



# Concept Environmental and Social Review Summary

## Concept Stage

### **(ESRS Concept Stage)**

Date Prepared/Updated: 07/20/2021 | Report No: ESRSC02188



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Vietnam	EAST ASIA AND PACIFIC	P176226	
Project Name	Vietnam's Decarbonization and Energy Transition		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing		9/30/2021
Borrower(s)	Implementing Agency(ies)		
Socialist Republic of Vietnam	Ministry of Industry and Trade		

Proposed Development Objective

To support decarbonization and energy transition in selected industrial sectors in Vietnam thereby contributing to the country's green growth and climate goals (NDC).

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>4.10</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

This Grant will support a Technical Assistance (TA) to scale up ongoing green growth efforts and support low carbon transition of industrial sector through deeper analysis and piloting in selected industries. The project will also create innovative technologies roadmap and interventions which could be supported under the ongoing Vietnam Scaling Up Energy Efficiency (VSUEE) and Vietnam Energy Efficiency for Industrial Enterprises (VEEIE) projects. The proposed TA will complement what has been planned under the Pillar two "Demand Side Decarbonization" of Vietnam Low Carbon Infrastructure Development (P176851) Programmatic ASA (LCID PASA).



Component 1: Promoting and piloting innovative and low carbon technologies, including circular economy (CE) approach in the energy intensive industrial sector (USD 2.5 million). The example technologies would include direct electrification of industrial processes, application of heat pumps, hydrogen production and application, carbon capture & use of industrial processes, etc. Piloting of innovative decarbonization technologies would be based on the deep dive in few selected industries and would draw heavily from successful examples of innovative technologies and CE adoption in other countries which are still not implemented or commercialized in Vietnam. The key activities are: (1) Policy analysis of industrial and energy sectors to assess its strengths and weaknesses to support green transition and how these can be further improved; (2) Decarbonization roadmap and pilot implementation plan that will be developed collaboratively with the respective industries, MOIT and relevant government departments. These roadmap(s) will provide details on sector specific (cement, steel, chemicals etc.) innovative and low carbon technologies commercially available in the market along with financial viability and benefits in terms of improving energy and resources efficiency; and (3) potential project pipeline and investment opportunities will also be explored to ensure the scale and sustainability of this work.

Component 2: Knowledge products and capacity building (USD 0.5 million). The component creates innovative technology database based on data collection, assessment and technical reports prepared under Component 1. Key activities will include: (1) Creation of innovative technologies database for high emission industrial sectors; and (2) Capacity building of different stakeholders on decarbonization through trainings, workshops and study tours.

Component 3: Improvement of readiness for sectoral carbon crediting in selected 2 - 3 sub sectors (USD 1.1 million). Key activities will include: (1) Improve energy performance database and monitoring, reporting and verification (MRV) system readiness at both the MOIT and IE levels as needed for sectoral crediting; (2) Catalyze successful implementation of EE deployments in the selected sub-sectors by rewarding data submission by IEs in a required format; and (3) Develop options to link the sector database and MRV system with Vietnam's NDC in a consistent and harmonized manner.

#### **D. Environmental and Social Overview**

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

Vietnam's energy intensity is the highest among major East Asian economies. The industrial sector accounts for almost half of the final energy consumption of the country. Iron and steel plants use twice as much energy as similar plants around the world to produce the same amount of steel. Steel, cement, and textile sectors still use relatively old technologies and cause high energy intensity. Vietnam has recognized the importance of green growth and its Nationally Determined Contribution (NDC) mentioned the country's commitment to reduce 9 percent of greenhouse gas (GHG) emissions by 2030 compared to the business-as-usual (BAU) scenario and aims for further reduction of 27 percent with support from the international community. With respect to the industrial sector, the availability of sectoral data is a major and critical requirement for Vietnam to implement its NDC and smooth the transition to post-NDC.

This grant will support Technical Assistance (TA) to scale up ongoing green growth efforts and low carbon transition of the industrial sector in Vietnam. All the components will be consistent with the World Bank Environmental and Social Standards of the ESF, including the ToRs for all Project activities.



The TA will also create innovative technologies roadmap and interventions which could be supported under the ongoing Vietnam Scaling Up Energy Efficiency (VSUEE) and Vietnam Energy Efficiency for Industrial Enterprises (VEEIE) projects. The TA aims to enrich and strengthen the approach to promote and pilot innovative low-carbon technologies that are currently not deployed in Vietnam's industrial sector. These technologies would include direct electrification of industrial processes, application of heat pumps, carbon capture and use of industrial processes, etc.

The TA will not include any physical investment or civil works. Its activities are mainly at the national level and include (i) promoting and piloting innovative and low carbon technologies, (ii) knowledge products and capacity building (decarbonization technologies for high emission sector/s, training, and workshops), and (iii) improvement of readiness for sectoral carbon crediting in selected 2-3 sub-sectors.

A dialogue with the government will also continue to further identify a potential pipeline project in the industrial sector, and additional finance would be explored through Government's and/or IBRD financing to ensure the sustainability of the result of this TA.

#### D. 2. Borrower's Institutional Capacity

The Ministry of Industry and Trade (MOIT), through its Department of Energy Efficiency and Sustainable Development, will be responsible for the implementation of the proposed TA project. Environmental and social safeguards performance ratings for the ongoing projects (VEEIE and VSUEE projects) managed by the MOIT are satisfactory as the environmental and social due diligence is well undertaken by the project management and the reporting on environmental and social compliance and performance of sub-projects regularly done.

Based on the analysis of the previous ISRs and safeguards performance ratings, for VEEIE and VSUEE projects, and an interview with the technical and E&S focal points of the MOIT and the PIU of one of their WB-funded projects, the borrower's capacity in the management of environmental and social risks can be considered sufficient. The MOIT has qualified staff on board, with relevant experience applying environmental and social safeguards for WB-funded projects. However, technical support and additional training will be required to ensure compliant implementation.

The MOIT and this Department are well familiar with the World Bank's Safeguards Policies and requirements. The Department has an existing Project Implementation Unit (PIU) for managing three ongoing bank-financed projects (i.e. VSUEE, VEEIE, and Vietnam Partnership for Market Readiness project); works closely with local authorities to assess and monitor the implementation of the safeguards of sub-projects; and reports to the World Bank.



Also, the Department has recently worked with a number of projects funded by different international donors (ADB, USAID, KOICA, UNIDO), applying its E&S safeguards systems, in the field of energy efficiency, sustainable development, climate change, and green growth.

The Department has assigned three dedicated focal points for managing, supervising, and regular reporting of progress for three ongoing WB-funded projects, particularly safeguards compliance to the PIU. Also, an independent safeguard monitoring consultant was recruited to support the focal points in conducting onsite monitoring of compliance for ongoing bank-financed projects with the adopted ES risk documents and in drafting necessary reports. Local authorities (including Commune People’s Committee, District People’s Committee, and Provincial People’s Committee), depending on the decentralization and scale of sub-projects, approved E&S risk documents (EIA and Environmental Protection Plan) and also carried out environmental monitoring as mandated by Government regulations. Also, the MOIT has experience in some aspects of social safeguards like the preparation of E&S assessment and management plans, consultation workshops, Grievance Redress Mechanisms (GRM), and E&S monitoring and reporting activities under international standards.

Additional training on environmental and social assessment and management will be required since the E&S focal points have not yet received training in the application of the Bank’s safeguards policies and ESF. To address the limited capacity to implement the WB’s Environmental and Social Standards, this TA project will have to integrate capacity building training for the government focal points and concerned key stakeholders on the application of the Bank’s Environmental and Social Framework (ESF).

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## II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

### A. Environmental and Social Risk Classification (ESRC)

Moderate

#### Environmental Risk Rating

Moderate

Environmental risk is moderate. While neither new construction nor renovation of existing office buildings is foreseen in this project, the project will create potential roadmap for investment innovative technologies (e.g. direct electrification of industrial processes, application of heat pumps, carbon capture & use of industrial processes, etc.), knowledge products, capacity building and database management. No significant direct adverse environmental risks and impacts are foreseen, however there may be potential downstream environmental risks associated with piloting new and low carbon technologies in the selected industries. Industrial sectors that require high electricity and produce high carbon emission will be selected for piloting e.g. cement, steel and chemical industries however the detailed criteria for selection will be developed by the clients during the TA implementation. The identification of potential project pipeline and investment opportunities may bring significant environmental risks in the downstream depending on the type of industries and technologies to be piloted. Potential downstream negative environmental impacts may arise from the working fluid (refrigerant) leakage from heat pumps (HPs). The impact will depend on the refrigerant in use. Some refrigerants have been subject to international phase out schemes and strict regulations. Considerations to include analysis of alternatives for a more environmentally friendly natural working fluids will be included in the TA studies and the innovative technology roadmap. While positive impacts are foreseen



from direct electrification of industrial process, potential negative impacts may include electric shocks, arc flash/blast, fires and explosions in case of improper installation and use. This TA will have many positive potential environmental implications in the downstream and may include reduced energy use and carbon intensity in selected industrial sectors, reduced emissions that lead to improved community health, and reduced climate change impacts from emission. There may be minor potential Covid 19 related health and safety risks to the in-person training and workshop participants and also potential risks from improper disposal of used training and workshop materials.

**Social Risk Rating**

Low

No physical works are proposed, and the TA activities could have significant social benefits on job creation and public health. These positive impacts also apply to the potential downstream social implications that may arise from the implementation of this TA. No major potential downstream negative social impacts and risks are expected by the TA activities like the potential project pipeline (industries) identification for low carbon transition via existing green credit lines, the detailed low carbon transition plan for 1-2 sectors (cement, steel, etc.) based on innovative technologies, the database of low carbon and innovative technologies for high emission sector/s or the capacity building of relevant partners on innovative technologies and monitoring, reporting and verification (MRV) systems readiness. Also, the Department of Energy Efficiency and Sustainable Development of MOIT has qualified staff on board, with relevant experience applying social safeguards for WB-funded projects. Therefore, the social risk classification of this TA is anticipated to be Low.

**B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered**

**B.1. General Assessment**

**ESS1 Assessment and Management of Environmental and Social Risks and Impacts**

***Overview of the relevance of the Standard for the Project:***

Investments and activities included under the proposed TA project are mainly focused on (i) promoting and piloting innovative and low carbon technologies, (ii) knowledge products and capacity building, and (iii) development of database and MRV systems. The project will have no physical footprint and will not construct any structures or finance any external modifications of any facilities. The project will work through the existing government institutional structures to achieve its objectives.

This TA will explore the identification of potential project pipeline and investment opportunities to ensure the scale and sustainability of this work. The potential project pipeline and investment opportunities may bring significant downstream environmental risks depending on the type of industries and technologies to be piloted. Hence this TA activity would lead to a better understanding of potential projects and activities thus providing a blueprint for any potential investment opportunities by public or private sectors. It is understood that there is no assumption this project will define any IBRD operation.

Discussions with MOIT and the project’s Task Team on lessons learned from the past and current Bank-financed projects implemented by MOIT, review of the project concept note (PCN), and following the guidelines outlined on the OESRC Advisory Note for Technical Assistance and the ESF has provided the basis for screening of the potential environmental and social risks and impacts of the proposed TA.

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While there may be risks from adopting innovative technologies in the industry sector such as increased costs and lay off of workers, the screening identified no direct adverse environmental risks and impacts. There may be potential downstream environmental risks associated with piloting new and low carbon technologies in the targeted industries. These industries will be selected during TA implementation, and will be based on energy intensity and carbon emission and the potential gains based on the adoption of low carbon and innovative technologies along with energy efficiency (EE) and renewable energy (RE) effort. In addition to low carbon technologies, pollution abatement measures will be explored, such as installing end-of-pipe equipment for particular removal, denitrification, and desulfurization or dust reduction technologies; complementary to the reduction realized by RE, EE and CE measures.

The innovative technologies for piloting would be identified based on the pre-assessments in few selected industries and successful examples of CE adoption in other countries. The criteria for selecting technologies will include (i) commercial availability in the market, (ii) financial viability, and (iii) benefits in terms of improving energy and resources efficiency.

The potential downstream positive environmental and social implications that may arise from the implementation of the technical and policy analysis may include (i) reduced energy use needed to power industrial processes, (ii) reduced carbon intensity in selected industries through the reduction in emissions associated with industrial processes (e.g. CO<sub>2</sub> releases from cement manufacturing), and the use of industrial products (e.g. refrigerants), (iii) reduced emissions that lead to improved community health, (iv) reduced climate change impacts from emissions, and (v) local job creation in the sectors supported by this TA.

The ESS3 is relevant. Some potential downstream negative environmental impacts may be derived by means of the working fluid (refrigerant) leakage over the lifecycle of heat pumps process. The impact will depend on the refrigerant in use. Some of these refrigerants have been subject to international phase-out schemes and strict regulations. Considerations to include analysis of alternatives for more environmentally friendly natural working fluids will be included as part of the overall TA studies and the innovative technology roadmap. In addition, the TORs for TA requires not only that adverse implications are considered but also to ensure the positive ones are promoted. While positive impacts are foreseen from direct electrification of industrial process (e.g. reduced carbon emission, greater efficiency, lower cost), potential downstream risks may include electric shocks, arc flash/blast, fires, and explosions in case of improper installation and use.

There are related health and safety risks to the training and workshop participants due to the COVID 19 pandemic and potential environmental risks and impacts resulting from improper disposal of used training and workshop materials.

The ESS2 on Labor and Working Condition is relevant as health, safety, and conditions of employment for government staff, direct workers, consultants, and related stakeholders are to be considered when in-person capacity building activities are involved, especially under the context of the COVID-19 pandemic.

The ESS7 is also relevant since the project provinces will be dependent on the industrial sector which cannot be pre-determined at this stage, and there is the presence of Ethnic Minorities (or Indigenous Peoples, applying WB's terminology) in different provinces of Vietnam. Besides, the ESS10 will be applied for this project to ensure meaningful engagement with affected and interested stakeholders.



Terms of References (TORs) to conduct study, analysis, plans, training, and capacity building will be reviewed by the Bank to ensure that the requirements of the ESF policy are effectively integrated. Potential risks and impacts associated with any downstream activities identified through the technical studies and policy-level analysis will be considered through the TORs for the consultants undertaking these works. This will allow due consideration of the potential E&S implications of activities under the studies/analysis. In the unlikely case, there are E&S assessments and plans will be prepared in line with ESS1. This provision will be clearly mentioned in the Environmental and Social Commitment Plan (ESCP), to be prepared prior to project appraisal. The ESCP will provide the mitigation Plans for the identified ESSs.

Applying the principle of proportionality for this low social risk nature of project, a Labor Management Procedure (LMP), to address ESS2, and the Stakeholder Engagement Plan (SEP), for ESS10, will be prepared and disclosed prior appraisal. For ESS7, the SEP and LMP will include measures to ensure culturally appropriate engagement and promote inclusion among ethnic groups for any activity related to this TA. Also, the ToR to be prepared by this project will include an assessment of the anticipated potential impacts, risks, and opportunities for ethnic minorities related to the policy and TA activities supported by this grant.

The ToR will also include additional assessments and measures to address ESS3.

**Areas where “Use of Borrower Framework” is being considered:**

Use of Borrower’s Framework is not being considered.

**ESS10 Stakeholder Engagement and Information Disclosure**

While this TA will have no adverse E&S impacts, the identification and outreach to affected and interested stakeholders would be expected to be an important component of the project. Stakeholder identification and mapping will be important to understanding how the TA’s outcomes can be successfully achieved. The TA activities and their outcomes will need to be clearly communicated to all relevant stakeholders.

A project-level Stakeholder Engagement Plan (SEP), proportionate to the nature and scale of this TA and its potential risks and impacts, will be prepared, consulted, and disclosed by MOIT before the beginning of the TA activities to ensure meaningful consultations, disclosure of relevant project information plus the establishment of a Grievance Redress Mechanism (GRM). The SEP will be included in the Grant Operational Manual.

The TA’s SEP, to be prepared and disclosed prior to appraisal, will include special provisions to ensure that ethnic minorities (under ESS7) will also be considered and engaged in a culturally appropriate manner. An accessible Grievance Redress Mechanism (GRM) will be developed to receive and respond to complaints of the Project on E&S issues.





## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

ESS 2 is relevant. Project workers include MOIT and PIU's own staff and consultants (direct workers). The PIU's staff do not belong to the government civil service. For this TA, the MOIT should engage professional consultancy providers as contracted workers. No primary supply or community workers are expected.

Since most of the project workers' staff are expected to be based in Vietnam, then labor practices for most of the direct and contracted workers will be governed by the Vietnamese Labor Law, which is highly consistent with the ESF's ESS2. However, since there are still some gaps, a Labor Management Procedure (LMP) will be prepared and disclosed prior appraisal to i) protect workers' rights as set out in ESS2; (ii) include a responsive grievance mechanism to allow workers to quickly inform management of labor issues; and (iii) promote a healthy and safe working environment for project workers, including specific health and safety issues posed by COVID-19 e.g. when in-person capacity building activities are involved. The LMP will distinguish between the different types of workers as identified under ESS2 and identify specific protections for each type/category.

The labor and working conditions will be subject to spot checks by the Borrower and the World Bank as part of monitoring and supervision requirements. Incidents (e.g. health and safety incidents in the workplace) involving any type of labor hired under the project should be reported to World Bank through the reporting mechanisms established for the project. The LMP will be included as part of the ESCP as mitigation for ESS2 along with the provision of timelines.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**

ESS3 is relevant. The proposed project is expected to deliver several environmental benefits as it enriches and strengthens the approach to promote and pilot innovative low carbon technologies in the energy intensive industrial sectors. It also provides other benefits associated with downstream activities identified through the technical and policy analysis; which may include among others: (i) reduced energy use needed to power industrial processes, (ii) reduced carbon intensity in selected industries through the reduction in emissions associated with industrial processes (e.g. CO2 releases from cement manufacturing), and the use of industrial products (e.g. refrigerants), and (iii) reduced climate change impacts from emissions.

Potential impacts from the project that are directly relevant to achieve the objectives of ESS3 include minor risks and impacts resulting from improper disposal of used training and workshop materials. Pollution prevention and management measures will apply only for proper management of waste generated from the capacity building events. Provisions will be made in the ESCP and details will be provided in the TORs for training events and that of designated staff/consultant/s.

The project will have no risk of significant adverse impacts on nearby communities or natural habitats from hazardous or toxic materials. Some potential downstream negative environmental impacts may be derived by means of the working fluid (refrigerant) leakage over the lifecycle of heat pumps (HPs) process. The impact will depend on the



refrigerant in use. Some of these refrigerants have been subject to international phase out schemes and strict regulations. Considerations to include analysis of alternatives for a more environmentally friendly natural working fluids will be included as part of the overall TA studies and the innovative technology roadmap. Some potential downstream impacts from direct electrification of industrial process may include electric shocks, arc flash/blast, fires and explosions due to the electrical hazards in case of improper uses.

#### **ESS4 Community Health and Safety**

ESS4 is not directly relevant to the proposed project interventions. However, it may deliver several community health benefits associated with downstream activities identified through the TA, such as reduced emissions that lead to improved community health.

#### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

ESS5 is not relevant. The grant will not support any activities that might result in Land Acquisition, Restrictions on Land Use and Involuntary Resettlement.

#### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

ESS6 is not relevant to the proposed project interventions. The proposed Project will neither finance nor support any civil works or policies that might affect biodiversity or management of living natural resources.

#### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

The TA's SEP will include special provisions on meaningful consultations, information disclosure, and grievance mechanisms to ensure that ethnic minorities (under ESS7) will also be considered and engaged in a culturally appropriate manner. Also, the project's LMP will include measures to promote inclusion in job-related activities among ethnic groups in TA. The ToR to be prepared by this project will also include an assessment of the anticipated potential impacts, risks, and opportunities for ethnic minorities related to the policy and TA activities supported by this grant

#### **ESS8 Cultural Heritage**

ESS8 is not relevant. The project does not involve any physical activities that could directly or indirectly affect tangible or intangible cultural heritage.

#### **ESS9 Financial Intermediaries**

ESS9 is not relevant. The proposed project will not channel funds to a Financial Intermediary with objective of sub lending.



**B.3 Other Relevant Project Risks**

Consideration for potential risks have already been taken into account against the standards as relevant. No additional relevant project risks.

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways** No

**OP 7.60 Projects in Disputed Areas** No

**III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE**

**A. Is a common approach being considered?** No

**Financing Partners**

None

**B. Proposed Measures, Actions and Timing (Borrower’s commitments)**

**Actions to be completed prior to Bank Board Approval:**

- Complete Stakeholder Engagement Plan (SEP) to be included in the Grant Operational Manual before the appraisal
- Complete the project’s Labor-Management Procedure (LMP) before the appraisal
- Complete the Environmental and Social Commitment Plan (ESCP) before the appraisal. This ESCP will include a commitment that the TORs for the project’s activities (technical study, policy analysis, plans, training, and capacity building) will integrate E&S considerations and ensure the requirements of the Bank’s E&S Policy.

**Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):**

1. Budget, staffing and operational arrangement for trainings related to waste disposal of used training and workshop materials.
2. Terms of References (TORs) to conduct the project’s activities (technical study, policy analysis, plans, training, and capacity building) will be reviewed by the Bank to ensure that the requirements of the World Bank ESF policy is effectively integrated.
3. Potential impacts associated with any downstream activities identified through the technical and policy analysis/study will be considered through the TORs for the consultant undertaking this work.

Public Disclosure



#### IV. CONTACT POINTS

##### World Bank

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##### Borrower/Client/Recipient

Borrower: Socialist Republic of Vietnam

##### Implementing Agency(ies)

Implementing Agency: Ministry of Industry and Trade

#### V. FOR MORE INFORMATION CONTACT

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#### VI. APPROVAL

Task Team Leader(s): Thi Ba Chu, Inchul Hwang

Practice Manager (ENR/Social) Mona Sur Recommended on 19-Jul-2021 at 16:24:23 GMT-04:00