Certificate in Sustainability & Climate Finance

Syllabus

Module 1: Foundations of Sustainability and Climate Change

- Sustainability, ESG and sustainable finance: definitions and distinctions.
- The science of climate change: greenhouse gases, carbon budgets and warming pathways.
- Key findings of the IPCC assessment reports.
- Planetary boundaries, biodiversity loss and nature-related risk.
- Social dimensions: just transition, human rights and inequality.
- Why sustainability matters to investors, lenders, insurers and companies.
- Double materiality and financial materiality.

Module 2: Climate Risk: Concepts and Transmission Channels

- Physical risk: acute and chronic hazards.
- Transition risk: policy, technology, market and reputational risk.
- Liability and litigation risk.
- Transmission of climate risk to credit, market, liquidity, operational and insurance risk.
- Stranded assets.
- Climate-related opportunities.
- Climate risk as a systemic financial risk.

Module 3: Economic and Sector Impact of Climate Change

- Macroeconomic effects: growth, inflation, productivity and public finances.
- Sector impact: energy, utilities, transport, real estate, agriculture, metals and mining, cement and chemicals.
- Impact on banking, insurance and asset management.
- Climate vulnerability of India and emerging markets.
- Supply-chain and value-chain exposure.
- Adaptation and resilience economics.

Module 4: Global Climate Policy and the Sustainable Development Agenda

- UNFCCC, the Kyoto Protocol and the Paris Agreement.
- Nationally determined contributions (NDCs) and the global stocktake.
- Conferences of the Parties (COP) and key outcomes.
- UN Sustainable Development Goals (SDGs).
- Net-zero commitments by countries, companies and financial institutions.
- Climate finance commitments, multilateral development banks and blended finance.
- Evolving policy trends and their impact on investment.

Module 5: Sustainability Regulation and Disclosure Frameworks

- ISSB standards: IFRS S1 and IFRS S2.
- TCFD recommendations and their transition into ISSB.
- TNFD and nature-related disclosures.
- EU frameworks: EU Taxonomy, SFDR and CSRD.
- Other jurisdictions: UK, US, Singapore and Hong Kong.
- Global Reporting Initiative (GRI) and stakeholder reporting.
- Assurance of sustainability disclosures.

Module 6: Sustainability Regulation in India

- SEBI's Business Responsibility and Sustainability Report (BRSR) and BRSR Core.
- Value-chain disclosure and assurance requirements.
- SEBI framework for ESG schemes of mutual funds.
- SEBI regulation of ESG rating providers.
- RBI's approach to climate-related financial risk for regulated entities.
- Green deposits, green bonds and sovereign green bonds.
- India's carbon credit trading scheme and climate finance taxonomy.
- IFSCA framework for sustainable finance at GIFT City.

Module 7: Measuring Emissions and Climate Metrics

- The GHG Protocol: Scope 1, Scope 2 and Scope 3 emissions.
- Carbon accounting for companies.
- Financed emissions and the PCAF standard.
- Carbon intensity metrics: WACI and emissions per unit of revenue.

- Implied temperature rise and portfolio alignment metrics.
- Science-based targets (SBTi).
- Data gaps, estimates and quality scoring.

Module 8: Climate Scenario Analysis and Stress Testing

- Purpose of scenario analysis.
- NGFS climate scenarios: orderly, disorderly and hot-house world.
- IEA and IPCC pathways.
- Integrated assessment models.
- Top-down and bottom-up stress testing.
- Climate stress tests by central banks and supervisors.
- Translating scenarios into financial impact on companies and portfolios.

Module 9: Climate Risk Management in Financial Institutions

- Integrating climate risk into the enterprise risk management framework.
- Risk identification, materiality assessment and risk appetite.
- Climate risk in credit appraisal and lending.
- Climate risk in market, liquidity and operational risk.
- Insurance and underwriting of climate risk.
- Climate risk in the internal capital adequacy process.
- Key risk indicators and limits.

Module 10: Climate Risk Governance and Strategy

- Board oversight and management responsibilities.
- Climate strategy and business model resilience.
- Transition plans: credibility, targets and interim milestones.
- Remuneration and incentives linked to sustainability.
- Engagement with regulators, investors and civil society.
- The roles of the Chief Sustainability Officer and Chief Risk Officer.
- Avoiding greenwashing and greenhushing.

Module 11: Sustainable Investing

- ESG integration in investment analysis.
- Exclusionary, best-in-class and thematic strategies.

- Impact investing and measuring impact.
- ESG ratings: methodologies, divergence and limitations.
- Climate-aligned and Paris-aligned benchmarks.
- Stewardship, engagement and proxy voting.
- Sustainability in private markets: private equity, infrastructure and real estate.

Module 12: Green, Social and Transition Finance

- Green, social, sustainability and sustainability-linked bonds and loans.
- ICMA principles and LMA principles.
- Transition finance and transition bonds.
- Blended finance and climate funds.
- Carbon markets: compliance and voluntary markets.
- Carbon pricing, carbon taxes and border carbon adjustments (including the EU CBAM).
- Financing renewable energy, electric mobility and green hydrogen.

Module 13: Data, Analytics and Technology in Climate Risk

- Sources of climate and ESG data.
- Geospatial and satellite data for physical risk assessment.
- Climate risk analytics platforms and models.
- AI and machine learning in sustainability analysis.
- Data quality, comparability and verification.
- Building climate dashboards for boards and investors.

Module 14: Collaboration and Industry Initiatives

- UN Principles for Responsible Investment (PRI) and Principles for Responsible Banking (PRB).
- Network for Greening the Financial System (NGFS).
- Industry alliances for net zero.
- Climate Action 100+ and collaborative engagement.
- Public-private partnerships for climate finance.
- Careers and professional pathways in sustainable finance.

Module 15: Case Studies in Sustainability and Climate Risk

- Physical risk assessment of a coastal real estate portfolio.
- Transition risk assessment of a thermal power or steel company.

- Measuring and reducing the financed emissions of a loan book.
- Designing a sustainability-linked loan.
- Preparing a climate disclosure under IFRS S2 and BRSR.
- Evaluating a green bond issue for greenwashing risk.