



# Climate Risk Management and Climate Change Adaptation: Assessment and Resilience Planning



## **Climate Risk Management and Climate Change Adaptation: Assessment and Resilience Planning**

### **Introduction:**

Climate risk management is now a line-management task: heatwaves, flash floods, drought and water scarcity already interrupt sites, supply routes and outdoor work, while shifting markets and policy change the value of assets. Many organisations still hold climate hazards outside the risk register, with no view of exposure, vulnerability or the cost of acting. This Core Concept course equips managers to assess physical and transition climate risk, prioritise it, choose adaptation measures and build them into enterprise risk management. Participants work through a case organisation and produce a Climate Risk Assessment and Adaptation Plan.

### **Course Objectives:**

- Explain climate hazards, exposure and vulnerability in management terms and relate them to the organisation's sites, assets and people
- Assess acute and chronic physical risks and transition risks for a business unit using the ISO 14091 vulnerability, impact and risk assessment approach
- Apply generic climate scenarios and time horizons to test how material climate risks may develop
- Select and prioritise adaptation options for assets, operations, supply chains and workforce heat exposure using cost-benefit and multi-criteria appraisal
- Integrate climate risks into the enterprise risk register, risk appetite and governance reporting in line with ISO 14090 principles
- Produce a Climate Risk Assessment and Adaptation Plan with owners, budgets and monitoring indicators

### **Target Audience:**

- Managers responsible for enterprise risk registers and risk reporting
  - Managers leading sustainability and climate programmes across business units
  - Managers accountable for physical assets, facilities and capital projects
  - Managers running operations, logistics and supply networks exposed to weather disruption
  - Managers shaping corporate strategy, investment planning and business continuity priorities
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## **Course Outline:**

### **Day 1: Climate Change Essentials and the Organisational Risk Picture**

- Climate Science for Managers: Warming Trends, Extremes and Uncertainty
- Hazard, Exposure and Vulnerability Risk Model Applied to Organisations
- Acute Hazards: Heatwaves, Flash Floods, Storms and Dust Events
- Chronic Hazards: Rising Temperatures, Water Scarcity, Drought and Sea Level Rise
- Climate Risk Baseline Checklist for Sites, Assets and Workforce

### **Day 2: Adaptation Standards and Climate Risk Assessment Methods**

- ISO 14090 Adaptation Principles, Requirements and Planning Cycle
- ISO 14091 Vulnerability, Impact and Risk Assessment Steps
- Transition Risk Categories: Policy, Technology, Market and Reputation Shifts
- Impact Chain Mapping from Climate Signal to Business Consequence
- Incremental and Transformational Adaptation and Maladaptation Tests

### **Day 3: Scenario Analysis, Risk Registers and Materiality**

- Generic Climate Scenarios and Short, Medium and Long Time Horizons
- Asset-Level Exposure Screening with Hazard Maps and Location Data
- Climate Risk Scoring Matrix: Likelihood, Severity and Adaptive Capacity
- Climate Risk Register Entries, Owners and Key Risk Indicators
- Materiality Threshold Setting and Climate Risk Prioritisation Workshop

### **Day 4: Adaptation Options, Finance and Governance Integration**

- Adaptation Option Families: Engineered, Institutional, Behavioural and Nature-Based Solutions
- Workforce Heat Stress Controls, Heat Action Plans and Early Warning Triggers
- Supply Chain Climate Exposure Mapping and Supplier Resilience Measures
- Adaptation Cost-Benefit Analysis, Avoided Loss Estimates and Funding Sources
- Climate Risk in Enterprise Risk Management, Board Oversight and Disclosure Pillars Overview

### **Day 5: Case Study: Climate Risk Assessment and Adaptation Plan**

- Case Organisation Brief: Multi-Site Operator Facing Heat, Flood and Water Stress
  - Physical and Transition Risk Assessment Worksheet Completion for the Case
  - Adaptation Pathway Design with Decision Points and Trigger Thresholds
  - Monitoring and Evaluation Indicators for Adaptation Progress
  - Climate Risk Assessment and Adaptation Plan Presentation and Peer Challenge
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## **Skills You Will Gain:**

- Climate Hazard Profiling
- Vulnerability Assessment
- Transition Risk Analysis
- Climate Scenario Analysis
- Climate Risk Register Design
- Adaptation Option Appraisal
- Heat Stress Risk Control
- Adaptation Pathway Planning

## **Why Attend This Course:**

- Return with a Climate Risk Assessment and Adaptation Plan built on a realistic multi-site case and tested by peers
- Bring climate hazards into the risk register with the same scoring, ownership and indicators as other enterprise risks
- Make a funding case for adaptation spending using avoided-loss and cost-benefit evidence
- Compare adaptation practice with risk, asset and operations managers from several sectors and countries

## **Conclusion:**

Climate change affects organisations through both slow shifts and sudden extremes, and the response has to be planned rather than improvised after each event. The course moves from climate essentials and the hazard, exposure and vulnerability model, through ISO 14090 and ISO 14091 methods and transition risk, to scenarios, risk registers and materiality, then to adaptation options, heat stress, supply chains, finance and governance. The final day applies these methods to a case organisation and produces a Climate Risk Assessment and Adaptation Plan.

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