

ETHNIC MINORITIES DEVELOPMENT PLAN (EMDP)

MUONG KHUONG HYDROPOWER CONSTRUCTION PROJECT

Muong Khuong district – Lao Cai province

ABBREVIATIONS

AH	Affected Household
AP	Affected Person
CPC	Commune Peoples' Committee
DMS	Detailed Measurement Survey
DPC	District Peoples Committee
DRC	District Resettlement Committee
EMPF	Ethnic Minority Plan Framework
EMDP	Ethnic Minorities Development Plan
GOV	Government of Vietnam
HH	Household
IOL	Inventory of Losses
LAR	Land Acquisition and Resettlement
LURC	Land Use Rights Certificate
MOF	Ministry of Finance
MOLISA	Ministry of Labor, Invalids and Social Assistance
NGO	Non-Government Organization
PPC	Provincial People Committee
RP	Resettlement Plan
TOR	Term of Reference
USD	United States Dollar
VND	Vietnamese dong
WB	World Bank
OP 4.10	Ethnic minority policy of World Bank

GLOSSARY

Affected person / Affected household: Means any person, household, firm or private institution who, on account of changes resulting from the Project, or any of its phases or sub-projects, will have its (i) standard of living adversely affected; (ii) right, title or interest in any house, land (including residential, commercial, agricultural, forest, salt mining and/or grazing land), water resources or any other moveable or fixed assets acquired, possessed, restricted or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence or habitat adversely affected, with or without displacement.

In the case of affected household, it includes all members residing under one roof and operating as a single economic unit, who are adversely affected by a project or any of its components.

Affected community: the village is affected by (a) acquiring land by any activity of the project, despite of being moved or not being moved; (b) the community receive moved households, or; (c) surrounding community, and their culture, society will be surely affected negatively by the project.

Entitlement: the entitlements of resettlement, including compensation and assistance.

Compensation payment: compensation by material, cash, or by both of material and cash, with replacement price for all lost assets.

Assistance and recovery: Assist AHHs who lose assets, jobs or livelihoods, with compensation amount for acquired assets to ensure the recovery of livelihood.

Livelihood: ability, assets and activities to maintain living level and living quality, including income in cash and expenditure.

Plan: code of regulation, objectives, procedure and cost which are identified to ensure smooth activities of the project. The quantitative indicators (land, people) in the plan are forecasted objectives. These objectives can be amended if necessary in implementation process of the project.

Move: real resettlement of AHHs away from residential place and/or businesses when the project is deployed.

Vulnerable groups: These are distinct groups of people who might suffer disproportionately or face the risk of being further marginalized by the effects of resettlement and specifically include: (i) single-female headed households with dependents, (ii) disabled household heads, (iii) households falling under the generally accepted indicator for poverty, (iv) children and the elderly households who are landless and with no other means of support

Ethnic minorities: According to WB, the term *Indigenous Peoples* is widely understood, refers to a group of culture and society who are vulnerable, separate and contain the following characteristics at different levels:

- (i) Self-identification and identification by other members of a distinct cultural group;
- (ii) A close attachment to ancestral territories and to the nature resources in these areas;
- (iii) Presence of customary social and political institutions; and
- (iv) An indigenous language, often different from national language.

In Vietnam, the term Indigenous Peoples refers to ethnic minorities.

Agreement of indigenous peoples: refers to the presence of all affected indigenous peoples community on the wide support of community about the activities of the project. The community can have the wide support even when some individuals or a group of individuals disagree the activities of the project.

Wide support of community: ensure to have the agreement of indigenous peoples who are affected by the project activities.

Practical consultation: A process (i) is early started right at beginning of the project and consecutively continued during project progress; (ii) which includes timely disclosure of related project information which is understandable and easy to access by the affected people; (iii) is conducted in an environment of no threatening and force or enforcement; (iv) is integrated and met gender sensitive issues, adjusted as per required by the disadvantaged and vulnerable groups; and (v) creates conditions to include related view points of affected people and other stakeholders into decision making process like project design, mitigation measures, sharing interest and development opportunities, and implementation issues.

INDEX

SUMMARY	vii
I. INTRODUCTION	10
A. Overview of the Renewable Energy Development Project	10
B. Introduction of Muong Khuong Hydropower Project	11
C. Objectives of the EMDP	15
II. LEGAL FRAMEWORK OF THE EMDP	17
A. Legal documents and national policies on the ethnic minority community	17
B. Policies and programs on ethnic minority community	19
C. Policies of World Bank on ethnic minority community	20
III. SOCIO-ECONOMIC CHARACTERISTICS OF ETHNIC MINORITY COMMUNITY IN THE PROJECT AREA	23
A. Overview of ethnic minorities in the project area.....	23
B. Socio-economics survey of ethnic minority groups affected by the project	25
IV. CONSULTATION AND INFORMATION DISCLOSURE	26
A. Ethnic community consultation	26
1. Objectives of ethnic community consultation.....	26
2. Consultation methods	26
3. Result of consultation	26
4. Community consultation during implementation of EMDP.....	27
B. Information disclosure	28
V. ASSESSMENT OF PROJECT IMPACTS TO ETHNIC MINORITIES	29
A. Positive impacts	29
B. Negative impacts.....	31
VI. THE MITIGATION MEASURES AND DEVELOPMENT FOR ETHNIC MINORITIES	35
A. Mitigation measures	35
B. Ethnic minority development measures	38
VII. INSTITUTIONAL ARRANGEMENT AND IMPLEMENTATION PLAN	41
A. Institutional Arrangement.....	41
B. Implementation Plan.....	42
VIII. COMPLAINTS AND GRIEVANCE REDRESS MECHANISM	43
IX. MONITORING AND EVALUATION	44
A. General requirements for monitoring and evaluation.....	44
B. Monitoring indicators	45
X. BUDGET AND DISBURSEMENT PLAN	47

LIST OF TABLES

Table I-1: Main specifications and parameters of Muong Khuong HPP	12
Table II-1: Legal documents of the Vietnamese Government for ethnic minorities.....	17
Table III-1: The number of affected households and ethnic group.....	25
Table III-2 Positive impacts of Muong Khuong hydropower project	29
Table III-3 Negative impacts of Muong Khuong HPP.....	31
Table VI-1 Mitigation measures	35
Table VI-2 Ethnic minority development measures.....	39
Table VII-1 Implementation Progress of EMDP	42
Table IX-1 Monitoring indicators in EMDP	45
Table X-1 Total funds for implementation of EMDP	47

Annexes

ANNEX 1 LIST OF AHHs

ANNEX 2 LIST OF HOUSEHOLDS ATTENDED THE MEETINGS

ANNEX 3 CONSULTATION MEETING MINUTES

ANNEX 4 SOME PHOTOS OF CONSULTATION

SUMMARY

Introduction

1. The general objective of the Renewable Energy Development Project (REDP) is to increase the supply of least-cost electricity to the national grid from renewable energy sources on a commercially sustainable basis in an environmentally and socially sustainable manner.
2. Muong Khuong hydropower plant invested by LICOGI 18.3 Investment and Construction Joint Stock Company is expected to be built on Lan Tu Ho stream in Din Chin and Nam Lu communes, Muong Khuong district, Lao Cai province. Most of the construction area is located in Din Chin commune, only about half of the lake bed area is located in Nam Lu commune. The construction area of the main construction works is located entirely in Din Chin commune. The project site is about 10.0 km from the center of Muong Khuong town. The location of the plant is about 15km from 4D Highway, 5km from inter-commune road; the dam route is about 12.5 km from 4D National Highway, 2.5km from inter-commune road.
3. Geographic coordinates of dam route: 104° 11' 08" in east longitude, 22° 44' 46" in north latitude. Geographic coordinates of plant route: 104° 11' 30" in east longitude, 22° 44' 18" in north latitude.
4. Muong Khuong hydropower plant is diversion hydropower plant with regulating reservoir, the average annual electricity output is about 37.94 million kWh. Main parameters: catchment area: 95 km², annual flow $Q_0 = 4.13 \text{ m}^3/\text{s}$; Maximum flow: $5.15 \text{ m}^3/\text{s}$; Normal water level: 378 m; Dead water level: 373.5 m; Surface area of reservoir corresponding to NWL: 1.58 ha; Total reservoir volume V_{tb} : 0.11 million m³; Useful reservoir volume: 0.07 million m³, height of spillaway: 14.6m, height of weir: 14.25m, voltage: 35 kV.
5. The objectives of Ethnic Minority Development Plan (EMDP) is to ensure that the implementation of subprojects respects the values, human rights and the culture of ethnic minorities in the area affected by the project and also considers the expectations and economic development needs of the ethnic minority community.

Legal Framework for the EMDP

6. Vietnam's Constitutions in 1946, 1959, 1980 and 1992, along with other legal documents (updated until 2016) related to works and the development strategies for the ethnic minority as well as the ethnic development policies of the World Bank (WB) – OP4.10 are the important legal foundations in the preparation of the EMDP for Muong Khuong Hydropower Project; the ethnic minority-related policies of the local and government as well as WB have been applied in combination with the EMDP to ensure that the ethnic minority community living around the Muong Khuong Hydropower Project is consulted and provided with a full of information, and participated in the implementing stages of the Project, benefits from the Project, and

the negative impacts of the Project on culture, economics and society are highly mitigated.

Socio-economic characteristics of ethnic minority community in the project area

7. Socio-Economic Survey on the area and affected households was held in December 2016 with 100% of participants (74 households). 100% of the AHHs are ethnic minorities. The main income source of affected households is from agriculture (74/74 households). Because the agricultural production depends on the weather and limited land area, poor cultivation knowledge, income of these households is quite low (average income levels are mostly from 15 to 20 million VND/year), poor rate is 88% (65/74 households).

Information dissemination and community consultation

8. Many consultant meetings and group discussions were held in December 2016 until now with the participation of stakeholders, especially local authorities and vulnerable households, to provide households with the full information on the project and activities from initial stage to operation stage of the project, and to get households' feedback and comments proposing measures within the development plan.

9. In the next stage of the project, the dissemination and consultant meetings with local authorities and households will be held frequently at each important stage or necessary time of the project.

Assessment of impacts of the project

10. Potential impacts of the project include positive and negative impacts discussed carefully at the consultant meetings and group discussions among the project implementing partners and relevant agencies as well as households affected. Basically, there were not seriously negative impacts of the project on local households' lives and belief culture as well as manners and customs.

Mitigation and development measures for the ethnic minority

11. There are some unavoidable impacts out of expectation, resulting from acquiring some production areas (land for planting rice, land for perennial and annual trees, productive forest land...) and relevant activities during the implementing period. Accordingly mitigation measures or advanced measures have been proposed to improve or help the ethnic minority to recover soon and stabilize the production of households.

Institutional arrangement and implementation plan

12. The implementation of the ethnic minority development plan needs to have a coordination of organizations and agencies from provincial level to local level and the ethnic minority community at local. The Client of Muong Khuong Hydropower Project will be a lead organization and coordinated with other organizations to implement. LICOGI 18.3 Investment and Construction JSC has a responsibility to provide funds for implementing all activities/tasks proposed in the EMDP and to report to stakeholders.

Complaints and Grievance redress mechanism

13. Complaints and Grievance redress mechanism in this EMDP have been made based on Vietnam's laws on complaints and denunciations, consulted with local authorities, the ethnic minority community and also involving in particular cultural characteristics and traditional culture mechanisms of the ethnic minority community in the project area.

Monitoring and evaluation

14. Proposed measures and implementing timeframe of the EMDP for Muong Khuong Hydropower Project will be monitored closely to (i) ensure the implementing progress of the plan; (ii) undertake rightly the mitigation measures of the plan; (iii) assess effectiveness of the measures and propose supplement measures if necessary; (iv) identify potential or generated problems to the ethnic minority community during the implementing period of the project; and (v) identify quick response measures to mitigate these issues.

15. Independent and internal monitoring system will be established by the experts with knowledge and experience in community and ethnic minority development. LICOGI 18.3 Investment and Construction JSC will be responsible for internal monitoring, monthly and quarterly monitoring reports will be submitted to the Project Management Board and World Bank (WB). Independent monitoring agency will be recruited to implement the independent monitoring, and the independent assessment will be made annually, except for the beginning period of the project with monitoring requirement of twice per year

Budget and disbursement plan

Total budget of implementing development measures within the EMDP is **816,200,000 VND** (approximately 35,861 USD, foreign exchange rate is 22,760 including the contingency cost of 10%). Implementation costs will be paid by LICOGI 18.3 Investment and Construction JSC who is responsible to fund for implementing all activities of the EMDP required.

I. INTRODUCTION

A. Overview of the Renewable Energy Development Project

16. The goal of the Renewable Energy Development Project is to support the development of the electricity-generated renewable energy sources with lowest costs to share with the national electricity network based on the commercial sustainability, and ensuring the social and environmental sustainability. The project has 3 components: (i) Component of investment project implementation; (ii) Component of institutional establishment; and (iii) Component of information channel development.

17. Component of investment project implementation consist of (i) Allow commercial banks to re-borrow funds to provide valid loans for the renewable energy projects with a maximum capacity of 30MW invested by private investors, and (ii) Technical support to enhance the capacity of the participating banks and investors of sub-projects in the preparation, appraisal, financing and the implementation of the renewable energy projects in comply with international practice. This component will be coordinated by the Renewable Energy and Rural Electricity Project Management Board (PMB) of Ministry of Industry and Trade. This component consists of two sub-components as follows:

- ***Provide credits to support investment in renewable energy:*** Provide credits to support investment in renewable energy: Private investors will establish sub-projects in small hydropower sectors, wind power and biomass with a maximum capacity of 30MW in accordance with the criteria of the renewable energy development project including environmental and social safety standards. Investors commit to contribute equity with at least 20% of the total investment capital and will make a maximum loan from the participating banks with 80% of the total investment capital of the subproject.
- The participating banks are selected based on competition and will be responsible to appraisal the valid renewable energy sub-projects under the proposal of investors, and provide loans for the projects meeting fully requirements of the banks. The participating banks will allow the sub-projects to make a loan in accordance with the commercial clauses identified by the market, and be fully responsible to credit risks of the loans.
- Valid loans will be refinanced 80% of loan value for the participating banks or 64% of the total investment value of the sub-projects, meaning that the participating banks will commit to make a loan of at least 16% of the total investment value in each sub-project's budget and investors will contribute equity of 20% total investment capital. After the letters requesting re-borrow were approved, the participating banks will achieve re-loan from the renewable energy development project (World Bank – WB) ratified by Ministry of Finance (MOF). Re-loan from the renewable energy development project will be sponsored from WB's capital through the loan of MOF in accordance with the clauses of WB.
- It is anticipated that about 20-25 subprojects will be sponsored through the re-loan mechanism. When operating, the total design capacity of these projects will be at 210MW and generate the annual electricity capacity of 880GWh.

- ***Technical Assistance to implement the investment project:*** The technical assistance of Component 1 will support the general management of the renewable energy development project, check validity of the loans and enhance capacity for the participating bank, investors and other stakeholders. The Project Management Board will manage the technical support. The technical support will focus on providing investors with necessary skill guidelines to identify the feasible projects and prepare the loan-making proposals from banks through the appraisal and capital loan negotiation.
- The technical assistance will also focus on training the ways of establishing feasible research, optimize design, construction management, operation, maintenance, financial risk management and consideration of social and environmental safety issues. The banks will be supported to enhance the understanding of investment risks in the renewable energy projects, and to monitor the project to ensure safety, and to establish the credit policies and to appraisal the sub-projects in accordance with these policies. The technical support will also support the Project Management Board in managing the Renewable Energy Development Project.

B. Introduction of Muong Khuong Hydropower Project

1. Legal basis

- Decision No. 3383 / QĐ-UBND dated 10/10/2016 of Lao Cai PPC on the decision to invest in Muong Khuong hydropower project.
- Credit Contract No. 01/2017/231355 / HDDA dated 12/04/2017 between BIDV Bac Hung Yen and LICOGI 18.3 Construction Investment Joint Stock Company.
- Document No. 4583 / EVNNPC-KD dated 02/11/2016 of Northern Electricity Corporation on approving the purchase of electricity from Muong Khuong hydropower project.
- Decision No. 4047 / QĐ-UBND dated 13/10/2016 of Muong Khuong District People's Committee on the establishment of Compensation and Clearance Committee of Muong Khuong hydropower project.
- Document No. 191 / TTr-UBND dated 12/09/2016 of Lao Cai People's Committee supplementing the list of land acquired by Muong Khuong hydropower project.
- Document No. 11 / HĐND-TT dated 21/09/2016 of Lao Cai City People's Council agreed about additional list of land acquired by Muong Khuong hydropower project.
- Decision No. 4239 / QĐ-UBND dated 28/11/2016 on approval of environmental impact assessment report for Muong Khuong Hydropower Project.

- Decision No. 4202 / QD-UBND dated 24/11/2016 regulating local land use planning until 2020 and supplementing the land use plan 2016 in Muong Khuong district.
- Results of basic design appraisal of Lao Cai Department of Industry and Trade in Document No. 288 / SCT-NL dated 13/03/2017.

2. Characteristics of the plant

18. Muong Khuong hydropower plant is expected to be built on Lan Tu Ho stream in Din Chin and Nam Lu communes, Muong Khuong district, Lao Cai province. Most of the construction area is located in Din Chin commune, only about half of the lake bed area is located in Nam Lu commune. The construction area of the main construction works is located entirely in Din Chin commune. The project site is about 10.0 km from the center of Muong Khuong town. The location of the plant is about 15km from 4D Highway, 5km from inter-commune road; the dam route is about 12.5 km from 4D National Highway, 2.5km from inter-commune road.

19. Geographic coordinates of dam route: 104° 11' 08" in east longitude, 22° 44' 46" in north latitude. Geographic coordinates of plant route: 104° 11' 30" in east longitude, 22° 44' 18" in north latitude.

20. Muong Khuong hydropower plant is diversion hydropower plant with regulating reservoir, the average annual electricity output is about 37.94 million kWh. Main parameters: catchment area: 95 km², annual flow $Q_0 = 4.13 \text{ m}^3/\text{s}$; Maximum flow: $5.15 \text{ m}^3/\text{s}$; Normal water level: 378 m; Dead water level: 373.5 m; Surface area of reservoir corresponding to NWL: 1.58 ha; Total reservoir volume V_{tb} : 0.11 million m³; Useful reservoir volume: 0.07 million m³, height of spillaway: 14.6m, height of weir: 14.25m, voltage: 35 kV;

21. The power supply for the construction is from the existing 35kv line along 4D national highway to the construction site and the places where the electricity is used such as the headwork. The substation 35/0.4 kV will be built, the low-voltage stations are designed as hanging stations.

22. Water for construction and living is pumped directly from surface water sources which are streams. The water is pumped into the tanks, filtered appropriately and distributed to the place of consumption.

Table I-1: Main specifications and parameters of Muong Khuong HPP

No.	Specification	Unit	Value
1	Catchment		
-	Catchment area	km ²	95

-	Length of main river	km	17.0
-	Average annual flow Q_0	m^3/s	4.13
	Check flood flow responding to frequency $P=0,5\%$	m^3/s	1200
	Designed flood flow responding to frequency $P=1,5\%$	m^3/s	950
2	Reservoir		
-	Designed flood level ($P=1,5\%$)	m	383,95
-	Checked flood level ($p=0,5\%$)	m	383,84
-	Normal water level (NWL)	m	378
-	Dead water level (DWL)	m	373,5
-	Total volume W_{tb}	10^6m^3	0,14
-	Useful volume W_{hi}	10^6m^3	0,08
-	Dead volume W_c	10^6m^3	0,06
-	Reservoir responding to NWL	ha	1,58
3	Weir (BTCT)		
-	Weir crest elevation	m	384,50
-	Maximum height of weir	m	14,25
-	Total length of weir crest (including CLN)	m	82,5
-	Width of weir crest on left and right banks	m	4,5 & 3,5
4	Spillaway (BTCT)		
-	Sill elevation	m	378
-	Maximum height of spillaway	m	14,6
	Width of spillaway crest	m	40
-	Width of spillway deflector	m	34
-	Spillway deflector elevation	m	371,5
5	Sand discharge culvert		
-	Surface area of sand discharge culvert $b \times h$	m	2x3
-	Sill elevation	m	368
6	Water intake – spillaway at the begining of canal (BTCT)		
-	Height of water intake	m	14,50
-	Sill elevation of water intake	m	371,5
-	Crest elvevation	m	384,50
-	Number of intake chamber	chamber	1
-	Surface area of water intake $B \times H$	m	2x2
-	Design flow	m^3/s	5,15
-	Length of spillaway at the begining of canal	m	13
-	Sill elevation of spillaway	m	372,6
-	Surface area of sedimentation tank $B \times H$	m	3x3
-	Tank length	m	23
-	Surface area of sand discharge gate	m	1x1
7	Diversion canal (BTCT)		
-	Length of canal	m	804

-	Surface area of canal BxH	m	2x2
-	Cannal elevation	m	371,5
-	Elevation at end of canal	m	370,7
-	Slope of canal bottom	%	0,1
8	Pressure tank –water intake (BTCT)		
-	Surface area of pressure tank	m	7x7.5
-	Length of tank	m	36
-	Width of spillaway at the end of canal	m	15
-	Surface area of sand discharge gate BxH	m	1.5x1.5
-	Surface area of water intake BxH	m	1,3x1,3
9	Penstock (steel)		
-	Length of penstock	m	349
-	Diameter of penstock	m	1,3
10	Hydropower plant (BTCT)		
-	Dimensions of the plant BxLxH	m	20x37,7x20,9
-	Max flow through the plant Q_{max}	m ³ /s	5,15
-	Max water column , Hmax	m	197.22
-	Min water column, Hmin	m	187,45
-	Calculated water column H_{tt}	m	187,45
-	Installation capacity N_m	MW	8,2
-	Ensure capacity N_{db} frequency 85%	MW	2
-	Annual average electricity E_{db}	10 ⁶ kWh	37,94
-	Hours using installation capacity	giờ	4630
11	Discharge canal of the plant		
-	Design flow	m ³ /s	5,15
-	Length of discharge canal	m	52,3
-	Width of discharge canal bottom	m	4
-	Coefficient of discharge	m	1
12	Mail volume		
a.	Construction		
-	Excavate soil, sand	10 ³ m ³	131.11
-	Excavate opening rock	10 ³ m ³	79.03
-	Fill with soil and rock	10 ³ m ³	14.11
-	Concrete	10 ³ m ³	26.18
	<i>M10 concrete</i>	<i>10³m³</i>	<i>0.31</i>
	<i>M15 concrete</i>	<i>10³m³</i>	<i>5.78</i>
	<i>M20 concrete</i>	<i>10³m³</i>	<i>14.84</i>
	<i>M25 concrete with reinforced steel</i>	<i>10³m³</i>	<i>5.26</i>
-	Reinforced steel	ton	775.09
-	Jet grouting for waterproofing	10 ³ m	0.6
-	Jet grouting for reinforcement	10 ³ m	0.7

b.	Equipment		
-	Hydro-mechanical equipment	Ton	270.9
-	Hydraulic mechanical equipment	Ton	180
-	Electrical equipment	MW	8.2
13	Total investment (after tax)	10⁹vnd	274.085
-	Cost of construction	10 ⁹ vnd	117.322
-	Cost of equipment	10 ⁹ vnd	83.847
-	Cost of clearance compensation	10 ⁹ vnd	4.200
-	Cost of project management	10 ⁹ vnd	3.654
-	Cost of investment and construction consultancy	10 ⁹ vnd	13.564
-	Other cost of the project	10 ⁹ vnd	15.335
-	Cost of loan	10 ⁹ vnd	16.521
-	5% contingency costs of volume, 5% contingency costs of volume inflation	10 ⁹ vnd	19.642
14	Economic indicators		
-	Net investment capital	10 ⁹ vnd	234.53
-	EIRR	%	14.62
-	B/C		1.37
-	NPV	10 ⁹ vnd	46.61
-	Cost	VND/kWh	887.40
-	Price	VND/kWh	1051.12
-	Payback time	year	14

C. Objectives of the EMDP

23. OP4.10 policy of WB stipulates the requirements that borrowers must meet to undertake the sponsoring measures for the ethnic minority in the projects financed by WB. The documents involved in the targets and application scale, and emphasize the requirements on: (i) process of assessing social impacts and making a plan; (ii) preparing reports on assessment of social impacts and plan-making documents; (iii) publishing information and implementing consultation including the agreement of the ethnic minority vulnerable to the activities of the project selected; (iv) establishing complaint solving, and (v) monitoring, inspection and reporting. The policy requirements will protect rights of the ethnic minority maintained, and conserve cultural characters, activities and living environment of the community and ensure the projects implement necessary measures to protect these rights.

24. The general objectives of the EMDP are to: (i) mitigate and reduce the impacts of the project on livelihood of the ethnic minority in affected regions; (ii) ensure the project implementation procedure and promote the human-right respectability, original cultural characters, the variance of ethnic minorities in the regions affected by the project, and record the demands and aspirations of local people; (iii) find-out the impacts of the project on the ethnic minorities and how to prevent or mitigate potential negative impacts; (iv) ensure implemented benefits to be suitable to cultural aspects; (v) ensure the affected communities to be consulted issues related to potential impacts and mitigation measures,

and they may join fully the making-decision procedure, implementation and monitoring, and (vi) make a particular implementing plan with limited time; arrange budget and institution, establish roles and responsibilities of various agencies in implementing, monitoring and inspecting all activities required in EMDP.

25. Therefore, the EMDP aims (i) record the previous consultation process and disseminate information to the minority living in the regions affected by the project and mitigation measures in the resettlement plan (RP) and EMDP in the project implementing period, and expressing the extensive support of the community;(ii) Find out the implementation and consultation framework to undertake EMDP; (iii) Establish the general measures to reduce or solve the impacts of the project in the ethnic minority community sponsored through RP and EMDP; and (iv) Make budget to manage the potential risks and the project impacts that were anticipated in the implementing stage.

II. LEGAL FRAMEWORK OF THE EMDP

A. Legal documents and national policies on the ethnic minority community

26. Constitution of the years 1946, 1959, 1980, 1992, 2003 and 2013 regulated that “The State implements policy of equality, solidarity, mutual assistance among ethnic groups, creating conditions for the groups develop in a civilized society, and respect for the interests, culture, traditions, language and customs practices of the groups”.

27. National legal framework was updated in 2016 with a number of documents relating to works of ethnic minorities and legal supporting policies to strengthen the legal awareness of ethnic minorities, particularly in poor districts. The legal documents are specified in Table II.1 as follows.

Table II-1: Legal documents of the Vietnamese Government for ethnic minorities

Year of issue	Reference number and content of text
2016	Announcement No. 1423 / VPCP-KTTH dated July 4, 2016 on the addition of subjects and prolonging loan disbursement time under Decision 54/2012 / QĐ-TTg, 29 / QĐ-TTg and 755 / QĐ-TTg of Prime Minister.
2013	Decision No. 29/2013 / QĐ-TTg dated 20 May 2013 of Prime Minister on some policies to support land settlement and job creation for poor ethnic groups living in Mekong delta area in period 2013-2015
2013	Decision No. 755 / QĐ-TTg, dated 20/5/2013 about policies to support residential land and land for daily-life water for poor ethnic households and poor households in extremely disadvantaged communes and villages
2013	Decision No. 2356/QĐ-TTg dated 04/12/2013 of the Prime Minister on issuing the Action Plan implementing the strategy of ethnic minority work until 2020.
2013	Decision No. 449/QĐ-TTg dated 12/03/2013 of the Prime Minister on approving the strategy of ethnic minority work until 2020.
2013	Decision No. 551 / QĐ-TTg dated 04/04/2013 about Program 135 on investment in infrastructure support, production development for communes with special difficulties, border communes, regional safe communes , and extremely disadvantaged hamlets, villages.
2013	<i>Decision No. 1489 / QĐ-TTg dated 8 October 2012: Approving National</i>

Year of issue	Reference number and content of text
	<i>Target Program for Sustainable Poverty Reduction 2012-2015.</i>
	Decision No. 2214 / QĐ-TTg dated 18/11/2013 approving the Scheme on enhancing international cooperation to support socio-economic development of ethnic minority regions
2012	Decision 1776 / QĐ-TTg dated 21/11/2012 on approving the program on population distribution in areas of natural calamity, extremely disadvantaged areas, border area, island, free migration area, special use forest in period 2013 - 2015 and orientation to 2020
2012	Decision No. 54/2012 / QĐ-TTg dated 04/12/2012 of Prime Minister on loan policies for production development for disadvantaged ethnic minorities (EM) period in 2012-2015.
2012	<i>Decision No. 59/2012 / QĐ-TTg dated 24/12/2012 Decision of Prime Minister on issuance of policies on legal aid for the poor and ethnic minorities in poor communes in the period 2013-2020</i>
2012	Decision No. 1212 / QĐ-TTg dated 05/09/2012: National Target Program on information on mountainous, remote, border and island facilities in period 2012-2015.
2011	Decision No. 1270/2011 / QĐ-TTg, dated 27/07/2011 on approving the project "Conservation and development of Vietnamese ethnic cultures until 2020"
2011	Decree No. 05/2011/ND-CP on the works of ethnic minorities. This decree describes the activities of ethnic minority works to ensure and promote equality, unity and mutual assistance for mutual development and respect and preserves the characters of ethnic minorities living within the territory of Socialist Republic of Vietnam.
2010	<i>Decision No. 75/2010 / QĐ-TTg, dated 29/11/2010: Policies for organizations and units employing ethnic minority people who are legally residing in the Central Highlands provinces.</i>

Year of issue	Reference number and content of text
2010	Decision No. 52/2010/QĐ-TTg of the Government on the legal aid policy to increase awareness and understanding about laws on poor ethnic minorities in the poor districts in the period of 2011-2020.
2008	Decision No. 289 / QĐ-TTg dated 18/03/2008 on issuance of some policies to support ethnic minorities, policy beneficiary households, poor households, near poor households and fishermen
2008	<i>Resolution 30a / 2008 / NQ-CP dated 27/12/2008: Resolution on fast and sustainable poverty reduction for 61 poor districts.</i>
2007	Decision No. 112/2007 / QĐ-TTg dated 20/7/2007 on policies to support services, improve people's living, legally support to raise legal awareness under Program 135 Phase II
2007	Decision No. 33/2007/QĐ-TTg dated on 5/3/2007 of the Prime Minister on policy supporting immigration and implementing resettlement for ethnic minorities in the period of 2007-2010.
2006	Decision No. 82/2006 / QĐ-TTg dated 14/4/2006 on adjustment of scholarship policy for ethnic minority pupils and students in boarding schools and boarding undergraduate schools.

B. Policies and programs on ethnic minority community

28. The application of social and economic policies suitable to each region, each ethnic group, with attention to needs of ethnic minority groups, is required. Below present the detail of policy for Ethnic Minority as follow:

- *Policy on supporting investment in infrastructure include: Decision No. 551/QĐ-TTg, dated 04/04/2013: Program No. 135 on supporting investment in infrastructure, supporting production development in the communes with special difficult conditions, border communes, safety zone commune, villages. Decision No. 755/QĐ-TTg, dated 20/05/2013: Policy on supporting residential land, production land, drinking water for ethnic minority and poor households in extremely poor communes and villages. Decision No. 1489/QĐ-TTg dated 08/10/2012: To approve the national target program for sustainable Poverty Reduction 2012-2015.*
- *Policy on supporting social security: According to Decision No. 29/2013/QĐ-TTg, dated 20/5/2013: Policy on supporting resolving residential land and jobs for poor ethnic minority households with poor living condition in Mekong Delta 2013-2015*

period. Decision No. 75/2010/QĐ-TTg, dated 29/11/2010: The policy for the organization, units employing ethnic minority residing legally in Central Highlands provinces. Decision No. 2356/QĐ-TTg, dated 12/04/2013 action program to implement Ethnic Minority Strategy until 2020. Decision No. 59/2012/QĐ-TTg, dated 24/12/2012 by Prime Minister about legal support for the poor, ethnic minority household in poor communes period 2013-2020. Decision No. 2214/QĐ-TTg, dated 18/11/2013: Approve the Scheme to enhance international cooperation to support economic and social development in ethnic minority groups.

- *Policies on supporting livelihood and settlement of cultivation and residence for ethnic minority group: Decision No. 289/QĐ-TTg dated 18/3/2008: The decision on the issuance of the policies to support ethnic minorities, social policies, poverty, nearly-poor households and fishermen. Resolution No. 30a/2008/NQ-CP ngày 27/12/2008: Resolution on the Program support poverty reduction quickly and sustainably for 61 poor districts. Decree No. 54/2012/QĐ-TTg dated 04/12/2012 of Prime Minister about the loan policy for extremely poor ethnic minority households to develop production in the period 2012-2015. Decision No. 304/2005/QĐ-TTg dated 23/11/2005: the pilot of assign forests and forest protection to ethnic minority households and communities in Central Highlands. Decision No. 146/2005/QĐ-TTg: land acquisition policy of agricultural production and forestry farms to assign poor ethnic minority households. Decision No. 1776/QĐ-TTg, dated 21/11/2012: approve population distribution program in the areas with natural disasters, special difficult conditions, border, island and free migration, SUF period 2013 - 2015 vision to 2020. Decision No. 33/2007/QĐ-TTg on policy to support ethnic minority immigrants to implement settlement of cultivation and residence in the period 2007-2020.*
- *Policies on education, culture: Decision 267/2005/QĐ-TTg on policy and vocational training for EM students in the whole country. Decision No. 82/2006/QĐ-TTg, dated 14/4/2006 about adjustment of scholarship policies to ethnic minority pupils and students at ethnic boarding schools and pre-university schools.*
- *Decision No. 1270/2011/QĐ-TTg, dated 27/7/2011 approving the scheme, "Conservation and development of ethnic culture of Vietnam 2020" Decision No. 1212/QĐ-TTg, dated 05/9/2012: the national target program on bring information to mountainous, remote, border and island communes in the period 2012-2015. Decision No. 52/2010/QĐ-TTg, dated 18/08/2010 on legal support policy in order to raise awareness and understanding of the law for the poor, ethnic minorities in poor districts in the period 2011-2020.*

C. Policies of World Bank on ethnic minority community

29. To ensure the development period of all aspects related to human dignity, human rights and cultural characters of the indigenous peoples. More specifically, is to ensure

that the indigenous peoples are not affected negatively in the development process and they receive benefits that are suitable to their culture. The World Bank has developed, updated and issued the enforcement policy "OP 4.10 - Indigenous Peoples", to apply for all projects funded by the World Bank, which have certain influences on indigenous peoples.

30. According to the policy OP 4.10 of World Bank, the proposed projects which is to be financed by the World Bank and have certain influences on ethnic minority must follow-up the steps as follows:

- **Screening** to determine whether there are ethnic minorities living there or have any collective attachments to the project sites or not;
- If ethnic minorities are living in, **Social assessment** will be conducted to determine positive and negative potential impacts of the project and to revise the design of the project to mitigate negative impacts and increase positive benefits;
- **The previous consultation process, households are provided full of information and freely participate** in the affected ethnic minority community to determine opinions of ethnic people about the project and to assert whether the project receive the extensive support from the community or not;
- **Ethnic minorities development plan (EMDP)** will be prepared in consultation with the community, drafting benefits that the community will receive from the project and the ways of how to minimize adverse impacts; and **Publishing extensive information** on the plan.

31. The regulations above aim at making favorable conditions for the ethnic minority groups adapting to opportunities, meaning that is to participate in designing the project activities that have significant impact on them; and to ensure that opportunities for these ethnic groups are included suitable benefits of culture, manners and customs; and to ensure that any negative impacts of the project must be eliminated or if not they must be mitigated and minimized.

32. The term "**Indigenous Peoples**" in the OP 4.10 of World Bank is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees:

- Self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- Customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- An indigenous language, often different from the official language of the country or region.

33. In the process of preparing the EMDP for Muong Khuong Hydropower Project, policies on ethnic minorities issued by the Government, the World Bank, and the local authorities has been applied in combination with the EMDP is to ensure that the ethnic minority community under the Muong Khuong Hydropower Construction has been consulted and provided fully information, and joined the construction implementation phases, and achieve benefits from the construction, and the negative impacts on cultural, economic and social issues are minimized.

III. SOCIO-ECONOMIC CHARACTERISTICS OF ETHNIC MINORITY COMMUNITY IN THE PROJECT AREA

A. Overview of ethnic minorities in the project area

1. General introduction

34. Muong Khuong HPP is located in Muong Khuong district, Lao Cai province. Two communes affected by the construction are Din Chin and Nam Lu in Muong Khuong district. Most of the damages are in Din Chin commune with 158,244.7/175,779.4 m² acquired land and 71/74 AHHs.

35. Din Chin Commune and Nam Lu Commune are two extremely upland border areas of Muong Khuong district, 6-8km to the east from district center. There are 662 households in Din Chin commune, 3391 people in 8 ethnic groups (Mong account for 60%, Nung 30%, Pa Di, Muong, Kinh, Tu Di, Dao, Tay account for 10%). There are 713 households in Nam Lu commune, 3344 people, 3 ethnic peoples are Nung accounting for 81%, Mong accounting for 15% and Phu La accounts for 4%. The mountainous slope terrain of Din Chin and Nam Lu makes transportation and travel very difficult, especially on stormy season because most of roads are not asphalted. Two communes have 13/30 villages without national power grid. Din Chin and Nam Lu are two purely agricultural communes whose economies are dependent on agricultural production. Cultivation in the communes depends on the weather, not actively be irrigated; The livestock sector is self-sufficient, spontaneous. The harvested products are heavily dependent on market prices, with no stable output, so the incomes of local people are unstable. The poverty rate of the two communes is very high: Din Chin commune: 68.28%, Nam Lu commune: 68.8%.

36. 100% of households affected by the project is ethnic minorities. In 2 communes in the project area, affected households are mainly Nung ethnic people (71 households), Pa Di (2 households) and Tu Di (1 household) .

2. Characteristics of ethnic minorities living in project area

Nung ethnic group

37. Nung people is in the group of Tay-Thai language in Thai-Kadai language, live in the northeastern provinces such as Lang Son, Cao Bang, Bac Kan, Thai Nguyen, Bac Giang, Tuyen Quang and more (accounting for 84%). Currently, a large number of Nung people have migrated into Central Highlands provinces (11%), mainly in Dak Lak. Nung people have a close relationship with Tay and Choang (Zhuang) living along the border with China. In China, Tay and Nung people are as same as Choang ethnic group.

38. Population of Nung ethnic group in Census Vietnam in 1999 was 856,412 people

Economy

39. The main source of food for Nung people is rice and corn. They combine paddy rice cultivation in shallow slit with cultivation on the hillsides. Nung ethnic group plants many fruit trees, perennial fruit trees such as citrus, persimmon... Illicium verum is the most precious trees of the people, every year this tree brings them a significant income resource. The crafts have developed, weaving is the most popular craft, the other crafts are carpentry, weaving and forging, pottery

Culture

40. Nung ethnic group have a rich treasure of traditional culture with many folk songs which are absorbed with ethnic identity.

41. The most famous festival attracting many people in different ages is "Lung Tung" (also means the festival to start a crop) which is held annually in January.

Customs

42. Men and women who are mature cover their tooth in the upper jaw by gold and it is considered a beauty, luxury. Women dress 5-piece-clothes with row of cloth daisies on the right axillary. The long short, wide, narrow clothes vary by different Nung groups but the wrists are always covered by a piece of cloth and the pockets are without the cap. Men and women wear an indigo blue trousers which are with big waistband, big legs, long until ankle-length. Nung women often wear aprons on their belly, when they staunch, they wear a piece of shoulder mattress. One of the distinguished point among the groups is the way of wearing towel and the slightly different decoration on the towels.

House

43. Nung people usually live in stilt and semi-stilt, in which the traditional favorite home-style is stilt. The houses are often quite broad; contain three compartments, the walls are usually made of wood and the roof is tiled. Currently, clay house is popular in Nung ethnic areas

Beliefs

44. Nung people worship their ancestors in the house. The altar has plaques, censer and placed in the most dignified place in the house. In addition, each home also worship Hoa Mother (me Hoa – the god protects young children), Door Mother (me Cua - god protect the house). In early days of every month and the full moon day they burned incense. In the special occasion, they worship with tea, wine and cuisines

Calligraphy

45. Nung people use Han or Nom Nung calligraphy (developed in around 17th century) to record poetry and folk tales.

46. Previously, most Nung people are illiterate, only the rich can go to school, but they learn Chinese or French to become the sorcerer, interpreter. Nowadays, most of Nung

people cannot write their own ethnic calligraphy. All of them are learning national language of Vietnam.

B. Socio-economics survey of ethnic minority groups affected by the project

47. Economic - Social survey of the ethnic households conducted with 74/74 AHHs in two communes Din Chin and Nam Lu shows that 100% households affected by the project is ethnic minority. Table III-1 shows the number of affected households and ethnic group in each commune.

Table III-1: The number of affected households and ethnic group

Commune	Ethnic group			Total AHHs
	Nung	Pa Di	Tu Di	
Din Chin	42	-	-	42
Nam Lu	29	2	1	32
Total	71	2	1	74

IV. CONSULTATION AND INFORMATION DISCLOSURE

A. Ethnic community consultation

1. Objectives of ethnic community consultation

48. Consultation with ethnic minority people in the project area was conducted freely, with notification and community involvement in accordance with World Bank OP 4.10. The objectives of the consultation are to: a) inform the ethnic minorities about subprojects, potential impacts of the project (negative impact and positive impact), b) Receive feedback from ethnic minorities (on the basis of identified impact), and c) propose development activities to ensure that ethnic minorities in the subproject area can receive socio-economic benefits (from the project) which are culturally appropriate to them, and thereby confirms the widespread support of ethnic minority people to the project implementation.

2. Consultation methods

49. There are many different consultation instruments, such as group discussions, in-depth interviews, field observations, and household surveys, which are used to collect the feedbacks from ethnic minorities. Free consultation with notification under World Bank OP 4.10 policy, is maintained throughout the consultation process.

- Consultation instrument: During consultation, the interviewees are free to choose the language. For this project, the ethnic minority group is Nung, but they confirmed before the interview that they felt comfortable with Vietnamese language. Therefore, the consultations were conducted using Vietnamese language. In order to ensure the linguistic freedom of consulted ethnic minority people, a local person who is fluent in both Vietnamese and Nung languages was invited to participate in the consultation process, in case Nung language is needed, for smoothly communication between ethnic minorities and consultants.
- Consultation process: Consultations were conducted in December 2016. The consultations used both household survey and group discussion/meeting (as mentioned above) during the consultation process. Both men and women participated in the consultations, especially ethnic minority women were encouraged to give their comments.

3. Result of consultation

50. During preparation for EMDP, consultation meetings with EM communities have been organized on 10 December 2016 at Coc Can village, Din Chin commune with 40 AHHs (35 men and 5 women) with the following results:

- a) Consulted ethnic minority communities and households have confirmed that they have been informed about the project. Ethnic minority households support the implementation of the project for the following reasons:
- The project assists road construction which helps the farmers to conveniently work in the field, harvest agricultural products. They can also use electricity from low voltage substations of the project.
 - The project improves socio-economic development, and local people have more jobs
- b) EM households and communities understand the positive impacts of the project. They also understand the negative impacts of the project and they agree with the proposed mitigation measures as well as additional assistance measures that will be implemented through EMDP to ensure that ethnic minorities in the project area can receive socio-economic benefits that are appropriate to their culture. Based on project impacts and proposed mitigation measures, EM households and communities demonstrate their support for the project implementation. In addition, they have specific comments as follows:
- Affected households request that compensation must be in accordance with the policy and compensation unit price of the project must be close to the actual price.
 - It is recommended that the investor should inform initially when blasting to ensure the safety of people and grazing livestock.
 - It is recommended that the investor should assist the construction of village cultural center.
 - It is recommended that the investor would prioritize to create jobs for affected people during construction and operation of the plant.

Community development activities

- Assist to build a village cultural center
- Organize training on safety usage of electricity
- Assist livestock models.

4. Community consultation during implementation of EMDP

51. In order to ensure that consultation with ethnic minorities in the implementation of the EMDP is free and informed, the following ethnic minority consultation framework used in the actual EMDP implementation process is summarized as below:

52. During the implementation of EMDP, the consultation methods are similar to those in the preparation of EMDP. In particular, the consultation will be free participation, notified and provide enough information. This is to ensure that feedback from EM community is made based on actual EM needs during EMDP implementation due to unforeseen adverse impacts and ensure that appropriate mitigation measures are updated, development activities are implemented to restore livelihoods and development of ethnic minority people (in accordance with objectives of the project).

53. Ethnic minority communities will be consulted on all project activities throughout the implementation stage of the project.

51. LICOGI 18 Investment and Construction Joint Stock Company, politico-political organizations and local agencies who are responsible for ethnic minority activities will ensure that ethnic minority people participate in the project activities. Meetings and consultations will be conducted with ethnic minority men separately from ethnic minority women in order to receive their feedback on the project activities as well as to identify the positive and negative impacts of the project on their lives.

52. Information and communication activities will be carried out continuously during the project implementation stage to ensure that all stakeholders are fully aware of and understand contents of the project. Communication activities include delivery of information, meetings, interviews, and feedbacks from ethnic minority communities. The responses from above activities should be considered, identified and resolved in time.

53. Community consultations and meetings will be documented and submitted to WB for review and examination.

54. During the implementation stage of the project, consultation and information disclosure to the EM community should use the methods which are appropriate to their culture and gender in order not to create barriers to communication. This may include translations into ethnic languages, using interpreters in community consultations, using visual media, and holding separate meetings with male and female groups.

B. Information disclosure

51. During preparation stage, the final version of EMDP/RP will be publicized to the community at public places, including the commune/district People's Committee, community cultural center and must be presented in the language and layout that EM people and all stakeholders can read and understand. These documents will also be disclosed at WB Information Office in Washington D.C, before project approval.

52. During the implementation stage of the project, LICOGI 18 Investment and Construction Joint Stock Company and local authorities at all levels must ensure that all affected ethnic minority households in the project area will receive sufficient information and be invited to participate in consultations during the implementation stage of EMDP.

V. ASSESSMENT OF PROJECT IMPACTS TO ETHNIC MINORITIES

53. In preparation for the construction of Muong Khuong hydropower plant project, many consultative meetings on project implementation with local authorities, relevant agencies and local people have been organized with the purpose of disseminating information and activities related to the project from the preparation, the design, the construction to the operation stage. Thereby, the investor of Muong Khuong hydropower project, local authorities and people can identify potential impacts caused by construction activities in the process of implementation, including positive and negative impacts that affect the life and culture of ethnic minorities in the construction area of the project.

A. Positive impacts

54. Muong Khuong hydropower plant project is a scaled work with many ancillary items to be built to meet the operational efficiency, so the construction of Muong Khuong hydropower will have positive and meaningful impacts for the productive life and socio-cultural activities of the people in the project area and in the neighboring areas. Specifically, positive impacts are described in detail in Table IV-1 below.

Table III-2 Positive impacts of Muong Khuong hydropower project

Positive impacts	Description	Affection scale
1. Create favourable conditions for production activities.	<ul style="list-style-type: none"> - Reduce drought, increase irrigated area - Improve the inter-field roads from inter-communal roads to project area can facilitate farming and harvesting agricultural products 	- Din Chin and Nam Lu communes get benefits from the project
2. Improve living conditions for the project area.	<ul style="list-style-type: none"> - Provide clean water for daily activities of the community. - Provide and supply additional power to the national grid ... - Inter-communal roads from 4D national highway and inter-field roads from inter-communal roads to project area can facilitate daily living activities and travel of local 	- The reservoir is 1.58 ha, with volume of 0.11 million m ³ ; The capacity is 8.2 MW, provide the national power grid with 37.94 x10 ⁶ kWh every year

Positive impacts	Description	Affection scale
	<p>people.</p> <ul style="list-style-type: none"> - The affected village can use power grid from low-voltage stations of the project. 	
<p>3. Create more jobs for local people.</p>	<ul style="list-style-type: none"> - Create employment opportunities for unskilled local workers, especially households which are directly affected during the construction stage. - Increase employment opportunities for local residents when the project goes into operation. - Provide services to contractors and investors. - Develop catering services, new employment opportunities for local people. - The lake creates conditions for farming households to fish on the river. 	<ul style="list-style-type: none"> - Create jobs for around 100 workers during the period of building culvert in project area, 5 operators when the plant is in operation.
<p>4. Contribute positively to the local development movement.</p>	<ul style="list-style-type: none"> - Increase income and contribute to the local budget. - Supplement power source for living and stable production in the area. - The annual electricity bills can contribute to increase income and contribute to local budget. 	<ul style="list-style-type: none"> - Din Chin and Nam Lu communes get benefits from the project

Positive impacts	Description	Affection scale
5. Other impacts...	<ul style="list-style-type: none"> - Attract investment - Enhance communications... - Increase cultural exchange opportunities in the localities. - The development of transportation and power source will attract more investor to invest in the area, many projects can be invested. 	- Muong Khuong district, Din Chin and Nam Lu communes get benefits from the project

B. Negative impacts

55. In addition to positive impacts as mentioned above, Muong Khuong Hydropower Plant will have negative impacts on local people's lives and production, especially ethnic people in the project area. Therefore, in the consultation meetings and interviews with local authorities as well as local residents, negative impacts are considered and discussed very carefully in order to determine the true and full impacts from the preparation phase to the operational phase

56. In general, Muong Khuong hydropower does not have much influence on the culture and production life of ethnic minorities, particularly effects related to customs, religious beliefs and village relationships. IOL shows that only 2 households whose houses and architectural objects are affected and relocated. However, to ensure the living conditions of the households in the project area, smallest impacts must be taken into account and particular consideration during the preparation process through consultation meetings and group discussions with local people. (Please refer the detailed description of negative effects in Table III-3).

Table III-3 Negative impacts of Muong Khuong HPP

Negative impacts	Description	Affecting scale
Impact on income and livelihoods of local people	- The project will acquire permanently 152,461.3m ² of agricultural land, affect production/job and livelihood/income of the local people	- 74 households in Din Chin and Nam Lu communes
Impact on using water	- During the construction, the dam will	

Negative impacts	Description	Affecting scale
sources (for living and irrigation) in downstream	<p>change river flow from the state of continuous flow to the reservoir state. When damming is started, flow of the lake will change, the water flow water in the area after the dam will be reduced.</p> <ul style="list-style-type: none"> - However, for the reservoir of Lan Tu Ho stream, because the open-type hydropower plant has day and night regulated reservoir, small regulation capacity, the change to the downstream flow regime is insignificant. - When Muong Khuong HPP goes into operation (regulated by day and night with electricity generation is 5 hours/day), the water after passing the turbines along the discharge canal will return to the main stream of Lan Tu Ho stream - In the downstream area, local people use stream water, the two sides of the river are mainly terraced fields, the water used for irrigation is mainly from narrow streams and puddles, thus the impacts on water use of local people in the downstream is insignificant. 	
Temporarily affect production activities of local people	<ul style="list-style-type: none"> - During the construction, it may affect and disrupt the water supply for irrigation, power supply, transport and travel of local citizens and communities. - During the construction, it may 	Project area in Din Chin and Nam Lu communes

Negative impacts	Description	Affecting scale
	<p>affect people's production due to mine blasting, site grading and levelling, soil erosion caused by the construction</p>	
Environmental pollution	<ul style="list-style-type: none"> - During the construction, material transport vehicles will create more dust and dirt for the project area. - Mine blasting for ground levelling also causes environmental pollution. 	<ul style="list-style-type: none"> - The road where truck with construction materials pass through. - The project area and the surrounding areas may be affected by mine blasting activities.
Impact on the local culture and social security of minority communities	<ul style="list-style-type: none"> - During the construction, numerous workers may affect local indigenous cultures via relations and communications with the community. - Work camps of contractors at the construction site are likely affect the security in the local area. - Cultural activities of workers may affect local cultures. 	Project area in Din Chin and Nam Lu communes
Impact on living practices and habits of people	<ul style="list-style-type: none"> - Change habits, manners and customs of ethnic people. - Susceptible to introduce bad cultures which are not suitable to the lifestyle of local people. 	- The community of 2 affected communes.
Risks of labour accidents	<ul style="list-style-type: none"> - During the construction, working accidents may occur if workers do not comply with the safety regulations at the site. - Mine blasting ... - The transporting materials for construction may cause accidents during the transportation 	- The construction site and the roads where trucks carrying materials pass through.

Negative impacts	Description	Affecting scale
Risks of women trafficking, HIV/AIDS transmission, social evils	- Numerous construction workers may cause social vices, such as gambling, drug trafficking, theft and trafficking of women/children, the risk of transmission of HIV/AIDS and other social ills	- The project area and the surrounding areas.
Immigrant workers are the danger of theft, gambling and drug trading	- During the project implementation, there will be a number of cadres and workers to habitat in the area and therefore it is easy to raise a number of evils such as theft, gambling, drugs.	- The project area and the surrounding areas.

VI. THE MITIGATION MEASURES AND DEVELOPMENT FOR ETHNIC MINORITIES

57. The identified potential impacts, including positive and negative impacts of Muong Khuong HPP, with local authorities, residents in the project area, are screened and developed by computational methods to have mitigation measures for negative impacts and maintain and improve positive impacts to overcome and give maximum supports for those affected by the project in order that they can early recover their living conditions at least as before the project is implemented.

A. Mitigation measures

58. To ensure the livelihood security to households, especially ethnic minority households, smallest impacts require to be carefully considered to build respective mitigation measures in accordance with actual conditions and to achieve the consensus of the stakeholders. Table VI-1 below describes in detail the mitigation measures agreed at the consultation meetings and group discussions with locals during the preparation process of Muong Khuong HPP.

Table VI-1 Mitigation measures

Negative impacts	Mitigation Measures	Implementing agency
Land acquisition that would give impact to livelihoods of local people	Effectively conduct the program Assistance Of Livelihood and Recovery of Income for the AHHs.	LICOGI 18.3 Investment and Construction JSC; Compensation and Assistance Committee of Muong Khuong district; Departments and Mass organizations of affected communes
Impact on using water sources (for living and irrigation) in downstream	- The investor will prepare a reservoir regulating process which will be submitted to Lao Cai PPC for approval at the same time as approval of the basic design. The investor commits to strictly comply with the approved regulations on	

Negative impacts	Mitigation Measures	Implementing agency
	<p>operation of reservoir, regulations on water discharge and flood discharge and timely inform local authorities of the area after downstream dams to minimize losses, damage to people and property.</p> <ul style="list-style-type: none"> - The investor commits to strict comply with environmental flow and reservoir operating procedures to ensure minimum flow, maintain river ecosystems at the back of the dam during dry season. - During operation, the investor regularly coordinates with the local authorities in monitoring the flow (monitoring flow and water level) and erosion in order to take reasonable mitigation measures. 	
Impact to living customs of local people	<ul style="list-style-type: none"> - Closely manage the construction workers of the contractor to implement the specific regulations and not affect on livings of local people. - Transportation of materials is only allowed to use routes registered with the local authority and have to perform the regular maintenance to ensure uninterrupted traffic. - Construction activities close to residential areas must be arranged at reasonable time to avoid affecting on livings of local people. - For affected public works, it should be completed the replacement works before relocating or destroying. 	LICOGI 18.3 Investment and Construction JSC, the constructors, consultants.
Temporary impact to production activities of local people	<ul style="list-style-type: none"> - Construction time will be heralded to the people and skimming only after people have finished harvesting the crops. - The contractor will be mobilized at the highest level in order to shorten the construction time, minimize time to influence the production of community. 	LICOGI 18.3 Investment and Construction JSC, the constructors,

Negative impacts	Mitigation Measures	Implementing agency
	<ul style="list-style-type: none"> - The quarry for materials and machinery must be planned far from residential areas. The regulations on the storage and preservation of materials are carried out strictly, to avoid incidents and accidents, affecting the lives of people and production. - The skimming must be done in accordance with the approved design. Monitoring skimming must be performed grader closely to minimize rock fall to the farm of people. - Must be constructed in accordance with the construction measures approved. 	
Environmental pollution	<ul style="list-style-type: none"> - Vehicles carrying materials have been covered carefully to avoid falling materials and making affect to local people, especially HHs living along the operation roads. - The transportation vehicles should be not used in residential area at break time to minimize the noise. It should be kept moisture to limit dusts on the roads. - The materials, such as petroleum, oil must be stored carefully to avoid explosion, leakage or flooding which affect lives and production of local people. - After the project is completed, the waste area, construction area... should be levelled to give the level ground back, then covered with trees on the surface to prevent erosion, washout. 	<ul style="list-style-type: none"> - LICOGI 18.3 Investment and Construction JSC, The constructors, Monitoring Consultants, local authority.
Impact to daily activities of local people	<ul style="list-style-type: none"> - The management regulations must be strictly implemented. Management activities must be closely coordinated between the contractor and the local 	<ul style="list-style-type: none"> LICOGI 18.3 Investment and Construction JSC,

Negative impacts	Mitigation Measures	Implementing agency
	<p>police and the concerned units.</p> <ul style="list-style-type: none"> - The workers must be educated awareness of environmental hygiene and conscious respect for the cultural values of local people. - Where in the camp of construction workers must be planned separately, not to workers living with the family of the local people in the community 	<p>local authority, especially police.</p>
Risks of labor accidents	<ul style="list-style-type: none"> - Area of materials, machineries storage should be located far away residential area and be monitored closely to avoid the risks of accidents - Local people and workers should be educated and disseminated about awareness of accidents prevention at work and transportation. - The employed workers, especially the unskilled workers must be trained on necessary skills to ensure safety. - Workers must be equipped with full protective equipment and labour insurance, accidents in transportation. 	<ul style="list-style-type: none"> - LICOGI 18.3 Investment and Construction JSC, The constructors
Likely to have women and children trafficking and HIV/AIDS infection	<ul style="list-style-type: none"> - Local people and construction workers on the project site must be propagated to risks and preventive measures against HIV/AIDS, trafficking in women and other social evils. 	<p>LICOGI 18.3 Investment and Construction JSC in coordination with commune authority, polices and Women's Unions.</p>

B. Ethnic minority development measures

As mentioned above, objective of EMDP is to provide more socio-economic benefits to ethnic minority households as OP 4.10. According to the findings from survey and communication with relevant agencies and local people in affected area was carried out in

December 2016, apart from the above measures, some other measures are proposed to assist and help ethnic people to solve the difficulties. The proposed measures are follow:

Table VI-2 Ethnic minority development measures

No.	Proposed development measures	Content of proposal	Implemented by
1	Assistance on electricity usage training	<p>The AHHs do not have national power grid, thus, to ensure the safety of the users, training on electricity usage will be held.</p> <p>Documents on electricity safe usage will be delivered to the households in the project area</p>	LICOGI 18.3 Investment and Construction JSC, local authority
2	Assistance on building cultural center	Assist to build cultural center in Coc Can village where most of AHHs are located.	LICOGI 18.3 Investment and Construction JSC
3	Assistance on job training	Training ordinary jobs when the plant is in operation. Priority is given to the members of households losing 10% of agriculture land.	LICOGI 18.3 Investment and Construction JSC
4	Assistance on building model of raising cow for meat and production	Assist to build model of raising cow for meat and production. The model is in groups of household. 2 households will raise one breeding cow (the cow is reproductive, at least 12 months old). Priority is given to the household who lost more than 30% of their	LICOGI 18.3 Investment and Construction JSC, Department of Agriculture of Muong Khuong district.

No.	Proposed development measures	Content of proposal	Implemented by
		<p>total agricultural land. When the cow gives birth, the calf will be permanently owned by the household and then the mother cow will be transferred to the second household after the calf can live separately without its mother, at least 6 months old. After the 2 households receive enough breeding cows, the mother cow will transfer to the AHHs who lost more than 10% of total agricultural land. Assistance with 10 breeding cows and technical training.</p>	

VII. INSTITUTIONAL ARRANGEMENT AND IMPLEMENTATION PLAN

A. Institutional Arrangement

59. Implementing Ethnic Minority Development Plan requires cross-sectoral collaboration from many sectors and branches at all levels from provincial, to district, commune, village and ethnic minority groups. Investor of Muong Khuong HPP will be the host agency for implementation and collaborate with other entities during implementation. The institutional arrangements for implementation of the Ethnic Minority Development Plan are specified as follows:

- LICOGI 18.3 Investment and Construction JSC will assume responsibility for providing funding for implementing all activities set out in the Ethnic Minority Development Plan; developing regulations for oversight of workers gathering of construction materials; conducting community consultations; monitoring resettlement compensation; executing and collaborating to implement measures to mitigate negative impacts generated by the facility; and file reports with the relevant authorities.
- District Resettlement Compensation Committee will assume responsibility for providing exact compensations based on market price; providing one-off support for affected households.
- District Women's Union in collaboration with Commune Women's Union and associated Village Women's Unions implement effectively the gender-based propaganda programme on women's roles and propaganda campaigns on prevention and control of HIV/AIDS and women and children trafficking.
- Commune authorities will support LICOGI 18.3 Investment and Construction JSC in management of workers, prevention of social evils; conduct monitor and collaborate in monitoring with various sectors and branches in the district, together with Provincial Ethnic Minority Committee as regards the implementation of EMDP of LICOGI 18.3 Investment and Construction JSC.

60. Investor will coordinate with various sectors and branches in the commune and villages together with District Resettlement Compensation Committee to regularly update the EM community of progress, effectiveness of implementation of the EMDP; conduct monitor and inform monitoring results to commune people's committee and investors; assisting EM people in filing complaints in an effective manner.

61. Leaderships of villages, social mass organizations and EM people will conduct monitoring and evaluation of implementation of EMDP of the investor of LICOGI 18.3 Investment and Construction JSC.

62. Provincial Ethnic Minority Committee will on a regular basis check and comment on implementation outcomes of the EMDP of LICOGI 18.3 Investment and Construction JSC.

B. Implementation Plan

63. EMDP is implemented as a separate program in parallel with activities of implementing Resettlement Plan of the project, Table VII.1 shows the details the implementation plan of main stages, impact projects, activities in EMDP and management as well as monitoring and evaluation EMDP, some activities were included in the RP (see RP).

Table VII-1 Implementation Progress of EMDP

Activities	Progress
Information dissemination and community consultation	12/2016
Preparing the Ethnic Minorities Development Plan	1/2017- 5/2017
Submitting the Ethnic Minorities Development Plan	5/2017
Approving the Ethnic Minorities Development Plan	5/2017
Information dissemination after EMDP to be approved	5/2017
Implementing measures to mitigate negative impacts	6/2017 - 12/2019
Implementing measurements or training for ethnic minority people	6/2017 - 12/2019
Monitoring and evaluation	6/2017 - 12/2019
Implementing the construction	6/2017 - 12/2019

VIII. COMPLAINTS AND GRIEVANCE REDRESS MECHANISM

64. To make sure the complaints and grievance redress mechanism which will be established is practical and acceptable to the affected households, especially ethnic minority communities, this content has been consulted with local authorities and ethnic minority communities with a glance to the unique cultural characteristic as well as the traditional cultural mechanisms in addressing and resolving complaints and in the specific cases (such as the negative impacts are not minimized or new negative impacts have arisen, EMDP has not been done, etc.) EM people can complain for their rights. Grievance redress mechanism has been discussed as follows:

65. **Stage 1:** If EMDP has not been implemented or the implementation EMDP will raise the negative impacts to the ethnic minority community and no activities for mitigation, or any issue related to ethnic minorities people, the local ethnic minority people can elevate directly by verbally or in written to CPC or verbally or in written to community consultation board member at commune then this board will work with CPC and CPC will resolve the issue within 15 days from the date the complaint is received.

66. **Stage 2:** Within 15 days from the date the complaint is received, If the EM people are in the absence of any response or EM people is not satisfied with the decision, they can complaint to DPC.

67. **Stage 3:** Within 15 days from the date the complaint is received, If the EM people are in the absence of any response or EM people is not satisfied with the decision of DPC, they can complaint to Provincial Ethnic Minority Board..

68. **Stage 4:** Within 15 days from the date the complaint is received, If the EM people are in the absence of any response or EM people is not satisfied with the decision of PPC the EM people, as a last resort may submit his/her case to the district court.

69. The procedure to resolve the grievance of EM people that have been described in the document “ Information of Muong Khuong Hydropower Plant”- PIB and delivered to all EM people in the community. For assisting EM people to find the person incharge for this resolve, PIB provide all information of name, address as well as telephone number of these person incharged . EM people dont have to pay any fee for their administrative and legal cost, as well as free cost for submit the complaint at the court.

70. The external monitoring agency will be recruited to monitor and evaluate independently. This agency will be responsible for checking the procedure and the status on resolving the complaints. The external monitoring agency may propose other solutions (if necessary) to resolve the pending complaints.

IX. MONITORING AND EVALUATION

A. General requirements for monitoring and evaluation

71. The internal and external monitoring system will be established to monitor the EMDP implementation.

72. The internal and external monitoring and evaluation system will be established to monitor the implementation of the EMDP. The main purpose of the program is monitored and evaluated to ensure that all of the proposed measures in EMDP are comply with policies and procedures of the EMDP. In particular, the independent monitoring and evaluation will focus on the social impact to AHs and AHs can restore their living standards at least equal to or better than their living standards before the construction.

73. The scope of the monitoring and evaluation program will include activities related to the EMDP, providing feedback to management agencies on carrying out their tasks, identifying issues and resolving as soon as possible to facilitate for adjustments with the implementation timely.

74. Objectives of monitoring and evaluation system are: (i) ensure the implementing progress of EMDP; (ii) undertake rightly the mitigation measures of the plan; (iii) assess effectiveness of the measures and propose supplement measures if necessary; (iv) identify potential or generated problems to the ethnic minority community during the implementing period of the project; and (v) identify quick response measures to mitigate these issues.

1. Internal Monitoring

75. The investor will be responsible for internal monitoring the EMDP implementation. The monitoring reports will be prepared and submitted to PMB. This reports will be monthly reports, from distributing Project Information Booklet to disbursing compensation costs and completing EM development activities.

76. The monitoring reports will summarize the progress of EMDP implementation, compare with monitoring indicators; and when required, propose changes to ensure the EMDP implementation in accordance with objectives and procedures in EMDP. This report is a part of the external resettlement monitoring report and will be submitted to PMB and WB for reviewing. PMB will submit the quarterly monitoring reports to WB. These reports will summarize the progress of land acquisition and resettlement and EMDP for the project.

2. External monitoring

77. The external monitoring agency will be recruited to to conduct independent checks, monitoring and evaluation as regards the implementation of EMDP. The independent monitoring and evaluation will be conducted on an annual basis, except for the first stage when it is possible to conduct independent monitoring and evaluation twice a year.

78. The independent monitoring and evaluation will focus on 5 main issues, that is (i) how measures to mitigate negative impacts set forth are implemented; (ii) what negative

impacts on ethnic minority that have been not assessed and hence mitigation measures not identified; (iii) how interventions for community development of ethnic minority groups have been implemented; (iv) information provided is sufficient or not and whether the consultations with EM people have been conducted or how effectively they are implemented; and (v) complaint procedures for ethnic minority as regards EMDP and any other issues faced by them.

B. Monitoring indicators

79. The monitoring indicators in Table IX.1 should be should be periodically monitored during EMDP implementation as well as monitoring indicators mentioned in Resettlement Plan.

Table IX-1 Monitoring indicators in EMDP

Monitoring and Evaluation Issues	Basic indicators
1. The progress of EMDP implementation	<ul style="list-style-type: none"> - The plan has been shared with the community. - The plan is in line with the implementation conditions of ethnic minority people and is joined by them. - The plan is relevant to the progress of other activities. - Adequate human resources available to implement the plan. - Sufficient funding for implementing the plan.
2. Implementing community consultations and local people’s participation	<ul style="list-style-type: none"> - Local EM community, commune authorities and village leaderships and mass organizations are provided sufficient information on EMDP, implementation plan and grievance mechanisms. - Local EM community, commune authorities and village leaderships and mass organizations are involved in relevant activities, especially monitoring the implementation of EMDP.
3. Implementation of measures to mitigate negative impacts from the facility.	<ul style="list-style-type: none"> - All measures for mitigating negative impacts from the facility are effectively implemented. - There are no additional negative impacts arising from the facility, and if otherwise, there must be a community consultation on mitigation measures and implementation of the same. - Various sectors and branches effectively collaborate in

Monitoring and Evaluation Issues	Basic indicators
	implementing measures to mitigate negative impacts from the facility.
4. Implementation of specific developmental interventions for local ethnic minority people	<ul style="list-style-type: none"> - All activities that support the EM development as set out in the EMDP are implemented effectively. - Various sectors and branches effectively collaborate in implementing interventions for community development.
5. Grievance Mechanisms	<ul style="list-style-type: none"> - Ethnic minority community has a clear understanding of the grievance mechanism. - District Resettlement Compensation Committee, commune-level social organizations and commune people's committee have a clear understanding of grievance mechanism and are able to assist EM people to implement such mechanisms.

X. BUDGET AND DISBURSEMENT PLAN

80. Total cost of the EMDP is estimated to be 816,200,000 VND (equivalent to 35,861 USD, foreign exchange rate 22,760, including 10% contingency). This cost includes development measures and contingency. The budget for EMDP is taken from the loan. The cost for monitoring and evaluation EMDP is included in RP cost.

Table X-1 Total funds for implementation of EMDP

No.	Items	Quantity	Unit price (VND)	Amount (VND)	Remarks
1	Assistance on electricity usage training	2 courses	15,000,000	30,000,000	
2	Assistance on building cultural center	1	500,000,000	500,000,000	
3	Assistance on job training	5 persons	12,000,000	60,000,000	Cost of training operators: (5 persons)
4	Assistance on building model of raising cow for meat and production	41 households		152,000,000	Assistance of breeding cow: 10 cows 132,000,000 VND, technical training 20,000,000 VND
	Sum of assistance cost			742,000,000	
	Contingency (10%)			74,200,000	
	Total			816,200,000	