

## GOLD STANDARD PASSPORT

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## SECTION A. Project Title

Title: Dak Pone Hydropower Project

Date: 22/11/2012

Version no.: 1.0

## SECTION B. Project description

The project activity, which is owned by PC3 – Investment Joint Stock Company involves the construction of two small-scale sub hydropower plants including Dak Pone hydropower plant and Dak Pone - Expansion hydropower plant with an installed capacity of 14 MW and 1.6 MW, respectively. They are located on the Dak Pone and Dak Ne rivers in Mang Canh and Dak Long communes, Kon Plong district, Kon Tum province of Viet Nam.

The project's purpose is to generate hydroelectricity by installation of water turbines and generators from a clean and renewable source to supply to the national grid under a Power Purchase Agreement (PPA) signed with the Electricity Corporation of Viet Nam (EVN). The projects' installed capacity and estimated annual gross power generation is 15.6 MW and 69.1 GWh, respectively. The net electricity generated (with an estimated annual volume of 68.109GWh) will be supplied to the national grid via a newly constructed transmission line, which will connect between the plant and the transformer station.

Prior to the implementation of the project activity, electricity in Viet Nam is generated mainly from fossil fuel sources and is solely distributed to consumers via the unique national electricity grid.

The baseline scenario of the project activity is the same as the scenario existing prior to the start of implementation of the project activity.

The project activity will generate renewable power with negligible GHG emissions, which will displace part of the electricity otherwise supplied by fossil fuel fired power plants. The project involves the construction of two reservoirs with area of 1.0 ha<sup>1</sup> for Dak Pone hydropower plant and 5.0 ha<sup>2</sup> for Dak Pone – Expansion hydropower plant, with the power density of 1,400 W/m<sup>2</sup> and 32 W/m<sup>2</sup>, accordingly. As the power density of this project is above 10 W/m<sup>2</sup>, no GHG emissions from the reservoirs need to be accounted in the project activity. Thus, GHG emission reductions can be achieved via this proposed project activity. Total expected CO<sub>2</sub> emission reduction is 241,790 tCO<sub>2</sub> over the first crediting period of 7 years.

The project's contributions to the sustainable development of the local area as well as the host country are as follows:

### **General contributions towards national sustainable development:**

- In recent years, Viet Nam, especially the North of Viet Nam, has suffered a critical electricity shortage as a consequence from rapidly increasing demand and insufficient supply, thereby imposing negative impacts on economic growth as well as on daily lives of people. This project activity will be a contribution towards balancing the supply and demand gap. By exporting

<sup>1</sup> Feasibility Study Report for Dak Pone hydropower plant

<sup>2</sup> Feasibility Study Report for Dak Pone hydropower plant

electricity directly to the National grid, it will help to reduce electricity losses across the national grid and to lessen the risks of cascading national grid collapse due to overload.

- Modern and highly efficient turbines and generators are being used in the project and the power transmission will be at high voltage to ensure low losses. The project will accelerate the deployment of renewable energy technologies in Viet Nam.

#### **Contributions towards local sustainable development:**

##### **a) Economic well-being**

Once commissioned, this proposed project would increase the industrial share in the economic construction of Kon Tum province – a poor mountainous province of Viet Nam. This proposed project will pay annual enterprise's revenue tax, the natural resource tax<sup>3</sup> and CERs tax<sup>4</sup> to the state budget.

By supplying a stable electricity output, this project activity will facilitate the industrialisation process of the province and leverage the performance of traditional trade villages as well as tourism industry and services inside the province.

##### **b) Social well-being**

This project activity will contribute directly to improve the low-quality infrastructure systems of the Mang Canh and Dak Long communes. The communes are categorised as mountainous commune with thin population, less developed and autarky agricultural economy. The majority of local residents living in the project area are from the ethnic minorities like Se Dang, Mo Nam, Ka Dong and Ho Re. They usually live in less favourable living conditions than those of Kinh ethnic – the majority of population in Viet Nam. Thus, the project will contribute to improve their living standard that will fill the gap in development between different ethnic groups in Viet Nam.

The project will upgrade roads that then will be well integrated into the traffic system of the commune. The project will construct a new 22 kV transmission line together with Dak Pone hydropower plant to export electricity to the national grid. The commission of Dak Pone and Dak Pone – Expansion hydropower plants will contribute indirectly to reducing electricity losses and improving the electricity quality supplied in the region thanks to the stable and new electricity source supplied by the project to the national grid.

The communication system and clean water treatment serving for workers of the project during the both construction and operation phases will be shared with local people. Besides, the project activity could result in the employment of the local people for the construction and operation later on. Therefore, this project activity will contribute directly to alleviate poverty in the region.

The project start date: 25/02/2005. This is the date marking the signing of the contract for the construction of dam A.






#### **SECTION C. Proof of project eligibility**

<sup>3</sup>According to the Investment Law and Natural Resource Law

<sup>4</sup>According to Circular No. 58/2008/TTLT-BTC-BTN&MT issued by Ministry of Finance and Ministry of Natural Resource and Environment on 04 July 2008.

### C.1. Scale of the Project

Please tick where applicable:

Project Type	Large	Small
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

	<input type="checkbox"/>
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### C.2. Host Country

The Socialist Republic of Viet Nam

### C.3. Project Type

Please tick where applicable:

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Does your project activity classify as an End-use Energy Efficiency Improvement project?	<input type="checkbox"/>	<input type="checkbox"/>
Does your project activity classify as waste handling and disposal project?	<input type="checkbox"/>	<input type="checkbox"/>

*Please justify the eligibility of your project activity:*

- The CDM GS large-scale project activity is in the Renewable Energy Supply category, (Type (i): Renewable Energy Supply Projects) and applies the large scale baseline and monitoring methodology ACM0002., version 12.2.0, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”
- The project involves emission reductions of CO<sub>2</sub> from hydro power generation with the total capacity of 15.6MW, which is less than 20MW and therefore within the GS eligible Renewable Energy Supply project.
- The project is not using any ODA fundings as defined in the GS manual for Project Developers.
- Project also does not claim certificates from another Certification scheme as listed out in section 1.2.7, GS toolkit ver 2.2 other than GS, therefore no double counting occurs and thus it is eligible under the Gold Standard.
- The project is located on the Dak Pone and Dak Ne Rivers in Mang Canh and Dak Long communes, Kong Plong district, Kon Tum province of Viet Nam, where is not listed as High Conservation Value area according to criteria set out by the Host country and High Conservation Value Resource Network.
- At the stage of project design, an Environmental Impact Assessment Report was prepared by an independent and competent party. It was approved by the national authority and satisfactorily addressed environmental and social impact issues, as follows:

Competing uses of water resources at the project location	Dak Pone is the unique hydropower Project which is located on the Dak Pone and Dak Ne rivers. After passing through Dak Pone plant, water will be returned totally to lower section. Moreover, the plant use water to operate the machine (for cooling machine, leak) and domestic water. They will be treated before return to lower section. (Ref. EIA report, page of 14). Therefore, in general, the project does not have any competing use of water resources at the project location.
Minimal ecological flow	As the plant/power house is located after the dam and there will be discharge gate of the project is allocated at the dam. Therefore, the water flow at the downstream section after the dam is not changed and it always guarantees habitant quality, securing the minimum water depth for fish migration during the construction and operation. (Ref. EIA report, page of 14)  In addition, the technical consultant proposed to design the dam with spillway that allows water to overflow and a sand discharge gate in order to ensure minimum water amount at the downstream and continuous water flow. (Ref. EIA report, page of 19)
Groundwater level	The project owner implements regular collection and treatment of solid and liquid wastes, including the construction



	<p>of a dumping area; so the waste cannot penetrate into the land or the groundwater. Moreover, in the area of repair and maintenance of the hydropower plant, the project owner has constructed ground roof to prevent lubricant and grease from penetrating into the land and the groundwater; and constructed cement pavement to prevent from sweeping away by the rain-water into the land and the groundwater level. Therefore, the groundwater level is not affected. (Ref. EIA report, page of 14, 21)</p>
The design of the fish passages and screens (water intake structure)	The water intake is installed with trashes, which prevent fish from passing through. Therefore, fish passages are not impacted. (Ref. EIA report, page of 19)
Sediment management plan	<p>Sedimentation is reduced by using following methods such as prevent to throw construction waste to the river, protect watershed, operate and maintain correctly as the sluicing outlet's procedure and dredge the river bed. (Ref. EIA report, page 20)</p> <p>The sand discharge gate installed at the bottom of the dam also helps release the sediments in the reservoir. (Ref. EIA report, page of 19)</p> <p>Moreover, as discharge channel is short and slope make no sedimentation in lower section. (Ref. EIA report, page 13)</p>
Soil erosion	<p>- Protecting green cover in area with slope terrain around the reservoir in particular and the whole project site in general. Conducting reforestation and vegetation recovery in the temporarily occupied areas (if any) and strengthening the slopes to avoid topsoil erosion after accomplishing the construction of main works.</p> <p>(Ref. EIA report, page of 20)</p>

Pre Announcement	Yes	No
Was your project previously announced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Explain your statement on pre announcement

Prior to any payment being made for the implementation of the project all announcements were indicating that the project was a CDM project i.e. stakeholders consultation meeting were organized to inform of the CDM project; official letters needed to be obtained from competent authorities for the CDM project were served. Therefore, this project has not been announced to be going ahead without the revenues from carbon credits.

The following is the implementation timeline of the proposed project activity

Development of investment project	Actions taken to achieve CDM registration	Time	Implication on CDM
Finalizing the Feasibility Study report of the 14 MW Dak Pone Hydropower Project		06/2004	
Initial FSR of the Dak Pone Expansion Hydropower Project (1.6MW)		10/2004	
	The PDD of the investment project was developed and presented in the seminar “CDM business Opportunities for Cogeneration Projects” in Ho Chi Minh city <sup>5</sup>	26/10/2004	CDM early consideration evidence
	Issuing the Decision on CDM by the Director	14/02/2005	Date of making Investment Decision
Signing the contract for construction of dam A		25/02/2005	Start date of the project activity
	Submitting a formal letter by the project owner to the EVN to inform the CDM project and requested for their support	06/04/2005	Activity to secure CDM status
	Issuing a formal letter by the EVN to verify the support for the CDM project idea	25/04/2005	Activity to secure CDM status
	Submitting a formal letter by the project owner to the EVN to	31/08/2005	Activity to secure CDM

<sup>5</sup>[http://www.cogen3.net/presentations/asean/cdm\\_hcm/PDDsoftwoCDMprojectsinVietnam.pdf](http://www.cogen3.net/presentations/asean/cdm_hcm/PDDsoftwoCDMprojectsinVietnam.pdf)



	nominate the CDM project to apply for the Belgium CDM program		status
Signing the Contract for supply of materials, equipment and power house construction design for 14 MW Dak Pone Hydropower Project with DongFang Eletricity Corporation		08/09/2005	
Requesting to adjust the contract and contract value for construction of dam A by the contractor (Quang Nam Irrigation & Hydroelectric Construction JSC)	Negotiating the CDM consultancy contract with local consultant	09/06/2006	
Finalizing the Feasibility Study report on 1.6 MW expansion Dak Pone Hydropower Project		12/03/2007	
Approving the increase work volume and new budget of Dam A by Power Company 3		11/05/2007	
	Submitting a formal letter by the project sponsor to request the local authorities for their verification and support for the CDM project	05/07/2007	
Signing the contract for construction of dam B		11/10/2007	
Signing the contract for construction of tunnel, pressurized well and others for 14 MW		18/10/2007	
	Signing the CDM development and registration contract with the CDM consultant (CDM consultancy contract)	22/10/2007	
	Submitting a CDM supporting letter by Kon Tum DONRE	29/10/2007	
	Submitting a CDM supporting and verification letter to the DNA	30/10/2007	

	by the PPC		
Establishing the PC3 - Investment Joint Stock Company to manage the Dak Pone Hydropower Project <sup>6</sup>		02/01/2008	
Issuing the Certificate of Investment for the 15.6 MW Dak Pone Hydropower Project by PPC		04/04/2008	
	LOA issued	30/06/2008	
	Validation	03/2009	
Commissioning date		17/05/2010	

#### C.4. Greenhouse gas

Greenhouse Gas	
Carbon dioxide	<input checked="" type="checkbox"/>
Methane	<input type="checkbox"/>
Nitrous oxide	<input type="checkbox"/>

#### C.5. Project Registration Type

Project Registration Type

<sup>6</sup> The initial project owner of project is Power 3 Company however in the Investment decision, the Power 3 Company assigned the Small and Medium Hydropower Management Unit to implement Dak Pone project. On 02 January 2008

Regular	<input type="checkbox"/>
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Pre-feasibility assessment	Retroactive projects (T.2.5.1)	Preliminary evaluation (eg: Large Hydro or palm oil-related project) (T.2.5.2)	Rejected by UNFCCC (T2.5.3)
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Start Date of project activity: 25/05/2005

#### SECTION D. Unique project identification

##### D.1. GPS-coordinates of project location

Dak Pone	Coordinates
<b>Latitude</b>	14°34'00" N
<b>Longitude</b>	108°18'21" W

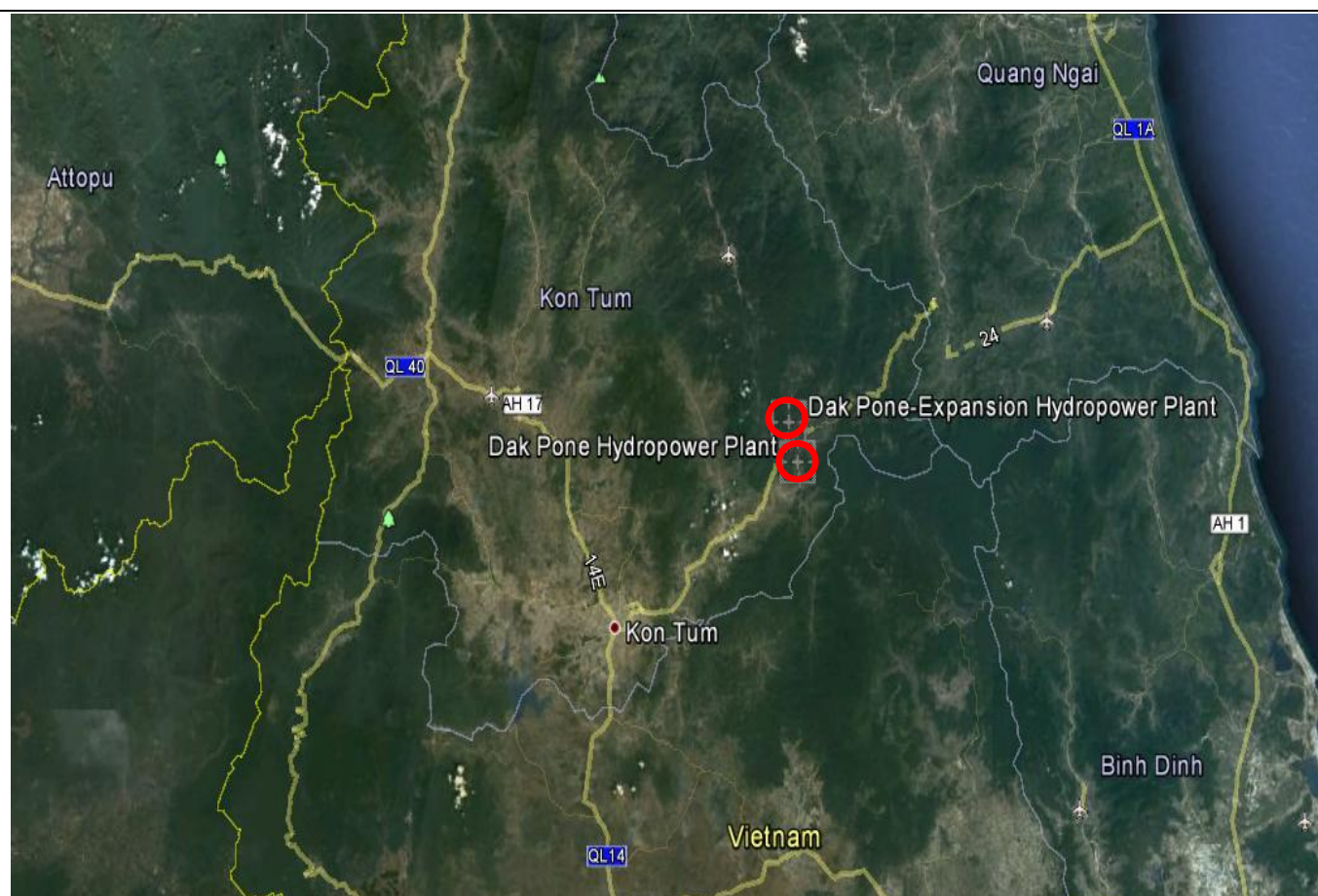
Dak Pone - Expansion	Coordinates
<b>Latitude</b>	14°37'07" N
<b>Longitude</b>	108°17'27" W



*Explain given coordinates*

The proposed project activity involves the construction of Dak Pone hydropower plant and Dak Pone – Expansion plant which are located on the Dak Pone and Dak Ne rivers in Mang Canh and Dak Long communes, Kon Plong district, Kon Tum province of Viet Nam. It is taken from the Technical Design Report.

## D.2. Map



## SECTION E. Outcome stakeholder consultation process

### E.1. Assessment of stakeholder comments

#### The Stakeholder comments were taken as follows

One week before the stakeholders meetings regarding the proposed project, the stakeholders were informed about project by public radio and notices at the Communal People's Committee's offices and Town People's Committee's office. At the same time they were invited to the official meetings with the project owner to provide their comments. On 01/08/2007, a meeting between the project owner and the following representatives of the local people was held in order to consult local people on the social-economic and environment impacts of the proposed project. Finally, the project owner in co-operation with local authorities would work on and address the received comments. Then the internal meetings of local commune were organized subsequently to announce the proposed project activity in non-technical terms and local language to local residents.

### The summary of the comments received are as follows

All organizations agreed that the project will certainly contribute to sustainable development and environment protection in Viet Nam and especially this project will increase local budget and reduce poverty. Therefore, they fully support the project to develop Comments of the representatives of local people and local authority are summarized as follows:

- The proposed Hydropower Project is a clean industrial project and will contribute positively to socio-economic development of the project's area;
- The positive impacts are expected from infrastructure improvement such as road, electricity access, and clean water system.
- The project will contribute to conservation of forest and environmental protection; and
- The local people expect that the project activity will employ local people for construction as well as operation phases if suitable and will minimise negative impacts during the construction phase.
- Improves the living standard of local people, narrowing the cultural and economic gap among ethnic groups and areas in the region.
- Contribute to the local budget through taxes.

Here below, we summarize the open questions from the meeting and assessed their relevance:

Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)
<b>Soil condition</b>  Land occupied will be commensurately compensated for.	Yes	This issue is valid and very important because it is one of twelve mentioned indicators of sustainable development. It is also considered in the project-designed document.
<b>Re-cultivation and resettlement</b>  The project owner should care about the plantation and resettlement for the households whose land is occupied.	Yes	Re-cultivation and resettlement fall into main issues regarding the implementation of Dak Pone Hydropower Project. A specific plan to perform this work is produced before and during the project implementation.
<b>Concern about fish habitat</b>	Yes	For the purpose of the project, a reservoir is to be created which imposes impacts on fauna (e.g. fish). However, mitigation



			measures will be taken into account such as to shorten excavate period when dredging the river bed; to clean the river bed before conserve water to the reservoir; to conduct awareness on the environmental protection for workers and local people.
<b>Local air environment</b>	Yes		The project owner will implement the mitigation measures to avoid the air pollution such as spraying water along the roads; covering all means/vehicles for transport of construction materials to reduce dust and utilizing modern execution means to reduce exhausted gases.
<b>Water environment</b>	Yes		Water is very important to the local residents. It is used for almost daily activities. In order to avoid impacts on water quality, project owner commit to strictly manage the discharge of organic waste; to collect, dumping and burning waste according to relevant local regulations; to build wastewater treatment tanks; to build standardized toilets.
The list of stakeholder participated in the meeting is attached as Annex 2			

## E.2. Stakeholder Feedback Round



Please describe report how the feedback round was organized, what the outcomes were and how you followed up on the feedback.

This section will be filled in when the stakeholder feedback round has been carried out

### **E. 3. Discussion on continuous input / grievance mechanism**

Discuss the Continuous input / grievance mechanism expression method and details, as discussed with local stakeholders.

	Method Chosen (include all known details e.g. location of book, phone, number, identity of mediator)	Justification
Continuous Input / Grievance Expression Process Book	Comment books are made available on the project site and at the Office of the commune People's Committee so that local stakeholders can provide feedback on the proposed project.	Project site is the place where the local stakeholders can communicate directly (or anonymously via the comment book) with the project's Management Board. The office of the communal People's Committee is a standing unit of the People's Committee to deal with comments from local community on all matters of the commune and is the contact point between local authority and the residents. The comment books will be securely placed in the chosen locations and daily checked by responsible persons.
Telephone access	The telephone numbers of the Project Owner and the GS consultancy company are made available for local stakeholders to	The telephones are located at the office of the project owner at the project's site and at the office of the GS consultancy

	provide feedback on the project. Stakeholders can find the telephone number in the Comment Book or on the paper note at the project site.	company to allow more practical communication with local stakeholders. There is always a receptionist on the desk to answer the calls or have the messages recorded. All received calls shall be logged and recorded in Comment Book with the date, comments, action requested and project responses. Stakeholders are not required to give their personal details when they wish to make a comment.
Internet/email access	The Project Owner has its website and its email and the GS consultancy company also has its website and its email for local stakeholders to provide feedback on the project.	There is always a web admin to receive the emails and website comments. All received emails and website comments shall be logged and recorded with the date, comments, action requested and project responses. Stakeholders are not required to give their personal details when they wish to make a comment on the website: <a href="http://www.pc3invest.vn/vn/home.aspx?PID=54&amp;">http://www.pc3invest.vn/vn/home.aspx?PID=54&amp;</a>
Nominated Independent Mediator (optional)	Not applied	Not applied

*All issues identified during the crediting period through any of the Methods shall have a mitigation measure in place. The identified issue should be discussed in the revised Passport and the corresponding mitigation measure should be added to sustainability monitoring plan in section G.*

## **SECTION F. Outcome Sustainability assessment**

## F.1. 'Do no harm' Assessment

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
1. The project respects internationally proclaimed human rights. The project is not complicit in Human rights abuses	The project respects internationally proclaimed human rights. Viet Nam is a state party to 7 core UN human rights treaties, including the UN International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR), to which it acceded in 1982. Viet Nam now is playing an increasing role in regional and international affairs. <a href="http://www1.umn.edu/humanrts/research/ratification-vietnam.html">http://www1.umn.edu/humanrts/research/ratification-vietnam.html</a>	Low	N/A
2. The project does not involve and is not complicit in involuntary resettlement	There is no resettlement occurred due to the project activity. It is the fact that there are twenty-four (24) households who have lost their land due to the project activity. However, these households agreed on the compensation in cash without resettlement. Therefore, the project does not involve and is not complicit involuntary resettlement. <i>Ref. Compensated expenditure validation report.</i>	N/A	N/A
3. The project does not involve and is not complicit in the alteration, damage or removal of nay critical cultural heritage	The project does not involve and is not complicit in the alteration, damage or removal of any critical cultural heritage. According to the EIA report of Dak Pone Hydropower Project, the proposed project is constructed far from any cultural heritage. <i>Ref. EIA report, page of 12</i>	Low	N/A
4. The project respects the employees' freedom of association and their right to collective bargaining and is not	Labour rights are protected in the Labour code of Viet Nam. The right to unionize, bargain collectively are highly protected by this code. The project fully respects the employee's	Low	N/A

complicit in restrictions of these freedom and rights	<p>freedom and rights and all related laws endorsed by Vietnamese government.</p> <p><i>Ref. Labour code of Viet Nam, Article 7</i></p> <p><a href="http://www.global-standards.com/Resources/VNLabourCode1994-2002.pdf">http://www.global-standards.com/Resources/VNLabourCode1994-2002.pdf</a></p>		
5. The project does not involve and is not complicit in any form of forced or compulsory labour	<p>All employees are engaged in the project implementation on a voluntary basis. Forced or compulsory labour is regulated in the Labour code of Viet Nam. The project fully respects the employee's rights in accordance with all labour related laws. The law compliance is subject to government's inspection and ruling. In case of any terms of violation, due penalty would be enforced as in accordance to the regulations.</p> <p><i>Ref. Labour code of Viet Nam, Article 9</i></p>	Low	N/A
6. The project does not employ and is not complicit in any form of child labour	<p>The project does not involve the employment and complicit of child labour. The Host country has its own credible legislation in place prohibiting child labour.</p> <p>In Viet Nam, there is a comprehensive definition of child labour in terms of age limitation, working hours, etc. Such employment regulations are described in Labour code of Viet Nam.</p> <p>The proposed project requires a limited number of skilled employees to operate, maintain and manage the plant. Therefore, it does not employ and is not complicit in any form of child labour.</p> <p><i>Ref. Labour code of Viet Nam, Chapter XI</i></p>	Low	N/A
7. The project does not involve and is not complicit in any form of	The project does not discriminate against individuals and employment of staff is not based on gender, race,	Low	N/A

discrimination based on gender, race, religion, sexual orientation or any other basis	<p>religion, sexual orientation or on any other basis. According to the interview with the project owner, there is strong solidarity existing among people from different minority groups in the project site. In Viet Nam (host country), there is labour legislation that protects against some facets of this principle.</p> <p><i>Ref. Labour code of Viet Nam, Article 5</i></p>		
8. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments.	<p>A hydro project in general does not expose workers to unsafe or unhealthy work environments in terms of toxins or chemicals. In addition the project follows national safety rules under (Host Country) Law that covers work safety.</p> <p><i>Ref. Labour code of Viet Nam, Article 7</i></p>	Low	N/A
9. The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle.	<p>The project activity does not threaten human health or the environment. This was checked before the construction start in the framework of an EIA to see if the components in the project activity are in compliance to the laws in various aspects e.g. health &amp; safety, hazardous waste release etc.</p> <p><i>Ref. EIA report, page of 12, 18</i></p>	Low	N/A
10. The project does not involve and is not complicit in significant conversion or degradation of critical natural habitats, including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value, or (d) recognized as protected by traditional	<p>The project does not involve and is not complicit in significant conversion or degradation of critical natural habitats. There are no critical natural habitats located at or close to the project site. <i>Ref. EIA report, page of 12</i></p>	Low	N/A

local communities			
11. The project does not involve and is not complicit in corruption	Viet Nam has ratified the Convention against Corruption. All permits that are required legally have been attained following applicable laws <sup>7</sup> . Furthermore, the project is owned by a private equity company, and there is no governmental subsidy disbursed to the project. Therefore, the project does not involve and is not complicit in corruption and is neither prone to entrusted power abuse nor corruption.	Low	N/A
<b>Additional relevant critical issues for my project type</b>	<b>Description of relevance to my project</b>	<b>Assessment of relevance to my project (low/medium/high)</b>	<b>Mitigation measure</b>
1			
2			
Etc.			

## F.2. Sustainable Development matrix

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Preliminary score
Gold Standard indicators of sustainable development .	If relevant copy mitigation measure from "do no harm" – table, or include mitigation measure used to neutralise a score of ‘–’	Check <a href="http://www.undp.or/mdg">www.undp.or/mdg</a> and <a href="http://www.mdgmonitor.org">www.mdgmonitor.org</a>  Describe how your indicator is related to local MDG goals	Defined by project developer	Negative impact: score ‘–’ in case negative impact is not fully mitigated score 0 in case impact is planned to be fully mitigated No change in impact: score 0 Positive impact: score ‘+’

<sup>7</sup>[http://vi.wikipedia.org/wiki/C%C3%B4ng\\_%C6%B0%E1%BB%9Bc\\_ph%C3%B2ng\\_ch%E1%BB%91ng\\_tham\\_nh%C5%A9ng](http://vi.wikipedia.org/wiki/C%C3%B4ng_%C6%B0%E1%BB%9Bc_ph%C3%B2ng_ch%E1%BB%91ng_tham_nh%C5%A9ng)



Air quality	<ul style="list-style-type: none"> <li>- Spraying water on the road and covering material trucks' body to avoid dust;</li> <li>- Utilizing modern execution means to reduce exhaust gases and noise;</li> <li>- Making no operation of noisy machinery during the rest time of local residents;</li> <li>- Restoring green cover around the project site to balance ratio O<sub>2</sub>/CO<sub>2</sub> and evaporation. <i>Ref. EIA report, page of 19, 20</i></li> </ul>	Ensuring the environmental sustainability	<p><b>Dust, GHG and other air pollutant:</b> The air pollution mainly comes from the construction. Proper measured are employed to mitigate the potential impacts During the operation period, the electricity generated by the project partially replaces electricity generation from other conventional sources of energy, and directly reducing emissions other than GHG such as SO<sub>x</sub> and NO<sub>x</sub>, which contributes to the air quality improvement to a certain extent. However, such contribution is difficult to qualify or measure; therefore, this indicator is scored neutrally.</p>	0
Water quality and quantity	<p>During the construction period, water source may be contaminated by various factors; however, proper mitigation measures are employed as follows:</p> <ul style="list-style-type: none"> <li>- Excavation debris is</li> </ul>	Ensuring the environmental sustainability	<p><b>Excavation debris, contamination of public resources and water supply:</b></p> <p>In order to avoid the water contamination, necessary mitigation measures are employed.</p> <p>Regarding the water</p>	0

	<p>used for the construction of access roads.</p> <ul style="list-style-type: none"> <li>- Strictly controlling discharge of organic domestic waste. Waste shall be collected for disposal or combustion;</li> <li>- Building standardized water-closets; waste oil is collected and transported away for treatment;</li> <li>- Rock, earth and solid waste are not allowed to be discharged to the river; disposal sites are arranged corresponding to each construction phase.</li> </ul> <p><i>Ref. EIA report, page of 19, 20</i></p>		<p>quantity, as small-scale run-of-river hydropower stations<sup>8</sup> do not alter the water that runs through them. Therefore, compared to the baseline there is no significant change. For those reasons, this indicator is scored neutrally.</p>	
Soil condition	<ul style="list-style-type: none"> <li>- The occupied land area will be commensurately compensated for;</li> <li>- To fill up the excavated areas where are exploited for building materials as soon as possible;</li> <li>- Excavation debris, muck from the construction stage is disposed off safely at the proper site.</li> </ul>	Ensuring the environmental sustainability	<p><b>Land loss, and erosion, excavation debris:</b></p> <p>The formation of reservoir results in inundation of a part of natural land. However, the areas are small for small scale hydro projects and the major part of inundated land is uncultivated or hilly. Impacts are fully</p>	0

<sup>8</sup> According to Decision No. 2014/QD-NLKD issued by Ministry of Industry on 13 June 2007, small scale hydropower project is  $\leq 30$  MW.

	<ul style="list-style-type: none"> <li>- Protecting vegetable cover in area where has slope terrain around the reservoir and the entire project site.</li> <li>-Conducting reforestation and vegetation recovery in the temporarily occupied areas (if any) and strengthening the slopes to avoid erosion after accomplishing the construction of main works.</li> </ul> <p><i>Ref. EIA report, page of 20, 21</i></p>		<p>mitigated. Hence, the project negligibly affects the soil quality.</p>	
Other pollutants	<ul style="list-style-type: none"> <li>- Noise mainly comes from the construction machinery, concrete casting, transportation vehicles, and blasting activities. To reduce this impact, the project owner adopted low noise, modern equipments, operator and monitoring room is separated with machine room and minimizing the blasting during construction.</li> </ul> <p><i>Ref EIA report, page of 20</i></p> <ul style="list-style-type: none"> <li>- Transportation and machine operations were at suitable time, limit blow the horn</li> </ul>	Ensuring the environmental sustainability	<p><b>Noise, waste management and other pollutant:</b></p> <p>Noise appears during the construction, but stops when the construction is completed. During the construction, the project owner shall apply proper measures to strictly manage the discharge of organic waste resulted from daily activities. Domestic waste is regularly collected, dumped and burnt properly. Furthermore, there</p>	0

	<p>during break time.</p> <ul style="list-style-type: none"> <li>- For permanent occupation and semi-submerged land area, the Project owner shall cooperate with local authorities to prepare a proper compensation plan.</li> <li>- For temporary occupation land area: it will be returned to its owner after completion of the project (if any). Access and service road will improve the transportation of local area.</li> </ul> <p><i>Ref EIA report, page of 18, 21</i></p>		<p>are very few residents living near the project site and during the operation period the project does not create other pollutants such as ash, it is cleaner than the coal power plants it partially replaces.</p>	
Biodiversity	<ul style="list-style-type: none"> <li>- Conducting reforestation and recovering the green/vegetable cover in the area which is blind area, shrub and uncultivated milpa. Any forms of animal hunting are prohibited. To educate worker's awareness about environment protection. <i>Ref. EIA report, page of 20</i></li> <li>- The project participants shall comply with the requirements on</li> </ul>	Ensuring the environmental sustainability	<p><b>Threatened plants and animals</b></p> <p>As there is no water reduction area, the aquatic organisms and fish (if any) at the downstream generally will not be disturbed. On the other hand, the creation of reservoir will increase water surface area, which facilitates fishing and aquaculture. In conclusion, there is no significant change to the livelihood of</p>	0

	environmental protection. This compliance will be subject to periodic monitoring and management measures conducted by a qualified party. <i>Ref. EIA report, page 21.</i>		plants or animals before or after the project; therefore, this indicator is scored neutrally.	
Quality of employment		Eradicating extreme poverty and hunger	<p><b>Training of staff:</b></p> <p>During the construction and operation phases, a certain number of jobs will be provided to local people (<i>EIA report, page 23</i>). Once they are employed, they will be trained to work as the operators. These employees will be provided with sufficient accommodation, and health care as required by local laws (<i>EIA report, page 21</i>). Hence, the quality of employment will be enhanced thanks to training courses provided to the workers and rural labour.</p> <p>Regarding occupation health management, the management</p>	+

			board of the project shall issues regulations for the implementation of health care measures, food safety and hygiene inspection as required by Ministry of Health.	
Livelihood of the poor	<p>For those who lose their land permanently, the project owner shall closely cooperate with local authorities to make a proper compensation plan. In case of temporary land occupation, it will be returned to its owner after completion of the project.</p> <p>The project supplies electricity to remote areas. This distribute to increase cultural standard of the people through television system, new jobs in the plant will help local people improve their living standards and reduce social evils in the region (EIA report, page 18).</p>	Eradicating extreme poverty and hunger	<p><b>Livelihood of workers and residents:</b></p> <p>The project will improve the livelihood of those hired through income. The residents who are living at the project site may lose their land and attached assets for the purpose of project implementation. However, those residents will receive commensurate compensation made by the project owner in accordance with local and national laws. There are immigrants in the project area, who come for work only and no competition in term of livelihood with native residents.</p>	0



			The impact is not significant and difficult to qualify or measure; therefore, the indicator is scored neutrally.	
Access to affordable & clean energy services		Contributing to eradicate extreme poverty and hunger	<b>Change in energy use:</b> The project will reduce dependency on expensive fossil fuels (coal, diesel, natural gas, etc.) and create more affordable clean energy for Viet Nam. The electricity generated by the project activity will be delivered to the national grid, thus alleviating the power shortage in the country. For those reasons, this indicator is scored positively.	+
Human and institutional capacity			<b>Public participation, education and skills, gender equality:</b> Although the project will improve the human and institutional capacity through involvement of stakeholders in the LSC meeting, the overall benefits are not significant. In	0

			<p>practice, only the employees working on the project can be considered as the main beneficiaries.</p> <p>There is also an equality of both male and female participation.</p>	
Quantitative employment and income generation		Contributing to eradicate extreme poverty and hunger	<p><b>Household income; employment creation:</b></p> <p>Project will employ people during the construction and operation phases including local residents, thereby increasing local income.</p>	+
Access to investment			<p><b>Level of fuel import:</b></p> <p>In Viet Nam, thermal power plants are using coal as fuel, which is expensive fossil fuel. Therefore, renewable power plants like hydropower plants will decrease dependency on these expensive fossil fuels. However, since this impact is small in relation to macro-economic perspective, a neutral score is chosen</p>	0
Technology			<b>Introduction of new</b>	0

transfer and technological self-reliance			<p><b>technology in the region, along with training and workshops:</b></p> <p>The project owner shall use the state-of-art technology, which is imported abroad. Enclosing with the equipment is usage manual and training course for the operator conducted by the supplier. Hence, technology transfer will be achieved. However, this impact is difficult to qualify or measure; therefore, this is scored “neutral” for conservative.</p>	
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**Justification choices, data source and provision of references**

Air quality	<p>The plant does not emit the substances above; therefore, it imposes no impact on air quality.</p> <p>During the construction, there are factors that affect the air quality such as dust, waste gases from executing means, vehicles, blasting activities, etc.; however, the project proponents have applied proper mitigation measures i.e. spraying water on the road, covering material truck, using modern executing means. Hence, this indicator is given score ‘neutral’. The information is evaluated in the Environmental Impact Assessment Report (EIAR) to be sent to DNA of Viet Nam.</p> <p>The project will result in GHG reductions; detail on the calculation of this reduction is available in the project design document (PDD)</p>
Water quality and quantity	<p>Small-scale hydropower stations do not alter the water that runs through them.</p> <p>The water quality and quantity including minimum flow and daily regulation regime is assessed in the EIAR. Moreover, the water quality has been monitored periodically through tests conducted by a qualified party (eg. Kon</p>

	Tum Center for Environmental Monitoring and Analysis or Da Nang Center of Environmental Engineering, etc.)
Soil condition	The formation of reservoir results in inundation of a part of natural land. However, the areas are small for small-scale hydro projects and the major part of inundated land is uncultivated or hilly. Hence, the project negligibly affects the soil quality. This information is evaluated in the EIAR.
Other pollutants	<p>The project shall ensure that the level of noise pollution shall be within the maximum permissible level for the industry. As the project does not create other pollutants such as ash, it is cleaner than the coal power plants it partially replaces. Waste will be collected for a proper treatment. The project owner will prohibit any uncontrolled discharge of organic waste by the workers on the site. Disposal sites are arranged in comfort with each construction period. This information will be stated in the EIAR.</p> <ul style="list-style-type: none"> <li>- For permanent occupation and semi-submerged land area: The project owner shall cooperate with local authorities to make a proper compensation plan.</li> <li>- For temporary occupation land area (if any): it will be returned to its owner after the completion of the project. Access and service road will improve transportation of local area.</li> </ul>
Biodiversity	<p>Impacts on flora and fauna are negligible. This information is demonstrated in the EIAR.</p> <p>In order to restore the green cover in the impacted areas, the project owner shall conduct plantation in the campus of such facilities as power house, reservoir, etc. For the temporarily occupied land areas such as industrial parking place, service road, worker accommodation, disposal site, etc. they will be restored with plants when the project is operated.</p>
Quality of employment	The project will create employment opportunities, involving various jobs, for technicians, qualified and unskilled workers. Labour contract is made in accordance with host country laws.
Livelihood of the poor	Project contributes to the local development by creating more employments during the construction and operation phases. The project also contributes to local budget via taxes. As small scale Hydropower Projects are often in inaccessible and poor areas this is especially important. The project is expected to provide jobs for a hundred of local people during both construction and operation phase. For those who have their land affected by the proposed project, they will receive commensurate compensation in accordance with local and national laws. Livelihoods of the local residents will be secured because apart from affected land area, they also have other land parcels where they can move to for cultivation. The immigrants in the project

	area come for work only; therefore, they are not affected by the project implementation in term of livelihoods. This information is evaluated in the EIAR.
Access to affordable and clean energy services	The project will reduce dependency on expensive fossil fuels (coal, diesel, natural gas, etc.) and create more affordable clean energy for Viet Nam. Electrical energy generated by the project will be supplied to the national grid under pending Power Purchase Agreement (PPA).
Human and institutional capacity	Project will contribute to increase the skills for new employees and bring about a higher level of awareness of important environmental issues. This information will be evaluated in the EIAR.
Quantitative employment and income generation	Project will generate employment opportunities and income to the local community during both the construction and operation phases. This information will be confirmed during the site visit.
Access to investment	In Viet Nam, thermal power plants are using coal as fuel which is expensive fossil fuel. Therefore, renewable power plants like hydropower plants will decrease dependency on these expensive fossil fuels.
Technology transfer and technological self-reliance	Project will provide opportunities to access new technologies via training, workshops. This indicator can be substantiated by training records.

## SECTION G. Sustainability Monitoring Plan

No	01
Indicator	Quality of employment
Mitigation measure	n/a
Chosen parameter	Training records, functions of jobs created, labor conditions of the project activity, occupation health management, safeguards put place and living standards of the plant staff.
Current situation of parameter	Current situation of parameter is equal to baseline situation.
Estimation of baseline situation of parameter	Staffs to be employed for the project are most local people having poor educational background.
Future target for parameter	<ul style="list-style-type: none"> <li>- The staffs are trained on the technical issues relating to the operation of the plant. They will receive the professional certificate.</li> <li>- Jobs help local people improve their living standard by receiving the payment made by the project owner and reduce social evils in the region.</li> </ul>

		- Labour condition of the project activity is secured to safeguard effective management of occupation health. The project owner shall be in cooperation with local authorities and medical centers to conduct health check-up for the plant staff; issue policies regarding health care for the plant staff.
Way of monitoring	How	Checking documentation, internship, interview
	When	Once per given period
	By who	The project owner

No		02
Indicator		Access to affordable and clean energy services
Mitigation measure		n/a
Chosen parameter		The operation of hydropower plant
Current situation of parameter		Using hydropower, a clean energy, instead of fossil fuel energy
Estimation of baseline situation of parameter		There was no power or fossil fuel based energy generation with high price.
Future target for parameter		Reducing the dependence on expensive fossil fuels (coal, diesel, etc.) and creating more affordable clean energy
Way of monitoring	How	Checking the export of renewable energy to the grid
	When	Once per given period
	By who	By whoThe project owner/CDM consultant

No		03
Indicator		Quantitative employment and income generation
Mitigation measure		n/a
Chosen parameter		Employment creation/income generation
Current situation of parameter		Both long term and short-term jobs have been created during the construction and operation processes.
Estimation of baseline situation of parameter		No new jobs created, as the project activity did not exist.



Future target for parameter		The number of jobs and income will be increased.
Way of monitoring	How	Through the evaluation of documents for wages paid and social security documents.
	When	Once per verification period.
	By who	Project owner

No		04
Indicator		Air quality
Mitigation measure		<ul style="list-style-type: none"> <li>- Spraying water on the road, and covering material trucks to avoid dust;</li> <li>- Utilizing modern technology of low noise.</li> <li>- Making no operation of noisy machinery during the rest time of local residents;</li> </ul>
Chosen parameter		Dust, waste gases, and other air pollutant including noise
Current situation of parameter		Dust, waste gases and other pollutant are emitted into the atmosphere
Estimation of baseline situation of parameter		No dust, waste gases and other pollutant are emitted into the atmosphere
Future target for parameter		Dust, waste gases and other pollutants are prevented from being emitting into the atmosphere.
Way of monitoring	How	Air quality examination
	When	During the construction and operation
	By who	Project owner / environment centre

No		05
Indicator		Water quality and quantity
Mitigation measure		<ul style="list-style-type: none"> <li>- Strictly controlling discharge of organic domestic waste. Waste shall be collected for disposal or combustion;</li> <li>- Building standardized water-closets; waste oil is collected and transported away for treatment;</li> <li>- Rock, earth and solid waste are not allowed to be discharged to the river; disposal sites are arranged corresponding to each</li> </ul>

		construction phase.
Chosen parameter		<ul style="list-style-type: none"> <li>- Contamination of public resources</li> <li>- Minimum flow</li> </ul>
Current situation of parameter		Change to the water quality
Estimation of baseline situation of parameter		Water resources are not contaminated
Future target for parameter		<ul style="list-style-type: none"> <li>- Water quality is up to the local standard</li> <li>- Minimum flow at the downstream is secured</li> </ul>
Way of monitoring	How	Water quality examination
	When	During the construction and operation
	By who	Project owner / environment centre

No	06
Indicator	Soil condition
Mitigation measure	<p>The inundated land area will be commensurately compensated for; When the project is commissioned, the project proponents commit to conduct plantation around the project site to avoid erosion;</p> <ul style="list-style-type: none"> <li>- To fill up the excavated areas where are exploited for building materials as soon as possible;</li> <li>- Excavation debris, muck from the construction stage is disposed off safely at the proper site.</li> <li>- Protecting vegetable cover in area where has slope terrain around the reservoir and the entire project site.</li> </ul> <p>-Conducting reforestation and vegetation recovery in the temporarily occupied areas (if any) and strengthening the slopes to avoid erosion after accomplishing the construction of main works.</p> <ul style="list-style-type: none"> <li>- Periodic monitoring will be conducted by a qualified party to ensure re-plantation is sufficient.</li> </ul>
Chosen parameter	Land loss, erosion
Current situation of parameter	Same as the baseline situation
Estimation of baseline situation of	Land is occupied for the implementation of the project

parameter		
Future target for parameter		Land occupied will be commensurately compensated for; land erosion is restricted by plantation.
Way of monitoring	How	Compensation documentation, site visit
	When	During the construction and operation period
	By who	Project owner

No		07
Indicator		Biodiversity/Fish passage
Mitigation measure		<ul style="list-style-type: none"> <li>- The dam is designed with spillway and sand discharge gate that allow fish to move back and forth;</li> <li>- In order to restore the green cover in the impacted areas, the project owner shall conduct plantation in the campus of such facilities as power house, reservoir, etc. For the temporarily occupied land areas such as industrial parking place, service road, worker accommodation, disposal site, etc. they will be restored with plants when the project is operated.</li> </ul>
Chosen parameter		<ul style="list-style-type: none"> <li>- Fish passage</li> <li>- Cultivation of plants and afforestation for impacted areas</li> </ul>
Current situation of parameter		Same as the baseline situation
Estimation of baseline situation of parameter		<ul style="list-style-type: none"> <li>- Fish migration is disturbed</li> <li>- Green cover is impacted by the project activity</li> </ul>
Future target for parameter		<ul style="list-style-type: none"> <li>- Fish passage is designed properly to allow fish migration back and forth.</li> <li>- Impacted areas to be recovered with plantation and afforestation</li> </ul>
Way of monitoring	How	On-site check
	When	During the construction and operation
	By who	Project owner

**Additional remarks monitoring**

## **SECTION H.    Additionality and conservativeness**

This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

### **H.1.    Additionality**

Additionality assessment is performed according to the “Tool for the demonstration and assessment of additionality”, version 05.2 approved by UNFCCC. Details are available in the registered PDD.

### **H.2.    Conservativeness**

A conservative approach has been followed in calculating the baseline emission factors and investment analysis sections as detailed in the PDD.

**ANNEX 1      ODA declaration**

Project financing for this project activity will not use Official Development Assistance (ODA) Funds as defined in the Gold Standard Manual for Project Developers. There are no loans or grants being provided by International Finance Institutions, which include ODA.

ODA Declaration is shown as below



## OFFICIAL DEVELOPMENT ASSISTANCE DECLARATION

Date: 15/10/2012

The Gold Standard Foundation

79 Avenue Louis Casai

Geneva Cointrin, CH-1216

Switzerland

RE: Declaration of Non-Use of Official Development Assistance by Project Owner of Dak Pone Hydropower Project

PC3 – Investment Joint Stock Company

As Project Owner of the above-referenced project, and acting on behalf of all Project Participants, I now make the following representations:

Mr. Nguyen Luong Minh

I hereby declare that I am duly and fully authorized by the Project Owner of the above-referenced project to act on behalf of all Project Participants and make the following representations:

### I. The Gold Standard Documentation

I am familiar with the provisions of The Gold Standard Documentation relevant to Official Development Assistance (ODA). I understand that the above-referenced project is not eligible for Gold Standard registration if the project receives or benefits from Official Development Assistance with the condition that some, or all, of the carbon credits [CERs, ERUs, or VERs] coming out of the project are transferred to the ODA donor country. I hereby expressly declare that no financing provided in connection with the above-referenced project has come from or will come from ODA that has been or will be provided under the condition, whether express or implied, that any or all of the carbon credits issued as a result of the project's operation will be transferred directly or indirectly to the country of origin of the ODA.

### II. Duty to Notify Upon Discovery

If I learn or if I am given any reason to believe at any stage of project design or implementation that ODA has been used to support the development or implementation of the project, or that an entity providing ODA to the host country may at some point in the future benefit directly or indirectly from the carbon credits generated from the project as a condition of investment, I will notify The Gold Standard immediately using the Amended ODA Declaration Form provided below.







### III. Investigation

The Gold Standard reserves the right to conduct an investigation into any project it reasonably believes may be receiving ODA with the condition that some or all of the carbon credits from the project will be transferred to the ODA donor country.

### IV. Sanctions

I am fully aware that the sanctions identified in The Gold Standard Terms and Conditions may be applied to me or the above-referenced project in the event that any of the information provided above is false or I fail to notify The Gold Standard of any changes to ODA in a timely manner.

I swear that all of the statements contained herein are true to the best of my knowledge.

Signed:

Name:

Nguyễn Lương Minh

Title:

General Director

On behalf of: PC3 - Investment Joint Stock Company

Place:

78A Duy Tan Street, Hai Chau District, Da Nang City, Viet Nam



**ANNEX 2      Minutes of meeting**

The list of stakeholder participated in the meeting is shown as below.

Tham dự cuộc họp gồm có:

**I. Đại diện nhân dân và chính quyền xã:**

(1) Ông: Hà Đức Vĩnh

Chức vụ: Chủ tịch xã Đắk Long

(2) Ông: A Thắng

Chức vụ: Bí thư xã Đắk Long

(3) Bà: Y Duân

Chức vụ: Chủ tịch hội nông dân xã Đắk Long

(4) Bà: Y Lim

Chức vụ: Chủ tịch hội phụ nữ xã Đắk Long

(5) Ông: A Dương

Chức vụ: Bí thư đoàn thanh niên xã Đắk Long

(6) Ông: A Reng

Chức vụ: Già Làng

(7) Ông: A Blắc

Chức vụ: Trưởng thôn Kon Pring

**II. Đại diện chủ đầu tư – Ban QLDA các CTTĐ vừa và nhỏ**

(1) Ông: Nguyễn Sơn

Chức vụ: Trưởng ban

(2) Ông: Ngô Tấn Dũng

Chức vụ: Tổ phó Tổ TVGS CTTĐ Đắk Pôn

(3) Ông: Hồ Tú Quân

Chức vụ: Chuyên viên phòng TCHC