COMPLIANCE REPORT ASSESSING APPLICATION OF ARTICLE 11 b (6) OF EMISSIONS TRADING DIRECTIVE TO HYDROELECTRIC PROJECT ACTIVITIES EXCEEDING 20 MW

Vietnam Carbon Assets Ltd.

Nam Pong Hydropower Project

Report No. 11017116

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Approved by: TANG Dingding	Organizational unit: China Environmental United Certification Center Co.,Ltd.
Client: Vietnam Carbon Assets Ltd.	

Summary:

Vietnam Carbon Assets Ltd. has commissioned China Environmental United Certification Center Co.,Ltd.(CEC) to assess the compliance with the criteria of the World Commission on Dams of the project: “Nam Pong Hydropower Project”.

This compliance assessment has been performed by document reviews, on-site visit and interviews with the project owner, local authorities and affected stakeholders. The on-site visit was conducted on 21/06/2011~ 23/06/2011. And Furthermore publicly available information was considered as far as available and required.

During the course of assessment, 1 CAR (Corrective Action Requests), no CLs (Clarification Requests) were raised. 1 FAR (Forward Action Requests) was raised.

The guidelines of the World Commission on Dams (WCD) are comprehensive and have to be seen in some cases more as goals than concrete requirements. Taking this into account, we can confirm as result of our compliance assessment that the Nam Pong Hydropower Station is in compliance with the main principles of the seven priorities.

The villagers affected by the project have been compensated according to the Chinese legal requirements; The compensation standard for land occupation is in compliance with the authorized documents issued by Authority.

The negative impact on the environment (local climate, aquatic biodiversity and terrestrial species is negligible. The measures implemented by the project owner to protect the ecosystem are in compliance with relevant regulations issued by authority. The ecological flow will be monitored by the local government.

Report No.:	Date of this Revision:	Rev. No.	Number of Pages
11017116	30/08/2011	02	54
Report Title:			
Nam Pong Hydropower Project			
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Content

1 INTRODUCTION

China Environmental United Certification Center Co., Ltd. (CEC) has been commissioned to assess the compliance with the criteria of the World Commission on Dams of the project: Nam Pong Hydropower Project.

1.1 Objective

The objective is to assess by an independent entity whether the proposed project is in compliance with the criteria of the World Commissions on Dams. The assessment is based on seven strategic priorities and corresponding policy principles for water and energy resources developed by the WCD.

1.2 Scope

The assessment scope is defined as an independent and objective review of the present status of the project. Based on the WCD report, CEC carried out the assessment according to the assessing sheet formulated by European Union

1.3 Project Description

Nam Pong Hydropower Project (Hereafter referred to as 'the project') is located on Nam Pong stream in Chau Hanh and Chau Phong communes, Quy Chau district, Nghe An province, Viet Nam. It is constructed and operated by Za Hung Joint Stock Company. The total installed capacity of the project is 30MW and the surface area of the reservoir at full water level is 32ha, thus the power density is 93.8W/m^2. The project activity is expected to operate 4,110 hours per year, which corresponds to an average annual generation of 123,290 MWh and the net electricity supplied to the grid of 122,057MWh. The main objective of the project is to generate power and contribute to the sustainability of power generation of the National Grid.

The proposed project is newly built hydropower station with a new reservoir. The main construction structures include: a dam, diversion tunnel, power plant and booster station

The proposed project is under construction at the time of on-site assessment. The assessment team could check directly the powerhouse and the site where the dam will be.

The key parameters for the proposed project activity are given in the following table.

Table 1-1: Technical parameters of the turbine / generator units

The Specific Technical Parameters		Value
Turbine	Units	2
	Type	Francis-Vertical
	Rated Capacity	15.56MW
	Turbine Discharge	10.75m^3/s
	Speed	750rpm
Generator	Units	2
	Type	Synchro – 3 phases- vertical
	Capacity	45MW
	Rated Voltage	10.5kV
	Rated capacity	15.0MW

2 ASSESSMENT FINDINGS

The WCD Compliance assessment is focused on seven Strategic Priorities including the principles. In the following sections each of seven Strategic Priorities is verified individually.

2.1 Gaining Public Acceptance

2.1.1 Findings

The affected stakeholders were identified during the Basic Design Report and EIA phase undertaken by the qualified third-party entity. The stakeholders were defined as Chau Hanh and Chau Phong communes and relevant local authorities, ordinary crew, affected local residents.

Most of the identified stakeholder is minority groups namely Thai (70%), H'mong, Kho Mu (30%). Their concerned points and suggestions were land occupation compensation and environment protection measures. Relevant compensation has been put in place.

The identified stakeholders were well involved in the decision-making process at the Basic Design Stage and EIA, several meeting were held to the affected stakeholders to seek opinions and concern on the projects. The feedbacks were adopted in the Basic Design Report and approved by the government. All residents agreed with the construction of hydropower station and they seemed to be satisfied. Furthermore, in line with CDM requirement, a CDM stakeholder consultation process was also held to collect feedbacks regarding the implementation of the project.

Because the construction of the proposed project builds new roads, and improves the landscape of this area, the investigated people thought it would improve their livelihoods. As the core requirement of "no social or cultural disadvantages" has been achieved, the essence of the WCD guidelines is still fulfilled.

2.1.2 Issued CLs/FARs

NO CARs/CLs/FARs was issued.

2.1.3 Conclusion

The validation team considered the result as compliance with the WCD priority “Gaining Public Acceptance”.

2.2 Comprehensive Option Assessment

2.2.1 Findings

Hydropower is the most important segment of renewable energies in Vietnam, and Vietnamese national energy strategy promotes hydropower production.

The development needs and objective of the project were defined in the project design documents (TDR/EIA). These documents were approved by the government before the start of the project. According to the TDR undertaken by qualified entities, comprehensive options have been considered and assessed. When assessing the alternatives, both social-environmental aspects and technical-economic aspects were considered. The Nam Pong hydropower project was listed in the Provincial Master Plan for power development which is published by the Vietnamese government.

2.2.2 Issued CARs/CLs/FARs

No CLs/FARs was raised.

CAR 01 The description of alternatives to the project considered should be specified in the WCD checklist.

2.2.3 Conclusion

The validation team considered the result as in compliance with the WCD priority “Comprehensive Option Assessment”

2.3 Addressing Existing Dams

2.3.1 Findings

According to information obtained through document review including the Provincial Master Plan for power development which was published by the Vietnamese government. And on-site visit, there is no existing hydropower station in the Nam Pong river basin. So there are no existing outstanding social and environmental issues with the existing dams.

The proposed project has been planned and developed in compliance with the Provincial Master Plan for power development. It is a newly hydropower station with a new reservoir.

The height of the dam is 27.10m and a crest length of 267.10m. The surface area at the full water level is 32ha. The project owner will establish relevant internal management systems and flood prevent measure according to the relevant national laws. The Environmental Protection Bureau will be responsible for the enforcement of monitoring and protection measures. Regular and spot checks will be conducted throughout the construction and operation period of the project to ensure safety and environmental compliance at all level.

2.3.2 Issued CARs/CLs/FARs

No CARs/CLs/FARs was raised.

2.3.3 Conclusion

The validation team considered the result as compliance with the WCD priority "Addressing Existing Dams"

2.4 Sustaining Rivers and Livelihood

2.4.1 Findings

An Environmental Impact Assessment (EIA) was conducted in which the environmental impacts of the project were assessed and relevant requirements were stipulated by qualified third party in 11, 2007. The EIA was approved by the Hubei Environmental Protection Bureau on December 13, 2007.

As described in the EIA the negative impact on local climate, aquatic biodiversity and terrestrial species is negligible. There isn't any rare or migratory species in the project area.

To maintain ecosystem, an ecological flow must be determined according to the need of ecosystem maintenance of this river downstream in different season in accordance with relevant regulations. The ecological flow will be monitored by local authority.

The measures implemented by the project owner to protect ecosystem function are in compliance with relevant regulations issued by authority. The project is under regular environmental monitoring and surveillance by local authorities throughout the construction and operation period.

2.4.2 Issued CARs/CLs/FARs

No CARs/CLs/FARs was raised.

2.4.3 Conclusions

The validation team considered the result as in compliance with the WCD priority "Sustaining Rivers and Livelihood"

2.5 Recognizing Entitlements and Sharing Benefits

2.5.1 Findings

The affected stakeholders have been identified to include all people in the reservoir, upstream, downstream and in the catchment areas whose proprieties, livelihoods and non-material resources have been affected.

Compensation for affected inhabitants was carefully investigated. The compensation standard is developed in accordance with national legal requirements and the affected residents were directly involved in the negotiation of compensation package and the compensation processes has been carried out in line with national legislation.

Apart from the financial compensation, other benefits as a result of the project included building of new transportation infrastructure and supplies jobs for the local people.

During onsite visit and interview with the affected residents, the validation team could check and confirm that the livelihoods and quality of life of the household were improved as a result of the project. All the interviewed affected residents have stated that the overall benefits have compensated for their losses.

The documents and evidences provided by the project owner were verified by the validation team during the on-site validation and assessed as reliable.

2.5.2 Issued CARs/CLs/FARs

No CARs/CLs/FARs was issued.

2.5.3 Conclusion

The validation team considered the result as compliance with the WCD priority "Recognizing Entitlements and Sharing Benefits"

2.6 Ensuring Compliance

2.6.1 Findings

The local government will ensure that relevant laws, regulations and agreements (including resettlement and compensation agreements) and recommendations are followed. This has been confirmed by means of interview with local government officials.

The Environmental Protection Bureau will be responsible for the verification and the monitoring of the implementation of environmental protection measures during construction and operational period. The authority institute will be responsible for the monitoring of dam safety and maintenance. The Nghe An province people's government will be responsible for the implementation of compensation agreements. Relevant compensations have been implemented.

2.6.2 Issued CARs/CLs/FARs

No CARs/CLs was issued.

FAR01 All measures not yet implemented at the time of validation should be checked when the project is carried out verification.

2.6.3 Conclusion

The validation team considered the result as compliance with the WCD priority "Ensuring Compliance"

2.7 Sharing Rivers of Peace, Development and Security

2.7.1 Findings

The principle is not applicable as the proposed project locates in the inner land of Vietnam and there is no trans-boundary effect due to the project.

2.7.2 Issued CARs/CLs/FARs

No CARs/CLs/FARs was issued.

2.7.3 Conclusion

The validation team considered the result as compliance with the WCD priority “Sharing Rivers of peace, development and security”.

2.8 Conclusion

The guidelines of the World Commission on Dams (WCD) are comprehensive and have to be seen in some cases more as goals than concrete requirements, and not all of these requirements can be strictly adhered to. Taking this into account, we can confirm as result of our compliance assessment that the Nam Pong Hydropower project is in compliance with the main principles of the seven priorities.

The villagers affected by the project have been compensated according to Vietnamese legal requirements; the compensation standard for land occupation is in compliance with the authorized documents issued by Authority.

The negative impact on the environment (local climate, aquatic biodiversity and terrestrial species) is negligible. The measures implemented by the project owner to protect the ecosystem are in compliance with relevant regulations issued by authority. The ecological flow will be monitored by the local government.

ANNEX 1: Information Reference List

Table 1: Documents provided by the project proponent and relevant laws and regulations

No	Documents
1	Business license of the project owner
2	Investment License
3	Technical Design Report_Volume 2.1
4	Technical Design Report_Volume 2.2
5	Total Investment Cost
6	EIA report of the project
7	Decision of Nghe An PPC on approving EIA report
8	Minutes of meeting to consult public opinions
9	Decision of General Director on Approving of budget for ground clearance compensation and support for the construction of Nam Pong HPP
10	Documents on Land Clearance at Chau Hanh and ChauPhong Communes
11	Decision of QuyChau PPC on Approvingl of plan for ground clearance compensation and support for construction of Nam Pong HPP
12	Payment Record
13	Notice to stakeholders about the project
14	Response Official letter of Chau Hanh and ChauPhong communes on Stakeholder consultation
15	ODA Declaration
16	Data supplied by EVN
17	Ordinance No.34/2007/PL-UBTVQH11 on exercise of democracy in communes, wards and townships
18	The Law on Environmental Protection (2005)
19	Decree 80/2006/ND-CP: On Guidance for the Implementation of the Law on Environmental Protection2005
20	No.14-2009-TT-BTNMT on Derailing the compensation, support and resettlement and order of and procedures for land recovery, allocation and lease
21	Chapter VI_Master plan for electricity expansion_vn
22	Decision 143/2004/ND-CP. In regard to The Amendment of The Decree No. 175/CP relating to Implementation of the Environmental Protection Law
23	Decision no. 1855/QD-TTg dated 27/12/2007 to ratify "National Energy Development Strategy until 2020, oriented to 2050"
24	Decision 110/2007/QD-TTg Electricity Development Scheme up to 2015 with perspective up to 2025
25	Decree No. 72/2007/ND-CP ensuring dam safety to be the highest priority in construction, management, exploitation and protection of reservoirs. Dam safety management is to be done regularly, continously in the process ofreservoir construction and exploitation
26	Circular No. 33/2008/TT-BNN of February 4, 2008, guiding the implementation of a number of articles of the Government's Decree No. 72/2007/ND-CP of May 7, 2007, on management of dam safety
27	Viet Nam Construction Standard TCXDVN 285-2002
28	Ordinance No: 32/2001/PL-UBTVQH10 dated 04 April 2001 on the exploitation and

	protection of irrigation works
29	**Decree No. 197/2004/ND-CP by the Government, dated on December 03, 2004 on compensation, support and resettlement when land is reclaimed by the Government;**
30	**Circular No. 116/2004/TT-BTC by Ministry of Finance, dated on November 26, 2004 on instructions for implementation of Decree No. 197/2004/ND-CP by the Government, on compensation, support and resettlement when land is reclaimed by the Government;**
31	**Decree No. 181/2004/ND-CP by the Government, dated on October 29, 2004 on implementation of Law of land 2003.**
32	**Decree No. 188/2004/ND-CP by the Government, dated on November 16, 2004 on method for defining price of land and price schedule for types of land.**
33	**Decree No.112/2008/ND-CP on management, protection and integrated exploitation of resources and environment of hydropower and irrigation reservoirs**
34	**Investment license for ZaHung hydropower project**
35	**Circular No. 05.2008.TT-BTNMT Assessment guide on EIA Circular**
36	**Decision 285/2006/QD-TTg on the contents, authority to promulgate and organize the implementation of hydropower reservoir operation procedures**
37	**Law on Water Resources No 08.1998.QH10 dated 2-05-1998**
38	**International Energy Data and Analysis for Vietnam**
39	**General news of Power shortege in Viet Nam**
40	**Decision No.04.2010.QD-UBND of Nghe An PPC on issuance of regulations on compensation, resettlement aid on revocation of land by the State in Nghe An**
41	**Decision No.141/2009/QD-UBND of Nghe An PPC on issuance of regulations on price of land types in QuyChau district**
42	**Decision No.102/QD-UBND on issuance of unit price for compensation on plant, farm produce and moving graves in Nghe An province**
43	**Decision No.120/QD-UBNDon issuance of unit price for housing and architectural objects serving compensation, support and resettlement aid on revocation**
44	**EIA report- supplement**

Table 2: List of interviewed persons

Name	Organization / Function
Vu Van Quang	Energy and Environment Consultancy Joint Stock Company/ Project Manager
Do Thi Thanh Mo	Energy and Environment Consultancy Joint Stock Company/ Project Developer
Ha Quang Thang	Za Hung Joint Stock Company/ Deputy manager of business department
Bui Xuan Hung	Department of Industry and Trade/ Chief of power management department
Vi Van Hanh	Deputy chairman of the Chau Hanh Commune/ Affected person
Nguyen Dinh Phan	Head of the Hua Na hamlet/ Affected person
Vi Thi Xuan	Affected person

ANNEX 2

WCD Compliance Report

COMPLIANCE REPORT ASSESSING APPLICATION OF ARTICLE 11 b (6) OF EMISSIONS TRADING DIRECTIVE TO HYDROELECTRIC PROJECT ACTIVITIES EXCEEDING 20 MW

(Final Version of 17 November 2008)

Section 1: Description of the project (references: FSR and EIA Report of the project)

1: Summary description of the CDM project activity	**Please complete**
Name of the project	Nam Pong Hydropower project
Project ID Number	https://cdm.unfccc.int/Projects/Validation/DB/3VHK8VLSJ9JXISHJ615255JZ5SJ3NE/view.html
Location	Nam Pong River in Chau Phong and Chau Hanh communes, Quy Chau district, Nghe An province
Name of the watercourse	Nam Pong stream
Date of completion of the Compliance Report	30/08/2011
1.1. Project area	
1. Description of the watershed: - Political and administrative boundaries	Nam Pong stream is the first branch of Hieu River, beginning from mountainous region at 1400 m – 1500 m high, flowing southwest – northeast and meeting Hieu river at $19^0$33'30" N, $105^0$03'20''E belong to Quy Chau town. Political and administrative boundaries: The project is located in Chau Phong and Chau Hanh communes, Quy Chau district, Nghe An province in Vietnam -General Description Volume 2.1, page 1-1

- Communities located along	Nam Pong hydropower project located on Chau Hanh and Chau Phong communes, Quy Chau district. Quy Chau is a hinghland district, includes 11 comunes, 1 town with 131 hamlets. Population of Chau Hanh and Chau Phong communes was calculated to June 2007 include 3,073 household with 14,773 persons. In there, - Chau Phong commune has 1,236 households with 6,034 persons - Chau Hanh commune has 1,837 households with 8,739 persons Local residents living in the project area are the ethnic Thai (70%), H'Mong, Kho Mu and Kinh (30%). Career structure of Chau Hanh and Chau Phong communes as follow: - Chau Hanh: 79% agriculture; the rest are office-holder, small trader and other career. - Chau Phong: 95% agriculture; the rest are office-holder, small trader and other career. Special there are 98.03% household whom produce settled agriculture at Chau Phong commune. ——EIA, page 30
- Principal land use patterns	Most of land in the project site is poor-forest land (135 ha); smaller part is water surface land (35 ha) and coppice (5 ha). Before the project was constructed, the forest lands of local people in Project area were not produced because of difficult road condition. The new road was constructed by the project help increasing people's production. _EIA, page 41
- Existing and planned river flow modifications	The proposed project is the first hydro power plant with a new built dam and reservoir. Apart of water flow will be run into the reservoir, the remaining flows through the spillway and sand - outlet. The water in reservoir will be regulated daily.
- Average annual runoff (m^3)	383.16million _ General Description Volume 2.1, page 1-4
2. Average annual river flow (m3/s)	12.15 _ General Description Volume 2.1, page 1-4
3. Average annual river runoff before and after project's implementation (m3)	Reservoir of the proposed project will be regulated on the basis of daily regime; therefore, the average annual river runoff will be kept unchanged.

4. State briefly what impacts other hydrological projects have had on the river basin within 50 km (untouched, affected, significantly affected by other activities).	There isn't any hydropower project on the river basin within 50 km.
5.Ecological description of the surroundings (forest, cultivated land, wasteland, cultural heritage sites etc.) conservation value	Most of land in the project siteis poor forest land (135 ha); smaller part is water surface land (35 ha) and coppice (5ha). Forest land occupied by the project includes 70% natural forest and 30% reforestation forest. The natural forest is classified in group 1C (poor forest group)while there aremainly Acacia mangium, Acacia auricutiformis, Eucalyptus sp, ect in the reforestation area. Animals which usually have seen here are small animals, include weasel, squirrel, snake, gecko, etc. No natural or historical conservation sites and archaeological places exist in the commune and surrounding areas. _EIA, page 29
1.2. Project-related activities	
1. Type of water infrastructure (i.e. storage reservoir, run-of-river, other)	Run-of-river
2. Related infrastructure being built as part of the project (i.e.roads, transmission lines, bridges)	The project will upgrade existing roads and construct a new 110 kV transmission line together with a hydropower plant.
3. Installed generation capacity (MW)	30 _ General Description Volume 2.1, page 8-14
4. Load factor	46.91% _ General Description Volume 2.1, page 8-14
5. Average annual energy production (MWh)	123,290
6. What role does the project play in the national/regional electricity supply (base load, peak load, load balancing services for the grid, support for intermittent enewables, etc.)?	The project will supply electricity for load balancing services for the grid and support for intermittent of renewable energy.
7. Estimated annual emission reduction potential (tCO2e)	70,353

8. At what stage is the project's construction at the time of this application?	Under construction
9. What other direct purposes does the project serve (irrigation, flood control, water storage for drought protection, water-based transport, leisure facilities, aqua- culture, industrial and municipal water supply, etc)?	By supplying a stable electricity output, this project will facilitate the industrialization process of the province and support for economic development of local villages through fostering tourism, trade and services inside the province.
1.3. Project components **Water-flow: structures and changes**	
1. Production capacity/submerged area (W/m^2)	93.8
2. Retention structure/retarding structure (if present)	There are a Dam and Reservoir
3. Type of water diversion	Diversion channel
4. Length of diversion	4465.30 m (Length of gross diversion, including steel-bed) _ General Description Volume 2.1, page 1-5
5. Type of water inlet	Column/tower ——TDR_Volume 2.1, page 1-5
6. Reservoir (if present)	- Basin area (F_{lv}): 354 km^2 - Annual average flow (Q_o): 12.15 m^3/s - Total annual flow (W_0): 383.16*10^6 m^3 - Normal elevation water level: 258 m - Dead water level: 256m - Total volume (W_{tb}): 1,670,000 m^3 - Dead volume(Wc): 1,100,000 m^3 - Active volume (W_{hi}): 570,000 m^3 ——TDR, volume 2.1, page 1-4
7. Dam height (from the foundation)	27.10 m (Max dam height) _ General Description Volume 2.1, page 1-4

8. Crest length	267.10 m _ General Description Volume 2.1, page 1-4
9. Reservoir area at average water level	32 ha _ General Description Volume 2.1, page 8-14
10. Total reservoir capacity (m3)	1.67 million _ General Description Volume 2.1, page 1-4
11. Backwater length	N/A
12. Submerged area in total	32ha _EIA, page 41
13. Submerged residential area	0 ha
14. Submerged farmland/grassland	0 ha _EIA, page 41
15. Number of displaced inhabitants	0 _EIA, page 41

Section 2: Assessment of compliance with the WCD criteria

Please complete this form with full explanations for all items. If a criterion is not relevant to the project, please explain why.

CRITERIA			
1. Gaining Public Acceptance	**Description**	**Sources**	**Validator's Assessment**
1.1. Stakeholder consultation			
1. Describe how the relevant stakeholders were identified.	The project owner hired a consulting company to conduct the Environmental Impact Assessment report. During the implementation, the stakeholders were identified and categorized according to the exisiting Vietnamese law and regulations. The groups of stakeholders included as follows: - People who are directly affected by the project due to the occupation of cultivated lands. - District and commune level: people living in Chau Hanh and Chau Phong communes and relevant local authorities - Provincial level: representative of relevant provincial authorities.	/8/44/13/14	The process to identify the relevant stakeholders is well established in Vietnam, and controlled by the environmental agency. The relevant stakeholders were identified in the EIA as described and referenced. This is in consistent with the relevant references and the information obtained during on site review and the description in section 1.
2. Are any of these people minority groups, especially indigenous people and if so, what special efforts were taken to identify and meet their needs?	Most people living in the project site are minority groups namelyThai (70%), H'mong, Kho Mu (30%). The construction of the project does not impact to faiths or customs of minority groups above. The main negative impact is related to the occupation of the land. The occupied land was compensated adequately in comply with government law and regulations. The project participant has been constantly consulting the residents in the project area since the starting of the project idea and during the project's preparation and construction. In all the communications/meetings, the local authorities always presented and observed. The local residents always have unlimited right to present their concerns/requests to the project participants directly with the observation of the authorities or they could choose to reflect their opinions via the local authorities then the authorities will have the responsibilities to request the project participant to address the issues. All the meetings/major communications have the minutes to summarize the problems/issues and also the feedbacks/commitments by the project participant. So far,	/6/7/8/	Confirmed during on site visit and EIA that the need of minority groups was compensation on the occupied land. According to the relevant national laws and regulations, the occupied land was compensated adequately.

	the inhabitants always show their strong support for the project implementation due to the potential socio-economic and environmental values that the project will bring to the region and residents.		
3. How many people have to be resettled due to the project?	There were no people had to be resettled due the project.	/6/7/	Confirmed during on-site visit that there were no people who had to be resettled due to the project.
4. Resettled people/annual energy production (number/GWh).	0/123.29GWh	/3/6/	OK
5. How many households were otherwise affected by the project (e.g. through loss of land, reduced productivity of fishing or hunting, etc.)?	There are 129 households were affected through loss of land.	/9/11/	Confirmed through Decision of Quy Chau PPC on Approving of plan for ground clearance compensation and support for construction of Nam Pong HPP, Payment Record and during on-site visit that 129 households were affected through loss of land.
6. Describe how the affected local people and other relevant stakeholders have been informed and involved in the decision-making process of building the power plant.	- The project idea has been informed to the local people in a very early state of preparation of the feasibility study in order to collect feedbacks/comments on the proposed project activity. To prepare the land inventory and survey for the land occupied by the project, the project owner and the consultant who prepare the BDR have visited each impacted household to inform about the project idea and conduct the survey. - Subsequently meetings and discussions between the project owner, local people and authorities were held to address concerns raised by local people. - The construction can only be started if the affected peoples how their consensus to the construction of the project and agree to the compensation plant; otherwise the project would not assigned the land to conduct the construction.	/8/9/10/11/12/13/14/44/	The affected local people and relevant stakeholders have been informed and involved in the stage of project design; this was confirmed through the desk review of relevant evidences in this section and during on-site visit. In accordance with the Law on Environmental Protect (ref. 18), the stakeholders consultation were organized by local authority, and carried out on 10/09/2007 and 11/09/2007.
7. Describe how the affected local people and relevant stakeholders have been informed about the impacts of the project on their	The impacts of the project on quality of life of the local people have been informed via different meetings with local people and local authorities. The information disseminated via the direct meetings with each impacted household as described above, then later via the meetings organized by as well as public speaker operated by the communal authorities. At the initial stage of the project preparation, information about the	/13/14/44	The affected local people was informed the impacts of the project through the via different meetings with local people and local authorities and direct meetings with each impacted household. This was confirmed by desk review of Notice to stakeholders about the project and Response Official Letter of Chau Hanh and Chau

quality of life.	project idea, project's purposes and land occupations has been informed to the local authorities via the meetings between the local authorities and project owners. The local authorities then informed the potential project and its impacts to local residents via meetings. After that a summary of the project, its impacts and development are informed to the local people either by the project owner or by local authorities via meetings and negotiations. And a summary of approved environmental impact assessment report was publically post at the project site and the Commune's Hall as regulated by Decree No.21/2008/ND-CP dated 28 February 2008 of the Government amending and supplementing a number of articles of Decree No. 80/2006/ND-CP dated 09 August 2006 providing details and guidance for the implementation of the Environmental Law of Viet Nam 2005.		Phong communes on Stakeholder consultation and during on-site visit. The PO must comply with the law. The Organizations on behalf of local people to express an option on the project. If the local people had not agreed to build the project, the PO could not construct the project.
8. How have the affected local and indigenous communities participated in the decision-making process?	The affected local and indigenous communities participated in the decision-making process. They gave their comments in the meetings before the starting date of project activity and also in the construction period of this project. If any negative reasonable comment is arisen, then the project will be postponed or even stopped the construction until the issue is addressed properly under the supervision of the local authorities. The local impacted people have been consulted by the project owner via participating in and verifying the survey on the damages and compensation. According to Vietnam law on democracy, the local authorities are responsible for informing the projects such as the implementation of this project to the local people. The project owner is not allowed to contact the local people directly but via the local authorities. Therefore, the local authorities are in charge of collecting opinions from the local residents, communities on the implementation of the project and reflect to the project owner officially. So far, the project owner received is no rejection on the implementation of this project from the local authorities. This support has been confirmed by the local authorities during the visit/interview of the DOE	/8/14/17	The affected local stakeholder participated in the decision-making process through expressed their own opinions in the meeting occurred on 10/09/2007 and 11/09/2007. Through reviewed document no. 17 with the contents were highlighted. It shows contents to be publicized, forms of publicity, responsibilities to organize the materialization of publicized contents, modes of giving comments by people, contents to be supervised by people, modes of performing the people's supervision.
9. How will the economic and social impacts of the project on the affected local communities, indigenous people and/or other relevant stakeholders be	According to Decree No. 80/2006/NĐ-CP dated 09 August 2006 of the Government providing details and guidance for the implementation of the Environmental Law of Vietnam 2005 and Decree No.21/2008/ND-CP dated 28 February 2008 of the Government amending and supplementing a number of articles of Decree No.80/2006/ND-CP dated 09 August 2006, an EIA should include the assessment on the social and economic impacts on the affected local communities and	/8/13/14/6/7/44	At the initial stage of the project preparation, information about the project idea, project's purposes and land occupations has been informed to the local authorities via the meetings between the local authorities and project owners. The local authorities then informed the potential project and its impacts to local residents via meetings. After that a summary of the project, its

addressed?	residents. Therefore, the assessment on the social and economic impacts has been conducted by a third party and incorporated in the EIA report. Such assessment results are informed to the local people as part of an EIA report. The stakeholders recognized the following benefits from the implementation of the project: - Improving the transportation network in the region that will create favorable conditions for living and production activities of local people; facilitate the transportation of good sand the communication among areas in the region. - Creating new jobs for local people, especially the ethnic minority people. During the construction phases of the project, local people are employed to work temporarily or permanently for the project. - Improving the living standard of local people, narrowing the cultural and economic gap among ethnic groups and areas in the region. - Contributing to the local budget through taxes. - The project activity will generate renewable power with negligible Greenhouse Gas (GHG) emissions, which will displace part of the electricity otherwise supplied by fossil fuel fired power plants. Thus, the project contributes to environmental protection, solving the global climate change.		impacts and development are informed to the local people either by the project owner or by local authorities via meetings and negotiations. And a summary of approved environmental impact assessment report was publically post at the project site and the Commune's Hall as regulated by Decree No.21/2008/ND-CP dated 28 February 2008 of the Government amending and supplementing a number of articles of Decree No. 80/2006/ND-CP dated 09 August 2006 providing details and guidance for the implementation of the Environmental Law of Viet Nam 2005. The EIA report has been approved by authority. This was confirmed through desk review of documents mentioned above and during on-site visit.
10. How do compensation and benefit agreements correspond with the identified needs and rights of the stakeholders negatively affected upstream and downstream due to the project?	The negotiations on compensations are held directly between the project owner and local people living in the upstream and downstream who are potentially negatively affected due to the project. The negotiations on compensations must be based on the compensation rates regulated by the government. The compensation rate and schedule are then approved and supervised by the local authorities. The affected people present their needs and rights during the negotiations and also direct contacts with the project owner if any issue arisen. Apart from commitment to compensate adequately for any land occupied and damage caused by the project as regulated by governmental guidelines, the project owner also commits to implement the following activities to address the benefits and concerns of the stakeholders as requested by the local residents: - Support households who have lands occupied to adapt and	/10/11/20/29/30/31/32/12	Compensation programs were in place. This was confirmed through desk review of relevant evidences and during on-site visit.

	stabilize their livelihood. - Support local villages with infrastructure as improving the road and supplying electricity for local people.		
11. Was a Stakeholders Forum held with a broad local community participation (based on a customary and national law)? Describe the process and its outcome, and the response of project developer, local and national authorities?	All impacted people who are from indigenous communities and representatives for local organizations have been given their comments at the forums via the local social organizations such as youth union, farmers' association, women's association. Moreover, in order to consult local people on the social-economic and environment impacts of the proposed project to develop this project as a CDM activity, an extra official meeting between the project owner and the following local people who are well representatives for local residents, local authorities was held in 2007. • Commune's People Council: The members of Commune People Council are elected by residents in commune. So the Council opinions officially represent for opinions of the local people. • Commune's People Committee (CPC): CPC is the lowest administration level in Vietnam administrative hierarchy. Chairman of CPC is elected by the Commune People Council, so he well represents the commune's interest. • Commune's communist party committee: The Commune's communist party committee is one of the key bodies in making development strategies at the communal level. • Village's representative: head of village, secretary of young union, head of farmers' association, head of women's association. Then the internal meetings of local commune were organized subsequently to announce the proposed project activity in non-technical and local language to local residents. All organizations agreed that the project will certainly contribute to sustainable development and environment protection in Vietnam and especially this project will increase local budget and reduce poverty. Therefore, they fully support the project to develop.	/8/17/	Many times stakeholders meeting were hold in 2007. This was confirmed through desk review of Response Official letter of Chau Hanh and Chau Phong communes on Stakeholder consultation and during on-site visit.
1.2. Transparency. 1. . Was key project documentation (e.g.,	The project must comply with existing transparency-related regulations in order to receive licenses and approvals for the investment and construction of the project	/13/14/8/	Key project documentation (EIA/PDD) was made publicly available.

social and environmental impact assessments) made publicly available before a decision to start construction was made?	It means the project information and summary of the social and environmental impacts have to be made publicly.		
2. In what form was project documentation made available to stakeholders? Was it the original EIA etc. or was it in another form e.g., a summary of positive and negative effects of the hydrological construction.	The Nam Pong Hydropower project has been informed to local people via the following modes: 1. Sent official letter and summary report attached to the organizations of Chau Hanh and Chau Phong communes in order publish consultant community about construct the project on local. 2. Publicly posting written documents at the commune halls and cultural centers; 3. Using the public speaker system of communes and villages as well as grassroots cultural, information and propaganda organizations; 4. Organizing meetings between impacted peoples, local authorities and project owner.	/13/14/	The summary of EIA report was made available to stakeholders. But here is no regulation on achieving the documents during the consultation for the EIA, therefore the detailed documents of this consultation process are no longer kept by the project owner. In the EIA report approved by the authority proved that the public consultation had been made properly according to the law.
3. How many of the total number of stakeholders have had access to the key documentation and have been actively involved?	Most of the stakeholders in Chau Phong and Chau Hanh communes have had access to the key documentation because it was publicly post at the Center of Communes' offices and at the project site. Besides, via the local authorities, the project owner invited the stakeholders to attend the meetings to consult their opinions about this project.	/17/8/14	The minutes of stakeholder meetings and Response Official letter of Chau Hanh and Chau Phong communes on Stakeholder consultation were provided as evidences but it is not possible to confirmed the number of stakeholders that participated or have had access to the documentation in the meetings.
4. Is there a negotiated agreement between the stakeholders and project owner(s)? If so, is it publicly available?	There are negotiated agreements between the stakeholders and the PO about the compensation and the commitment of PO - The compensation plans were negotiated with and agreed by each impacted household and approved by the local government. The final approved compensation plan and the list of compensated households were publicly by the communal authorities via the publicly posting written documents at the commune halls and cultural centers.	/9/10/11/12	There is a negotiation agreement between the stakeholders and project owners. It is about the compensation on occupied land. It was confirmed through desk review of Decision of General Director on Approving of budget for ground clearance compensation and support for the construction of Nam Pong HPP and Decision of QuyChau PPC on Approvingl of plan for ground clearance compensation and support for construction of Nam Pong HPP and during on-site visit.

Validator's Conclusions concerning Priority 1: **The validation team considered the project is in compliance with the WCD priority "Gaining Public Acceptance".**			
2. Comprehensive Options Assessment			
2.1 Needs 1. What priority is given to hydropower in **national development or energy planning** (e.g. relevant government decisions)?	Due to the shortage of electricity in Vietnam so far, the government (including EVN and related ministries and agencies) encourages the investment activities to exploit renewable resources to produce electricity although no specific supports are given to hydropower in particular or renewable power in general to date.	/23/24/	Considered one of the priorities of the country as discussed. Hydropower energy generation is part of the national planning and development.
2. What are the needs for hydropower at regional and local level?	Vietnam has certain natural endowments to generate electricity from nonrenewable sources, e.g. fossil fuels (coal, FO, gas) and renewable sources. Among the renewable sources, hydropower is the most potential sector due to the largest hydrologic endowment in Vietnam compared to those of wind, solar, biomass which are viable sources at a limited small scale due to the technology and investment barriers. The consideration of the need for constructing this hydropower vs. other alternation is presented in Section 2.2. Nghe An province, Quy Chau district, Chau Hanh and Chau Phong communes has suffered a critical electricity shortage. There is not any generate electricity source other than hydropower at regional. The construction of this project will bring many benefits to regional outside supply electricity as contribution to improving traffic system, creating favourable conditions for living and production of local people; Create jobs for local people, especially for minority ethnic in highland, reducing the unemployment rate of local; Contribute to local budgets through tax; Contribute to improving the lives of local people, narrowing the gap in economic and cultural among ethnic groups and among areas in there. So the construction of the project is a good activity for region. In addition, Nam Pong HPP is included in electricity grid developing Plan of Nghe An province. So the construction of this project was considered base on the need for hydropower at regional and local.	/16/	The hydropower plant is connected to the national grid. The hydropower is the most potential sector due to the largest hydrologic endowment in Vietnam compared to those of wind, solar, biomass which are viable sources at a limited small scale due to the technology and investment barriers. This was confirmed through desk review of Data supplied by EVN and during on-site review with the relevant government respective.

3. What are the regional/national supply needs of the electric system (renewable base load, peak load or load balancing of the grid, support of intermittent renewable)?	Load balancing of the grid	/38/39/	This is confirmed through desk review of TDR and during on-site visit.
4. Describe safeguards for equitable access to water resources. How do hydropower projects contribute to efficient water resources management?	The consideration of the exploitation of hydrologic potential vs. the other benefits provided by water resources of Nam Pong stream has been done at the provincial level. The Nam Pong hydropower project was listed in the Provincial Master Plan for power development which is published by the Vietnamese government. It showed that the balance between meeting the demand for electricity and maintaining the access to water resource to serve other purposes has been taken into account. And because the reservoir of Nam Pong Hydropower project is daily regulated, it will not have a major impact on the water supply for the regions upstream and downstream.	/6/	In order to safeguard the equitable access to water resources, and better utilize the water resource, the "Provincial Master Plan for power development" was worked out by government, in the report, the balance between meeting the demand for electricity and maintaining the access to water resource to serve other purposes has been taken into account. This is confirmed through on-site interview with relevant government respective.
5 Does this hydropower project provide financial incentives to develop a multipurpose project?	This project has been implemented with the main purposes of generating the clean electricity without GHGs emission and supplying to the national grid. Other multi-purposes may be brought about by the project are resulted from the commissioning and successful operation of the hydropower plant. The project is developed as a CDM project that will make the project more viable that in turn will secure other purposes expected from the implementation of this project activity. Apart from CDM incentive, the project will be not benefited from any other financial supports/incentives set by the government and under the ODA source.	/15/	The project has the authorization to explore only the electricity generation and no other use.
2.2. Alternatives			CAR01 The description of alternatives to the project considered should be specified in the WCD checklist.
1. Describe the examination of alternatives to the project that have been considered (include	In the process of technical design for the Nam Pong hydroelectric project, the following parameters were chosen on the basis of analysis of options: designed water level, center of dam-site, the installed capacity and	/3/21/	CAR01 was closed out because the PP supply the description of alternatives to the project considered, and alternatives listed in description were considered by validation team as comply

details of feasibility studies and do-nothing options analysis that have been conducted).	number of generating units. - The design water level: there are 3 options, 256, 258 and 260 (m). - The center of dam-site: there are 2 options. + Option 1: NPI is at downstream. + Option 2: NPII is at upstream, 15 meter far from NPI. – The installed capacity: there are 3 options + Option 1: 28 MW + Option 2: 30 MW + Option 3: 32 MW – The number of generating units: the two options with Francis turbines have been proposed. One is with 2 units and the other with 3 units. The different options have been evaluated based on various terms, such as typology, energy efficiency and hydrologic conditions, economic efficiency in order to choose the most efficient and safety option. Resulted selections are 258 meter for designed water level, NPII for center of dam-site, 30 MW (installed capacity) and 2 generating units. Do-nothing option means the region would have been continued being not connected to the national grid and being isolated from the neighbor regions. It therefore has very obviously negative impacts on the national and regional development policies to reduce poverty in the region. This option is not realistic.		with relevant description in TDR.
2. Have stakeholders been involved in the identification of the options? Describe process and outcome of that involvement.	The details of the designed options were not discussed with the local stakeholders. And there is no regular or law which requires project owner consult stakeholders for choose the designed parameters. In general, the local people strongly support for the construction of the proposed project with chosen designed options. As discussed above, the do nothing option, means that the project region would have been remaining as an isolated and less developed area. For this reason, the local people have been fully supporting for the project from the beginning and during the whole stakeholders' consultation process as presented in the previous section.	/8/17/	No involvement of stakeholders required in the country. The project has the required authorization to implement the hydropower plant.
3. What are the main reasons behind the project choice and site selection (social,	The main reasons for selecting the project are: - Social: As there are no households living in the project area, the project will have minor negative impacts on the livelihoods of local people. However, the project activity	/3/8/	The proper BDR, TDR and EIA were prepared and approved according to the relevant laws considering the social, environmental, economic and technical aspects.

environmental, economic, and technical)?	will contribute to improve social quality in this poor region, i.e., accessing to the electricity, communication; improving of access roads; and creating new jobs for local people, especially the ethnic minority people, reducing the local unemployment rate. These benefits will be a significant contribution to the livelihoods of the people living in this poor mountainous area. - Economic: Major land area occupied due to the project activity is of low economic value; therefore, the compensation cost will be reduced. The project activity will contribute to facilitate the economic development by improving the infrastructure system in the region and contribution to the local state budget through taxes. - Technical: The hydrologic condition is suitable to generate clean electricity without GHGs emission and supply to the national grid - Environmental: the project will have certain negative impacts on the regional environment as discussed below but they mainly present during the construction period that can be eliminated by implementing properly mitigation measures. Such negative impacts can be offset by the positive impacts created by the project in a long term.		
4. What are the consequences of non-action for the local and global environment?	The project activity will provide a clean electricity source without GHGs emission to the national grid that is dominated by thermal power plants, therefore non-action means more negative impacts are expected to the global climate system due to more GHGs emitted into the atmosphere. The province where the project located is a poor mountainous area and vulnerable to climate change. Thus the more severe the climate change is, the more damages this region may face. Furthermore, the project will contribute to provide more water in the dry season that will help reduce the negative impacts due to the draughts on local people and environment.	/6/	The consequence of non-action for the local and global environment is that the country will continue to not to meet energy demand, their livelihood cannot be improved, the electricity demand is met by coal-fired power plant and the global warming will be worse.
5. On the project assessment level, describe project variants and types of technology considered in comparison with the selected option.	In the process of technical design for the Nam Pong hydroelectric project, the following parameters were chosen on the basis of analysis of options: designed water level, center of dam-site, the installed capacity and number of generating units. - The design water level: there are 3 options, 256, 258 and 260 (m). - The center of dam-site: there are 2 options.	/3/	Through desk review of the TDR, the description of the project is consistent with the description in the TDR.

	+ Option 1: NPI is at downstream. + Option 2: NPII is at upstream, 15 meter far from NPI. – The installed capacity: there are 3 options + Option 1: 28 MW + Option 2: 30 MW + Option 3: 32 MW – The number of generating units: the two options with Francis turbines have been proposed. One is with 2 units and the other with 3 units. The different options have been evaluated based on various terms, such as typology, energy efficiency and hydrologic conditions, economic efficiency in order to choose the most efficient and safety option. Resulted selections are 258 meter for designed water level, NPII for center of dam-site, 30 MW (installed capacity) and 2 generating units.		
Validator's Conclusions concerning Priority 2: **The validation team considered the project is in compliance with the WCD priority "Comprehensive Option Assessment".**			
3. Addressing Existing Dams/hydroelectric projects			
1. For hydroelectric projects with dams, please describe the national requirements and routines for monitoring and reporting regarding: - Emergency warning, - Sediment management, - Safety system, - Maintenance system, - Environmental impact, - Social impact, - Implementation of compensation	In order to operate a hydroelectric project with dams, the following national requirements and routines for monitoring and reporting regarding the - emergency warning, - sediment management, - safety system, - maintenance system, - environmental impact, - social impact, have been imposed: 1. Law on Water Resources No 08/1998/QH10 dated 20/05/1998. 2. Decree No. 08/2006/ND-CP of January 16, 2006 detailing a number of articles of the Ordinance on Flood and Storm Prevention and Combat, which was amended and supplemented on August 24, 2000. In flood season, the construction will be monitored by the Flood Prevention Panel of Binh Dinh Province 3. Ordinance No: 32/2001/PL-UBTVQH10 dated 04 April 2001 on the	/5/18/19/25/26/27/28 /29/30/35/36/37/	In Vietnam, there are definite requests on the requirements and routines for monitoring and reporting the relevant conditions for hydroelectric projects with dams. The description of the requirements and routines for monitoring of various aspects are requirements of the government, they will be developed before operation and implemented during operation of the project.

agreements.	exploitation and protection of irrigation works 4. Decision 285/2006/QD-TTg date 25-12-2006: On the contents and competence to promulgate and organize the implementation of the process of operation of hydropower reservoirs. 5. Decree No.72/2007/ND-CP ensuring dam safety to be the highest priority in construction, management, exploitation and protection of reservoirs. Dam safety management is to be done regularly, continously in the process of reservoir construction and exploitation 6. Other standards and procedures related to hydrological construction of reservoir. According to Vietnamese Standards and law for ensuring dam safety, the following actions must be complied to reduce the negative impacts: The reservoir and the dams are subject to an operation process that is approved by the government. The project owner is mainly responsible for the safety operation of the reservoir and dams according to the process approved, in which regulates a periodic reporting scheme to the local authorities on the safety and operation of the reservoir, dam and plant is required. • Emergency warning: when a problem occurs, which may cause the dam un-safety, the rescue work must be deployed with the best effort and the highest priority for safety of dams and minimizing loss. Besides, the project owner has to inform the appropriate authorities instantly when any of the situations below occur ○ Dam is broken down ○ Problem in operating valve gate in flood season ○ Heavy rain in the basin of reservoir when it is at its full capacity ○ Sabotage of dam (doubtful) • Sediment management. ○ At the designing period: The sediment capacity of the reservoir is defined according to the scale of a reservoir. The full sediment storage in normal conditions shall be at least 50 years ○ At the operating period: - Initiative in discharging sediments in sedimentation chamber as necessary by sluicing outlet. - Capable to discharge sediments out of the chamber or to store in the well for regularly mechanical cleaning. • Safety system: ○ Protection range		

	- With dam: Project owner identifies and installs the border line of the dam and the surrounding - With reservoir: the People Committee identifies and installs the border line of the reservoir and the surrounding ○ Protection measures - Patrol and watch at important location when heavy raining or flooding - Check and verify people, tourism vehicles or guests when visiting dam - Limit or forbid big vehicle moving on the dam - Conduct dam surveys and meteorology-hydrology measurement - Establish the storm and flood protection steering committee for reaction in emergency cases. - Having a well-trained operation and maintenance staff • Maintenance system ○ Methods for reducing the probability of dam failure are proposed and will be employed throughout the life cycle of the dam. During the operation of the dam, instrumentation, regular inspections and repairs will be implemented to reduce the risk of failure. Instrumentation includes a wide range of technologies that measure changes in the dam structure and foundation, such as strain gauges. These instruments can provide information regarding how the dam is changed over time so that potential problems can be detected early and resolved in a cost-effective manner. Regular inspections of the physical structure of a dam will be implemented to identify problems before they become crises. The frequency of inspections will be correlated to the risk of dam failure. Parts of the dam and foundation that are underwater shall also be inspected. Based on the information compiled from regular inspections, necessary repairs will be made. ○ Surveys on dam structure after heavy rain or flood. ○ During the operating life of a dam, hydrologic data and operating plans shall be collected and analyzed regularly. A review of the hydrologic data will be useful in verifying the validity of the information on which the design of the dam is based, and in detecting changes in river flow patterns that may affect the safe operation of the structure. Reviews of operating plans shall be done to identify opportunities to improve safety by managing water levels, as well as to adapt to changing priorities for services provided by the dam and to optimize the dam's performance. Like the dam life, rehabilitation of the structure may be necessary to avoid failure due to deterioration of the dam or to changes in environmental conditions. Rehabilitation may		

	include measures such as dredging the reservoir to remove accumulated sediments and restore storage capacity, strengthening construction materials by adding a coat of concrete and other measures. • Environmental impact: 1. To provide a written report to the district people's committee in the locality for implementation of the project about the contents of the decision approving the environmental impact assessment report and enclosing a copy of such decision on approval. 2. To publicly list at the location for implementation of the project a summary of the approved environmental impact assessment report, specifying the following items: the type and volume of waste materials; the technology and equipment for treating waste; the level of treating waste in accordance with the particular parameter of the stipulated standard for the waste material; and other environmental measures. 3. The design, construction and installation of environmental treatment facilities: (a) On the basis of the preliminary drawings of the fundamentals of the environmental treatment facilities set out in the approved environmental impact assessment report, to carry out detailed design and to construct and install such facilities correctly in accordance with the current regulations on investment and construction; (b) After the detailed design of the environmental treatment facilities of the project has been approved, to send a written report to the State body which approved the environmental impact assessment report together with the plan on construction and installation enclosing the detailed design file in order for such body to monitor and inspect [construction and installation]. 4. To protect the environment during the process of execution of the project building works: (a) During the process of execution of the project building works, to take measures to protect the environment including measures to reduce negative impact on the environment caused by the project, and to continue to observe and measure the environment correctly in accordance with the requirements set out in the approved environmental impact assessment report including any other requirements set out in the decision approving such report; (b) If during the process of execution of the project building works there are any amendments or changes to the contents and methods for environmental protection which have been approved or certified, to provide a written report to the body which approved or certified the report, and only to take measures after such body has granted its		

	written approval; (c) If during the process of execution of the project building works or operational testing of the project any environmental pollution is caused, such execution or testing must be immediately stopped and a report made to the office of natural resources and environment at the district level in the place where the project is being implemented and also to the body which approved the environmental impact assessment report; (d) To co-operate with the State administrative body for protection of the environment and to facilitate the supervision and inspection by such body of the items and measures for protection of the environment by the project; and to provide complete information and data at the request of such body. 5. Operational testing of environmental treatment facilities: (a) After construction and installation of the environmental treatment facilities completed and the facilities have been accepted, the facilities must be operationally tested in order to check that the technical parameters regarding the environment have been satisfied in accordance with the design; (b) To prepare an operational testing report and to notify it to the body which approves the environmental impact assessment report, the Department of Natural Resources and Environment and the Divisions of Natural Resources and Environment at the district level and the resident community in the location of implementation of the project in order that a plan on supervision and inspection can be arranged; (c) If the project owner does not have the capability to itself conduct surveys and analysis of the technical parameters regarding the environment, it must sign a contract with an organization with adequate professional and technical skills to conduct such surveys and analysis; (d) On completion of operational testing, to forward a written report to the body which approves the environmental impact assessment report requesting certification of the results of operational testing of the environmental treatment facilities, in order for such body to provide its certification. • Social impact ○ Popularizing and mobilizing local people for their understanding and supporting to this project. ○ Carrying out the compensation plan seriously ○ Creating new jobs for local people to reduce the unemployment which also reduce the social evils. • Implementation of compensation agreements: The compensation process will be carried out under the supervisor of Compensation Council. Compensation can be made not only for the loss of land and		

	houses, but also for the loss of access to jobs and communal resources by using local human resources for appropriate jobs in the construction and operation phases.		
For non-dam projects, describe details of the continuous monitoring of the project (environmental and quality assurance).	N/A		N/A
How have relevant outstanding social and environmental issues from existing dams/hydroelectric projects in the river basin been addressed?	The EIA report and the stakeholder consultations show that there are no outstanding social and environment issues from existing dam/hydroelectric project in the river basin. However, if any outstanding social and environmental problems may occur during the construction and operation of the project, the project owner will collaborate with relevant entities (local residents and local authorities) to implement the mitigation measures as indicated in the EIA report.	/6/	According to information obtained from on-site interview with government officials and local people, there are no relevant outstanding social and environmental issues from existing dams/hydroelectric projects in the river basin.
Have national regulations been enforced for existing dams and what can be concluded with regard to compliance?	The construction, operation and maintenance of the existing dam is regulated by relevant national regulations. During the construction, its quality is supervised by a third independent and accredited party in order to comply with the National Construction Codes. Before and during the operation, it is regulated by the Procedures for Operation of Reservoir which is approved by Ministry of Natural Resources and Environment (MONRE). The project is allowed to operate only when the quality supervision report is positive as well as having the approval of the Reservoir Operation Procedure via the issuance of the License for Usage of the surface water by MONRE.	/26/27/28/	The copies of those national regulations have been provided to validation team, and the relevant provisions of enforcement have been checked. All those national regulations are enforced.
Will the implementation of safety measures and evacuation plans be independently audited?	There is no required for the audited but the safety measures for the operation of the reservoir and dam is approved by MONRE via the issuance of the License for Usage of the surface water. The implementation is supervised by the local authorities. The project owner is requested to report periodically to the relevant local authorities the status of the plant and construction items. Annually, the report on dam safety situation must be submitted to Ministry of Agriculture and Rural Development, Provincial People's Committee, Ministry of Industry and Trade and other relevant authorities for approval before 15th May. The project owner has to submit a plan for flood prevention to the provincial People's Committee for approval and coordination. The evacuation and safety measures will be incorporated in such reports and the implementation is supervised by the provincial People's Committee. This plan for flood prevention will be submitted annually during the operation of the project.	25/26/27/28/35/	Verified through desk review and during on-site interview with relevant authority respective, the safety measures for the operation of the reservoir and dam is not requested to be audited but then has to be submitted to relevant authorities for approval.

Provisions for maintenance and decommissioning			
- What provisions have been made for maintenance and refurbishment (eg. a maintenance and refurbishment fund)?	No such fund is set up for the entire project lifetime; however, annual maintenance and refurbishment costs have been taken into account in the financial analysis to make the investment decision as regulated by the government.	/3/	In the investment analysis of TDR, the total investment covers the maintenance and refurbishment.
- What arrangements are made for decommissioning at the end of the plant lifetime, if any (e.g. decommissioning set aside fund)?	Decommissioning concept is not yet introduced and regulated by the government. Therefore, the project owner has not yet any arrangements for decommissioning at the end of the plant lifetime.		This has been confirmed with the project owner during onsite interview.
-Describe provisions for emergency drawdown and decommissioning.	• Emergency warning: when a problem occurs, which may cause the dam un-safety, the rescue work must be deployed with the best effort and the highest priority for safety of dams and minimizing loss.A reservoir operating process must be established and submitted to competent authorities for approval before filling up water for the reservoir. Such process must ensure all functionsò the reservoir are consistent to the priority order, work and reservoir downstream safety. • The Reservoir Operation Procedure which contains the provisions for emergency drawdown in different items as follows: Operation in flood season ; Operation according to electricity generation task Monitoring meteorologic and hydrologic factors Responsibilities, rights of the plant and local authorities Organization and implementation In general, the project owner will have to inform the appropriate authorities instantly when any of the situations below occur, a part from a regularly periodic reports: ○ Dam is broken down ○ Problem in operating valve gate in flood season ○ Heavy rain in the basin of reservoir when it is at its full capacity ○ Sabotage of dam (doubtful)	25/26/33/36	According to the request of the relevant regulation of *"Decision 285/2006/QD-TTg on the contents, authority to promulgate and organize the implementation of hydropower reservoir operation procedures","* *Decree No. 72/2007/ND-CP ensuring dam safety to be the highest priority in construction, management, exploitation and protection of reservoirs. Dam safety management is to be done regularly, continously in the process of reservoir construction and exploitation"" Circular No. 33/2008/TT-BNN of February 4, 2008, guiding the implementation of a number of articles of the Government's Decree No. 72/2007/ND-CP of May 7, 2007, on management of dam safety*", these contents described in this section will be obliged to implement. This has been confirmed through document check and interview with government officials.

	• The project owner has to submit a plan for flood prevention to the provincial People's Committee for approval and coordination in order to actively deal with the emergencies such as floods and break of dam.		
- Are they sufficiently flexible to accommodate changing future needs and values, including ecosystem needs and ecosystem restoration (Guideline 12)?	The costs for maintenance and implementing environmental monitoring and mitigation activities have to be covered by the project owner ex post and have to be taken in the annual financial plan. If any changes in the future needs and values, the project owner will be wholly responsible for adjustment of the plan and payment.	/45/	Confirmed through document check and interview with government officials, insurance contract on the operation of Nam Pong plant during operational stage will sign later.
- Does the license for project development define the responsibility and mechanisms for financing decommissioning costs?	- . So far there is no regulations and laws on responsibility and mechanisms for financing decommissioning in Vietnam. The project owner has been assigned for owning and operating the project in 50 years in the investment license but no regulations on decommissioning.		The license does not define the responsibility and mechanisms for financing decommissioning costs. It is not required according to Vietnamese law.
- Describe economic, environmental, social and political factors that may point against future decommissioning, if this has been recognized as the best solution.	With future decommissioning, the electricity supplying to the local area will be reduced, and workers in plant will be unemployed. Services in the region will also decline. So it may create negative economic and social issues.		The local official confirmed it is unnecessary to assess the future decommissioning of the dam in local area at present, however if applicable shall be defined in accordance and in contact with relevant authority.
Validator's Conclusions concerning Priority 3: **The validation team considered the project is in compliance with the WCD priority "Addressing Existing Dams/hydroelectric projects".**			
4. Sustaining Rivers and Livelihoods			
4.1. Water use ratio			
Water use ratio (ratio of natural flow, agricultural water, industrial water, domestic water...)	1. Population: N/A14,773 2. Natural mean flow: 12.15 m^3/s 3. Demand: N/A0	/3/	All these have been verified by the BDR and TDR which were approved accordance with national relevant laws and confirmed to be right. And the

including: 1. population of the river basin area (10^6 inhabitants); 2. natural mean flow (m^3/s); 3. demand (m^3/s); 4. Water use ratio (%); 5. comparisonof water demand with natural mean flow; 6. storage capacity (m^3); 7. annual water consumption by type of users (m3/s): agricultural and farming, domestic use, industrial use	4. Water use ratio: 0% 5. N/A 6. Storage capacity: 770,000 m^3 7. Annual water consumption by type of users: 0 The local people have not been using water on Nam Pong stream for agricultural and farming, domestic and industrial use. They live far away from project area and no agricultural lands around and at the site of Nam Pong project.		relevant calculated result had been checked as correct.
4.2 Impact Assessment (*Note: both positive and negative impacts should be included here*) What Impact Assessments have been carried out and on which regulations were they based on? – Describe the major impacts in each of the following categories and the mitigation measures for negative impacts:	According to environmental law, the EIA report for this project was conducted to assess the potential impacts on environment and society, economy. The environmental impacts and mitigation measures are summarized as follows.	/6/7/	The EIA has been worked out, according to the Law of Environmental Protection of the Vietnam. The EIA and its approval have been provided to the validation team.
4.2.1. Environmental	**1. Environmental Impacts**	/6/	The EIA has been checked and the impacts on water quality, air quality,

Impacts Describe environmental impacts of the project (including impact on water quality(temperature, oxygen, etc.), soil, air quality, GHG emissions, biodiversity, habitats, risk of erosion caused by inundation etc.)	***1.1.1. Impact on land*** The proposed project will temporarily occupy about 175 ha land of which 135 ha is used for the construction of traffic, energy alignment works, etc., include primary forest land. And the rest is for reservoir (40ha) which includes 35 ha water surface land, 5 ha the bush. The occupied land will be compensated adequately in comply with government law and regulations. No historical culture and archaeological places exist in the project site. ***1.1.2. Impacts on air and noise*** The preparation and construction phase might cause air pollution. Pollutants are almost generated from the operation of auxiliary plants, material vehicles and executing machines. Pollution sources include dust, noise and waste gases from executing machines. This pollution is temporary and will be terminated upon the completion of the construction. ***1.1.3. Impacts on water flow*** The project will create a reservoir with surface area of about 32 ha, include primary river land so faculty of regulating low. The Nam Pong hydropower reservoir is only able to regulate water daily. Water quality after discharge canal is monitored to ensure quality standards of Vietnam. The water flow of the Nam Pong stream and Hieu river will be affected low in quality and quantity. Negative impacts relate to erosion and accumulation construction wastes but the project owner has effective methods to reduce impacting to the minimum. ***1.1.4. Impacts on ecological system*** • *Flora* The Nam Pong Hydropower Project does not cross-out any natural conservation areas, national forests or specialized forest. The project site has only shrub forest, floristic composition is restoring and developing, which are all of low biological diversity. During the project implementation, there will be a large number of workers gathering in the project site, which causes forest destruction for wood, and crop cultivation. The formation of water transportation activities during the reservoir water retaining period will further bring human beings to forests around the reservoir, which is to disturb	http://dictionary.cambridge.org/dictionary/essential-british-english/bush?q=bush	noise, integrity of ecosystem, biodiversity, cultural relics and historic sites, Soil erosion risk, social and economic, and emission reductions described in item 4.2.1, complies with the content in EIA.

	ecological system and vegetable cover in here. The reservoir creates a microclimate which advantage to developing of flora and crops. • *Fauna* The project implementation will pose negative impacts on the fauna due to loss of habitats, road construction, animal hunting for food, pharmaceutical products, trade, etc. The creation of transport paths will isolate the movement of wild animals. After commissioning, the reservoir with its large water surface will cause the local climate to become milder with positive effects on the local fauna and flora, as well as surrounding communities. ***1.1.5. Impacts on local environment surrounding the construction site*** • *Dusts and gas emissions*: During the construction phase, activities such as area leveling, road making, exploitation/transportation of building materials etc. may emit to the air dusts and gases like CO_x, NO_x, SO_x. These gases have negative impacts on the health of people and animals. • *Noise:* Noise is caused by mine explosions during the construction and by operation of vehicles. The magnitude of noise and of vibration from mine explosion will affect the exploitation and construction sites. However, these impacts are temporary and will be terminated after commissioning the construction phase. **2. Mitigation measures to reduce negative impacts** ***Construction phase*** ○ *On soil:* – All excavated rock and aggregate will be used in construction where possible, while the spoil will be deposited in areas with minimum landslide potential; layered and covered with soil; and planted with trees, shrubs, and grasses. ○ *On water quality:* – Avoiding the direct discharge of untreated waste or oil to the river. All waste including domestic and industrial waste shall be collected and transported to proper location (i.e. septic tanks) for the treatment. – Clearing the reservoir bed: clearing the designated areas of all trees, down timber, snags, vegetation, rubbish and objectionable material and shall		

	include grubbing stumps and roots and disposing of all material resulting from the clearing or grubbing. – Regular monitoring of water quality at stations in the river or auxiliary and resettlement zone. ○ *On air quality* – Using water spray trucks for dust suppression will mitigate dust generation from construction traffic. – All means/vehicles for transport of construction materials must be covered in order to minimize dust dispersion. – Means used for the construction shall meet relevant standards required by the host country. – Waste and dust after being mitigated shall meet Vietnamese Standard TCVN 5937:2005 ○ *On noise* – Reduce noise from machine via maintenance, turn off intermittent operation machines that are not necessary. – Arrange works on day tour, constrain working by night. – Using standardized and registered machines to reduce noise and waste gas during their operation. – Mine explosion shall be made in proper time – Using a sufficient amount of explosives as legally required ○ *Waste collection and treatment* – Implement regular collection and treatment of solid and liquid wastes, including the construction of a dumping area. – Raise awareness of the environmental protection for workers and local people. ○ *On flora and fauna* – All work will be carried out in a manner such that damage or disruption to vegetation is minimized. After completion of construction activities, temporarily occupied areas will be re-vegetated. – Provision of heating and cooking options without use of wood. – Provision of environmental training on environmental management issues. – Environmental protection by guards, capacity building of forest rangers, and control the illegal activities.		

	○ *fauna* * Basin area: Biological factors: To preserve and develop the forest area in the riverhead with the main objectives: to reduce erosion and protect the landscape for wild animal; conserve the bio-diversity. To manage the sources of waste in the basin (both spot and scattered sources) During operation: - Increase the forest area for living of most of the wild animals; - Make research to propose a plan for natural preservation to recover the vegetational cover in order to attract animal to come for living. - Establish the management board of the basin area - Reinforce the management and improve the preservation and management capacity of the Management Board for the natural reserve zones - Develop the economy, improve the living standard for residents in the buffer area. This is an effective measures to maintain bio-diversity of natural reserve zones. - Regularly propagandize and raise the awareness of local people on the conservation of bio-diversity. * Reservoir and dam area – During construction: Minimize the activities causing noise and air pollution from construction machinery, prohibit the hunting of animals by any means. – During operation: develop monitoring stations of water environment on hydrological and biological aspects. * Downstream area – During construction: minize the mud flowing to the lower part of the river – During operation: to educate and instruct the local people to perform measures for conservation of bio-diversity ○ *Mitigation measures for socio-economic impacts* - The project owner shall make a plan to implement the measures for protecting human health,		

	examining food safety and hygiene in accordance with regulations of Ministry of Health, Viet Nam, associating with local medical stations in preventing common diseases. - Project owner shall effectively disseminate the benefits of the implement of the project, provide sufficient information of project implementation, compensation policy, resettlement as per laws. - Give prior opportunities to the local resident to work for the plant during the construction and operation ***Operational phase*** Preventive measures and reaction towards environment problems: Install monitoring equipment to monitor absorption and distortion of water rising and water quality released from the plant and propose suitable preventive measures if required.		
4.2.2. Environmental Flow Assessment 1. Describe how the environmentally safe minimum flow has been determined.	The reservoir of Nam Pong hydropower project is proposed to be regulated on daily basis so the flow will be maintained in the downstream. Addition, there are small streams after the dam of Nam Pong hydropower plant, which supply water for the downstream of Nam Pong stream. The period for the initial filling shall be kept as short as possible in order to minimize the period in which the downstream is only supplied by water from the with only compensation flow. Allow the water flow over the spill way to maintain the stream flow.	/3/	According to Decree 112/2008/ND-CP (Document no.33), the PO has to allow the water flow over the spill way to maintain the stream flow.in The period for the initial filling; and after operation of the hydropower plant, the flow will be maintained in the downstream due to the reservoir of Nam Pong hydropower project is proposed to be regulated on daily basis. Nghe An PPC will monitor the implementation of the PO.
2. Describe the measures taken to minimize the impact of reduced flow in the affected river.	• During the initial filling of the reservoir and the operation period, a compensation flow will be considered to supply water for downstream areas. • The period for the initial filling shall be kept as short as possible in order to minimize the period in which the downstream is only supplied by water from the with only compensation flow. Allow the water flow over the spill way to maintain the stream flow. In addition, water flow will be maintained through low level gate and the small stream added after dam. • Strictly comply with reservoir operating procedure as approved. • Maintain daily regulatory regime for the reservoir	/3/	The EIA has stated no potential negative impact by the hydropower station. According to Decree 112/2008/ND- CP (Document no.33), the PO has to allow the water flow over the spill way to maintain the stream flow.in The period for the initial filling; and after operation of the hydropower plant, the flow will be maintained in the downstream due to the reservoir of Nam Pong hydropower project is proposed to be regulated on daily basis. Nghe An PPC will monitor the implementation of the PO. This has been confirmed

	• The reservoir of Nam Pong hydropower project is proposed to be regulated on daily basis so the flow will be maintained in the downstream.		by document review and onsite visit.
3. Describe the measures taken to maintain ecosystems, productive fisheries and other aqua-cultures downstream and upstream.	• Basin area: conserving, developing watershed-forest to reduce erosion and protect biodiversity. • Reservoir and dam area: During construction period, the company will clean up the lake before accumulate water to ensure quality of water and convenience for fishery and reduce environmental pollution later. During the operation phase: manage and develop of reservoir fisheries. • Downstream area: – Construction period: The Project owner will have the technical solutions to reduce the flow of sediments to downstream. – Operation phase: guidelines for local persons about exploiting fish methods and the appropriate time for resource protection. Maintain flows for migrant fishes, protection of fish spawning areas. • Manage water quality according to national quality standards.	/6/	This has been verified through reviewing the EIA. The description is in line with the EIA.
4. Describe the activities the project developer will undertake before flooding the land (e.g. clearing of vegetation or other preparations).	Before flooding the land, exploit biomass, agricultural products in order to recover the economic value of trees, reducing the risk of environmental pollution later. - Clearing vegetation cover in the reservoir bed.	/6/	The measures described in this section were implemented and actions were taken before flooding the land to attend the EIA requirements.
5. Describe any other compensatory measures addressing environmental impacts of the project	Implement an compensatory afforestation plan around the project site and power house and in the temporarily occupied areas under the construction phase.	On site visit and interview , EIA	By verifying onsite, relevant compensatory measures will be implemented in accordance with national laws and regulations under supervision of local government.
4.2.3. Social Impact Assessment 1. Describe social impacts of the project (including resettlement, impacts on other land or river use e.g. fishing,	**Socio-economic impacts** - ***Negative impacts*** The main negative impact is related to the occupation of the land. The proposed project will temporarily occupy about 175 ha for the construction of project structures such as dam, power house, reservoir, etc. The occupied land will be compensated adequately as provided by the government law and local authority.	/6/9/10/11/12/	Programs and measures were implemented and continue to be monitored in order to address social impact and to attend the relevant requirements (/6/9/10/11/12/).

agriculture, hunting and use of other types of natural resources and including benefits to individuals and communities)	No historical culture and archaeological places exist in the project site. - ***Positive impacts*** ○ Economic well-being Once commissioning, this proposed project will increase the industrial share in the economic structure of Nghe An province. This proposed project will significantly contribute to the state budget via taxes. By supplying a stable electricity output, this project will facilitate the industrialisation process of the province and leverage the performance of traditional trade villages as well as tourism industry and services inside the province. After commissioning, this project will supply electricity to speed up the commissioning of other large infrastructure projects in the region. ○ Social well-being The project improves existing roads, which will facilitate the transportation and travel. Thus, the project creates convenience for the transfer and trade in the area, thereby improves minorities' living standard and contribute to fill the gap in development between different ethnic groups in Viet Nam. By supplying a stable electricity output, this project will facilitate the industrialisation process of the province and support economic development of local villages through fostering tourism, trade and services inside the province. This project will contribute directly to improve the low-quality infrastructure systems of the mountainous commune. The project will construct a new transmission line together with the hydropower plant, which will reduce electricity losses and improve the quality of electricity supply in the region. Besides, the project activity could result in the employment of the local people for the construction and operation later. Therefore, this project activity will contribute directly to alleviate poverty in the region. **Mitigation measures to reduce negative impacts** ○ *On socio-economic impacts:* - The project owner shall make a plan to implement the measures for protecting human health, examining food safety and hygiene in accordance with		

	regulations of Ministry of Health, Viet Nam, associating with local medical stations in preventing common diseases. - Project owner shall effectively disseminate the benefits of the implement of the project, provide sufficient information of project implementation, compensation policy, as per laws. – Give prior opportunities to the local resident to work for the plant during the construction and operation.		
2. Describe any identified health impacts due to the project.	The emission of dust, smoke and noise in the project site may cause the health problems for workers. However, Project owner has been implementing fully mitigation measures. During the preparation and construction of the project, measures to reduction the emission of dust, smoke and noise are as follows: - All vehicles carrying materials shall be covered during transportation - Spray will be applied during ground making. In strong wind and sun conditions, spray will be made twice a day at least. - Watering will be performed on roads nearby the construction site and roads for material transportation. - Appropriate regulation of vehicles to avoid increase of vehicle density. - All transportation vehicles and mechanical equipment shall meets requirements set by the Vietnam Register on technical and environmental safety. * Ensuring safety on the construction site: - Provide labour safety equipment for workers under applicable policies according to each group of workers - Ensure favourable policies for out-door workers, hard work, unfavourable climatic conditions such as work at height, in the tunnel, big noise, etc. Protection against incidents and work accidents: - Develop and hang up notice signs of prohibition area and train the workers with labour safety rules in case of specialized working conditions - Fully provide workers at height, in mines or in special working conditions with safety equipment - First aid and emergency station - Establish a network of safety officers on the construction	/6/	The health impacts due to the project were identified during EIA and adopt relevant mitigation measures.

	site - Well organize the lighting, ventilating, in mines and sun/rain-proof for out-door construction, etc.		
3. Describe impacts on religious and cultural heritage.	No historical culture and archaeological places exist in the project site so there is no negative impact on religious and cultural heritage.	/6/	According to EIA and on-site visit, there is no negative impact on religious and cultural heritage.
4. Describe the liability provisions safeguarding the implementation of the planned measures.	All the planned measures will be conducted under the supervision of the local government. According to Decision No. 5032/QD-UBND.DC approving the EIA report of Nam Pong HPP, The project owner has the responsibility to correctly implement the content stated in the environment impact assessment report and the following mandatory requirements: - Design in details and build environment treatment project according to the current regulations on the investment and construction; to meet the environment standards. - After designing in details the project environment treatment system, it is required to send written report to the province's people committee (through Department of Natural Resources and Environment) the construction plan with detailed design documents of environment treatment construction items for supervision and investigation. – Protect the environment during the project construction: + During the construction of the project, measures to protect the environment and to mitigate negative environmental impacts must be implemented. + During the project construction and trial operation, if environment pollution occurs, stop the project immediately and report promptly to Office of Natural Resources and Environment – People Committee of Quy Chau district and the province's People Committee, Department of Natural Resources and Environment. – Trial operation of environment treatment items + After completing and approving environment treatment items, trial operation of environment treatment items has to be conducted to test technical and environmental parameters as specified by design;	6/18/19/	The project has been developed the required environmental impact assessment and obtained the approval of the environmental agency according all of the requests of the relevant liability provisions.

	+ Schedule the trial operation and report to the provincial People Committee, Department of Natural Resources and Environment, People Committee of Quy Chau district and People Committee of Chau Hanh, Chau Phong communes to organize supervision and investigation. – Only operate Nam Pong hydropower project when the provincial People Committee has approved the implementation of all contents of environment impact assessment report and requirements of this Decision. – Assign People Committee of Quy Chau district to supervise and investigate the environment protection content during the construction stage; Department of Natural Resources and Environment to investigate and supervise the implementation of the content of the environment protection during the operation of Nam Pong hydropower project as stated in the approved environment impact assessment report.		
5. Is the project planned in a responsible way in order to sustain livelihoods and the environment?	The project planned in a responsible way in order to sustain livelihoods and the environment because it will be supervised by the local government.	/18/19/	According to the evidences provided and verified during site visit, the project was planned and implemented in a responsible way.
4.3 Cumulative Impacts			
Describe the cumulative impacts of all hydrological structures existing in the river basin using variables such as: 1. flow regime, 2. water quantity, 3. productivity, 4. water quality species composition of different rivers in the same river basin	- There is only Nam Pong Hydropower plant located on Nam Pong stream (in the Hieu river basin), no any other hydrological structures existing in the river basin. For this reason, there is no cumulative impacts on the river basin caused by all hydrological structures existing in the Hieu river basin, except this proposed project activity, considering the following variables: 1. flow regime: The impacts on flow regime due to this project activity has been addressed in the EIA report that was already approved by the government authority. 2. water quantity: The impacts on water quality due to this project activity has been addressed in the EIA report that was already approved by the government authority. 3. Productivity: Because this proposed project has a daily regulation reservoir, it caused minor impacts in the	/6/	1. Any impact regarding flow regime was addressed in the licensing process. The project has the environmental licenses. 2. Any impact regarding water quality was considered in the environmental impact assessment. The project has the environmental licenses.

	water quality, level and to the productivity of the river 4. water quality species composition of different rivers in the same river basin: according to the approved EIA report, there is no impacts of this proposed project on water quality species composition of different rivers in the same river basin		3. Information regarding productivity of the river basin is not available. Because the project has a daily regulation reservoir, it caused minor impacts in the water quality, level and to the productivity of the river. 4. According to the environmental impact assessment there is no impact in the water quality in the river basin.
Validator's Conclusions concerning Priority 4: **The validation team considered the project is in compliance with the WCD priority "Sustaining Rivers and Livelihood".**			
5. Recognising Entitlements and Sharing Benefits			
Are Mitigation, Resettlement and Development Action Plans (where applicable - including **commensurate** compensation packages) in place? Provide details:	The Mitigation, Resettlement and Development Action Plans – including commensurate compensation which is approved by the local government are in place:	/6/	OK
1. Demonstrate that the construction of the plant did not lead to worsening of the living conditions of the local residents and resettled families	1. The project constructing area is far from residential area. And the project owner committed to implement necessary measures to reduce the negative impacts on the local people and environment, as follows: ○ *Waste collection and treatment* – Implement regular collection and treatment of solid and liquid wastes, including the construction of a wastewater treatment system ○ *Local pollution* – Dust removal measures will be taken such as spraying water along the roads. – All means/vehicles for transport of construction materials must be covered in order to minimize dust		Verified that the construction of the plants do not worsening the living condition because it is far from residential area and the project owner committed to implement necessary measures to reduce the negative impacts on the local people and environment.

	dispersion. – All transport equipment/vehicles and machines must have operational certifications issued by the Directorate for Standards and Quality. ○ *On socio-economic impacts:* – There are 129 households were affected through loss of land, no household was resettled due to the project. Implement the compensation plan for the local impacted people according to the government law. – Give prior opportunities to the local resident to work for the plant during the construction and operation.		
2. Were compensation and benefit agreements planned in consultation with affected groups?	All the compensation agreement had been negotiated between the project owner and the local people according to the compensation law.	/10/11/12/20/29/30/31/32/40/41/42/43/	Compensation and benefits were agreed by affected people.
3. What standards were the measures based on? (e. g. national standards or other)	All the measures are based on national and provincial standards.	/10/11/29/30/31/32	Verified that measures based on national and local regulation.
4. Were the affected people satisfied with the compensation packages?	All the affected people are satisfied with the compensation packages.	/12/	Verified through on-site interview, no dispute or disagreement identified. Affected people are satisfied with the compensation packages.
5.Benefits for the affected people (individuals and communities): In what way will the affected local and indigenous population's livelihoods be improved due to the project?	The livelihoods of local people will be improved due to the implementation of this project: ○ Economic well-being Once commissioning, this proposed project will increase the industrial share in the economic structure of NgheAn province. This proposed project will significantly contribute to the state budget via taxes. By supplying a stable electricity output, this project will facilitate the industrialization process of the province and leverage the performance of traditional trade villages as well as tourism industry and services inside the province. After commissioning, this project will supply electricity to speed up the commissioning of other large infrastructure	/6/8/	Verified that the construction of the plants do not worsening the living condition, in fact the livelihoods is improved due to improves existing roads, supply a stable electricity output, improve the low-quality infrastructure systems of the mountainous commune, result in the employment of the local people for the construction and operation later. Therefore, this project activity will improve the people's livelihoods in the region.

	projects in the region. ○ Social well-being The project improves existing roads, which will facilitate the transportation and travel. Thus, the project creates convenience for the transfer and trade in the area, thereby improves minorities' living standard and contribute to fill the gap in development between different ethnic groups in Viet Nam. By supplying a stable electricity output, this project will facilitate the industrialisation process of the province and support economic development of local villages through fostering tourism, trade and services inside the province. This project will contribute directly to improve the low-quality infrastructure systems of the mountainous commune. The project will construct a new transmission line together with the hydropower plant, which will reduce electricity losses and improve the quality of electricity supply in the region. Besides, the project activity could result in the employment of the local people for the construction and operation later. Therefore, this project activity will contribute directly to alleviate poverty in the region.		
Validator's Conclusions concerning Priority 5: **The validation team considered the project is in compliance with the WCD priority "Recognising Entitlements and Sharing Benefits".**			
6. Ensuring Compliance			
6.1. Compliance measures:			
1. What will be done to ensure that relevant laws, regulations, agreements (including resettlement and compensation agreements) and recommendations are followed?	1. The authorities required the project owner to report periodically about the compensation process. The compensation negotiation and payment are supervised by the Compensation Committee which includes the representatives from impacted people and local authorities. The assignment of the land used to the project owner to construct the project is only issued by the local authorities when the compensations completed without any claims from the local people that is reflected in the final report of the Compensation Committee. All impacted local residents were informed about the project activity and its impacts. Then the negotiation process with each household impacted was taken place. The Decision	/10/11/12/	Through desk review of provided documents and during on-site visit, the project has the necessary and applicable license. Province environmental agency monitors the environmental programs. The Compensation Committee supervises the compensation negotiation and payment. All entities related to project monitor the project environmental and social programs and electricity generation.

	about compensation were accepted by all impacted local residents and approved by the People's Committee of Quy Chau district.		
2. Are the compensation agreements legally binding – through treaties, administrative acts or other safeguards?	All the compensation agreements are legally binding and following the relevant laws. The compensation process was made public by law. The compensation agreements were recorded in writing certified by local authorities.	/11/12/17/20/29/30/	Verified that compensation agreements are legally binding by the relevant laws and controlled by the authority agency.
3. Is the cost of the compensation package included in the financial plan?	The cost of compensation is included in the financial plan.	/5/	Verified investment analysis in the TDR, the cost of compensation is included in the financial plan.
4 Does the project developer already operate other hydroelectric power stations? If so, have there been any conflicts between the project developer and stakeholders related to the development, operation and compensatory measures related to these projects? If so, describe the cause of the conflict and how it was resolved.	This company has been operating Za Hung Hydropower Plant prior to the proposed project; however, this project is located in another province, which is far from the proposed project site. Hence, there is no conflict between the project developer and stakeholders related to the development, operation and compensatory measures related to this project.	/34/	Verified the provided document and during on-site visit, the PP has been operating another hydropower plant located in another province. There is no conflict between the project developer and stakeholders related to the development, operation and compensatory measures related to this project.
6.2. Monitoring and evaluation during crediting period:			
1. Describe conditions in place for monitoring and evaluation of environmental and	List of environmental treatment constructions * Dust, emission gases - Install or construct temporarily covering system to avoid generating dust from construction process	/19/44	Verified through desk review of provided documents and during on-site visit, monitoring and evaluation of environmental and socio-economic impacts of the project are not in place

socio-economic impacts of the project.	- Ventilation system, suction system - Central air-condition system - Plant trees in upstream area and around Nam Pong lake; plant trees in quarry area. * Waste water - Garbage fender, garbage filters -Settler, Aerobic tank, sludge composting tank - Septic tank * Solid waste Plant will classify solid waste: - Domestic waste and the same waste: will be collected and treated. - Collection and gather area of whole of plant. The plant will allocate the officer charge in the safety and environmental hygiene department to monitor environmental status and the implementation of environmental management programs as - Management of emission resource - Management of solid waste - Management of noise and light - Management of waste water discharge into the environment. Annually, the project owner has to submit a report on environmental protection activities and environment status to the Department of Natural Resources and Environment. So far, there is no specific rules request the project participants to report on the socio-economic impacts due to the project. However, socio-economic impacts will be reflected in the annual reports submitted to the local authorities such as tax reports. Other impacts on the local residents such as creating and training local people for permanent jobs; sharing the infrastructures (clean water, electricity transmission line) have been confirmed during the site visit of the validation. Such impacts can be checked at annual verifications.		because the project is in the early days of construction. But they will be in place when the project is in the formal operation according to the requests of national relevant laws and EIA.
2. What provisions have been made to ensure that all measures not yet implemented at the	1. All the commitments to protect the environment will be implemented by the project owner: (a) After construction and installation of the environmental treatment facilities has been completed and the facilities have been accepted, the facilities must be operationally	/19/	FAR01 Verified through desk review of provided documents and during on-site visit, monitoring and evaluation of environmental and socio-economic

time of validation will be put in place as appropriate, and monitored (for example through an independent auditing panel or auditor, or through self-auditing etc.)?	tested in order to check that the technical parameters regarding the environment have been satisfied in accordance with the design; (b) To prepare an operational testing report and to notify it to the body which approved the environmental impact assessment report, the Department of National Resources and Environment and the office of natural resources and environment at the district level and the resident community in the location of implementation of the project in order that a plan on supervision and inspection can be arranged; (c) If the project owner does not have the capability to itself conduct surveys and analysis of the technical parameters regarding the environment, it must sign a contract with an organization with adequate professional and technical skills to conduct such surveys and analysis; (d) On completion of operational testing, to forward a written report to the body which approved the environmental impact assessment report requesting certification of the results of operational testing of the environmental treatment facilities, in order for such body to provide its certification. And all these measures will be checked by the government: After the competent State body has approved the environmental impact assessment report, it shall have the following responsibilities: (a) To compare the files on the design and construction and installation of the environmental treatment facilities with the environmental impact assessment report which has been approved, and if any inconsistent items are discovered, then within a time-limit of seven (7) working days from the date of receipt of the file and report, to provide written notice to the project owner to make amendments and additions; (b) To accept and to deal with any opinions from or recommendations made by the project owner or other organizations and individuals involved regarding implementation of the items and measures for protection of the environment throughout the process of execution of the project building works; (c) To arrange a plan to carry out supervision and inspection of implementation of the items and measures for protection of the environment; to deal with any breaches which arise in accordance with its authority or to recommend that the authorized body deal with such breaches; (d) To arrange for inspection and supervision of operational		impacts of the project will be in place when the project is in the formal operation according to the requests of national relevant laws and EIA. All measures not yet implemented at the time of validation should be checked when the project is carried out verification.

	testing of the environmental treatment facilities after receiving the plan on operational testing from the project owner; (e) To consider and certify results of operational testing of the environmental treatment facilities; (f) To archive and administer the entire file and documents on post-appraisal operation as forwarded by the project owner and other organizations and individuals involved.		
Validator's Conclusions concerning Priority 6: The conclusion is that the requirements related to criteria 6 "Ensuring Compliance" were meet.			
7. Sharing rivers for peace, development and security.			
Does the project have trans-boundary impacts? - If so, give details of agreement(s) between affected countries, considering international recommendations for trans-boundary water projects and describe how this affects the project	Nam Pong hydropower project is located on Nam Pong stream in the Middle of Vietnam. The Nam Pong stream is a first branch of Hieu river, running wholly in Vietnam not crossing out or sharing the water resources with any other countries. Therefore the project does not have any trans-boundary impacts.	/6/	The project has no trans-boundary impact. This has been confirmed through onsite visit.
Validator's Conclusions concerning Priority 7: The conclusion is that the requirements related to criteria 7 "Sharing Rivers of Peace, Development and Security" were meet.			
Validator's assessment as to how the project respects the seven strategic priorities outlined in the World Commission on Dams November 2000 Report "Dams and Development – A New Framework for Decision-Making" The guidelines of the World Commission on Dams (WCD) are comprehensive and have to be seen in some cases more as goals than concrete requirements. Taking this into account, we can confirm as result of our compliance assessment that Nam Pong Hydropower Station is in compliance with the main principles of the seven priorities. The stakeholder affected by the project have been compensated according to the Vietnamese legal requirements; the compensation standard for land occupation is in compliance with the authorized documents issued by Authority. The negative impact on the environment (local climate, aquatic biodiversity and terrestrial species) is negligible. The measures implemented by the project owner to protect the ecosystem are in compliance with relevant regulations issued by authority. The ecological affection will be monitored by the local government.			

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Function	Team leader	Team member	Team member	Team member
Note: The team member of the validation team, Mr. HUANG Wenjing, has the working experience of hydropower project in Viet Nam, and knows the relevant laws and regulations of Viet Nam which guarantee that the validation team meets the requirement of Para 45 of CDM Accreditation Standard for Operational Entities (ver.03.0) EB62 Annex 01.				
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