	The watershed now falls mainly within the boundaries of XSB Province which lacks an integrated spatial plan ISP further delayed (Dec 2016)	<ul style="list-style-type: none"> • Work with MONRE and environmental offices in XSB to develop ISP • NNP1C work with XSB to prioritize and complete planning for districts within watershed as critical input to watershed management plan • Available data included in WMP 	Very high	<ul style="list-style-type: none"> • NNP1 EMO and International watershed consultant visited XSB ISP team on 18 January 2017 to follow up with ISP progress and to verify the information on Xaysomboun Province’s plan on mining, hydropower, and other project development, which need to be addressed in NNP1 Watershed Management Plan
B7	Construction activities and increased access will lead to further habitat loss in watershed and along ROW for transmission lines	Villagers already clearing forests around dam site to expand agricultural activities	<ul style="list-style-type: none"> • Develop guidelines and mitigation plans to minimise habitat loss due to construction activities and for restoration and rehabilitation of impacted areas. • NNP1C to monitor habitat infractions in watershed 	High	<ul style="list-style-type: none"> • The ESMMP-CP and the Site Specific ESMMPs contain detailed control measures to prevent unnecessary loss of habitats in the Construction Area. Areas to be opened must be clearly mapped, assessed and marked in the field. EMO continues to closely monitor compliance with these measures to ensure that there is no clearing of forest beyond the approved areas. • The Watershed Management Regulations now under preparation are expected to include provisions on protecting habitats from infraction. Monitoring of habitat infractions in the watershed as a whole is the responsibility of the relevant GOL departments (within the watershed management organization) and such monitoring will be part of the implementation of the watershed management plan. The Company is providing funding to support the

No.	Biodiversity Issue	Status	IAP comments and recommendations	Level of concern ⁵	NNP1PC Response
					implementation of the watershed management plan.
B8	Working with MONRE to manage watershed management activities	<ul style="list-style-type: none"> Current budget request from MONRE focuses on vehicles and salary supplements; need to refocus on actions Urgent that Watershed Management Plan is completed with 1st draft due July 2016. 	<ul style="list-style-type: none"> Little progress with WMP (Dec 2015) Provinces implementing early actions with NNP1PC funding. No further activities should be supported before approval of the WMP. 	Closed	
B9	Capacity of environmental units at MONRE to manage watershed management activities	<ul style="list-style-type: none"> MONRE has very limited capacity at all levels (especially at province and district levels). Training on village mapping and watershed boundary demarcation delivered. 	Developer's EMO to work with MONRE to seek capacity and mentoring opportunities Ongoing	Medium	<ul style="list-style-type: none"> Continues to work with DFRM to explore and utilize opportunities for capacity development of MONRE/MAF at district and provincial level. Capacity building will be an important component in the NNP1 Watershed Management Plan. The DFRM (an institution dealing with the watershed management) has been moved to MAF. NNP1PC started to engage the MAF's minister on NNP1 watershed management and biodiversity offset work.
B10	Watershed Management Plan should include Houay Soup forests and be integrated with ISP for XSB	Dec 2015 DoLA has agreed PAPs should have sole use of Houay Soup forests	<ul style="list-style-type: none"> Activities in protection forest in Houay Ngoua and Houay Soup to be implemented in accordance with WMP objectives. Forest activities at Houay Soup to be funded under Resettlement Plan Initiate community participatory planning for forest use and zoning with PAPs at resettlement site 	Very High	<ul style="list-style-type: none"> NNP1 WMP will exclude the forest protection in Houay Soup resettlement area. The EPF financed sub-project will deal separately on Houay Ngoua PPA management issue. In accordance with the Resettlement and Ethnic Development Plan for Houay Soup (Zone 3), participatory land use planning and zoning will be undertaken to identify

No.	Biodiversity Issue	Status	IAP comments and recommendations	Level of concern ⁵	NNP1PC Response
					community forest for local forest utilization.
B11	Collaboration with NNP2 on watershed management	<ul style="list-style-type: none"> • Developments at NNP2 impact on watershed, including water quality and aquatic biodiversity • Limited recent contact with NNP2 	Continue contact with NNP2 to facilitate collaboration and complementarity of watershed management	High	<ul style="list-style-type: none"> • It was noted by NNP1PC that NNP1 watershed boundary needs to be extended to include the sub-watersheds (Nam Thong and Nam Chien) because: <ul style="list-style-type: none"> - These areas belong to Xaysomboun Province and may influence NNP1 main reservoir - These areas are not covered by any other watershed management plan. • In January 2017, DFRM will chair a meeting with NNP1 and Nam Ngiep 2 Hydropower Project to agree on the watershed management boundaries • There was also discussion on 10 Jan 2017 lead by MONRE Department of Water Resource Management (DWRM) for the management of Nam Ngiep basin with the collaboration from all Project developers. <ul style="list-style-type: none"> - The meeting was attended by GOL officers from 3 provinces (Xieng Khuang, Xaysomboun and Bolikhamxay) and representatives from hydropower project developers (NNP1, NN2, and NNP3a) - Nam Ngiep River Basin Committee and River Basin Management Plan will be developed in the future. The plan will

No.	Biodiversity Issue	Status	IAP comments and recommendations	Level of concern ⁵	NNP1PC Response
					consider lesson learned from the NT2 Project
B12	Watershed Management Plan	<ul style="list-style-type: none"> Urgent that Watershed Management Planning team is mobilized immediately and managed as one integrated team. Draft WMP under prep 	<ul style="list-style-type: none"> NNP1PC should focus on WMP as a priority using EMO leadership until consultants on board. Draft IWMP including data from biodiversity, fisheries and reservoir management plan to be discussed with government Jan 2017 	Urgent	<ul style="list-style-type: none"> Activities toward finalizing the Watershed Management Plan planned for the first quarter 2017: <ul style="list-style-type: none"> Discussion with MAF/DFRM and NN2 on geographical extent of NNP1 watershed and scope of NNP1 WMP in late Jan 2017 Further refine the draft WMP including the biodiversity and fishery management plan Technical workshop on the draft WMP with WRPC-WRPO in early Feb 2017 Further refine the draft Final workshop and approval of NNP1 WMP in late Feb 2017
B13	Watershed Management Plan	<ul style="list-style-type: none"> Separate sub-plans being prepared by consultants International and national consultants not yet recruited. 	<ul style="list-style-type: none"> Recruit watershed management team leader for quality control and national consultant (liaison). Prepare one integrated watershed management plan. 	Completed Closed	
B14	Budgets for Watershed Management and Biodiversity Offset	<ul style="list-style-type: none"> Modest budgets allocated but decisions and allocations already being made before adequate plans in place Ongoing concern 	<ul style="list-style-type: none"> Funding to be allocated according to clear objectives and outcomes. Review opportunities for supplemental funding from NNP1C, ADB and other potential sources 	Very High	<ul style="list-style-type: none"> This will be reflected in the final WMP which is expected to be approved in the first quarter of 2017.

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B15	Biodiversity Offset Management Plan	BOMP plan delayed, due Nov 2017	BMOP prep and pre-activities should start asap	Very High	<p>Pre-BOMP</p> <ul style="list-style-type: none"> The proposed pre-BOMP has been finalized and agreed upon. BOMC is in progress to open a bank account under Ministry of Finance (MAF) and Project account under BOMC Bolikhamxay Province to facilitate the fund transfer. BOMC has initiated the procurement process through open bidding for purchasing the equipment based on GOL procurement guideline. The procurement committee will be established and the advertisement will be made in local newspaper once the fund is transferred to the GOL. BOMC will issue official request to NNP1 for fund disbursement later and expecting the actual pre-BOMP activities to kick off in Feb 2017. <p>BOMP Consultant:</p> <ul style="list-style-type: none"> NNP1 has initiated the procurement process in January 2017. The advertisement was made in 9 and 11 January at NNP1 website and Vientiane Times newspaper respectively. In parallel, NNP1 has also directly informed potential candidates about this opportunity.
B16	Conservation of remaining populations of rare and	Important species populations identified at	<ul style="list-style-type: none"> Identify opportunities for species conservation activities 	High Very	<ul style="list-style-type: none"> Please refer to B2 on EPF status of Xaysomboun Province

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	endangered species in watershed	Phou Samsao and Phou Katta and surroundings	<ul style="list-style-type: none"> in XSB from the Environment Protection Fund (EPF) Incomplete 		
B17	Survey at 2 nd back-up site for potential offset	<ul style="list-style-type: none"> Proposed sites Khoun Xe Nong Ma, Xe Sap have high biodiversity potential but outside project provinces Brief survey by BAC and NNP1C to KXNM 	Given apparent conservation value of Nam Chouane-Nam Xang and strong provincial support concentrate solely on Nam Chouane-Nam Xang as offset site unless evidence arises of conflicting development plans.	Closed	
B18	Biomass clearance –	Site plans under preparation and clearance progressing well.	<ul style="list-style-type: none"> Review detailed site plans to ensure no new access into watershed forests. Ongoing. Need to speed up clearance prior to inundation deadline 		<ul style="list-style-type: none"> NNP1 demands Biomass Contractor to achieve the target in January 2017. The Biomass Clearance Contractor has substantially increased the capacity. EMO is closely monitoring the progress to ensure that the clearance stays on target. NNP1 will enter contract amendment process and hire more Contractors to boost up with the progress if the Contractor cannot meet the target by 25 January 2017.
B19	Supplementary survey at Nam Chouane-Nam Xang	ADB has requested a supplementary survey with international expertise	<ul style="list-style-type: none"> Supplementary survey should be conducted in June/July 2016 so that results can be incorporated into Biodiversity Offset Option paper at end of July Survey completed – Timmins report 	Completed Closed	
B20	Collect further data for Nam Chouane-Nam Xang including satellite imagery, any information re	Initial results from Biodiversity field surveys indicate Nam Chouane-Nam Xang very promising as offset site; now need to	<ul style="list-style-type: none"> Collect good baseline data on forest types, extent of shifting agriculture and opportunities to include more ever wet 	Very High	<ul style="list-style-type: none"> The current TOR for BOMP development also includes optional gap-filling surveys on biodiversity Nam Chouane – Nam Xang offset site.

No.	Biodiversity Issue	Status	IAP comments and recommendations	Level of concern ⁵	NNP1PC Response
	conflicting development plans.	begin collating additional information on habitat coverage etc.	<p>forest within boundaries of proposed site.</p> <ul style="list-style-type: none"> This information will feed into the offset management plan (BOMP) and monitoring plans. 		
B21	Biodiversity Offset Option paper and final decision on site	<ul style="list-style-type: none"> Biodiversity Offset site has been under discussion for 3 years. Option paper due end July needs to confirm site to meet ADB deadlines. Offsets paper delayed 	<ul style="list-style-type: none"> Based on current evidence (forest cover, biodiversity and conservation values, political support) IAP recommends Nam Chouane-Nam Xang as offset site unless there are conflicting development plans for the area. Nam Chouane-Nam Xang area designated as primary offset site 	Very High	<ul style="list-style-type: none"> NNP1 BAC provided the review on Table of Content of Biodiversity Offset Option Paper (BOOP) in the middle of Jan 2017. ADB is responsible for preparing the Options Paper.
B22	NNP1C and PONRE to discuss protection status and institutional mechanisms for Nam Chouane-Nam Xang	<ul style="list-style-type: none"> Biodiversity Offset site currently has no legal status in Laos. Need to clarify how area will be protected and managed. 	<ul style="list-style-type: none"> Recommend outlining the steps for area to achieve NPA status. Institutional arrangements should be outlined in BOMP. 	High	<ul style="list-style-type: none"> The Nam Chouane-Nam Xang Offset Site is part of a larger area which is designated as National Protection Forest under the Forestry Law. In legal terms this offers rather similar level of protection as National Protected Area status. NNP1 will further discuss this topic with BOMC and the Province in reference to MAF (Forestry Law article 44) and in article 19 of the decree Protection Forest No. 333/NA. However, it should be noted that this will be a long-term target. The current TOR for BOMP development also includes institutional arrangements under the section of offset management implementation plans

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B23	Additional biodiversity surveys in watershed	Additional surveys commissioned in Dec 2015 but not yet underway Dec 2016 still not undertaken	<ul style="list-style-type: none"> Ideally complete additional surveys to feed data into IWMP. At a minimum integrate results of initial surveys in IWMP to sensor protection of key species through land use plans, forest protection and species action plans. Fisheries management plan also needs to be integrated in IWMP 	High	<ul style="list-style-type: none"> The development of biodiversity management plan for NNP1 WMP mainly referred to the recommendations of biodiversity baseline survey that emphasizes the important of priority biodiversity area identified within NNP1 watershed area. The concept was further discussed during December mission and noted for NNP1 WMP to focus on the protection of key species within NNP1 watershed area in order to meet the no net loss target. The revised draft will elaborate this aspect as well as to integrated the fishery management plan.
B24	Recruit 3 rd expert to Biodiversity Advisory Committee	BAC should have a minimum of 3 biodiversity experts to provide advice to NNP1C	Recruit 3 rd expert by end of June	Closed	
B25	Data on aquatic fauna in Nam Chouane-Nam Xang watershed	Lacking information of aquatic fauna and fish data	Initiate fish survey in NC-NX site	High	<ul style="list-style-type: none"> The fish survey will be part of biodiversity offset baseline survey that will be led by BOMP Consultant.
B26	Community use of NC-NX area	Community mapping of swidden and forest use	Initiate community mapping as part of BOMP preparation	High	<ul style="list-style-type: none"> Community mapping activity was included in the pre-BOMP proposal and expected to see the field implementation starting in February 2017.
B27	Integrating biodiversity protection and management in WMP	Key areas for populations of threatened fish and rare species e.g. gibbons, Owston civet, Lao newt in sub-catchment	Include activities to protect biodiversity activities in WMP	High	Please see response on B23

List of Acronyms

ADB	Asian Development Bank
AIP	Annual Implementation Plan
BAC	Biodiversity Offset Advisory Committee
BKX	Bolikhamxay Province
BRP	Biomass Removal Plan
CA	Concession Agreement
DEQP	Department of Environmental Quality Promotion
DFO	District Forestry Office
DFRM	Department of Forest Resources Management
DOLA	Department of Land Administration
DONRE	District Office of Natural Resources and Environment
EGATI	Electric Generating Authority of Thailand International Company
ESMMP-CP	Environmental and Social Management and Monitoring Plan Construction Phase
EMO	Environmental Management Office
EMU	Environmental Management Unit
ESD	Environment and Social Division
ESIA	Environmental and social impacts assessment
GOL	Government of Lao PDR
IAP	Independent Advisory Panel
IEE	Initial Environmental Examination
IMA	Independent Monitoring Agency
ISP	Integrated spatial planning
LTA	Lenders' Technical Advisor
MEM	Ministry of Energy and Mines
MONRE	Ministry of Natural Resources and Environment
NNP1	Nam Ngiep 1 Hydropower Project
NTFPs	Non-Timber Forest Products
PAP	Project Affected Person
PFA	National Protection Forest
PONRE	Provincial Department Of Natural Resources and Environment
REDP	Resettlement and Ethnic Minority Development Plan
RMU	Resettlement Management Unit
SMO	Social Management Office
SSSMMP	Site Specific Environmental and Social Management and Monitoring Plan
TD	Technical Division
WMP	Watershed Management Plan
WWTP	Waste Water Treatment Plant
WRPC	Watershed and Reservoir Protection Committee

