

# IMPLEMENTING MAS ENVIRONMENT RISK MANAGEMENT GUIDELINES

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To organize a tailored session for your organization, please contact us at [email@salmonthrust.com](mailto:email@salmonthrust.com)

## TRAINING FOCUS 7 RRCE hours

Banks are under rising regulatory and commercial pressure to protect themselves from the impact of climate change and to align with the global sustainability agenda. Banking regulators around the world, including MAS are now formalizing new rules for climate-risk management and intending to roll out demanding stress tests in the months ahead. This course aims to provide an introductory overview of the climate change regulatory agenda, as well as the regulatory and stakeholder expectations with regards to climate and environmental risk management and the impact of the environmental, sustainability, and governance (ESG) factors in the banks' investment and lending decisions in response to the shifting attitudes towards "green" financing. Case studies across the various key elements of MAS' ENRM Guidelines will also be shared and discussed.

1 DAY | 7 CPD HOURS

RECOMMENDED FOR  
**PRIVATE BANKING &  
WEALTH MANAGEMENT**  
AND  
**CORPORATE BANKING &  
GLOBAL MARKETS**

## WHO SHOULD ATTEND

- Board members
- Senior Management
- ESG/Sustainable Finance dept
- Risk management, compliance and audit staff incl. Environmental Risk Taskforce
- Business heads and departments

## COURSE OBJECTIVES

- Demonstrate an understanding of the basic climate sciences, and the disruptive implications of climate change on the social well-being, economic development, and financial stability of current and future generations
- Aware of the key climate change drivers including the key types of GHGs resulting in the rapid rise of global temperatures and the necessary measures to mitigate this phenomena
- Enhance the knowledge and understanding of how climate change affects the financial services industry and how the financial risks from climate change will impact the banks differently based on their specific business models and balance sheets.
- Build an understanding of the key motivation of MAS issuing the ENRM Guidelines and how these regulations might impact on their banks based on the key 3 areas of focus
- Equip with the necessary knowledge and information to comply with the ENRM Guidelines and implement the necessary strategies to manage the environmental risks and transform the bank's business model into a green and sustainable finance model
- Able to manage the environmental risks by aligning with the key requirements of the ENRM Guidelines and adopting guidance from global best practice frameworks, e.g., the TCFD and EU Taxonomy frameworks.
- Enhance ability and awareness to implement an ENRM framework to identify, assess and quantify, monitor and report environmental risk exposures at the portfolio level, sector level and individual company or group level, using climate-related transmission models, scenario analysis and stress testing models.

## COURSE OUTLINE

### Prologue

- Climate Change: The Science Basis
- Climate Change and Impact

### Introduction: Managing Environmental Risk

- Biggest Risks to the Global Economy in 2020
- Drivers of Climate Change and Its Impact
- Climate Change: Key Issues for Banking Supervisors - Wider Context of Financial Intermediation
- Risks to Banks from Climate Change
- Managing Environmental Risks

### Climate-Related and Environmental Risks in the Banking Sector

- Climate-Driven Economic Damage
- Physical Risks from Climate Change
- Physical Risks: Financial Contagion
- Transition Risks from Climate Change
- Transition Risks: Financial Contagion
- Other Types of Risk Arising from Climate Change
- Focus on Financial Impacts: Risk & Opportunities (TCFD)

### MAS Environmental Risk Management Guidelines: Motivation, Scope & Application

- Global Trend: The 2015 Paris Agreement
- Drivers of Climate Risk Management: Regulatory Focus
- Climate Change Impact on ASEAN
- Supervisory Expectations: MAS Guidelines on Environmental Risk Management (ENRM)  
Scope & Application of MAS Guidelines on ENRM
- An Overview of the MAS ENRM Guidelines: What These Guidelines Mean For Your Business
- Alignment with the Paris Agreement
- Seeking Guidance from the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations

### **Implementing MAS ENRM Guidelines: Foundational Considerations**

- Understanding the Key Environmental Risks: Why They Matter to FIs
- Implementing TCFD's Recommendations
- Maturity Assessment: Prerequisites to Managing Environmental Risks
- Action Steps to Lay the Groundwork for Implementing Environmental Risk Management
- Supervisory Expectations: Governance & Strategy incl. Illustrations
- Supervisory Expectations: Risk Management incl. Illustrations
- Supervisory Expectations: Disclosures incl. Illustrations

## **ABOUT OUR TRAINER**

## **DR KHOO GUAN SENG** PHD IN COMPUTATIONAL PHYSICS (NUS)

GS Khoo has over 30 years of AI, data-mining, management and startup global work-experience, focusing on risk and hedge fund analytics. He joined CAI in Feb 2016, after relocating back from Canada, where he was the Head of ERM with one of the largest Canadian pension fund managers, AIMCo, which he joined in 2011.

Prior to AIMCo, He was with Temasek Holdings, which he joined in 2009 from Standard Chartered Bank, where he was the Global Head/ MD, Group Risk Analytics, heading the global team performing all global risk models validation for Basel & BIPRU compliance, and liaised with all the financial regulators in Europe, Asia, Africa and the Middle East, including the FSA (UK), the FSS (Korea), CBRC, HKMA and MAS (Singapore). At Temasek Holdings, he focused on developing novel investment performance and portfolio risk management metrics, applicable across the whole spectrum of investment asset classes and horizons.

In his other previous roles, he designed and managed an algorithmic hedge fund at Man Investment Products (Man Group plc.) in the 90s, was Head of Innovation (Strategy & Business Devt.) at the Singapore Exchange, was Group Chief Risk Officer at a SE Asian conglomerate (RHB Capital, Malaysia) and was based in Chicago and Denver in 2001-02 at American Bourses Corp (ABC, spun off from the Man Group), providing AI-based investment and trading analytics to clients trading on the ECNs in N America and in the Asia-Pacific. At ABC, he managed the launch and production of the financial portals of SPH, asiaonemarkets.com and zaobaofinance.com in 2000.

He also provided advisory services to the regulators, family offices, research institutes, global and Asian banks in the Asia-Pacific region on data-mining, ERM, Basel 2 and 3. In addition, he has also advised startup and IT companies in S'pore, Silicon Valley and Vancouver, B.C in BigData, FinTech, and Energy Farming using renewable energy.

GS Khoo holds a PhD in Physics, and has done post-doctoral work at Nagoya University, MSI's (Molecular Simulations Inc.) research centers at Caltech (Pasadena, California), Boston and at Teijin-MSI in Tokyo, Japan on AI-based data mining and computer-aided drug design. He also speaks regularly at international banking conferences and published articles relating to holistic ecosystem enterprise risk management, AI, operational resiliency, ESG investing and sovereign investing, and published over 30 journal papers on financial engineering, artificial intelligence (AI) applications in financial markets, environmental and materials science.

He is a Board Adviser of the Global-SWF Corporation, Singapore Economic Forum, an affiliate organization of the Paris-based ESG Summit G7 Pension and World Pension Council.



**FTS**

## FINANCIAL TRAINING SCHEME (FTS)

**This programme is recognised under the Financial Training Scheme (FTS) and is eligible for FTS claims subject to all eligibility criteria being met.**

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**CPD**

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Founded in 2004, Salmon Thrust is committed to delivering real-world banking and financial training to professionals working in banks, corporates, government agencies, and other financial institutions.

Based in Singapore, we offer our clients in the region a broad range of up-to-date financial topics, delivered via classroom training and e-learning. Our courses range from foundational programmes for new entrants, right through to the most complex and current topics in the industry.

At Salmon Thrust, we are attentive to our clients' diverse learning needs. We identify relevant courses to bridge the learning and skill gaps, empowering our clients to make better decisions and bring real value to both their customers and organisations.