



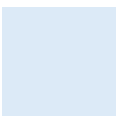
MALAYSIA

MALAYSIA KIGALI IMPLEMENTATION PLAN (KIP) FOR HFC PHASEDOWN PROJECT (STAGE I) (P177789)

INFORMATION NOTE **ENVIRONMENTAL AND SOCIAL COMMITMENT PLAN (ESCP)**

Department of Environment
**Ministry of Natural Resources and Environmental
Sustainability**

July 2025



Introduction

1. Government of Malaysia (hereinafter referred as the Recipient) will implement the Malaysia Kigali Implementation Plan for HFC Phasedown Project - Stage I (P177789) (the Project). The Department of Environment (DOE) under the Ministry of Natural Resources and Environmental Sustainability (NRES) is the implementing agency for the Project and will cause subproject¹ enterprises (the Beneficiaries), including Berjaya CKE International Sdn. Bhd., Zun Utara Industry Sdn. Bhd., and Perusahaan Otomobil Nasional Sdn. Bhd. (PROTON) through their respective sub-grant agreement² with DOE to implement the Project. The International Bank for Reconstruction and Development (the World Bank), acting as an implementing agency of the Multilateral Fund (MLF) and Trustee of the Ozone Trust Fund, has agreed to provide financing to the Project, as set out in the Grant Agreement.
2. Where the ESCP refers to specific plans or environmental and social (E&S) documents or instruments required under the ESS, whether they have already been prepared or are to be developed, the ESCP requires compliance with all provisions of such plans or documents. In particular, the ESCP requires compliance with the provisions set out in the Stakeholder Engagement Plan (SEP) and Labor Management Procedures (LMP) which have been developed for the Project, as well as other specific instruments as needed, such as site-specific subproject Environmental and Social Management Plans (ESMPs). The E&S instruments will be prepared or updated, disclosed, consulted, adopted and implemented under the ESCP and consistent with the ESSs, and in form and substance, all in a manner acceptable to the World Bank. Once adopted, said E&S instruments may be revised from time to time with prior written agreement by the World Bank.
3. Implementation of the material measures and actions set out in this ESCP will be monitored and reported to the World Bank by the Recipient, through its implementing agency DOE, as required by the ESCP and the conditions of the Grant Agreement, and the World Bank will monitor and assess progress and completion of the material measures and actions throughout implementation of the Project.
4. The implementation and application of this ESCP and related E&S instruments prepared for the Project are mandatory and it is the responsibility of DOE as the implementing agency, to ensure its adoption, implementation, application and monitoring throughout the lifetime of the Project, as well as transferring these obligations into the contracts of consultants, contractors, and any other party that will implement or collaborate with Project implementation.

¹ "Subproject" means a set of specific activities carried out or to be carried out by a Beneficiary under the Project and financed or proposed to be financed through a Sub-grant.

² "Sub-grant agreement" means an agreement entered into, or to be entered into, between the Recipient and a Beneficiary for the purpose of financing a Sub-project under the Project.

5. The Project is comprised of four (4) components:

Component 1 – Investment in HFC Consumption Reductions

Component 1 will channel financial funding to three manufacturing enterprises involved in HFC consuming industries in Malaysia. Conversion activities will assist complete HFC phaseout in the selected stand-alone commercial refrigeration manufacturing and demonstrate or pilot safe and commercially viable HFC alternatives for MAC systems. Selection of eligible enterprises was based on applying a compliance model to prioritize phasedown according to criteria aligned with Kigali Amendment objectives including use of high-GWP HFCs where commercially viable alternatives exist; where high-GWP HFCs are growing to the point that it might impact compliance later in Kigali implementation; and where there is a subsector grouping that facilitates government regulation for example with a subsector ban on HFCs used.

Two manufacturers of refrigerated display cabinets and freezers in Malaysia will be supported to replace the use of HFC-134a and HFC-404A as refrigerants with a low GWP substance. The proposed alternative, R-290, a type of hydrocarbon (HC), has become the commercial norm in developed economies because of its refrigerant properties, low cost and low GWP value. These enterprises will also receive assistance to improve energy performance in several of their products by 20 to 40 percent.

A Malaysian-owned car manufacturer will be supported to convert MAC units installed in new vehicles to a non-HFC refrigerant technology, HFO-1234yf. One automobile make and model will be targeted under the Project to introduce manufacturing with the HFC-134a alternative in Malaysia while monitoring the design changes, duration, technical challenges, and incremental cost changes all of which will be communicated to and disseminated among other manufacturers in generic but sufficiently pertinent manner through the association and/or a technical working group.

Component 2 – Support for Reducing HFC Demand in Servicing

Component 2 focuses on reducing HFC demand in servicing sectors crucial to Malaysia's KIP Stage I and beyond. Five separate initiatives under this sector will be initiated under four subcomponents in order to address immediate emissions of HFCs to the atmosphere and improve HFC management in light of expected overall restrictions in supply of R-404A, R-407C, R-410A, R-452A and R-134a. These initiatives cover MAC servicing, commercial and domestic refrigeration servicing, transport refrigeration servicing, MAC servicing in public transport, and strengthening recovery and recycling efforts. This will be accomplished by starting to build the infrastructure for lifecycle management of HFCs, developing technical capacity of technicians in specific applications on maintaining energy performance, safe handling of flammable substitutes, and recovery and recycling, and assist the government establish an inventory and system to ensure efficient, longer-term supply of R-407C for public transport while assess what is needed to change the network of rail and buses to lower-GWP alternatives.

Component 3 – Technical Assistance and Policy Support

This component will finance impact assessments to support proposed bans on certain substances, evaluating alternative technologies and their environmental, economic, and social impacts. Feasibility studies will focus on enhancing green public procurement and implementing mandatory MAC testing for passenger vehicles and building Customs capacity through training workshops and equipment provision. Furthermore, industry capacity-building efforts will include workshops for manufacturers, sector-specific training sessions, study tours, and technical working group meetings on HFO-1234yf developments in the MAC sector. A market survey is planned to assess the energy efficiency of stand-alone commercial refrigeration equipment and explore the feasibility of implementing voluntary energy performance labelling for certain models and developing mandatory minimum energy performance standard applicable to most models. This component will also facilitate HFC quota management through an online system and upgrade SIRIM's environmental test chamber for compliance verification.

Component 4 – Project Management

This component will support:

- (a) the establishment and operations of a project management unit (PMU);
- (b) capacity building and support for project management, financial management, procurement, environmental and social management, and others as needed;
- (c) stakeholder engagement activities, including public awareness and outreach, inter-agency coordination and consultations, and the operation of a grievance redress mechanism (GRM);
- (d) support for coordinating annual consumption verification audits; and
- (e) project progress monitoring and reporting.

Environment and Social Standards (ESS)

ESS1 – Assessment and Management of Environmental and Social Risks and Impacts. [Relevant].

Key adverse risks and impacts from the Project activities are associated with investment support under Component 1. The risks and impacts from the Project activities stem from conversion to alternative technologies that would involve the use of low or lower GWP substances with higher flammability in the range of mildly flammable to highly flammable. This may increase fire and exposure risks and occupational health and safety (OHS) risks during installation/conversion of production line/s and the operation and maintenance (O&M) phase.

Organizational Structure

- 1) The Recipient, through DOE, shall establish and maintain a Project Management Unit (PMU) with qualified staff and resources to support management of ESHS risks and impacts of the Project, including hiring a full time Environmental and Social Specialist who will be responsible for the overall E&S management of the Project to ensure compliance with the Environmental and Social Framework (ESF) and related instruments.
- 2) DOE through its subgrant agreements, will cause subproject enterprises to each assign one qualified E&S focal point to ensure adherence to their respective environmental and social obligations as reflected under the ESMP.

Environmental and Social Instruments

- 1) Adopt and implement the Stakeholder Engagement Plan (SEP), and Labor Management Procedures (LMP) prepared for the Project.
- 2) Adopt and implement the subprojects' Environmental and Social Management Plans.
- 3) Prepare, consult, disclose, adopt, and implement a gender mainstreaming strategy in the context of HFC phase down.

Management of Contractors

Incorporate Project-relevant aspects of the ESCP, including, inter alia, the relevant E&S instruments, the Labor Management Procedures, and code of conduct, into the ESHS specifications of the procurement documents and contracts with contractors and supervising entity. Ensure that contractors are legally established organizations and can comply with the relevant E&S requirements of the Project.

Thereafter, ensure that the contractors and supervising entity comply and cause subcontractors to comply with the ESHS specifications of their respective contracts.

Technical Assistance

Ensure that the consultancies, studies including feasibility studies, capacity building, training, and any other technical assistance activities under the Project are carried out in accordance with terms of references (TORs), that are consistent with the ESSs. Thereafter ensure that the outputs of such activities comply with the terms of reference.

The TORs for Project technical assistance and support under the Project will ensure that Environmental and Social Framework (ESF) requirements are effectively integrated. Potential

risks and impacts associated with any downstream activities will be considered through these TORs.

ESS2 – Labor and Working Conditions. *[Relevant]*.

The Project will include direct³ and contracted⁴ workers mainly associated with DOE and those associated with subproject enterprises. The key risks and impacts from the Project activities are related to fire and OHS risks exposure under Component 1 to the workers. For the commercial refrigeration subsector, conversion from non-flammable refrigerants (HFC-134a and R-404A) to hydrocarbons (R-290) technology is flammable/ highly flammable in two (2) enterprises, could increase fire and OHS risks of the subproject sites. Similarly, piloting conversion in MAC installation that will replace non-flammable refrigerant (HFC-134a) to mildly flammable alternative (HFO-1234yf) will increase fire and OHS risks.

Labor Management Procedures (LMP)

Labor Management Procedures have been prepared for the Project and will be updated, finalized, redisclosed, adopted and implemented, and include inter alia, the relevant aspects of ESS2 for civil servants, terms and working conditions for all other types of Project workers, management of workers relationships, occupational health and safety (including personal protective equipment, and emergency preparedness and response), code of conduct (including relating to Sexual Exploitation and Abuse/ Sexual Harassment (SEA/SH)), forced labour, child labour, grievance arrangements for Project workers, and applicable requirements for contractors, subcontractors, and supervising entities.

The LMP is prepared in accordance with the requirements under Employment Act 1955 and Occupational Safety and Health Act 1994 [Act 514] and its relevant subsidiary legislations, by-laws and guidelines as well as other relevant laws.

Grievance Mechanism for Project Workers

As part of the LMP, adopt, maintain and operate a grievance mechanism for Project workers in accordance with ESS2.

Occupational Safety and Health

Implement occupational health and safety (OHS) measures, in line with the requirements of Occupational Safety and Health Act 1994 and ESS2, as specified in the ESMP and LMP of the Project. The enforcement of OSHA falls under the jurisdiction of Department of Occupational, Safety and Health (DOSH).

³ Direct workers are people employed or engaged directly by the Recipient (including project proponent and the project implementing agencies) to work specifically in relation to the Project.

⁴ Contracted workers are people employed or engaged through third parties (may include contractors, subcontractors, brokers, agents or intermediaries) to perform work related to core functions of the Project, regardless of location.

ESS3 – Resource Efficiency and Pollution Prevention and Management. *[Relevant]*.

The potential impacts related to resource⁵ efficiency and pollution prevention and management are identified in the activities under Project Component 1. The Project is expected to use a small amount of resources and materials for the installation of new conversion lines. Risks and impacts relevant to the requirements of ESS3 have been identified including the release of pollutants, management of non-hazardous and hazardous wastes, and resource use efficiency.

Waste Management Measures

The site-specific ESMP must be adopted prior to the signing of sub-agreements with each enterprise. The subproject enterprises must implement waste management measures (including hazardous and non-hazardous wastes) as part of the ESMP, in compliance with the Solid Waste and Public Cleansing Management Act 2007 [Act 672], the Environmental Quality Act 1974 [Act 127], and their subsidiary legislations and by-laws. The enforcement of these laws falls under the jurisdiction of the National Solid Waste Management Department and DOE.

Resource Efficiency and Pollution Prevention and Management

Ensure that the subproject enterprises update and implement measures and procedures for resource efficiency and pollution prevention and management within the ESMP, in accordance with ESS3.

ESS4 – Community Health and Safety. *[Relevant]*.

The Project will support the conversion to alternative technology at two (2) manufacturers of refrigerated display cabinets and freezers in the subproject for commercial refrigeration and in a pilot subproject on converting MAC units that are installed for one car model. Safe handling of refrigerants and equipment during maintenance and repair would be required given the increasing likelihood that equipment on the market will be charged with flammable substitutes.

Traffic and Road Safety

Subproject enterprises to incorporate measures to manage traffic and road safety risks as required in the ESMP to be prepared under action 1.2 above.

Community Health and Safety

Implement measures and actions to assess and manage specific risks and impacts to the community arising from Project activities outlined in the ESMP as mentioned in action 1.2, including, inter alia, behaviour of Project workers, and response to emergency situations.

⁵ Resources here includes energy, water, and raw materials.

Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) Risks

Adopt and implement measures and actions to assess and manage the risks related to Sexual Exploitation and Abuse/ Sexual Harassment (SEA/SH) as part of the Project ESMP. Prevent and respond to SEA/SH. Sexual harassment can be categorized under section 354, 355, 377D and 509 of Penal Code [Act 574] as offences. In addition, Anti Sexual Harassment Act 2022 [Act 840] provides a right of civil redress for any person who has been sexually harassed and establishes a Tribunal for Anti-Sexual Harassment through which complainants can seek redress.

As for workplaces, Employment Act 1955 imposes a legal obligation on the employer to inquire into any sexual harassment complaint made by employee or employer. It also lists down appropriate actions to be taken by the employer if sexual harassment is proven. Meanwhile, Guidelines on Occupational Safety And Health Act 1994 promotes suitable workplace environment including sexual free working environment and The Code Of Practice On The Prevention And Eradication Of Sexual Harassment In The Workplace encourages employers to adopt the Code of Practice against sexual harassment and an internal mechanism to prevent sexual harassment at the workplace.

PMU/DOE are to ensure that subproject enterprises have the necessary complaints or grievances mechanism in accordance with the laws and guidelines mentioned above in dealing with sexual harassment complaints. Furthermore, when reporting such incidents to the World Bank, confidentiality must be upheld, especially in cases involving ongoing criminal investigations.

ESS5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement. *[Not Currently Relevant]*.

The conversion process and technical support will be conducted within the premises/sites of the individual commercial refrigeration manufacturers and car manufacturing plant. No land acquisition will be required under the Project.

ESS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources. *[Not Currently Relevant]*.

The Project activities will be carried out in existing manufacturing facilities located within established industrial parks distanced away from sensitive receptors. Adverse impact on biodiversity or living natural resources is not anticipated.

ESS7 – Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities. *[Not Currently Relevant]*.

The Project activities will be carried out in existing manufacturing facilities located within established industrial parks distanced away from sensitive receptors. Adverse impact on indigenous peoples is not anticipated.

ESS8 – Cultural Heritage. *[Not Currently Relevant]*.

The Project activities will be carried out in existing manufacturing facilities located within established industrial parks distanced away from sensitive receptors. Adverse impact on cultural heritage is not anticipated.

ESS9 – Financial intermediaries. *[Not Currently Relevant]*.

The Project does not engage financial intermediaries⁶.

ESS10 – Stakeholder Engagement and Information Disclosure. *[Relevant]*.

The DOE has done several rounds of consultation and information-sharing activities with selected industries, particularly those that will implement conversion for commercial refrigeration manufacturing and pilot conversion for car manufacturing lines. These consultation engagements have included site visits to the industries and technical presentations about the Project. DOE has also conducted inter-agency coordination and consultations in preparation for this Project. Stakeholder engagement is crucial throughout the Project lifecycle from Project preparation to the Project implementation.

Stakeholder Engagement Plan (SEP) Preparation and Implementation

Adopt and implement the Stakeholder Engagement Plan (SEP) for the Project, consistent with ESS10, which shall include measures to, inter alia, provide stakeholders with timely, relevant, understandable, and accessible information, and consult with them in a culturally appropriate manner, which is free of manipulation, interference, coercion, discrimination and intimidation.

Project Grievance Mechanism

A grievance mechanism must be established, publicized, maintained, and operated as outlined in the SEP, ensuring it is accessible, transparent, and culturally appropriate for all Project-affected parties, including provisions for anonymous complaints and SEA/SH grievances in line with ESS10. Subproject enterprises must also implement grievance mechanisms consistent with ESS10 and ESS2 as detailed in the LMP. While Malaysian laws, including the Employment Act 1955 and Industrial Relations Act 1967, do not mandate internal grievance mechanisms, the Code of Conduct for Industrial Harmony encourages effective grievance resolution at the establishment level, with escalations managed by relevant labor authorities. Since the grant agreement mandates a project-specific grievance mechanism, the PMU/DOE must ensure its operation aligns with LMP and SEP requirements. Any procedural mechanism beyond the project grievance mechanism must be dealt in accordance with Employment Act 1955 and Industrial Relations Act 1967.

PMU/DOE are to ensure that subproject enterprises have the necessary complaints or grievances mechanism in accordance with the laws and guidelines mentioned above in dealing with sexual harassment complaints. Furthermore, when reporting such incidents to the World Bank, confidentiality must be upheld, especially in cases involving ongoing criminal investigations.

⁶ Financial Intermediaries include public and private financial service providers, including national and regional development banks which channel financial resources to a range of economic activities across industry sectors.

E&S Instruments to meet relevant ESS requirements:

- 1) Labor Management Procedures (LMP)
- 2) Environmental and Social Commitment Plan (ESCP)
- 3) Stakeholder Engagement Plan (SEP)
- 4) Environmental and Social Management Plan (ESMP)
 - a. Perusahaan Otomobil Nasional Sdn Bhd (PROTON)
 - b. Berjaya CKE International Sdn Bhd
 - c. Zun Utara Industry Sdn Bhd