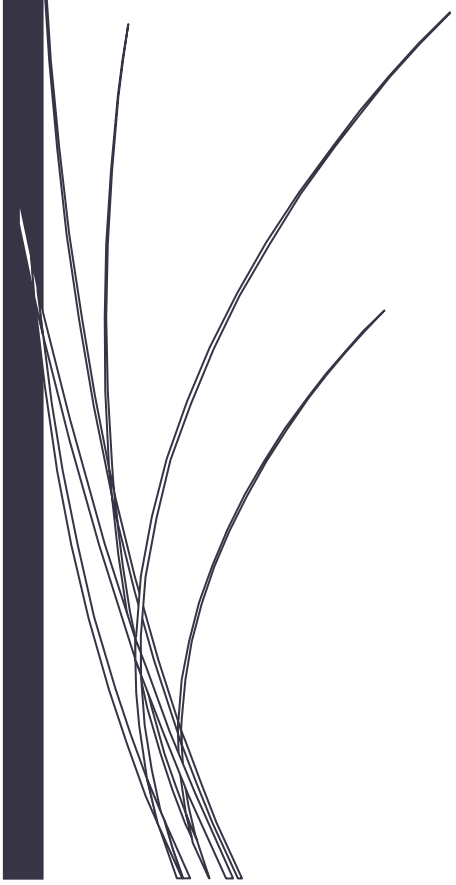
Guidance Notes for SMEs

(Manufacturing Sector)

In answering the due diligence questions for Guiding Principles 3 and 4 for SMEs

Note: This document is developed to assist financial institutions **("FIs")** in supporting small and medium enterprise **("SME")** clients to provide data and input in answering the CCPT Due Diligence Questions **("CCPT DDQ")**. The focus of this document is to provide additional clarifications, practical guidance and simplified approaches where needed, to further facilitate assessment of SME clients.



Introduction to Manufacturing Sector

Term	Impact of the Manufacturing Sector to Climate Change
Pollution	Manufacturing industries contribute to various types of pollution amongst others, water pollution, air pollution, contamination of soil and compromised water quality, incurring harmful effects on humans, animals, plants, and the planet in general, via the following activities/ ways: - • Land clearance (e.g., for factories constructions) through open burning results in air pollution. • Accidental release of hazardous chemicals, substances, sludge, contaminated wastewater and stormwater discharge and/ or acid drainage (from factories) to land or groundwater and leakage to freshwater systems and oceans, such as oil and grease, biocides and dyes, cyanides, printed circuit boards, and metal wastes. • Noise pollution from manufacturing activities. • Improper transportation of products could result in accidental spills of hazardous materials.
Ecosystem & Biodiversity	• Industrial facilities often require land for factories, warehouses, and infrastructure. This can lead to deforestation, wetland drainage, and habitat fragmentation. • Urbanisation associated with manufacturing can displace native species and disrupt ecosystems.
Efficient Use of Resources	• Manufacturing relies on raw materials extracted from natural resources. Overexploitation of these resources can lead to habitat destruction, loss of biodiversity, and soil erosion. • Inefficient use of energy throughout the supply chain and the related costs. • Mining for metals, minerals, and fossil fuels disrupts ecosystems and can have long-lasting effects.
GHG Emissions	The manufacturing industry significantly influences greenhouse gas **("GHG")** emissions. When producing goods, the manufacturing sector emits carbon dioxide **("CO_2")** and other GHGs. Sources of these emissions are: • Burning Fossil Fuels: Fuel combustion for energy (e.g., heat, electricity, steam) contributes to emissions. • Industrial Processes: Certain manufacturing processes release GHGs as by-products. • High delivered energy consumption or inefficient use of energy throughout the production process result in high GHG emissions. • Usage of non-bio-degradable waste such as plastic may result in higher emissions (especially in landfills). • Some manufacturing products (e.g., electronic devices, automobile) consume large amounts of energy and fuel which release GHG emissions during use.

Due Diligence Questions: GP3 – No Significant Harm to the Environment	
No	**Guidance Notes**
GP3 – General	
1.1 Risk identification (General)	

a)	Use existing internal databases or any other publicly available sources to screen for the Client's related legal/ negative news vis-à-vis climate/ environment related issues (e.g., media publications such as newspapers, specialised climate/environmental news sites, NGO reports).
	
	• The Client is to provide details of the nature of any adverse incident, and whether there is/was any corresponding regulatory action (e.g., enforcement/ prosecution/ quantity of fine/ pending court decision/ pending appeal by the Client), to be backed by documentary evidence; and
	• The FI is recommended to verify the Client's information through the following websites:
	  ○ **https://www.doe.gov.my/en/court-case-list/**; and/or
	  ○ **https://www.doe.gov.my/penguatkuasaan/paparan-kes-mahkamah/**
	
	Indicate if there are any matching records and data in the database(s). Any discrepancies with the Client's statements should be explained by the Client and documented accordingly.

1.2 Risk management (General)	
a)	The Client should list down measures being taken to address any climate/ environmental concerns. This should include obtaining necessary legal approvals and/or permits under the jurisdiction where it operates.
GP3 – Pollution	
2.1 Risk identification (Pollution)	

a)	The Client's business operations may contribute to the pollution should the following are observed:
	• The Client's business activities are using/ releasing hazardous materials listed in EQA 1974*;
	• The Client produces reports to DOE for hazardous substances, waste, or water pollution that resulted from their operations**.
	• The Client is found to be non-compliant with regulatory requirements concerning the management of hazardous chemicals and materials, waste, and/or water within the energy sector.
	• The Client is generating non-recyclable waste within the operations.
	• The Client neglects e-waste management practices specifically within the context of electronic devices used.
	• The Client fails to comply with regulations governing scheduled waste management.
	• Any accidental events reported as follows:
	  ○ Accidental spills of hazardous materials occur within energy facilities.
	  ○ Accidental release of hazardous chemicals, substances, sludge, contaminated wastewater, and stormwater discharge, or acid drainage from energy production or storage facilities to land or groundwater.
	  ○ Accidental events of spills from energy production processes, leaks in tanks or pipes, and improper disposal of waste occur within the energy sector.

	Note: ** Information regarding the use/ release of materials listed in EQA 1974 can be obtained from the EHS Officer.* *** Companies involved in the use and release of hazardous chemicals or materials typically fall under the purview of the DOE.*
2.2 Risk management (Pollution)	
a)	The following can be the mitigation measures undertaken by the Client in addressing the identified pollution in 2.1(a): • The Client has existing standard operating procedures **("SOPs")**, policies or other control measures in place to manage the risks identified in 2.1(a). Documentary evidence of the SOP /policy/ control measure documents should be provided*; • The Client has established SOP/ policy/ control measure documents (e.g., OSH SOP, ISO related certificates); • The Client has obtained approval documents obtained for relevant authorities**. • The Client has obtained relevant certifications**. • The Client has adopted technologies /machines/ appliances green/ new technologies/ machine/ appliances; • The vehicles used for the Client's transportation and distribution activities are using low energy consumption vehicles; • Packaging materials used are from biodegradable materials; • Consult with local authorities on emissions, discharges, and solid waste disposal in regard to local communities; and • The Client has introduced or is selling by-product from the waste produced from the core products lines. *Note:* ** The SOPs/ policies/ control measures provided by the Client should address the risks relating to the Client's management of hazardous chemicals and materials, waste and water, and may include the following processes:* • *Waste management policy and procedure;* • *Scheduled waste disposal and collection tracker;* • *Standard procedures for safe handling, storage and disposal of waste; and* • *Emergency response plan for spillages and/or leakages of waste, and related SOPs.* *** Please refer to the listed acts and regulations that are relevant to the energy sector as references.*
GP3 – Ecosystem & Biodiversity	
3.1 Risk identification (Ecosystem & Biodiversity)	
a)	Environmentally sensitive areas **("ESAs")** or key biodiversity areas **("KBAs")** typically refer to geographic regions or locations that are recognised for their high ecological significance and the presence of diverse and often unique species of flora and fauna. Such areas are considered important for the conservation of biodiversity due to the richness and variety of life forms they support. To identify whether the Client's operations located in or near ESAs and KBAs**,** FIs can make use of tools such as **Integrated Biodiversity Assessment Tool ("IBAT")** and **Global Forest Watch**. Maps of ESAs can be referred to those published in the **National Physical Plan 3 and 4 (page 94)**. Alternatively, FIs may conduct any online (e.g., Google Earth Pro) and offline map search to determine if the

	following example types of ESAs or KBAs are near the Client's business location(s) (e.g., within a 10 kilometre radius): - • Marine and coastal biodiversity • Mangrove forests • Coral reefs • Marine parks • Critical coastal erosion areas • Turtle landing sites • Highlands and forested wetlands • Economic and ecological significance In addition to the above, FIs may refer to Reference List of Protected Areas (**https://www.mybis.gov.my/one/pamaps.php**) to identify whether the Client's business operations has impacted the ESAs and KBAs.
b)	Examples of tools and sources that can be used to assess whether the Client's operations have negative impacts on biodiversity and the surrounding ecosystem include: • Exploring Natural Capital Opportunities, Risks and Exposure Tool **("ENCORE")** (**url: https://encorenature.org/en)*** • WWF's Biodiversity Risk Filter **(url: https://riskfilter.org/biodiversity/home)** • High Conservation Value **("HCV")** assessment • High Carbon Stock **("HCS")** assessment • International Union for Conservation of Nature **("IUCN")** red list species • On-site/desktop biodiversity assessment • Environmental Impact Assessment **("EIA")** report • Erosion and Sedimentation Control Plan **("ESCP")** • Strategic Environmental Assessment **("SEA")** and Cumulative Effects Assessments • Guidance Document for Fuel Burning Equipment and Air Pollution Control Systems DOE ** Please note that when using the tools (a) above, please select the 'Impacts' (alludes to the ways in which the Client's activities impact ecosystem services and natural capital) option as opposed to the 'Dependencies' option (used for GP4.1 & GP4.2).*
3.2 Risk management (Ecosystem & Biodiversity)	

a)	The Client may put in place the internal measures, which may include any one or more of the following (non-exhaustive): -
	• Produce and expand production exclusively on lands that were deforested or converted prior to a specified/ stipulated cut-off date.
	• Rehabilitate degraded land and preserve ecosystem services through responsible production practices on already converted land via the following: -
	  ○ planting native vegetation/ wildflowers/ grasses
	  ○ restoring agricultural lands into uplands/ wetlands
	  ○ reintroducing species
	• Adopt No Deforestation, Peat and Exploitation **("NDPE")** Policy.
	• Ecosystem restoration initiatives including but not limited to these:
	  ○ planting native trees/ wildflowers/ grasses
	  ○ planting/ replanting the trees
	  ○ reintroduce native species

	○ remove invasive species ○ restore agriculture/ mining land into wetlands or forest ○ restoring forest to open grassland ○ removing dams for river connectivity ○ clean up trash along rivers and coasts
GP3 – Efficient Use of Resources	
4.1 Risk identification (Efficient Use of Resources)	
a)	Clients with high dependencies on water/ energy/ other natural resources must show good resource management within their business to ensure sustainability of the natural resources. Sectoral data/ trends can be used as a benchmark or basis in assessing the significance of water/ energy/ other natural resource consumption within the Client's business operations. The tools below can be used to identify and assess the Client's dependence on specific natural capitals based on its sector as well as geographic location: - • Exploring Natural Capital Opportunities, Risks and Exposure Tool ("ENCORE", url: **https://encorenature.org/en**); and • WWF's Biodiversity Risk Filter (url: **https://riskfilter.org/biodiversity/home**) *Please note that, when using the tools above, please select the 'Dependencies' (alludes to the ways and extent to which the Client's activities rely on certain resources/ natural capital) option as opposed to the 'Impacts' option (used for GP3.1 & GP3.2).* *Note: Resource efficiency refers to sustainable use of natural resources such as land, minerals, water, fuels, timber, fertile soil, clean air and biodiversity. Common use in overall industry context is the use of fuel (energy) and water. Where possible, the Client should measure and compare the use of essential resources against an appropriate benchmark (e.g., a recognised local or international standard or industry best practice).* *For more information pertaining to green certifications that are relevant to SMEs, please refer to: **https://www.jc3malaysia.com/esg-jumpstart-for-smes**.* The following examples are the non-exhaustive indicators that the Client's business operations lack or adopt non-efficient use of resources: - • The Client's business does not practice 3R concept in the business activities (i.e., REDUCE, REUSE, RECYCLE). • Increase of cost of raw materials used against finished products which leads to lower productivity and higher waste. • The business/ finished goods require use of non-renewable and non-sustainable materials. • The business activities involve with resource intensive that requires large amounts of energy such as heating and cooling. • The Client's production processes resulting in high waste production. The following are the manufacturing sectors that require extensive use of resources: - • Manufacturing semiconductors requires large volumes of ultra-pure water for controlling contamination, facilitating chemical processes and preparing surfaces. • Textile production may require large amount of fresh water for water-intensive production steps (e.g., washing raw materials, cleaning, cooling, heating, other wet-processing stages). • Manufacturing of plastics. • Manufacturing of iron and steel production may require large amounts of water for cooling systems. • Automotive manufacturing uses extensive water resources where major water use occurs in surface

	treatment and coating, paint spray booths, washing/ rinsing/ hosing, cooling, air conditioning systems and boilers.
4.2 Risk management (Efficient Use of Resources)	
a)	The measures which can be undertaken by the Client to mitigate the risks identified in 4.1(a), may include but not limited to: - • Improvements to Business Processes: - o Procure/ use/ adopt machines/ appliances with the latest technology adoption to improve efficiency. o Mechanisms to minimise the amount of materials required to produce a unit of product. o Reduce the use of scarce materials/ resources by replacing them with alternative materials or resources that are more abundant. • Incorporate Elements of Circularity (Circular Economy): - o Put in place an arrangement to collect used products from customers/ consumers. o Use highly recyclable materials in the products. o Increase the use of recycled content in products. o Reuse the least contaminated water from the final wash for the next-to-last wash. o Reduce or minimise the amount of materials required to produce a unit of product. • Improvement to the product quality: - o Use improved/ better materials to prolong the lifespan of products. • The Client adopts other innovative or feasible resource conservation measures as following (not limited to these): - o Harvest rainwater to meet water requirements. o Minimise the use of water for processing by reusing and recycling it in two or more successive stages. o Reuse/ recycle of rejected/ defected end products. o Practice recycle/ reuse of material. • The purchase of raw material is sourced from the sustainable supplier to avoid over-exploitation and resource depletion. For example, for those business that make use of a large amount of wood/ timber, to purchase from suppliers that produce timber sustainably. • The Client has considered for obtaining relevant certifications such as ISO 14001: Environmental Management System **("EMS")**, SIRIM Eco-Labelling Scheme, ISO14067 Product Carbon Footprint Certification Scheme etc.
GP3 – GHG Emissions	
5.1 Risk identification (GHG Emissions)	
a)	The manufacturing industry significantly contributes to GHG emissions. The manufacturing industry emits carbon dioxide (CO_2) and other GHGs by burning fossil fuels to generate energy (e.g., heat, electricity, steam) and through industrial processes including mechanical, physical and chemical transformation of materials or substances into new products across various sectors in the economy, which releases GHGs as by-products. Manufacturing facilities require large amounts of energy, such as in the production facilities of iron, steel and other metals. High delivered energy consumption or inefficient use of energy throughout the production process result in high GHG emissions. Some manufacturing products (e.g., electronic devices, automobiles) consume big amount of energy and fuel which release GHG emissions during use.

	The use of non-bio-degradable waste such as plastic may result in higher emissions (especially in landfills). For a comprehensive assessment on whether the Client's core activities produce GHG emissions, please apply the below tools: • Exploring Natural Capital Opportunities, Risks and Exposure Tool **("ENCORE")**. *Please note that when using the tools (a) above, please select the 'Impacts' (alludes to the ways in which the Client's activities impact ecosystem services and natural capital) option as opposed to the 'Dependencies' option (used for GP5.1 & GP5.2).* ** For the implementation of CCPT classification and 2024 CCPT reporting requirement for SMEs, FIs must prioritise the identified 6 high carbon emitting sectors, namely agriculture, construction, manufacturing, energy, transport & waste management.*
5.2 Risk management (GHG Emissions)	
a)	The measures which can be undertaken by the Client to reduce GHG emissions or as part of its decarbonisation strategy in mitigating the identified impact of GHG emissions in 5.1(a), may include but not limited to: - • The Client uses the latest technology (e.g., electrification, carbon capture, hydrogen fuel). • The Client adopts energy efficiency practices (i.e., reduce Scope GHG emissions by managing methane leaks, venting and flaring and adopting lower or no emission fuels such as liquefied petroleum gas, natural gas, hydrogen, e-fuels/synthetic fuels, biofuels and ammonia). • The Client adopts renewable energy in its operations such as the following: - o Solar o Wind o Geothermal o Hydropower o Biomass

Due Diligence Questions: GP4 – Remedial Measures	
No	**Guidance Notes**
Plans undertaken for remediation of significant harm to the environment	
b)	In assessing whether the Client has clearly defined remedial measures and realistic timeline for completion to address the harm identified in GP3, FIs may enquire the following questions (non-exhaustive): - • Any time-bound targets set and specific steps to achieve the planned remedial measures. • The suitability of the remedial measures with the Client's business activities and strategy. • Sufficient resources (e.g., cash flow, expertise, data, technology) to execute the planned remedial measures in accordance with the timeline.
c)	In assessing whether the Client has proper tracking mechanism on the effectiveness of the planned remedial measures, the Client needs to provide timely progress updates on its milestones for achieving the targets set and to report any deviations during the execution of the remedial measures.

The following are the primary and relevant acts and regulations and standards for the Manufacturing Sector (non-exhaustive): -

Relevant Act and Regulations	Applicable Standards
• Occupational Safety and Health Act 1994 and the relevant OSHA Regulations + Code of Practices • Factory and Machinery Act 1974 and the relevant FMA Regulations • Electrical Supply Act 1990 + Electrical Safety Regulations	• Occupational Health and Safety Management Standard - ISO 45001: 2018 • ISO 22000 Food Safety Management Systems • MS 1480 HACCP Certification Programme • MS 1514 Good Manufacturing Practice (GMP) for Food Manufacturing • MS 1722:2011 and OHSAS 18001 – Occupational Safety and Health Management Systems • MS 1900 Shariah-based Quality Management System Certification
• Environment Quality Act 1974 and the relevant EQA Regulations	• Environmental Management Standard- ISO 14001: 2015 • ISO 14024 SIRIM Eco-Labelling Scheme
• Electrical Supply Act 1990 – (a) Efficient Management of Electrical Energy Regulations	• Energy Management Standard- ISO 50001: 2018 • ISO 14067 Product Carbon Footprint Certification Scheme