



PetroVietnam Power Corporation

Dakdrinh Hydropower JSC

## **Vietnam**

### **Dakdrinh 125 MW Hydropower Plant**

#### **Environmental and Social Corrective Action Plan (ESCAP)**

**August 2021**

This document is the Environmental and Social Corrective Action Plan (ESCAP) describing the environmental and social (ES) mitigation, monitoring and organizational measures to be implemented during the operation of the Dakdrinh Hydropower Plant. This document is designed to address outstanding ES issues in a timely and appropriate manner, and in accordance with the AIIB's Environment and Social Policy (ESP) including the Environmental and Social Standards (ESSs) and Environmental and Social Exclusion List (ESEL), as well as applicable Vietnamese laws and regulations.

Dakdrinh Hydropower Joint Stock Company (DHC), PetroVietnam Power Corporation (Sponsor) and their contractors will regularly review and update the ESCAP in consultation with AIIB, as required to reflect any changes in the project implementation, monitoring and organization.

**Environmental and Social Corrective Action Plan (ESCAP)**

No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
1.	<p><b>Environmental and Social (E&amp;S) Policy</b></p> <p>A project - specific E&amp;S policy will be developed covering the following items:</p> <ul style="list-style-type: none"> <li>• The Project’s adherence and commitment to national and international environmental and social standards</li> <li>• The Project’s social policy which includes an approach and commitment on contributing through investing to community development and overarching labor policy.</li> </ul>	<p>Environmental and Social Policy (ESP) of AIIB</p> <p>AIIB ESS 1 – Environmental and Social Assessment and Management</p>	<ul style="list-style-type: none"> <li>• Project - specific E&amp;S Policy</li> </ul>	<p>Environmental and Social Department in coordination with other departments</p>
2.	<p><b>ESIA and ESMP</b></p> <p>The Sponsor/DHC will:</p> <ul style="list-style-type: none"> <li>• Conduct a E&amp;S risk/hazard assessment. The E&amp;S audit will cover (but not limited to): <ul style="list-style-type: none"> <li>– Community Health, Safety, and Security</li> <li>– Land Acquisition and Involuntary Resettlement</li> <li>– Biodiversity Conservation and Sustainable Management of Living Natural Resources</li> <li>– Indigenous Peoples</li> <li>– Cultural Heritage</li> </ul> </li> <li>• E&amp;S cumulative impact assessment</li> <li>• Develop an operational Environmental and Social Management Plan (ESMP) (to include a Chance Find Procedure)</li> </ul>	<p>AIIB ESS 1</p>	<ul style="list-style-type: none"> <li>• E&amp;S audit or risk/hazard assessment</li> <li>• E&amp;S cumulative impact assessment</li> <li>• Operational ESMP</li> </ul>	<p>Environmental and Social Department in coordination with other departments</p>
3.	<p><b>Emergency Preparedness and Response Plan (EPRP)</b></p> <p><b>Community Health and Safety Plan (CHSMP)</b></p> <p>It is planned that:</p> <ul style="list-style-type: none"> <li>• A Project -specific EPRP will be developed, which includes the following items: <ul style="list-style-type: none"> <li>– All possible emergencies (e.g., flood, earthquake, typhoon, fire, extremely</li> </ul> </li> </ul>	<p>AIIB ESS 1</p>	<ul style="list-style-type: none"> <li>• Draft EPRP</li> <li>• A Project -specific CHSMP</li> <li>• CHSMP disclosure to the affected communities</li> <li>• Evidence of disclosure and feedback from community if any</li> <li>• A dam break analysis should be undertaken</li> </ul>	<p>Environmental and Social Department in coordination with other departments</p>

No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
	<p>rainfall, landslides and erosion etc.), consequences, required actions, written procedures, and the resources available.</p> <ul style="list-style-type: none"> <li>- Chemical Incident Response Measure (CIRM) and/or a Chemical Incident Response Plan (CIRP) according to the new chemical regulations</li> <li>- Detailed lists of emergency response personnel (i.e., cell phone numbers, alternate contact details, and duties and responsibilities)</li> <li>- Floor plans</li> <li>- Large scale maps showing evacuation routes and service conduits (e.g., gas and water lines).</li> </ul> <p>Following up with the flooding map developed by Quang Ngai PC is required to complete the EPRP. Moreover, the EPRP will be disclosed and consulted with potentially affected communities.</p> <ul style="list-style-type: none"> <li>• Emergency drills shall include sensitive receptors/communities</li> <li>• Loud audible sirens to be installed</li> </ul>		<p>to determine the hazard category more accurately in accordance with international standards using the classification system of the International Commission on Large Dams (ICOLD) as presented in ICOLD Bulletin No. 82</p> <ul style="list-style-type: none"> <li>• EPRP (including flooding map considering catastrophic failure of dam weir)</li> <li>• EPRP disclosure to the affected communities</li> <li>• Evidence of disclosure and feedback from community if any</li> <li>• Emergency drills to include sensitive receptors/communities</li> </ul>	
4.	<p><b>Management Systems, Monitoring, and Review</b></p> <p>Specific E&amp;S monitoring plans will be developed to summarize details of all the E&amp;S monitoring programs conducted. All E&amp;S monitoring will be extended to the Project associated facilities (i.e., Son Ha substation, the 110kV transmission line, and O&amp;M accommodation) to support that appropriate monitoring measures are established and implemented at associated facilities.</p>	AIIB ESS 1	<ul style="list-style-type: none"> <li>• E&amp;S monitoring plans</li> </ul>	Environmental and Social Department in coordination with other departments
5.	<b>Organization Capacity and</b>	AIIB ESS 1	<ul style="list-style-type: none"> <li>• Assignment of a social/</li> </ul>	Environmental

No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
	<p><b>Competency</b> A social/ community liaison personnel will be officially appointed to implement and manage social related issues of the Project. The employed staff shall have good capability and experience in social management.</p> <p>A biodiversity/ecology specialist will be officially appointed to implement actions related to biodiversity assessment/shoreline reforestation, environmental flow assessment (may be an expert on retainer basis)</p>		<p>community liaison personnel</p> <ul style="list-style-type: none"> <li>• Assignment of a biodiversity/ecology specialist</li> </ul>	<p>and Social Department in coordination with other departments</p>
6.	<p><b>Training</b> <b>Occupational Health and Safety</b></p> <p>Training needs for the organization’s personnel to be reassessed based on past events (e.g., extreme weather, accidents and potential emergency situations), assess areas for improving performance and identify supplemental training requirements.</p> <p>The training plan will be developed to include definition of training sessions, duration, frequencies, syllabus.</p>	AIIB ESS 1	<ul style="list-style-type: none"> <li>• Training plan for the organization’s personnel (including training sessions, duration, frequencies, syllabus)</li> </ul>	<p>Engineering Department of DHC in coordination with other departments</p>
7.	<p><b>Stakeholder Analysis, Engagement Planning, Consultation and Disclosure</b> <b>Ongoing Reporting to Affected Communities</b></p> <p>A Stakeholder Engagement Plan (SEP) provides a framework for stakeholder engagement (i.e., including basic stakeholder identification and current and future engagement plan to such stakeholders) has been developed. This also includes a mechanism for periodic development and disclosure of</p>	AIIB ESS 1	<ul style="list-style-type: none"> <li>• SEP (completed)</li> <li>• ESMR and evidence of disclosure to affected communities</li> <li>• Evidence of social engagements and feedback from community</li> </ul>	<p>Social/ community liaison personnel of DHC with support from a CSO/NGO experienced in working with the affected CaDong communes</p>

No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
	the Environmental and Social Monitoring Report (ESMR) to affected communities.			
8.	<p><b>External Communications and Grievance Redressal Mechanisms (GRM)</b></p> <p>A community level GRM to be developed and disclosed to surrounding communities, including IPs. Accordingly, it is required to formalize and implement a process of recording, tracking and monitoring all the information as relating to grievances, communications and outreach with stakeholders.</p> <p>Among others, the Sponsor/DHC shall follow up within legal boundaries the issue regarding the payment requested from People’s Committee of Son Dung commune as soon as possible (about VND 630 million for compensation assets loss of four HHs damaged in typhoon)</p>	AIIB ESS 1	<ul style="list-style-type: none"> <li>• Community GRM and its disclosure</li> <li>• Evidence of social engagements and feedback from community</li> <li>• Evidence / engagement records showing that the grievance issue related to payment requested are communicated and answered properly to the PC of Son Dung commune</li> </ul>	Social/ community liaison personnel of DHC with support from a CSO/NGO experienced in working with the affected CaDong communes
9.	<p><b>Labor and Working Conditions</b></p> <p>A Human Resources Policy/Internal Policy to be updated in line with national regulations (i.e., Labor Codes 2019) and applicable standards. This shall include:</p> <ul style="list-style-type: none"> <li>• workers grievance mechanism and procedure</li> <li>• prevention of bullying and harassment at work</li> <li>• equality policy</li> <li>• drug and alcohol abuse policy</li> <li>• child labor and forced labor</li> </ul> <p>Moreover, a Health and Safety Manual will be developed and implemented.</p> <p>The workers’ GRM will be developed, disclosed to the workers in an appropriate language and implemented. The GRM will be readily accessible and available to all employees.</p> <p>The Sponsor and DHC will receive all grievances as part of the grievance redress process, including resolution and maintain a record the status in a dedicated grievance log. Also, a</p>	AIIB ESS 1	<ul style="list-style-type: none"> <li>• Human Resources Policy/Internal Policy</li> <li>• Health and Safety Manual</li> <li>• Workers’ GRM</li> </ul>	Human Resource Department of DHC in coordination with other departments

No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
	dedicated person will be assigned to manage and monitor the grievance receipt and redress process.			
10.	<p><b>Wastewater discharges</b></p> <p>Domestic Wastewater: The Sponsor/DHC to provide wastewater flow monitoring to confirm the compliance with national technical regulations on domestic wastewater disposal.</p>	AIIB ESS 1	<ul style="list-style-type: none"> <li>Flow monitoring of domestic wastewater discharged from the Project site</li> </ul>	Engineering Department in coordination with other departments
11.	<p><b>Erosion and sedimentation</b></p> <p>The Sponsor/DHC to clarify follow-up actions for management of erosion impacts on the reservoir. Moreover, an erosion management plan will be in place for future management (according to a survey report on reservoir sedimentation condition conducted in February 2020).</p>	AIIB ESS 1	<ul style="list-style-type: none"> <li>Erosion management plan</li> <li>Completion report on stabilizing and/or repairing erosion at the reservoir</li> <li>Reservoir Shoreline Reforestation Plan for erosion control to address the sedimentation problem in the upper reaches of the reservoir. The plan will include a program for 10-15 m width of reforestation along the embankment/shoreline of the existing reservoir. This band of vegetation/forest around the reservoir will serve as a barrier to erosion and sedimentation of the reservoir. This may also serve as an offset for the natural habitats which were lost during the dam construction.</li> </ul>	Engineering Department in coordination with other departments
12.	<p><b>Resettlement and Livelihood Restoration Planning</b></p> <p><b>Community Engagement, Physical Displacement, Economic Displacement</b></p> <p>A Land Acquisition Completion Report (LACR) with a detailed gap analysis (i.e., assessed against applicable standards) of the resettlement process will be prepared. Following the completion of the land acquisition audit completion report, a Land Acquisition Corrective Action Plan (LACAP) highlighting outstanding and/or remedial actions necessary will be prepared as described below:</p> <ul style="list-style-type: none"> <li>Physical displacement: <ul style="list-style-type: none"> <li>Actual number of</li> </ul> </li> </ul>	AIIB ESS 2 – Involuntary Resettlement, including Land Acquisition	<ul style="list-style-type: none"> <li>LACR (completed)</li> <li>Land acquisition Corrective Action Plan (Under review)</li> <li>PVPOWER and DHC’s acknowledgement that the issue in RSS in Konplong district has not been resolved yet, waiting final approval from Prime Minister. DHC committed to provide the funding for this matter once there is an approval from Prime Minister. If DHC cannot fulfil this obligation once the approval is issued, then PVPOWER guarantees to make the</li> </ul>	Social/ community liaison personnel and the Environmental and Social Department of DHC with support from a CSO/NGO experienced in working with the affected CaDong communes

No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
	<p>recipients per option of resettlement support defined</p> <ul style="list-style-type: none"> <li>– Two key concerns of people in Resettlement Sites (RS) in Son Tay district (i.e., RSs are far from farmlands and shortage of water supply for domestic use) will be assessed in the LACR with key measures included in the Corrective Action Plan.</li> <li>– The Sponsor/DHC will provide evidence showing that the issue in RSs in Kon Plong district had been solved.</li> </ul> <ul style="list-style-type: none"> <li>● Economic Displacement: Assessment for economic displacement (including determination of extent and scale) will be a part of a LACR with gap analysis. It is expected that action items and remedial measures will be identified within the Corrective Action Plan.</li> <li>● <b>Conduct of Full Land Acquisition Completion Survey.</b> The current resettlement measures are based on a preliminary survey, which needs to be expanded to a Full Survey to inform the implementation of the Land Acquisition Completion Survey. The scope of the actions and budget for the ESCAP will need to be adjusted to reflect the findings of this survey.</li> </ul>		<p>payment for this matter.</p> <ul style="list-style-type: none"> <li>● Full land acquisition completion survey</li> </ul>	
13.	<p><b>Compensation and Benefits for Displaced Persons, Social Support, Supervision, Monitoring</b></p> <p>The Project Company to collaborate with local authorities to follow-up and complete all pending relevant compensation payments as soon as possible. For example, the following have been identified:</p> <ol style="list-style-type: none"> <li>1. Pending payment for 28 Households in Son Dung commune, Son Tay district due to lawsuit</li> <li>2. Living stabilization and livelihood restoration support payment for another 370 economically displaced HHHs in</li> </ol>	AIIB ESS 2	<ul style="list-style-type: none"> <li>● PVPOWER and DHC’s acknowledgement that the issue in pending payment for people in Son Tay District, Quang Ngai province due to pending final decision from the Court. Once the Court has made decision, DHC committed to provide the funding for the required payment from authority if any. If DHC cannot fulfil this obligation once the Court decision is issued and the authority requested the payment, then PVPOWER</li> </ul>	Social/ community liaison personnel of DHC with support from a CSO/NGO experienced in working with the affected CaDong communes

No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
	<p>Son Tay district.</p> <p>The pending payment for school and water supply system development in Nuoc Dop RA, Son Long commune, Son Tay district will be resolved.</p> <p>Pending payment for compensation in Kon Plong district also will be resolved.</p> <p>The Sponsor/DHC will clarify the updated status of life support activities (including required budget) as required by the existing financing as well as the plan for implementing these activities in the future. The plan of social support activities will be disclosed to affected communities.</p>		<p>guarantees to complete the payment for this matter.</p> <ul style="list-style-type: none"> <li>● Report on updated status and plan of life support activities (completed – included in LACR)</li> <li>● Disclosure of the plan of life support activities to affected communities</li> </ul>	
14.	<p><b>Identification of Natural and Modified Habitats/ Environmental Services</b></p> <p>For the requirement as per AIB ESS 1, habitats are to be categorized into modified, natural, and critical habitats. Habitats within and surrounding the Project area will be clearly identified and assessed.</p> <p>Regarding forest offset obligation, the Sponsor/DHC will:</p> <ul style="list-style-type: none"> <li>● Provide Payment Order form with confirmation of a local Vietnamese bank to ensure that the required payment from Kon Tum Province was indeed completed.</li> <li>● Consult with relevant local authorities of Quang Ngai Province to clarify about their forest offset obligation. Depending on the discussion contents, evidence of exemption or payment completion shall be provided.</li> </ul>	National laws, AIB ESS 1	<ul style="list-style-type: none"> <li>● Categorization for habitats within and surrounding the Project area</li> <li>● Assess if critical habitat is present and ecological status</li> <li>● Valid evidence of payment for forest offset obligation for Kon Tum Province</li> <li>● Evidence of payment of forest offset obligation for Quang Ngai province</li> </ul>	Environmental and Social Department in coordination with other departments
15.	<p><b>Habitats, Flora and Fauna Assessment</b></p> <p>Biodiversity baseline study is to be conducted for at least two seasons (wet and dry). Baseline data is to include terrestrial and aquatic flora and fauna surveys. A Biodiversity Management Plan will need to be developed for the</p>	AIB ESS1	<ul style="list-style-type: none"> <li>● Biodiversity baseline data covering at least two seasons. Includes terrestrial and aquatic surveys. To be undertaken by an interdisciplinary Team of Experts (mammal, avian, herpetofauna, plant taxonomy, limnology)</li> </ul>	Environmental and Social Department in coordination with other departments



No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
	mitigation and monitoring of biodiversity aspects of the Project.		experts.) Biodiversity Management Plan	
16.	<p><b>Management of ecosystem services</b></p> <p>It is noted that up until May 2019 the minimum environmental flow was specified as 0.77m<sup>3</sup>/s and this was revised in May 2019 to 1.04m<sup>3</sup>/s to 1.82m<sup>3</sup>/s.</p> <p>According to international practice, an ecological study was undertaken to determine the appropriate minimum environmental release. Unless determined by an ecological study, it is expected that minimum environmental flow is about 10% of the average annual flow which in this case would be about 3.2m<sup>3</sup>/s.</p> <p>This study will be reviewed by a specialist to assess whether the current minimum environmental flow is appropriate.</p>	AIIB ESS1	<ul style="list-style-type: none"> <li>An ecological study (to determine appropriate minimum required environmental flow)</li> </ul>	Environmental and Social Department in coordination with other departments
17.	<p><b>Indigenous Peoples</b></p> <p>An Indigenous Peoples Plan (IPP) will be prepared and implemented.</p> <ul style="list-style-type: none"> <li><b>Conduct of Full Indigenous Peoples Survey.</b> The current Preliminary IPP for ethnic minorities is based on a preliminary survey, which needs to be expanded to a Full Survey to inform the implementation of the IPP. The scope of the actions and budget for the ESCAP will need to be adjusted to reflect the findings of this survey.</li> </ul>	AIIB ESS 3 – Indigenous Peoples	<ul style="list-style-type: none"> <li>IP screening report (completed) and Preliminary IP Plan (in draft) requires consultation process</li> <li>Implementation of IPP</li> <li>Full Indigenous Peoples Survey</li> </ul>	Social/ community liaison personnel of DHC with support from a CSO/NGO experienced in working with the affected CaDong communes
18.	<p><b>Protection of cultural heritage</b></p> <p>Tangible cultural structures, including those of the local ethnic minorities affected by the Project, will be included in the E&amp;S audit. Archaeological chance find procedures will be developed for use.</p>	AIIB ESS 3	<ul style="list-style-type: none"> <li>Assessment of tangible cultural structures (within the E&amp;S audit)</li> <li>Archaeological chance finds procedures developed</li> </ul>	Environmental and Social Department in coordination with other departments
19.	<p><b>Disclosure of Environmental and Social Documentation.</b> In addition to disclosure of the updated ESCAP, it is anticipated that the Environmental Impact Assessment Report, Land</p>	AIIB ESF	<ul style="list-style-type: none"> <li>ESCAP</li> <li>EIA</li> <li>LACR</li> <li>IPP</li> <li>SEP</li> </ul>	



No.	Actions	Reference framework	Deliverables	Implementation Responsibilities
	Acquisition Completion Report, Indigenous Peoples Plan and Stakeholder Engagement Plan will be disclosed by DHC and AIIB, with summaries in Vietnamese.			

**List of Abbreviations**

CHSMP Community Health and Safety Plan

CSO Civil Society Organization

DHC Dakdrinh Hydropower Joint Stock Company

EIA Environmental Impact Assessment

EPRP Emergency Preparedness and Response Plan

E&S Environmental and Social

ESCAP Environmental and Social Corrective Action Plan

ESEL Environmental and Social Exclusion List of AIIB

ESMR Environmental and Social Monitoring Report

ESMP Environmental and Social Management Plan

ESP Environmental and Social Policy of AIIB

ESS Environmental and Social Standard of AIIB

GRM Grievance Redress Mechanism

ICOLD International Commission on Large Dams

IPP Indigenous Peoples Plan

LACAP Land Acquisition Corrective Action PI

LACR Land Acquisition Completion Report

NGO Nongovernmental Organization

O&M Operation and Maintenance

PPM Project-affected People’s Mechanism of AIIB

RS Resettlement Site



PVPower DHC  
PetroVietnam Power Corporation  
Dakdrinh Hydropower JSC

**\*OFFICIAL USE ONLY**

SEP Stakeholder Engagement Plan