

ASEAN TAXONOMY BOARD

The ASEAN Taxonomy Board (ATB) is pleased to issue this updated Supplementary Document outlining the use cases for the Foundation Framework of the ASEAN Taxonomy for Sustainable Finance (ASEAN Taxonomy). This Supplementary Document aims to provide practical guidance on using the Foundation Framework to assess economic activities undertaken by small to medium size enterprises (SMEs) in agriculture, energy, and construction and real estate sectors.

Following input from stakeholder consultation on the ASEAN Taxonomy Version 2 and ASEAN Taxonomy Version 3, the ATB developed more sector-specific use cases for SMEs in enhancing the usability of the ASEAN Taxonomy. The use cases would, therefore, better help users navigate the decision trees that are used to assess taxonomy alignment under the Foundation Framework. In August 2024, two uses cases on agriculture and renewable energy sectors were developed and published as a Supplementary Document.

Three new use cases have been added to the Supplementary Document, following those released earlier in August 2024. SMEs continue to be the focus of these use cases as they are more likely to require guidance as compared to larger companies which have more resources at their disposal. The new use cases have considered all environmental objectives in order to provide more guidance for users and covers three sectors, namely, construction and real estate, agriculture, and manufacturing. These use cases serve as practical references, designed to facilitate and encourage greater adoption and application of the Taxonomy by SMEs.

More use cases will be issued from time to time to enhance useability and consistent implementation of the Foundation Framework and Plus Standard. Users are also advised that the use cases are meant to be a guide and may be adjusted to fit the users' circumstances. Although Malaysia, Philippines and Indonesia were used as the setting for the current use cases, where applicable, users may adapt by referring to their respective countries' regulations.

ASEAN Taxonomy Board 20 December 2024

Use Case 1 - Agriculture

Company	The Company is an SME¹ in Malaysia involved in palm oil cultivation		
introduction	and plantation. Its main business activities include harvesting,		
introduction	collection and transportation of palm oil.		
Case context	The Company is looking for a term financing for the purchase of agriculture		
Case Context	land and additional working capital for palm oil plantation expansion and		
		oltal for paim oil plantation expansion and	
0	cultivation.		
Sustainability		ed an Environmental Impact Assessment (EIA).	
efforts	, ,	nducted due diligence covering technical,	
		al, social and environmental aspects. practices i.e. using organic fertilisers and	
		crops to improve soil fertility, etc. in cultivating	
	palm oil plantation.	crops to improve soil lentility, etc. in cultivating	
	' '	aly with Malaysian Systainable Dalm Oil	
		oly with Malaysian Sustainable Palm Oil	
	,	26-2027 for the new plantation.	
User entry	Which EO is the nature of the	Cultivation of palm oil plantation using	
point	Activity most relevant to?	organic farming practices contributes to	
		improving soil fertility, sequestering carbon	
		and preserving biodiversity and ecosystem	
		services, in particular natural pollinators for	
		fresh fruit bunch (FFB) production.	
	Missish FO(s) is made allowed	Considering the common to effect to cultivate	
	Which EO(s) is most aligned	Considering the company's efforts to cultivate	
	to the company's strategic	oil palm plantation using organic farming	
	focus?	practices, the activity serves EO3.	
	EO3 (Protection of Healthy E	cosystems and Biodiversity) is the primary	
EO3		ute to protecting, conserving, or restoring	
Assessment	ecosystems and biodiversity		
	How does the Activity	In pursuing MSPO certification by 2026/ 2027,	
	contribute to protecting,	the company is implementing measures to	
	conserving, or restoring	protect, conserve, or restore ecosystems and	
	ecosystems and biodiversity?	biodiversity under Principle 5 ² as well as	
	- coccyclemo ana bioarversky.	based on good agriculture practices (GAP).	
		This includes:	
		Triis indiades.	
		1. The use of "Eco-Mat" ³ : The company	
		plans to use empty palm fruit bunches	
		(mulching materials) to protect the soil	
		and roots of palm trees from extreme	
		heat. The use of eco-mats would also	
		help in controlling weeds and providing	
		nutrients to the soil.	
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¹ Source: <u>SME Corporation Malaysia - SME Definition</u>

² Source: https://mspo.org.my/mspo-blogs/principle-5-environment-natural-resources-biodiversity-and-ecosystems-services

³ Source: http://palmoilis.mpob.gov.my/V4/wp-content/uploads/2020/03/Risalah-Sawit-23.pdf

Introducing agroforestry systems within the palm oil plantation⁴: The company plans to integrate the palm oil plantation with other crops such as leguminous plants, banana and pineapples to protect, conserve, and restore the soil and biodiversity.
 Constructing silt pits for soil and water conservation around the plantation⁵.

Yes. The activity shall avoid the use of

Does the Activity minimise or eliminate negative effects of operations on the natural ecosystem and biodiversity?

Yes. The activity shall avoid the use of chemical fertilisers, pesticides, and herbicides, which may damage soil health, affect natural ecosystem and biodiversity.

Do the company's policies and business strategy generally avoid contradicting or impeding alignment with the specified EO3 principes (e.g., employment of services from subcontractors, suppliers and/or third parties with practices detrimental to the natural ecosystem and biodiversity)

Yes. As part of pursuing MSPO certification, the company have embarked several initiatives to fulfil the requirements under Principle 5: environment, natural resources, biodiversity and ecosystem services. This entails:

- Complying with regulations pertaining to environmental risk identification, mitigation and avoidance, such as Environmental Scoping Information (ESI) and Environmental Impact Assessment (ESA) which are enacted under the Environmental Quality Act 1974 and enforced for new and existing plantation projects.
- Additionally, the company has a certified environmental officer and Environmental Management Plan (EMP) in place.
- 3. Adopting the Sawit Intelligent
 Management System (SIMS)⁶ to
 monitor, trace, and assess compliance
 of its supply chain with existing laws

⁵ Source: Afandi, Ahmad & Yahya, Zuraidah & Nurzuhaili, & Hashim, Zulkifli & Syarif, Yaqin. (2017). Managing Soil Deterioration and Erosion under Oil Palm, Accessible via https://www.researchgate.net/publication/326930499 Managing Soil Deterioration and Erosion under Oil Palm on 15 March 2024

⁴ Afandi, Ahmad & Yahya, Zuraidah & Nurzuhaili, & Hashim, Zulkifli & Syarif, Yaqin. (2017). Managing Soil Deterioration and Erosion under Oil Palm, Accessible via https://www.researchgate.net/publication/326930499 Managing Soil Deterioration and Erosion under Oil Palm on 15 March 2024

⁶ Sawit Intelligent Management System (SIMS) is a centralised platform developed Malaysian Palm Oil Berhad (that allows tracking palm oil production, transportation and utilisation to ensure regulatory and sustainability compliance. This includes compliance to regulatory requirements such as licensing. Source: https://sims.mpob.gov.my/about-sims/

		and regulations, as well as
		sustainability best practices.
	Yes, the activity contributes to protecting, conserving, or restoring	
	ecosystem and biodiversity.	
DNSH / RMT	2A. Does the Activity avoid causing potential significant harm to other	
Assessment	EOs?	ls.
	Has an EIA been conducted	Yes.
	and approved on the Activity?	The EIA consented the state of the condition with the form
	What are the results of the	The EIA reported that the land is suitable for
	EIA, where do the impact of	palm oil plantation.
	the Activity lie? (EO1) Does the Activity avoid	Yes. The acquired land is an existing
	leading to or causing	agriculture land. Additionally, the company is
	extensive deforestation	implementing zero burning policy in
	practices?	conforming with criterion 7 of Principle 5 of
	pradado.	MSPO certification.
	(EO2) Does the Activity	Yes, this includes the use of organic fertilisers
	consider the expected future	and pursuit of protecting watercourses and
	climate in its current and	wetlands as per criterion 5 of Principle 5 under
	planned practices?	the MSPO standard.
	(EO3) Is the Activity	At this point of time, the Activity does not
	detrimental to the	cause detrimental effects. This is in line with
	conservation status of	criterion 6 of Principle 5 under MSPO
	habitats and species within	standard in protect and conserve:
	the natural ecosystem? (i.e.,	Species diversity;
	inhibitions to the dynamic complex of plant, animal and	Landscape-level ecosystems and
	microorganism communities	mosaics;
	and their non-living	Ecosystem and habitats;
	environment interacting as a	Ecosystem services;
	functional unit.)	5. Community needs; and
	,	6. Cultural values.
	(EO4) Does the Activity avoid	Yes, by using organic fertiliser, it minimises
	releasing hazardous	the risk of releasing hazardous substance to
	substances at all stages of its	the immediate environment.
	lifecycle?	
	(EO4) Does the Activity avoid	Yes, resources management is included
	significant inefficiencies in the	under the MSPO.
	use of materials or the direct	
	or indirect use of natural	
	resources at one or more	
	stages of the product	
	lifecycle?	
		sing potential significant harm to other EOs
Initial Classification	Green	
old Sill Cation		

Social aspect	4A. Does the Company	Yes, the Company and its subsidiary meet	
Assessment	meet minimum national	minimum national standards relating to human	
	standards relating to	rights, forced labour, child labour and impact	
	human rights, forced	on people living close to investments as	
	labour, child labour and	follows:	
	impact on people living		
	close to investments?	 Principle 4 of MSPO standard: Responsible to Social, Health, Safety and Employment; Convention 138: Minimum Age Convention 1973 (Malaysia ratified the convention on 9 September 1997); Convention 182: Worst Forms of Child Labour Convention 1999 (Malaysia ratified the convention on 10 November 2000); and Trade Union Act 1959. 	
Final Classification	Green		

Use Case 2 – Renewable Energy

Company introduction	The company is classified as Medium Enterprise based on Indonesian regulation: Government Regulation Number 7 of 2021 on Facilities, Protection and Empowerment for Cooperatives and Micro, Small and Medium Enterprises (MSMEs). The company provides mini-hydropower plants in rural areas for supply to the State Electricity Company.	
Case context		to expand their current operations to other will start new project financing to increase the opower plant.
Sustainability efforts	 The Company has a net zero emission efforts in line with Indonesia's NDC target. The Company has conducted an Environmental Impact Analysis. The Company has conducted due diligence covering technical, management, legal, financial, social and environmental aspects. The Company has empowered the surrounding community through job creation, has a program to maintain sedimentation around the river. The Company has policies related to occupational safety and health, social security for workers, and protection of human rights and workers' rights. 	
User entry point	Which EO is the nature of the Activity most relevant to? Which EO(s) is most aligned to the company's strategic focus?	This activity relates to EO1 as the business and operations of renewable energy for mini hydropower plants, which facilitates the reduction of carbon emissions and contributes to climate change mitigation. Considering the company's target to achieve net zero emission and the focus on expanding the mini-hydropower plant, this activity is most relevant to EO1.
	FO4 (Oliverate Oliverane B	Side and any in the angles are 50
E01		Mitigation) is the primary EO.
EO1 Assessment		Mini-hydropower plants have lower direct emission greenhouse gas (GHG) emissions per kilowatt-hour compared to power plants with fossil fuel sources.
	Does the Activity avoid locking in high-carbon activity?	Yes, the expansion and increased capacity of the mini hydropower plant contribute to addressing climate change through providing a renewable energy source generated with low carbon generation. The company also has a roadmap to net zero emission, which in the medium to long term will seeks to reduce GHG emissions in its supply chain and infrastructure by selecting low carbon materials and suppliers, and adopting new technologies with high efficiency and low emissions.
	Yes, the Activity avoids/reduces GHG emissions.	

DNSH / RMT Assessment	2A. Does the Activity avoid causing potential significant harm to other EOs?	
	Has an EIA been conducted and approved on the Activity? What are the results of the EIA?	Results from the EIA show adverse impacts on surrounding habitats and biodiversity, due to land disturbance, habitat disruption, and
	(EO3) Is the Activity detrimental to the conservation status of habitats and species within the natural ecosystem?	pollution of soil and water resources. The expansion of the mini hydropower plant will open up land around the river, which has an impact on the risk of soil erosion and disturbance to aquatic biota and vegetation.
	No. The Activity causes	s potential significant harm to EO3.
	2B. Has the implementation of remedial measures already commenced at the time of assessment?	Yes, to mitigate this harm, the Company has done several programs including: 1. Land clearing is carried out in stages and limited to the activity site as needed and prevents further land expansion. 2. The results of land clearing in the form of biomass are placed on the low periphery of the area which functions as an erosion control/retainer to inhibit surface flow carrying eroded soil particles. 3. Creating temporary settling ponds and drainage channels or catchment channels that match the volume of runoff water. 4. Revegetating the cliff area Implementing and optimizing community development and empowerment programs.
	3A. Does the Activity no longer cause significant harm to other EOs at the time of assessment?	Yes. Based on the assessment date, remedial efforts have been made to mitigate identified risk in the EIA. Periodic monitoring and reporting of the process will be conducted.
Initial Classification	Green	
	4A. Does the Company meet minimum national standards relating to human rights, forced labour, child labour	The social aspect assessment will cover the Company and will be assessed in accordance with Indonesian legislation and regulations. The Company's operations meet minimum national standards/regulations as follows:

and impact on people living close to investments?	 Respect human rights (Constitution of the Republic of Indonesia Year 1945); Prevention of forced and child labour (Labour Law 2003 as amended in Law Number 11 of 2020 concerning Job Creation); The entity provides a decent wage for the workers (MSMEs based on Law Number 11 of 2020 concerning Job Creation); The Entity has efforts and policies to ensure occupational health and safety practices in the workplace; and The entity has implemented community and environmental empowerment programs in the area close to investment. Yes, the Company meets minimum national standards relating to human rights, forced labour, child labour and impact on people living close to investments.
Final Green	

Use Case 3 - Construction & Real Estate

Company Introduction	The Company is classified as a Medium Enterprise based on Indonesian regulation: Government Regulation Number 7 of 2021 on Facilities, Protection and Empowerment for Cooperatives and Micro, Small and Medium Enterprises (MSMEs). The Company is a housing developer that provides sub-urban and rural housing that supports government programs to promote inclusive and sustainable residential development.		
Case Context	The company is looking to construct green housing in a rural district. They will initiate new project financing to develop affordable green housing ⁷ for low-income communities ⁸ with a building area of 36 m ² .		
Sustainability Efforts	 The Company supports national green affordable housing program that have a long-term target of achieving 100% net-zero housing by 2050. The Company supports the government-initiated certification system for sustainable construction and design namely Green Buildings Certification, which also focuses on buildings that aims to reduce GHG emissions. The Company is committed to building affordable housing options to support low-income communities and enhance community diversity. The Company has conducted an Environmental Impact Analysis. The Company has taken the initiative in developing green housing project by using environmentally friendly materials that are sourced locally, applying the 3R Principle (Reuse, Reduce, Recycle) in waste management, and providing a wastewater treatment facility. The Company joins industry groups/association focused on sustainable development to learn best practices and stay informed about emerging trends. The Company has policies related to occupational safety and health, social security for workers, and the protection of human rights and workers' rights. 		
	Which environmental	This activity relates to EO1, as the	
User Entry	objective (EO) is the nature of the Activity most relevant to?	construction of affordable green buildings for low-income communities is designed to be energy-efficient, which facilitates the reduction of carbon footprints and contributes to climate change mitigation.	
Point	Which EO(s) is most aligned to the company's strategic focus?	Considering the Company's strategic focus on supporting the government programs to promote green and low-carbon housing that aims to achieve reduce carbon emission, this activity is most relevant to EO1.	

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⁷ 'Green Building' as a building that meets building technical standards and has considerable measurable performance in terms of energy, water, and other resource savings through the application of GBC principles in accordance with the purpose and classification in each stage of its implementation (*Regulation of the Ministry of Public Works and Public Housing Number 21 of 2021 concerning Green Building Performance Assessment*).
⁸ 'Low-Income Communities (*Masyarakat Berpenghasilan Rendah/MBR*)' are defined as those with low purchasing power who

⁸ 'Low-Income Communities (*Masyarakat Berpenghasilan Rendah/MBR*)' are defined as those with low purchasing power who require government assistance to obtain a house (*Regulation of the Ministry of Public Works and Public Housing Number 1 of 2021 on Criteria for Low-Income Communities and Requirements for Ease of Construction and Acquisition of Houses).*

		1,,	
	Does the Activity avoid locking in high-carbon activity?	Yes, green houses can incorporate energy-efficient designs that reduce overall energy demand, thereby minimizing reliance on fossil fuels.	
	Yes, the Activity avoids/reduc	<u> </u>	
		ausing potential significant harm to	
	other EOs?		
	Has an EIA been conducted and approved on the Activity?	Yes.	
	What are the results of the EIA?	The construction is located near water catchment areas. It can reduce the natural permeability of the land, leading to increased surface runoff and a higher risk of flooding in both the development area and downstream. Runoff from constructed areas also may carry pollutants (e.g., sediments, chemicals, waste) into water bodies, degrading water quality and harming aquatic ecosystems. Furthermore, construction can disrupt local habitats, leading to a loss of biodiversity and fragmentation of ecosystems that are crucial for various plant and animal species. Without proper planning, it can exacerbate vulnerability to climate impacts.	
Assessment	(EO3) Does the Activity avoid leading to a significant increase in pollutant emissions into the air, land and/or natural bodies of water, relative to the situation before the commencement of said economic Activity?	areas, such as chemicals, sewage, and waste, into water catchment areas, harming local ecosystems and water quality. Furthermore, water catchment areas often host diverse flora and fauna. It can also lead to habitat destruction, resulting in a loss of biodiversity and the services these ecosystems provide.	
	No. The activity is potentially	causing significant harm to EO3.	
	2B. Has implementation of remedial measures commenced at the		
	time of assessment?		
	Has the implementation of remedial measures already commenced at the time of assessment?	has done several programs that meet	
		Adopting best practices to minimize habitat disturbance, in accordance with the Regulation of the Minister of Environment Number 16 of 2012	

		concerning the Guidelines for Preparation of Environmental Document. Creating small retention basins or swales to manage runoff and allow for natural filtration as well as planting native vegetation along the perimeter of the construction site to filter runoff and provide habitat. Set up designated areas for waste disposal and recycling to prevent contaminants from entering water bodies, in line with Regulation of the Ministry of Public Works and Public Housing No. 21 of 2021 concerning Green Building Performance Assessment. Using basic monitoring tools (e.g., water testing kits) to regularly check for contaminants such as sediment, nutrients, or pollutants. The Company also develop flexible management plans that can be adjusted based on monitoring results. If issues are detected, implement corrective actions promptly without requiring significant funds. Create a simple reporting system where findings can be documented and shared with stakeholders.
	Does the Activity no longer cause significant harm to other EOs at the time of	Yes. Based on the assessment date, harm has been mitigated.
	assessment?	Remedial efforts have been made and will be monitored regularly.
Initial Classification	Green	
Social Aspects Assessment	4A. Does the Company meet minimum national standards relating to human rights, forced labour, child labour and impact on people living close to investments?	 The Company's operations meet minimum national standards/regulations as follows: Respect of human rights (Constitution of the Republic of Indonesia Year 1945) Prevention of forced and child labour (Labour Law 2003 as amended in

		 Law Number 11 of 2020 concerning Job Creation) The Company provides a decent wage for the workers (MSMEs based on Law Number 11 of 2020 concerning Job Creation) The Company has efforts and policies to ensure occupational health and safety practices in the workplace. The Company guarantees workers' rights (social security and health). The Company has implemented community and environmental empowerment programs in the area close to investment. Yes, the Company meets minimum national standards relating to human rights, forced labour, child labour and impact on people living close to investments.
Final Classification	Green	

Use Case 4 – Agriculture

	T	
Company Introduction	XYZ Agri is an agricultural corporation classified as a medium-sized enterprise in the Philippines that operates several farms, planting grain, vegetable, and fruit crops within its 17-hectare upland property. XYZ Agri also operates drying and storage facilities for its crops.	
Case Context	XYZ Agri intends to seek financing to fund its Small Water Impounding Project ⁹ (SWIP) to ensure adequate irrigation towards its farms and ensure year-round agricultural production, conserve soil, and prevent drought and flooding within the farms.	
Sustainability Efforts	As the farms held by XYZ Agri are mostly located upland, the company has initiated several climate-resilient measures to protect its business such as: 1. Use of early-maturing and drought-tolerant varieties; 2. Use of adoptive crop calendar; 3. Site-specific nutrient management and integrated pest management; 4. Agroforestry systems (fruit and timber trees along with rice and vegetables)	
	Which environmental objective (EO) is the nature of the Activity most relevant to?	The activity relates to EO2 (climate change adaptation), as the construction of a water impounding facility enhances the climate resiliency of XYZ Agri as it will ensure irrigation supply for its crops as well as ensuring soil vitality from the effects of droughts and flooding.
User Entry Point	Which EO(s) is most aligned to the company's strategic focus?	Considering the company's sustainability-related initiatives, EO2 (climate change adaptation) is the most appropriate EO given that the initiatives aim to enhance XYZ Agri's business productivity as response to the effects caused by climate change.
	EO2 (Climate Change Adaptation) is	s the primary EO
EO2 Assessment	1A. Does the Activity implement measures to increase the Company's resilience to climate change?	
	How does the Activity contribute to Company's resilience against adverse physical impacts of current and future climate change?	The SWIP enhances XYZ Agri's resilience against adverse physical climate change impacts by providing adequate water supply for its crops throughout the year. The project also conserves the soil from
	Does the Activity avoid leading to an increased adverse impact of the	the effects of droughts and flooding, thereby protecting crop yield while

⁹ A Small Water Impounding Project (SWIP) is a structure constructed across a narrow depression or valley to hold back water and develop a reservoir that will store rainfall and run-off during the rainy season for immediate or future use. These small water impounding projects normally has structural heights of not more than 30 meters and a volume storage not exceeding 50 million cubic meters. (Source: https://www.bswm.da.gov.ph/download/small-water-impounding-project-swip/)

current climate and the expected future climate, on the Activity itself or on people, nature, or assets?

Where applicable and relevant, is a 3rd party certification or verification of alignment of Activity with EO2 available

increasing the resilience of the Company and its nearby communities from physical risks brought by these weather-induced events, as water stored upland may prevent flash floods within the lowlands as well. As a water impounding facility, the project can support production of a culture fishery that can address food security as well.

Projects such as SWIP are aligned with the latest national development plan of XYZ Agri's country which includes sustaining actions on climate change adaptation and mitigation and disaster preparedness such as the promotion of efficient irrigation system to reduce groundwater extraction, sedimentation, and siltation.

Meanwhile, an assessment conducted by the local bureau on soils and water management showed that the land area held by XYZ Agri is feasible to construct a SWIP. The assessment of the said bureau included reconnaissance survey, topographic mapping, soil survey and investigation, geologic investigation, and socio-economic survey.

The said assessment showed no objection as to the technical feasibility and economic viability of the proposed SWIP.

Relevant regulators of the country where XYZ Agri is domiciled currently recognizes the certification provided by the local soil and water management bureau as an acceptable certification alignment.

1B. Does the Activity enable other stakeholders and/or Activities to increase resilience to climate change?

Does the Activity help other stakeholders (including the community) to reduce/manage physical risks? (e.g., provision of infrastructure to facilitate climate change adaptation of stakeholders.).

Yes. Under the local soil and water management bureau assessment, there is social acceptability for the project as nearby communities located upland will also benefit from the project as it will recharge groundwater aquifers, reduces

Does the Activity avoid impeding upstream and/or downstream stakeholders from increasing their resilience to climate change? run-off volume and erosive power, thereby preventing potential landslides and flash floods in the area which also benefits people in the lowlands.

Yes. The Activity increases the Company's and other stakeholders' resilience to climate change

DNSH / RMT Assessment

2A. Does the Activity avoid causing significant harm to other EOs?

Has an Environmental Impact Assessment (EIA) been conducted and approved on the Activity? What are the results of the EIA? The assessment report from the local soil and water management bureau show that there is minimal impact on biodiversity in the area since the area to be converted to SWIP are mostly rocky with shallow uncultivated land located within XYZ Agri premises with grasses, shrubs and small trees that are not considered endangered. While there are animals that graze the area like cows and goats, these animals can be relocated to other areas of the farm to graze.

(EO3) Does the Activity avoid leading to a significant increase in pollutant emissions into the air, land, and/or natural bodies of water, relative to the situation before the commencement of said economic Activity?

However, given the wide area with which the SWIP will be built, the assessment showed a substantial amount of soil and land matter will be displaced, which may cause pollution of waterways downstream if left exposed.

No, the activity is potentially causing significant harm to EO3

2B. Has implementation of remedial measures commenced at the time of assessment?

Have remedial measures already started to be implemented at the time of assessment?

Does the Activity remediate risk and impacts through e.g., compliance with relevant (national) environmental law(s), internal policies and processes, implementation of additional measures that reduce harm?

As recommended in the local soil and water management bureau assessment and to comply with the issuance of a building permit provided by the local government unit, XYZ Agri contracted the services of an excavation company that has a proven track record of excavating soils and proper disposal thereof in accordance with national and local environmental laws.

The excavation company will do the land excavation and dump trucks are on standby to immediately collect excavated soil, rocks, and other land matter to be transferred to a nearby construction site that performs slope protection works also in the upland area.

3A. Post-mitigation harm

Does the Activity no longer cause significant harm to other EOs at the

Yes. Based on the assessment date, harm has been mitigated as remedial efforts

	time of assessment?	have been made and will be monitored on a regular basis.
Initial Classification	Green	
Social Aspects Assessment	4A. Does the Company meet minimal national standards relating to human rights, forced labour, child labour and impact on people living close to investments.	Yes. XYZ Agri has no reported or observed violations over national and local laws on human rights, forced labour and child labour in the country where the Company is domiciled. It provides wages to its agricultural workers in accordance with the regionally mandated wage. During harvest and planting season when it needs additional workers, it prioritizes outsourcing workers within the municipality and province where XYZ Agri is located and ensures that appropriate labour contracting measures are observed. XYZ Agri has been commended by the local government for its corporate social responsibility program within the municipality, among them are scholarship grants to deserving students.
Final Classification	Green	

Use Case 5 - Manufacturing

Company Introduction	The Company is an SME in Malaysia that manufactures and trades specialty tool steel. Clienteles are from the plastics, metal stamping, audio & automotive, and die casting industries.	
Case Context	The Company wishes to seek trade finance facility to support its trade activities.	
Sustainability Efforts	Primarily on establishing a closed-loop system within its production processes, where raw materials (i.e., steel) are continually reused and recycled into the manufacturing process. It aims to do this by: 1. Reusing 96% residual steel parts (e.g., off-cuts, rejected parts, and excess materials) for production of smaller steel products such as plastic moulding and watch sharps. This in turn reduces the procurement of virgin materials (i.e., new alloy steel bars). 2. Minimising material waste to landfill by selling the remaining unusable scrap steel to smelters and scrap metal collectors daily.	
User Entry Point	Which environmental objective (EO) is the nature of the Activity most relevant to?	EO4 on resource resilience and transition to circular economy is the most relevant to the nature of the Activity given that the Activity reduces the amount of alloy steel bar procured by reusing usable steel residual as well as recycling of scrap steel.
	Which EO(s) is most aligned to the company's strategic focus?	EO4 is the most aligned with the company's strategic focus considering its main sustainability effort is to (i) reduce the purchase of new alloy steel bars by reusing usable steel scrap and (ii) minimise steel waste by reselling scrap steel to other parties to enhance its business efficiency and adopting circular economy practices.
	EO4 (Promotion of Resource Resilience and Transition to Circular Economy) is the primary EO	
EO4	1B. Does the Activity optimise resource yield?	
Assessment	Does the Activity extend the use of products through reuse, repurposing, refurbishing, remanufacturing, disassembly, upgrades, and repair, and/or sharing of products?	Yes. An estimated 96% of steel scraps (small pieces) generated during the cutting of alloy tool steel are reused for manufacturing other steel products (e.g., small pieces of steel cut can be used to produce plastic moulding and watch sharps).

	Does the Activity increase resource efficiency by ensuring recovered materials are recycled as high quality secondary raw material?	The remaining 4% of steel scrap is being sold daily to smelters and steel scrap collectors at an average selling price of RM0.50 – RM1 per kg. Yes. Given the nature of the material is alloy steel, any steel scraps generated during the cutting of alloy tool steel has the same quality when being reuse / remanufacturing to meet smaller product specifications when requested.	
	Does the Activity avoid leading to significant inefficiencies in the use of materials or in the direct or indirect use of natural resources at one or more stages of the product life cycle?	Yes. As steel scraps (small pieces) generated during the cutting of alloy tool steel will be reused in producing other steel products, this increases the scrap optimisation rate in the production process. This in turn decreases demand for virgin alloy steel and indirectly reduces emission from the alloy steel bar production.	
		Steel scraps that are unable to be reused due to unmatched specifications (e.g., irregular sizes and shapes) will be sold to smelters and steel scrap collectors for subsequent uses.	
	Yes. The Activity optimises resource yield		
DNSH / RMT	2A. Does the Activity avoid causing	g significant harm to other EOs?	
Assessment	Has an Environmental Impact Assessment (EIA) been conducted and approved on the Activity?	No as EIA is <u>not required</u> for the activity/company as the company's daily production using scrap metal falls below the EIA requirement of 200 tonnes or more per day under the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015.	
	(EO1) Does the Activity avoid significant GHG emissions, including CO ₂ , CH ₄ , N ₂ O, SF ₆ , NF ₃ and/or HFCs?	No. The Activity is causing harm to EO1 due to electricity consumption from the mechanical cutting process (i.e., sawing) and the use of lubricant as the cutting fluid.	

The Activity may result in an estimated emission of <u>9.64T CO₂e</u> <u>annually</u>. The assumptions for calculation are as follows:

- Grid Emission Factor in Peninsular Malaysia in 2021¹⁰: 0.758 kg CO₂e/ kWh
- 2) Carbon emission factor of lubricant in 2019¹¹: 20 tC/ TJ =~2.94 kg CO₂e/litre
- 3) Annual electricity consumption: 5.000 kWh
- 4) Annual lubricant usage: 2,000L

Annual GHG emission from the cutting process: $(5000*0.758) + (2000*2.94) = 9,670 \text{ kg CO}_2\text{e}$

The Company has yet to adopt energy efficient equipment for their operations.

No, the activity is potentially causing significant harm to EO1

2B. Has implementation of remedial measures commenced at the time of assessment?

Does the Activity remediate risk and impacts through e.g., compliance with relevant (national) environmental law(s), internal policies and processes, implementation of additional measures that reduce harm?

No. Specific action to remediate harm to EO1 (climate change mitigation) such adoption of energy-efficient machineries, monitoring of CO2, use of renewable energy, and carbon capture have yet to be implemented at this juncture.

3A. Plans to implement remedial measures within 5 years

Are there concrete plans to implement remedial measures to address residual harm within 5 years

Yes. The Company highlighted the following initiatives in their company strategy that aim to address environmental impact of the operation:

- 1) Investing and installing solar panels on the factory rooftop and other unoccupied spaces to gradually switch to 100% renewable energy within 5 years with interim milestone of 50% RE usage within 3 years.
- 2) Achieving 30% reduction in energy consumption and material

¹⁰ Source: Suruhanjaya Tenaga

¹¹ Source: Malaysia's Biennial Update Report 4 (BUR4)

Initial Classification	Amber	waste compared to business-as- usual by adopting energy efficient technologies and elements to optimise energy usage in business operations, namely the SIRIM-certified laser cutting machine and automation of certain aspects of the steel cutting operations.
Social Aspects Assessment	4A. Does the Company meet minimal national standards relating to human rights, forced labour, child labour and impact on people living close to investments.	Yes. The Company has met the following relevant Malaysian legislations and regulations on: • Protection of human rights (Article 5 and 6 of the Federal Constitution of Malaysia) • Right to a healthy and safe working environment (Industrial Co-ordination Act 1975) • Local labour laws (Employment Act 1955) • Impact on people living close to site operations (Environmental Quality Act 1974 and Industrial Co-ordination Act 1975) • Prevention of forced and child labour (Children and Young Persons (Employment) Act 1966)
Final Classification	Amber	