ผู้สนับสนุน

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ที่ปรึกษา

THAILAND TAXONOMY

A Deep Dive into the Waste Management Sector

June 2025

Version: 27 June 2025

What You Will Learn Today

1. Recap of the Thailand Taxonomy's overall framework and key principles.
2. Understand the Basic Principles of Thailand Taxonomy for the Waste Management sector.
3. Deep dive into the Technical Screening Criteria (TSC) for Waste Management sector.
4. Explore practical applications and use cases for businesses.

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INTRODUCTION
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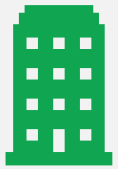
Energy

Transportation

Agriculture



Construction & Real Estate

Manufacturing

Waste Management

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The Importance of Thailand Taxonomy for a Sustainable Economy

มาตรฐานกลางแบบภาคสมัครใจ ที่ใช้อ้างอิงการจำแนกและจัดกลุ่มกิจกรรมทางเศรษฐกิจที่เป็นมิตรต่อสิ่งแวดล้อมของไทย

✓ It provides a common framework to steer the market and guide investors and stakeholders.

✓ It helps mobilise green financing, avoid greenwashing, and increase capital flows to truly green projects.

✓ It serves as a tool for the government to direct capital flows and achieve national climate objectives.

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Thailand Taxonomy identified and prioritizes 6 sectors that are both major contributors to environmental impacts for sustainable transformation, aligning with Thailand's economic structure and commitments.

Phase I

- Energy
- Transportation

Phase II

- Agriculture
- Construction & Real Estate
- Manufacturing
- Waste Management

Thailand Taxonomy is structured and designed to improve the ecological and climate credentials of the economy, and **activities within each sector are selected on the basis of the following**:

1. **Contribution to Environmental Objectives**
2. **Availability of Technologies and Best Practices**
3. **Align with National Policies & Other Green Taxonomies**
   (inclusion into other taxonomies)
4. **Economic Significance**
   certain activities is provided for information purposes, but it is not the main reason for activities selection.

*Climate-material activities are selected based on the International Standard Industrial Classification of All Economic Activities (ISIC)(Rev. 4) classification system.

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Advantages of Adopting the Thailand Taxonomy

1.Improve Access to Capital

Facilitates funding and favorable terms for green projects.

2.Enhance Credibility

Builds trust and reduces greenwashing risks through transparency.

3.Better Risk Management

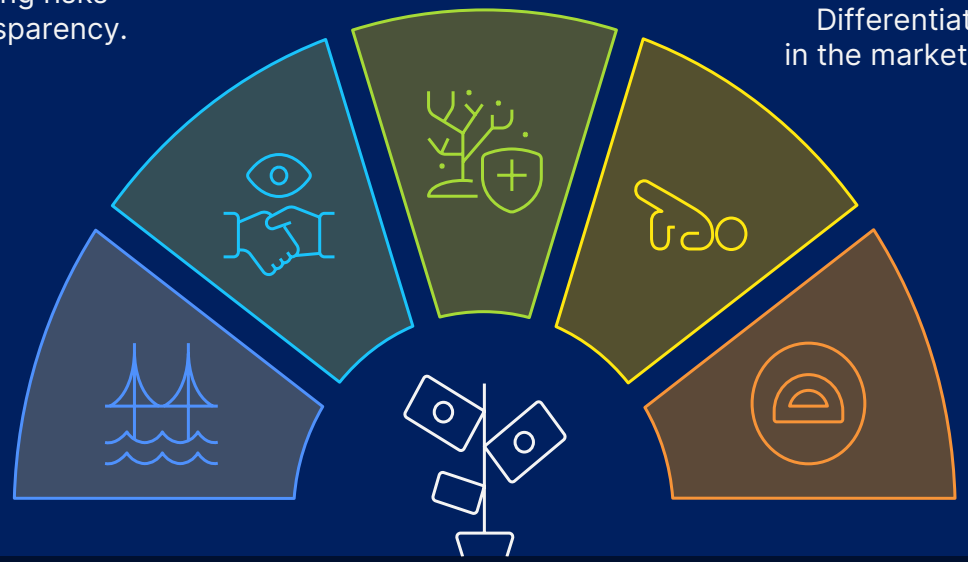
Helps identify and manage environmental risks for resilience.

4.Competitive Advantage

Differentiates organizations in the market with sustainability.

5.Future-Proofing

Aligns with future policies and avoids regulatory penalties.



- ✓ While Thailand Taxonomy is a powerful tool for promoting sustainability, it cannot be used as a one-size-fits-all solution for all environmental and economic challenges.
- ✓ Thailand Taxonomy is not a mandatory list of economic activities for investors to invest in or not invest in.
- ✓ There are other instruments that can be used to incentivize toward green investment.

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Taxonomy is:

- A system for classifying economic activities to separate sustainable activities from those that are unsustainable and harmful to the environment and climate.
- A convenient tool for use by economic agents, financial market participants and government agencies.
- A tool to categorise financial flows and increase transparency in disclosure, issuance of green financial instruments and financial decision-making.
- A tool to decarbonise those activities that have the potential to affect the climate (climate material) or environment.
- A living document

Taxonomy is NOT:

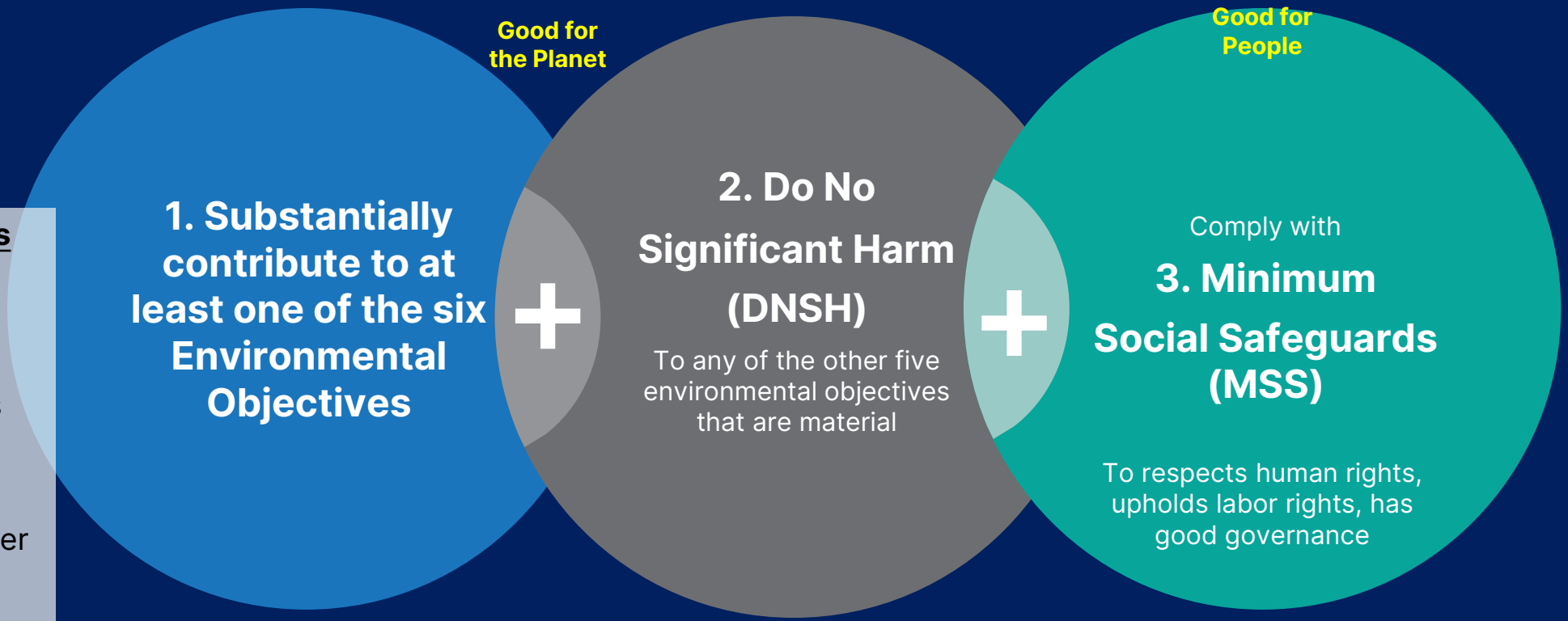
- A tax collection. The name Taxonomy contains "Tax" but it's not a tax.
- A classifier of activities into 'good' and 'bad'.
- A tool for assessing the financial or economic characteristics of an activity.
- Prohibit lending. Loans can still be issued according to the policies of financial institutions.
- Prohibit investment. Investments can still be made according to the risk appetite of each individual.

Source: Climate Bonds Initiative

The 3 Core Pillars of Thailand Taxonomy Alignment

Key Development Principles

- ✓ Based on up-to-date climate science
- ✓ Covers a maximum of climate-material activities
- ✓ Interoperable with other green taxonomies
- ✓ Locally applicable, consider Thai Context in amber activities
- ✓ Provides paths to decarbonization for hard-to-abate sectors of the economy
- ✓ Dynamic & Living document



EO1- Climate change mitigation
EO2- Climate change adaptation
EO3- Sustainable use and protection of marine and water resources
EO4- Promotion of resource resilience and transition to a circular economy
EO5- Pollution prevention and control
EO6- Protection and restoration of biodiversity and ecosystems

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Thailand Taxonomy uses a “traffic light system" to assess if an economic activity makes a Substantial Contribution to at least one of the six Environmental Objectives

“Traffic Light System”

Green

Activities that **clearly and significantly contribute** to achieving one of the six Environmental Objectives

Amber

Activities that **can be developed to become more environmentally friendly** and potentially move into the green category in the future. They are crucial for the transition to a low-carbon & sustainable economy.

Red

Activities that **cause significant harm** to one or more Environmental Objectives and must be gradually phased out.

*All activities must comply with important principles such as the **Do No Significant Harm (DNSH)** principle and **Minimum Social Safeguards**.

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Basic Principles of Thailand Taxonomy for the Waste Management Sector

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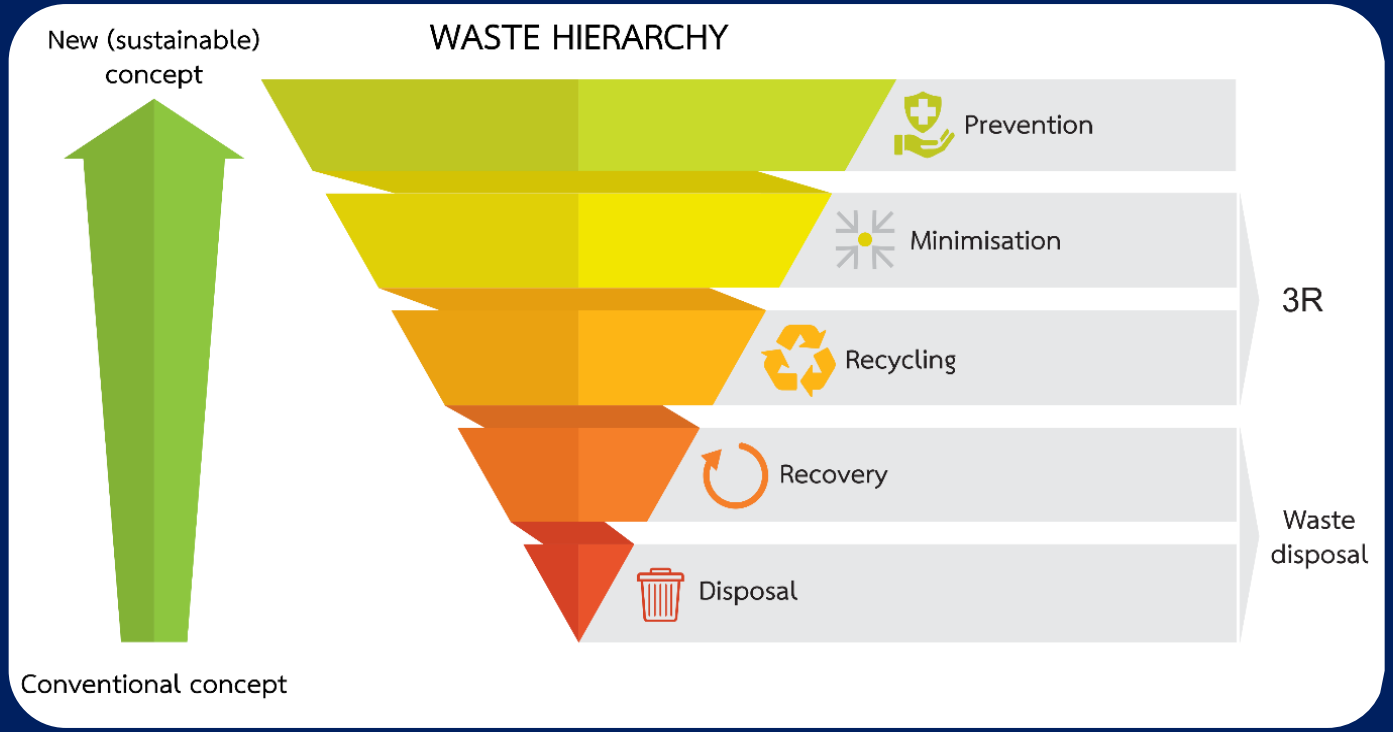
Unlike other sectors, criteria for waste management sector focus on the procedural steps, refers to the waste management hierarchy. Waste management activities mainly enables other sectors to reduce GHG emissions through waste prevention, waste separation, reuse and recycling.

- Most activities contribute to EO4 and EO5. Some activities can contribute to EO1: Climate Change Mitigation, however **waste management does not have its own net zero pathway**.
- **Material recovery is prioritised over energy recovery.**
- Aligned to EU Taxonomy and referring to SG and CBI Taxonomy (WtE for example)
- **Practice based technical screening criteria** (i.e., best practice, ISO standards, national/international regulations)



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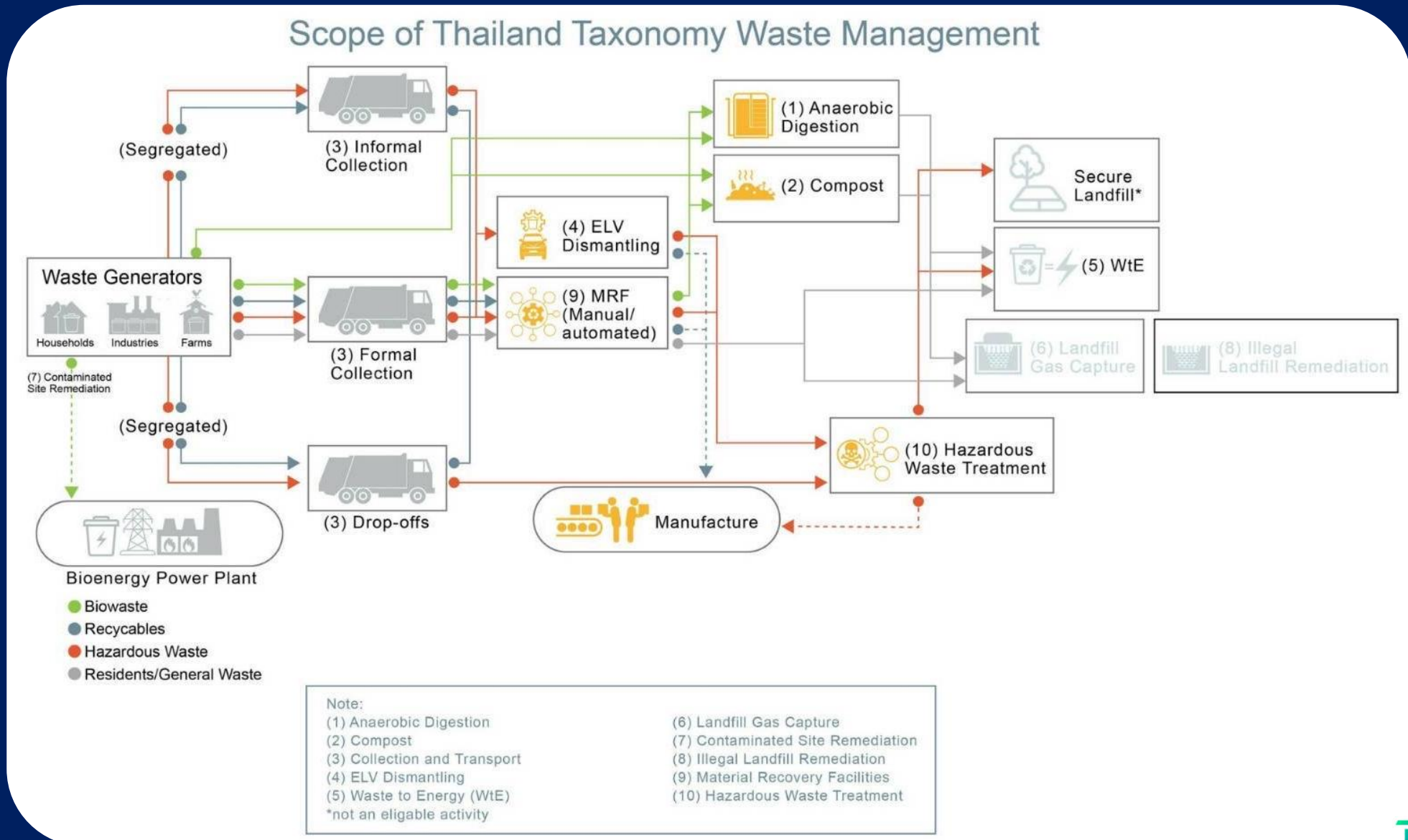
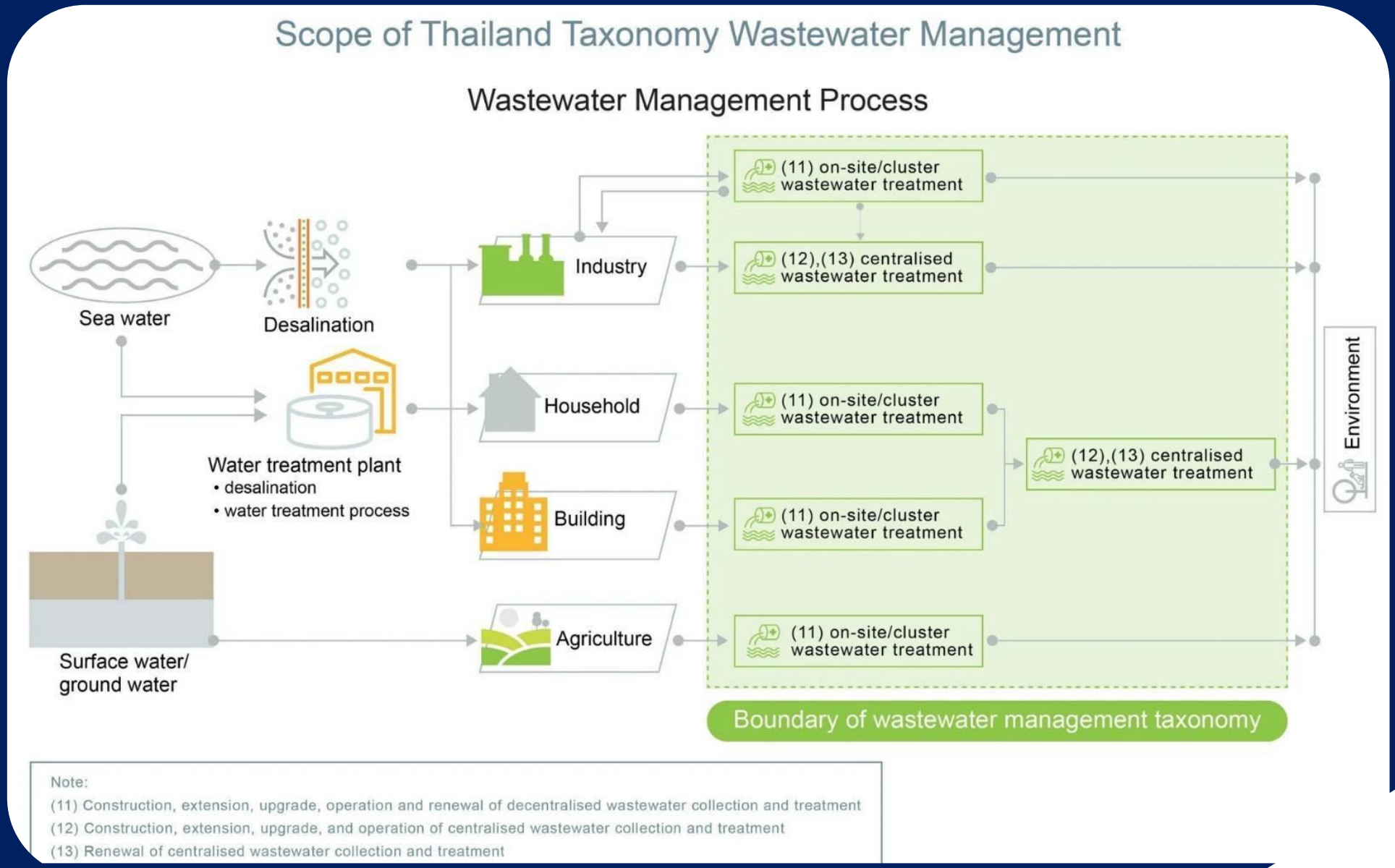
Scope of Thailand Taxonomy – Solid Waste



Scope of Thailand Taxonomy - Wastewater



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Waste Management Sector Technical Screening Criteria

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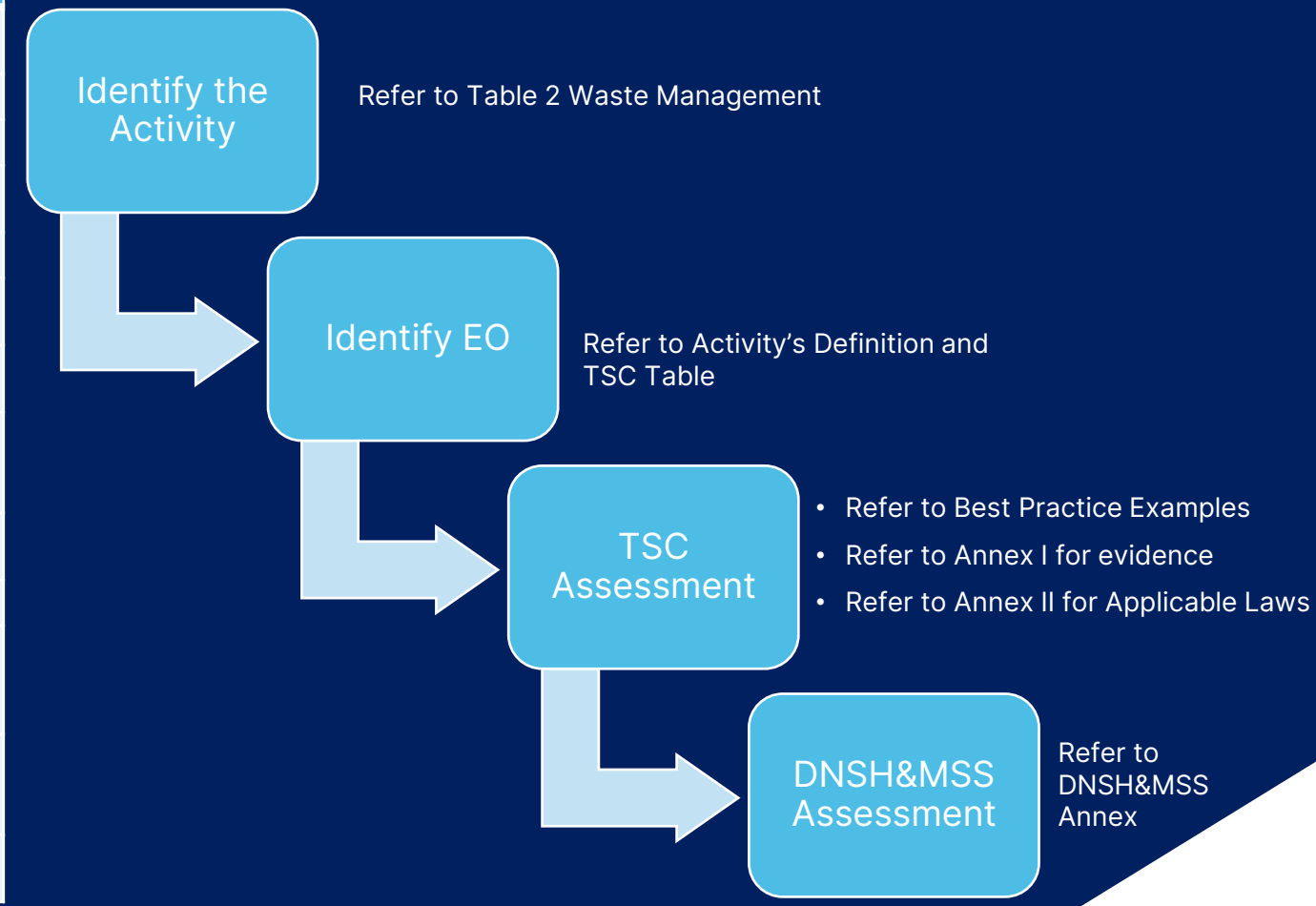
How to read and use Thailand Taxonomy – Waste Management Sector

Ref	Proposed Activity (ENG)	EO1	EO2	EO3	EO4	EO5	EO6
1	Anaerobic digestion of bio-waste or wastewater (ISIC 3821, 3700)	✓	X	X	✓	X	X
2	Composting of bio-waste (ISIC3821)	X	X	X	✓	X	X
3	Collection and transport of waste (ISIC 381)	X	X	X	✓	✓	X
4	Depollution and dismantling of end-of-life products (ISIC 383)	X	X	X	✓	X	X
5	Waste to Energy (WtE) (ISIC 3821, 3822)	✓	X	X	X	X	X
6	Landfill gas capture and utilisation (ISIC 3821)	✓	X	X	X	X	X
7	Remediation of contaminated sites and areas (ISIC 390, 3320, 431, 711)	X	X	X	X	✓	X
8	Remediation of legally non-conforming landfills and abandoned or illegal waste dumps (ISIC 390, 382, 383)	X	X	X	X	✓	X
9	Sorting and material recovery from non-hazardous waste (ISIC 3830)	X	X	X	✓	X	X
10	Treatment of hazardous waste (ISIC 3822)	X	X	X	✓	✓	X
11	Construction, extension, upgrade, operation and renewal of decentralised wastewater collection and treatment (ISIC 3700)	X	✓	✓	✓	X	X
12	Construction, extension, upgrade and operation of centralised wastewater collection and treatment (ISIC 3700)	✓	✓	X	X	X	X
13	Renewal of centralised wastewater collection and treatment (ISIC 3700)	✓	✓	X	X	X	X



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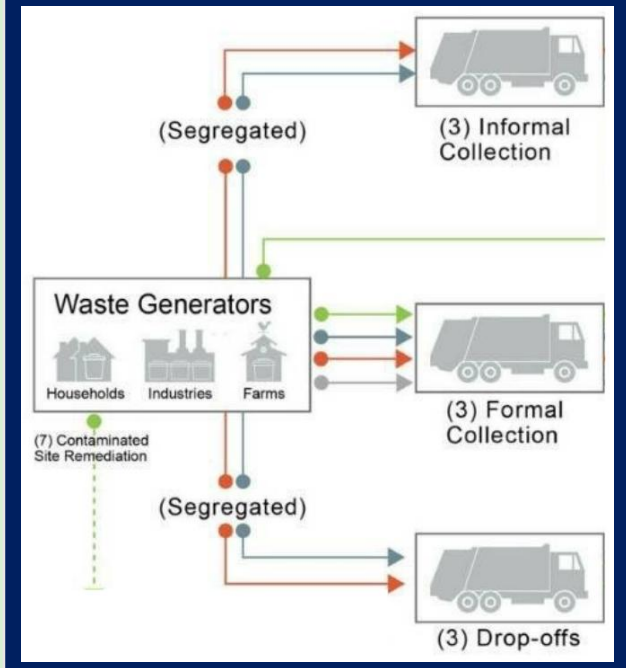
Example 1. Collection and Transportation of Waste

ISIC	381
Description	Separate collection and transport of hazardous and non-hazardous waste aimed at preparing for re-use or recycling, including the construction, operation and upgrade of facilities involved in the collection and transport of such waste, as a means for material recovery or appropriate treatment. The activity includes operation of waste collection containers, transfer stations, all types of transportation vehicles, ICT solutions, and other related infrastructure. Note: 1. Municipal Solid Waste consists of general waste, municipal hazardous waste, infectious waste, recyclable waste, and bio-waste. 2. Industrial Waste means unusable materials or all types of wastes including hazardous and non-hazardous waste generated from industrial activity. 3. Transportation of Municipal Hazardous Waste and/or Industrial Hazardous Waste to disposal may contribute to EO5 only when recovery (EO4) is not permitted by law. 4. Freight transport vehicles used for this activity are not required to meet the EO1 GHG emissions standards set in the Transport sector of the Thailand Taxonomy, as this activity is not classified under EO1. However, vehicles must comply with **Transportation Requirements** according to applicable regulations which include but not limit to: 4.1 Air pollution emissions comply with applicable regulatory thresholds; and 4.2 Leachate spills are prevented during transportation by a container (holding tank); and 4.3 Waste is securely covered to prevent spillage during transportation.
Objective	• EO4: Resource Resilience and Transition to a Circular Economy [Municipal Solid Waste] and [Industrial Waste]; • EO5: Pollution Prevention and Control [Crop residues waste], [Industrial Hazardous Waste], and [Municipal Hazardous Waste]

Example 1. Collection and Transportation of Waste (EO4)

Tiers	EO4: Resource Resilience and Transition to a Circular Economy
Green	**[Municipal Solid Waste:** • **Non-Hazardous Waste transportation from source to disposal point;** • **Hazardous Waste transportation from source to storage point only; transportation from storage point to disposal point is covered under EO5].** 1. Before 31 December 2029, waste is segregated at source (i.e., before formal collection), or at an intermediate sorting facility into the following waste streams: general waste, municipal hazardous waste, recyclable waste, bio-waste, and infectious waste (where applicable). Collection and transportation of specific segregated waste stream(s) is eligible; AND 2. After 31 December 2029, waste is segregated at source (i.e., before formal collection) into the following waste streams: general waste, municipal hazardous waste, recyclable waste, bio-waste, and infectious waste (where applicable). Collection and transportation of specific segregated waste stream(s) is eligible; AND 3. Waste is transported to a location with the intention of preparation for material recovery (reuse or recycling) or energy recovery (WtE), ensuring material recovery is prioritised over energy recovery. If recovery of waste is not permitted by law, it must be transported to a location with the intention of waste disposal by a competent waste treatment facility; AND 4. The transportation vehicle conforms to Transportation Requirements set out in Description Note 4 of this Activity; AND 5. For WEEE: a. collection and transport preserve the integrity of WEEE and prevent the leakage of hazardous substances such as ozone-depleting substances, fluorinated greenhouse gases or mercury contained in fluorescent lamps; AND b. A management system to manage environmental, health and safety risks is in place; AND c. WEEE is delivered to a legally approved waste management facility. **[Industrial Waste – Hazardous & Non-Hazardous from source to recovery point]** 1. Waste is segregated at source (i.e., before formal collection); AND 2. Waste is transported to a location with the intention of preparation for material recovery (reuse or recycling) or energy recovery, ensuring material recovery is prioritised over energy recovery; AND 3. The transportation vehicle conforms to Transportation Requirements set out in Description Note 4 of this Activity.



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Example 1. Collection and Transportation of Waste (EO4)

Tiers	EO4: Resource Resilience and Transition to a Circular Economy
Amber	**[Municipal Solid Waste:** • **Non-Hazardous Waste transportation from source to disposal point; and** • **Hazardous Waste transportation from source to storage point]** 1. Waste is segregated at an intermediate sorting facility into the following waste streams: general waste, municipal hazardous waste, recyclable waste, bio-waste, and infectious waste (where applicable); AND 2. Waste is transported to a location with the intention of preparation for material recovery (reuse or recycling) or energy recovery (WtE), ensuring material recovery is prioritised over energy recovery. If recovery of waste is not permitted by law, it must be transported to a location with the intention of waste disposal by a competent waste treatment facility; AND 3. The transportation vehicle conforms to Transportation Requirements set out in Description Note 4 of this Activity; AND 4. For WEEE: a. collection and transport preserve the integrity of WEEE and prevent the leakage of hazardous substances such as ozone-depleting substances, fluorinated greenhouse gases or mercury contained in fluorescent lamps; AND b. A management system is set up by the collection and logistics operator to manage environmental, health and safety risks; AND c. WEEE is delivered to a legally approved waste management facility. **[Industrial Waste – Hazardous & Non-Hazardous]** No TSC available

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Example 1. Collection and Transportation of Waste (EO4)

Tiers	EO4: Resource Resilience and Transition to a Circular Economy
Red	1. Waste is transported to a location with the intention of preparation for material recovery (reuse or recycling) or energy recovery (WtE), ensuring material recovery is prioritised over energy recovery. If recovery of waste is not permitted by law, it must be transported to a location with the intention of waste disposal by a competent waste treatment facility; AND 2. The transportation vehicle conforms to Transportation Requirements set out in Description Note 4 of this Activity;
Applicable standards/ Best Practice Examples	1. DLA's Waste Bank Project: 2. Household and Office Waste Segregation and Waste Reduction E-book (Link)

Annex II Applicable Laws	
3. Collection and Transport of Waste	1. The Enhancement and Conservation of National Environment Quality Act, B.E.2535 (1992) and (No. 2) B.E. 2561 (2018) 1) Notification of Ministry of Natural Resources and Environment on Noise standards for Three-Wheeled Vehicles 2) Notification of the Ministry of Natural Resources and Environment on Descriptions of Factory Types and Sizes, Procedure for the Control of Discharges of Waste Water that cause Adverse Effects on the Public Water Bodies and Environment 3) Notification of the Ministry of Natural Resources and Environment on Prescribing Standards for Controlling Odour Intensity Emission from Pollution Sources 2. Public Health Act, B.E. 2535 (1992) 1) Ministerial Regulation of Public Health on the Management of Toxic or Hazardous Waste from Communities, B.E. 2563 (2020) 2) Ministerial Regulation of Public Health on the Joint management of Infectious Waste between Local Government Authorities and other Local Government Agencies or State Agencies, B.E. 2564 (2021) 3) Ministerial Regulation of Public Health on the Disposal of Infectious Waste (No. 2), B.E. 2564 (2021) 4) Ministerial Regulation of Public Health on Sanitary Standards for General Waste Management, B.E. 2560 (2017) 5) Notification of the Ministry of Public Health on Control Measures for the Transport of Infectious Waste to Prevent Illegal Dumping, B.E. 2565 (2022) 6) Notification of the Ministry of Public Health on Criteria for Selecting Sanitary Landfill Facilities, B.E. 2560 (2017) 7) Notification of the Ministry of Public Health on Characteristics and Conditions for Preventing Groundwater Contamination from Leachate, B.E. 2560 (2017) 3. Act on the Maintenance of the Cleanliness and Orderliness of the Country, B.E. 2535 (1992) and amendments no. 2 B.E. 2560 (2017) . . .

Example 1. Collection and Transportation of Waste (EO5)

Tiers	EO5: Pollution Prevention and Control
Green	**[Crop Residues Waste]** 1. Collection, transport, storage, and delivery of crop residues that are segregated at source (i.e., before formal collection), or at an intermediate sorting facility, to a location with the intention of preparation for material recovery (reuse or recycling) or Taxonomy-eligible energy recovery (Green or Amber bioenergy power plants), ensuring crop residues waste is not burned in an open space; AND 2. The transportation vehicle conforms to Transportation Requirements set out in Description Note 4 of this Activity. **[Transport of:** • **Industrial Hazardous Waste from source to disposal point; and** • **Municipal Hazardous Waste from storage point to disposal point]** 1. Collection, transport, storage and delivery of hazardous waste to the permitted treatment facility is managed according to applicable national and international legislations: a. Hazardous waste is segregated at source (i.e. before formal collection) and collected separately from non-hazardous waste, is not mixed nor diluted either with other materials; AND b. Proper collection and handling prevent leakage of hazardous waste during collection, transport, storage and delivery to the permitted treatment facility; AND c. During collection and transport, hazardous waste is packaged and labelled; AND d. The operator collects record of hazardous waste including quantity, nature, origin, destination, frequency of collection, mode of transport and treatment method; AND e. Where a given waste classified as hazardous has also a transport status of dangerous goods under the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), the transport complies with the relevant requirements set by the ADR; AND f. When the waste is stored, the activity complies with the requirements set out in national law; AND g. Rehearsal of hazardous waste spill emergency response plan and inspection of necessary equipment is conducted at the frequency identified by national regulations; AND h. The transportation vehicle is installed with a GPS tracking system, vehicle logbook, and transportation document for at least 1 year or as identified by national regulations; AND 2. The transportation vehicle conforms to Transportation Requirements set out in Description Note 4 of this Activity; AND 3. For WEEE: a. collection and transport preserve the integrity of WEEE and prevent the leakage of hazardous substances such as ozone-depleting substances, fluorinated greenhouse gases or mercury contained in fluorescent lamps; AND b. A management system is set up by the collection and logistics operator to manage environmental, health and safety risks; AND c. WEEE is delivered to a legally approved waste management facility for dismantling and stripping.

Example 1. Collection and Transportation of Waste (EO5)

Tiers	EO5: Pollution Prevention and Control
Amber	No TSC available
Red	1. Does not meet Green or Amber criteria; OR 2. Waste is transported to ineligible WtE, or ineligible bioenergy plant, or unapproved waste management facility , or directly disposed to landfill.
Applicable standards/ Best Practice Examples	1. Best Practice for WEEE waste transportation: refer to CLC/EN 50625-1:2014 and CLC/TS 50625-4:2017 2. PCD Manual for the transportation of hazardous waste from local communities under the administration of local government organizations to disposal point (Link)

Annex II Applicable Laws	
3. Collection and Transport of Waste	1. The Enhancement and Conservation of National Environment Quality Act, B.E.2535 (1992) and (No. 2) B.E. 2561 (2018) 1) Notification of Ministry of Natural Resources and Environment on Noise standards for Three-Wheeled Vehicles 2) Notification of the Ministry of Natural Resources and Environment on Descriptions of Factory Types and Sizes, Procedure for the Control of Discharges of Waste Water that cause Adverse Effects on the Public Water Bodies and Environment 3) Notification of the Ministry of Natural Resources and Environment on Prescribing Standards for Controlling Odour Intensity Emission from Pollution Sources 2. Public Health Act, B.E. 2535 (1992) 1) Ministerial Regulation of Public Health on the Management of Toxic or Hazardous Waste from Communities, B.E. 2563 (2020) 2) Ministerial Regulation of Public Health on the Joint management of Infectious Waste between Local Government Authorities and other Local Government Agencies or State Agencies, B.E. 2564 (2021) 3) Ministerial Regulation of Public Health on the Disposal of Infectious Waste (No. 2), B.E. 2564 (2021) 4) Ministerial Regulation of Public Health on Sanitary Standards for General Waste Management, B.E. 2560 (2017) 5) Notification of the Ministry of Public Health on Control Measures for the Transport of Infectious Waste to Prevent Illegal Dumping, B.E. 2565 (2022) 6) Notification of the Ministry of Public Health on Criteria for Selecting Sanitary Landfill Facilities, B.E. 2560 (2017) 7) Notification of the Ministry of Public Health on Characteristics and Conditions for Preventing Groundwater Contamination from Leachate, B.E. 2560 (2017) 3. Act on the Maintenance of the Cleanliness and Orderliness of the Country, B.E. 2535 (1992) and amendments no. 2 B.E. 2560 (2017) . . .

Example 2. Waste to Energy (EO1)

ISIC	**3821, 3822**
Description	Generation of energy in the form of electricity and/or heat from pre-sorted residual waste (non-recyclable fraction of waste) incineration, including R&D investments related to developing and testing new and emerging technologies such as pyrolysis and gasification that can produce alternate and sustainable fuels or chemicals. Note: 1. Co-processing activity does not belong to WtE activity. Please refer to cement-manufacturing activity for criteria related to co-processing. 2. Input feedstock excludes agriculture residues which is covered under Thailand Taxonomy Phase I. Refer to Thailand Taxonomy Phase I for bioenergy power plant criteria.
Objective	EO1: Climate Change Mitigation

Tiers	**EO1: Climate Change Mitigation**
Green	1. High quality recyclables and hazardous waste portion has been removed before entering the incineration process. Recyclables are sent for material recovery. Hazardous waste is sent for material recovery or appropriate disposal if recovery is not possible; AND 2. Plant efficiency is not less than 25%; AND 3. Partial Bottom ash recovery (in as much as permitted by national law) with at least 75% recovery of metal from ash. This activity could take place in an off-site location; AND 4. The bottom ash and fly ash management system is in place, ensuring no leakage of hazardous substances; AND 5. Pre-operational Waste-to-Energy (WtE) plant conducts a baseline environmental assessment, minimally addressing air quality and odour nuisance, prior to commencement of operations. The result is provided to stakeholder upon request. Operational WtE plant, upon stakeholder request, provides Energy Regulatory Commission audited Code of Practice Monitoring reports, including Continuous Emissions Monitoring Systems (CEMS) data; AND 6. WtE possesses a certified environmental management system, verified by a qualified third-party, that ensures effective pollution control and monitoring.

Example 2. Waste to Energy (EO1)

Tiers	EO1: Climate Change Mitigation
Amber	1. High quality recyclables and hazardous waste portion has been removed before entering the incineration process. Recyclables are sent to material recovery facilities and hazardous waste is sent to material recovery or hazardous waste treatment facilities; AND 2. Plant efficiency is between 10% and 25%; AND 3. Partial Bottom ash recovery (in as much as permitted by national law) with at least 50% recovery of metal from ash. This activity could take place in an off-site location; AND 4. The bottom ash and fly ash management system is in place, ensuring no leakage of hazardous substances; AND 5. Pre-operational Waste-to-Energy (WtE) plant conducts baseline environmental assessment, minimally addressing air quality and odour nuisance, prior to commencement of operations. The result is provided to stakeholder upon request. Operational WtE plant, upon stakeholder request, provides Energy Regulatory Commission audited Code of Practice Monitoring reports, including Continuous Emissions Monitoring Systems (CEMS) data; AND 6. WtE possesses a certified environmental management system, verified by a third-party, that ensures effective pollution control and monitoring.
Red	Does not meet Green or Amber criteria
Applicable standards/ Best Practice Examples	PCD Guidelines for municipal solid waste management with WtE (Link)

	Annex II Applicable Laws
5. Waste to Energy	1. The Enhancement and Conservation of National Environment Quality Act, B.E.2535 (1992) and (No. 2) B.E. 2561 (2018) 1) Notification of the Ministry of Natural Resources and Environment on Establishment of controlling standards for wastewater from industrial factories, industrial estates and industrial zones, B.E. 2559 (2016). 2) Notification of the Ministry of Natural Resources and Environment Prescribing Standards for Controlling Air Emissions from factory 3) Notification of the Ministry of Natural Resources and Environment on Designating New Power Plants as Sources of Pollution Subject to Control over the Release of Air Pollutants into the Atmosphere 4) Notification of the Ministry of Natural Resources and Environment on Establishing Standards for Controlling the Release of Air Pollutants from New Power Plants . . .

Example 3. Sorting and Material Recovery from Non-Hazardous Waste (EO4)

ISIC	**3830**
Description	Construction, upgrade, and operation of facilities for the sorting and/or recovery of separately collected non-hazardous waste streams into usable secondary raw materials, thus displacing the use of primary raw materials in production processes. This activity includes all types of Material Recovery Facility (MRF) from manual MRF (waste buy-back centre or informal MRF), semi-automated MRF and automated MRF (formal MRF). The non-hazardous waste feedstock may originate from any MSW, from dismantling and depollution activities, from construction and demolition activity, or from sorting of mixed waste intended for recycling. All facilities and equipment such as conveyor belts, compactors, pelletisers, air classifiers, magnetic belts, and other infrastructure required for material sorting and/or recovery are eligible. This activity does not include WEEE dismantling.
Objective	EO4: Resource Resilience and Transition to a Circular Economy

Tiers	**EO4: Resource Resilience and Transition to a Circular Economy**
Green	1. The activity converts at least 40% by weight of all non-hazardous waste received by the facility into secondary raw materials (for example pet bales, paper bales and fertiliser) which are suitable for the substitution of primary raw materials; AND 2. The facility recovering non-hazardous waste has implemented best industry practice on improving overall environmental performance of the plant including: a. a waste characterisation procedure and a waste acceptance procedure regarding the quality of incoming waste; AND b. a tracking system and inventory aiming to track the location and quantity of waste in the plant; AND c. an output quality management system to ensure that the output of the waste treatment is in line with applicable quality requirements or standards; AND d. the relevant waste segregation measures or procedures to ensure that waste, after separation, is kept separated depending on its properties in order to enable easier and environmentally safer storage and treatment; AND e. implemented measures to prevent and control potential environmental pollutions are made publicly available; AND f. [Semi-automated or Automated MRF] the facility has installed the sorting and material recovery technology and processes to meet relevant technical specifications or quality standards. The activity uses state-of-the-art technologies suited to the waste fractions processed including optical separation by near-infrared spectroscopy or X-ray systems, density separation, magnetic separation or size separation.

Example 3. Sorting and Material Recovery from Non-Hazardous Waste (EO4)

Tiers	EO4: Resource Resilience and Transition to a Circular Economy
Amber	1. The activity converts at least 30% by weight of all non-hazardous waste received by the facility into secondary raw materials (for example pet bales, paper bales, and fertiliser) which are suitable for the substitution of primary raw materials; AND 2. Implemented measures to prevent and control potential environmental pollution are implemented and made publicly available; AND 3. The sunset date for an activity classified under the Amber criteria is 31 December 2029 after which the facilities must meet the Green Criteria
Red	Does not meet Green or Amber criteria
Applicable standards/ Best Practice Examples	1. UNEP Topic Sheet – Extended Producer Responsibility (Link) 2. Voluntary EPR initiatives in Thailand include Thailand Institute of Packaging and Recycling Management for Sustainable Environment (TIPMSE) and Packaging Recovery Organization Thailand Network

Annex II Applicable Laws	
5. Waste to Energy	1. The Enhancement and Conservation of National Environment Quality Act, B.E.2535 (1992) and (No. 2) B.E. 2561 (2018) 1) Notification of the Ministry of Natural Resources and Environment, Establishment of controlling standards for wastewater from industrial factories, industrial estates and industrial zones, B.E. 2559 (2016). 2) Notification of the Ministry of Natural Resources and Environment Prescribing Standards for Controlling Air Emissions from factory 3) Notification of the Ministry of Natural Resources and Environment on Descriptions of Factory Types and Sizes of Industrial Factories as Pollution Sources Subject to Odor Intensity Control for Air Emissions 4) Notification of the Ministry of Natural Resources and Environment Prescribing Standards for Controlling Odor Intensity Emission from Pollution Sources 2. Public Health Act, B.E. 2535 (1992) 1) Ministerial Regulation of Public Health on the Management of Toxic or Hazardous Waste from Communities, B.E. 2563 (2020) 2) Ministerial Regulation of Public Health on the Joint Management of Infectious Waste Between Local Government Authorities and Other Local Government Agencies or State Agencies, B.E. 2564 (2021) 3) Ministerial Regulation of Public Health on the Disposal of Infectious Waste (No. 2), B.E. 2564 (2021) 4) Ministerial Regulation of Public Health on Sanitary Standards for General Waste Management, B.E. 2560 (2017) . . .

Do No Significant Harm (DNSH)

Generic DNSH Requirements	
Objective	**Description**
Climate change mitigation	For an activity to demonstrate that it will do no significant harm with respect to factors related to climate change mitigation, the following must be implemented: • The manager should calculate Scope 1 and Scope 2 emissions related to the activity as well as Scope 3 emissions if material to the sector in question. Estimation of emissions referring to credible international or national proxies such as Intergovernmental Panel on Climate Change (IPCC) and Thailand Greenhouse Gas Management Organization (TGO) may be used.; • The manager should identify potential risk to other people or assets to directly increase their GHG emissions as the result of the activity's implementation.; • The manager should take actions to minimise GHG emissions associated with the implementation of the activity, including, but not limited to installation of monitoring and leak prevention measures (if applicable).
Climate change adaptation	• Any activity seeking to demonstrate its compliance with DNSH related to climate change adaptation must conduct a Climate Risk and Vulnerability Assessment (CRVA) in accordance with the guidance provided in Annex III: Climate Risk and Vulnerability Assessment (CRVA). • The manager of the activity should strive to minimise adaptation risks revealed throughout the CRVA. Adaptation solutions should support system adaptation that takes into consideration regional and national adaptation strategies and plans.
Sustainable use and protection of marine and water resources	• Risks associated with water consumption and water quality must be identified, assessed and mitigated to the biggest possible extent. Water risk analysis tools must be used for this purpose (e.g. risk assessments by national environmental authorities, water footprint, WWF Water Risk Filter, WRI Aqueduct or comparable). • If assets or activities are located in water-stressed areas, may be affected by floods or water quality issues, ensure that water use and conservation management plans, developed in consultation with relevant stakeholders, have been implemented. • Ensure that water use/conservation management plans (including monitoring, reporting and verification methodology), developed in consultation with relevant stakeholders, have been developed and implemented as per international standards and guidelines. (e.g., UNEP Framework for Freshwater Ecosystem Management; ISO 13.060: Water Quality or comparable).

Specific DNSH Requirements	
Objective	**Description**
Climate change mitigation	An assessment of the potential significant harm caused to the environment by an Activity must be conducted if the Activity causes GHG emissions including methane which contribute to Climate Change. Where an Activity is applicable and deemed relevant based on the above assessment, the following actions should be in place, for which evidence is required as part of an assessment to determine if the Activity is causing significant harm to EO1: • Plans for the management and minimisation of Scope 1, Scope 2 emissions related to the Activity, as well as Scope 3 if relevant to the sector under assessment; • Evidence that the remediation plans have been implemented and are ongoing.

Do No Significant Harm (DNSH)

Generic DNSH Requirements	
Objective	**Description**
Promotion of resource resilience and transition to a circular economy	• In order to assess whether the activity in question is doing significant harm to this objective, a lifecycle assessment inline with ISO 14040 and ISO 14044 (or any comparable international methodology) should be conducted on the products, material, process, or other measurable activities. • The activity manager should implement concrete demonstrable measures to maximise the efficient use, reduction, repair, recycling and reuse of materials during the activity operational life cycle (e.g. through contractual agreements with recycling companies and integration of the cost of recycling), proper treatment and waste disposal (e.g. proper end-of-life management of batteries) and compliance, as a producer, with Extended Producer Responsibility standards must be demonstrated. • New installations must be designed and manufactured for high durability, easy to dismantle, refurbishment and recycling to the extent possible. Potential of repair of facilities and equipment, and the accessibility and interchangeability of the activity's equipment components must be ensured. • The activity shall apply relevant national regulations and international guidelines associated with retirement and dismantlement plans for plants and infrastructure related to the activity.

Specific DNSH Requirements	
Objective	**Description**
Promotion of resource resilience and transition to a circular economy	Avoid mixing segregated waste fractions in waste storage or transfer facilities.

Do No Significant Harm (DNSH)

Generic DNSH Requirements	
Objective	**Description**
Pollution prevention and control	• A recognised environmental management system (ISO 14001, EMAS, or comparable) should be adopted for the enterprise where the activity takes place. • Ensure the activity undergoes screening to assess whether it leads to the manufacture, placing on the market, or use of dangerous substances (as defined by relevant Thailand laws and regulations), whether on their own, in mixtures, or in articles, and causes significant harm to the environment. • Integrated Environmental Assessment in line with the UN Environment Programme's Guidelines for Conducting Integrated Environmental Assessments5 must be conducted for the activity to specifically identify and manage environmental detrimental risks related to the emission of pollutants, heat, light or noise to the environment. • It must be demonstrated that neither the construction nor operation of the activity is emitting dangerous substances, noise, light or heat in excess of those allowed by relevant national or international regulations. Furthermore, the achievement of applicable air, water and soil quality targets should not be hampered due to the activity. • In the case that the construction and/or operation of the activity is known to cause significant harm to the environment, the activity must identify risk-based measures to prevent the pollution, and safely remediate any contamination caused by the activity. • Based on the EIA, ensure that management plans are developed for every pollutant causing significant harm. Management plans are to be drafted in consultation with relevant stakeholders. Furthermore, Monitoring, Reporting and Verification strategies are to be implemented to monitor the compliance and effectiveness of the mitigation measures.
Specific DNSH Requirements	
Objective	**Description**
Pollution prevention and control	Ensure emissions to air, water and soil are prevented/minimised as per international and national standards and guidelines (e.g. IFC EHS Guidelines: Air emissions and ambient air quality; ISO 14001:2015 Environmental Management systems – Requirements with guidance for use; Strategic Approach to International Chemicals Management (SAICM); ISO 11014:2019(en) Safety data sheet for chemical products). ● For activities that produce leachate such as compost of bio-waste and hazardous waste treatment: the site must have a system in place that monitors leachate quality and minimizes leachate reaching groundwater ● For activities that combust biogas or such as Landfill Gas Capture and Anaerobic Digestion: emissions to air (e.g. Sox, NOx) after combustion must be controlled, abated (when needed) and within the limits set by national legislation. ● For wastewater related activities: identify and manage risks related to water quality and/or water consumption at the appropriate level, in accordance to national standards.

Do No Significant Harm (DNSH)

Generic DNSH Requirements	
Objective	**Description**
Protection and restoration of biodiversity and ecosystems	• The determination of whether a biodiversity related environmental impact assessment (EIA) is required for a particular activity or not is made through a case-by-case examination of the activity6. If applicable, an Integrated Environmental Assessment (EIA) in line with the UN Environment Programme's Guidelines for Conducting Integrated Environmental Assessments must be conducted for the activity. • The activity manager must mitigate all potential risks for biodiversity and ecosystems associated with activity implementation that were identified throughout the EIA. • Ensure the Biodiversity and Ecosystem Management Plans are developed in consultation with relevant stakeholders. Furthermore, ensure that the Monitoring, Reporting and Verification strategies are implemented to monitor the compliance and effectiveness of the mitigation measures. • New financed facilities and infrastructure should not be located in ecosystems that are strategic for food security, rich in biodiversity, or that serve as habitat for endangered species (flora and fauna) that are in the Thailand lists of nationally protected areas or on the IUCN Red List. Museums or technical facilities (specifically electronic communications network equipment and facilities used to originate, process, transfer, transmit or receive electronic communications calls and information signals) necessary for their functioning are exempt from this requirement. • For sites and operations located in or near biodiversity sensitive areas (defined as areas included into, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment must be carried out in line with the criteria set by IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources9. For these sites, a long-term biodiversity monitoring and assessment programme must be adopted.

Application of DNSH criteria to Thailand taxonomy activities - Waste

No.	Activity	Climate change mitigation	Climate change adaptation	Sustainable use and protection of marine and water resources	Promotion of resource resilience and transition to a circular economy	Pollution prevention and control	Protection and restoration of biodiversity and ecosystems
1.	Anaerobic digestion of bio-waste or wastewater	Generic + Specific	Generic	Generic	Generic + Specific	Generic + Specific	Generic
2.	Composting of bio-waste	Generic + Specific	Generic	Generic	Generic + Specific	Generic + Specific	Generic
3.	Collection and transport of waste	Generic	Generic	Generic	Generic + Specific	Generic + Specific	Generic
4.	Depollution and dismantling of end-of-life products	Generic	Generic	Generic	Generic + Specific	Generic + Specific	Generic
5.	Waste to Energy	Generic	Generic	Generic	Generic + Specific	Generic + Specific	Generic
6.	Landfill gas capture and utilisation	Generic + Specific	Generic	Generic	Generic	Generic + Specific	Generic
7.	Remediation of contaminated sites and areas	Generic	Generic	Generic	Generic + Specific	Generic + Specific	Generic
8.	Remediation of legally non-conforming landfills and abandoned or illegal waste dumps	Generic + Specific	Generic	Generic	Generic + Specific	Generic + Specific	Generic
9.	Sorting and material recovery from nonhazardous waste	Generic	Generic	Generic	Generic + Specific	Generic + Specific	Generic
10.	Treatment of hazardous waste	Generic	Generic	Generic	Generic + Specific	Generic + Specific	Generic
11.	Construction, extension, upgrade, operation and renewal of decentralized wastewater collection and treatment	Generic + Specific	Generic	Generic	Generic	Generic + Specific	Generic
12.	Construction, extension, upgrade, and operation of centralised wastewater collection and treatment	Generic + Specific	Generic	Generic	Generic	Generic + Specific	Generic
13.	Renewal of centralised wastewater collection and treatment	Generic + Specific	Generic	Generic	Generic	Generic + Specific	Generic

Minimum Social Safeguards (MSS)

The eligible asset or activity must ensure that it does not generate a negative social impact and observe minimum social safeguards (MSS). For this, the owner of the activity must adhere to the relevant local regulatory framework and policies, relevant internationally recognised principles and conventions, and have a social management system in place. The minimum number of laws, standards and regulations that should be observed by the owner includes (including, but not limited to):

- United Nations Guiding Principles on Business and Human Rights (2011)

International Labour Organisation core conventions:

- Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
- Right to Organise and Collective Bargaining Convention, 1949 (No. 98)
- Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol)
- Abolition of Forced Labour Convention, 1957 (No. 105)
- Minimum Age Convention, 1973 (No. 138)
- Worst Forms of Child Labour Convention, 1999 (No. 182)
- Equal Remuneration Convention, 1951 (No. 100)
- Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

International Bill of Human Rights conventions:

- Universal Declaration of Human Rights (1948)
- International Covenant on Civil and Political Rights (1966)
- International Covenant on Economic, Social and Cultural Rights (1966)

The practices of activity owner must also be in line with the following IFC Performance Standards, where applicable:

1. Performance Standard 1: Assessment and management of environmental and social risks and impacts.
2. Performance Standard 2: Labour and working conditions
3. Performance Standard 3: Resource efficiency and pollution prevention
   (in parts where it does not contradict to the DNSH requirements of the present Taxonomy)
4. Performance Standard 4: Community Health and Safety
5. Performance Standard 5: Land Acquisition and Involuntary Resettlement
6. Performance Standard 6: Biodiversity Conservation
7. Performance Standard 7: Indigenous Peoples
8. Performance Standard 8: Cultural Heritage

Example of User Application

THAILAND TAXONOMY

Examples of a wide range of Thailand Taxonomy applications

Corporate Reporting & Strategy

- **Sustainability Reporting:** Companies can report the percentage of their economic activities (e.g. CapEx, revenue) that meet the taxonomy criteria.
- **Strategic Planning:** Identifying areas for green investment and transition within the company to improve taxonomy alignment over time.
- **Supply Chain Management:** Encouraging suppliers to adopt more sustainable practices that align with taxonomy criteria.

Financial Products

- **Structuring Green Bonds/Loans:** Defining eligible projects and activities for which proceeds can be used.
- **Creating Sustainable Investment Funds:** Setting criteria for portfolio selection.
- **Benchmarking:** Comparing the sustainability level of different financial products.

Investment Decisions

- **Screening:** Identifying investments that meet specific environmental criteria.
- **Due Diligence:** Assessing the environmental performance and risks of potential investments or loans.
- **Portfolio Allocation:** Shifting capital towards taxonomy-aligned assets.

Policymaking

- **Developing Green Standards and Incentives:** Using the taxonomy as a basis for official green labels for financial products or services.
- **Informing Public Spending:** Guiding government investments and public procurement towards sustainable options.
- **Monitoring National Progress:** Tracking the growth of the green economy.

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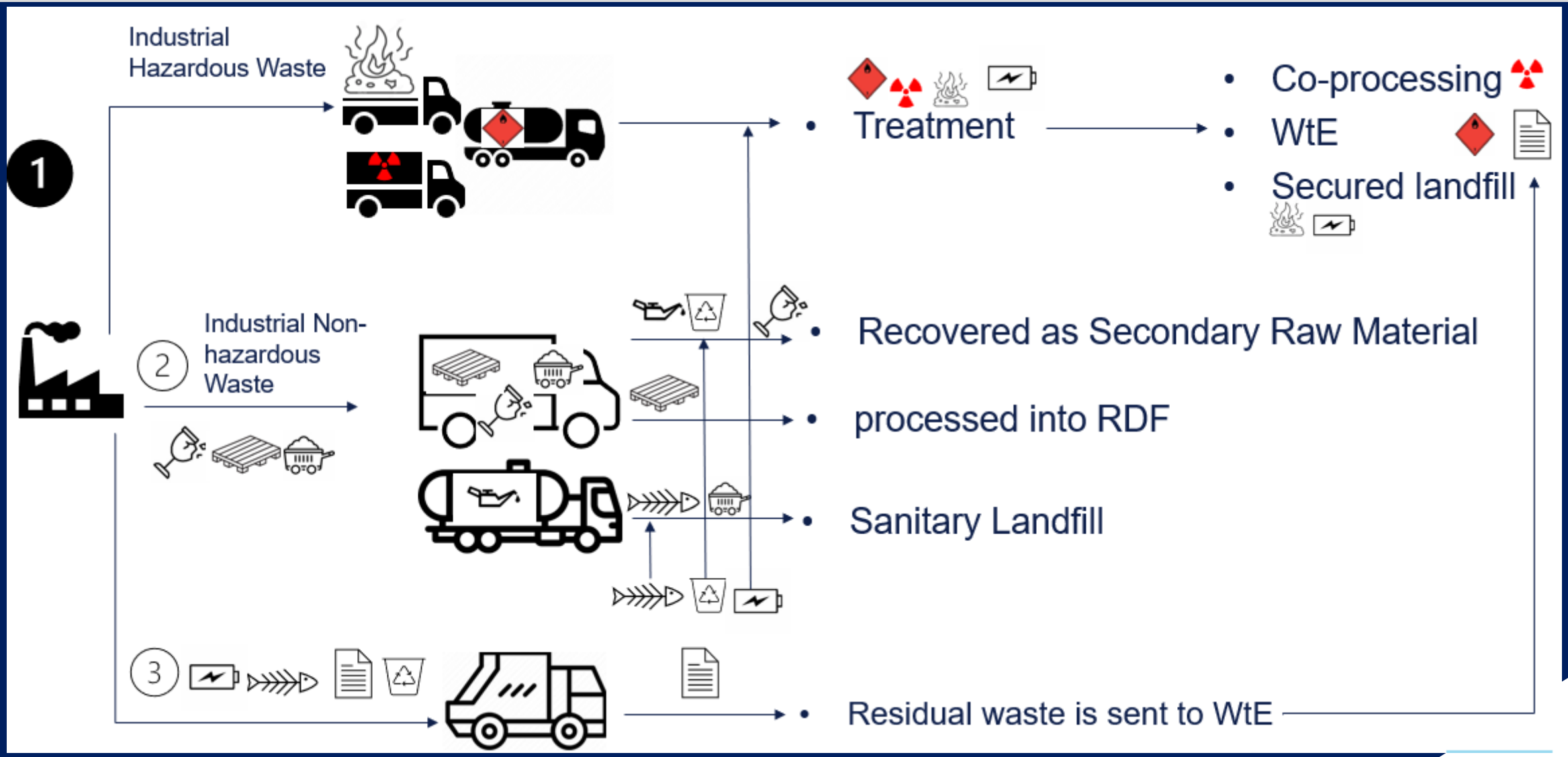
Case Study 1: 105/106 Factory



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Case Study 1: 105/106 Factory

4 Activities operated by Company A:

Activity 1 - Collection and Transportation of:
- Industrial hazardous waste (EO5)
- Industrial non-hazardous waste (EO4)
- Waste from municipalities (EO4)

Activity 2 - Low Carbon Transport (EO1)

Activity 3 - WtE (EO1)

Activity 4 - Treatment of Hazardous Waste (EO5)

Activity 1 – Collection and transportation of industrial hazardous waste (EO5) (Stream 1)

Example of checklist	Example of evidence	Result
1a) source segregated?	SOP, Photos, Interviews	**Yes**
1b) Prevent leakage during collection?	SOP, Photos, Interviews	**Yes**
1c) packaged and labelled?	SOP, Photos	**Yes**
1d) Records of hazardous waste collected?	Records showing quantity, nature, origin, destination, frequency,...	**Yes**
1e) Compliance with ADR? (only for tanker truck)	Internal audit report	**Yes**
1f) Storage complies with national law?	SOP, Photos	**Yes**
1g) Waste spill rehearsed every 12 months?	Rehearsal plan log, agenda, photos	**Yes**
1h) GPS installed, >1 year log book?	Vehicle log book, GPS tracking system	**Yes**
2) Transportation Requirements?	Tor Ror Or 1, Vehicle Maintenance Procedure	**Yes**

Activity 1 – Collection and transportation of industrial non-hazardous waste (EO4) (Stream 2)

Example of checklist	Example of evidence	Result
1) source segregated?	SOP, Photos, Manifest	**Yes**
2) Transported to material/energy recovery?	SOP, Interviews	2.1 Material Recovery for Glass and Used Oil, – **Yes** 2.2 Energy Recovery for Pallets – **Yes, as material recovery is not feasible** 2.3 Sludge – **Out of Scope**
3) Meet Transportation Requirements?	Tor Ror Or 1, Vehicle Maintenance Procedure	**Yes**

Activity 1 – Collection and transportation of Municipal Solid Waste (EO4) (Stream 3)

Example of checklist	Example of evidence	Result
1) source segregated by 31 Dec 2029?	SOP, Photos	**Yes**
2) Transported to material/energy recovery?	SOP, Interviews	2.1 Material Recovery of recyclables – **Yes** 2.2 Hazardous Waste – **Yes** 2.3 Bio-waste – **Out of Scope**. Can move to Green if sent to composting facility. 2.4 Residual Waste - **Yes**
3) Meet Transportation Requirements?	Tor Ror Or 1, Vehicle Maintenance Procedure	**Yes**

Activity 1 – Collection and transportation of Waste (Assessment Results)

Waste Stream	Conclusion
1) Industrial Hazardous Waste	100% **Green**
2) Industrial Non-Hazardous Waste	• **Green** for Glass, Used Oil, and Pallets. • **Out of Scope** for Sludge • Capex/Opex for Tanker Truck carrying Used Oil is 100% eligible. *As the truck transports the mixture of Green and Out-of-Scope, the truck is not eligible for Green Bond. However, disclosure can be eligible on a pro-rate basis.*
3) Waste from Office and Canteen	• **Green** for recyclables, hazardous waste, and residual waste. • **Out of scope** for bio-waste. It can be moved to Green if bio-waste is sent to composting facility. *As the truck transports the mixture of Green and Out-of-Scope, the truck is not eligible for Green Bond. However, disclosure can be eligible on a pro-rate basis.*

Activity 2 – Low Carbon Transport (EO1)

Assessment Result: Electric Vehicles are automatically **Green** under Thailand Taxonomy Low Carbon Transport (EO1). Proceed to DNSH&MSS Assessment.

Activity 3 – WtE (EO1)

Example of checklist	Example of evidence	Result
1) Recyclables and hazardous waste have been removed?	SOP	**Yes**
2) Plant efficiency >25%?	Calculation Sheet	**Yes**
3) Metal ash recovery >75%?	Calculation Sheet	**Yes**
4) Bottom/Fly Ash Management System?	SOP, lab result	**Yes**
5) CoP Monitoring Reports, CEMS Report shared?	Stakeholders Interview, Reports	**Yes**
6) Certified environmental management system?	Valid ISO14001 certificate	**No**

Assessment Result: Red

Activity 4 – Treatment of Hazardous Waste (EO5)

Example of checklist	Example of evidence	Result
1.a) pre-acceptance procedures?	SOP, Waste Processor Manifest	**Yes**
1.b) acceptance procedures?	SOP, Waste Processor Manifest	**Yes**
2) Treated to the level specified by law?	SOP	**Yes**
3) Final disposal is in accordance with national law	SOP, lab result	**Yes**

Assessment Result: **Green**

Case Study 2: Sugarcane and sugar factory

Business profile	Core Business: A medium-sized factory in a key sugarcane-growing province of Thailand, the company oversees the full sugar production process — from cultivating its own cane and sourcing from local farmers to processing, energy generation from bagasse, wastewater management, packaging, and factory maintenance.
GHG emissions hotspots	Scope 1: Emissions from on-site farming (fertiliser use, machinery), bagasse combustion, internal transport, and wastewater treatment. Scope 2: Purchased electricity for factory operations, mainly during off-season or when cogeneration is limited. Scope 3: Emissions from contract farming, cane transport, packaging production, and sugar distribution.

Existing operations of sugar manufacturing business

- Production of sugarcane in own farmland
- Operation of sugar manufacturing factory
- Operation of wastewater treatment plant

Planned Activities

1. Install drones and precision agriculture equipment to improve the practice of sugarcane production
2. Acquisition and Replacement of Freight Transport with Electric Vehicles (EVs)
3. Improve and upgrade equipment/machines in the factory to save energy
4. Construction a cogeneration of heat and power plant using baggage residual from the factory
5. Upgrade the wastewater treatment plant to be able to reuse the effluent in the factory

Future operations of sugar manufacturing business

- Greener Plantation and cultivation of sugarcane in own farm
- Greener Operation of sugar manufacturing factory
- Greener Operation of wastewater treatment plant
- New Operation of a biomass cogeneration of heat and power plant

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Case Study: Sugarcane and sugar factory

Defining taxonomy alignment

1. Install drones and precision agriculture equipment to decrease inefficiencies and save resources	**Relevant Sector under Thailand Taxonomy:** Agriculture
	Relevant Activity under Thailand Taxonomy: Sustainable production of sugar cane
	Relevant Environmental Objective under Thailand Taxonomy: • EO1: Climate Change Mitigation • E02 Climate Change Adaptation
	Taxonomy-aligned assessment: the farm prepares a list of documents that needs to prove that the transformation project that they want to implement is compliant with the Taxonomy. First, the farm checks whether it complies with all relevant national laws and regulations regarding the type of production. The farm provides a statement of compliance with them, listing all relevant laws for the accepting party to review. After that, the farm selects the practice from the relevant activity table (Table 3 of the Agricultural annex), provides its description and reference to the Taxonomy document. After that, the farm prepares an Integrated Farm Management Plan (IFMP) which includes a statement of compliance with all relevant DNSH requirements and a statement of substantial contribution to the taxonomy objectives prepared in line with the examples provided in the Taxonomy. All these documents are submitted to the accepting party.
	Reporting: Inputs required to implement this transformation such as drones, auxiliary equipment, precision agriculture equipment and training can be procured, and the funds that were used to procure them can be labeled as "Taxonomy-aligned CAPEX." Ongoing operating expenses related to these specific practices can be reported as Taxonomy-aligned OpEx. Revenues coming from selling the farm production (sugarcane in this case) after the transformation project is completed can be reported as Taxonomy-aligned Revenue. However, only revenues from farm products that were transformed throughout the transformation project are considered aligned. This product-level alignment lasts for two years after project completion, after which the farm must repeat or implement new practices to maintain the status. If the farm grows other crops, only the revenue from the compliant sugarcane would be aligned.

Case Study: Sugarcane and sugar factory

Defining taxonomy alignment

2. Acquisition and Replacement of Freight Transport with Electric Vehicles (EVs)	**Relevant Sector under Thailand Taxonomy:** Transportation
	Relevant Activity under Thailand Taxonomy: Freight transport by road
	Relevant Environmental Objective under Thailand Taxonomy: • EO1: Climate Change Mitigation
	Taxonomy-aligned assessment: This activity can be classified as "Green" if it complies with the following criteria: direct (tailpipe) CO2 emissions of vehicles are zero AND vehicles are not dedicated to fossil fuel transport, which is likely to be the case. To be taxonomy-aligned, the owner must also comply with Do No Significant Harm (DNSH) criteria and Minimum Social Safeguards (MSS).
	Reporting: The expenditure for acquiring and replacing the freight transport vehicles with compliant EVs can be reported as Taxonomy-aligned CapEx. Operating expenses for these specific compliant EVs (e.g., maintenance) can be reported as Taxonomy-aligned OpEx. If the activity of providing freight transport using these compliant EVs is considered Taxonomy-aligned (Green), then a proportion of the net turnover derived from this specific aligned activity can be reported as Taxonomy-aligned Revenue.

Case Study: Sugarcane and sugar factory

Defining taxonomy alignment

3. Improve and upgrade equipment/machines in the factory to save energy	**Relevant Sector under Thailand Taxonomy:** Manufacturing
	Relevant Activity under Thailand Taxonomy: Auxiliary transition activity
	Relevant Environmental Objective under Thailand Taxonomy: • EO1: Climate Change Mitigation
	Taxonomy-aligned assessment: This activity can be classified as "Green" or “Amber” if it complies with the following criteria under the activity card in that Taxonomy: Introduction of energy efficiency and decarbonisation measures in manufacturing activities not specified in the Thailand Taxonomy. To be taxonomy-aligned, the owner must also comply with Do No Significant Harm (DNSH) criteria and Minimum Social Safeguards (MSS).
	Reporting: Expenditures for these energy-saving equipment upgrades can be reported as “Taxonomy-aligned CapEx” if they contribute to meeting the Green or Amber criteria for this auxiliary activity and comply with DNSH/MSS. Operating expenses associated with these upgraded machines and the relevant operational changes can be reported as Taxonomy-aligned OpEx. *Revenue reporting* is linked to the overall sugar manufacturing business. The Taxonomy-aligned revenue is the proportion of turnover from aligned activities. If these energy efficiency improvements, combined with other potential measures, lead to the entire sugar manufacturing activity being assessed as Taxonomy-aligned (SBTi trajectory for Green, OR one of the two options for Amber) under this auxiliary activity, then a proportion of the total revenue from the sugar manufacturing business could be reported as Taxonomy-aligned.

Case Study: Sugarcane and sugar factory

Defining taxonomy alignment

4. Construction a cogeneration of heat and power plant using baggage residual from the factory	**Relevant Sector under Thailand Taxonomy:** Energy
	Relevant Activity under Thailand Taxonomy: Cogeneration of heating/cooling and power using renewable sources of energy
	Relevant Environmental Objective under Thailand Taxonomy: • EO1: Climate Change Mitigation
	Taxonomy-aligned assessment: To be aligned, this plant must meet the specific TSC defined for this type of energy generation. *Status Potential:* Aligned (potentially Green or Amber depending on the specific TSC defined for this activity) if relevant TSC and DNSH/MSS are met or planned for remediation.
	Reporting: The expenditure for the construction of this cogeneration plant can be reported as Taxonomy-aligned CapEx if the completed plant meets the Green criteria for this activity and complies with DNSH/MSS. Ongoing operating expenses for running the compliant cogeneration plant are eligible as Taxonomy-aligned OpEx. The revenue generated by this activity (e.g., selling excess power/heat back to the grid) can be reported as Taxonomy-aligned Revenue if the activity is assessed as Green.

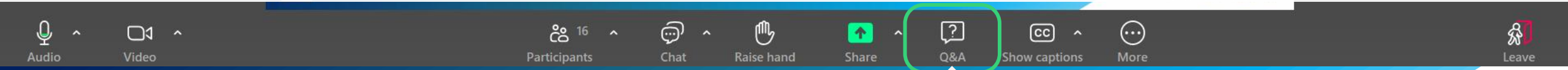
Case Study: Sugarcane and sugar factory

Defining taxonomy alignment

5. Upgrade the wastewater treatment plant to be able to reuse the effluent A in the factory	**Relevant Sector under Thailand Taxonomy:** Waste Management
	Relevant Activity under Thailand Taxonomy: Construction, extension, upgrade, operation and renewal of decentralised wastewater collection and treatment
	Relevant Environmental Objective under Thailand Taxonomy: • EO4: Resource Resilience and Transition to a Circular Economy
	Taxonomy-aligned assessment: This activity can be classified as "Green" if it complies with the following criteria: 1. Water is for purposes other than human consumption; 2. Water is suitable for reuse after proper treatment depending on the level of contamination and subsequent reuse purposes in accordance with national regulations. For this activity to be considered aligned with the Taxonomy, it must also comply with Do No Significant Harm (DNSH) criteria and Minimum Social Safeguards (MSS).
	Reporting: The expenditure for upgrading the wastewater treatment plant can be reported as Taxonomy-aligned CapEx if the completed, upgraded plant meets the criteria for the relevant wastewater activity and complies with DNSH/MSS. Operating expenses for running the compliant, upgraded wastewater treatment plant are eligible as Taxonomy-aligned OpEx. Reusing treated effluent primarily results in cost savings (reduced water procurement) rather than direct revenue generation. While the activity itself (treating and reusing water) might be Taxonomy-aligned, the revenue alignment would typically depend on the alignment status of the overall entity's primary revenue-generating activity (sugar manufacturing). Therefore, there is no taxonomy-aligned revenue to be reported for this activity.

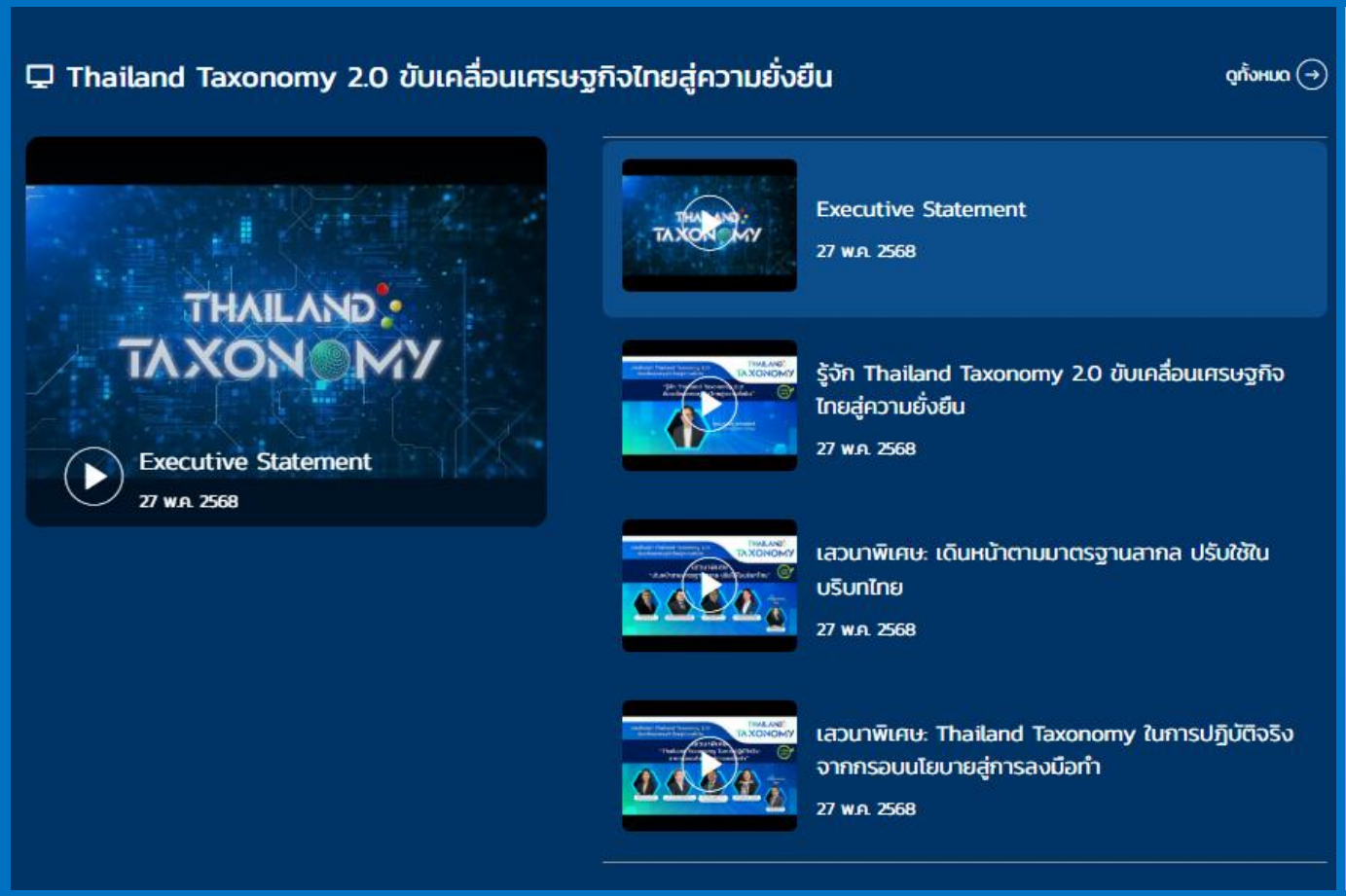
INTRODUCTION
THAILAND TAXONOMY

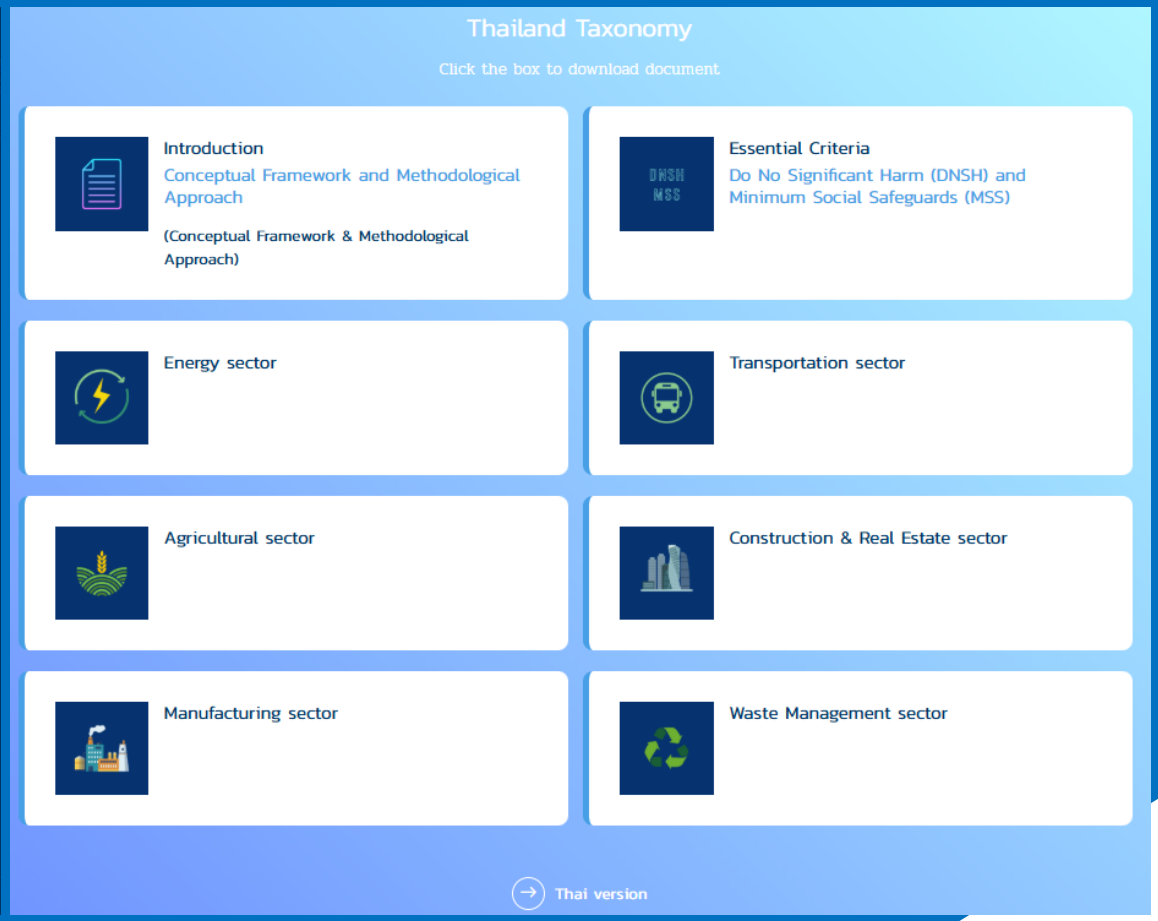
Q&A



Please submit your question using the Q&A feature.

For more resources, please visit the official websites of the organisations under the Thailand Taxonomy Working Group.





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Coming up...

Online Webinar		
30 June 2025	13:30-16:00 ICT	Construction and Real Estate

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