

Sustainability Reporting Body of Knowledge



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Sustainability Reporting BOK

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Overview of Sustainability Reporting Body of Knowledge

Background

In today's business landscape, sustainability reporting has become a critical component of corporate disclosure. Investors are increasingly seeking detailed insights of how sustainability initiatives contribute to a company's financial performance and long-term value creation.

Sustainability reporting helps to bridge the gap between corporate sustainability efforts and investor expectations. It serves as a tool for companies to communicate their value creation strategies. By providing comprehensive and transparent disclosures about their sustainability efforts and their financial impacts, companies can attract the capital needed to drive both their growth and contribute to sustainability goals.

With an increasing number of companies progressively disclosing climate-related information to meet stakeholder expectations, Singapore will need to build a strong talent pipeline to meet the growing demand for professionals who can take on sustainability reporting-related roles.

To equip professionals with the requisite sustainability reporting skillsets, ACRA has therefore developed the Sustainability Reporting Body of Knowledge (SR BOK), which outlines the essential knowledge areas needed in this field. Training providers should refer to the SR BOK to design specialised courses.

Objectives

The SR BOK provides guidance for training providers to design training programmes that develop specialist skills in preparing sustainability reports, with a focus on climate reporting, in accordance with the IFRS Sustainability Disclosure Standards.

We hope that this will spur the development of relevant courses on sustainability reporting with the right depth and coverage. Through this initiative, we aim to build a robust capacity of experts to meet the growing demand of sustainability reporting professionals.

Targeted Job Roles and Skills

The SRBOK aims to equip professionals with technical skills and competencies in greenhouse gas accounting and sustainability/climate reporting, enabling them to take on roles as specialists in preparing sustainability reports.

Approach

The SR BOK was validated by more than 50 key stakeholders including company preparers, assurance providers, professional bodies and training providers to ensure that it is aligned to industry needs.

Recognising the dynamic nature of sustainability reporting, we will monitor developments in this field and update the SR BOK as necessary to reflect changes in standards and regulatory requirements.

Application of the SR BOK

The SR BOK serves multiple stakeholders in the sustainability reporting ecosystem:

For Training Providers: The SR BOK can be used as a guide for designing new training programmes and enhancing existing courses in sustainability reporting. By incorporating essential topics outlined in the SR BOK, training providers can ensure that their programmes are able to equip specialist preparers with the necessary skills to effectively carry out their roles, meeting industry needs and regulatory reporting requirements.

For Professionals: Individuals seeking to upskill in this area can use the SR BOK to assess their current skills and identify knowledge gaps. This will enable such individuals to identify suitable courses to address their learning needs.

For Employers: Employers may also use the SR BOK for crafting job descriptions for sustainability roles. By aligning job requirements with the SR BOK, employers can more effectively identify candidates who possess the specific skills needed for sustainability reporting.

Overview of Topics Covered

The SR BOK covers essential topics in accordance with key global standards, such as the application of the ISSB's IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information* and IFRS S2 *Climate-related Disclosures*, and the Greenhouse Gas (GHG) Protocol, for specialists preparing sustainability reports for their organisations. The SR BOK will serve as the foundation for training programme curricula, while giving training providers the flexibility to restructure the content and incorporate relevant topics to address specific learning needs. Case studies to demonstrate applications of key concepts will also be made available to training providers.

S/N	Topic	Sub-Topics	Proficiency Level ¹
1	Introduction to Sustainability Reporting	1.1 Global actions to address sustainability challenges	Basic
		1.2 Purposes and benefits of sustainability reporting	Basic
		1.3 Sustainability/climate reporting landscape internationally and regionally	Basic
		1.4 Singapore's regulatory requirements	Basic
2	Application of IFRS S1 <i>General Requirements for Disclosure of Sustainability-related Financial Information</i> and Materiality Assessment	2.1 Application of IFRS S1	Advanced
		2.2 Materiality assessment	Advanced
3	Application of IFRS S2 <i>Climate-related Disclosures</i>	3.1 Application of IFRS S2	Advanced
		3.2 Interoperability of IFRS S1 and IFRS S2 with other international standards	Intermediate
		3.3 Climate transition plans	Advanced
4	Application of Greenhouse Gas (GHG) Protocol	4.1 Application of GHG Protocol – Scope 1 and 2 GHG emissions	Intermediate
		4.2 Application of GHG Protocol – Scope 3 GHG emissions	Advanced

¹ The proficiency levels are based on SkillsFuture Singapore's value creation principles adapted from Bloom's Taxonomy. For more information, please refer to Appendix 1.

S/N	Topic	Sub-Topics	Proficiency Level ¹
5	The importance of governance in sustainability reporting, and the value and business case for sustainability reporting (beyond reporting and compliance)	5.1 What is good governance and how it helps in the oversight of sustainability reporting process	Basic
		5.2 Creating value through reporting and making disclosures matter – meeting stakeholders' needs	Basic
		5.3 Getting ready for assurance through building a robust data and process governance around sustainability reporting	Intermediate

Glossary

ACRA	Accounting and Corporate Regulatory Authority
ASEAN	Association of Southeast Asian Nations
CO₂	Carbon dioxide
COP	Conference of the Parties
CCUS	Carbon capture, utilisation, and storage
CDSB	Climate Disclosure Standards Board
CGS	Centre for Governance and Sustainability
CIFOR	Center for International Forestry Research
CPA	Carbon Pricing Act
CPA Australia	Certified Practising Accountant Australia
CrROs	Climate-related risks and opportunities
CSRD	Corporate Sustainability Reporting Directive
CTP	Climate Transition Plan
DEFRA	Department for Environment, Food and Rural Affairs
EDB	Economic Development Board
EFRAG	European Financial Reporting Advisory Group
EMA	Energy Market Authority
ESG	Environmental, Social, and Governance
ESRS	European Sustainability Reporting Standards
EU	European Union

EY	Ernst & Young
FY	Financial Year
GFANZ	Glasgow Financial Alliance for Net Zero
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
GWP	Global Warming Potential
IAASB	International Auditing and Assurance Standards Board
IEA	International Energy Agency
IESBA	International Ethics Standards Board for Accountants
IESSA	International Ethics Standards for Sustainability Assurance
IFAC	International Federation of Accountants
IFRS	International Financial Reporting Standards
IFRS SDS	IFRS Sustainability Disclosure Standards
IGES	Institute for Global Environmental Strategies
IMP	Inventory Management Plan
IPCC	Intergovernmental Panel on Climate Change
IPR FPS	Inevitable Policy Response: Forecast Policy Scenario
ISCA	The Institute of Singapore Chartered Accountants
ISO	International Organization for Standardization
ISSA	International Standard on Sustainability Assurance

LEED	Leadership in Energy and Environmental Design
MAS	Monetary Authority of Singapore
M&R	Measurement and Reporting
MTI	Ministry of Trade and Industry, Singapore
NCCS	National Climate Change Secretariat
NDCs	Nationally Determined Contributions
NEA	National Environment Agency
NGO	Non-governmental organisation
NGFS	Network for Greening the Financial System
NLCos	Non-listed companies
NUS	National University of Singapore
NTU	Nanyang Technological University
NZBA	Net-Zero Banking Alliance
OCBC	Oversea-Chinese Banking Corporation Limited
OECD	Organisation for Economic Co-operation and Development
PRI	Principles for Responsible Investment
PwC	PricewaterhouseCoopers
REC	Renewable energy certificate
SAF	Sustainable Aviation Fuel
SASB	Sustainability Accounting Standards Board

SEFR	Singapore Emission Factors Registry
SGX	Singapore Exchange
SGX RegCo	Singapore Exchange Regulation
SID	Singapore Institute of Directors
SRAC	Sustainability Reporting Advisory Committee
SrROs	Sustainability-related risks and opportunities
T&D	Transmission and distribution
tCO₂e	Tonnes of Carbon dioxide equivalent
TCFD	Task Force on Climate-related Financial Disclosures
TPT	Transition Plan Taskforce
UNDP	United Nations Development Programme
UNEP FI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
UN SDGs	United Nations Sustainable Development Goals
UOB	United Overseas Bank
US	United States
US EPA	United States Environmental Protection Agency
WEF	World Economic Forum
WBCSD	World Business Council for Sustainable Development



Topic 1

Introduction to Sustainability Reporting

Learning objectives

- Understand key sustainability matters at global, regional and national levels
- Explain the purpose and benefits of sustainability reporting
- Understand the major sustainability reporting standards and global reporting landscape
- Explain regulatory requirements for climate reporting in Singapore



►► Key knowledge area

1.1 Global actions to address sustainability challenges

Learning outcomes

- 1) Describe what sustainability means
- 2) Describe the United Nations Sustainable Development Goals (UN SDGs) and how the goals are interconnected
- 3) Explain the importance of the global actions in tackling climate change
- 4) Discuss global progress made towards climate change, in terms of the global agreements and the current state of progress
- 5) Explain the specific effects of climate change on Singapore and the Association of Southeast Asian Nations (ASEAN) region
- 6) Explain the significance of Singapore's commitment to the climate agenda and understand the broader implications for local and regional sustainability efforts
- 7) Understand carbon trading and carbon market, and Singapore's role as a hub for carbon services and trading

Proficiency Level
Basic

Recommended Training Hours
2 hours

Key contents

- 1) Describe what sustainability means
- 2) Describe the UN SDGs and how the goals are interconnected
- 3) Explain the importance of the global actions in tackling climate change
 - a) Explain the urgency of climate change and the call to action
 - b) Describe the key findings of the UN Environment Programme's Emissions Gap Report: Current Nationally Determined Contributions (NDCs) under the Paris Agreement are insufficient to limit global warming to 1.5°C or even 2°C above pre-industrial levels

- c) Describe the key findings of the Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report
 - d) Analyse the net-zero commitments made by major economies such as Europe (EU), United States (US), and Japan
- 4) Discuss global progress made towards climate change, in terms of the global agreements and the current state of progress
 - a) Understand the importance of international agreements and highlight recent developments from international forums (e.g. Conference of the Parties (COP))
- 5) Explain the specific effects of climate change on Singapore and the ASEAN region
 - a) Explain the climate change impacts and risks in Asia according to the IPCC's Sixth Assessment Report "Fact sheet - Asia"
 - b) Describe the impact of climate change to Singapore and the rest of ASEAN countries
 - c) Introduce the Singapore's Third National Climate Change Study
- 6) Explain the significance of Singapore's commitment to the climate agenda and understand the broader implications for local and regional sustainability efforts
 - a) Understand the Singapore Green Plan 2030: City in Nature, Sustainable Living, Energy Reset, Green Economy, Resilient Future
 - b) Illustrate Singapore's climate agenda, including the key steps that Singapore has embarked on to work towards a sustainable future
 - i) Paris Agreement Commitments: reducing its emissions intensity by 36% from 2005 levels by 2030 and aims to stabilise its emissions with the goal of peaking around 2030
 - ii) Renewable Energy and Energy Efficiency: e.g. Energy Market Authority's (EMA) support for corporates to install solar panels to generate renewable energy through a rebate of up to SGD10,000 for the installation of solar panels on commercial buildings
 - c) Explain why Singapore takes climate agenda seriously, even though our contribution to global emissions is 0.11%
 - d) Explain Singapore's 2035 NDCs
- 7) Understand carbon trading and carbon market, and Singapore's role as a hub for carbon services and trading
 - a) Understand carbon trading and carbon market
 - i) Carbon trading is a market-based system where companies or entities buy and sell permits or credits that allow them to emit a certain amount of carbon dioxide (CO₂) or other greenhouse gases (GHGs)
 - ii) Carbon trading consists of the primary and secondary market
 - Primary market: Carbon credits or allowances first issued and sold, typically by a government or regulatory body
 - Secondary market: Previously issued carbon credits or allowances are bought and sold among various market participants, including companies, financial institutions, and traders
 - iii) Carbon markets are platforms or systems where carbon trading takes place. The two main types of carbon markets:
 - Compliance Markets: Created by mandatory national, regional, or international regulations. Companies in these markets must comply with emission reduction targets set by governments

- Voluntary Markets: Operates outside of regulatory requirements. Companies or individuals participate voluntarily to offset their carbon footprints, often driven by corporate social responsibility goals or personal environmental commitments
- b) Explain Singapore's role as a carbon services hub and the strategic advantages:
 - i) Examples of developments in Singapore for carbon services:
 - Sustainable Aviation Blueprint to Focus on Supply of Sustainable Aviation Fuel (SAF)
 - Singapore's National Hydrogen Strategy
 - Carbon capture, utilisation, and storage (CCUS) technologies
 - ii) Strategic advantages:
 - Optimal business conditions
 - Attractive demand conditions
 - A growing partnership ecosystem
 - A fast-growing pipeline of green talent

Potential sources of materials

- United Nations Development Plan (UNDP): [*Background on the goals*](#)
- UN SDGs: [*17 Sustainable Development Goals*](#)
- UN SDGs: [*Transforming our world: the 2030 Agenda for Sustainable Development*](#)
- National Climate Change Secretariat (NCCS): [*Singapore Submits 2035 Nationally Determined Contribution*](#), February 2025
- IPCC: [*Sixth Assessment Report*](#), 2021/2022
- United Nations Environment Programme Finance Initiative (UNEP FI): [*Call to Action to Governments to respond with urgency on systemic climate risk*](#), September 2024
- IPCC: [*Urgent climate action can secure a liveable future for all*](#), March 2023
- National Environment Agency (NEA): [*Latest Climate Projections for Singapore Show Intensifying Urban Heat and More Wet & Dry Extremes*](#), January 2024
- United Nations Framework Convention on Climate Change (UNFCCC): [*The Paris Agreement*](#), 2015
- UNFCCC: [*The Glasgow Climate Pact – Key Outcomes from COP 26*](#), 2021
- UNFCCC: [*COP 27 Reaches Breakthrough Agreement on New "Loss and Damage" Fund for Vulnerable Countries*](#), November 2022
- UNFCCC: [*COP 28 Agreement Signals "Beginning of the End" of the Fossil Fuel Era*](#), December 2023
- UNFCCC: [*Global Climate Action at COP29*](#), 2024
- IPCC: [*Sixth Assessment Report 'Fact sheet - Asia'*](#), October 2022
- ASEAN: [*ASEAN State of Climate Change Report*](#), October 2021
- Centre for Climate Research Singapore: [*Singapore's Third National Climate Change Study*](#), 2024
- Bain & Company, Temasek, GenZero, and AWS: [*Southeast Asia's Green Economy 2023 Report: Cracking the Code*](#), 2023
- National Climate Change Secretariat (NCCS): [*Impact Of Climate Change in Singapore*](#), 2024
- Singapore Green Plan 2030: <https://www.greenplan.gov.sg/>, March 2025
- NCCS: [*Carbon services and trading*](#)
- National Environment Agency (NEA): [*Singapore Sets Out Eligibility Criteria for International Carbon Credits Under The Carbon Tax Regime*](#), October 2023
- Economic Development Board (EDB): [*Carbon Services*](#), August 2023
- Sustainability Magazine: [*Inside Singapore's Ambitious Sustainable Aviation Blueprint*](#), February 2024
- Civil Aviation Authority of Singapore: [*Singapore Sustainable Air Hub Blueprint*](#), February 2024
- Ministry of Trade and Industry (MTI): [*Singapore's National Hydrogen Strategy*](#), October 2022
- EDB: [*Appointment of S hub to develop cross-border CCS project*](#), March 2024

► Key knowledge area

1.2 Purposes and benefits of sustainability reporting

Learning outcomes

- 1) Explain what sustainability reporting is, its purpose, benefits, and expected users of sustainability reports
- 2) Explain the need for companies to prepare sustainability reports
- 3) Explain the reasons why and how institutional investors may be affected by climate change and understand how they may consider the Principles for Responsible Investment (PRI)
- 4) Describe the impact of climate change on financial institutions and their efforts through alliances such as Glasgow Financial Alliance for Net Zero (GFANZ) and the Net-Zero Banking Alliance (NZBA)
- 5) Explain the role of Environmental, Social and Governance (ESG) rating agencies (including CDP) in promoting transparency and accountability of companies' sustainability reporting practices

Proficiency Level
Basic

Recommended Training Hours
2 hours

Key contents

- 1) Explain what sustainability reporting is, its purpose, benefits, and expected users of sustainability reports
 - a) Illustrate what is sustainability reporting, and commonly used reporting standards (e.g. IFRS Sustainability Disclosure Standards (IFRS SDS), European Sustainability Reporting Standards (ESRS), and Global Reporting Initiative (GRI) Standards)
 - b) Explain the purpose of sustainability reporting (e.g. transparency, risk management, performance monitoring, regulatory compliance)
 - c) Explain the benefits of sustainability reporting, e.g.:
 - i) Enhances Reputation: Builds trust and improves brand image by showing commitment to sustainable practices
 - ii) Attracts Investors: Articulate the value of the company to investors with transparent ESG data
 - d) Describe the users of sustainability reports and how each group utilises them differently to meet their specific objectives. These include:
 - i) Investors and Analysts: Use ESG data to assess company value and risk
 - ii) Lenders: To assess the credit risks of borrowers
 - iii) Customers: Make purchasing decisions based on company sustainability efforts
 - iv) Regulatory Bodies: Verify compliance with legal ESG requirements.
 - v) Suppliers and Partners: Align with sustainable business practices and build responsible supply chains
 - vi) Employees: Understand and engage with the company's sustainability initiatives
 - vii) Non-Governmental Organisations (NGOs): Evaluate corporate social responsibility and environmental impact

- e) Illustrate the general components that form a sustainability report by providing examples of sustainability reports prepared by Singapore-incorporated companies. Depending on the standard applied, this can include:
 - i) Sustainable development strategy
 - ii) Organisational profile
 - iii) Sustainability governance
 - iv) Materiality assessment (including identification of impacts, risks and opportunities and stakeholder engagement)
 - v) Sustainability risk management
 - vi) Sustainability topics including initiatives, metrics, targets and performance
- 2) Explain the business case for companies to engage in sustainability and climate reporting (e.g. access to funding, exposure to other markets etc.)
- 3) Explain why and how institutional investors may be impacted by climate change and how they may take collective actions through initiatives such as the PRI
- 4) Explain how financial institutions may be impacted by climate change and are taking collective action through alliances such as GFANZ and NZBA
 - a) Illustrate by showcasing local banks' decarbonisation strategy and phasing-out financing for certain industries
 - b) Illustrate the role of financial institutions as capital providers in facilitating efforts to fight against climate change (e.g. through green or sustainable-linked financing)
 - c) Explain why stakeholders are demanding globally comparable disclosures
- 5) Explain the role of ESG rating agencies (including CDP², MSCI and GRESB) in promoting transparency and accountability of companies' sustainability reporting practices
 - a) Explain the rating agencies' methodologies

Potential sources of materials

- Ecovadis: *What is sustainability reporting*.
- GRI: *The value of sustainability reporting and the GRI Standards*
- PwC: *Sustainability Counts III*, December 2024
- KPMG: *Survey of Sustainability Reporting 2024: The move to mandatory reporting*, November 2024
- KPMG: *Comparing sustainability reporting requirements*, December 2024
- Temasek, DBS, NUS: *The Business Case for Natural Climate Solutions: Insights and Opportunities for Southeast Asia*, December 2020
- Nanyang Technological University (NTU): *The best sustainability reports: winning features*, September 2022
- PwC: *PwC's Global Investor Survey 2024*, December 2024
- Organization for Economic Cooperation and Development (OECD): *Enabling sustainable investment in ASEAN*, January 2023
- PRI: *PRI launches new report on policy frameworks for net-zero economic transition*, October 2024
- GFANZ: *Accelerating the transition to a net-zero global economy*
- UNEPFI: *Banks make significant strides in net-zero commitments, but challenges persist*, October 2024
- DBS: *Our path to net zero*, 2023
- Oversea-Chinese Banking Corporation Limited (OCBC): *Partnering Clients towards a Net Zero ASEAN and Greater China*, 2023
- United Overseas Bank (UOB): *Forging our net zero future*, October 2022
- CDP: *CDP Climate Change Scoring Essential Criteria 2024*, June 2024
- MSCI: *ESG and Climate Methodologies*
- GRESB: *GRESB Real Estate Standard and Reference Guide*, 2024

2 Formerly known as the Carbon Disclosure Project.

►► Key knowledge area

1.3 Sustainability/climate reporting landscape internationally and regionally

Learning outcomes

- 1) Explain the components of the major sustainability reporting standards/ rules - IFRS SDS, ESRS and GRI Standards
- 2) Identify the key differences between the major sustainability reporting standards
- 3) Identify the differences between sustainability reporting and climate reporting
- 4) Understand the current and upcoming regulations in other key regions, such as US, EU, Asia Pacific
- 5) Illustrate how a company may have reporting obligations in other jurisdictions
- 6) Explain the state of play on sustainability reporting in key regions

Proficiency Level
Basic

Recommended Training Hours
2 hours

Key contents

- 1) Introduce key sustainability reporting standards/ rules and their requirements
 - a) IFRS SDS (IFRS S1 and IFRS S2)
 - b) ESRS
 - c) GRI Standards
- 2) Compare and contrast the major sustainability reporting standards/ rules – IFRS SDS, ESRS and GRI Standards on areas such as:
 - a) Enforceability
 - b) Topics in scope
 - c) Industry specific disclosures
 - d) Materiality
 - e) GHG emissions reporting
 - f) Location of information
 - g) Timing of application
- 3) Identify the difference between sustainability and climate reporting
 - a) Sustainability reporting has a broader nature, covering a wide range of ESG issues. This includes everything from energy consumption and waste management to human rights, labour practices, community engagement, and corporate governance
 - b) Climate reporting specifically focuses on climate-related issues. This includes greenhouse gas emissions, climate risk assessments, mitigation strategies and adaptation measures
- 4) Explain the current and upcoming regulations in key regions (e.g. US, EU, Switzerland, Asia Pacific) on areas such as entities in scope, prescribed standard, reporting requirements, location of disclosures, timing of reporting and assurance requirements

- 5) Illustrate how a company may have reporting obligations in other jurisdictions (e.g. how non-EU entities may be obligated to report under the EU Corporate Sustainability Reporting Directive (CSRD) if it has substantial operations there)
- 6) Explain the state of play on sustainability reporting in key regions (e.g. US, EU, Asia Pacific) (i.e. how companies in those regions are performing in areas such as climate-related disclosures and commitments)

Potential sources of materials

- PwC: *Sustainability Reporting Guide*, August 2024
- PwC: *Sustainability Counts III*, December 2024
- KPMG: *Survey of Sustainability Reporting 2024: The move to mandatory reporting*, November 2024
- S&P: *New CSRD Sustainability Reporting Covering More Companies and More Disclosures*, October 2023
- International Federation of Accountants (IFAC): *The State of Play: Sustainability Disclosure and Assurance 2019-2022 Trends & Analysis*, February 2024

► Key knowledge area

1.4 Singapore's regulatory requirements

Learning outcomes

- 1) Explain Accounting and Corporate Regulatory Authority (ACRA) and Singapore Exchange Regulation's (SGX RegCo) sustainability/ climate reporting requirements for a company
- 2) Explain National Environment Agency's (NEA) carbon emissions measurement and reporting requirements under the Carbon Pricing Act (CPA)

Proficiency Level
Basic

Recommended Training Hours
2 hours

Key contents

- 1) Explain Singapore's sustainability reporting requirements (i.e. "climate-first" approach), including companies in scope, timelines for reporting, the information that is required to be reported, assurance requirements, as well as any reliefs and exemptions available
 - a) Explain details of the finalised climate reporting and assurance roadmap based on Sustainability Reporting Advisory Committee (SRAC) recommendations, including subsequent developments
 - b) Explain SGX RegCo's finalised amendment to incorporate the IFRS SDS in respect of climate-related disclosures as part of the Listing Rules, including subsequent developments
- 2) Explain other carbon emissions measurement and reporting requirements in Singapore
 - a) Understand the overview of the CPA and the GHG Emissions Measurement and Reporting (M&R) requirements
 - b) Determine the types of facilities and industry sectors impacted by the CPA
 - c) Determine the carbon tax rates
 - d) Explain the reporting requirements for reportable and taxable facilities, including emissions covered under the CPA

Potential sources of materials

- ACRA: [*Response to Public Consultation on Climate Reporting and Assurance Roadmap for Singapore*](#), February 2024
- Singapore Exchange (SGX): [*Consultation Paper on Sustainability Reporting: Enhancing Consistency and Comparability*](#), September 2024
- SGX: [*Practice Note 7.6 Sustainability Reporting Guide*](#), January 2025
- EY-CPA Australia: [*How Singapore issuers can accelerate their climate reporting journey*](#), 2024
- ACRA-NUS: [*Larger Listed Companies on Track for Mandatory Climate Reporting in FY 2025 – Study by ACRA and NUS*](#), July 2024
- National University of Singapore (NUS) Centre for Governance and Sustainability (CGS)-SGX: [*Sustainability Reporting Review 2021*](#), May 2021
- NUS CGS-SGX: [*Sustainability Reporting Review 2023*](#), November 2023
- KPMG: [*Survey of Sustainability Reporting 2024: The move to mandatory reporting*](#), 2024
- NEA: [*Carbon Tax*](#)
- NEA: [*Part 1A: Introduction to the GHG measurement and reporting requirements for the reportable facility*](#), February 2020
- NEA: [*Part 1B: Introduction to the GHG measurement and reporting requirements for the taxable facility*](#), December 2023



Topic 2

Application of IFRS S1 and Materiality Assessment

Learning objectives

- Understand and apply key concepts and principles in IFRS S1
- Understand and apply the principles of conducting materiality assessments, including areas beyond IFRS SDS



►► Key knowledge area

2.1 Application of IFRS S1 (and requirement to consider Sustainability Accounting Standards Board (SASB) standards)

Learning outcomes

- 1) Understand the requirements of IFRS S1
- 2) Apply the key concepts and principles in IFRS S1 to identify and disclose sustainability-related risks and opportunities (SrROs)
 - Evaluate information and transform it into a structured report, highlighting the impact of SrROs on an organisation
- 3) Evaluate scenarios where the use of reliefs and available mechanisms is feasible
- 4) Understand and apply the requirements around judgements, uncertainties and errors

Proficiency Level
Advanced

Recommended Training Hours
8 hours

Key contents

- 1) Introduction to IFRS SDS S1 *General Requirements for Disclosure of Sustainability-related Financial Information*
 - a) Understand the objective and scope of IFRS S1:
 - i) Disclose information about SrROs that is useful to primary users of general purpose financial reports in making decisions relating to providing resources to the entity;
 - ii) Disclose all SrROs that could reasonably be expected to affect the entity's financial position, financial performance and cash flows over the short, medium or long term;
 - iii) Explain how an entity defines short, medium or long term (short-, medium- and long-term time horizons can vary between entities and depend on many factors);
 - iv) Apply IFRS SDS irrespective of whether their general purpose financial statements are prepared in accordance with IFRS Accounting Standards or other generally accepted accounting principles or practices.

- b) Define key terms utilised in IFRS S1 (*Refer to Appendix A of IFRS S1*), including:
 - i) business model
 - ii) impracticable
 - iii) material information
 - iv) primary users of general purpose financial reports
 - v) reporting entity
 - vi) scenario analysis
 - vii) value chain
 - c) State the effective date of the standards (*Refer to Appendix E of IFRS S1*)
- 2) Understand and explain the conceptual foundations of IFRS S1
- a) Fair presentation
 - b) Materiality
 - c) Reporting entity
 - d) Connected information
 - e) Describe and apply the qualitative characteristics of useful sustainability-related financial information (*Refer to Appendix D of IFRS S1*)
- 3) Understand and apply the core content of IFRS S1
- a) Governance
 - i) Design the governance structure to oversee SrROs
 - ii) Design management's role and responsibility to assess and manage SrROs
 - b) Strategy
 - i) Identify the SrROs³ that could reasonably be expected to affect the organisation's prospects over the short, medium or long term
 - ii) Assess the effect of SrROs on the organisation's business (including business model and value chain), strategy and decision-making
 - iii) Assess qualitatively and quantitatively the current and anticipated effect of SrROs on the organisation's financial position, financial performance and cash flows
 - iv) Assess the resilience of the organisation's strategy, taking into consideration different sustainability-related scenarios
 - c) Risk management
 - i) Design the organisation's processes to identify, assess, prioritise and monitor sustainability-related risks
 - ii) Determine the extent to which, and how, the processes for identifying, assessing and managing SrROs are integrated into and inform the organisation's overall risk management process
 - d) Metrics and targets
 - i) Identify relevant metrics to be used by the organisation to assess SrROs in line with its strategy and risk management process, including how the metric was developed internally (e.g. how it was derived, source, whether it is validated by 3rd party), if applicable
- 3 Considerations to include:
- Risks and opportunities may arise directly or indirectly as a result from operating an entity's business model in pursuit of the entity's strategic purposes and from the external environment in which the entity operates
 - Consider both macroeconomic and microeconomic factors to identify the risks and opportunities
 - Considerations of risks and opportunities would encompass the value chain as well
 - Whether a reassessment of the SrROs, where a significant event or significant change in circumstances occurred

- ii) Determine relevant method to be used to calculate the metric including documentation of the inputs used and significant assumptions made
 - iii) Develop process to monitor and manage SrROs progress and performance against targets
 - Determine the period over which the target applies and the base period, including any milestones and interim targets
 - Explain reasons for revisions of targets
- 4) Understand and apply the general requirements of IFRS S1
 - a) Sources of guidance:
 - i) Apply applicable sources of guidance to identify SrROs
 - ii) Demonstrate how to identify applicable disclosure requirements using sources of guidance in the absence of an IFRS SDS that specifically applies to a SrRO
 - b) Location of disclosures
 - c) Timing of reporting⁴
 - d) Comparative information⁵
 - e) Statement of compliance⁶
- 5) Identify and apply the transitional reliefs available under IFRS S1 and other reliefs available under Singapore reporting requirements
 - a) Articulate available transitional reliefs in the first year of reporting:
 - i) Relief from disclosing comparative information
 - ii) Relief from reporting sustainability-related disclosures at the same time as the related financial statements⁷
 - iii) Relief from reporting information about SrROs beyond climate-related risk and opportunities⁸
- 6) Identify and apply the mechanisms to address proportionality challenges and/or to facilitate application available under IFRS S1
 - a) Determine areas where mechanisms to address proportionality challenges can be applied to, and
 - i) Explain the concept of reasonable and supportable information without undue cost or effort
 - ii) Assess consideration of skills, capabilities and resources
 - b) Determine areas where mechanisms to facilitate application can be applied to, and

4 Singapore-specific requirements:

- A relief is provided to SGX listed issuers to issue their sustainability reports no later than 5 months after the end of the financial year if external assurance is obtained.

- Newly listed issuer's timeline for issuing their first sustainability report would be in respect of its first full financial year after listing.

5 SGX has a relief where issuers (including newly listed issuers) are not required to report comparative information in the first year of reporting applying the IFRS SDS.

6 SGX does not have a mandatory requirement for issuers to make the statement of compliance.

7 Based on the finalised roadmap issued in Feb 2024, under recommendation F1, the existing reporting and filing timelines for financial statements in the Companies Act should be applied to climate-related disclosures, together with the mechanism to apply for extension of time.

Per SGX's Response Paper on Sustainability Reporting: Enhancing Consistency and Comparability, issuers are only required to issue the sustainability report concurrently with the annual report for FY commencing on or after 1 Jan 2026, providing the transition relief for the first annual reporting period. Issuers that conduct external assurance on their sustainability reports will have up to five months from the end of their financial year to issue their sustainability reports.

8 While requirements in IFRS S1 cover all sustainability-related matters including and beyond climate-related disclosures, Singapore is currently taking a "climate-first" approach, and will review the application of ISSB Standards for disclosure of SrROs beyond climate-related disclosures for all companies subject to mandatory reporting a few years later.

- i) Assess when an entity does not need to provide information on the current and anticipated financial effects of a sustainability-related risk and opportunity
 - c) Determine scenarios where an entity qualifies for exemption on commercially sensitive information⁹
- 7) Understand and apply the requirements around judgements, uncertainties and errors
 - a) Judgements:
 - i) Identify judgements made in the process of preparing sustainability-related financial disclosures
 - ii) Develop disclosure on information to allow users to understand the judgements that the organisation has made to prepare its sustainability-related financial disclosures that have the most significant effect on the information included in those disclosures
 - b) Measurement uncertainty:
 - i) Understand the concept of measurement uncertainty (i.e. arises when amounts reported cannot be measured directly, and can only be estimated).
 - ii) Identify the amounts that it has disclosed that are subject to a high level of measurement uncertainty
 - iii) Develop disclosures to allow users to understand the most significant uncertainties affecting the amounts reported in its sustainability-related financial disclosures, including information about the sources of measurement uncertainty and the assumptions, approximations and judgements the organisation has made in measuring the amount (type and extent of the information may vary according to the nature of the amount reported in the sustainability-related financial disclosures)
 - iv) Identify the differences between the requirement to restate comparative for metrics due to changes in estimates, against the IFRS accounting requirements
 - c) Errors:
 - i) Understand the requirement to correct material prior period errors by restating comparative amounts for the prior period(s) disclosed unless it is impracticable to do so
 - ii) Develop disclosure on nature of prior period error, correction if practicable, and circumstances that led to the existence of that condition and a description of how and from when the error has been corrected
 - iii) Explain how correction of errors is distinguished from changes in estimates

⁹ IFRS S1 permits a limited exemption for commercially sensitive information about sustainability-related opportunities, but not risks. This intentionally narrow exemption ensures comparable risk disclosure while protecting legitimate commercial interests. Entities must consider aggregated disclosure before applying the exemption.

Potential sources of materials

- IFRS: *IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information*, June 2023
- EY: *Applying IFRS Introduction to IFRS S1 and IFRS S2*, June 2024
- European Financial Reporting Advisory Group (EFRAG): *Value chain implementation guidance*, May 2024
- IFRS: *Navigating the ISSB's sustainability disclosure standards: practical insights*, September 2024
- IFRS: *Applying IFRS S1 when reporting only climate-related disclosures in accordance with IFRS S2*, January 2025
- IFRS: *Climate-related and Other Uncertainties in the Financial Statements*, February 2024

► Key knowledge area

2.2 Materiality assessment

Learning outcomes

- 1) Understand materiality assessment, the different concepts, objectives and its key benefits
- 2) Apply the process of conducting a materiality assessment to determine material topics
 - Determine modes to engage stakeholders
 - Analyse and prioritise material topics
 - Develop a stakeholder engagement plan

Proficiency Level
Advanced

Recommended Training Hours
4 hours

Key contents

- 1) Understand materiality assessment, types, differences and its key benefits
 - a) Describe the different approaches to materiality concepts within the framework of sustainability reporting
 - i) Financial materiality
 - ii) Impact materiality
 - iii) Double materiality
 - b) Distinguish between impact materiality (GRI Standards) and financial materiality (IFRS SDS) in terms of perspective (i.e. inside-out or outside-in), stakeholders and reporting requirements
 - c) Explain how materiality differs for sustainability reporting and financial reporting
 - i) Perspective: Sustainability reporting looks at the organisation's outward and/or inward impacts on society and the environment, while financial reporting focuses on how financial information affects the organisation's stakeholders
 - ii) Stakeholders: Sustainability reporting serves a wider range of stakeholders, whereas financial reporting is primarily investor focused
 - iii) Time horizon: IFRS SDS require the disclosure of information about possible future events with uncertain outcomes if the information about such possible future events is material (IFRS S1 para B22)
 - d) Explain the objectives of materiality assessment
 - i) Understand the definition of a materiality assessment
 - ii) Explain key concepts and required steps in conducting a materiality assessment
 - iii) Explain the criteria to determine the materiality of information
 - iv) Analyse how material issues present both risks and opportunities to a business
 - v) Identify similarities and differences of material issues between industries
 - vi) Considerations of upstream and downstream value chain

- e) Explain the benefits of materiality assessment and how companies can derive value from it
- 2) Apply the process of conducting a materiality assessment to determine material topics
 - a) Develop approach to determine material topics
 - i) Understand the organisation context
 - ii) Identify actual and potential impacts, risks or opportunities
 - b) Assess and determine the significance of the identified impacts, risks or opportunities
 - c) Identify the various stakeholders who may be involved and mode of engagement
 - i) Identify the list of relevant internal and external key stakeholders
 - ii) Assess the different modes of engagement (e.g. surveys and questionnaires, interview, focus groups, workshops)
 - d) Assess and prioritise identified impacts, risks or opportunities
 - i) Assess material impacts, risks or opportunities based on selected key criteria, for example:
 - Risks or opportunities (IFRS SDS) – Magnitude and likelihood
 - Impacts (GRI) – Scale, scope, irremediable character and likelihood
 - ii) Obtain and analyse feedback from stakeholders engaged
 - iii) Select and set threshold(s) to prioritise the most significant impacts, risks and opportunities for reporting
 - e) Apply materiality assessment findings into the organisation's sustainability strategy

Potential sources of materials

- IFRS: *IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information*, June 2023
- IFRS: *Sustainability-related risks and opportunities and the disclosure of material information (Guidance)*, November 2024
- Deloitte: *A practical approach to assess financial materiality*, November 2024.
- GRI: *GRI 3: Material Topics*, 2021
- EFRAG: *ESRS 1 General Requirements*, November 2022
- EFRAG: *EFRAG IG 1 - Materiality Assessment Implementation Guidance*, May 2024



Topic 3

Application of IFRS S2

Learning objectives

- Understand and apply IFRS S2 standard to prepare climate-related disclosures
- Identify key similarities and differences between major sustainability standards
- Develop a climate transition plan



►► Key knowledge area

3.1 Application of IFRS S2

Learning outcomes

- 1) Understand and apply the requirements of IFRS S2
- 2) Understand and apply the approach to climate scenario analysis
- 3) Apply available reliefs and mechanisms

Proficiency Level
Advanced

**Recommended
Training Hours**
8 hours

Key contents

(Note: Learners are expected to have completed Topic 2 on IFRS S1 before taking this topic.)

- 1) Understand and apply the requirements of IFRS S2 *Climate-related Disclosures*
 - a) Introduction to IFRS S2
 - i) Understand and explain the objective of IFRS S2
 - ii) Understand the scope of IFRS S2 covering climate-related physical risks, climate-related transition risks and climate-related opportunities that could reasonably be expected to affect an organisation's prospects
 - iii) Understand and explain the conceptual foundations and general requirements of IFRS S1 that are to be applied in applying IFRS S2
 - b) Explain the core contents of IFRS S2 *(Note: content is generally similar to IFRS S1 but applies specifically to Climate-related Risks and Opportunities (CrROs); differences and/or additional requirements are highlighted below.)*
 - i) Governance
 - Identify disclosure(s) that may be leveraged from those

provided to meet IFRS S1 requirements to avoid unnecessary duplication

ii) Strategy

- Apply the requirement to refer to and consider the applicability of the industry-based disclosure topics defined in *the Industry-based Guidance on Implementing IFRS S2* in identifying CrROs that could reasonably be expected to affect the organisation's prospects
- Develop plans to achieve any climate-related targets the organisation has set and any targets that it is required to meet by law or regulations including:
 - Identifying current and anticipated changes to the organisation's business model, including its resource allocation, to address CrROs
 - Identifying and/or developing current and anticipated direct and/or indirect mitigation and adaptation efforts
 - Developing climate-related transition plan and identifying key assumptions used in developing the transition plan and dependencies on which the plan relies on
- Articulate how the organisation is resourcing, and plans to resource, the plans to achieve any climate-related targets
- Assess the organisation's climate resilience as at the reporting date including:
 - Performing climate-related scenario analysis
 - > Qualitative vs quantitative (Analytical choice)
 - ↳ Determine when a quantitative approach to climate-related scenario analysis is used (*Refer to IFRS S2 para B4*)
 - Assessing the implications, if any, of the organisation's assessment for its strategy and business model, including how it would need to respond to the effects identified in the climate-related scenario analysis
 - Identifying significant areas of uncertainty considered
 - Determining the organisation's capacity to adjust or adapt its strategy and business model over the short, medium and long term

iii) Risk management

- Determine whether and how the organisation uses climate-related scenario analysis to inform its identification of CrROs
- Identify disclosure(s) that may be leveraged from those provided to meet IFRS S1 requirements to avoid unnecessary duplication

iv) Metrics and targets

- Understand, identify and develop disclosures required for the cross-industry metric such as:
 - Scope 1, Scope 2 and Scope 3 greenhouse gas emissions
 - > Amount and percentage of assets or business activities vulnerable to climate-related transition and/or physical risks
 - > Amount and percentage of assets or business activities aligned to climate-related opportunities
 - > Amount of capital expenditure, financing or investment deployed towards CrROs
 - > Internal carbon price:

- Understand the function, definition and purpose of internal carbon price
 - Explain how internal carbon pricing plays a role in risk management and decision making
 - Explain the different types of internal carbon price (e.g. shadow price, carbon fee, implicit price, internal trading)
 - Internal carbon pricing disclosure requirements under IFRS S2:
 - Strategies for effective implementation of internal carbon pricing
- Executive management remuneration linked to climate-related considerations
- Understand, identify and develop disclosures required for the climate-related targets

2) Understand and apply the approach to performing climate scenario analysis

- a) Performing climate-related scenario analysis using the following steps:
 - i) Choose scenario parameters (i.e. identify climate-related scenario(s) aligned with the latest international agreement on climate change such as Intergovernmental Panel on Climate Change (IPCC) and International Energy Agency (IEA), define time horizons, and determine scope of operations covered)
 - ii) Identify CrROs
 - iii) Map relevant business and financial implications of risks and opportunities
 - iv) Assess relevant impacts and seek stakeholders' validation
 - v) Develop qualitative narrative for each scenario
 - vi) Evaluate criteria and calculate financial quantitative impacts from CrROs
 - vii) Develop relevant metrics and targets to track performance against the various risks based on quantification models (E.g. the amount and extent of assets or business activities vulnerable to transition or physical risks or proportion of revenue, assets, or other business activities aligned with climate-related opportunities)
 - viii) Develop strategy to respond to the most material risks in financial terms in the form of mitigation and adaptation solutions

3) Explain available reliefs and mechanisms

- a) Articulate available transitional reliefs in the first year of reporting:
 - i) Relief from disclosing Scope 3 Greenhouse Gas (GHG) emissions¹⁰
 - ii) Relief to use measurement method other than the GHG Protocol to measure Scope 1, Scope 2 and Scope 3 GHG emissions
- b) Determine mechanisms to address proportionality challenges
 - i) Explain the concept of reasonable and supportable information without undue cost or effort in the following areas:
 - Identification of risks and opportunities

¹⁰ According to SGX's Response Paper on Sustainability Reporting: Enhancing Consistency and Comparability, SGX RegCo will carry out an in-depth review of issuers' experience and readiness in reporting Scope 3 GHG emissions before setting out the implementation roadmap for disclosures of Scope 3 GHG emissions. The current intention is for larger issuers by market capitalisation to report Scope 3 GHG emissions from the financial year commencing on or after 1 January 2026.

Large Non-listed companies (NLCos) will not be required to report Scope 3 GHG emissions any time earlier than FY2029. The timing will be determined after reviewing the reporting experience of Listed Issuers. At least two years' notice will be given to allow sufficient time for preparation.

- Anticipated financial effects
 - Determination of the scope of value chain
 - Climate-related scenario analysis
 - Measurement of Scope 3 GHG emissions
 - Calculation of metrics in particular cross-industry metric categories
- ii) Assess consideration of skills, capabilities and resources
- c) Determine mechanisms to facilitate application
- i) Assess when an entity does not need to provide information on the current and anticipated financial effects of a CrRO

Potential sources of materials

- IFRS: *IFRS S2 Climate-related Disclosures*, June 2023
- IFRS: *Comparison - IFRS S2 Climate-related Disclosures with the TCFD Recommendations*, November 2024
- EY: *Applying IFRS Introduction to IFRS S1 and IFRS S2*, 2024
- KPMG: *How to get internal carbon pricing right*, 2023
- CDP: *What is internal carbon pricing and how it can help achieve your net-zero goal*
- Climate Governance Initiative: *Internal carbon pricing supporting business decision making*, August 2024
- SINAI: *A Brief Guide To Internal Carbon Pricing Methodology*, July 2021
- World Business Council for Sustainable Development (WBCSD): *Navigating internal carbon pricing to drive decision-making and emissions reduction: three strategies for effective implementation*, August 2023
- The Institute of Singapore Chartered Accountants (ISCA): *Volume 2 of the ISCA Climate disclosure guide*, 2023
- IPCC: *IPCC Sixth Assessment Report Working Group I Regional Fact Sheet – Asia*, 2022
- IPCC: *IPCC Sixth Assessment Report Working Group II Fact Sheet – Asia*, October 2022
- IPCC: *SSP Scenario*, March 2023
- IEA: *Global Energy and Climate Model - Scenario analysis of future energy trends*, October 2024
- PRI: *Climate scenario analysis tools*, December 2021
- Network for Greening the Financial System (NGFS): *Scenarios portal*, November 2024
- SENSES: *RCP Scenarios*
- UN PRI: *The Inevitable Policy Response and climate transition scenarios*, 2023
- CDSB: *How can companies considering TCFD recommended scenario analysis provide disclosures that help investors: A short guide*
- IEA: *World Energy Outlook 2024*, October 2024
- Center for International Forestry Research (CIFOR): *Climate scenarios: what we need to know and how to generate them*, December 2008
- Accounting and Corporate Regulatory Authority (ACRA): *Response to the Public Consultation on Sustainability Reporting Advisory Committee's Recommendations*, February 2024
- Singapore Exchange (SGX): *Consultation Paper on Sustainability Reporting: Enhancing Consistency and Comparability*, September 2024
- Examples of disclosures on climate scenario analysis (e.g. Task Force on Climate-Related Financial Disclosures (TCFD) report)
 - CapitaLand Investment Limited: *Climate Resilience Report*, 2023
 - City Development Limited: *Sustainability Report*, 2024
 - ComfortDelGro: *Task Force on Climate-related Financial Disclosures Report*, 2023
 - EY: *Global Taskforce on Climate-related Financial Disclosures Report*
 - Singtel Group: *Task Force on Climate-related Financial Disclosures Report*, 2022
 - S&P: *Global TCFD Report*, 2024

► Key knowledge area

3.2 Interoperability of IFRS S1 and IFRS S2 with other international standards

Learning outcomes

- 1) Understand objectives and key components of IFRS S1 and IFRS S2, GRI and ESRS
- 2) Illustrate similarities and differences between IFRS S1, IFRS S2, GRI and ESRS
- 3) Analyse how interoperability of these standards can enhance sustainability reporting

Proficiency Level
Intermediate

Recommended Training Hours
2 hours

Key contents

- 1) Understand the objectives and key components of IFRS S1 and IFRS S2, GRI and ESRS
 - a) Introduction to IFRS S1 & S2
 - i) Understand the overview of IFRS S1 and S2
 - ii) Explain the objectives of IFRS S1 and S2
 - iii) Explain key components of IFRS S1 and S2, which include reporting requirements across the TCFD 4 pillars: Governance, Strategy, Risk Management, and Metrics and Targets
 - b) Explain what the TCFD framework is and the incorporation of the TCFD recommendations into the IFRS SDS
 - i) Explain the four pillars of TCFD and the disclosure recommendations
 - ii) Distinguish similarities and differences in disclosure requirements between TCFD and IFRS S2
 - c) Explain what the GRI standard is, its objectives and key components:
 - i) Understand key concepts of GRI 1 (i.e. impact, material topics, due diligence and stakeholder)
 - ii) Understand differences in reporting requirements when reporting in accordance with the GRI Standards and reporting with reference to the GRI Standards
 - iii) Apply the reporting principles of GRI 1 (i.e. accuracy, balance, clarity, comparability, completeness, suitability context, timeliness and verifiability)
 - iv) Understand what the available permitted reasons for omission for disclosures and requirements are when an organisation cannot comply
 - d) Explain what ESRS is, its objective, key components and latest developments
 - i) Explain the connection between Corporate Sustainability Reporting Directive (CSRD) and ESRS
 - ii) Understand the 12 finalised ESRS Standards
 - iii) Explain the four reporting areas of the ESRS
 - iv) Explain the concept of double materiality

- v) Explain how non-EU (European Union) companies may be impacted by the requirements to report under CSRD
 - vi) Understand key changes in latest developments
- 2) Compare the similarities and differences between IFRS S1 and S2, GRI and ESRS, and assess the areas of interoperability between these standards
- 3) Analyse how interoperability of these standards can enhance sustainability reporting, including but not limited to:
 - a) alignment with regulatory compliance
 - b) consistency and comparability
 - c) streamlined reporting process and efficiency
 - d) comprehensive coverage of risk and opportunity management
 - e) improved stakeholder communications

Potential sources of materials

- IFRS: IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information, June 2023
- IFRS: IFRS S2 Climate-related Disclosures, June 2023
- GRI: Global Reporting Initiative
- European Commission: Commission simplifies rules on sustainability and EU investments, delivering over €6 billion in administrative relief, February 2025
- ISCA: Illustrative Sustainability Report, October 2024
- GRI: Interoperability considerations for GHG emissions when applying GRI Standards and ISSB Standards, January 2024
- IFRS: ESRS ISSB Standards Interoperability Guidance, 2024

► Key knowledge area

3.3 Climate transition plans

Learning outcomes

- 1) Explain the importance of climate transition plan
- 2) Explain the landscape of climate transition plan frameworks and guidelines
- 3) Illustrate the key components to structure and develop a climate transition plan
- 4) Assess best practices and lessons learned from climate transition plans

Proficiency Level
Advanced

Recommended Training Hours
2 hours

Key contents

- 1) Introduction to climate transition plans
 - a) Understand the purpose and importance of climate transition plans in achieving a 1.5-degree pathway
- 2) Explain the landscape of various climate transition plan frameworks and guidelines (e.g. Transition Plan Taskforce (TPT), Glasgow Financial Alliance for Net Zero (GFANZ), Monetary Authority of Singapore (MAS) Transition Planning guidelines, European Financial Reporting Advisory Group (EFRAG) Implementation Guidance)
 - a) Identify the key similarities and differences between frameworks and guidelines
- 3) Develop a climate transition plan
 - a) Identify the key components/ elements of a climate transition plan from various frameworks and guide
 - b) Outline the activities to support a transition plan
 - c) Assess how a company can implement identified activities in its transition plan
 - d) Determine metrics and targets to assess progress and performance
 - e) Articulate the roles and responsibilities of the sustainability governance committee within the company to enable accountability and execution
- 4) Analyse and evaluate best practices in climate transition plans using examples of companies that have published their transition plans (some examples have been provided below)

Potential sources of materials

- TPT: *Recommendations and Guidance – TPT Disclosure Framework*, Oct 2023
- GFANZ: *Financial Institution Net-Zero Transition Plans*
- MAS: *MAS Consultation Paper on Proposed Guidelines on Transition Planning for Banks*, 2023
- MAS: *MAS Consultation Paper on Proposed Guidelines on Transition Planning for Insurers*, 2023
- MAS: *MAS Consultation Paper on Proposed Guidelines on Transition Planning for Asset Managers*, 2023
- EFRAG: *Implementation Guidance - Transition Plan for Climate Change Mitigation*, November 2024
- TCFD: *Guidance on Metrics, Targets, and Transition Plans*, 2021
- CDP: *The State of Play 2023: Climate Transition Plan Disclosure*, 2023
- CDP: *CDP Technical Note: Reporting on Climate Transition Plans*, Aug 2024
- *Examples of corporate climate transition plans (note: inclusion in this list does not imply CDP's assessment of these plans as 'credible').*
 - SSE: *Net Zero Transition Plan*, 2022
 - Unilever: *Climate Transition Plan*, 2024
 - Aviva: *Climate Transition Plan*, 2021



Topic 4

Application of Greenhouse Gas (GHG) Protocol

Learning objectives

- Apply Greenhouse Gas (GHG) Protocol to account for and report Scope 1, Scope 2 and Scope 3 GHG emissions



►► Key knowledge area

4.1 Application of GHG Protocol – Scope 1 and 2 GHG emissions

Learning outcomes

- 1) Explain the overview and key principles of GHG Protocol
- 2) Define Scope 1 and 2 GHG emissions
- 3) Determine the organisational boundaries of a company and distinguish between control approach (financial or operational) and equity share approach for GHG accounting
- 4) Devise an inventory management plan on how a company would collect information about their GHG emissions
- 5) Explain common challenges faced in collecting GHG emission data
- 6) Assess how companies use a base year to set targets
- 7) Evaluate considerations for target setting and integrate the requirements from the regulations and standards related to carbon credits
- 8) Explain the approach to monitor and track progress of targets set and assess whether the reported GHG emissions are complete
- 9) Evaluate a company's processes in monitoring and reporting GHG emissions data, providing recommendations for improvement

Proficiency Level
Intermediate

Recommended Training Hours
6 hours

Key contents

- 1) Explain the overview and key principles of GHG Protocol
 - a) Explain overview of GHG Protocol
 - b) Explain principles of GHG Protocol (*Ref: GHG Protocol Revised Edition, Page 7*)
 - i) Relevance
 - ii) Completeness
 - iii) Consistency
 - iv) Transparency
 - v) Accuracy

- 2) Define Scope 1 and 2 GHG emissions
 - a) Articulate the different scopes of GHG emissions (Scope 1 and Scope 2) and their significance
 - i) Refer to details in Appendix 2 section
- 3) Determine the organisational boundaries of a company
 - a) Distinguish how to establish organisational boundaries for GHG accounting based on control and equity share approaches
 - i) Understand and explain the concept of control in GHG accounting, equity share and the control approaches (*Ref: GHG Protocol Revised Edition, Page 17*)
 - ii) Compare the approaches (equity share, operational control and financial control) in different organisational contexts
 - iii) Apply the different approaches to complex organisational structure, including subsidiaries and joint ventures
 - iv) Manage scenarios where an organisation has both equity share and control over different entities
 - b) Define operational boundaries and quantify Scope 1 and 2 GHG emissions
 - i) Identify which emission sources within the organisational boundaries will be included
 - ii) Distinguish between direct and indirect emissions
 - iii) Select appropriate emission factors
 - Determine how to select and apply appropriate emission factors and assess the reliability of data sources for accurate calculations
 - Introduce the Singapore Emission Factors Registry (SEFR), including what it can be used for
 - For emissions that are not covered under SEFR, assess other potential sources of emission factors but not limited to Department for Environment Food and Rural Affairs (DEFRA), International Energy Agency (IEA), Institute for Global Environmental Strategies (IGES), National Environment Agency (NEA)
 - Calculate respective emissions
- 4) Develop and implement an Inventory Management Plan (IMP) (*Ref: Scope 1 & 2 GHG Inventory Guidance, Page 5*)
 - a) Establish an inventory quality team
 - b) Outline the IMP procedures
 - c) Perform quality checks
 - d) Perform source category specific quality checks
 - e) Establish reporting, documentation and archiving process
- 5) Explain common challenges faced in collecting GHG emission data, such as:
 - a) Data Decentralisation: GHG emissions data often comes from various business segments and locations, leading to inconsistent calculation methodologies and varying levels of data granularity
 - b) Manual Processes: Many companies rely on manual data collection and calculation methods, such as spreadsheets. This can lead to errors, inconsistencies, and a lack of repeatability

- c) Complexity of Scope 3 Emissions: Tracking Scope 3 emissions, which include indirect emissions from the entire value chain, is particularly challenging. It requires data from suppliers, customers, and other third parties, making it difficult to gather accurate and comprehensive information
 - d) Data Quality and Accuracy: Ensuring the accuracy and completeness of GHG emissions data is crucial. Inaccurate data can lead to incorrect reporting and undermine the credibility of sustainability efforts
 - i) Describe the circumstances which would result in errors, and what companies should do when errors have been detected
 - Whether the error is material in the context of the information it relates to
 - Correction of errors
 - e) Lack of Standardisation: Different regions and industries may have varying standards and guidelines for GHG emissions reporting. This lack of standardisation can complicate the data collection process and make it difficult to compare results across different entities
 - f) Technological Limitations: Some companies may lack the necessary technology and tools to efficiently collect, manage, and analyse GHG emissions data. This can hinder their ability to produce reliable and timely reports.
 - g) Resource Constraints: Collecting and managing GHG emissions data requires significant resources, including time, money, and expertise. Smaller companies, in particular, may struggle to allocate sufficient resources to this task
- 6) Explain and assess base year emissions, which include the following:
- a) Understand the concept of a base year and its purpose
 - b) Determine the approach to set a company's base year
 - c) Assess information required to determine and select the appropriate base year
 - d) Articulate and clearly document the reason for adopting the selected base year
 - e) Explain situations where the base year emission needs to be revised
- 7) Illustrate emissions reduction target setting, such as:
- a) Evaluate considerations when setting a GHG reduction target
 - i) Assess whether to set an absolute or intensity target (*Ref: GHG Protocol Revised Edition, Page 77*)
 - Understand the nature of emissions contributed by a company
 - Evaluate business growth and operations
 - Assess stakeholder expectations
 - Evaluate data availability and accuracy
 - ii) Determine target boundary (*Ref: GHG Protocol Revised Edition, Pages 77-78*)
 - Assess the advantages and disadvantages of different target boundaries (i.e. between a single target for total Scope 1, 2 and 3 emissions or a single target for total Scope 3 emissions or separate targets for individual Scope 3 categories)

- iii) Determine duration of the target (e.g. short, medium or long term) (*Ref: GHG Protocol Revised Edition, Page 80*)
 - In general, companies should set long-term targets (e.g., a target period of ten years), since they facilitate long-term planning and large capital investments with significant GHG benefits. Companies may also set shorter-term targets to measure progress more frequently
 - iv) Consider the use of offsets or credits to meet GHG reduction targets
 - Understand differences between carbon offsets and carbon credits
 - Advantages and disadvantages of carbon offsets and carbon credits
 - Explain the types of available carbon offsets (i.e. projects focusing on deforestation, construction of solar/wind plants, low energy Leadership in Energy and Environmental Design (LEED) certified buildings) and certified carbon credits (i.e. Renewable Energy Certificates (RECs), Carbon Sequestration Credits, Methane Capture Credits)
 - v) Highlight the regulations and standards utilised for carbon credits/offsets, including RECs
 - Introduction to RECs:
 - What are RECs
 - How to use RECs
 - Types of RECs:
 - Bundled vs Unbundled
 - Key challenges of using RECs
 - Singapore Standard (SS) 673 for RECs
 - GHG Protocol requirements on accounting for RECs
- 8) Explain the approach to monitor and track progress of targets set:
- a) whether the target and the methodology for setting the target has been validated by a third party
 - b) the entity's processes for reviewing the target
 - c) the metrics used to monitor progress towards reaching the target
 - d) any revisions to the target and an explanation for those revisions
 - e) assess completeness of reported GHG emissions where targets are set
- 9) Explain how companies can apply best practices for monitoring and reporting greenhouse gas emissions data, such as the following:
- a) Implement a comprehensive GHG monitoring plan that outlines the methodologies, procedures, and responsibilities for data collection
 - b) Adopt established frameworks such as the GHG Protocol
 - c) Establish an internal governance structure for overseeing GHG data management and reporting
 - d) Conduct regular reviews at the board or management level to ensure accountability and continuous improvement
 - e) Consider measurement and estimation uncertainty of GHG emissions, which includes the following:
 - i) Understand uncertainties associated with GHG inventories
 - ii) Assess types of uncertainties associated with GHG inventories
 - Scientific uncertainty
 - Estimation uncertainty

- iii) Understand the process to estimate and aggregate uncertainty
- iv) Quantify uncertainty
- v) Document and interpret findings from uncertainty assessment

Potential sources of materials

- GHG Protocol: *The GHG Protocol Corporate Accounting and Reporting Standard*, March 2004
- GHG Protocol: *Scope 1 & 2 GHG Inventory Guidance*, November 2019
- GHG Protocol: *Scope 2 Guidance*, 2015
- SEFR: *Emission Factors*
- Defra: *2024 emission factor*, 2024
- Singapore Energy Market Authority (EMA): *Grid emission factor*
- IGES: *List of Grid Emission Factors*
- IEA: *Emission Factors 2024*
- United States Environmental Protection Agency (US EPA): *2024 Inventory Management Plan Guidance and Resources*
- GHG Protocol: *Sample GHG Inventory Reporting Template*
- Singapore Standard (SS) 673: *Code of Practice for Renewable Energy Certificates (RECs)*
- Singapore Exchange (SGX): *RECs Guidance Paper*, 2023
- GHG Protocol: *GHG Protocol Measurement and Estimation of Uncertainty of GHG Emissions Guidance and Calculation Tool*

► Key knowledge area

4.2 Application of GHG Protocol – Scope 3 GHG emissions

Learning outcomes

- 1) Provide an overview of Scope 3 emissions
- 2) Devise a plan to account for Scope 3 emissions within an organisation
- 3) Identify and categorise Scope 3 GHG emissions across the value chain
- 4) Design the process to collect data and calculate Scope 3 GHG emissions
- 5) Establish Scope 3 GHG emissions targets and credibly report performance to stakeholders

Proficiency Level
Advanced

Recommended Training Hours
10 hours

Key contents

- 1) Explain overview of Scope 3 emissions
 - a) Define what Scope 3 emissions are
 - b) Explain how Scope 3 encompasses the entire value chain and describe the different activities in the value chain (i.e. upstream, own operations and downstream)
- 2) Devise a plan to account for Scope 3 emissions (*Ref: Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Page 19*)
 - a) Define business goals, such as:
 - i) Identify and understand risks and opportunities associated with value chain emissions
 - ii) Identify GHG reduction opportunities, set reduction targets and track performance
 - iii) Engage value chain partners in GHG management
 - iv) Enhance stakeholder information and corporate reputation through public reporting
 - b) Review accounting and reporting principles
 - c) Identify Scope 3 activities
 - d) Set the Scope 3 boundary (i.e. criteria for identifying relevant Scope 3 categories)
 - e) Collect data
 - i) Explain the need to use sampling techniques for some data (*Refer to GHG Protocol's Technical Guidance for Calculating Scope 3 Emissions, Appendix A: Sampling*)
 - ii) Consider the choice of sampling method depending on factors including, but not limited to:
 - Available resources
 - Number of data points
 - Expected level of homogeneity between samples
 - Geographical spread of data points
 - Ease of data collection
 - Timeframe available

- iii) Types of sampling method:
 - simple random sampling
 - systematic sampling
 - stratified sampling
 - f) Allocate emissions (e.g. for shared facilities)
 - g) Set a target and track emissions over time
 - h) Obtain assurance over emissions
 - i) Report emission
- 3) Illustrate how to identify and categorise Scope 3 GHG emissions across the value chain
- a) Review and assess value chain across each business operation
 - b) Assess where emissions may arise in operations, both upstream and downstream
 - c) Understand detailed descriptions of the 15 categories of Scope 3 category – *Refer to Appendix 3 for details*
 - d) Articulate calculation methodologies available in GHG Protocol and, where there is more than one methodology available, explain the advantages and disadvantages of each of the following methodologies (*Ref: Technical Guidance for Calculating Scope 3 Emissions (version 1.0), Pages 162-182*):

Category	Methods
<u>Category 1</u> Purchased Goods and Services	• supplier-specific method • hybrid method • average-data method • spend-based method
<u>Category 2</u> Capital goods	• supplier-specific method • hybrid method • average-data method • average spend-based method (similar concept as spend-based method)
<u>Category 3</u> Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2	• supplier-specific method • average-data method
<u>Category 4</u> Upstream Transportation and Distribution <u>Category 9</u> Downstream Transportation and Distribution	Transportation: • fuel-based method • distance-based method • spend-based method Distribution: • site-specific method • average-data method
<u>Category 5</u> Waste Generated in Operations	• supplier-specific method • waste-type-specific method • average-data method

Category	Methods
<u>Category 6</u> Business Travel	• fuel-based method • distance-based method • spend-based method (<i>Ref: Technical Guidance for Calculating Scope 3 Emissions (version 1.0), Page 82</i>)
<u>Category 7</u> Employee Commuting	• fuel-based method • distance-based method • average-data method
<u>Category 8</u> Upstream Leased Assets	• asset-specific method • lessor-specific method • average-data method
<u>Category 10</u> Processing of Sold Products	• site-specific method • average-data method
<u>Category 11</u> Use of Sold Products	• direct use-phase method • indirect use-phase method
<u>Category 12</u> End-of-Life Treatment of Sold Products	• waste-type specific method
<u>Category 13</u> Downstream Leased Assets	• asset-specific method • lessee-specific method • average-data method
<u>Category 14</u> Franchises	• franchise-specific method • average-data method
<u>Category 15</u> Investments	• investment-specific method • project-specific method • average-data method

- e) Explain considerations in using a combination of calculation methods for various Scope 3 categories and for various Scope 3 activities within each Scope 3 category
 - f) Evaluate both upstream and downstream activities against the 15 categories of Scope 3 emissions as defined by the GHG Protocol
- 4) Design the process to collect data including prioritisation and calculate Scope 3 GHG emissions (*Ref: Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Page 65*)
- a) Step 1: Prioritise data collection efforts (*Ref: Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Page 66*)
 - i) Based on the magnitude of GHG emissions
 - ii) Based on financial spend or revenue
 - iii) Based on other criteria
 - the company has influence over;
 - contributes to the company's risk exposure;
 - stakeholders deem critical;
 - identified as significant by sector-specific guidance

- b) Step 2: Select data based on the following
 - i) The company's business goals
 - ii) The relative significance of Scope 3 activities
 - iii) The availability of primary and secondary data (*Ref: Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Page 70*)
 - Primary data: data from specific activities within a company's value chain
 - Secondary data: data that is not from specific activities within a company's value chain
 - iv) The quality of available data (*Ref: Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Page 80*)
 - Product-level data: Cradle-to-gate GHG emissions for the product of interest
 - Activity, process or production line-level data: GHG emissions and/or activity data for the activities, processes, or production lines that produce the product of interest
 - Facility-level data: GHG emissions and/or activity data for facilities or operations that produce the product of interest
 - Business unit-level data: GHG emissions and/or activity data for the business units that produce the product of interest
 - Corporate-level data: GHG emissions and/or activity data for the entire corporation
 - v) Compare the advantages and disadvantages of primary and secondary data
 - c) Step 3: Collect data, identify and fill data gaps (i.e. use of proxy data to fill data gaps using databases and publications that are internationally recognised, provided by national governments, or peer-reviewed)
 - d) Step 4: Improve data collection quality over time
- 5) Establish Scope 3 GHG emissions targets and credibly report performance to stakeholders (similar approach to Scope 1 and 2 above)

Potential sources of materials

- GHG Protocol: [*GHG Protocol Revised Edition*](#), March 2004
- GHG Protocol: [*Corporate Value Chain \(Scope 3\) Standard*](#), September 2011
- GHG Protocol: [*Technical Guidance for Calculating Scope 3 Emissions*](#)
- SEFR: [*Singapore Emission Factors Registry \(SEFR\) emission factors*](#), October 2024
- DEFRA: [*2024 emission factor*](#), July 2024
- EMA: [*Singapore Energy Market Authority \(EMA\) grid emission factor*](#), September 2024
- IGES: [*List of Grid Emission Factors*](#), 2024
- IEA: [*Emission Factors 2024*](#), September 2024
- Intergovernmental Panel on Climate Change (IPCC): [*Emission factors using IPCC Guidelines \(2006 IPCC Guidelines for National Greenhouse Gas Inventories Volume 5\)*](#)
- US EPA: [*Inventory Management Plan Guidance and Resources*](#), October 2024
- GHG Protocol: [*GHG Protocol Sample GHG Inventory Reporting Template*](#)
- GHG Protocol: [*GHG Protocol Measurement and Estimation of Uncertainty of GHG Emissions Guidance and Calculation Tool*](#)
- GHG Protocol: [*Environmentally extended input-output \(EEIO\) databases*](#)



Topic 5

The importance of governance in sustainability reporting, and the value and business case for sustainability reporting (beyond reporting and compliance)

Learning objectives

- Understand the critical role of effective governance in sustainability reporting
- Explain how sustainability reporting and disclosures can create value
- Develop strategies for an entity to prepare for assurance
- Explain the importance of ethics and independence considerations in sustainability reporting, and key components of International Ethics Standards for Sustainability Assurance (IESSA) relevant to preparers



►► Key knowledge area

5.1 What is good governance and how it helps in the oversight of sustainability reporting process

Proficiency Level
Basic

Learning outcomes

- 1) Understand the roles and responsibilities of directors and management in sustainability reporting process
- 2) Introduce governance best practices in relation to sustainability reporting process
- 3) Understand and apply good governance principles and their relevance to sustainability reporting
- 4) Understand how good governance practices can enhance transparency, accountability, and stakeholder trust
- 5) Understand the roles that each department in the company can play and how they can collaborate in the sustainability process
- 6) Understand about greenwashing and greenhushing, and how good governance can help organisations to avoid greenwashing and greenhushing

Recommended Training Hours
2 hours

Key contents

- 1) Explain the roles and responsibilities of directors and management in the sustainability reporting process
 - a) Strategic oversight: Integrating sustainability into the company's overall strategy

- b) Risk management: Identify and manage sustainability-related risks and opportunities
 - c) Compliance and reporting: Ensure that the company complies with relevant sustainability reporting standards and regulations
 - d) Stakeholder engagement: Engaging with stakeholders, including investors, customers, employees, and regulators
 - e) Performance monitoring: Monitoring the company's sustainability performance, identifying areas for improvement, and ensuring continuous progress towards sustainability goals
 - f) Transparency and accountability: Ensure that sustainability reports are transparent, accurate, and provide a true reflection of the company's sustainability performance
- 2) Introduce governance best practices in relation to sustainability reporting process. Some examples include:
- a) Establish a governance framework
 - b) Set up internal governance, risk and compliance teams
 - c) Develop clear policies and procedures setting out clear roles and responsibilities
 - d) Cross-departmental collaborations and team synergy
 - e) Implement internal controls and conduct internal audits
 - f) Attend adequate training to increase awareness of risks associated with sustainability issues
 - g) Stay abreast and informed on regulatory requirements and seek external assurance
- 3) Explain and apply the principles of good governance in a company (e.g. transparency, accountability, stakeholder inclusiveness, consistency and comparability, legal and regulatory compliance)
- 4) Identify and explain the importance of good governance and the key implications for sustainability reporting:
- a) Explain how transparency and accountability enhance stakeholder trust
 - b) Identify and manage risks
 - c) Integrate sustainability into corporate strategy
 - d) Comply with legal and regulatory requirements
 - e) Explain how good governance practice can enhance
 - i) Transparency
 - Open communication
 - Accurate reporting
 - Regular and consistent disclosures
 - ii) Accountability
 - Clear roles and responsibilities to ensure accountability
 - Regular monitoring and performance evaluation against set goals and objectives to ensure deviations are addressed
 - Promote a culture of ethical conduct
 - iii) Stakeholder trust
 - Promotes ethical leadership and fostering a culture of integrity and ethical behaviour
 - Understanding stakeholder's concerns and incorporating their feedback into decision-making process

- 5) Identify the various departments within the organisation that might be involved in sustainability reporting, explain the importance of integrating sustainability throughout the organisation, and how each department can work together to streamline the sustainability reporting process
 - a) Examples of the roles in each department include:
 - i) Finance: in providing financial-related data and being involved in quantification of financial effects of sustainability-related risks and opportunities,
 - ii) Human resources: in providing people-related data and in developing strategies relating to employee-related risks and opportunities,
 - iii) Operations: in providing operation-related data and identifying relevant sustainability-related risks and opportunities,
 - iv) Sustainability: in developing sustainability report and overall sustainability strategy,
 - v) IT: in providing IT-related data and implementation, monitoring of IT-system to support sustainability reporting.
 - b) Illustrate how good governance structure and leadership can lead to efficient and effective sustainability reporting process
 - c) Explain the importance of integrating sustainability throughout the organisation
 - d) Share recommended methods of how different departments can work together. This may include:
 - i) Tone from the top – Strategic direction and leadership to set goals and align strategies throughout the organisation
 - ii) Sharing of information such as financial effects, employee data, emissions data
 - iii) Usage of technology to streamline reporting process
 - iv) Regular meetings to discuss progress/challenges in sustainability reporting process
- 6) Greenwashing and greenhushing
 - a) Define greenwashing and greenhushing
 - b) Distinguish between greenwashing and greenhushing
 - c) Explain the impact of greenwashing and greenhushing, including the impact to stakeholders
 - d) Understand the different types of greenwashing and greenhushing
 - e) Provide examples of greenwashing and greenhushing and the impact to stakeholders
 - f) Explain how good governance can help organisations comply with reporting requirements and avoid greenwashing/greenhushing

Potential sources of materials

- KPMG, *Designing a sustainability organization ready for reporting*, 2024
- Singapore Institute of Directors (SID): *How good corporate governance contributes to the sustainability of the company*
- Accounting for Sustainability: *Reporting insights: Governance over sustainability reporting*
- Ernst & Young (EY): *How good governance can keep corporates clean from greenwashing*, 2023

►► Key knowledge area

5.2 Creating value through reporting and making disclosures matter – meeting stakeholders' needs

Learning outcomes

- 1) Discuss how organisations can create value through sustainability reporting and link it to:
 - how it can drive business value beyond compliance
 - how it can uncover new business opportunities and drive innovation
 - how it can be used as a competitive differentiator in the market
- 2) Understand and explain what material disclosures are and why they are crucial for different stakeholders
- 3) Identify key characteristics that make disclosures relevant and impactful
- 4) Identify and develop the skills necessary to communicate sustainability performance clearly and effectively to investors

Proficiency Level

Basic

Recommended Training Hours

2 hours

Key contents

- 1) Explain how sustainability reporting can drive business value beyond compliance
 - a) Enhancing reputation and brand value
 - i) Transparent sustainability reporting can enhance a company's reputation and build brand value by demonstrating commitment to ethical and responsible practices
 - b) Attracting potential investors
 - i) High quality sustainability reports can attract socially responsible investors
 - c) Increasing operational efficiencies
 - i) By tracking and reporting on sustainability metrics, companies can identify inefficiencies and areas of improvement which could lead to cost savings and enhanced operational performance
 - d) Enhancing risk management
 - i) Sustainability reporting can help identify and mitigate risks related to environmental and social issues
 - e) Evaluate new business opportunities that sustainability reporting can bring to the company
 - i) New market insights
 - ii) Innovation in processes
 - iii) New revenue streams
- 2) Identify how to use sustainability as a competitive differentiator in the market.
 - a) Brand differentiation
 - b) Customer loyalty
 - c) New partnerships and collaborations
 - d) Regulatory preparedness

- e) Employee engagement and retention
- 3) Explain what material disclosures are and why they are crucial for different stakeholder groups
 - a) Explain the concept of material disclosure
 - i) Material based on outcome of materiality assessment
 - ii) Significant and relevant to stakeholders and the business
 - b) Explain why they are crucial for different stakeholder groups. Examples include:
 - i) Informed decision-making – Material disclosures provide critical information that enables investors to make informed decisions
 - ii) Risk assessment – Material disclosures can be used to assess risk related to Environmental, Social, and Governance (ESG) factors. Helps in understanding potential threats and opportunities
 - iii) Transparency and trust – Fosters transparency and builds trusts with investors and advocacy groups
 - iv) Regulatory compliance – Comply with legal and regulatory requirements
- 4) Identify key characteristics that make disclosures relevant and impactful, as described in International Financial Reporting Standards (IFRS) S1. Key elements include:
 - a) Timeliness – Having up-to-date information for decision making processes
 - b) Relevance – Help stakeholders understand the most critical aspects and enable them to focus on them
 - c) Faithful representation – Faithfully represent the substance of the phenomena that it purports to represent and provides full picture to make well-rounded assessments
 - d) Comparability – Enhance ability of stakeholders to evaluate performance relative to others – aids decision making
 - e) Verifiability – Increase credibility and reliability of information
 - f) Understandability – Clear and concise disclosure of information to avoid ambiguity and duplication of information
- 5) Explain skills required to communicate sustainability performance clearly and effectively to investors and advocacy groups:
 - a) Understanding stakeholders' needs
 - b) Using real life examples and case studies to illustrate
 - c) Using visual aids to present complex data
 - d) Customising communication to meet the needs of different stakeholder groups
 - e) Be succinct and use simple messages that are clear and concise
 - f) Two-way communication to create open dialogue with stakeholders (feedback/questions)
 - g) Prioritising information to ensure main points are brought across and easily understood

Potential sources of materials

- PwC Strategy & Business: *The hidden value in getting compliance right*, 2020
- BoardRoom: *The advantages of meaningful ESG practices and sustainability reporting for businesses in Singapore*, March 2023
- World Economic Forum (WEF): Sustainability reporting: *What directors need to know and do*, May 2024

► Key knowledge area

5.3 Getting ready for assurance through building a robust data and process governance around sustainability reporting

Learning outcomes

- 1) Explain the importance of assurance and the different types of assurance
- 2) Explain the sustainability assurance requirements in the Singapore context
- 3) Understand the overview of assurance standards in Singapore and how having high quality data and proper data governance contribute to compliance with assurance requirements
- 4) Evaluate an entity's readiness to obtain assurance on sustainability information
- 5) Identify key actions that management can take to be assurance ready
- 6) Understand the ethics and independence principles for sustainability assurance engagements

Proficiency Level
Intermediate

Recommended Training Hours
2 hours

Key contents

- 1) Explain the importance of assurance and the different types of assurance
 - a) Define assurance
 - b) Distinguish between limited assurance and reasonable assurance
 - c) Explain the importance of assurance on sustainability reports
- 2) Explain the sustainability assurance requirements in the Singapore context
 - a) Scope of companies
 - b) Timeline to obtain assurance for companies in scope
 - c) Scope of assurance
- 3) Understand the overview of the assurance standards in Singapore and how having high quality data and proper data governance contributes to compliance with assurance requirements
 - a) Provide an overview of the current assurance standards, including:
 - i) International Standard on Sustainability Assurance 5000, General requirements for Sustainability Assurance Engagements (ISSA 5000); and
 - ii) Singapore Standards on Greenhouse gases (GHG) Part 3: Specification with guidance for the verification and validation of greenhouse gas statements (SS ISO 14064-3)
 - b) Explain how proper data management ensures that sustainability information is verifiable and supported with relevant documentary evidence
 - c) Explain how proper controls ensure that management has a good foundation process to comply with assurance requirements and increase stakeholder confidence

- 4) Evaluate an entity's readiness to obtain assurance on sustainability information
 - a) Evaluate whether the entity has a process to identify sustainability information to be reported, including controls, to enable the preparation of the sustainability information
 - b) Evaluate whether the sustainability matter is identifiable and capable of consistent measurement or evaluation against applicable criteria
 - c) Evaluate whether there are criteria for all the sustainability information to be subject to an assurance engagement and determine the sources of the criteria (framework criteria, entity-developed criteria or a combination of both)
 - d) Evaluate whether the criteria are:
 - i) sufficiently prescriptive about the scope of the sustainability matters to be addressed in the sustainability information
 - ii) addressing the entity's industry or jurisdictions in which the entity operates, or other factors pertinent to the sustainability information to be reported
 - iii) avoiding vague descriptions of expectations or judgments
 - e) Evaluate whether the criteria exhibits relevance, completeness, reliability, neutrality and understandability
 - f) Evaluate whether and how the criteria will be made available to the intended users and explain the importance of this
- 5) Identify some of the key actions that management can take to be assurance ready, for example:
 - a) Understanding the IFRS Sustainability Disclosure Standards (IFRS SDS)
 - b) Knowing the reporting and assurance requirements
 - c) Conducting materiality assessment and engaging stakeholders
 - d) Conducting internal audits
 - e) Engaging external assurance providers to advise on the organisation's sustainability roadmap and review sustainability reports
- 6) Understand the ethics and independence considerations for sustainability assurance engagements
 - a) Explain the importance of ethics and independence to preparers of sustainability reports
 - b) Explain the principles of ethics and independence
 - c) List examples of circumstances that involve threats to compliance with fundamental principles of ethics and independence

Potential sources of materials

- WEF: [*ESG could build or break trust in companies*](#), August 2022
- ISCA: [*Building Trust Through Sustainability Assurance*](#), January 2024
- International Auditing and Assurance Standards Board (IAASB): [*ISSA 5000, General requirements for sustainability assurance engagements*](#), November 2024
- Singapore Standards: [*SS ISO 14064-3: 2021*](#)
- International Ethics Standards Board for Accountants (IESBA): [*Final pronouncement - International Ethics Standards for Sustainability Assurance \(including International Independence Standards\) and Other Revisions to the Code Relation to Sustainability Assurance and Reporting*](#), January 2025
- IESBA: Basis of conclusions: [*International Ethics Standards for Sustainability Assurance \(including International Independence Standards\) and Other Revisions to the Code Relation to Sustainability Assurance and Reporting*](#), January 2025



Appendix 1: Proficiency Levels based on Value Creation Principles

Proficiency Level	Operating Context	Value Created
Basic	Work context is likely routine and predictable, and tasks are well-defined and specified. Issues are often “Standard” where there is a Standard Operating Procedure (SOP) to address it.	Under predictable and certain operating conditions, workers are required to apply the skills to minimally achieve a specified intended contribution to the job function.
Intermediate	Work context is likely less routine and less predictable, and tasks are less well-defined. Issues are often “Non-Standard”, where there are known ways to name and solve the issue even if there is no SOP to address it.	Under less predictable and less certain operating conditions, workers may require greater technical knowledge and problem-solving skills to adapt and respond to developments in work context in order to fulfil the job function or attain the business goals.
Advanced	Work context is likely non-routine and unpredictable, and tasks are likely new, undefined and out of the current job or business context. Issues are often highly complex which requires issue to be identified and solutions to be developed.	Under non-routine and unpredictable conditions that may lie outside of the workers existing job or business context, workers will need to draw on knowledge and expertise from other (new) context) and modify or customise application of the skill to create new or better value in order to attain business goals.



Appendix 2

Scope 1

- Explain the activities covered in Scope 1, i.e. stationary combustion, mobile combustion and fugitive emissions
- Identify activity sources contributing to Scope 1
- Quantify and calculate emissions using reliable emission factor sources

Scope 2

- Explain the different forms of energy used to track Scope 2 emissions. For example, purchased electricity.
- Determine which accounting methods (i.e. location-based or market-based approach) to use for Scope 2 emissions
- Understand the differences between location-based and market-based emissions
- Assess how different energy distribution methods should be treated (i.e. consider whether an entity should report Scope 2 emissions using the location-based or market-based or both approaches if any of the entity's energy-consuming facilities are located in areas where grid customers can be provided with product or supplier-specific data in the form of certificates, contracts with generators or suppliers for specified source electricity, supplier labels, supplier emission rates, green tariffs, contracts, residual mixes, or other contractual instruments) as this would determine which accounting methods to use for calculating Scope 2 emissions (*Note: IFRS S2 only requires disclosure of location-based Scope 2 emissions and information about contractual instruments, if any.*)
- Explain the emission factor hierarchy for location-based method
- Explain the data hierarchy for market-based emissions factor



Appendix 3

Scope 3

- Describe key supply chain activities that would contribute to each category of Scope 3 emissions across the value chain. For example, the purchase of raw materials for a manufacturing company contributes to Scope 3 Category 1: Purchased Goods and Services.

Category 1: Purchased Goods and Services

- Assess the different methods for calculating emissions from purchased goods and services
 - supplier-specific method
 - hybrid method
 - average-data method
 - spend-based method
- Distinguish the different data types (*refer to Topic 4.2, point 4(b), Step 2*) required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from purchased goods and services
- Illustrate the types of emission factors needed
- Review the reasonableness of estimates and assumptions where proxy data is used
 - Databases and publications that are internationally recognised, provided by national governments, or peer-reviewed should be prioritised.
 - Proxy data is data from a similar activity that is used as a stand-in for the given activity (*GHG Protocol S3, Page 83*)
 - If data of sufficient quality are not available, companies may use proxy data to fill data gaps
 - Example of proxy data: An emission factor exists for electricity in Ukraine, but not for Moldova. A company uses the electricity emission factor from Ukraine as a proxy for electricity in Moldova.

Category 2: Capital goods

- Distinguish whether a particular purchased product is a capital good (to be reported in category 2) or a purchased good (to be reported in category 1).
- Assess the different methods for calculating emissions from capital goods
 - supplier-specific method
 - hybrid method
 - average-data method
 - average spend-based method
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from capital goods

- Illustrate the types of emission factors needed
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 3: Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2

- Distinguish activities to be included in category 3
- Explain the upstream activities involved including how transmission and distribution (T&D) losses occur
- Assess the different methods for calculating Scope 3 Category 3
 - supplier-specific method
 - average-data method
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for Scope 3 Category 3
- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 4: Upstream Transportation and Distribution

- Distinguish the types of transportation and distribution activities throughout the value chain
- Differentiate the category of emissions (i.e. Category 1, 2, 4, 8, 9) for the different types of transportation and distribution activities in the value chain.
- Assess the different methods for calculating emissions from transportation upstream
 - fuel-based method
 - distance-based method
 - spend-based method
- Assess the different methods for calculating emissions from distribution upstream
 - site-specific method
 - average-data method
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from transportation and distribution activities in the value chain
- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 5: Waste Generated in Operations

- Distinguish the types of waste treatment activities involved
- Measure and calculate waste emissions from recycling across different Scope 3 categories
- Assess the different methods for calculating emissions from waste generated in operations
 - supplier-specific method
 - waste-type-specific method
 - average-data method

- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from waste generated in operations
- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 6: Business Travel

- Differentiate the category of emissions (i.e. Category 1, 2, 6, 7, 8) for the different types of employee transportation activities across the value chain.
- Assess the different methods for calculating emissions from business travel
 - fuel-based method
 - distance-based method
 - spend-based method
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from business travel
- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 7: Employee Commuting

- Assess the different methods for calculating emissions from employee commuting
 - fuel-based method
 - distance-based method
 - average-data method
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from employee commuting
- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 8: Upstream Leased Assets

- Assess the different methods for calculating emissions from upstream leased assets
 - asset-specific method
 - lessor-specific method
 - average-data method
- Calculate and apportion emissions when a company leases an asset for only part of the reporting year.
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from upstream leased assets

- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 9: Downstream Transportation and Distribution

- Differentiate the category of emissions (i.e. Category 1, 2, 4, 9) for the different scenarios of transportation and distribution of sold products
- Assess the different methods for calculating emissions from transportation downstream
 - fuel-based method
 - distance-based method
 - spend-based method
- Assess the different methods for calculating emissions from distribution downstream
 - site-specific method
 - average-data method
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from transportation and distribution of sold products
- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 10: Processing of Sold Products

- Assess the different methods for calculating emissions from processing of sold products
 - site-specific method
 - average-data method
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from processing of sold products
- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 11: Use of Sold Products

- Determine whether emissions from processing of sold products is:
 - direct use-phase emissions; or
 - indirect use-phase emissions
- Assess the different methods for calculating emissions from use of sold products
 - For direct use-phase emissions:
 - Products that directly consume energy (fuels or electricity) during use
 - Fuels and feedstocks
 - Greenhouse gases and products that contain or form greenhouse gases that are emitted during use

- For indirect use-phase emissions-data method
 - ↳ Products that indirectly consume energy (fuels or electricity) during use
- Distinguish the different data types required for different calculation methods
- Articulate the decisions for selecting a calculation method for emissions from processing of sold products
- Determine the types of emission factors needed depending on selected calculation methods
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 12: End-of-Life Treatment of Sold Products

- Calculate the emissions from end-of-life treatment of sold products based on waste-type specific method
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 13: Downstream Leased Assets

- Calculate emissions from leased assets owned by the reporting company.
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 14: Franchises

- Assess the different methods for calculating emissions from franchises
 - franchise-specific method
 - average-data method
- Calculate and allocate emission from franchise building that are not sub-metered
- Articulate the decisions for selecting a calculation method for emissions from franchises
- Review the reasonableness of estimates and assumptions where proxy data is used

Category 15: Investments

- Identify which investments fall under Category 15
- Determine the types of financial instruments that are included, such as equity, debt, and project finance
- Assess the different methods for calculating emissions based on the type of investment
- Assess the different methods for calculating emissions from investments
 - investment-specific method
 - project-specific method
 - average-data method
- Calculate emissions from investments
- Articulate the decisions for selecting a calculation method for emissions from investments
- Review the reasonableness of estimates and assumptions where proxy data is used

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