



**Suruhanjaya Sekuriti**  
Securities Commission  
Malaysia

# DATA TO DISCLOSURES FORUM

**Strengthening Data Capacity for NSRF Reporting Entities**

Friday, 17 October 2025

9:00am – 12:30pm

Securities Commission Malaysia

Organised by the Advisory Committee  
for Sustainability Reporting (ACSR)



**Suruhanjaya Sekuriti**  
Securities Commission  
Malaysia

# Opening Remarks



**Dato' Mohammad Faiz Azmi**

Executive Chairman  
Securities Commission Malaysia  
Chair of the Advisory Committee on Sustainability  
Reporting (ACSR)





**Suruhanjaya Sekuriti**  
Securities Commission  
Malaysia

# Session 1: Introduction to the National Sustainability Reporting Framework and ISSB Standards



**Julian Hashim**

Chief Regulatory Officer  
Bursa Malaysia  
ACSR Member

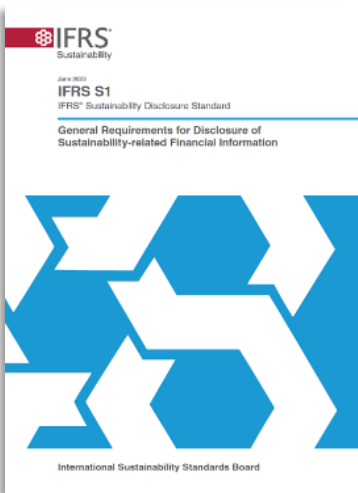
# NSRF, launched in September 2024, build upon and consolidate existing reporting frameworks

26 June 2023

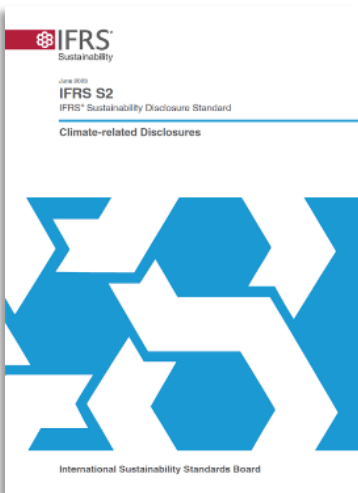
24 September 2024

12 June 2025

## Standards published

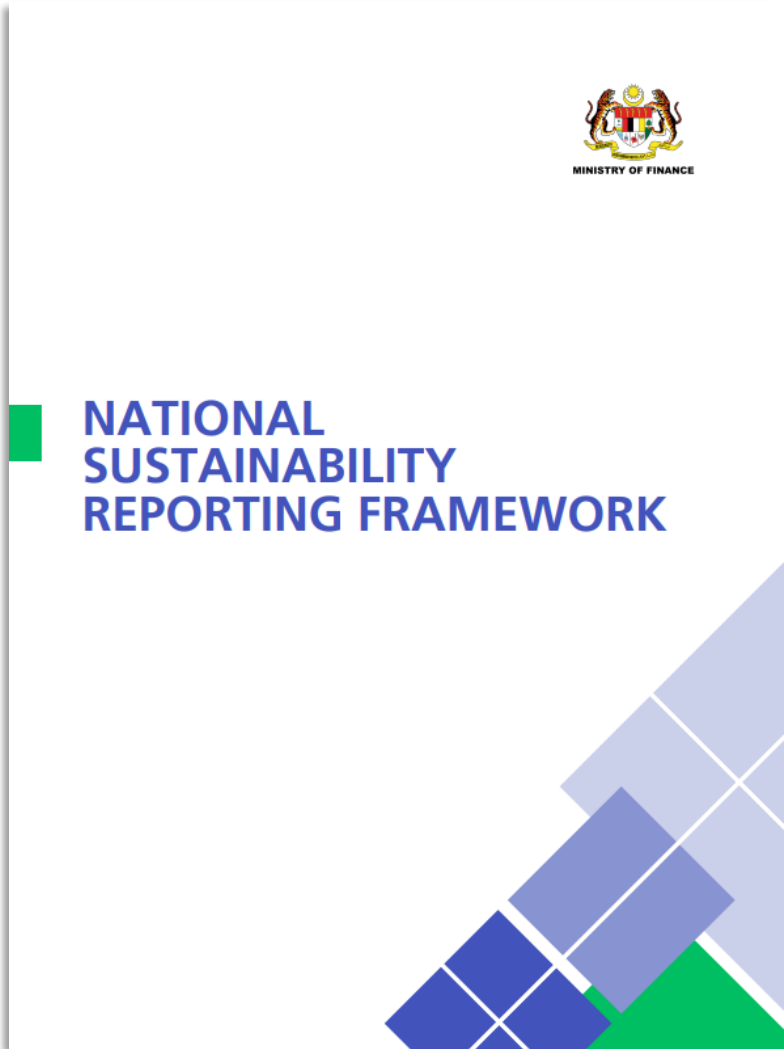


**IFRS S1**  
*General Requirements  
for Disclosure of  
Sustainability-related  
Financial Information*

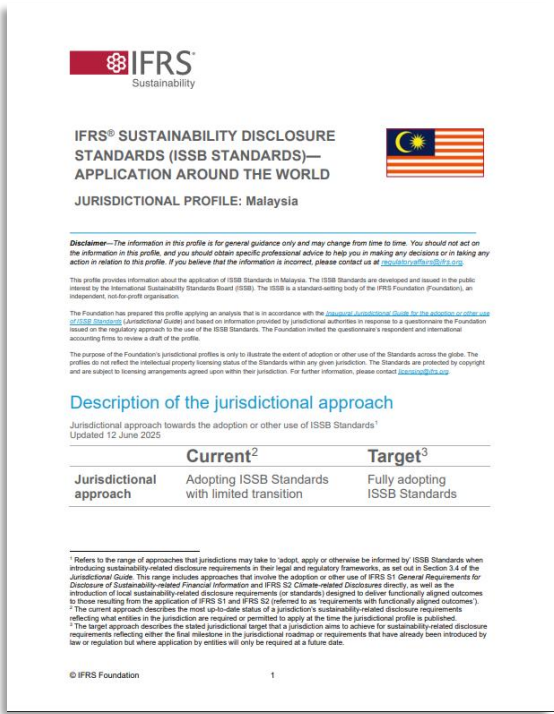


**IFRS S2**  
*Climate-related  
Disclosures*

## ISSB Standards adopted through National Sustainability Reporting Framework (NSRF)



## NSRF Alignment with ISSB Standards

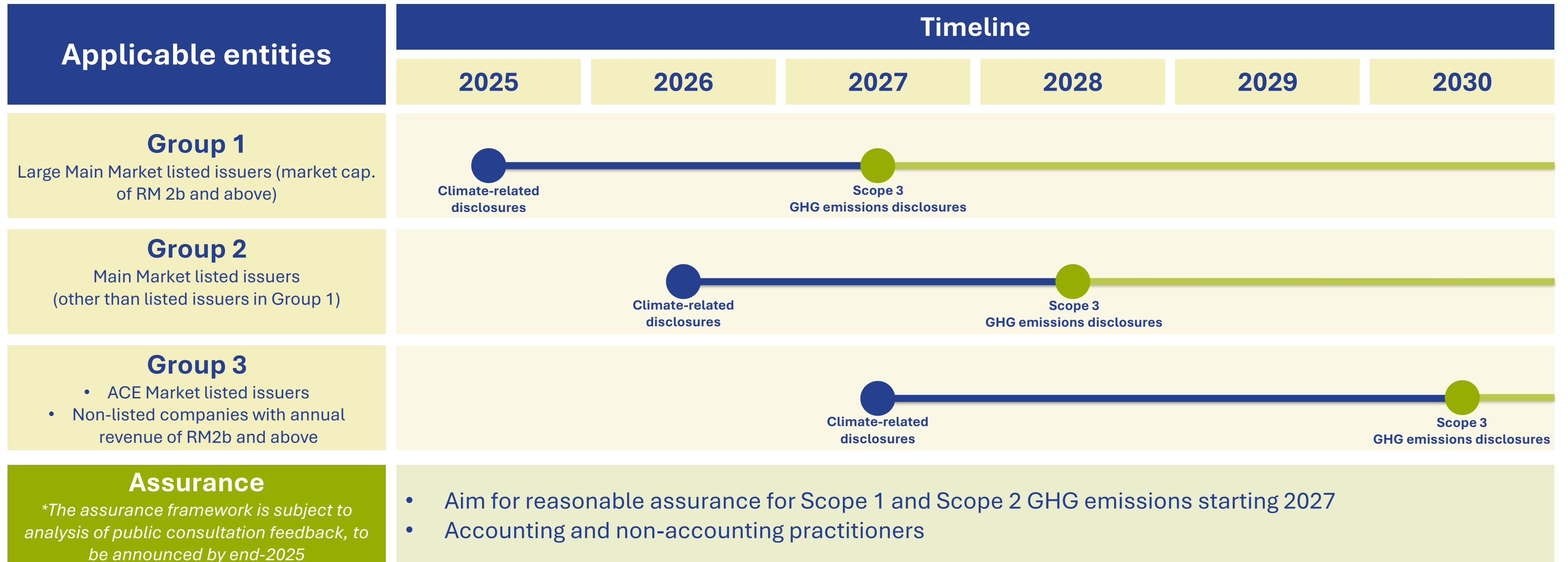


IFRS Jurisdictional Profiles acknowledged Malaysia as **adopting the ISSB Standards with limited transition** – the only jurisdiction in the ASEAN region.





# NSRF implementation will be through a phased approach starting 2025; Scope 3 GHG emissions disclosures on a deferred timeline



# Listing Requirement: Main Market Illustration



Scan for  
Circular

Listed issuer <sup>7</sup>	Sustainability Statements in annual report issued for FYE on or after:				
	31 December 2024	31 December 2025	31 December 2026	31 December 2027	31 December 2028 & onwards
Group 1	<ul style="list-style-type: none"> <li>Management of material economic, environmental and social risks and opportunities with prescribed information</li> <li>3 financial years' data and targets (if any) in relation to reported indicators and summary in prescribed format</li> </ul>	<b>Transitional</b> <ul style="list-style-type: none"> <li>Management of climate-related risks and opportunities in accordance with the IFRS Sustainability Disclosure Standards</li> <li>Quantitative Information</li> <li>Statement of Assurance</li> </ul> <i>[paragraph 6.0 of Practice Note 9 &amp; paragraph 2.0 of Practice Note 9A]</i> <i>A listed issuer is encouraged to use the IFRS S1 when reporting the non-climate SROs.</i>		<b>Full Adoption</b> <ul style="list-style-type: none"> <li>Management of SROs in accordance with the IFRS Sustainability Disclosure Standards</li> <li>Quantitative Information</li> <li>Statement of Assurance</li> </ul> <i>[paragraph 6.0 of Practice Note 9]</i>	
Group 2	<ul style="list-style-type: none"> <li>Statement of Assurance</li> <li>9 Common Sustainability Matters<sup>8</sup></li> </ul> <i>[paragraphs 3.0, 4.1(a) and Annexure PN9A-A of Practice Note 9A]</i>	<ul style="list-style-type: none"> <li>Management of material economic, environmental and social risks and opportunities with prescribed information</li> <li>3 financial years' data and targets (if any) in relation to reported indicators and summary in prescribed format</li> <li>Statement of Assurance</li> </ul> <i>[paragraph 4.1(b) and Part A of Annexure PN9A-A of Practice Note 9A]</i>	<b>Transitional</b> <ul style="list-style-type: none"> <li>Management of climate-related risks and opportunities using the IFRS Sustainability Disclosure Standards</li> <li>Quantitative Information</li> <li>Statement of Assurance</li> </ul> <i>[paragraph 6.0 of Practice Note 9 &amp; paragraph 2.0 of Practice Note 9A]</i> <i>A listed issuer is encouraged to use the IFRS S1 when reporting the non-climate SROs.</i>		<b>Full Adoption</b> <ul style="list-style-type: none"> <li>Management of SROs in accordance with the IFRS Sustainability Disclosure Standards</li> <li>Quantitative Information</li> <li>Statement of Assurance</li> </ul> <i>[paragraph 6.0 of Practice Note 9]</i>



# Listing Requirement: ACE Market Illustration



Scan for  
Circular

Sustainability Statements in annual report issued for FYE on or after:						
31 December 2024	31 December 2025	31 December 2026	31 December 2027	31 December 2028	31 December 2029	31 December 2030 & onwards
<ul style="list-style-type: none"> <li>Management of material economic, environmental and social risks and opportunities containing information that is balanced, comparable and meaningful</li> </ul> <p><i>[paragraph 3.0 of Guidance Note 11A]</i></p>	<ul style="list-style-type: none"> <li>Management of material economic, environmental, and social risks and opportunities with prescribed information</li> <li>3 financial years' data and targets (if any) in relation to reported indicators and summary in prescribed format</li> <li>Statement of Assurance</li> </ul> <p><i>[paragraph 4.0 of Guidance Note 11A]</i></p>	<p><b>Transitional</b></p> <ul style="list-style-type: none"> <li>Climate-related risks and opportunities in accordance with the IFRS Sustainability Disclosure Standards</li> <li>Quantitative Information</li> <li>Statement of Assurance</li> </ul> <p><i>[paragraph 6.0 of Guidance Note 11 &amp; paragraph 2.0 of Guidance Note 11A]</i></p> <p><i>A listed corporation is encouraged to use the IFRS S1 when reporting the non-climate SROs.</i></p>				<p><b>Full adoption</b></p> <ul style="list-style-type: none"> <li>SROs in accordance with the IFRS Sustainability Disclosure Standards</li> <li>Quantitative Information</li> <li>Statement of Assurance</li> </ul> <p><i>[paragraph 6.0 of Guidance Note 11]</i></p>

ACE Market Listing Circular : [ACE\\_Circular\\_-\\_ListedIssuers\\_-\\_SRF\\_GM\\_Tagging.pdf](#)

# ACSR is an inter-agency committee, chaired by the Securities Commission (SC)



Audit  
Oversight  
Board



BANK NEGARA MALAYSIA  
CENTRAL BANK OF MALAYSIA



BURSA  
MALAYSIA



- The role of ACSR is to identify the enablers that will facilitate the use of the standards; and
- Identifying other supporting elements that need to be in place including a framework for assurance and capacity building.

## Sustainability Assurance Working Group

The SAWG is working towards the **issuance of the Sustainability Assurance Framework by end of 2025.**

## PACE Working Group

Supports NSRF implementation. PACE will among others, **run capacity-building programmes and make available NSRF-related guidance materials and tools.**

## Implementation Working Group

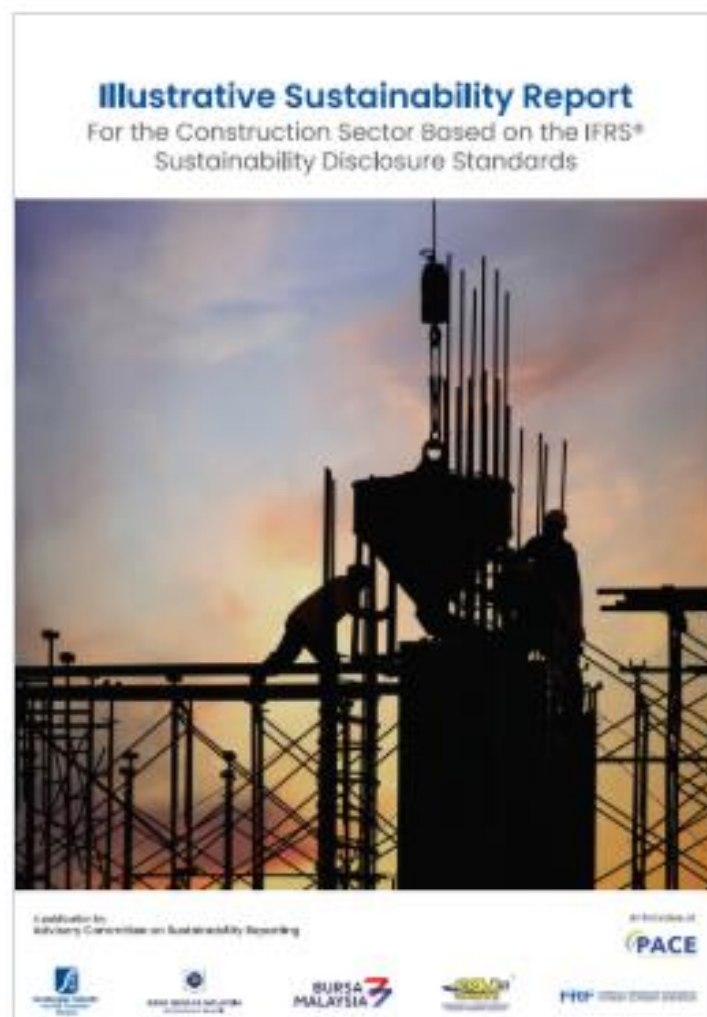
IWG is a platform **for the ACSR to get technical views and feedback** specifically on the interpretation, application and adoption of the standards in Malaysia.

Resources : [Policy Documents - Resources | Securities Commission Malaysia](#)

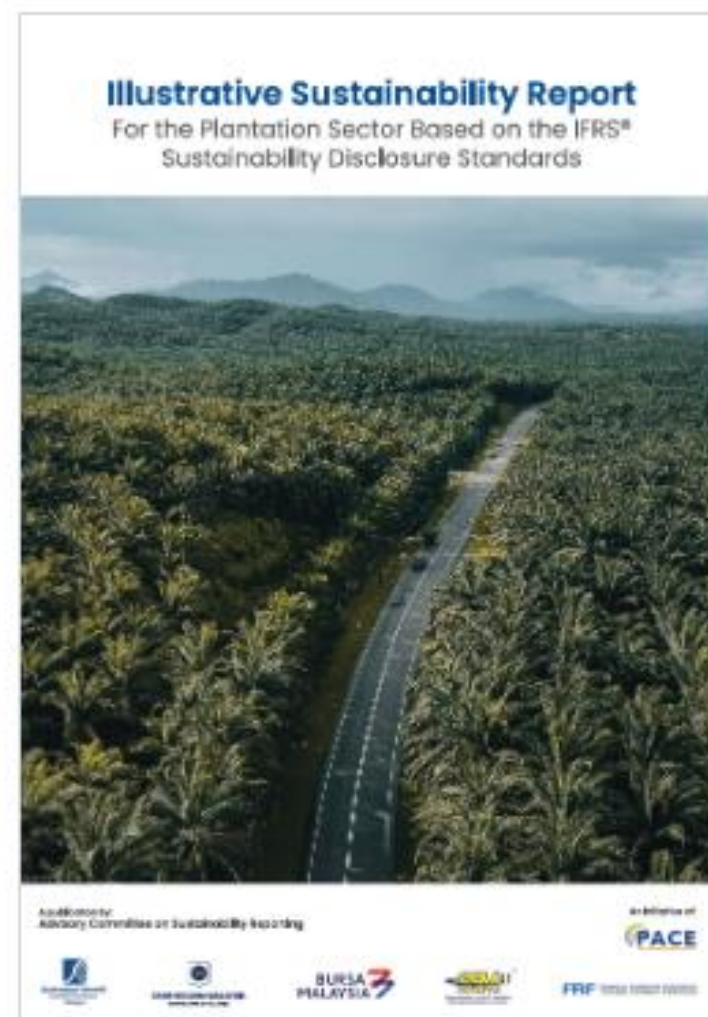


## Sample of Overview and Key Insight of ISR

The publication ***shows examples of a basis of preparation and selected sustainability notes*** for an entity which is required to report under the IFRS Sustainability Disclosure Standards, in line with Bursa Malaysia's Main Market Listing Requirements.



Scan for Construction ISR



Scan for Plantation ISR

### Structure of ISR

- Basis of preparation
- Overview of the company and value chain
- Reporting boundary
- Judgements and measurement uncertainty
- Materiality assessment
- Sustainability governance

### Reporting framework/criteria (Full compliance)

- **IFRS S1** "General Requirements for Disclosure of Sustainability-related Financial Information" (IFRS S1)
- **IFRS S2** "Climate-related Disclosures" (IFRS S2)
- **SASB Disclosures**
- Requirements of the **Main Market Listing Requirements** on Sustainability Reporting (in accordance with IFRS S1 and S2)

Supplementary Disclosures – GRI Standards

Illustration of **Application of Transition Reliefs (ATR)** application and **GRI Content Index**

## Sample of Overview and Key Insight of ISR - Plantation

**For each of the risk illustrated, the following information is disclosed**

- Description of risk, including effects on business model & value chain, strategy & decision making, financial effects, climate resilience and significant uncertainty (if any)
- Processes, controls and policies to manage risks
- Metrics and targets

**Appendix III sets out examples of opportunities which may be relevant to the industry**

Group structure and reporting boundaries		
Basis of preparation (Note 1)	Overview of the Group and value chain (Note 2)	Reporting boundary (Note 3)
Overview of process and governance		
Materiality assessment (Note 5)	Sustainability governance (Note 6)	
Sustainability-related risks and opportunities		
Risk	<b>Extreme weather events (Note 7.1)</b> The increased volatility, intensity, and duration of weather-related events in agriculture could lead to crop damage and harvest loss. This could result in a negative impact on crop yields and geographic suitability, which in turn can result in negative financial effects to the Group such as lost revenue.	<b>Effluents (Note 7.2)</b> The oil palm plantation industry discharges high volume of effluents from its operations. The quality of these effluents is subject to stringent regulations. Non-compliance to regulatory requirements can result in loss of the Group's sustainable palm oil certification status and directly impacting the Group's revenue.
	<b>Human Rights (Note 8)</b> The occurrence of modern slavery amongst workers within the Group as well as its' value chain (such as non-payment or late payment of wages, restrictions on freedom of movement, violence, threats) negatively impacts the Group's ability to recruit labour which will significantly impact its level of palm oil production.	
Opportunities	[Opportunities are not illustrated for the purpose of this ISR]	

Judgement and measurement uncertainties (Note 4)



# Conducting Materiality Assessment as set out in ISR

## Materiality assessments are done in two-steps

01

Identify sustainability-related risks and opportunities (SROs) that could be reasonably expected to affect the Group's prospects over the short, medium, and long term.

- Understand operations, resources & relationships
- Identify risks and opportunities
- Assess whether the risks and opportunities could reasonably be expected to affect the Group's prospect
- Mitigation actions and plans to remediate
- Final consolidation & approval of SROs

02

Identify material information – determination of the disclosures which are needed in relation to the SROs identified.

*Guided by the definition in **IFRS S1 para 18**:*

Information is material if omitting, misstating or obscuring that information could reasonably be **expected to influence decisions that the primary users make** on the basis of those reports, which include financial statements and sustainability-related financial disclosures and which provide information about a specific reporting entity.

# Today's forum aims to directly address feedback on reporting from industry

Our engagements with industry players (plantation, construction, banking, and insurance sectors) in Q2 and Q3 2025 identified the following data gaps, capacity needed

## Data gaps

- 3-year utility data (electricity, water)
- Climate-related data (flood hazard maps)

**Session 2: Leveraging National Climate Data: NAHRIM's N-HyDAA Platform**

**Session 6: Turning Sustainability Data Into Real Business Value**

## Capacity gaps and challenges faced

- Climate-related scenario analysis
- Quantifying financial impact of sustainability-related risks
- Integration of sustainability into financial statements
- Scope 3 emissions (e.g. financed emissions)
- Assessment and implementation of internal carbon pricing

**Session 3: Understanding Climate Scenario Analysis**

**Session 4: Integrated Reporting Across the Supply Chain: Bursa CSI Platform [Demo]**

**Session 5: Supporting SME Reporting: SEDG GHG Calculator [Demo]**

**PACE is developing "Deep Dive" modules on Scope 3 and Scenario Analysis**



# Thank you



*[www.sc.com.my/nsrf](http://www.sc.com.my/nsrf)*



*[nsrf@seccom.com.my](mailto:nsrf@seccom.com.my)*



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Malaysia

# Session 2: Leveraging National Climate Data: NAHRIM's N-HyDAA Platform



**Dr. Mohammad Fikry Abdullah**

Director  
Corporate Planning Division  
NAHRIM



# **UNLOCKING CLIMATE INSIGHT : WHY HYDROCLIMATE DATA PROJECTION MATTERS?**

## **How N - HyDAA Supports Strategic Water and Disaster Management**

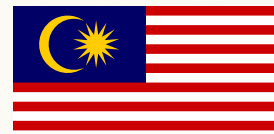
**Ts Dr Mohammad Fikry Abdullah**  
**Corporate Planning Division**  
**NAHRIM**





# NATURAL DISASTER IN MALAYSIA

## Malaysia Natural Disasters (2000 – 2025)



**82** Total Recorded Disasters



### Top Disaster Types

Floods – 66 events  
Storms – 5 events  
Epidemics – 4 events  
Landslides (mass movement wet)  
Earthquakes – 2 events



### Common Subtypes

Flood (general) – 34  
Riverine flood – 20  
Flash flood – 12  
Storm (general) – 4  
Viral disease – 3



### Quick Highlights

- Flooding is Malaysia's most frequent and damaging hazard.
- Most disasters happened after 2010, showing increasing trend with urban growth and extreme weather.

## FLOODS IN MALAYSIA

### March 2023

- Johor rainfall ~ **630 mm** in less than 48hrs
- Batu Pahat worst-hit district
- More than 40,000 people evacuated

### December 2021

- Selangor daily rainfall > 380 mm
- “Once in a century” disaster
- 45 dead
- 40,000 people evacuated

### December 2006

- Johor daily rainfall reached 289mm.
- 6 dead
- >60,000 people evacuated.
- RM1.5 billion cost of damage

### November 2024

- Floods in Kelantan, Terengganu & Kedah
- Damages totalling RM933.4 mil (23% increase from 2023)

### February 2022

- Floods in East Coast
- 8 districts in Terengganu badly affected
- 6,680 people evacuated

### December 2014

- Kelantan worst-hit state
- 354,800 people affected
- 21 dead
- Worst in decades
- USD 560 million property damage



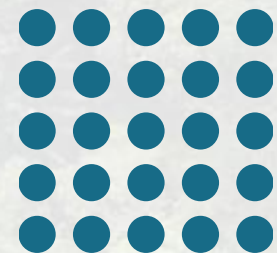
# CLIMATE CHANGE STUDY



- Study of The Impact of Climate Change on The Hydrologic Regime and Water Resources of Peninsular Malaysia (2006) - IPCC AR3
- Climate Projection Downscaling for Malaysia Using Hadley Centre PRECIS Model (2010)
- Study of the Impact of Climate Change on Sea Level Rise (SLR) in Malaysia (2010) - IPCC AR4;
- 2010: Study of the Impact of Climate Change on Hydrologic Regime and Water Resources of Sabah and Sarawak - IPCC AR3
- 2014: Extension Study of the Impact of Climate Change on the Hydrologic Regime and Water Resources of Peninsular Malaysia - IPCC SRES AR4
- Study of the Impact of Climate Change on Sea Level Rise (SLR) in Malaysia (2017) - IPCC AR5;
- 2020: Extension Study of the Impact of Climate Change on the Hydrologic Regime of Malaysia - IPCC AR5
- 2023: Study of the Impact of Climate Change on Sea Level Rise (SLR) in Malaysia - IPCC AR6;
- **2025: Study of the Impact of Climate Change on the Hydrologic Regime of Malaysia - IPCC AR6**



# N-HYDAA CHRONOLOGY



**2015**  
**N-HyDAA**  
**Proof of Concept**  
**(POF)**

**2017**  
**N-HyDAA**  
**Utilising &**  
**Promoting**

**2022**  
**N-HyDAA**  
**Data Updating**  
**(AR 5 Data)**

**2016**  
**N-HyDAA**  
**Full System**  
**Development**

**2018**  
**N-HyDAA**  
**Data Updating**  
**(Sabah & Sarawak)**

**2024/2025**  
**N-HyDAA**  
**System Updating**  
**(System Interface)**

Source : Book (MALAYSIA CLIMATE CHANGE  
KNOWLEDGE PORTAL NAHRIM) HYDROCLIMATE  
DATA ANALYSIS ACCELERATOR (N-HyDAA)





# NAHRIM HYDROCLIMATE DATA ANALYSIS ACCELERATOR

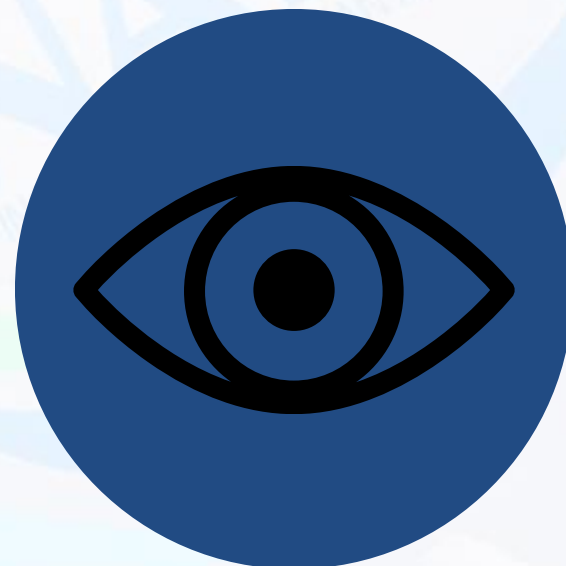


# THE OBJECTIVES

**STRENGTHENING  
CLIMATE CHANGE  
MITIGATION &  
ADAPTION ACTION** by  
Decision Makers &  
Stakeholder



**VISUALISE, IDENTIFY,  
DETECT & TRACE** water  
related risk & disaster using  
1450 simulations years  
(1970-2099)



To resolve **UNCOVER  
HIDDEN PATTERN,  
UNKNOWN  
CORRELATIONS AND  
PROJECTION** for trends  
of future hydroclimate



To enhance **RISK  
MANAGEMENT,  
TECHNOLOGY &  
ENGINEERING PRACTICES**





# WHY IS N-HYDAA IMPORTANT?

## How N-HYDAA Help Your Organization?

**Enables climate scenario analysis**

**Provides evidence-based decisions**

**Improves response time and risk assessment**

**Supports policy and infrastructure planning**

**Enhances collaboration**





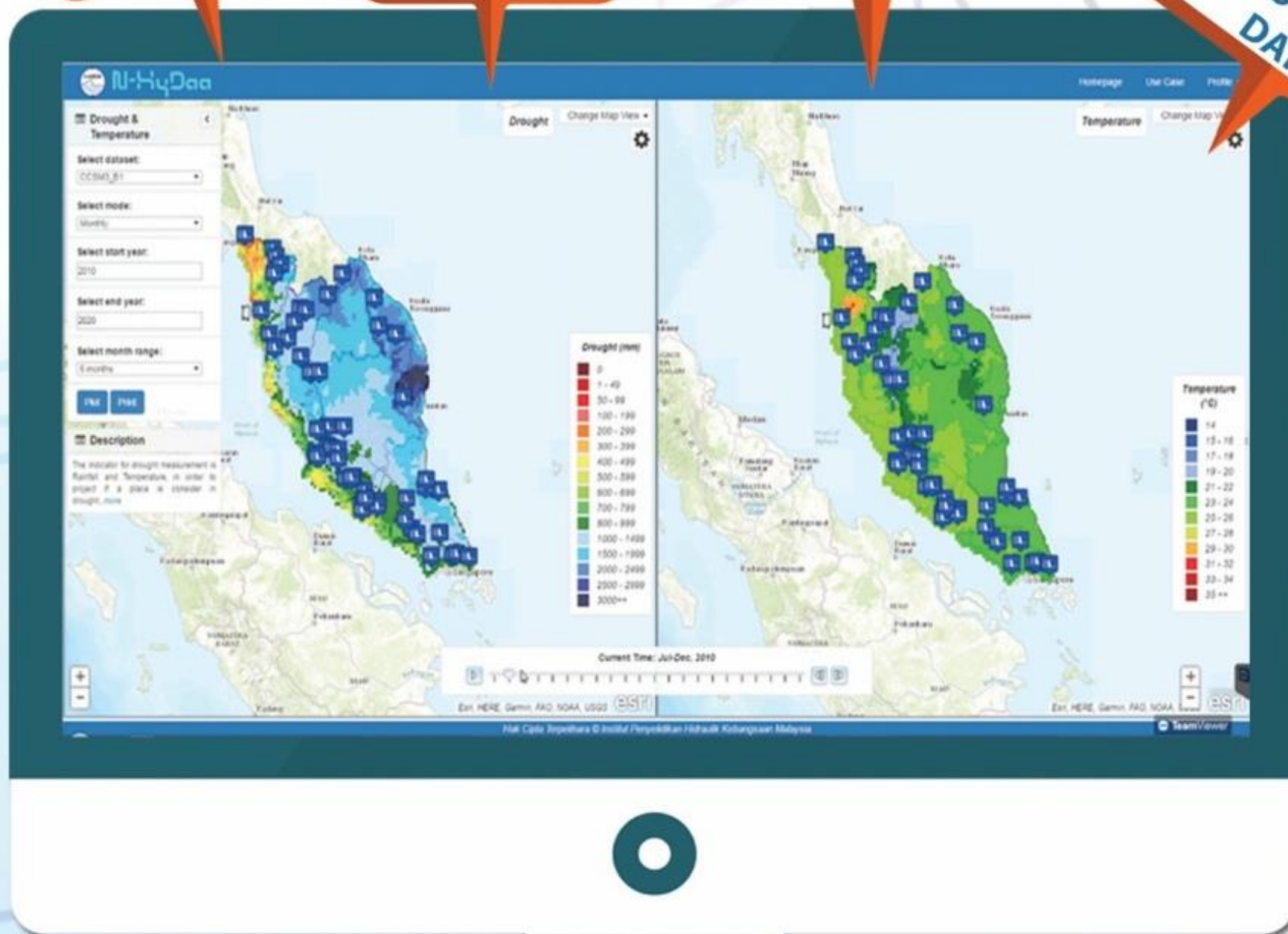
# N-HYDAA DATA

6KM X 6KM

3888 GRIDS

90 YEARS  
PROJECTION DATA  
(2010-2099)

10 BILLION  
HYDRO-CLIMATE  
DATA



RAINFALL  
& RUNOFF



DROUGHT



DROUGHT &  
TEMPERATURE



STREAM FLOW



STORM CENTRE



CLIMATE  
CHANGE FACTOR



WATER  
STRESS INDEX



WSI SIMULATION



# N-HYDAA MODULES

## Hydroclimate Analysis



### Rainfall (Semenanjung)

Analyze projected spatial and temporal rainfall patterns derived from climate model simulations.



### Rainfall (Sabah & Sarawak)

Analyze projected spatial and temporal rainfall patterns derived from climate model simulations.



### Temperature (Semenanjung)

Examine future temperature projections to evaluate thermal trends affecting hydrological systems.



### Temperature (Sabah & Sarawak)

Examine future temperature projections to evaluate thermal trends affecting hydrological systems.



### Runoff

Simulate surface runoff response to projected precipitation and land surface conditions.



### Storm Centre

Assess projected changes in storm frequency, intensity, and spatial distribution.



### Streamflow

Model future streamflow dynamics driven by projected hydroclimatic inputs.



### Rainfall Variability Index (RVI)

Examine rainfall variability throughout the years.

## Climate Change Factor (CCF)



### Rainstorm

Identify future high-intensity rainfall events with implications for flood risk and urban drainage.



### Climate Change Factor

Generate spatial flood risk layers using hydrologic-hydraulic modeling and extreme event projections.



### Low Flow & Drought

Detect and quantify future low-flow conditions and drought occurrences.

## Flood Analysis



### Flood Map

Generate spatial flood risk layers using hydrologic-hydraulic modeling and extreme event projections..



### Flood (NC4)

Generate spatial flood risk layers using hydrologic-hydraulic modeling for Malaysia Fourth National Communication (NC4) reporting.

## Water Stress Index (WSI)



### Water Yield

Estimate total water output from a watershed considering natural hydrologic processes.



### Water Yield Diff

Assess spatial or temporal differences in water yield to detect supply shifts and changes.



### Water Demand

Project sector-specific water requirements under various socio-economic assumptions.



### Water Provision

Analyze infrastructure capacity and source reliability to meet projected demand.



### Water Surplus Deficit

Evaluate water balance variations to identify periods of surplus or deficit.



### Water Stress Index (WSI)

Quantify water scarcity by comparing estimated demand with available supply.



### Alternative Water Resources

Evaluate non-conventional water sources such as harvesting and reuse systems.



# N-HYDAA FEATURES

Home > Hydroclimate Module > Rainfall

Rainfall

Select data type:

AR4

AR4

AR5

Select your dataset

Select mode:

Monthly

Select start year:

2026

Select end year:

Description

Rainfall shows the visualization of 6 x 6km gridded projected yearly, monthly...more

Rainfall

Select data type:

AR4

Select dataset:

Select your dataset

CCSM3\_A1B

CCSM3\_A1FI

CCSM3\_A2

CCSM3\_B1

ECHAM5\_A1B1

ECHAM5\_A1B2

ECHAM5\_A1B3

ECHAM5\_A2\_1

ECHAM5\_A2\_2

ECHAM5\_A2\_3

ECHAM5\_B1\_1

ECHAM5\_B1\_2

ECHAM5\_B1\_3

MRI\_A1B

MRI\_B1

AVG ALL

AVG 14

AVG A1B

AVG A2

AVG B1

Rainfall

Select data type:

AR4

Select dataset:

Select your dataset

Select mode:

Monthly

Yearly

Monthly

Weekly

Select end year:

Description

Rainfall shows the visualization of 6 x 6km gridded projected yearly, monthly...more

Select start year:

2026

Select end year:

2027

Select month range:

1 month

1 month

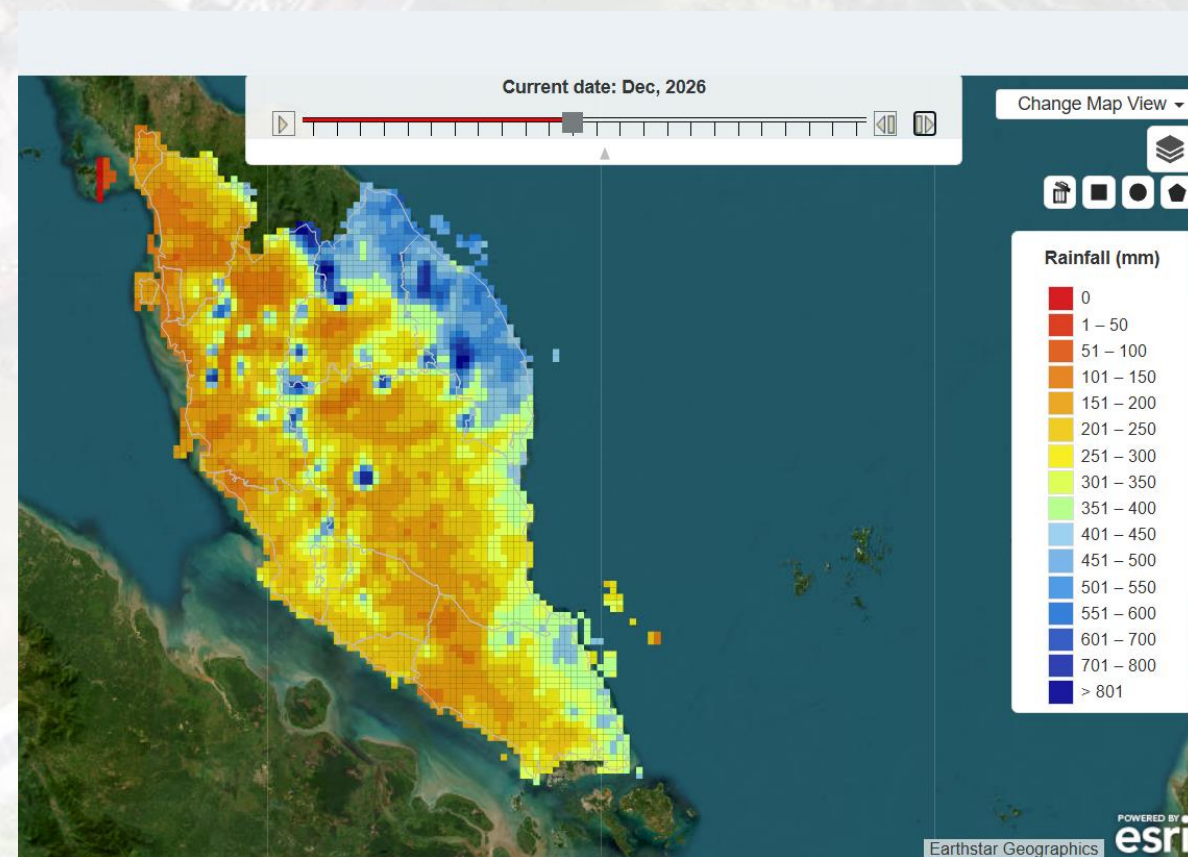
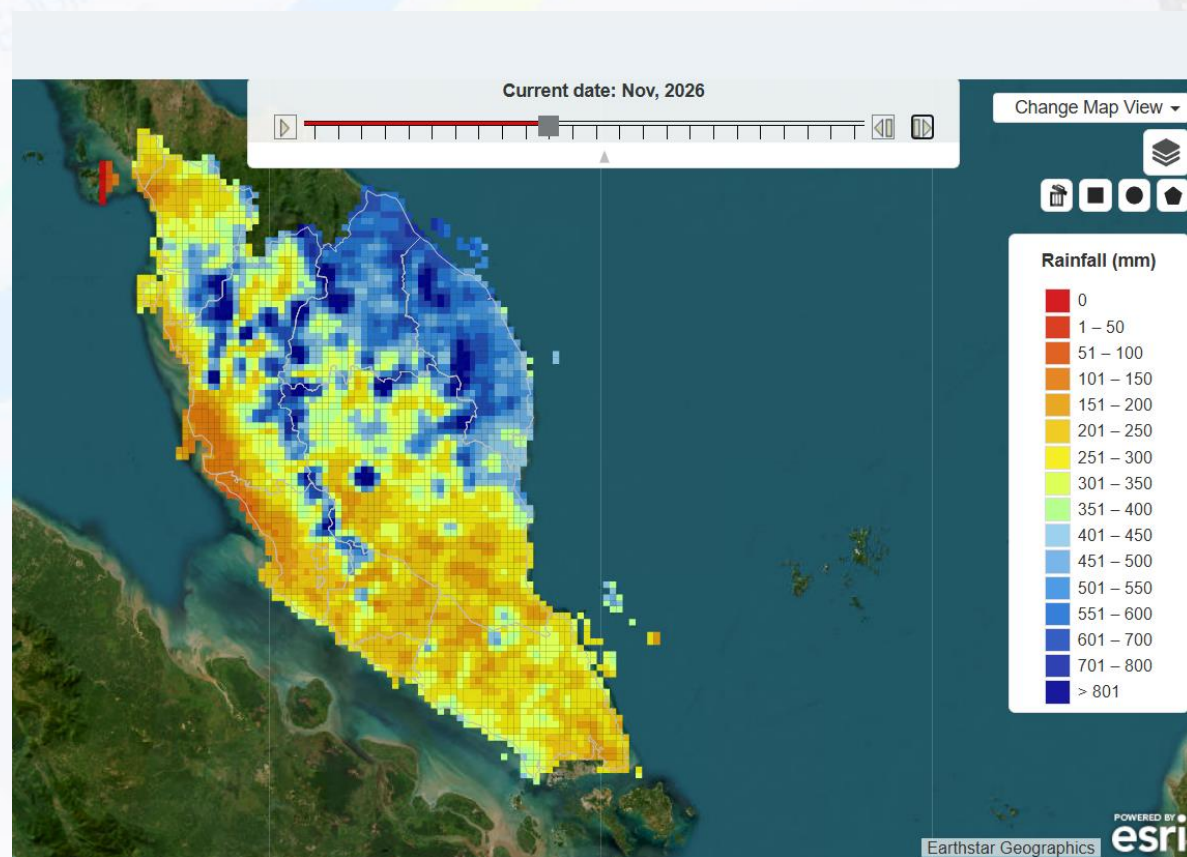
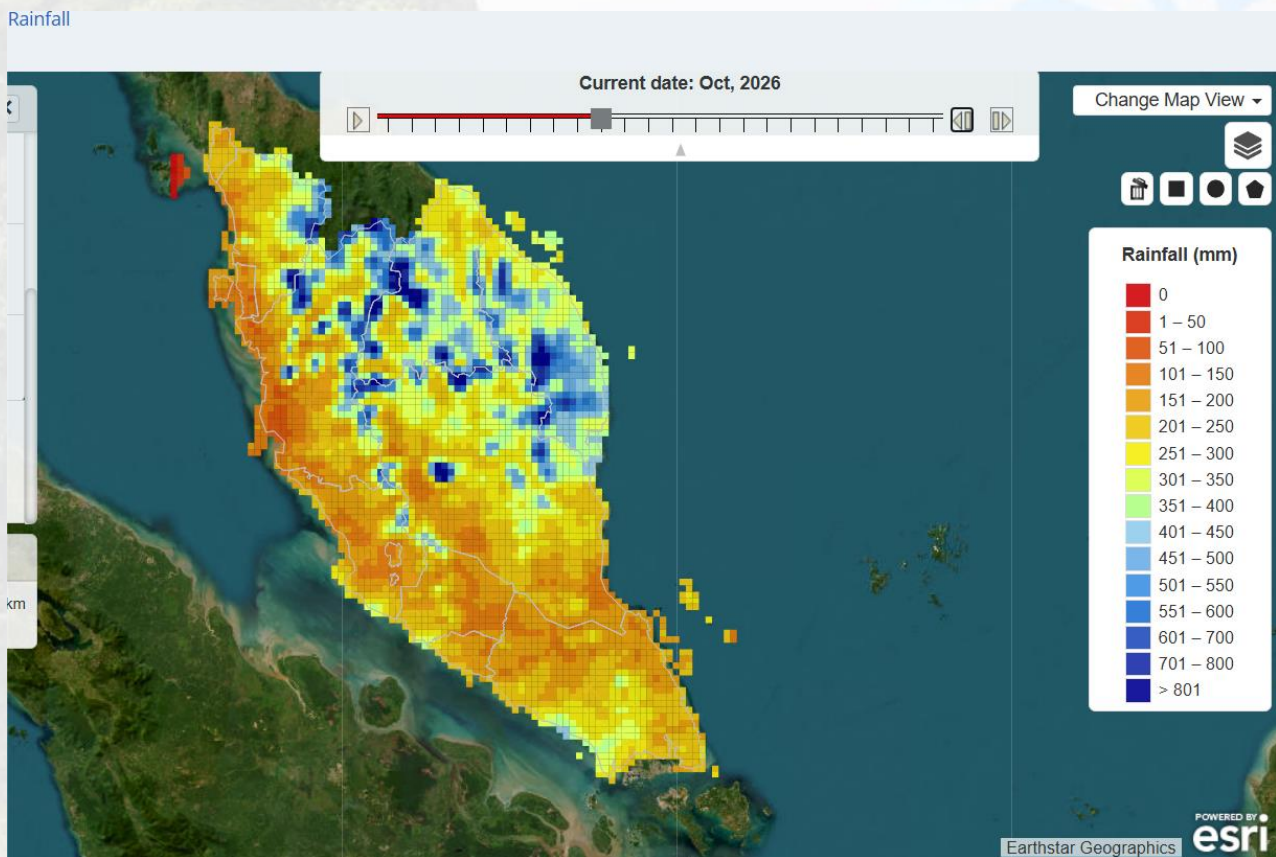
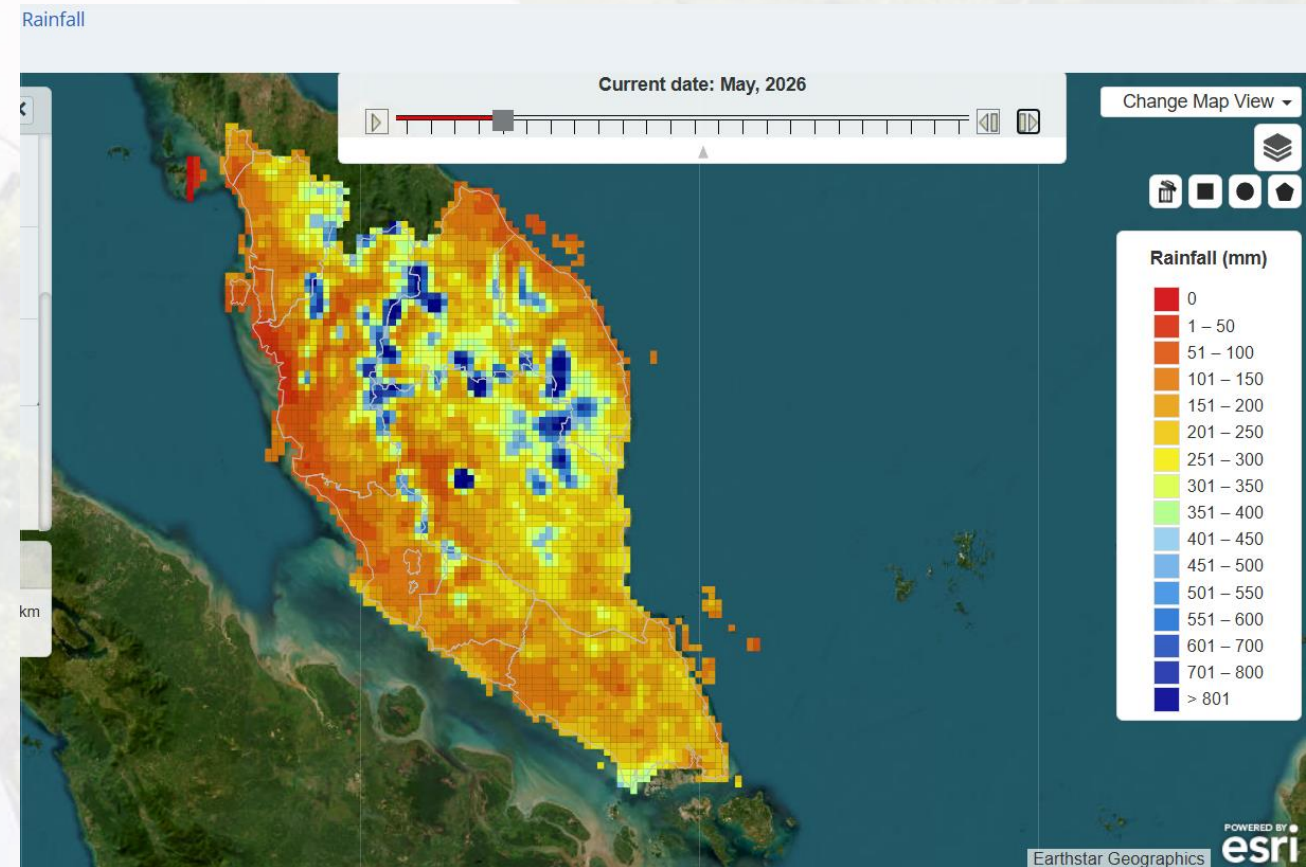
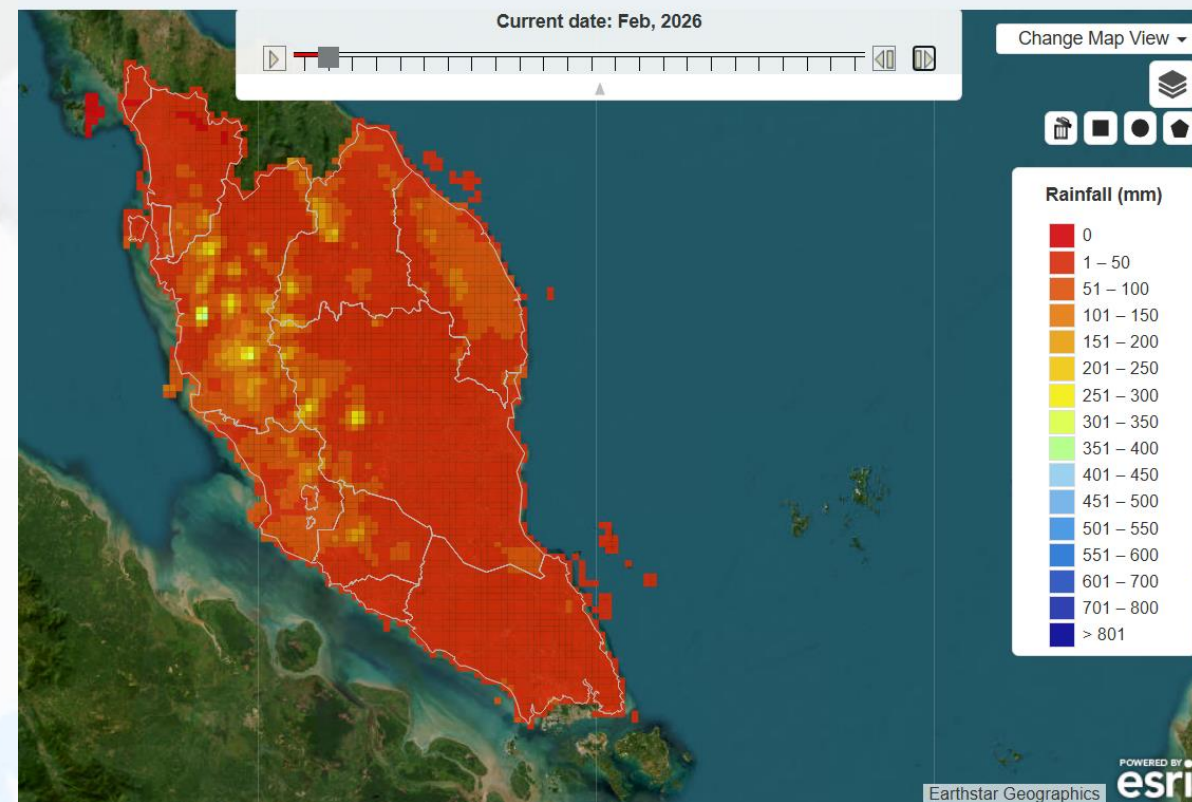
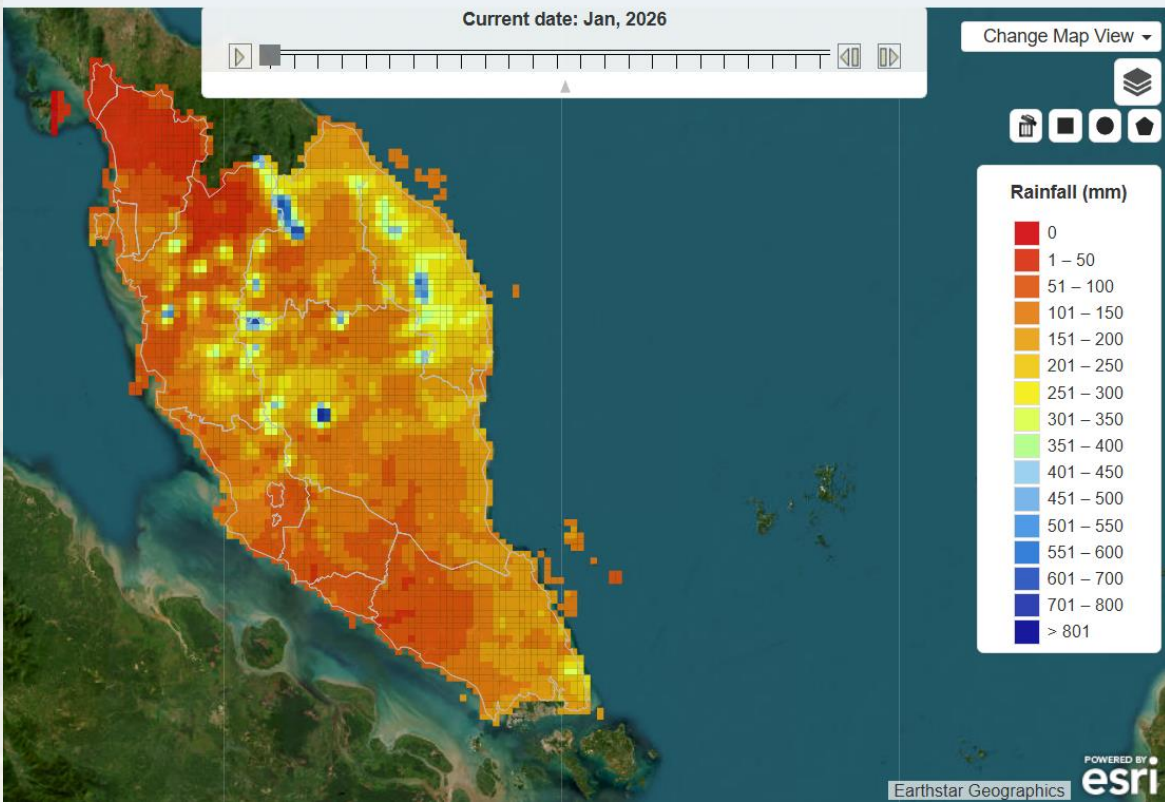
2 months

3 months

6 months



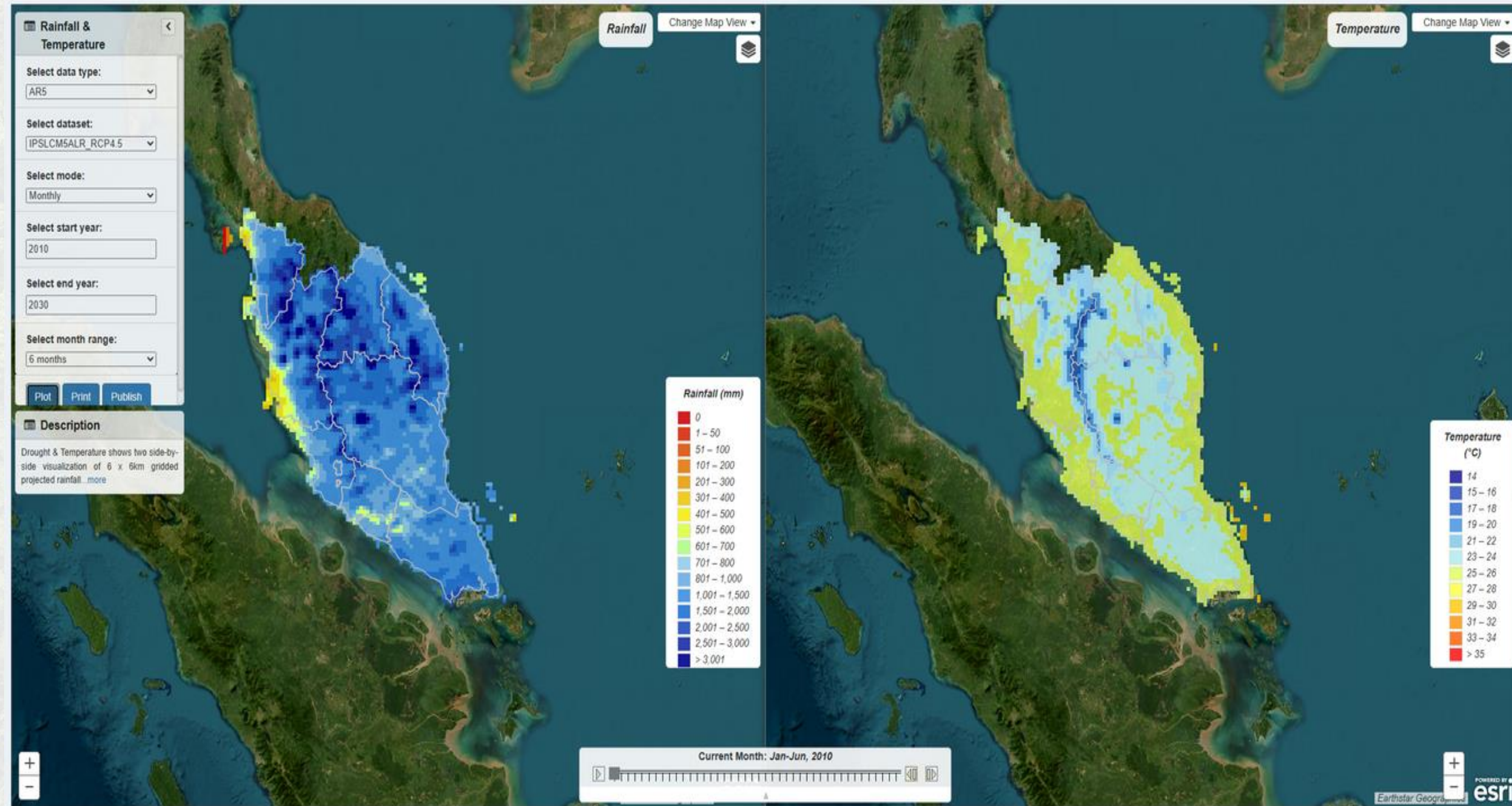
# N-HYDAA INTERFACE





# N-HYDAA INTERFACE

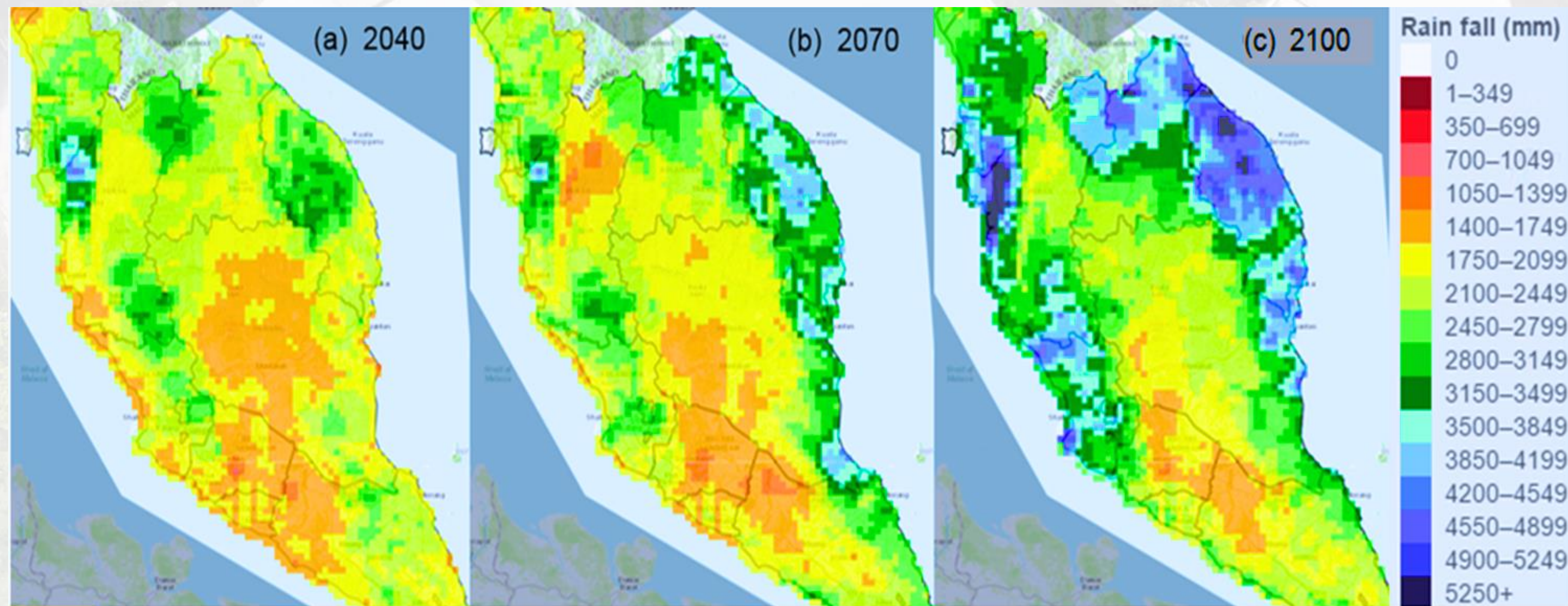
Home > Hydroclimate Module > Temperature





## DETECT, IDENTIFY, VISUAL & TRACE

POSSIBLE FUTURE RAINFALL TRENDS, DISTRIBUTION AND MAGNITUDE



- Minimizes risk management cost, loss of lives, infrastructures, properties & environmental degradation.
- Reduce water-related crisis – water supply & water demand
- Sustainable development – water-energy-food security





# NEXT STEPS / CALL TO ACTION



**Explore the N-HyDAA platform**

**Use data in planning**

**Collaborate with NAHRIM for climate scenario analysis**

**Integrate hydroclimate data in report**

1. Visit <https://n-hydaa.nahrim.gov.my/NahrimPublic>
2. Approval (1-2 business days)
3. Request Data (3-5 business days) – NAHRIM will prepare the data accordingly



# Thank You

**National Water Research Institute of Malaysia**  
(Ministry of Energy Transition and Water Transformation)



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43300 Seri Kembangan, Selangor



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Fax : 03-8948 3044



[www.nahrim.gov.my](http://www.nahrim.gov.my)



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# Session 2: Leveraging National Climate Data: NAHRIM's N-HyDAA Platform



**Dr. Mohammad Fikry Abdullah**

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Corporate Planning Division  
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*Submit your  
questions on Slido*





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Malaysia

# Session 3: Understanding Climate Scenario Analysis



**Farhana Jabir**

Director

Sustainability and Climate Change Practice

PwC Malaysia

*Submit your  
questions on Slido*







# Data to Disclosures Forum: Understanding Climate Scenario Analysis

Presentation by **Farhana Jabir**  
October 2025



# IFRS Sustainability Disclosure Standards requires PLCs to conduct scenario analysis to evaluate its resilience to climate-related risks

IFRS S2<sup>1</sup> requires entities to use scenario analysis to assess resilience to climate-related risks, including:

- an assessment of climate resilience as at the reporting date; and
- the basis of that assessment, i.e., how and when the climate-related scenario analysis was carried out.

## What is a climate scenario analysis?

A stress testing technique to **identify and assess the potential implications** of a range of events on a company's financial resilience

## Objectives of a scenario analysis

- 1 To define a **range of climate-related scenarios** for both **short- and long-term horizons**
- 2 To help **identify the information needed** to assess and price climate-related risks and opportunities
- 3 To enable organisations to **examine business resilience** to climate-related risks

## How does climate scenario analysis help in analysing risks and opportunities?

- 1 Inform **decision making** for strategic planning and/or enterprise risk management processes  
Considering the material climate risks and opportunities that the entity is exposed to and taking necessary action steps to manage them
- 2 Improve **disclosures** through documentation  
Keeping stakeholders informed on how the entity builds climate resilience and tracking progress towards decarbonisation in light of these climate risks and opportunities

<sup>1</sup> International Sustainability Standards Board (ISSB), *IFRS S2: Climate-related Disclosures* (London: ISSB, 2023), para. 22, 11-12, <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards-issb/english/2023/issued/part-a/issb-2023-a-ifrs-s2-climate-related-disclosures.pdf?bypass=on>.



# Scenario analysis does not predict the future; rather, it explores a range of possible outcomes based on selected climate scenarios.

Whilst there are no prescribed scenarios and approach to scenario analysis from the IFRS S2, guidance has been provided to steer companies based on academics and leading companies who have examined climate risks for many years.

## Key considerations for climate scenario analysis:

- ✓ To **select multiple scenarios**, covering a variety of future outcomes, both favourable and unfavourable ones.
- ✓ To **use a 2°C or lower scenario**, and additionally use two or three other scenarios most relevant to your circumstances
- ✓ To **challenge organisations' thinking about traditional planning horizons**, which are often too short. Choosing a time horizon is a trade-off between too short, where climate-related impacts have not developed sufficiently, and too long, where climate-related impacts are too uncertain.

## A scenario describes different possible future worlds ...

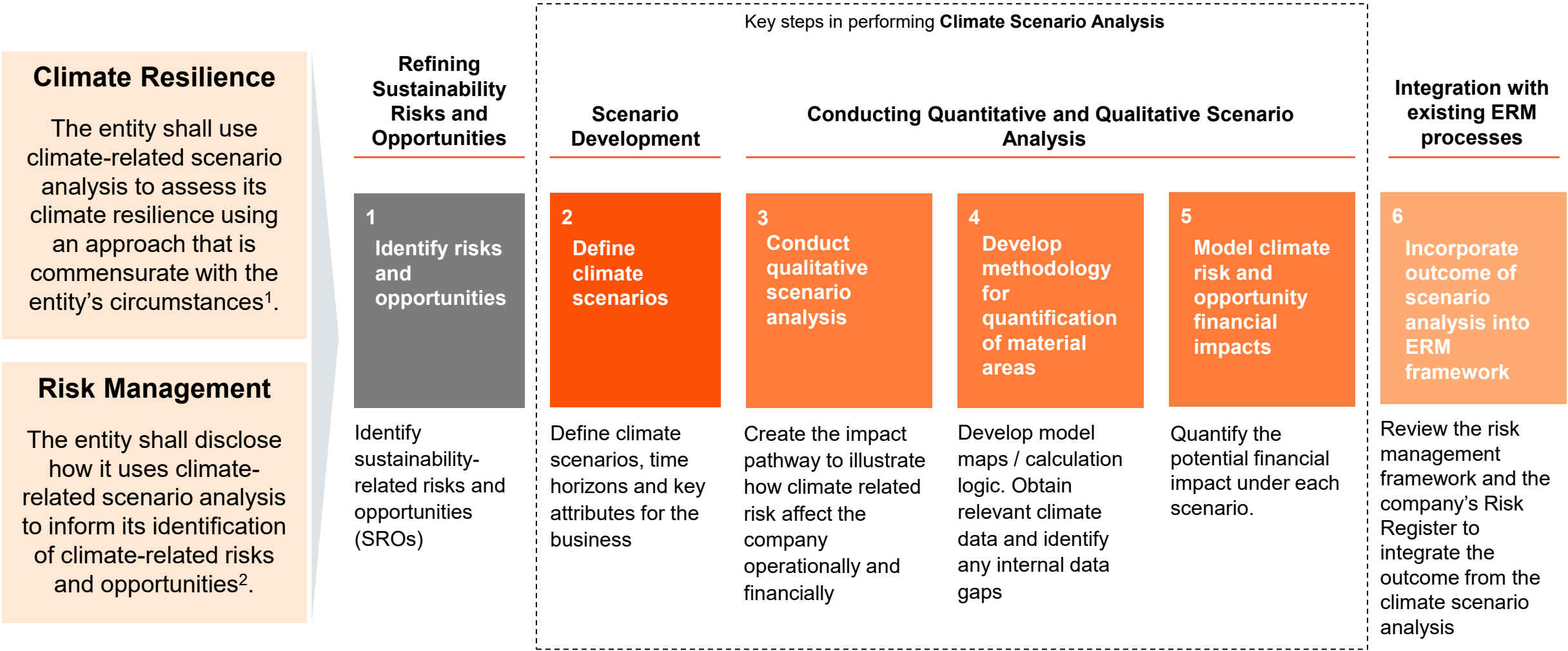
Scenario analyses **do not provide projections or probabilities**, but **plausible outcomes** based on the chosen climate scenarios.

Scenarios help answer: *“What would be the potential **implications for our strategy** if the future described in a scenario came to pass”.*

The number of scenarios should be **sufficiently diverse** to create challenging “what-if” analyses and capture a wide range of insights about uncertain futures.



# We recommend the following phased approach for conducting climate scenario analysis – from qualitative to quantitative elements

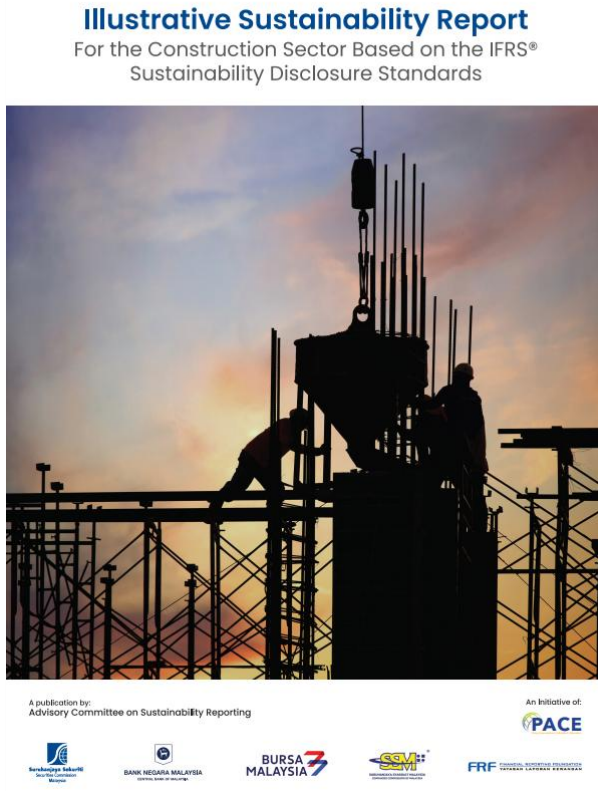


<sup>1</sup> International Sustainability Standards Board (ISSB), *IFRS S2: Climate-related Disclosures* (London: ISSB, 2023), para. 22, 11-12, <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards-issb/english/2023/issued/part-a/issb-2023-a-ifrs-s2-climate-related-disclosures.pdf?bypass=on>.  
<sup>2</sup> International Sustainability Standards Board (ISSB), *IFRS S2: Climate-related Disclosures* (London: ISSB, 2023), para. 25, 13, <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards-issb/english/2023/issued/part-a/issb-2023-a-ifrs-s2-climate-related-disclosures.pdf?bypass=on>.



# The ACSR<sup>1</sup> has issued Illustrative Sustainability Reports for the plantation and construction sectors

## Construction Sector



Source: [Illustrative Sustainability Report \(ISR\) - Construction Sector](#)

## Plantation Sector



Source: [Illustrative Sustainability Report \(ISR\) - Plantation Sector](#)

- Tailored for Malaysian listed issuers and offer a visual guide for those preparing sustainability disclosures **aligned with the National Sustainability Reporting Framework (NSRF)**
- Illustrate how entities may structure their sustainability report for the financial year ending 31 December 2025 in line with the **IFRS® Sustainability Disclosure Standards (IFRS SDS)** issued by the International Sustainability Standards Board (ISSB), and **Bursa Malaysia's Main Market Listing Requirements (MMLR)**
- Prepared based on the requirements of these two standards and do not include any subsequent new standards or amendments issued on or after 30 June 2025
- For this purpose, **only three sustainability-related risks are illustrated**

*Subsequent presentation is anchored based on the plantation sector*

<sup>1</sup> Advisory Committee on Sustainability Reporting



1

Climate scenario analysis will be anchored on the identified SROs, with the following being examples for the plantation sector

### Example of risks

#### Weather events

The increased volatility and intensity of **weather-related events** in agriculture could lead to **harvest loss**. This may lead to a scarcity of **essential raw materials (sugarcane)** which serve as the cornerstone of operational activities. Consequently, the company may face adverse financial repercussions, including diminished revenue due to **reduced production capabilities**, alongside **heightened operational costs**.



#### Effluents

The sugar production operation discharges **high volume of effluents** from its operation. The quality of these effluents is subject to stringent regulations. Non-compliance to regulatory requirements can result in **regulatory penalties** and directly **impacting the Group's revenue**.



#### Traceability

Failure to effectively manage **sourcing risks**, such as traceability of its raw material sourcing, may lead to non-compliance of regulatory requirement, such as the EU Deforestation Regulation.



#### Modern Slavery

The occurrence of **modern slavery** amongst workers in the value chain (such as non-payment or late payment of wages, restrictions on freedom of movement, violence, threats) negatively **impacts the company's ability to recruit labour** which will significantly impact its level of sugar production.



### Examples of Opportunities

The Group requires heavy water usage as part of its production. In line with its commitment to environmental conservation, the Group can implement a policy to **reduce water consumption** across all operations. Decreasing water usage also indirectly **reduces effluent discharge**, thereby **enhancing operational efficiencies** and **minimising its environmental impact**.

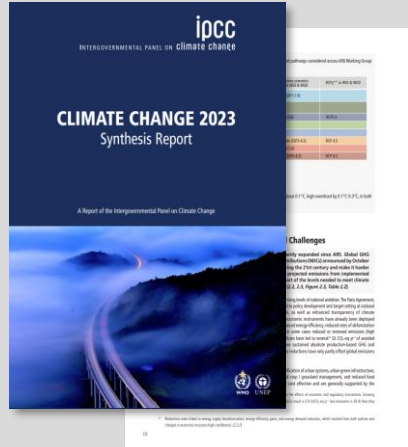
As part of its business strategy, the Group can work with its direct third-party suppliers to ensure sustainable sourcing and compliance with its deforestation-free commitments throughout the value chain, thereby **broadening its market reach** and **enhancing revenue growth**.

Illustrated for further analysis



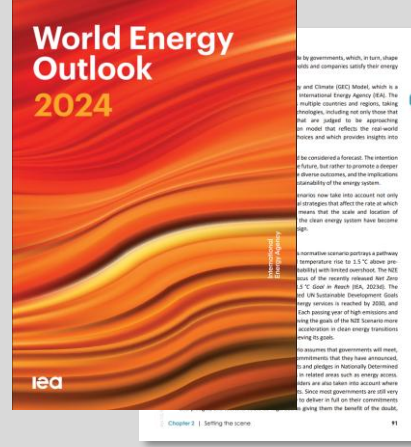
2

There are three (3) widely used sources of guidance for climate scenario analysis that reflect a science-based and holistic approach



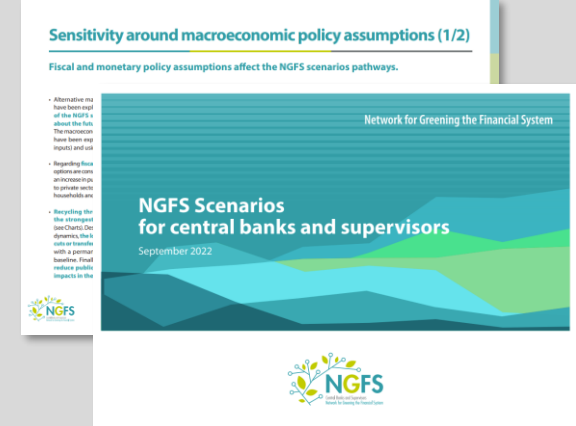
### Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report (AR6)

- Scientific and academic perspectives to inform **policymakers** with summary across all scientific assessments on climate change, implications and potential future risks, and the potential adaptation and mitigation options.



### International Energy Agency (IEA)'s Global Energy and Climate (GEC) Model

- Energy system** perspective to describe low carbon scenarios ranging from a baseline where announced policies are implemented to net zero scenarios.



### Network for Greening the Financial System (NGFS)'s Scenarios for central banks and supervisors

- Convened by a group of 91 **central banks and supervisors** and delivered by an academic consortium to describe scenarios to inform risk management in the financial system, with relevance for the private sector

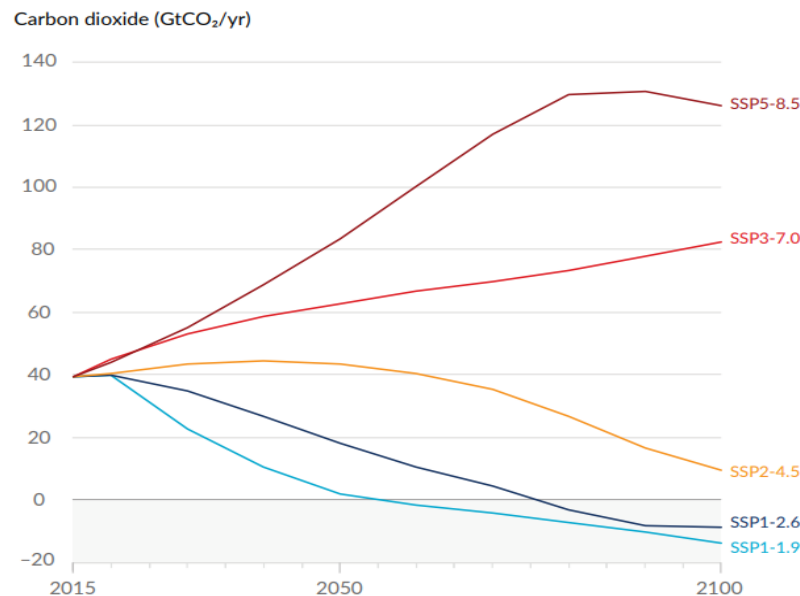
**Reporters will need to identify the guidance that is relevant to its industry.**



## 2

There are five (5) shared socioeconomic pathways included in the IPCC's Sixth Assessment Report that can be considered for climate scenario analysis

Future annual emissions of CO<sub>2</sub> across five illustrative scenarios are shown as below :



Source: IPCC, AR6 Climate Change 2021: The Physical Science Basis (August 2021), p.13

Five (5) shared socioeconomic pathways (SSP) in the IPCC's sixth assessment report :

SSP5-8.5	Current CO <sub>2</sub> emissions levels roughly double by 2050. The global economy growth is fuelled by exploiting fossil fuels and energy-intensive lifestyles. By 2100, the average global temperature is a scorching 4.4°C higher.	Higher Physical Risk
SSP3-7.0	In this scenario, CO <sub>2</sub> emissions and temperature rise steadily. CO <sub>2</sub> emissions roughly double from current levels by 2100. Average temperature rise 3.6°C by 2100.	
SSP2-4.5	This scenario assumes that CO <sub>2</sub> emissions are around current levels before starting to fall mid-century. They do not reach net zero by 2100. Temperature rise 2.7°C by 2100.	Higher Transition Risk
SSP1-2.6	This scenario describe the same socioeconomic shift towards sustainability as SSP1-1.9 but temperature stabilise higher at around 1.8°C by 2100.	
SSP1-1.9	IPCC's scenario that describe a world where global CO <sub>2</sub> emissions are cut to net zero around 2050, warming level hitting 1.5°C and dipping back down to stabilise around 1.4°C by 2100.	

ISSB S2 paragraph 22 states that an entity should disclose information based on **relevant climate-related scenarios** to assess its resilience to climate-related changes, developments, or uncertainties. The entity shall disclose information about climate scenario selection, climate-related risks, alignment with international climate agreements, time horizons, and the scope of operations covered.

SSP : Shared Socio-economic Pathway, a set of standardised scenarios developed by IPCC, to explore how different future socioeconomic developments might influence greenhouse gas emissions and climate change impacts.  
RCP : Representative Concentration Pathways, a way to describe how much greenhouse gas (like CO<sub>2</sub>) is in the atmosphere. The higher the RCP, the more pollution there is — which means more global warming.



2

Our review shows a mixed landscape in how plantation companies are adopting climate scenarios, with choices varying by areas of focus

		Company A	Company B	Company C	Company D	Company E	Total
Jurisdiction		Malaysia	Malaysia	Malaysia	Singapore	Malaysia	
Business Sector		Plantation	Plantation	Plantation	Plantation	Plantation	
Scenario							
Higher Physical Risk ↑	IPCC 6	SSP5-8.5	✓	✓	Yet to conduct a CSA.	Currently concluding their CSA report.	2
		SSP3-7.0					
		SSP2-4.5	✓	✓			2
		SSP1-2.6		✓			1
		SSP1-1.9					
Higher Transition Risk ↓	IEA 7	STEPS: Stated Policies				CSA roadmap approved in May 2025.	
		APS: Announced Pledges					
		NZE: Net Zero Emissions by 2050	✓	✓			2



3

# Climate Scenario Analysis could assist reporters in understanding potential financial effect, even when using a qualitative impact pathway analysis

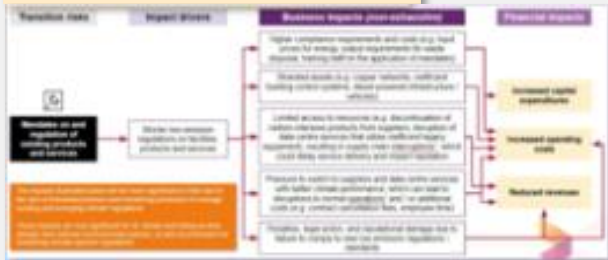
‘Impact pathways’ highlight how a specific climate risk or opportunity may affect your business

## Overview of Impact Pathways

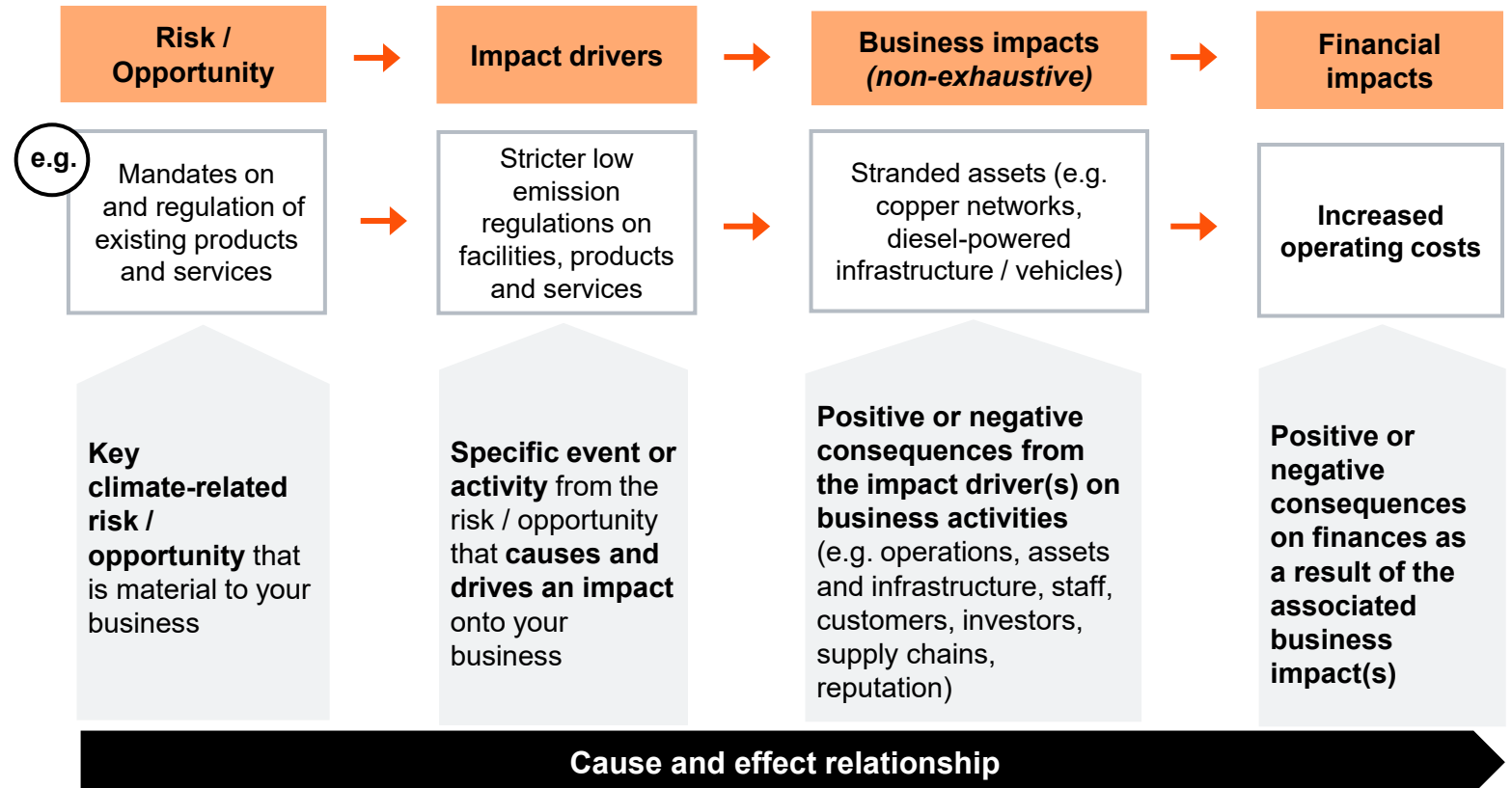
### What are impact pathways?

- An approach which shows **how climate risks and opportunities**, and their associated drivers, **impact businesses** in a particular sector
- Expressed in terms of **qualitative business and financial benefits and costs**

### Illustrative Example



### Key components of an impact pathway

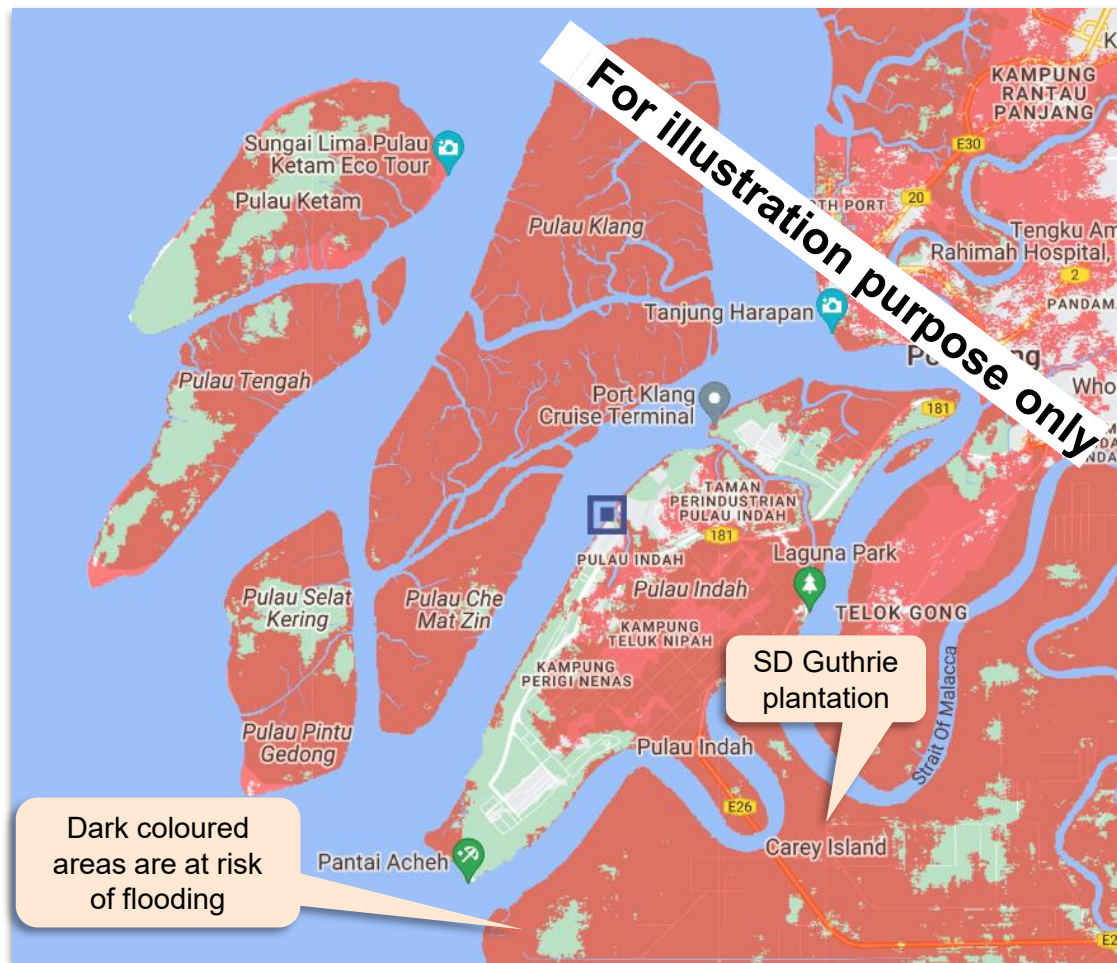


3

## With the qualitative impact pathway in place, reporters should initiate a risk assessment using relevant publicly available data to inform decision-making

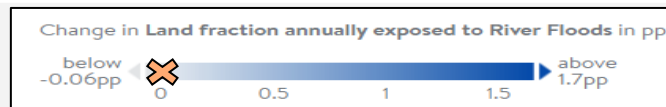
Example of Further Analysis on Locations-at-Risk for palm oil plantations in Carey Island, Selangor

### LAND PROJECTED TO BE BELOW TIDELINE IN 2050



### Change in land fraction annually exposed to river floods in Malaysia

Land fraction annually exposed to river floods is defined as the land area fraction which is flooded on average during the most severe flood of the year.



Percentage points (pp): 0

Source: NGFS

### Riverine flood risk

It measures the percentage of population expected to be affected by riverine flooding in an average year. Higher values indicate that a greater proportion of the population is expected to be impacted by riverine floods on average.

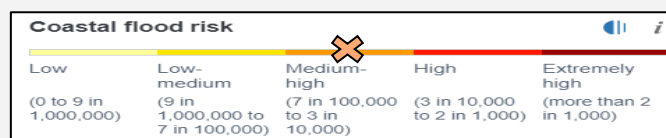


Low – Medium  
(1 in 1,000 to 2 in 1,000)

Source: WRI

### Coastal flood risk

It measures the percentage of the population expected to be affected by coastal flooding in an average year. Higher values indicate that a greater proportion of the population is expected to be impacted by coastal floods on average.



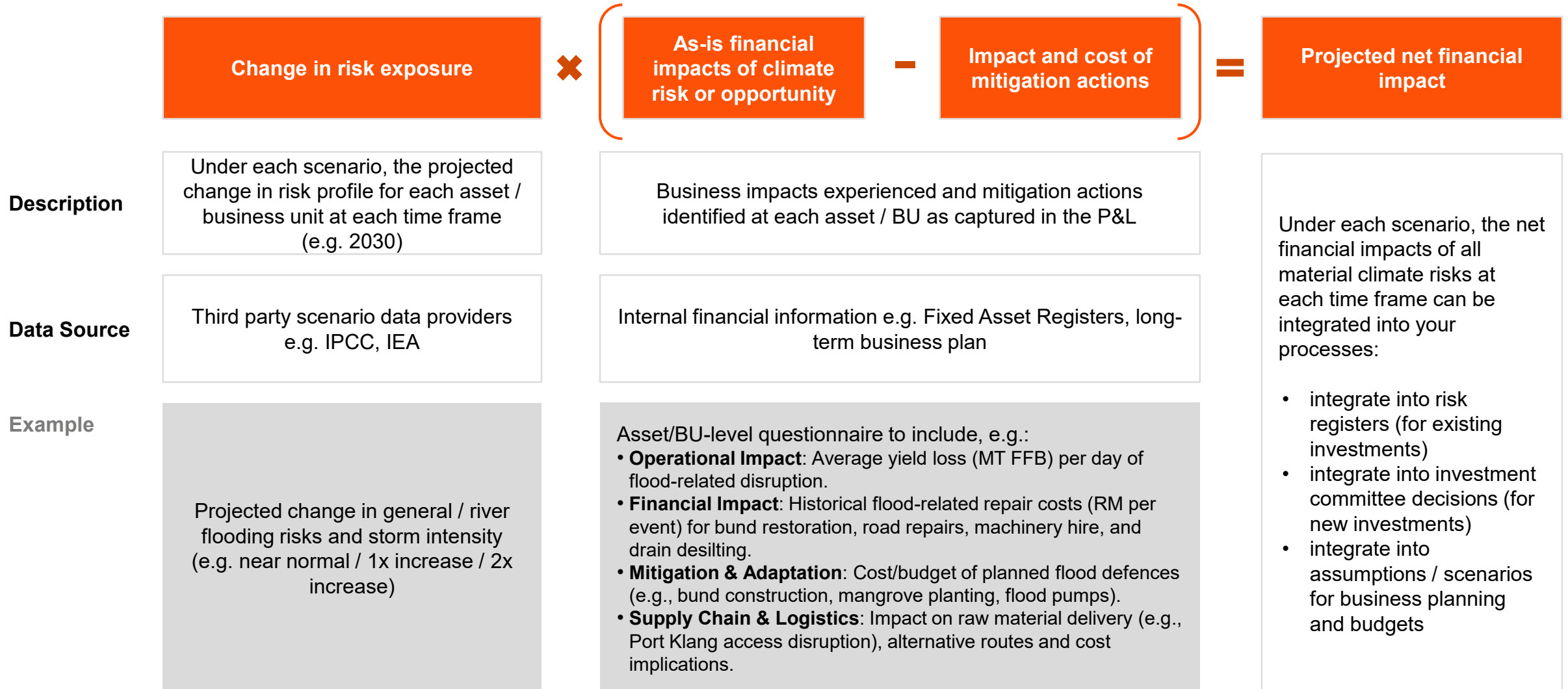
Medium - High  
(7 in 100,000 to 3 in 10,000)

Source: World Resources Institute (WRI)'s Aqueduct World Risk Atlas



4

For assets or locations identified as high climate risk, reporters should conduct a high-level financial impact assessment after evaluating feasible mitigation measures



# The basis of the climate scenario analysis and the corresponding financial impact will need to be disclosed as part of the report

As part of the climate scenario analysis, the Group has used assumptions set out in the following SSPs:

- Scenario 1: Low carbon regulations, resulting in high GHG emissions and temperatures (SSP 5-8.5) (high physical risk):** This scenario envisions a world where governmental action on climate change is delayed, and efforts to curb emissions are largely halted. The lack of coordinated policies across regions leads to significant global warming. As the impact of climate change would be extreme, this scenario emphasises evaluating resilience to both sudden and long term physical climate threats. While transition risks are minimal, the scenario is marked by severe consequences of physical risks, such as heightened change in climate and breaching of global tipping points. These impacts could have significant implications for economies at both local and international levels.
- Scenario 2: Moderate carbon regulations, resulting in moderate GHG emissions and temperatures (SSP 2-4.5) (intermediate scenario):** This scenario outlines a moderate pathway of GHG, with high challenges to both mitigation and adaptation. It assumes that global trends in technology, economic, and social remain relatively stable, following historical patterns. Economic and developmental progress is uneven, with some nations advancing steadily while others lag behind.
- Scenario 3: High carbon regulations, resulting in lower carbon emissions and lower temperatures (SSP 1-1.9) (high transition risk):** In this pathway, global governments implement robust climate policies aimed at achieving net-zero emissions by 2050, successfully limiting global temperature rise to 1.5°C. This scenario is driven by early and decisive investments in renewable energy infrastructure and strong policy alignment. It focuses on the risks and opportunities associated with rapid decarbonisation. The swift pace of regulatory and behavioural changes introduces substantial transition risks, particularly in the short term, as fossil fuel use is aggressively reduced. Although physical climate risks persist, they are less dominant than in Scenario 1.

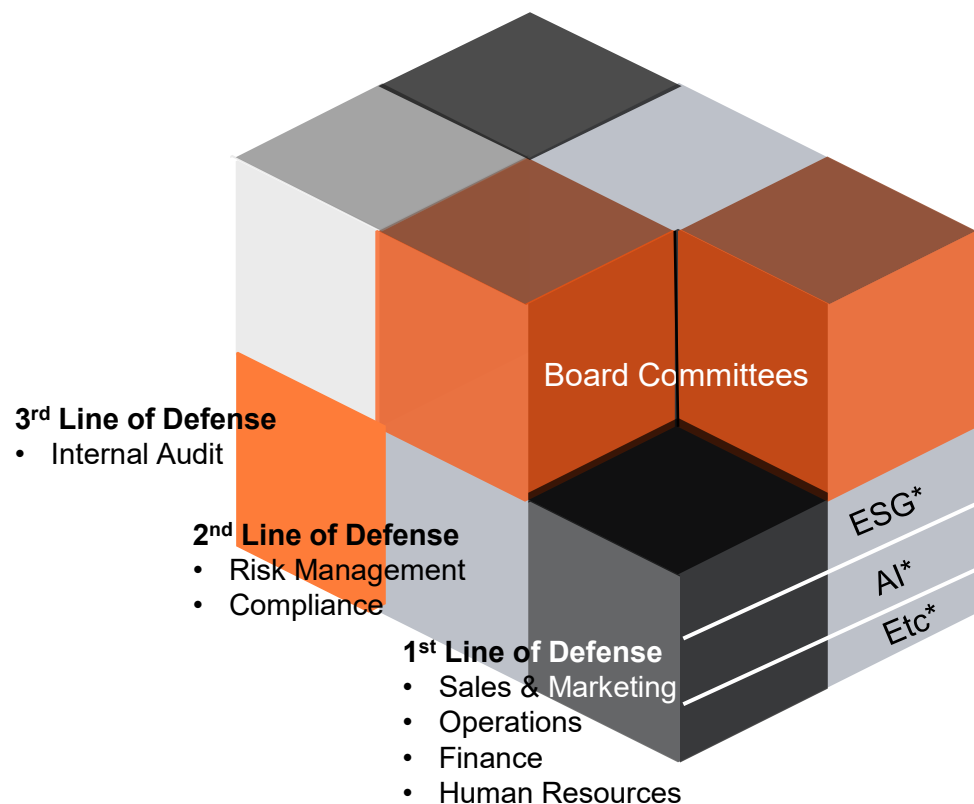
The results are summarised below, together with the impact of each scenario on the Group's strategy and business model:

	Short-term (0 to 12 months)	Medium-term (1 to 5 years)	Long term (beyond 5 years)
	Impact on the Group's strategy and business model		
<b>Scenario 1 SSP 5-8.5 (High physical risk)</b> High GHG emissions in the absence of Government policies to combat climate change; global warming of between 3.2°C and 5.4°C is projected by 2100.	<b>Physical risk exposure:</b> <i>Low to Medium</i>  <b>Transition risk exposure:</b> <i>Low</i>  The Group expects a lack of coordination on emission reduction initiatives. Minimal transition in government policy is anticipated as governments remain divided on climate action. Additionally, rollbacks on certain policies are expected, resulting in weakened environmental standards.  While transition risks remain low, physical impacts of climate events begin to compound. Without sufficient investment in climate mitigation and adaptation measures, the Group will face rising operational disruptions.	<b>Physical risk exposure:</b> <i>Medium to High</i>  <b>Transition risk exposure:</b> <i>Low</i>  A lack of robust climate-related policies from governments will keep transition risks low, but the direct impact from extreme weather events continue to put pressure on the Group's profitability.  Physical climate change impacts intensify with more frequent severe weather events. These events result in disruption to the Group's operations and value chain, increasing operational costs.  There is increased pressure from stakeholders to reduce emissions from operations, even though formal regulatory frameworks remain weak.	<b>Physical risk exposure:</b> <i>High to Very High</i>  <b>Transition risk exposure:</b> <i>Low to Medium</i>  Governments focus on short term adaptation measures as opposed to decarbonisation, keeping transition risks relatively low.  The Group becomes increasingly vulnerable to physical climate risks, particularly in relation to extreme weather events.  Adaptation measures adopted, such as investment in flood mitigation measures and advancement in genomic research will be essential to sustaining profitable operations.  The Group has not provided quantitative information as the level of measurement uncertainty is significant that the resulting data is not useful to the users of this report. This includes data about climate outcome in the long term and the effect of those outcomes on the Group.
<b>Further details on the Group's strategy and business model</b>	<b>Financial impact</b>  Under this scenario, the Group's profits before tax are expected to decrease by RM2.0 to RM4.0 million per annum in the short term.	Under this scenario, the Group's profits before tax are expected to decrease by RM7.0 to RM13.0 million per annum in the medium term.	



6

The outcome from climate scenario analysis will need to be utilised and embedded as part of the overall enterprise risk management process



*How will these the traditional 3<sup>rd</sup> line of defense address emerging risks arising from sustainability (including climate) matters?*

An illustration of how monitoring of climate risks needs to be embedded across the organisation's ecosystem

Area of responsibility	Owner
Lead the development of organisation-wide Business Strategy and vision	● ●
Design and simulate climate scenario analysis in alignment with the Business Strategy	●
Update Key Risk Indicators ("KRI") to reflect the climate risks identified for monitoring	●
Update Key Performance Indicators ("KPI") for behavioural alignment to the KRIs and Business Strategy	●
Drive operations in alignment to the Business Strategy, KRIs and KPIs	●
Drive consistency of external financial & non-financial disclosure requirements, e.g., IFRS, analysts report	●
Compliance and Internal Audit programmes which incorporate climate risk assessments	● ●

Role:

- |  |                                    |                                    |
|--|------------------------------------|------------------------------------|
| ● Chief Executive Officer ("CEO")      | ● Chief Risk Officer ("CRO")       | ● Chief Financial Officer ("CFO")  |
| ● Chief Sustainability Officer ("CSO") | ● Chief Human Resource Officer     | ● Chief Technology Officer ("CTO") |
| ● Chief Operations Officer ("COO")     | ● Chief Compliance Officer ("CCO") | ● Chief Internal Auditor ("CIA")   |

\* Emerging and new areas of risks are expected to be considered across the Board and Management

# There remains challenges in embedding sustainability as part of the business – the same is relevant in performing climate scenario analysis



## People

- Lack of buy-in on the importance of reporting sustainability data
- More practical and in-depth upskilling required beyond awareness training



## Process

- Lack of clarity on roles and responsibilities in preparing sustainability reports
- Data is only compiled annually, often lacking periodic audits and reviews



## Data and Technology

- Data are not readily available to be examined
- Absence of a centralised 'source of truth' for ESG data

### *What is needed in performing climate scenario analysis*



A team that can provide **linkages between risk and financial impact**

Formalised reporting **process, structure and templates**, in accordance with RACI framework

Identify material information for disclosure, including **source data**



## Contact us



### Farhana Jabir

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Climate Change

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[LinkedIn](#)

# Questions?



# Thank you





**Suruhanjaya Sekuriti**  
Securities Commission  
Malaysia

# Session 3: Understanding Climate Scenario Analysis



**Farhana Jabir**

Director

Sustainability and Climate Change Practice

PwC Malaysia

*Submit your  
questions on Slido*





**Suruhanjaya Sekuriti**  
Securities Commission  
Malaysia

# DATA TO DISCLOSURES FORUM

**Strengthening Data Capacity for NSRF Reporting Entities**

Friday, 17 October 2025

9:00am – 12:30pm

Securities Commission Malaysia

WiFi: Event@SC  
Password: SC50490KL

Organised by the Advisory Committee  
for Sustainability Reporting (ACSR)





**Suruhanjaya Sekuriti**  
Securities Commission  
Malaysia

# Session 4: Integrated Reporting Across the Supply Chain: Bursa CSI Solution



**Wong Hui Yin**

Acting Director  
Data & Digital Services  
Bursa Malaysia



Data to Disclosures (D2D) Forum

# Integrated Reporting Across the Supply Chain: CSI Solution

17 October 2025





# CONTENT: Overview of CSI Solution

**1**

**Overview of Centralised Sustainability Intelligence (CSI) Solution**

**2**

**CSI Solution: Value-Added Services**

# Overview of Centralised Sustainability Intelligence (CSI) Solution

01



# Launched in June 2024, the CSI Solution has enhanced PLCs' sustainability reporting and accelerated their decarbonisation journey



# CSI SOLUTION: Connecting data, people and purpose in one comprehensive solution to drive Malaysian companies' sustainability excellence

## CSI Solution

Centralised Sustainability Intelligence

*Connecting data, people and purpose in one comprehensive solution to drive Malaysian companies' ESG excellence, for global competitiveness*

### Platform

*ESG solutions for corporate and value chain decarbonization*

### Services

*Knowledge partners to support onboarding, training and report preparation*

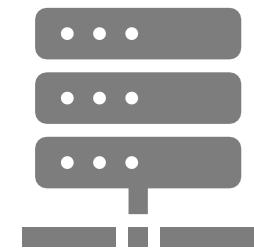
### Financing

*Corporate and SME / MSME financing programmes*

### Desired Outcomes



Adhere to global and domestic standards  
(e.g. GRI, TCFD, IFRS, SEDG)



Unified data hub for informed policy and decision-making



Access to sustainable financing via BNM CCPT and JC3 GVC

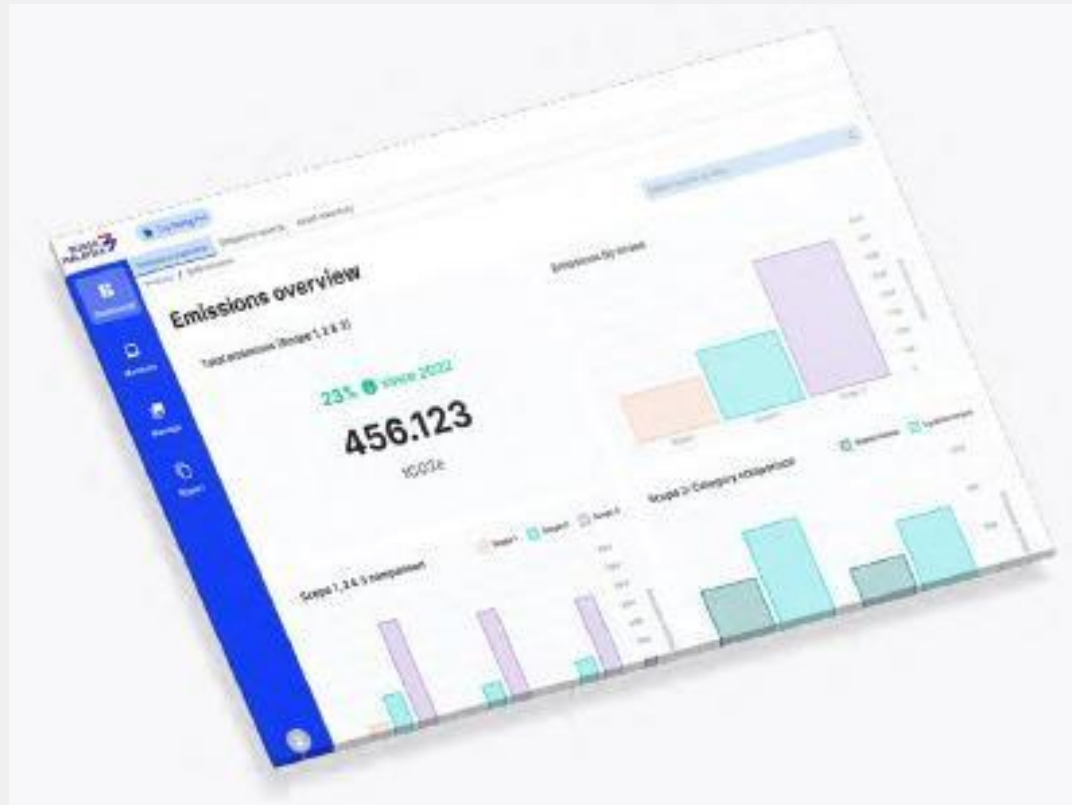


Connect to ASEAN-Interconnected Sustainability Ecosystem



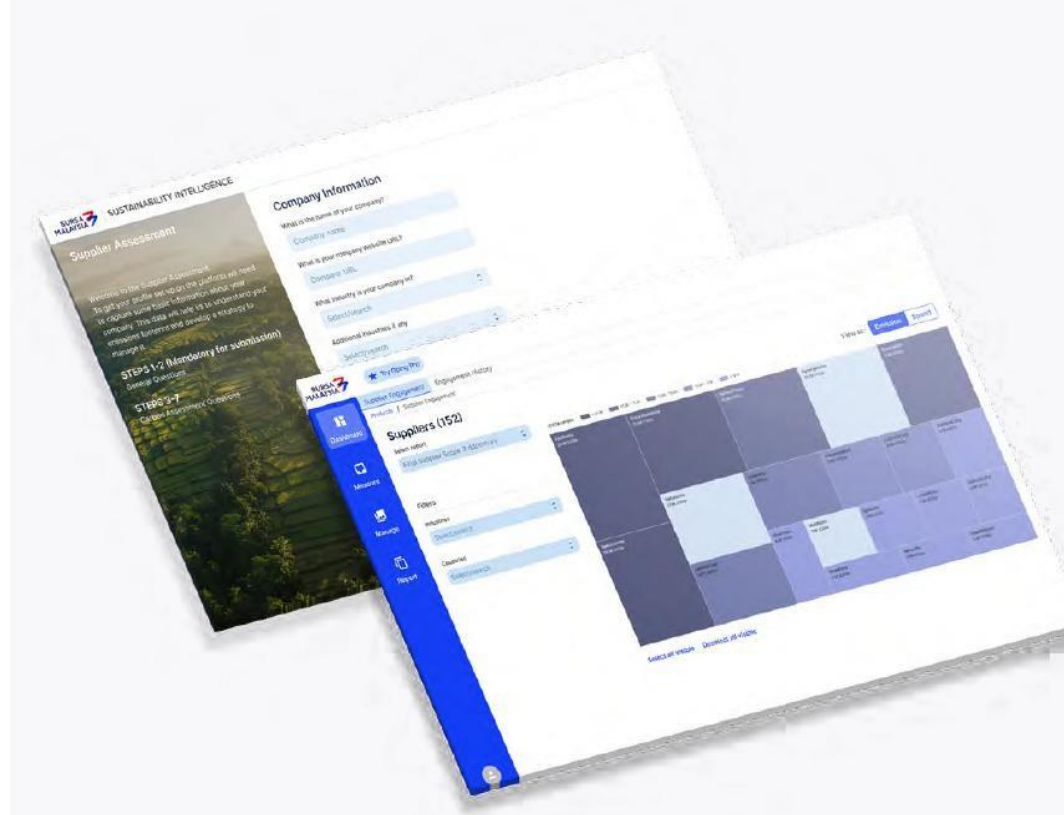
# CSI Platform - *Measure, Manage, Report*

## MEASURE



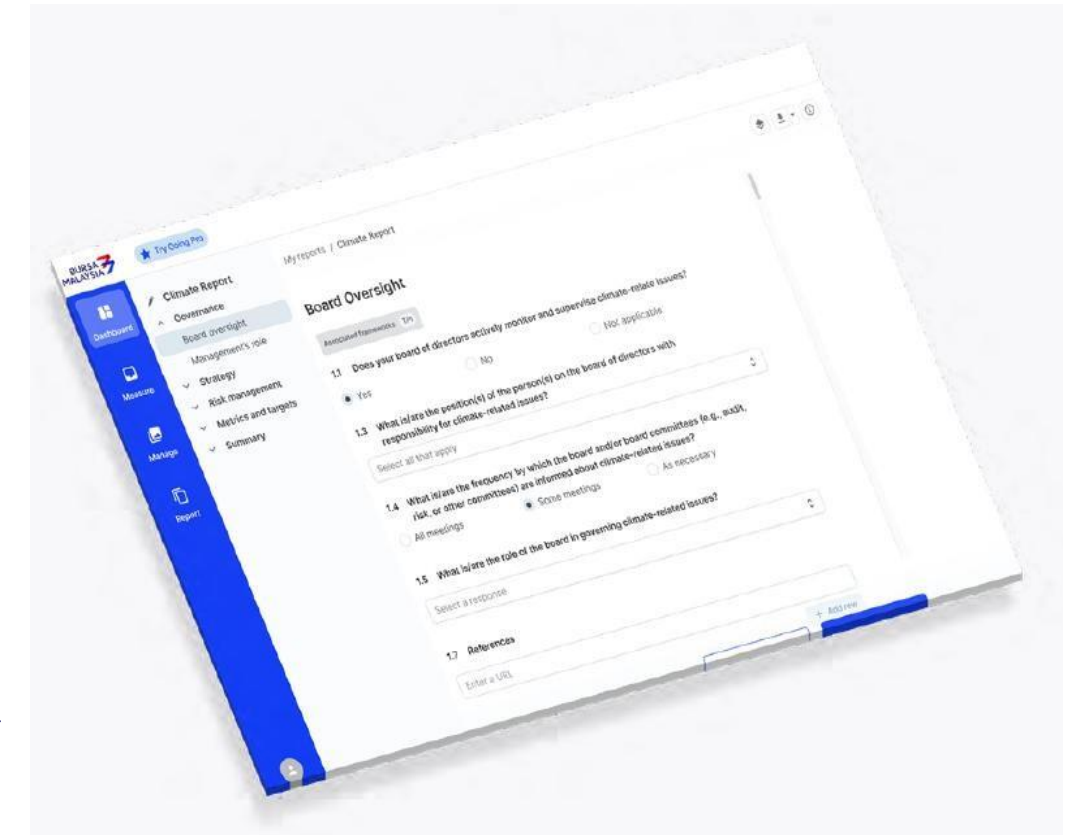
- The GHG Emissions Calculator for Scope 1 & 2 emissions.
- Estimate Scope 3 emissions and identify supply chain hotspots using the GHG Emissions Calculator.

## MANAGE



- The Supplier Engagement Tool allows corporate to pinpoint high-emission areas and collaborate with supply chain to make impactful emission cuts.
- Invite suppliers to upskill through training and certification with our knowledge partners.

## REPORT



- The reporting tools aligned with IFRS S1 and IFRS S2 standards, it ensures credibility, efficiency, and compliance with both local and global requirements.

# CSI Platform - *Measure* <sup>(1/3)</sup>

## MEASURE - GHG Emissions Calculator

The carbon accounting tool allows a corporate to input and manage data effortlessly in one place and get comparative analytics year over year.

### What is it? & use cases

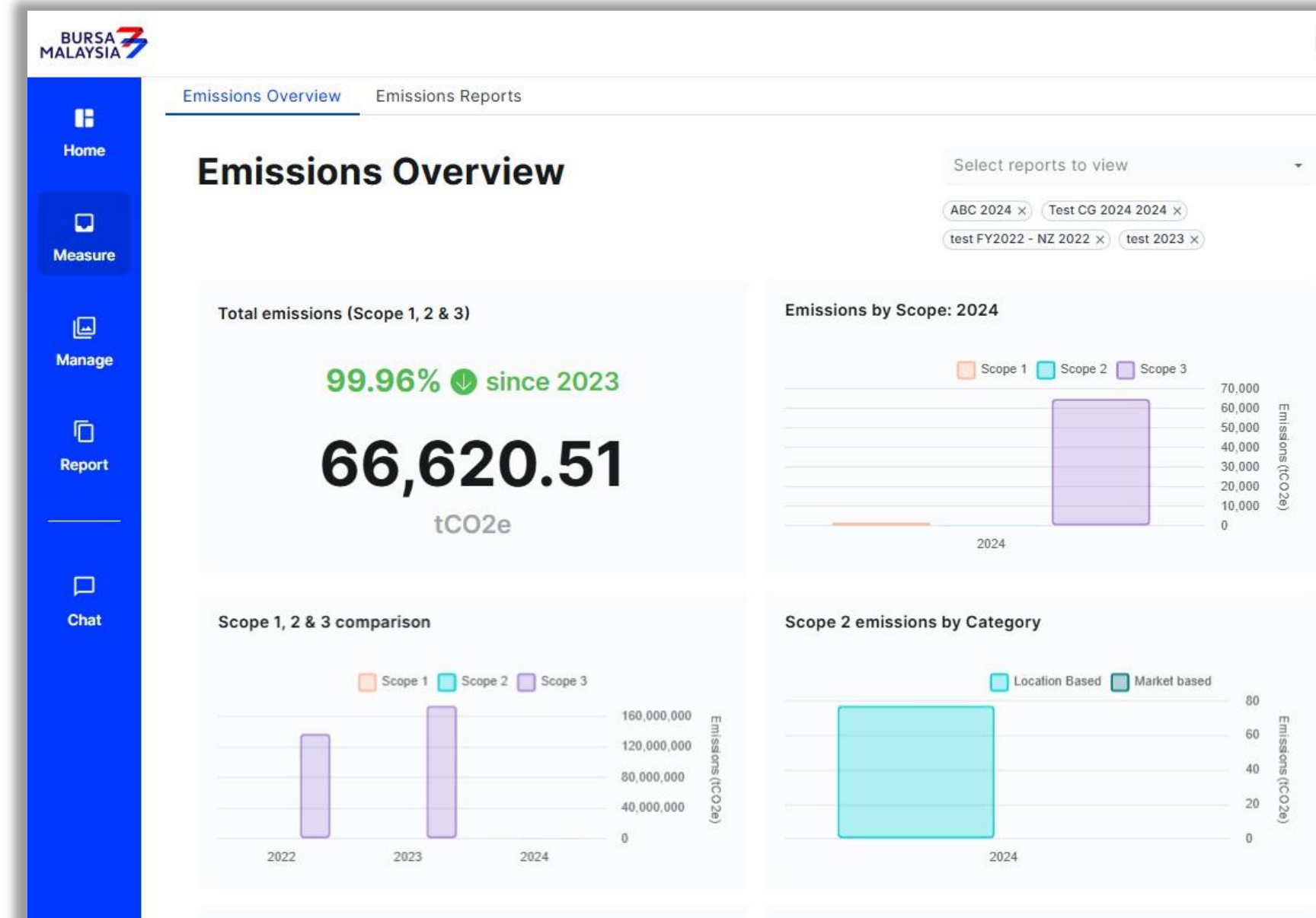
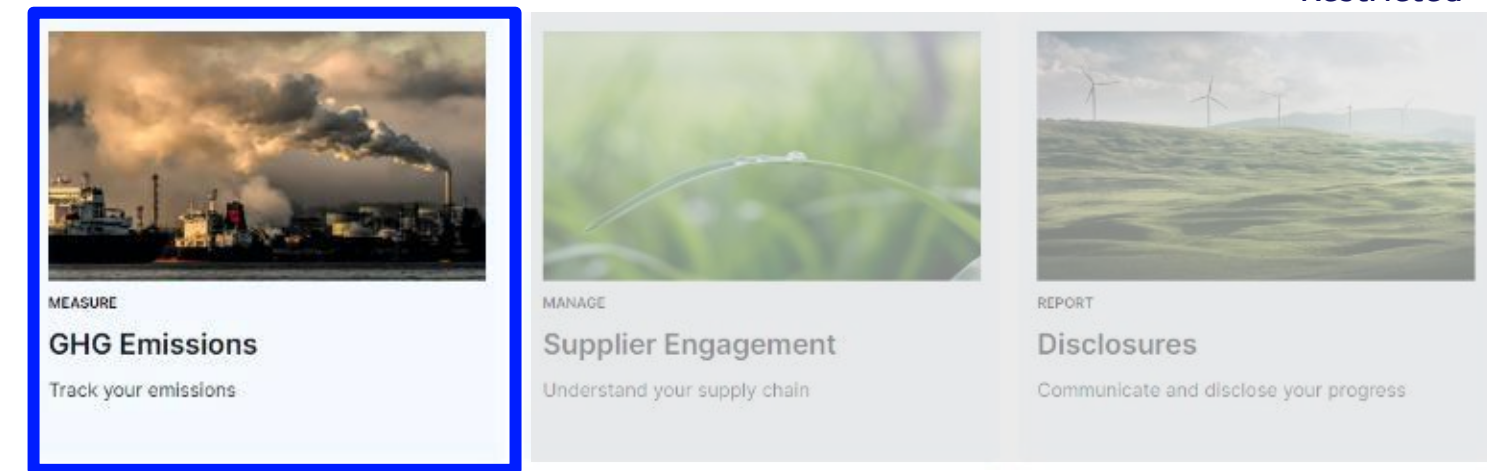
Corporates get a comprehensive understanding of Scope 1, 2 and 3 emissions, which helps to identify emissions hotspots across scopes.

- Monitor Scope 1,2,3 emissions aligned to the GHGP
- Corporates annual sustainability reporting
- Identify emissions hotspots across scopes

### Main features

- Scope 1 calculator (DEFRA EF)
- Scope 2 calculator (Suruhanjaya Tenaga & Enerdata EF)
- Scope 3 calculator based on a spend methodology (Fair Supply)\*\*\*

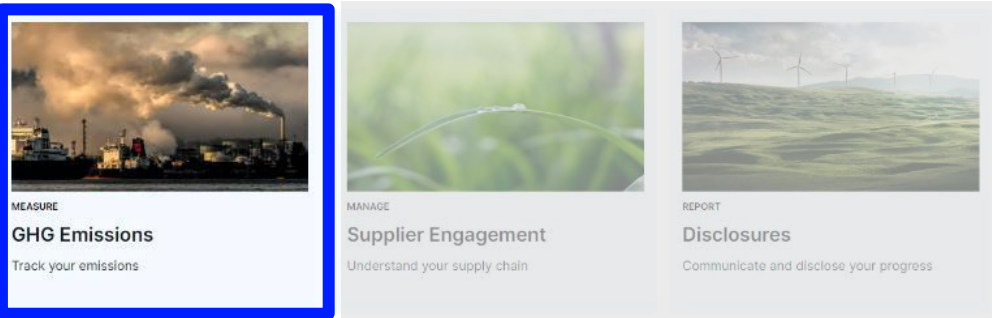
\*\*\*Accessible as part of the Supplier Engagement Solution





# CSI Platform - *Measure* <sup>(2/3)</sup>

## Screenshot - GHG Emissions Calculator Scope 1 & Scope 2



BURSA  
MALAYSIA

Home

Measure

Manage

Report

Help

Scope 1 - Direct GHG emissions

Scope 1 emissions refer to greenhouse gas emissions that occur directly from sources that are owned or controlled by your organisation. These emissions are a result of activities such as burning fossil fuels for, say, production or heating, or operating company-owned vehicles.

Scope 1 emissions are calculated using the UK's Department of Environment, Farming, and Rural Affairs' (DEFRA) latest emissions factors. Find out more about DEFRA emissions factors [here](#). Use the dropdown below to select previous years emissions factors.

[Click here for detailed guidance for using the Emissions Assessment to generate your Scope 1 data.](#)

Note: some emissions factors may show as "0" in earlier years due to the later inclusion of certain fuels in DEFRA data.

Total Scope 1

3643.88

tCO2e

Have you already calculated your Scope 1 emissions?

No ☐ Yes ☒

You are using DEFRA emissions factors for year:

2025

Select from dropdown to change the year

Energy consumption related: Buildings and fixed assets

Conventional fuel types				
Fuel types	Unit	Quantity	EF (kg CO2e / unit)	GHG emissions (tonnes CO2e)
Liquid fuels				
Diesel (100% fossil fuel)	litres	100000	2.66155	266.155
Gas oil	Select a value...	Enter value...	--	--
Fuel oil	Select a value...	Enter value...	--	--
Processed fuel oils - distillate oil	Select a value...	Enter value...	--	--

Report saved 4 minutes ago

Scope 1 - Direct GHG emissions calculator (DEFRA EF)

BURSA  
MALAYSIA

Home

Measure

Manage

Report

Help

Scope 2 - Indirect GHG emissions from electrical consumption

Scope 2 GHG emissions refer to indirect greenhouse gas emissions resulting from the generation of electricity, heat, or steam purchased or consumed by your company. These emissions occur outside your company's organisational boundaries but are a consequence of its activities. Understanding and managing Scope 2 emissions is vital for businesses aiming to reduce their carbon footprint.

Location-based Scope 2 emissions are calculated using the Malaysia Energy Information Hub's (MEIH) emissions factors for Malaysian regions, or using Enerdata's global emissions factor database for national-level Scope 2 emissions. Click on these links to find out more about [MEIH](#) and [Enerdata](#).

[Click here for detailed guidance for using the Emissions Assessment to generate your Scope 2 data.](#)

Total Scope 2 Location-based

364.09

tCO2e

Total Scope 2 Market-based

57.51

tCO2e

Please select one of the following options:

Have you already calculated your Scope 2 emissions?

No ☐ Yes ☒

Location-based ☒ Market-based ☐

To report at the regional level within Malaysia, please use the Region (Malaysia) table. For reporting at the country level, please use the Global table. If entering location-based data by Malaysian region please take care not to add the same data in the Global table.

You are using MEIH emissions factors for year:

2022

Select from dropdown to change the year

Region (Malaysia)

Region	Unit	Quantity	EF (kg CO2e / unit)	GHG emissions (tonnes CO2e)
<input type="checkbox"/> Peninsular	kWh	100058	0.774	77.444892
<input type="checkbox"/> Sabah	MWh	546	525	286.65

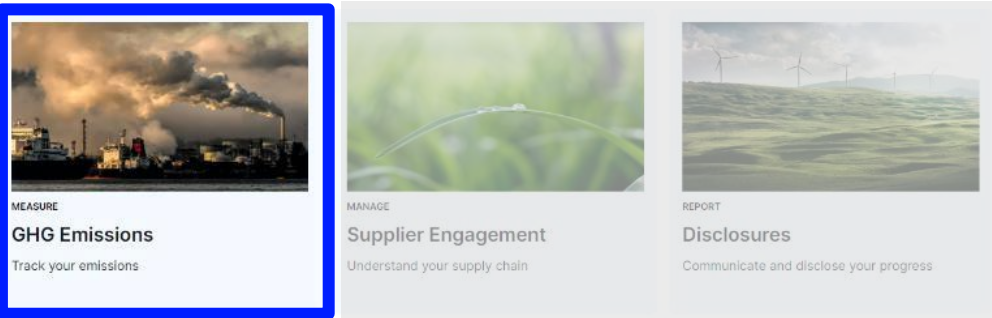
Add row

Report saved 3 days ago

Scope 2 - Indirect GHG emissions from electrical consumption calculator (Suruhanjaya Tenaga & Enerdata EF)

# CSI Platform - *Measure* <sup>(3/3)</sup>

## Screenshot - GHG Emissions Calculator Scope 3



BURSA  
MALAYSIA

Home

Measure

Manage

Report

Help

Scope 3

The Scope 3 module employs spend-based emissions tracking to estimate these emissions, crucial for comprehensive climate reporting and identifying supply chain hotspots. By analysing transactional spend data, the scope 3 module calculates emissions using a global economic model, combining over 150 datasets, covering 214 countries and 200 sectors. [Learn more about the importance of scope 3](#) and [our scope 3 methodology](#).

Total Spend in MYR  
Your spend with suppliers  
1.33B

Total Estimated  
Scope 3  
335813 tCO2e

GHGP Categories

Supplier Emissions

Last Calculation: 03/10/2025 | 12:15

Category	tCO2e
Upstream	
Purchased goods and services	5591.14
Capital goods	0.00
Fuel- and Energy-related Activities	61214.84
Transportation and Distribution	46486.89
Waste Generated in Operations	0.00
Business Travel	0.00
Employee Commuting	0.00
Leased Assets	0.00
Other	0.00
Downstream	

SP

Report generated with Sustainability Reporting Period dates: 2024-01-01 - 2024-12-31

Re-Calculate Scope 3

BURSA  
MALAYSIA

Home

Measure

Manage

Report

Help

Emissions Reports

Analytics

Go to Supplier Management

Sustainability reporting period: 01/01/2024 - 31/12/2024 SP

Scope 1 Scope 2 Scope 3

Scope 3

The Scope 3 module employs spend-based emissions tracking to estimate these emissions, crucial for comprehensive climate reporting and identifying supply chain hotspots. By analysing transactional spend data, the scope 3 module calculates emissions using a global economic model, combining over 150 datasets, covering 214 countries and 200 sectors. [Learn more about the importance of scope 3](#) and [our scope 3 methodology](#).

Total Spend in MYR  
Your spend with suppliers  
26.50B

Total Scope 3  
14194694 tCO2e

GHGP Categories

Supplier Emissions

Last Calculation: 26/09/2025 | 10:35

ZYUN-8 Q All data types

Supplier	Industries	Country	Spend (MYR)	Data type	Emissions Intensity tCO2e/tm	Total Emissions (tCO2e)	Share of tCO2e (%)	Scope 1 (tCO2e)	Scope 2 (tCO2e)	Scope 3 (tCO2e)
ZYUN-8	Oil Related Services and Equipment	Malaysia	99.02M	Estimated	288.34	28.55K	0.46	25.78K	2158.61	
				Reported	61.80	6120.08	100.00	5052.55	1067.54	
				Consolidated	61.80	6120.08	100.00	5052.55	1067.54	
ZYUN-80	Oil Related Services and Equipment	Malaysia	49.52M	Estimated	288.34	14.28K	0.23	12.89K	1079.39	
				Reported	--	--	--	--	--	
				Consolidated	288.34	14.28K	0.23	12.89K	1079.39	

SP

Report generated with Sustainability Reporting Period dates: 2024-01-01 - 2024-12-31

Re-Calculate Scope 3

Scope 3 emissions is categorised into 15 categories, and organised into upstream (acquired goods and services) and downstream (sold goods and services) emissions

Estimated and reported Scope 3 by each supplier



# CSI Platform - *Manage* (1/3)

## MANAGE - Supplier Management & Engagement Tool

The supplier engagement tool allow corporate to analyse Scope 3 emissions and engage with suppliers with the highest carbon footprint and work with them to gather additional data, set targets and monitor progress.

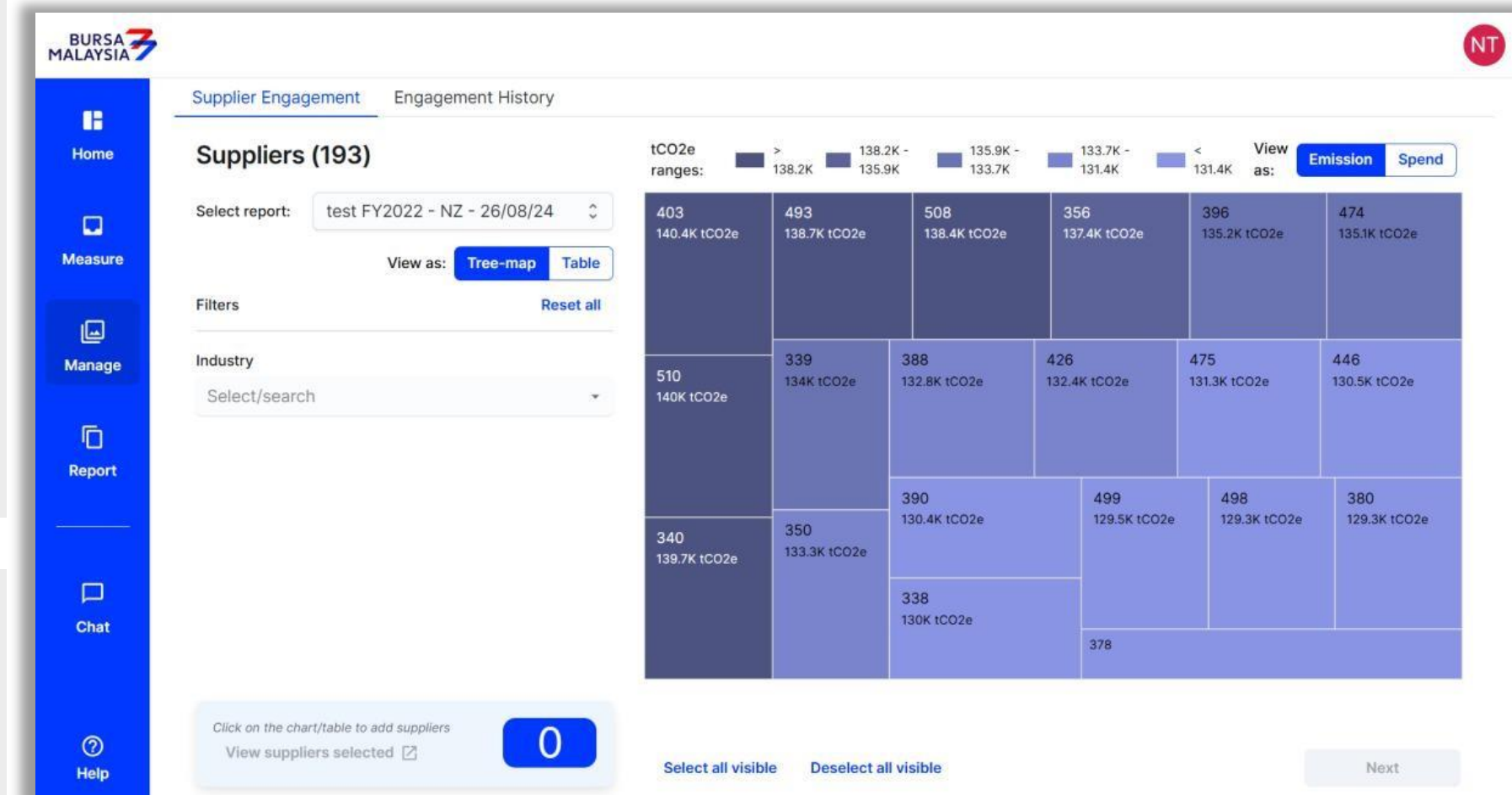
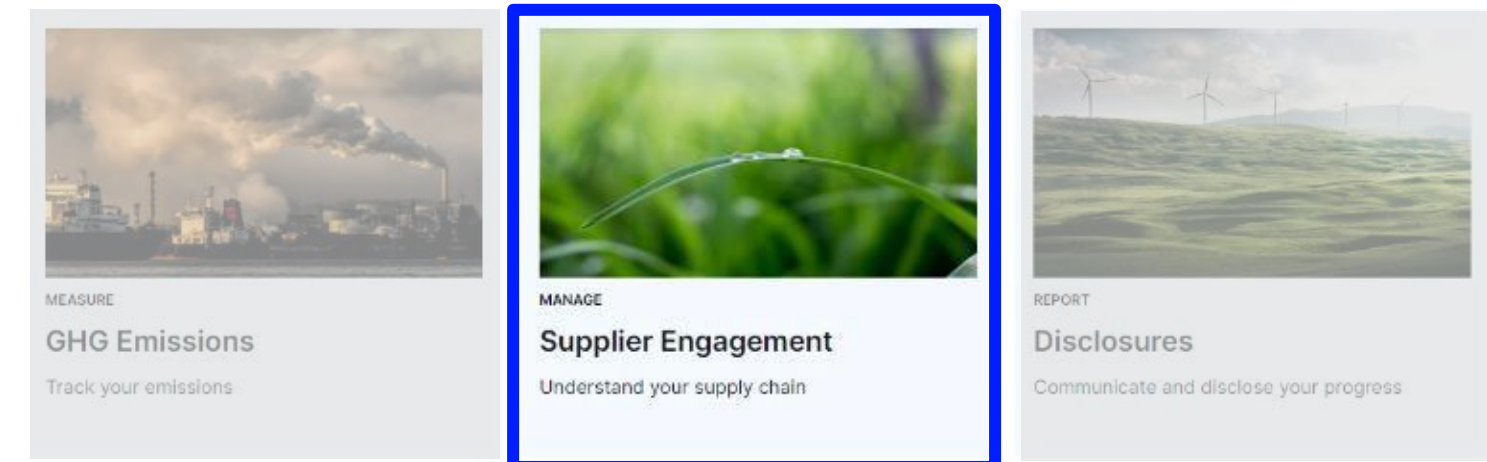
### What is it? & use cases

Provides a visual representation of emissions hotspots across your supply chain and the ability to engage with suppliers to collect reported data.

- Procurement teams running supplier engagement programs
- Corporates looking to collect reported data from supply chains to increase the quality of their scope 3 assessment
- Financing opportunities for suppliers who make progress

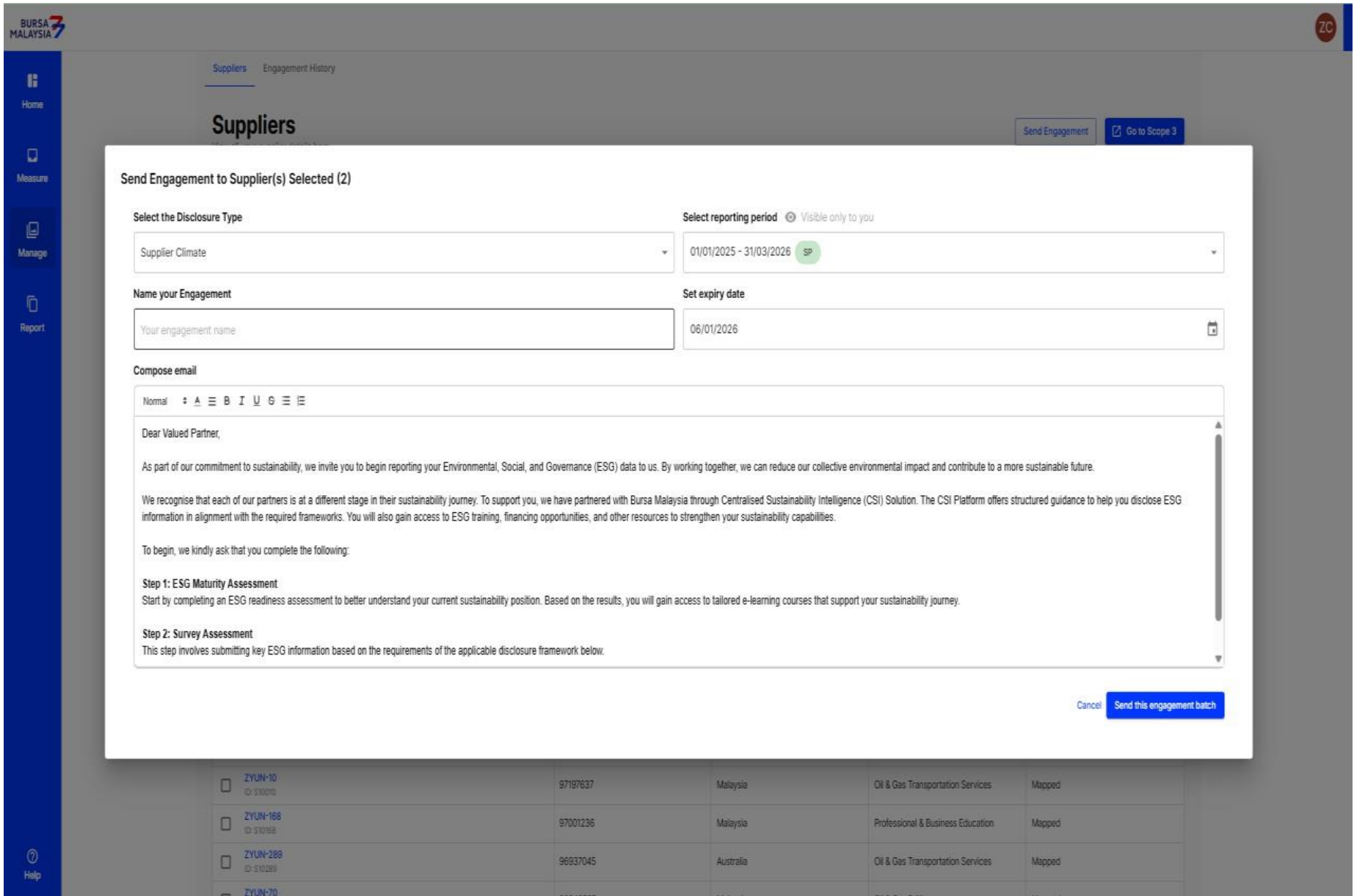
### Main features

- Uses supplier estimated emissions to show biggest impact on your business
- Create a custom supplier engagement programme and engage directly through the tool
- Get reported data from suppliers to replace the estimated data from Fair Supply

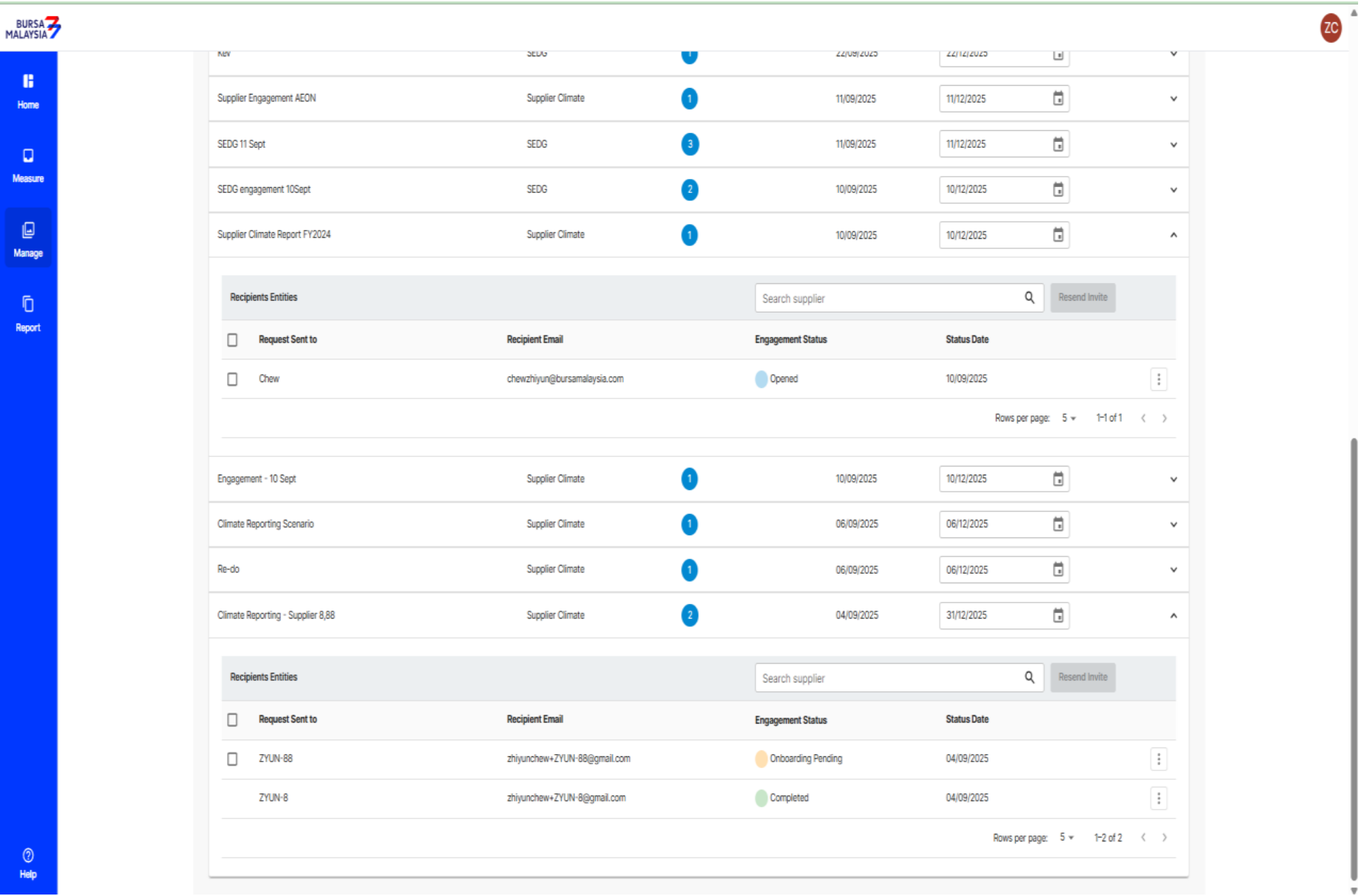


# CSI Platform - *Manage* (2/3)

## Screenshot - Supplier Engagement Tool



Template email for the supplier engagement



Engagement history page to track on the engagement status




# CSI Platform - *Manage* (3/3)

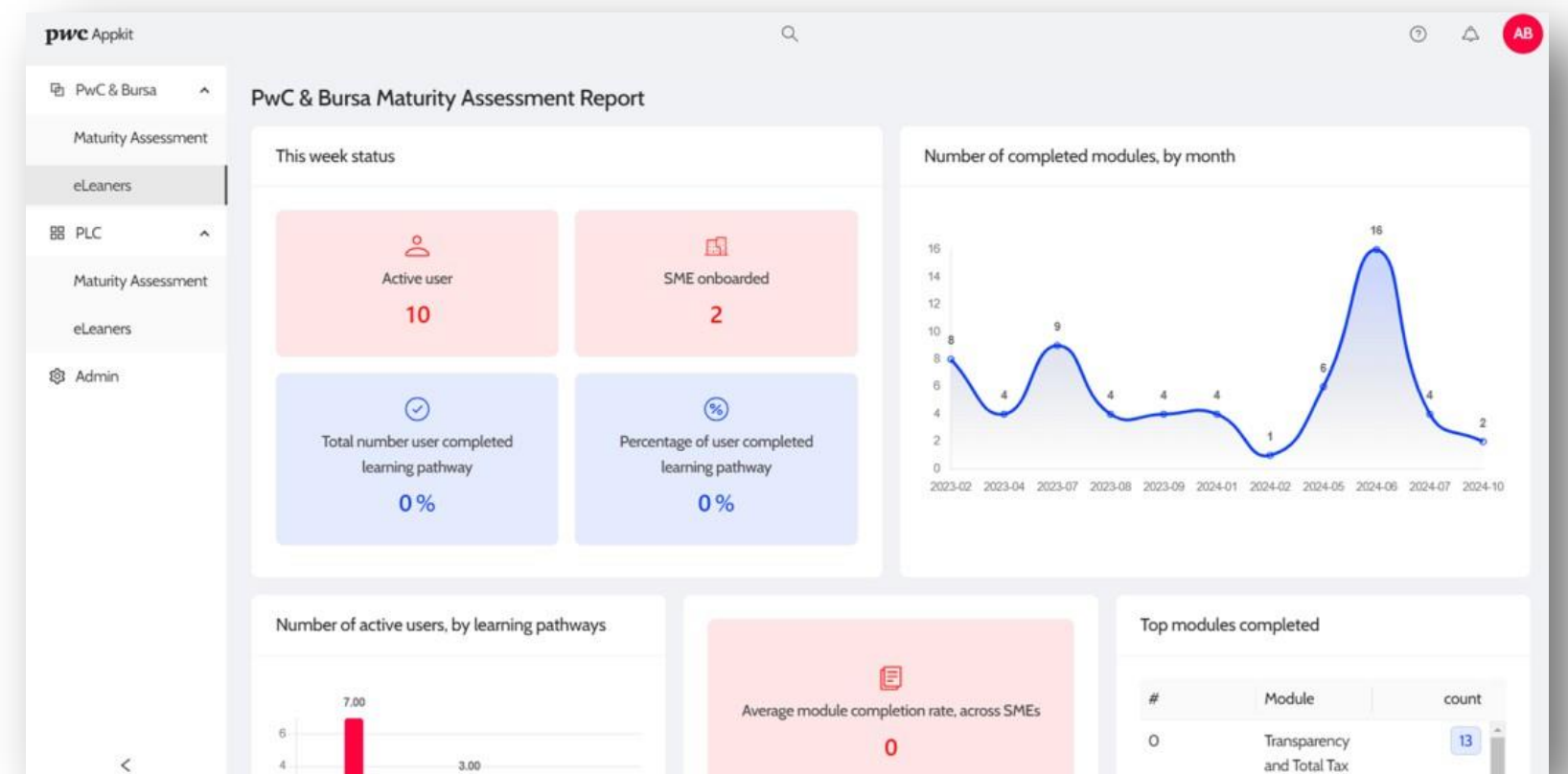
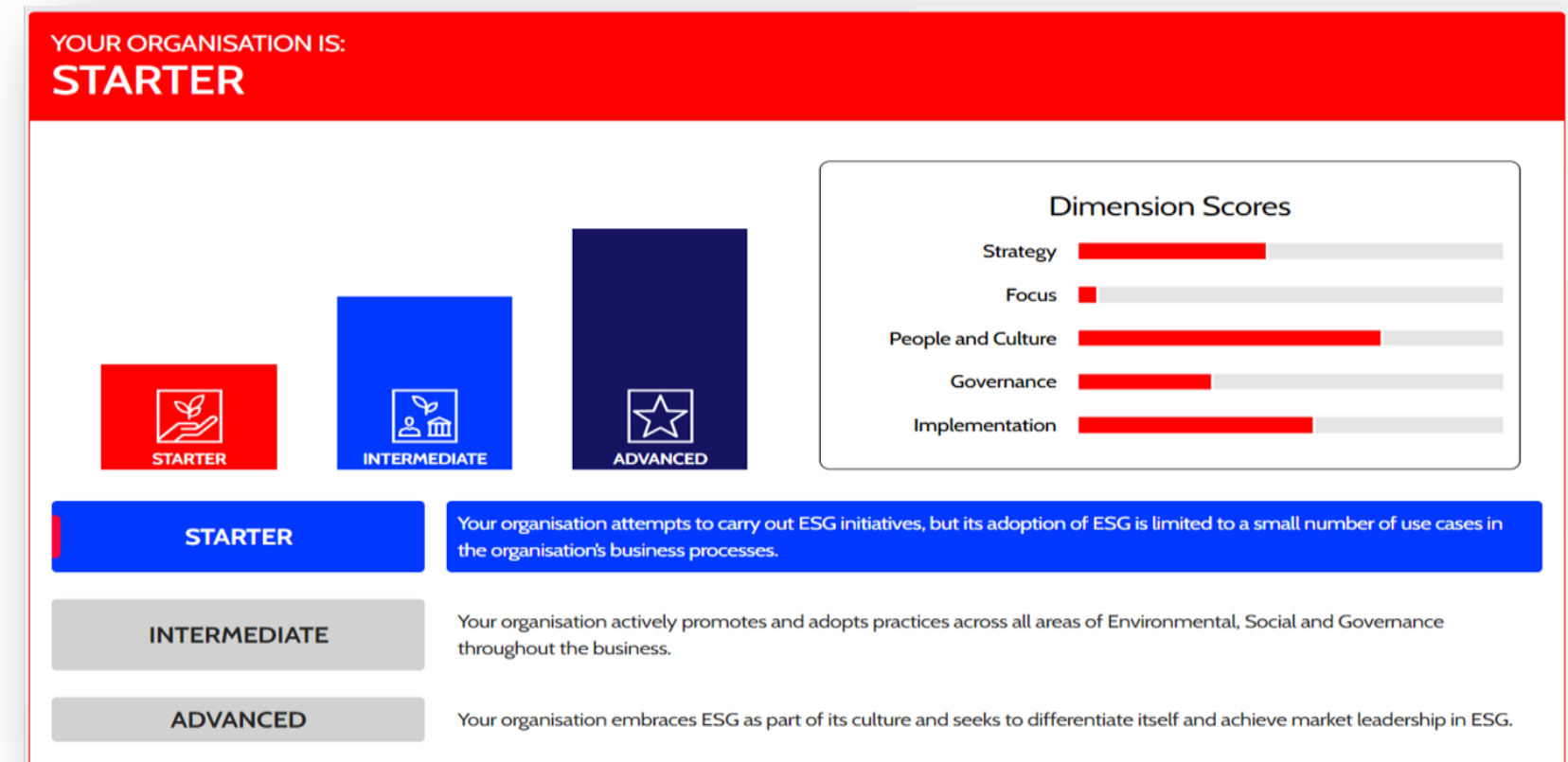
## MANAGE - Supplier's Sustainability Readiness

The ESG Maturity Assessment is a self-evaluation tool designed to help suppliers understand their current ESG maturity level. The resulting report offers tailored access to sustainability learning courses, enabling them to build knowledge and effectively prepare for ESG disclosures to corporates.

### Main features

- Suppliers to gain insights into their own maturity level and knowledge in sustainability
- ESG capacity building and training courses tailored for SMEs based on their level of readiness supporting their readiness to provide ESG disclosures to corporates
- Track your suppliers' progress and completion

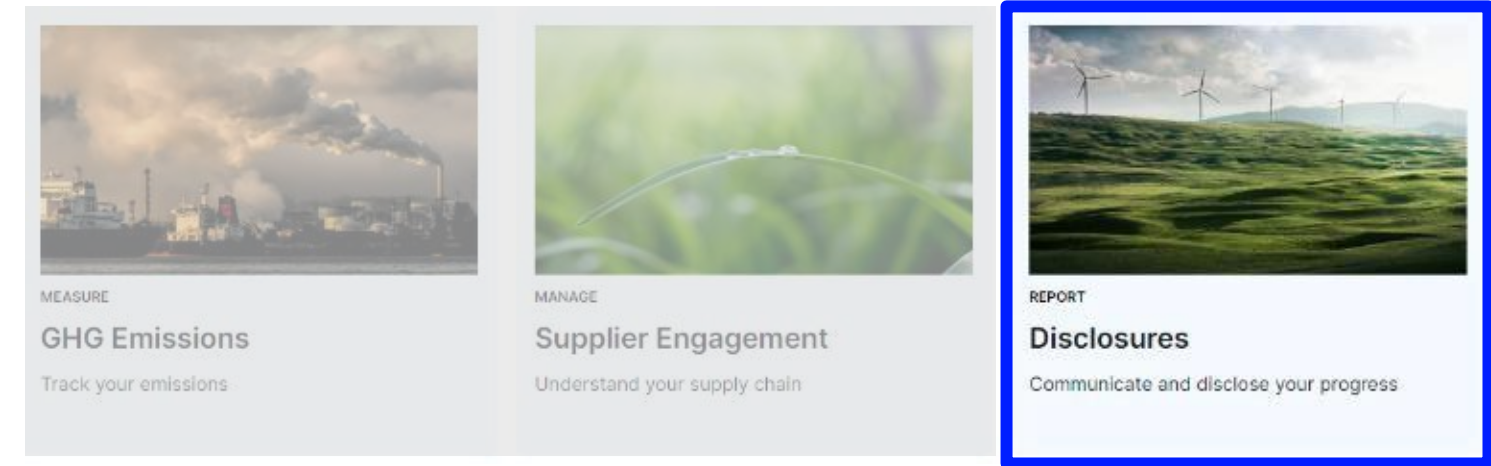
Foundational	Intermediate	Advanced
 Understanding Sustainability	 Introduction to Sustainability Reporting	 Understanding Circular Economy
 Understanding GHG Emissions	 Introduction to Sustainable Supply Chain	 Understanding Sustainable Finance
 Introduction to Human Rights	 Overview of Occupational Safety and Health	
 Foundations of Integrity		



# CSI Platform - *Report*

## REPORT - Disclosures

The reporting module enables corporates to align their reporting with leading global sustainability standards and frameworks. This simplifies corporate reporting, facilitating the creation of easily shareable reports for key stakeholders.



### What is it? & use cases

Comprehensive Sustainability reporting tool for corporates of all sizes. Annual sustainability reporting that is aligned to the leading global and local frameworks.

### Main features

- 'Report only once' with common indicators across frameworks mapped.
- Aligned to leading frameworks like ISSB, GRI, TCFD, GHGP (LSEG ESG).
- Climate and sustainability reporting.
- Reporting made accessible to corporates of different maturity levels.
- Detailed guidance and tool tips to guide users through the reporting process.

The image displays two screenshots of the CSI Platform reporting interface. The top screenshot shows the 'Board oversight' section with a 'Guidance' pop-up. The bottom screenshot shows the 'Risks and opportunities' section.

**Top Screenshot: Board oversight**

My Reports / ABC Berhad

ABC Berhad

- ^ Governance
  - Board oversight
  - Management's role
- ^ Strategy
- ^ Risk Management
- ^ Metrics & Targets
- ^ Summary

**Board oversight**

**BOARD POSITION**

Which ISSB standard do you want to use in disclosing this indicator?

☒ IFRS S1 (Sustainability)

☒ IFRS S2 (Climate change)

**[S1] BOARD POSITION**

**Guidance**

**Board position**

How to choose the applicable ISSB standard

Identify the relevant thematic scope for disclosing this information in your company's context: - IFRS S1 applies when the board has oversight over general sustainability issues (including climate change) - IFRS S2 is applicable when there is a dedicated member or committee of the board oversight over climate change specifically.

What

**Bottom Screenshot: Risks and opportunities**

My Reports / ABC Berhad

ABC Berhad

- ^ Governance
- ^ Strategy
  - Risks and opportunities
- ^ Risk Management
- ^ Metrics & Targets
- ^ Summary

**Risks and opportunities**

**RISKS AND OPPORTUNITIES IDENTIFICATION**

Which ISSB standard do you want to use in disclosing this indicator?

☒ IFRS S1 (Sustainability)

☒ IFRS S2 (Climate change)

**[S1] RISKS AND OPPORTUNITIES IDENTIFICATION**

Associated frameworks ISSB

Has the company identified sustainability-related risks and opportunities that could reasonably be expected to affect its prospects?

☐ Yes ☐ No

**[S2] RISKS AND OPPORTUNITIES IDENTIFICATION**

Associated frameworks ISSB TCFD GRI TPI LSEG

Is the company aware that climate change can represent commercial risks and/or opportunities?

☐ Yes ☐ No

Does the company recognise climate change as a relevant risk to the business?

☐ Yes ☐ No

Answers saved 5 seconds ago

Back Next



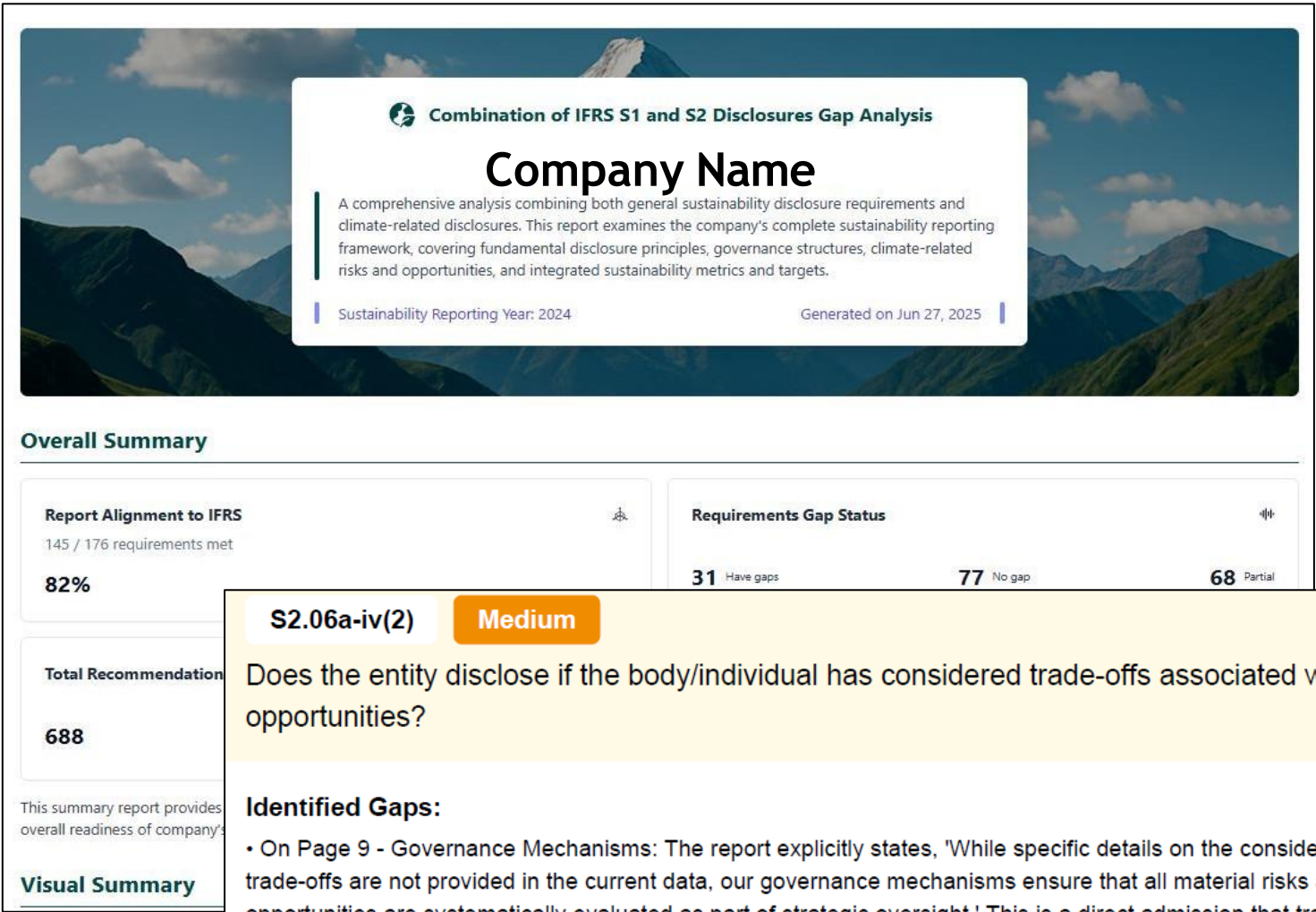
# CSI Solution

## *Value-Added Services*

02

# CarbonGPT’s Gap Analysis Report to improve your IFRS S1 & S2 readiness

Features	Summary Report <i>(provided as part of this engagement)</i>	Full Detailed Report	
		S1 report	S2 report
Pages	3 Pages	40+ Pages	100+ Pages
Requirements Analysed	Overview only	52 S1 requirements	131 S2 requirements (160 S2 requirements for Financial Services, REITs and Property sector)
Gap Identification	Section-level only	Line-by-line requirement assessment	
Page References	Not included	Exact page numbers in your report	
Recommendations	General suggestions	100+ specific, actionable recommendations	100+ specific, actionable recommendations
Implementation Guidance	Basic direction	Step-by-step improvement instructions	
Consultation by Carbon GPT	Not included	60-minute walkthrough of key findings and recommendations	



S2.06a-iv(2)

Medium

Does the entity disclose if the body/individual has considered trade-offs associated with risks and opportunities?

Identified Gaps:

- On Page 9 - Governance Mechanisms: The report explicitly states, 'While specific details on the consideration of trade-offs are not provided in the current data, our governance mechanisms ensure that all material risks and opportunities are systematically evaluated as part of strategic oversight.' This is a direct admission that trade-offs have not been specifically disclosed or described, even though governance structures are in place for risk/opportunity evaluation.
- On Page 8 - Governance Mechanisms: The report mentions that the board considers both risks and opportunities, including the trade-offs involved, but does not provide any specific examples, processes, or outcomes of such trade-off considerations. The statement is high-level and lacks verifiable detail or evidence of actual deliberation or documentation of trade-offs.
- Across Pages 6-10 (Governance and Risk Management): While there is robust description of risk management, board oversight, and scenario analysis, there is no substantive disclosure or example showing that the board or relevant body/individual has actually considered trade-offs associated with specific risks and opportunities.

Recommendations:

- On Page 8 - Governance Mechanisms - Expand the disclosure to include specific examples or case studies where the board or relevant committees have considered trade-offs between risks and opportunities. For instance, describe a situation where the board weighed increased compliance costs against the benefits of climate resilience investments, or where short-term operational costs were balanced against long-term sustainability opportunities.
- On Page 9 - Governance Mechanisms - Add a subsection or paragraph explicitly outlining the process by which trade-offs are identified, discussed, and documented during board or committee meetings. This should include references to agenda items, decision-making frameworks, or minutes where trade-offs were a focus.



# CarbonGPT’s AI-powered tool for sustainability reporting



Carbon GPT

- Backed by Malaysia Digital Economy Corporation (MDEC). Part of MDEC’s network of domestic fintech that is being groomed through its funding programme
- Proven success in producing generative AI sustainability report, compliant to Malaysia regulatory requirements
- Successfully assisted large companies with reporting during POC
- Key solutions include AI-SR and IFRS S1 and S2 Gap Analysis



## Carbon GPT’s AI-Sustainability Reporting (AI-SR)

*Generates a base sustainability report that complies with regulatory requirements and industry standards, using disclosure inputs from the CSI Platform.*

- a) Aggregate data from diverse sources, with thorough analysis and presentation, tailored to align with the specific language and narrative style unique to each corporation.
- b) Effectively shorten the time required to produce sustainability report
- c) Craft narratives that emphasise critical sustainability achievements and objectives, ensuring the reports are not only data-driven but also compelling and engaging.

Jul 7, 2025, 03:51

### General Disclosures

#### 2.1. Reporting Scope

##### 2.1.1. Reporting Boundaries

Bursa Malaysia Berhad, as a public limited company with a publicly traded ownership structure, maintains its headquarters and principal operations in Malaysia. Our consolidated reporting boundary encompasses all entities under our direct operational control, ensuring that our disclosures are comprehensive and aligned with both financial and sustainability reporting requirements.

The following table summarises our key legal entities within the reporting boundary:

Legal Entity Name	Type	Country of Incorporation
Bursa Malaysia Berhad	Public Limited Company	Malaysia
Labuan International Exchange	Subsidiary/Exchange	Malaysia

Our major assets and business units covered by this report include the Main Building (Headquarters), Annexe (Headquarters), Disaster Recovery Centre, and Labuan International Exchange. These facilities represent the full scope of our operational activities and are included in our sustainability and climate-related disclosures.

For greenhouse gas (GHG) emissions reporting, we apply the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, using an operational control approach. This ensures that all emissions from assets directly managed by us are systematically accounted for. Our Scope 1 and Scope 2 GHG emissions are fully disaggregated and reported for the consolidated accounting group, with no emissions reported from associates, joint ventures, or unconsolidated subsidiaries, as our operational footprint is limited to entities under direct control.

Reference Number #000000

# SustenyX's AI-Sustainability Ratings Analyser to improve your ESG Ratings



- Backed by Malaysia Digital Economy Corporation (MDEC)
- AWS-affiliated local fintech and in the process of getting onboarded to the GTI programme
- Also developed ChatESG, which is integrated into the CSI Platform
- Successfully improved FTSE4Good ESG ratings of more than 10 companies during POC

## SustenyX's AI-Sustainability Ratings Analyser (AI-SRA)

### A - Rating Optimization Report

- Predict or forecast your upcoming score
- Identified key theme(s) for score optimization.
- Highlight immediate opportunities and areas for growth

### B - Initial Assessment Report

- Indicative Score based on this year initial assessment outcomes
- Breakdown of number of indicators disclosures improved compared to previous year.
- Breakdown of indicator improvements by themes
- Guidance for feedback submission





# CSI SOLUTION: Connecting data, people and purpose in one comprehensive solution to drive Malaysian companies' sustainability excellence

## CSI Solution

Centralised Sustainability Intelligence

### Sustainability Reporting Platform

*Bursa Malaysia's designated sustainability reporting channel for PLCs*

- ISSB reporting & other climate reporting
- GHG emissions calculator (Scope 1 & 2)
- Metrics and performance targets (*coming soon*)

### CSI Supplier Engagement Solution

*Targeted approach to support sustainability integration in supply chains*

- Scope 3 calculator
- Supplier engagement & management
- Training on GHG emissions calculation & sustainability reporting
- ESG maturity assessment for suppliers

### Sustainability Financing Solutions

- Incentivise your suppliers with the right financing programmes from our bank partners

### CSI Value-Added Services

New

*Digital services offered by CSI partners to help corporates streamline disclosures and reduce reporting costs*

- AI-Sustainability Rating Analyser
- AI-Sustainability Reporting

# Additional information...



- Visit our [website](#)
- Email us: [csi@bursamalaysia.com](mailto:csi@bursamalaysia.com)





# Thank you

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**Suruhanjaya Sekuriti**  
Securities Commission  
Malaysia

# Session 4: Integrated Reporting Across the Supply Chain: Bursa CSI Solution



**Wong Hui Yin**

Acting Director  
Data & Digital Services  
Bursa Malaysia



# Session 5: Supporting SME Reporting: SEDG GHG Calculator



**Navina Balasingam**

General Manager  
Capital Markets Malaysia



**Akhilan Manivannan**

Consultant  
LASAJU Consulting Sdn Bhd





# Simplified ESG Disclosure Guide (SEDG) for SMEs in Supply Chains





# Simplified ESG Disclosure Guide (SEDG) for SMEs in Supply Chains

## Objective

- Provides SMEs (as the data preparers) with a simple and standard set of disclosures to track and report.
- It provides **stakeholders** (as the data requesters) with a simple and standard set of disclosures to ask for

## Target User

- SMEs that are **compelled** to track and report on ESG data – because they want to, or a required to by customers and/or financiers.

## Standards and Frameworks Referenced

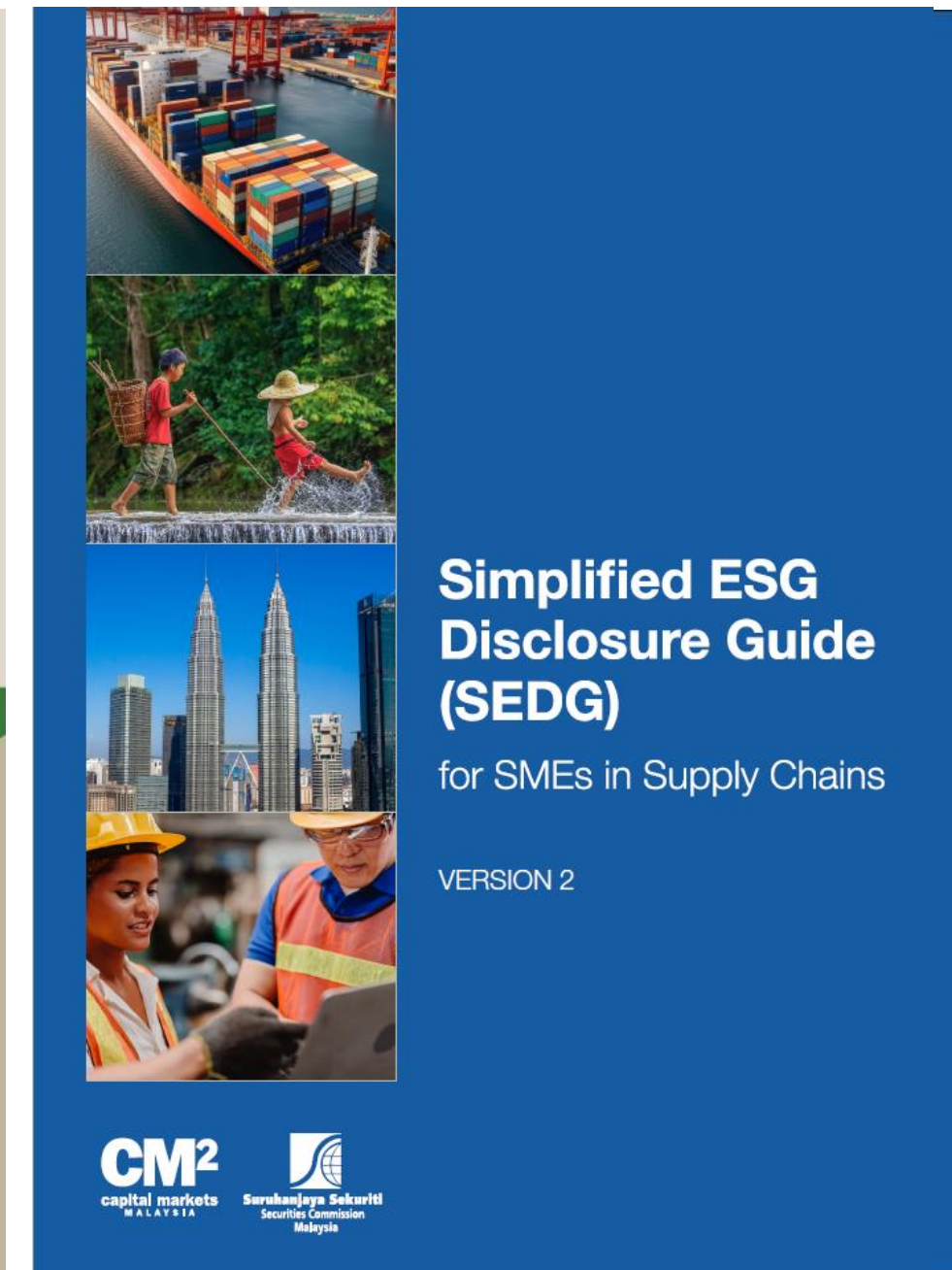
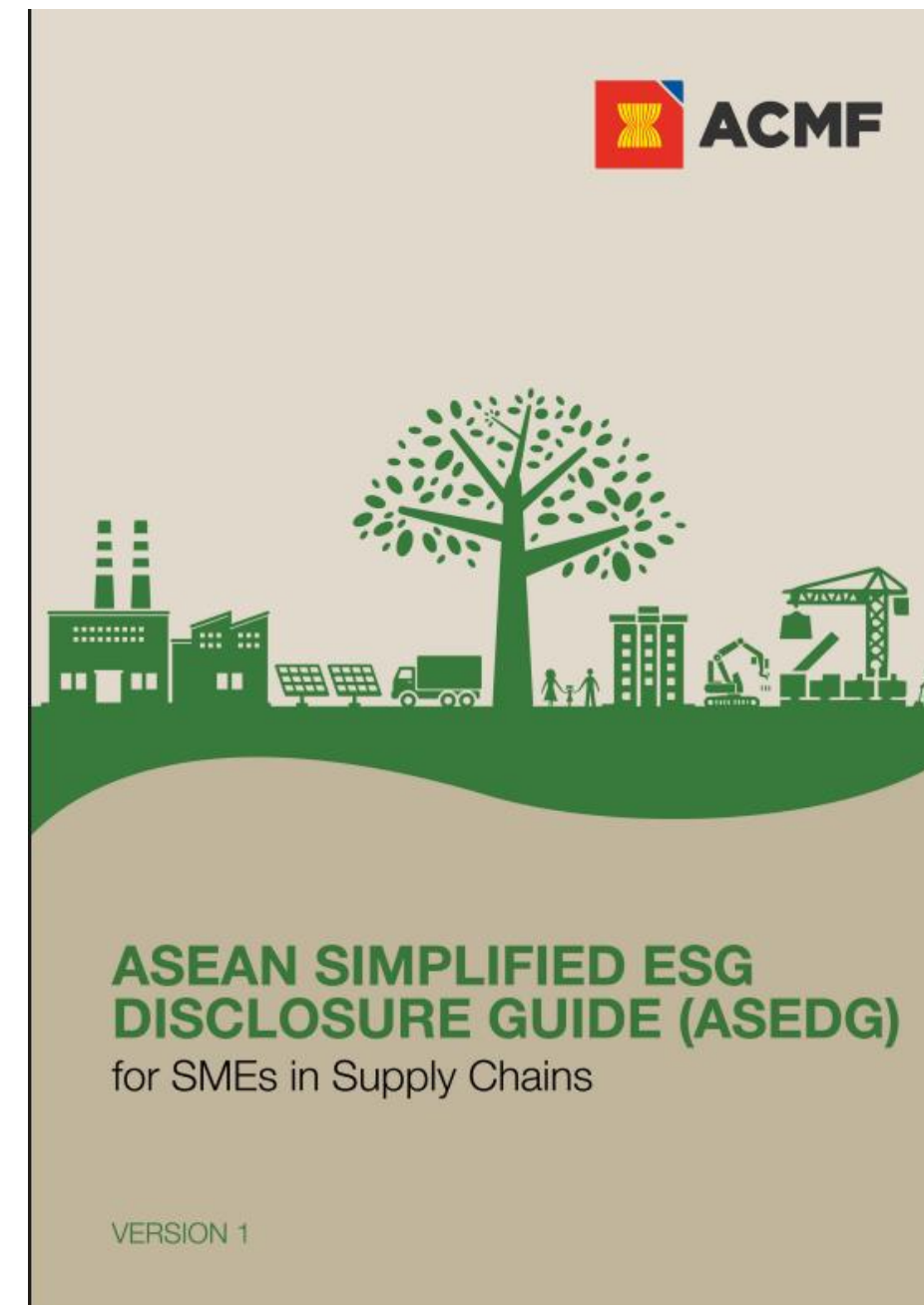
- Bursa Malaysia's Listing Requirements and Sustainability Reporting Guide, FTSE4Good, GRI, IFRS S1 and S2, and CDP

## Addressing Different Sustainability Capabilities

- The 38 disclosures are divided into Basic, Intermediate and Advanced to cater for the different levels of sustainability **maturity** in each company

## Supporting SEDG Adoption

- Adopter Programme – Large corporates, major banks and chambers of commerce
- Nationwide workshops to ensure adoption of SEDG is accessible to SMEs
- Multi-language versions



**Consolidates and simplifies the many complex global and local ESG-related frameworks to improve the availability of ESG data and information by SMEs**



# Sectoral & Multi-language Guide

## SEDG Sectoral Guide

The sectoral guidance deep dives in specific sectors for the Environmental and Social pillars.



**ENERGY**



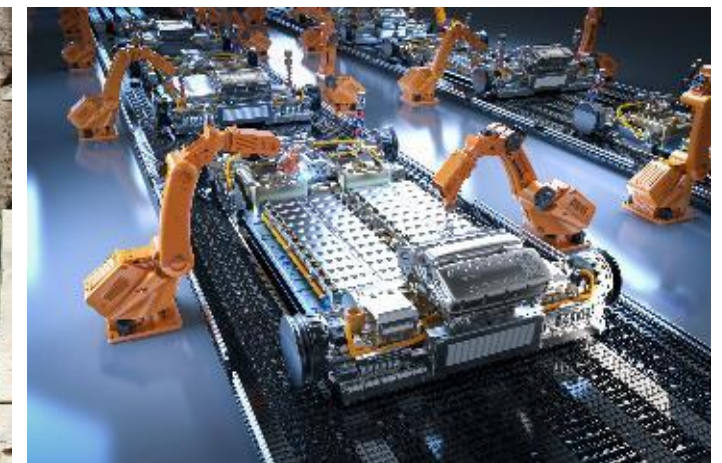
**TRANSPORT & STORAGE**



**AGRICULTURE**



**CONSTRUCTION & REAL ESTATE**



**MANUFACTURING**

## SEDG Adoption

Practical video tutorial for all disclosures under the SEDG

Nationwide workshops to ensure adoption of SEDG is accessible to SMEs

Simplified GHG Emissions Calculator



**Human Rights and Labour Practices Guide**



**Multilanguage versions**



# SEDG Adopters



## Large Companies with Supply Chains



## Financial Institutions



## Trade Associations, Chambers of Commerce and Trade Commission



## Investors



## Regulators and Government Agencies



## ESG Reporting Platforms and Tools



## Service Providers, Consultants and Non-Governmental Organisations (NGOs)



# SEDG GHG Emission Calculator



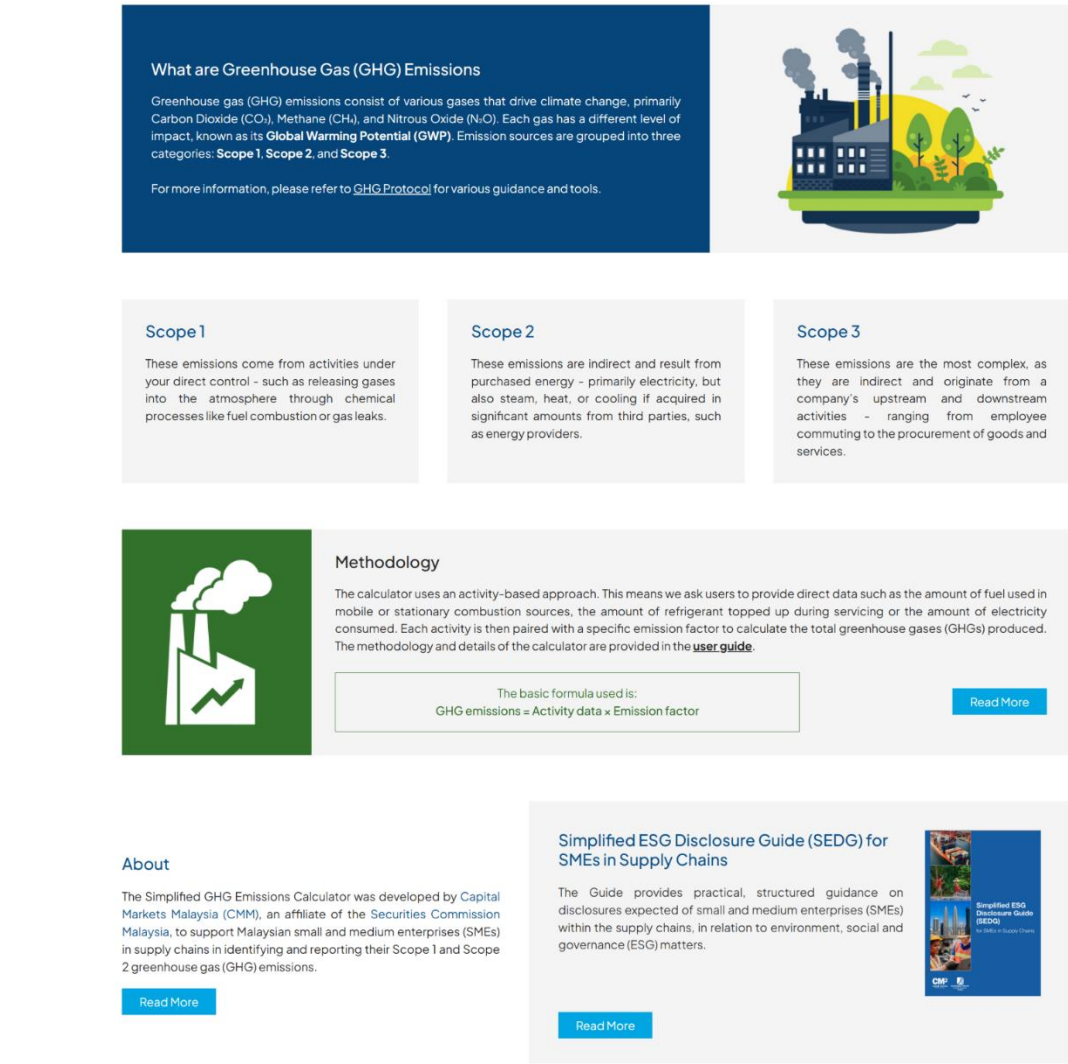
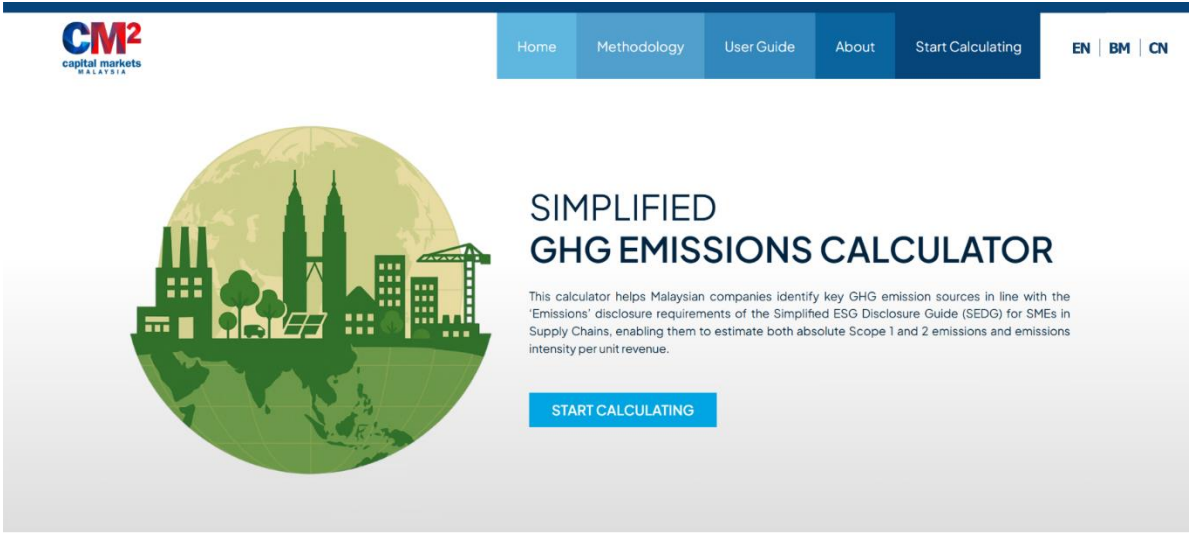


# SEDG GHG EMISSIONS CALCULATOR

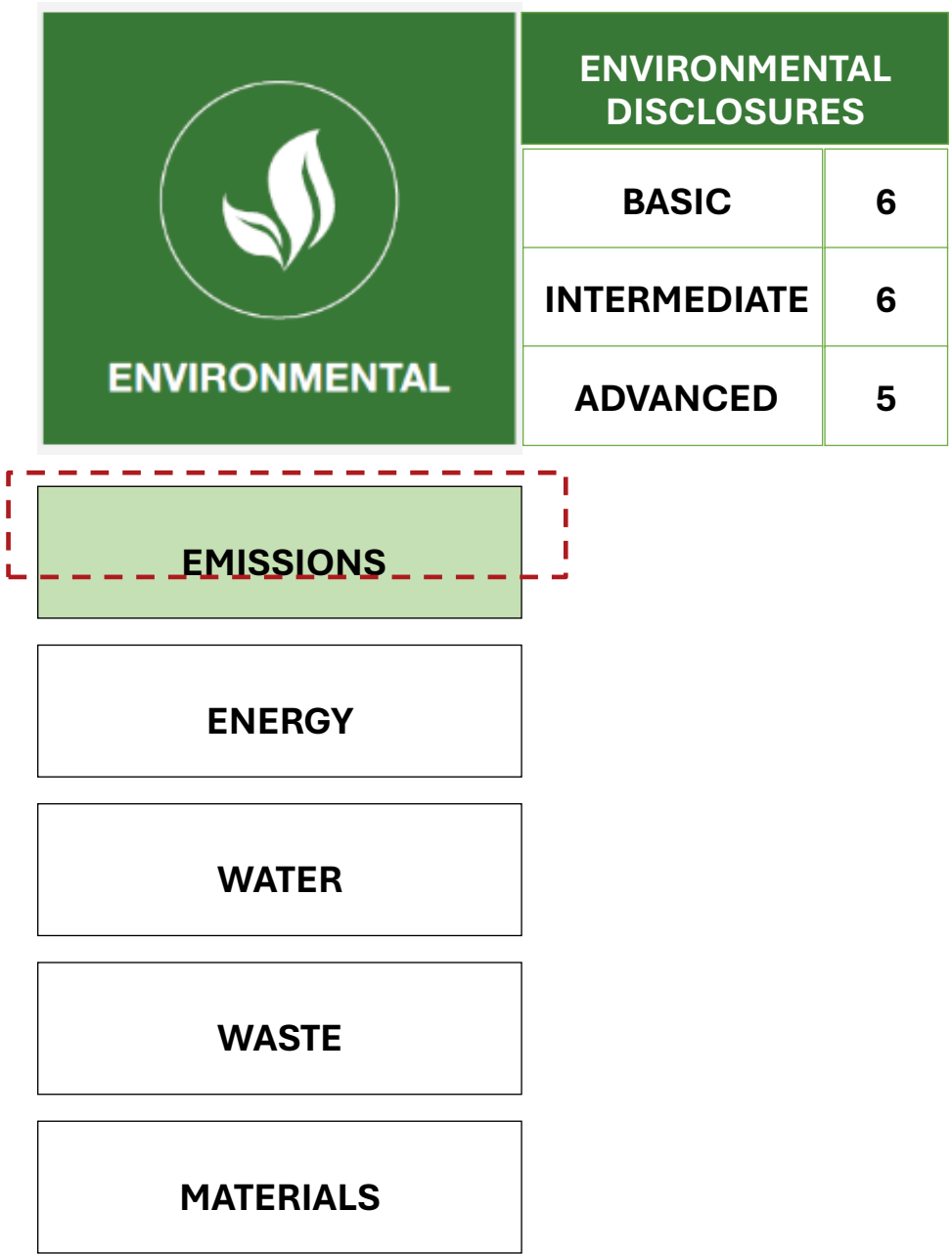
This calculator helps Malaysian companies identify key GHG emission sources in line with the 'Emissions' disclosure requirements of the Simplified ESG Disclosure Guide (SEDG) for SMEs in Supply Chains, enabling them to estimate both absolute Scope 1 and 2 emissions and emissions intensity per unit revenue.

**START CALCULATING**

# The Simplified GHG Emissions Calculator



- The Calculator is designed to assist Malaysian SMEs to easily measure their annual **Scope 1 and 2 emissions**, at no cost
- Available not only in English, but also in **Bahasa Melayu** and **Simplified Chinese**
- By entering the activity data, the platform will calculate **both direct and indirect emissions**
- Aligned with the '**Emissions**' disclosure requirements outlined in the **SEDG**, the calculator adopts the **Greenhouse Gas (GHG) Protocol** — the internationally recognised standard for carbon accounting







# Methodology



- The calculator adopts an **activity-based** approach, based on the **Greenhouse Gas (GHG) Protocol**
- Each activity is then paired with a specific emission factor to calculate the total greenhouse gases (GHGs) produced
- The methodology and details of the calculator are provided in the **user guide**

**CM2**  
capital markets  
MALAYSIA

Home Methodology **User Guide** About Start Calculating

## Methodology

The GHG Calculator is a user-friendly tool developed to help SMEs measure their Scope 1 and Scope 2 greenhouse gas emissions. Based on the globally recognised [Greenhouse Gas \(GHG\) Protocol](#), it enables companies to estimate their emissions using easily accessible operational data. Scope 1 emissions include those from stationary sources like boilers and generators, mobile sources such as vehicles and forklifts, as well as refrigerant leaks from air-conditioning systems. Scope 2 emissions refer to those generated from the consumption of purchased grid electricity.

### How the emissions are calculated

The calculator uses an activity-based approach. This means we ask users to provide direct data such as the amount of fuel used in mobile or stationary combustion sources, the amount of refrigerant topped up during servicing or the amount of electricity consumed. Each activity is then paired with a specific emission factor to calculate the total greenhouse gases (GHGs) produced.

The basic formula used is:  
**GHG emissions = Activity data × Emission factor**



# The Calculator...



**CM2**  
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Home Methodology User Guide About Start Calculating EN | BM | CN

Overview > Scope 1 > Scope 2 > Intensity > Result Summary

## Welcome to the Simplified GHG Emissions Calculator

The Simplified GHG Emission Calculator is designed to help Malaysian SMEs easily calculate their Scope 1 and 2 emissions by simply entering their activity data as specified.

To begin, we kindly request some basic information about your company to assist us better understand the GHG emission profiles across different sectors in Malaysia. This information will be used solely by Capital Markets Malaysia for internal tracking and analysis. The final report generated by the user will remain private and accessible only to the user.

**Industry** ⓘ

Automotive

**Company Size** ⓘ

501 – 1,000 employees

**Company Revenue** ⓘ

MYR 1 million – MYR 5 million

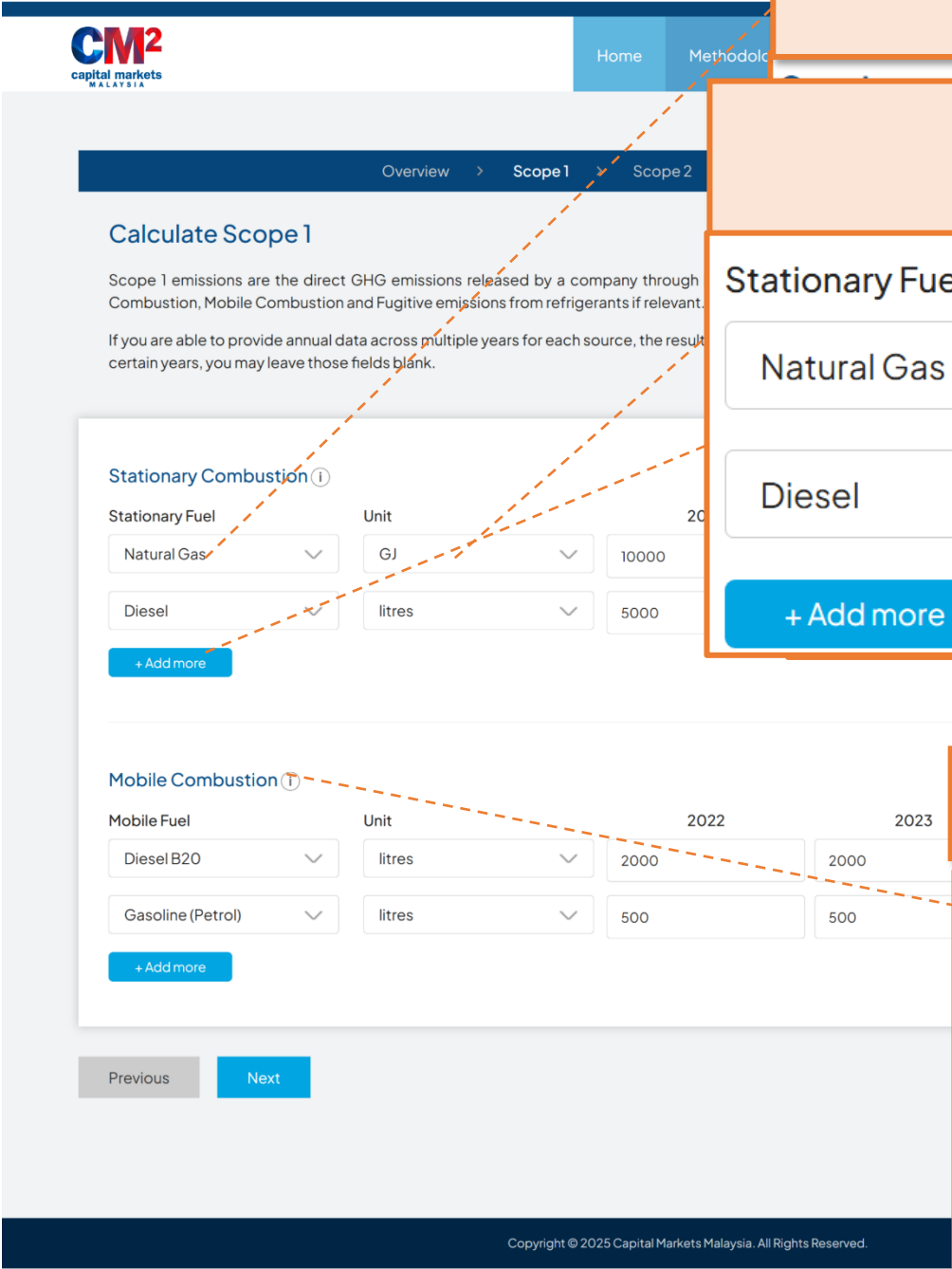
Next

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The Calculator will prompt SMEs to enter the following details before proceeding:

- The **primary sector** in which the company operates
- **Total number of employees** in the company
- **Total revenue** of the company for the last complete reporting year

# The Calculator: Scope



Step 1: Select fuel

Stationary Combustion ⓘ	Stationary Fuel	Unit	2022	2023	2024
	Natural Gas	mmbtu	mmbtu	mmbtu	mmbtu

Step 2: Select unit

Step 4: “Add” as many stationary combustion sources as necessary

Stationary Fuel	Unit	2022	2023	2024
Natural Gas	GJ	10000	10000	20000
Diesel	litres	5000	3000	1000

+ Add more

Step 5: Repeat for mobile combustion sources

Mobile Combustion ⓘ	Mobile Fuel	Unit	2022	2023	2024
	Diesel	litres	2000	2000	2000
	Gasoline (Petrol)	litres	500	500	500

+ Add more

*Note: The user guide provides detailed explanations of the terms used and instructions on how to collect the required information for the calculator.*



# The Calculator: Scope 2



CM2

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MALAYSIA

Home

Overview

Scope 1

Scope 2

Calculate Scope 2

Scope 2 emissions are indirect GHG emissions resulting from the energy (e.g., electricity) purchased from external providers. In this calculator, we focus only on emissions from purchased electricity, and not on emissions from self-generated electricity.

If you are able to provide annual data across multiple years for each electricity grid, you can enter the data for each year. If data is unavailable for certain years, you may leave those fields blank.

Purchased Electricity ⓘ

Region

Unit

2022

2023

2024

-- Select Region --

kWh

-- Select Unit --

Peninsular Malaysia (Tena

Sabah, Malaysia (Sabah E

Sarawak, Malaysia (Sara

Kulim

Per

+ Add more

Businesses with Solar Installations:

i) If you have purchased the solar outright under the Net Energy Metering (NEM) Net Offset Virtual Aggregation (NOVA) programme, you can offset your electricity consumption with the generated solar electricity sent back to the energy provider from the total grid consumption.

ii) If your solar installation is under a "Feed in Tariff" scheme, you do not retain the green attributes and therefore cannot offset your electricity consumption.

Previous

Next

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Step 1: Select region where grid electricity is consumed

Purchased Electricity ⓘ

Region	Unit	2022	2023	2024
-- Select Region --	kWh			
-- Select Unit --				
Peninsular Malaysia (Tena				
Sabah, Malaysia (Sabah E				
Sarawak, Malaysia (Sara				
Kulim				
Per				

Step 2: Select unit of electricity consumption

Purchased Electricity ⓘ

Region	Unit	2022	2023	2024
-- Select Region --	kWh			
-- Select Unit --				
Peninsular Malaysia (Tena				
Sabah, Malaysia (Sabah E				
Sarawak, Malaysia (Sara				
Kulim				
Per				

Step 3: Enter electricity consumption data

Purchased Electricity ⓘ

Region	Unit	2022	2023	2024
Peninsular Malaysia (Tena	kWh	100000		
Sabah, Malaysia (Sabah E	kWh	5000		
Sarawak, Malaysia (Sara				
Kulim				
Per				

Step 4: "Add more" for consumption in any addition regions

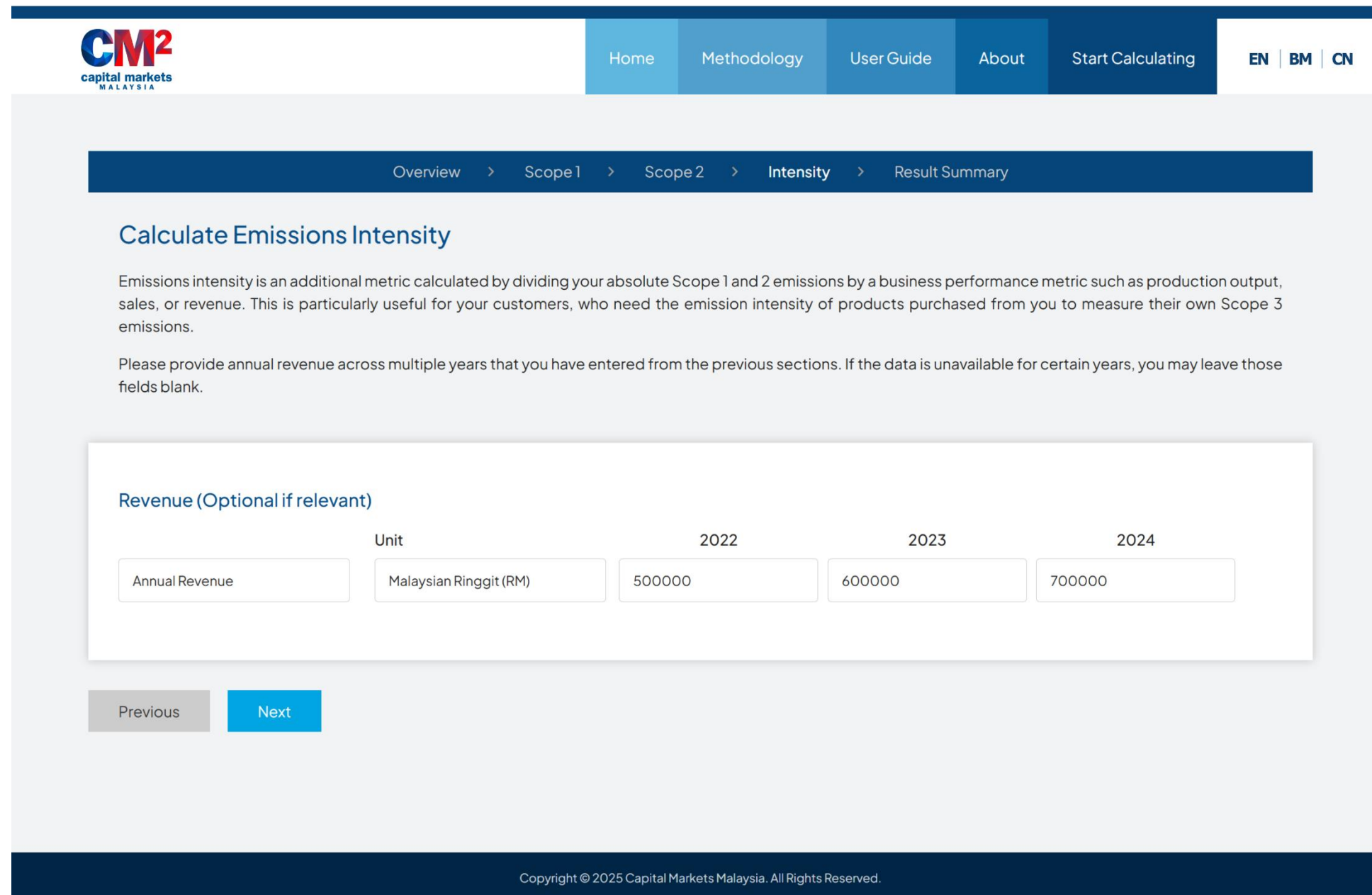
Purchased Electricity ⓘ

Region	Unit	2022	2023	2024
Peninsular Malaysia (Tena	kWh	100000	150000	130000
Sabah, Malaysia (Sabah E	kWh	5000	10000	20000
Sarawak, Malaysia (Sara				
Kulim				
Per				

*Note: The user guide provides detailed explanations of the terms used and instructions on how to collect the required information for the calculator.*

55

# The Calculator: Emissions Intensity



The screenshot shows the 'Calculate Emissions Intensity' section of the CM2 Capital Markets Malaysia calculator. The interface includes a navigation bar with links to Home, Methodology, User Guide, About, and Start Calculating. A breadcrumb trail indicates the current path: Overview > Scope 1 > Scope 2 > Intensity > Result Summary. The main heading is 'Calculate Emissions Intensity'. Below it, a paragraph explains that emissions intensity is calculated by dividing absolute Scope 1 and 2 emissions by a business performance metric like production output, sales, or revenue. It notes that this is useful for customers needing emission intensity for their own Scope 3 emissions. A note asks for annual revenue across multiple years, allowing for blank entries if data is unavailable. The form section, titled 'Revenue (Optional if relevant)', contains a table for inputting annual revenue for 2022, 2023, and 2024. The table has columns for 'Unit', '2022', '2023', and '2024'. The 'Unit' column is set to 'Malaysian Ringgit (RM)'. The '2022' column has a value of 500000, '2023' has 600000, and '2024' has 700000. The 'Annual Revenue' label is in the first column. Navigation buttons 'Previous' and 'Next' are at the bottom of the form. The footer states 'Copyright © 2025 Capital Markets Malaysia. All Rights Reserved.'

**CM<sup>2</sup>**  
capital markets  
MALAYSIA

Home Methodology User Guide About Start Calculating EN | BM | CN

Overview > Scope 1 > Scope 2 > **Intensity** > Result Summary

### Calculate Emissions Intensity

Emissions intensity is an additional metric calculated by dividing your absolute Scope 1 and 2 emissions by a business performance metric such as production output, sales, or revenue. This is particularly useful for your customers, who need the emission intensity of products purchased from you to measure their own Scope 3 emissions.

Please provide annual revenue across multiple years that you have entered from the previous sections. If the data is unavailable for certain years, you may leave those fields blank.

**Revenue (Optional if relevant)**

	Unit	2022	2023	2024
Annual Revenue	Malaysian Ringgit (RM)	500000	600000	700000

Previous Next

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- Emissions intensity is an additional metric calculated by dividing Scope 1 and 2 emissions by a business performance indicator such as production output, sales, or **revenue**
- This is particularly useful for **SME clients who require the emissions intensity** of purchased products to assess their own **Scope 3 emissions**



# The Calculator: Result Summary



GHG Emissions Summary Report				
Report for General ID:		24	Generated:	2025-06-17 03:14:29
Total GHG Emissions				
Category	Unit	2022	2023	2024
Total Scope 1	metric tonnes of CO2e	582.55	576.65	1,132.75
Total Scope 2	metric tonnes of CO2e	80.03	121.35	111.12
Total Scope 1+2	metric tonnes of CO2e	662.57	698.00	1,243.87
Total Intensity				
Category	Unit	2022	2023	2024
Scope 1 Intensity	metric tonnes CO2e/million RM revenue	1,165.10	961.08	1,618.21
Scope 2 Intensity	metric tonnes CO2e/million RM revenue	160.05	202.25	158.74
Total Intensity (Scope 1+2)	metric tonnes CO2e/million RM revenue	1,325.15	1,163.33	1,776.95
Scope 1 Breakdown				
Stationary Combustion	metric tonnes of CO2e	576.75	570.85	1,126.95
Mobile Combustion	metric tonnes of CO2e	5.80	5.80	5.80
Scope 2 Breakdown				
Electricity Consumption	metric tonnes of CO2e	80.03	121.35	111.12
Other Energy Consumption (Steam, Heat, Cooling)	metric tonnes of CO2e	0.00	0.00	0.00
General Information				
Id	24			
Industry	Construction and Infrastructure			
Company Size	51 – 200 employees			
Company Revenue	MYR 500,000 - MYR 1 million			
Created At	2025-06-17 11:08:42			
Updated At	2025-06-17 11:08:42			
Scope 1 Input Details				
Stationary Combustion Inputs				
Fuel Type	Input Unit	2022	2023	2024
Natural Gas	GJ	10,000.00	10,000.00	20,000.00
Diesel	litres	5,000.00	3,000.00	1,000.00
Mobile Combustion Inputs				
Fuel Type	Input Unit	2022	2023	2024
Diesel B20	litres	2,000.00	2,000.00	2,000.00
Gasoline (Petrol)	litres	500.00	500.00	500.00
Scope 2 Input Details				
Electricity Consumption Inputs				
Region	Input Unit	2022	2023	2024
Peninsular Malaysia - Tenaga Nasional Berhad	kWh	100,000.00	150,000.00	130,000.00
Sabah - Sabah Electricity Sdn Bhd	kWh	5,000.00	10,000.00	20,000.00
Revenue Inputs (Used for Intensity Calculation)				
Year	Revenue (RM)			
2022	500,000.00			
2023	600,000.00			
2024	700,000.00			

Excel Format

GHG Emissions Summary Report				
Report for General ID: 24 (Generated: 2025-06-17 03:14:29)				

### Total GHG Emissions

Category	Unit	2022	2023	2024
Total Scope 1	metric tonnes of CO2e	582.55	576.65	1,132.75
Total Scope 2	metric tonnes of CO2e	80.03	121.35	111.12
Total Scope 1+2	metric tonnes of CO2e	662.57	698.00	1,243.87

### Total Intensity

Category	Unit	2022	2023	2024
Scope 1 Intensity	metric tonnes CO2e/million RM revenue	1,165.10	961.08	1,618.21
Scope 2 Intensity	metric tonnes CO2e/million RM revenue	160.05	202.25	158.74
Total Intensity (Scope 1+2)	metric tonnes CO2e/million RM revenue	1,325.15	1,163.33	1,776.95

### Scope 1 Breakdown

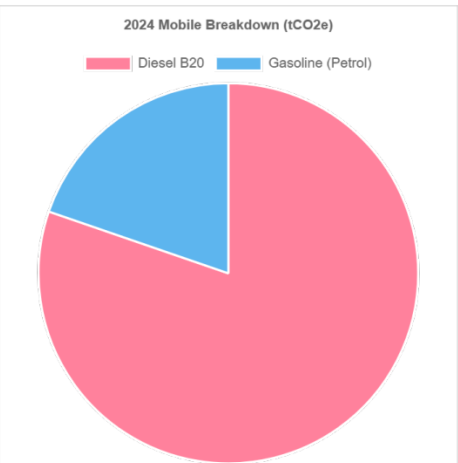
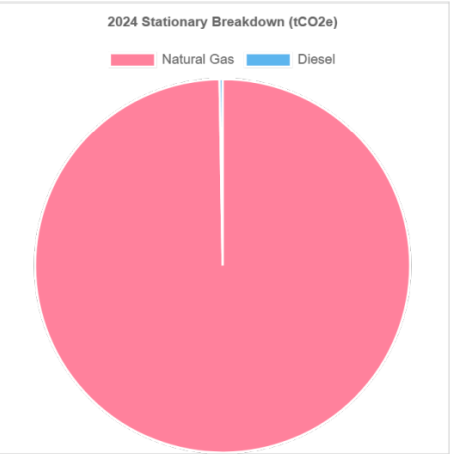
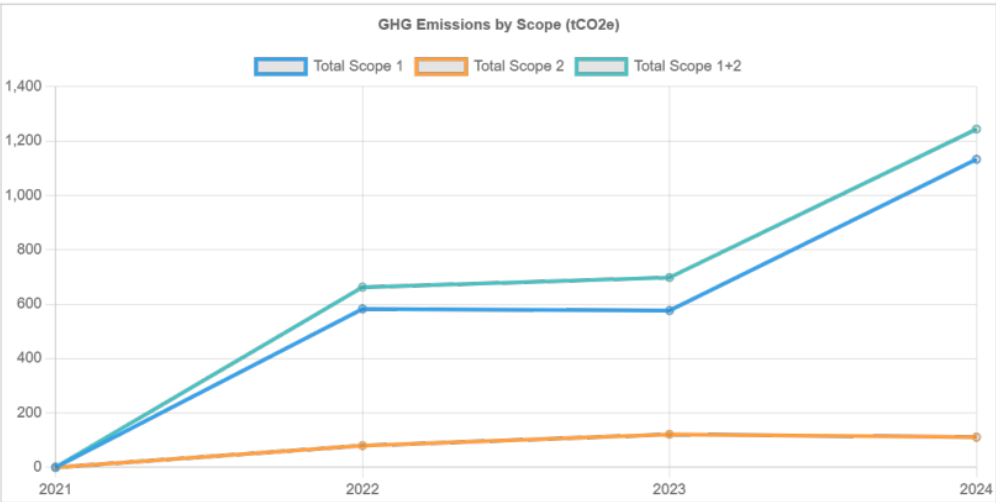
Category	Unit	2022	2023	2024
Stationary Combustion	metric tonnes of CO2e	576.75	570.85	1,126.95
Mobile Combustion	metric tonnes of CO2e	5.80	5.80	5.80

### Scope 2 Breakdown

Category	Unit	2022	2023	2024
Electricity Consumption	metric tonnes of CO2e	80.03	121.35	111.12

### Charts (Images)

Note: Charts are embedded as images. For dynamic charts, view the web summary.



PDF Format

# The Calculator: User Guide



Home

Methodology

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## 2.4 Emission Factors

The calculator comes with pre-filled specific emission factors, including for:

- Fuel combustion commonly used in Malaysia (diesel, petrol, LPG, natural gas)
- Grid electricity consumption from Malaysia's three main grids and Kulim Hi-Tech Park

### 2.4.2 Scope 2 Indirect Emissions

For this calculator, the latest available emission factors from Suruhanjaya Tenaga published in the "Grid Emission Factor (GEF) in Malaysia (2017-2022)" were used, with subsequent years using the latest 2022 emission factor. For Kulim Hi-Tech Park, the emission factor published by N.U.R Power for 2023 "NUR Power's Scope 1 & 2 Emissions in 2023" is used for all years.

#### a. Purchased Electricity

Year	Location	Emission Factor	Unit
2022	Peninsular Malaysia - Tenaga Nasional Bhd	0.774	mt CO <sub>2</sub> e/MWh
	Sabah - Sabah Electricity Sdn Bhd	0.525	mt CO <sub>2</sub> e/MWh
	Sarawak - Sarawak Energy Bhd	0.199	mt CO <sub>2</sub> e/MWh
	Kulim Hi-Tech Park – N.U.R Power	0.540	mt CO <sub>2</sub> e/MWh
2023	Peninsular Malaysia - Tenaga Nasional Bhd	0.774	mt CO <sub>2</sub> e/MWh
	Sabah - Sabah Electricity Sdn Bhd	0.525	mt CO <sub>2</sub> e/MWh
	Sarawak - Sarawak Energy Bhd	0.199	mt CO <sub>2</sub> e/MWh
	Kulim Hi-Tech Park – N.U.R Power	0.540	mt CO <sub>2</sub> e/MWh
2024	Peninsular Malaysia - Tenaga Nasional Bhd	0.774	mt CO <sub>2</sub> e/MWh





# SEDG GHG EMISSIONS CALCULATOR

This calculator helps Malaysian companies identify key GHG emission sources in line with the 'Emissions' disclosure requirements of the Simplified ESG Disclosure Guide (SEDG) for SMEs in Supply Chains, enabling them to estimate both absolute Scope 1 and 2 emissions and emissions intensity per unit revenue.

**Making GHG  
calculations simple  
for SMEs in the supply  
chain**





# Thank you



# Session 5: Supporting SME Reporting: SEDG GHG Calculator



**Navina Balasingam**

General Manager  
Capital Markets Malaysia



**Tobias Mangelmann**

Managing Director  
LASAJU Consulting Sdn Bhd



# Session 6: Panel Discussion

## Turning Sustainability Data Into Real Business Value

Moderator



**Ong Khai Chiat**

Partner  
PwC Malaysia

Panellist



**Leo Pui Yong**

Chief Sustainability Officer  
Tenaga Nasional Berhad

Panellist



**Masdi Abdul Karim**

Senior Director  
Suruhanjaya Perkhidmatan Air  
Negara (SPAN)

*Submit your  
questions on Slido*





Data to Disclosures (D2D) Forum

# Turning Sustainability Data Into Real Business Value

17 October 2025  
11:40am – 12:25pm  
Auditorium, Level LG1, Securities Commission Malaysia



# Our subsidiary, TNBX is taking the lead in developing a digital platform service designed specifically to address this gap.

**Data Fragmentation:** Energy consumption data is often scattered across departments, sites, or vendors.

**Manual Processes:** Companies rely on spreadsheets and manual data entry, increasing error risk.

**Lack of Expertise:** Not all teams are well-versed in emission factors or GHG protocols.

**Time-Consuming:** Monthly tracking, annual reporting, and audit preparation drain internal resources.

**Regulatory Pressure:** With 2027 approaching, compliance is not optional for public listed companies.

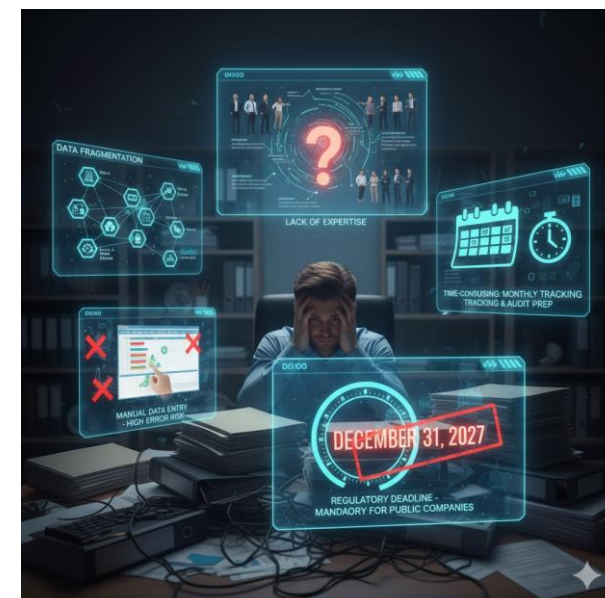


**One-Click Reporting:** Automated generation of Scope 2 GHG reports aligned to international standards.

**Trusted Data Source:** Based on verified electricity consumption (kWh) you already track.

**Interactive Dashboards:** Visibility on emissions trends and performance.

**Beyond Compliance:** Supports ESG goals, investor transparency, and internal sustainability initiatives.



For more info  
please contact:



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**Ir. Mohd Razif bin Abd Halim**  
Managing Director, TNBX Sdn. Bhd



# Session 6: Turning Sustainability Data Into Real Business Value.

## INTRODUCTION TO WATER SERVICES INDUSTRY



Masdi Abdul Karim,  
Senior Director of Strategic Planning & Transformation

17<sup>th</sup> October 2025 | Securities Commission



# WATER SERVICES INDUSTRY GOVERNANCE



01



**Ministry of Energy Transition and Water Transformation (PETRA)** – Water and sewerage policy makers

02



**State Government** – Water resource management, water resource abstraction, and water catchment management

03



**National Water Council (Majlis Air Negara, MAN)** – Establish national water management and development policies, directions and approaches.

04



**SPAN** – regulate water supply and sewerage services in Peninsular Malaysia and FT Labuan

05



**Strategic Regulator Partners** – Department of Environment (DOE), Department of Irrigation and Drainage (JPS), Ministry of Health (MOH) and Local Authorities



# SPAN'S ESTABLISHMENT



- *SPAN is a regulatory body which governs the **economic, social and technical** aspects of water supply and sewerage services in Peninsular Malaysia and the Federal Territory of Labuan.*
- *SPAN was established on 1<sup>st</sup> April 2007 under the Suruhanjaya Perkhidmatan Air Negara Act 2006 (Act 654).*
- *Amongst the objectives of WSIA is to establish the framework to regulatory intervention and promote the National Policy Objective for the water supply and sewerage services industry.*





# SPAN'S REGULATORY REGIME

## WATER USE & CONSUMPTION

SPAN promotes water use efficiency by establishing laws and guidelines for water reuse / recycle and product labelling schemes

Consumers

## SEWERAGE SYSTEM (TREATMENT)

SPAN regulates public & private STP, Individual & Communal Septic Tanks and associated sewerage networks

Sewage Treatment Plant

## SEWERAGE SYSTEM (DISCHARGE)

The discharge of effluent into water sources is governed by the Department of Environment (DOE) through statutory regulations, whereas SPAN reinforces compliance by establishing technical standards and undertaking systematic monitoring and compliance audits.

Water Sources

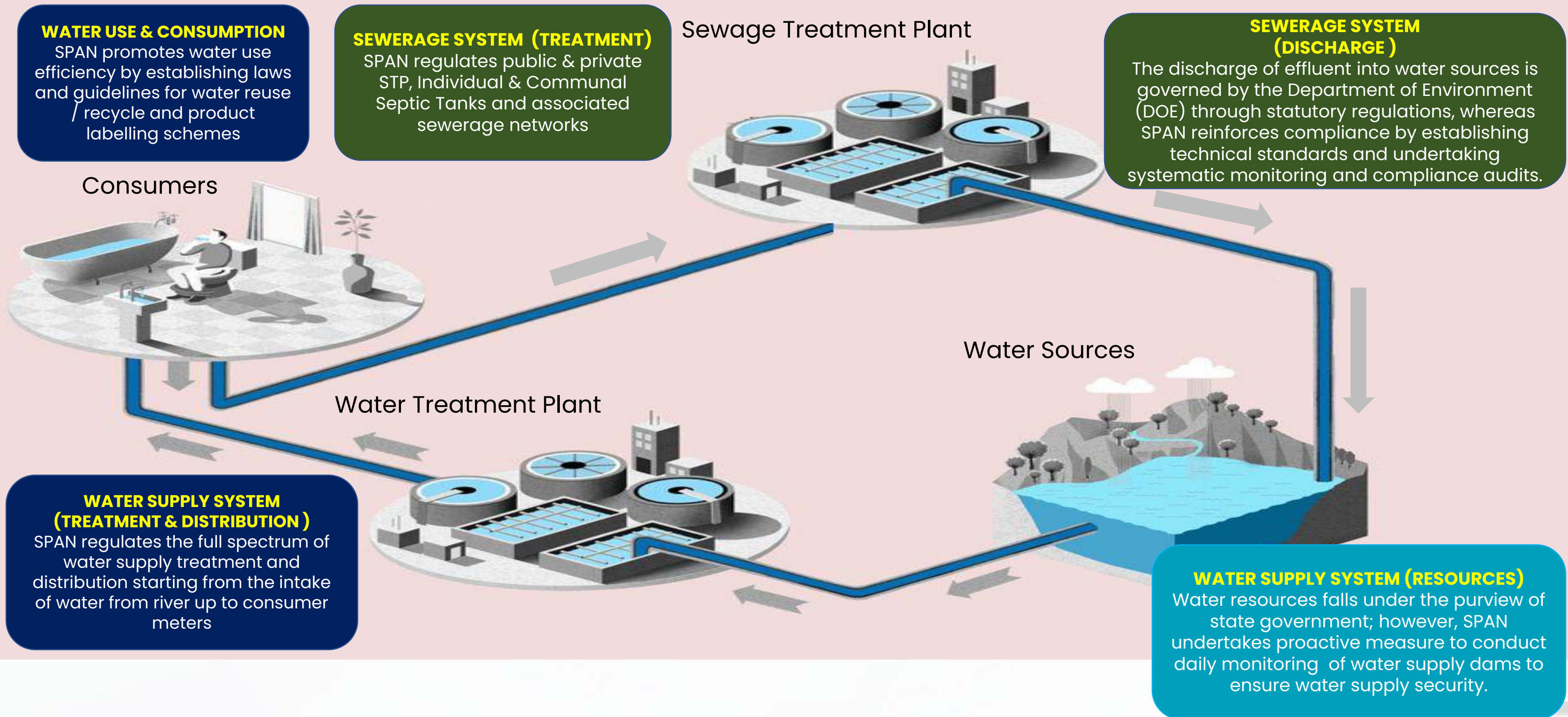
Water Treatment Plant

## WATER SUPPLY SYSTEM (TREATMENT & DISTRIBUTION)

SPAN regulates the full spectrum of water supply treatment and distribution starting from the intake of water from river up to consumer meters

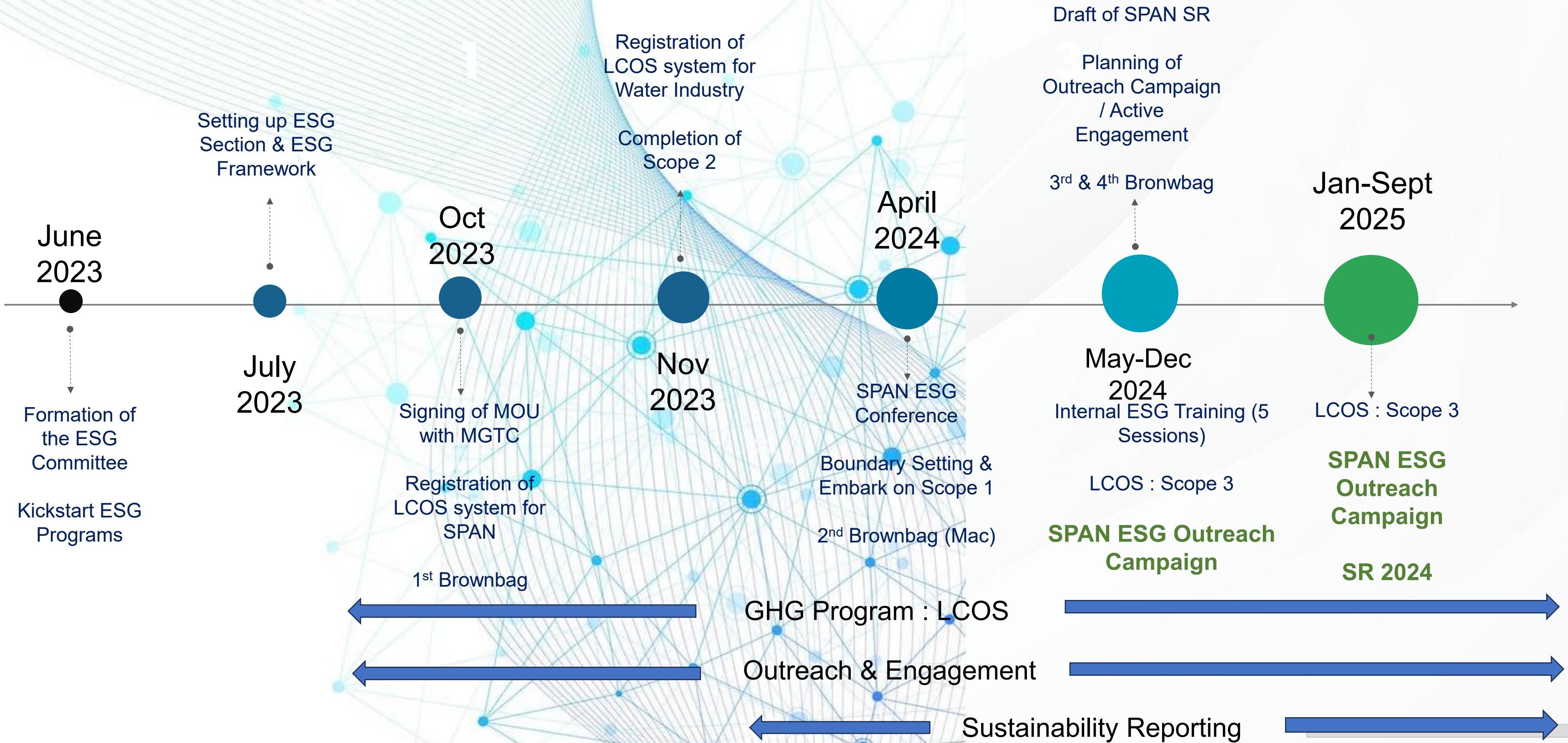
## WATER SUPPLY SYSTEM (RESOURCES)

Water resources falls under the purview of state government; however, SPAN undertakes proactive measure to conduct daily monitoring of water supply dams to ensure water supply security.



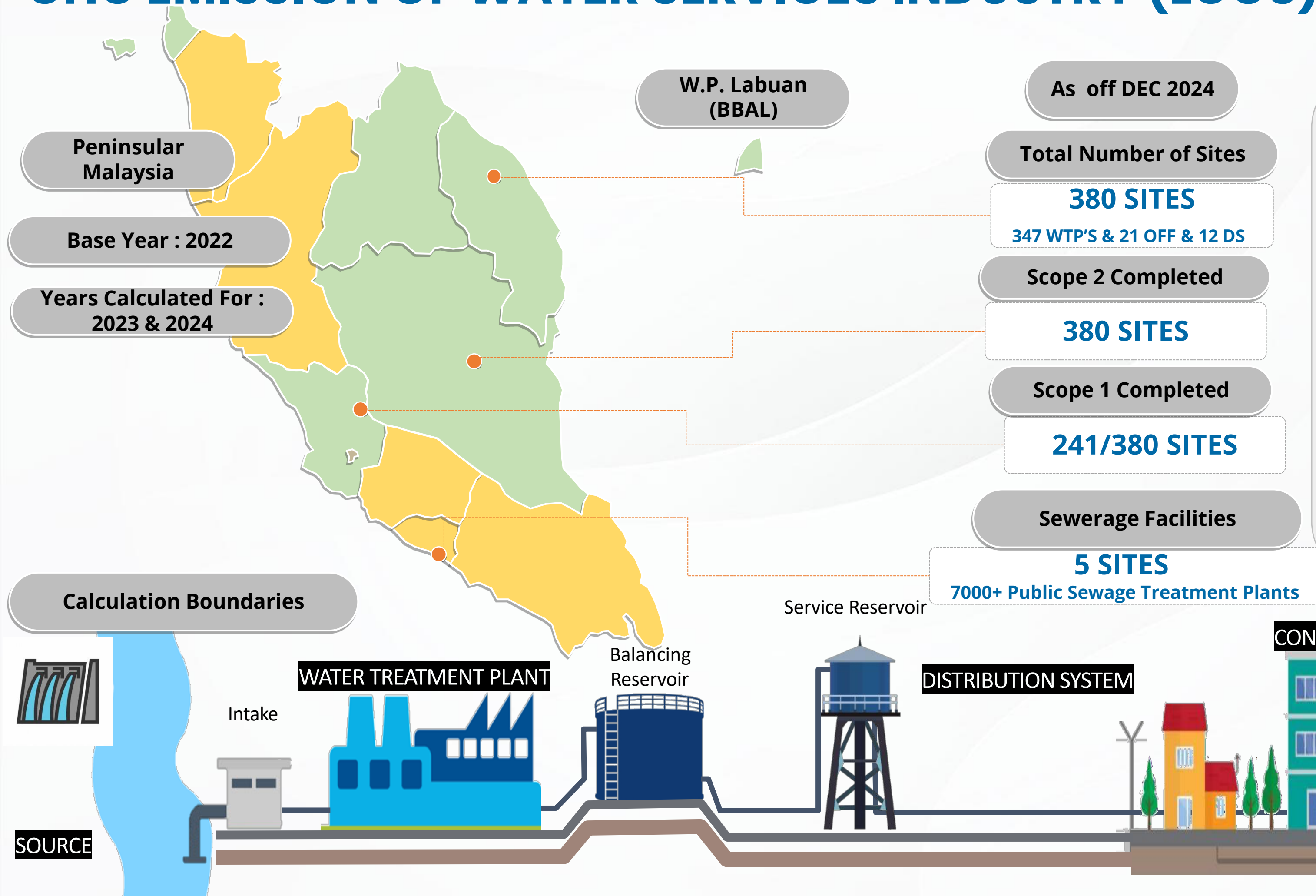


# OUR SUSTAINABILITY JOURNEY





# GHG EMISSION OF WATER SERVICES INDUSTRY (LCOS)



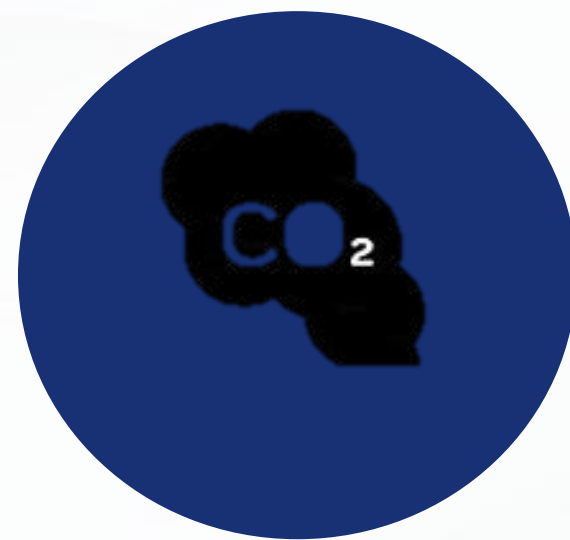
## Project Activities;

- **Awareness Training and Capacity Building**
- **Boundaries Setting & Standardizing the Industry**
- **Data Gap Analysis and Continuous Coaching**
- **Exploring most suitable Emission Factor for calculation**



# GHG EMISSION OF WATER SERVICES INDUSTRY (LCOS)

## THE WAY FORWARD IN 2025



“Reduce what you can,  
Offset or Remove what you can’t”



Development of National  
Emission Factor for  
Water Consumption  
(Ongoing Project with  
MGTC under RMK 12  
RP5 budget)



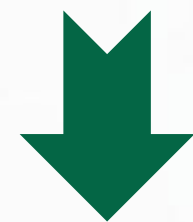
Target Setting

- Fact based communication and Target Setting for Water Industry
- Aligning to SBTi / Ministry and National Targets

Reduce  
/Offset/  
GHG  
Removals

Mitigation / Carbon Offset/  
GHG Removals

- Exploring mitigation strategies including green technologies that help to reduce the emissions
- Exploring and navigating incentives for Water Industry to embark on RE / GHG reduction



GHG Accounting,  
Boundary Setting & Gap  
Analysis & Data Collection  
for Scope 3  
**SPAN & Water Services  
Industry**



Annual Emission Report – Benchmark  
between States / Operators

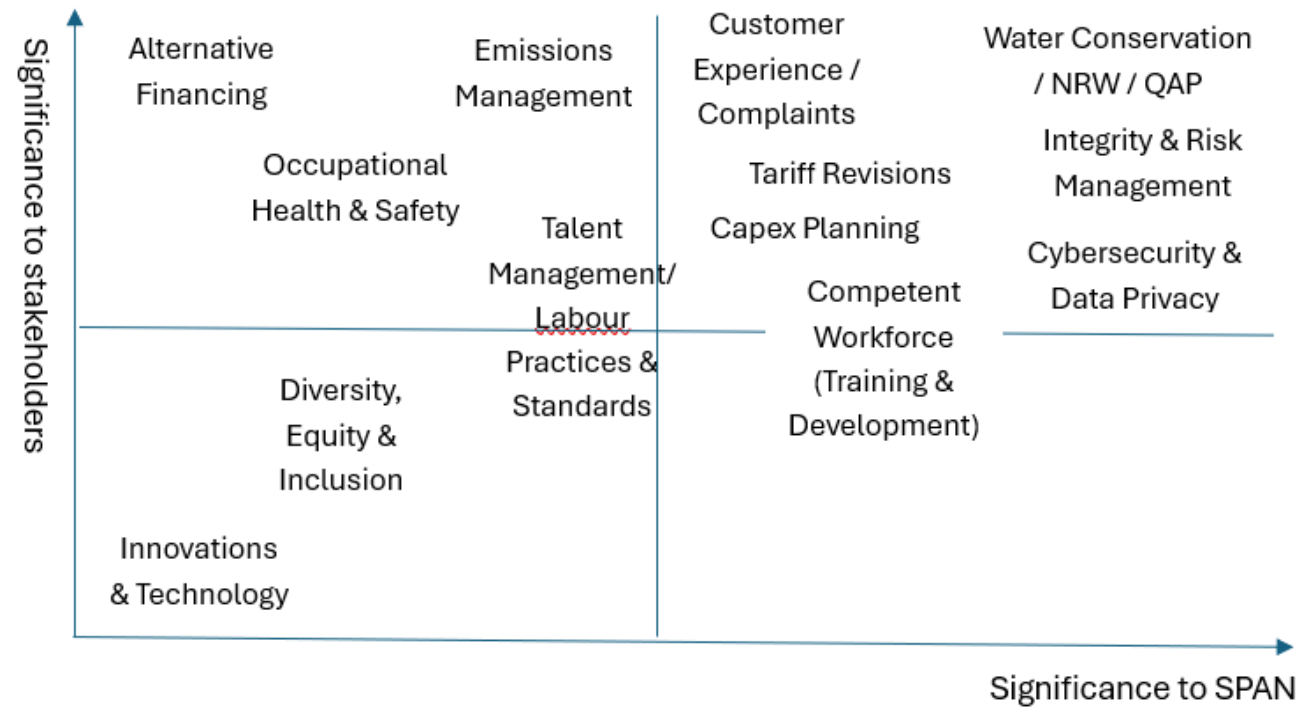
# SUSTAINABILITY REPORTING

## ESG FRAMEWORK



4 pillars and 11 indicators – 15 September 2023

## MATERIALITY MATRIX



Materiality Assessment was conducted with 2 groups of internal stakeholders and PUB & MCMC as external stakeholder.

Internal Stakeholders include SPAN Commissioners & Top Management



## SR 2023



## WAY FORWARD

1. SR 2024
2. Sustainability Roadmap of Water Services Industry 2026-2030
3. SR Guidelines for Water Services Industry





# thankyou

# SPAN<sup>®</sup>

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[span\\_malaysia](https://twitter.com/span_malaysia)



[spanmalaysia](https://www.tiktok.com/@spanmalaysia)



[TV Suruhanjaya Perkhidmatan Air Negara](https://www.youtube.com/SuruhanjayaPerkhidmatanAirNegara)



# Session 6: Panel Discussion

## Turning Sustainability Data Into Real Business Value

Moderator



**Ong Khai Chiat**

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Tenaga Nasional Berhad

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**Masdi Abdul Karim**

Senior Director  
Suruhanjaya Perkhidmatan Air  
Negara (SPAN)

*Submit your  
questions on Slido*





# **NSRF Preparers' Programme (NPP)**

## **Module 1: Sustainability Reporting Using the Illustrative Sustainability Reports**

**23 October & 3 December**



**For more information on the NSRF,  
including guidance documents and  
updates on capacity building, visit the  
NSRF microsite ([www.sc.com.my/nsrf](http://www.sc.com.my/nsrf))**



**For any queries, please email [nsrf@seccom.com.my](mailto:nsrf@seccom.com.my)**



**Suruhanjaya Sekuriti**  
Securities Commission  
Malaysia

# DATA TO DISCLOSURES FORUM

**Strengthening Data Capacity for NSRF Reporting Entities**

Friday, 17 October 2025

9:00am – 12:30pm

Securities Commission Malaysia

Organised by the Advisory Committee  
for Sustainability Reporting (ACSR)