

**Module Outline**  
**ECF on Green and Sustainable Finance (GSF)**  
**Module 3 “Sustainability Risks in Banking”**

|                                       |                                  |
|---------------------------------------|----------------------------------|
| <b>Benchmarked HKQF Level:</b>        | 4                                |
| <b>No. of Credits:</b>                | 10                               |
| <b>Total Notional Learning Hours:</b> | 100                              |
| <b>a) Class contact hours:</b>        | 9 hours (3-hour per session x 3) |
| <b>b) Self-study hours:</b>           | 89.5 hours                       |
| <b>c) Assessment hours:</b>           | 1.5 hours                        |
| <b>Pre-requisite:</b>                 | NA                               |

**Module Objective**

The module aims to provide participants with an overview of the nature, characteristics, and impacts of sustainability risks focusing on climate-related financial risks in the banking industry. After completing the module, the participants are capable to identify key sustainability risks particularly climate-related financial risks inherent in banking operations, assess the business impacts of identified risks, examine compliance gaps with regulatory standards, measure risk exposures resulted from vulnerabilities to climate hazards, support risk management framework to manage / mitigate climate hazards, operate data repository to support modelling of actual / potential financial losses and compare modelling scenarios under different climate circumstances.

**Module Intended Outcomes (MIOs) and Units of Competencies (UoCs)**

Upon completion of the Module 3, candidates should be able to:

| MIOs  | Intended Outcomes / Competence  | *Unit of Competencies (UoCs)     |
|-------|---|----------------------------------|
| MIO-1 | Discern various types and impacts of sustainability risks in banking, including the climate and environmental risks in banking. | 107408L4<br>107409L4<br>107476L4 |
| MIO-2 | Examine the approaches to identify, manage, analyse, and disclose the sustainability risk.                                      | 109267L5                         |
| MIO-3 | Relate the application of climate models in the banking industry.   |                                  |
| MIO-4 | Perform climate scenario analysis with data literacy.   |                                  |

*\*Note: For the details of the UoCs, please refer to the Specification of Competency Standards (SCS) of [Retail Banking](#) and [Corporate & Commercial Banking](#) which were developed by HKCAAVQ.*

## Assessment

|                              |   |
|------------------------------|---|
| <b>Examination duration:</b> | 1.5 hours   |
| <b>Examination format:</b>   | Multiple Choice Questions (MCQ) with 50 questions |
| <b>Pass mark:</b>            | 70%   |

## Syllabus

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|--|--|
| <b>Chapter 1: Overview of Sustainability Risks</b> |  |
| <b>1.1</b>   | <b>Introduction to Sustainability Risks</b>  |
| 1.1.1  | - Nature and importance of key sustainability risks  |
| 1.1.2  | - Types of sustainability risks in banking   |
| <b>1.2</b>   | <b>Impacts of Sustainability Risks</b>   |
| 1.2.1  | - Differentiation between ESG, climate, and sustainability risks   |
| 1.2.2  | - Business impacts of sustainability and climate risks on the overall banking organisation and various business and supporting functions |
| <b>1.3</b>   | <b>Opportunities and Risks of Climate Change</b>   |
| 1.3.1  | - Double materiality of climate risks  |
| 1.3.2  | - Strategies and measures of banks to identify, measure, manage and mitigate sustainability and climate risks in the banking industry    |
| 1.3.3  | - Strategies and measures of banks to identify and capture potential opportunities from Green and Sustainable Finance                    |
| <b>Chapter 2: Climate Risk Management</b>          |  |
| <b>2.1</b>   | <b>Overview of Climate Risks</b>   |
| 2.1.1  | - Types of climate risks   |
| 2.1.2  | - Financial impacts of climate risks:  |
| <b>2.2</b>   | <b>Introduction to Climate Risk Management</b>   |
| 2.2.1  | - Global organisations and standards for climate change  |
| 2.2.2  | - Good practices in climate risk management strategy, governance, and execution  |
| 2.2.3  | - Opportunities and challenges for climate risk management   |
| <b>2.3</b>   | <b>Good Practices in Climate Risk Management</b>   |
| 2.3.1  | - Technology, data, and analytics (TDA) for measurement of physical and transition risks   |
| 2.3.2  | - Equator Principles   |
| 2.3.3  | - HKMA Supervisory Policy Manual GS-1  |

|       |   |
|-------|---|
| 2.3.4 | - Disclosure and reporting requirements for climate risks                                     |
| 2.3.5 | - Global and national reporting standards for disclosure of climate-related financial risks   |
| 2.3.6 | - Opportunities and challenges for measuring and reporting of climate-related financial risks |

### **Chapter 3: Climate Models and Scenario Analysis**

|            |  |
|------------|--|
| <b>3.1</b> | <b>An Overview of Climate Risk Modelling</b>   |
| 3.1.1      | - What is scenario analysis and stress testing?  |
| 3.1.2      | - Why are scenario analysis and stress testing important to climate risk management?   |
| 3.1.3      | - Types of common global climate scenarios   |
| 3.1.4      | - Consideration of building climate change into scenario analysis  |
| 3.1.5      | - Modelling methodologies to analyse climate financial impacts arising from climate transition   |
| 3.1.6      | - Use of climate models and scenario analysis and stress testing in banking and financial industry and their associated benefits, challenges, and limitations        |
| <b>3.2</b> | <b>Fundamentals in the Analytical Choices and Modelling Approaches in Scenario Analysis and Stress Testing, and Tools, and Data Available for Scenario Analysis.</b> |
| <b>3.3</b> | <b>Understanding the Results from Scenario Analysis, Benefits, Challenges, and Limitations of Climate Scenario Analysis and Stress Testing Modelling</b>             |
| <b>3.4</b> | <b>Sector-specific Use Cases in the Banking and Financial Industry</b>   |

## Recommended Readings

### ***Essential Readings:***

1. HKIB Study Guide of ECF-GSF: Module 3 Sustainability Risks in Banking. (2025).

### ***Supplementary Readings***

1. Climate Financial Risk Forum (CFRF). (2022). Financial Conduct Authority. Climate Financial Risk Forum Guide 2022 Scenario Analysis Guide for Banks. (<https://www.fca.org.uk/publication/corporate/cfrf-guide-2022-scenario-analysis-banking-guide.pdf>)
2. Hong Kong Monetary Authority (HKMA). (2021). Supervisory Policy Manual, GS-1 Climate Risk Management. (<https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/supervisory-policy-manual/GS-1.pdf>)
3. Hong Kong Monetary Authority (HKMA). (2023). Guideline for Banking Sector Climate Risk Stress Test. (<https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2023/20230421e1a1.pdf>)
4. Massey, M. (2022). Climate Change Enterprise Risk Management: A Practical Guide to Reaching Net Zero Goals. (1<sup>st</sup> ed.). Kogan Page.
5. Scalia, A. (2023). Financial Risk Management and Climate Change Risk: The Experience in a Central Bank. Springer.

### ***Further Readings***

1. Ramakrishna, S. (2023). Climate Change Risk Management in Banks: The Next Paradigm (The Moorad Choudhry Global Banking Series). De Gruyter.
2. Zhang, J. (2022). Climate Change: Managing the Financial Risk and Funding the Transition. Risk Books.