



CLIMATE CHANGE RISK FOR ASSET MANAGEMENT

Ricardo, a member of WSP, simplifies climate risk for asset managers using actionable storylines that integrate directly into your existing processes.



» CHALLENGE

Climate change is a material risk

Asset managers face a critical challenge: integrating the complex, uncertain nature of climate change into established, performancedriven asset management systems. Traditional risk processes often struggle with the long-term, probabilistic and uncertain nature of climate data, leading to inaction. The result is unmanaged risk, vulnerable assets, and potential financial exposure.

» SOLUTION

A practical, streamlined integration

Ricardo has developed a streamlined approach that makes climate change risk manageable. We simplify the complex climate data at the front end, allowing you to assess and treat these risks using your existing ISO 31000 and ISO 55001 processes. We don't reinvent your system; we make it climate-resilient.

» OUR DIFFERENTIATED APPROACH

We adapt the proven ISO 31000 risk assessment process with two key innovations to demystify climate risk:

1. Understand the system & create storylines

We move from overwhelming climate projections to actionable "storylines." These are plausible, narrative scenarios of future climate impacts (e.g., "Sea levels rise by 0.5m by 2050," or "Extreme heat days >40°C will double by 2040"). Storylines provide a clear, communicable basis for assessing impacts and planning adaptation.

2. Time-dependent risk evaluation

We incorporate a time-dependent likelihood scale into your risk matrix. This allows you to see how risk levels evolve over an asset's lifecycle, transforming a future uncertainty into a manageable timeline for action.



Scope & context



Understand system vulnerabilities





Analyse risk (Hazard, exposure, vulnerability)

Create climate storylines



Evaluate risk (time-dependent)



Treat risk & integrate into AM decisions

» HOW IT FITS INTO THE ISO31000 RISK ASSESSMENT PROCESS



Assessment process

ISO31000 Step	Ricardo Step	What Has Changed?
Risk Identification	Understand the System	Need to understand how the 'system' works using existing observations to identify vulnerabilities, important thresholds and system priorities and the climate characteristics that drive the system.
	Create Storylines	Storylines help to decide how best to use future climate projections for the risk-based assessment & communication of plans.
Risk Analysis	Climate Change Risk Analysis	Climate change risk is a function of climate hazard (the storyline), the degree to which assets are exposed and their vulnerability (pre-disposition)
Risk Evaluation	Risk Evaluation	Use your existing risk assessment matrix by using your existing Consequence (or CoF) axis and adding a time scale to Likelihood (or PoF) axis.

» PROVEN USE CASES: FROM THEORY TO ACTION



Water pipeline risk

A 70km pipeline was exposed to increased flooding and vegetation growth. Using our approach, the client identified a cost-effective adaptation path: enhanced patrols, targeted vegetation management, plinth refurbishment, and a robust repair plan, integrating climate resilience into their AMP.



Critical infrastructure protection

Programmable Logic Controllers (PLCs) were failing in extreme heat. By mapping asset exposure against future climate scenarios, we created a prioritized plan from simple sun shields to hardware replacement, ensuring continuous operation.

CONTACT US

Let's start the conversation and turn climate risk into a managed outcome.

Want to talk to an expert? Contact us at info@ricardo.com.



Scan the QR code to find out more or visit

www.ricardo.com/assetclimate

» WHY PARTNER WITH RICARDO?

- ✓ **Seamless integration:** Plug into your ISO 31000/55001 systems.
- ✓ **Start simple, then mature:** Begin with qualitative assessments and advance.
- ✓ **Optimise decisions**: Integrate climate risk with traditional capital planning.
- ✓ **Fund actionable resilience:** Move from theory to practical, funded actions.