The Essential Guide to Optimising Climate Disclosure

Fashion & Apparel

The business brief

New mandatory frameworks have fundamentally reshaped corporate disclosure requirements worldwide. Investors, regulators and other stakeholders, including consumers, now demand clear, comprehensive disclosures on how companies manage climate-related risks and opportunities.

High-quality climate risk reporting provides apparel companies with a structured framework to identify, assess and manage climate-related threats while uncovering opportunities for sustainable commercial growth. Astute companies recognise that reporting should not be divorced from wider business activities and are leveraging disclosure as a lever for resilience, ROI, and to drive strategic change.

In an industry heavily dependent on global supply chains, volatile raw materials and shifting consumer preferences, robust climate disclosures can be a gateway to more informed strategic decision-making, regulatory compliance and stakeholder trust.

Risilience

Ten steps to ace climate risk reporting in the apparel sector

[1] Embed climate into corporate governance

Ensure senior leadership oversight of climate risk, establish a cross-functional steering committee with clear accountability and link executive incentives to climate performance.

[2] Conduct a rigorous materiality assessment

Use a structured framework, including: Taskforce for Climate-related Financial Disclosures (TCFD), International Sustainability Standards Board/ International Financial Reporting Standards (IFRS), to identify company specific risks, such as water stress in textile regions or raw-material yield declines. Schedule annual materiality assessments to capture evolving issues.

[3] Map your value chain end-to-end

Trace greenhouse gas (GHG) emissions and climate exposures across raw-material sourcing, manufacturing hubs, logistics, retail stores and product use/disposal. Prioritise the most carbon-intensive suppliers and sites for deeper analysis.

[4] Invest in a centralised data platform

Deploy robust systems that integrate emissions data, financial forecasts and climate hazard inputs. Automate data collection for Scopes 1 to 3 and embed audit trails to support transparency and independent assurance processes.

[5] Develop clear, decision-useful metrics and targets

Disclose Scope 1 and 2 emissions and priority Scope 3 categories, to include purchased goods and services, and upstream transport. Move beyond generic statements to provide a transparent view of the company's unique situation delivering stakeholders with clear, specific and forward-looking information about how climate-related issues could impact a company's financial performance.

[6] Quantify risks and opportunities financially

Conduct forward-looking scenario analysis under 1.5°C, 2°C and high-warming pathways, translating physical and transition risks into financial metrics, for example, Earnings Value-at-Risk (EV@Risk), Earnings Before Interest, and Tax (EBIT) and Free Cash Flow (FCF). Model 'what if' strategic decisions, such as investing in water-saving processes, near-shoring, or circular product lines, to inform capital allocation.

[7] Tailor scenario analysis to company needs

Incorporate sector and location specific hazards (cotton yield fluctuations, factory flood risk) and transition dynamics (carbon prices, sustainable consumer preferences). Use detailed sourcing location data and product portfolios to improve accuracy.

[8] Integrate climate risk into strategic decision-making

Align climate disclosures with mainstream financial filings and enterprise risk management. Embed climate-adjusted cash flows and asset valuations into budgeting tools, capex processes and internal dashboards.

[9] Secure third-party assurance

Engage a qualified auditor to provide limited or reasonable assurance on key quantitative disclosures and regulatory alignment. Publicly state your assurance scope and leverage external verification to build stakeholder trust.

[10] Foster continuous improvement and peer learning

Benchmark against peers, share best practices and participate in forums and working groups such as Fashion Pact and Textile Exchange. Regularly update your approach to reflect regulatory changes, data enhancements and technological innovations.

Streamline reporting requirements

Risilience analysis confirms a convergence among leading climate reporting frameworks. This alignment simplifies the complex regulatory landscape, creating a unified and efficient path for corporate climate reporting. By adopting these foundational criteria, your organisation can meet the essential requirements of all major standards simultaneously.

Criteria	Description	Notes
Governance	Board and management oversight in climate-related issues; disclosure of roles and responsibilities	All frameworks require visibility of governance structures
Strategy	Clear disclosure of climate impacts on business strategy, financial planning, and resilience	Covers both transition and physical climate risks
Risk management	Integration of climate risks into enterprise risk management and reporting processes	Frameworks expect identification and management steps
Metrics and targets	Key metrics, including emissions, financial risks and opportunities, targets and transition plans	Risk quantification may include mitigated and unmitigated financial risk calculations
Forward-looking scenarios	Use of scenario analysis to demonstrate business resilience to future climate risks	1.5°C/2°C/High warming scenario modelling
GHG reporting	Mandatory reporting of greenhouse gas emissions across direct and indirect sources	Minimum Scope 1 and 2; Scope 3 material in EU/UK/CA
Sector and location specificity	Tailored disclosures reflecting sector- and geography-specific climate risks and opportunities	Physical risk varies by asset/ location; sector benchmarks
Progress tracking against targets	Disclosure of progress against climate targets, including methodologies and interim milestones	Reporting on progress against targets is required
Quantification	Translation of climate risks into financial impacts and decision-useful metrics	Includes, revenue and cost impacts, asset impairment, financial and market-based impacts on business

Table 1: Essential elements for climate risk reporting

What does best practice climate disclosure look like?

Risilience supports best practice by delivering transparent, tailored, quantified and integrated risk intelligence. This enables companies to move beyond compliance and turn risk into strategic business strategy, embedding climate risk across the enterprise.

Company-specific & material

Disclosures must reflect a rigorous materiality assessment tailored to unique sector and geography risks. Focus on what is financially material across short-, medium- and long-term horizons.

How Risilience delivers

Risilience collects data from across an organisation's value chain and uses a broad set of risk models to provide a comprehensive and financially quantified materiality assessment. The platform is flexible providing report-ready analytics from the data an organisation has available.

Transparent & auditable

All data sources, assumptions, and calculation methodologies must be clearly documented and independently verifiable. Strong audit trails build confidence with regulators and stakeholders.

How Risilience delivers

The Risilience-powered platform, Riise, functions as a centralised single source of truth. The digital twin architecture is built from bottom up using precise information from across the organisation. Every data point, from emissions to risk exposure, is fully traceable with audit trails back to sources and a comprehensive set of methodology documents. The platform is disclosure-ready and supports both internal and external assurance.

Financial quantification

Several disclosures mandate the quantification of financial impacts from climate change, requiring companies to disclose current and anticipated financial effects on their performance, financial position and cash flows over the short-, medium- and long-term. These include the International Financial Reporting Standards (IFRS), Corporate Sustainability Reporting Directive (CSRD), and Task Force on Climate-related Financial Disclosures (TCFD).

Best-in-class disclosures translate climate risk into financial terms using scenario-driven loss assessments to revenues, asset impairments and future costs.

How Risilience delivers

Riise simulates the financial impacts of physical risks (using advanced hazard models, including flood, wildfire, cyclone, and heat) and transition risks (policy, technology, market demand) using Network for Greening the Financial System (NGFS)/Intergovernmental Panel on Climate Change (IPCC)-aligned pathways, generating comparable financial metrics per business unit. To quantify climate-related risk and opportunity, Riise simulates the company's future cash flow and models how climate change will impact costs, revenues and ultimately the company's earnings. This allows an organisation to compare transition and physical risks directly.

Connected & strategic

Effective disclosures are embedded in enterprise-wide decision-making and financial reports. Integrated with the company's enterprise risk management (ERM) capital allocation, and strategic planning ensures climate risk is managed on par with other major

How Risilience delivers

The Risilience digital twin integrates seamlessly with corporate Enterprise Risk Management (ERM) systems. The platform generates executive-friendly outputs that translate scenario and risk analysis into language and KPIs that are familiar to teams across the organisation.

Mitigated view of risk

Accounting for risk mitigation actions is mandated by CSRD and recommended by many major climate disclosure frameworks. This is a fundamental part of demonstrating a robust climate strategy to investors and regulators.

How Risilience delivers

Risilience provides a mitigated view of risk by enabling organisations to simulate the impact of their own specific actions and strategies, showing exactly how the company can reduce their climate-related financial exposure.

This is primarily achieved through the Riise platform's "what-if" analysis capabilities, which are informed by a company's unique Digital Twin.

Climate and nature

Nature is increasingly on the business agenda for Fashion & Apparel. CSRD significantly elevates the requirements for companies to report on their relationship with nature, moving beyond qualitative statements to demand financially material data and plans.

CSRD's mandate on nature is detailed in the European Sustainability Reporting Standard (ESRS) and requires companies in scope to report on a range of specific nature-related topics, including: policies and governance; impact on protected areas; value chain impacts; metrics and targets; and financial effects.

Double materiality assessment is central to CSRD, requiring organisations to disclose how different futures will financially impact the business through dependencies, and how the company's own operations and value chain impact biodiversity and ecosystems.

In November 2025, the International Sustainability Standards Board (ISSB) announced the development of new nature-related disclosure requirements, providing a powerful market signal for global corporates. The Task Force on Climate-related Financial Disclosures (TCFD) framework for climate provided the blueprint for the ISSB's climate standards, and now the Taskforce on Nature-related Financial Disclosures (TNFD) is doing the same for nature.

The interconnection between biodiversity loss and the climate crisis means that climate and nature must be tackled together. Organisations can start addressing nature by considering their most critical locations, commodities or supply chain exposures to build an initial understanding of where their business depends on and interacts with nature.

Starting small allows companies to:

- Identify key nature dependencies and risks
- Understand potential financial exposure
- Build internal capability and awareness
- Lay the foundations for broader TNFD-aligned analysis over time

By taking these first steps, businesses can move from awareness to action, ensuring nature-related risks are understood early and integrated into strategic decision-making.

How Risilience excels for fashion and apparel

The global fashion value chain presents a distinctive risk profile, from the vulnerability of raw materials to the dynamics of consumer behaviour. Risilience provides these capabilities as core functionality, integrated into our platform and ready to deploy.

Scope 3 emissions

Upstream manufacturing dominance

Scope 3 emissions from apparel commonly represent over 90% of total emissions. Risilience's Scope 3 emissions builder and projector forecast emissions across different scenarios to accurately capture sectoral decarbonisation.

Product circularity and end-of-life management

Apparel companies are increasingly emphasising circular business models and aftercare services to mitigate climate risk. Risilience's market demand model captures changes to consumer preference, costs and revenues, enabling 'what-if' analysis before deciding on costly investments.

Physical risks

Supply chain concentration in vulnerable regions

Apparel companies face significant exposure through supplier networks concentrated in climate-vulnerable regions. Combining a corporate digital twin with Risilience's physical risk suite enables assessment of simultaneous disruptions across multiple suppliers, identifying hotspots and estimating financial impact across relevant climate scenarios. Modelling interconnected supply chain dependencies provides apparel companies with strategic insights into alternative sourcing strategies and supplier diversification decisions.

Water-intensive manufacturing processes

The textile industry's water dependency creates acute vulnerability to drought and water stress. Risilience's scenario analysis allows companies to model drought impacts across their supplier base, informing decisions around water-efficient processes, supplier diversification or transitioning to less water-intensive raw materials.

Raw material climate sensitivity

Cotton yields are particularly sensitive to temperature and precipitation changes, while wool production faces significant climate implications. Risilience's climate models provide high-resolution outputs on raw material yield impacts, enabling evaluation of strategies such as transitioning to synthetic alternatives, investing in regenerative agriculture or securing long-term supply contracts for preferred materials.

Transition risks

Consumer preference shifts and brand perception

The fashion industry faces acute transition risks from evolving consumer preferences towards sustainability. Risilience analysis enables brands to model preference shifts across different temperature pathways, capturing the industry's heightened exposure to reputational risk and changing social expectations related to climate and nature.

Regulatory complexity and carbon pricing

Carbon taxes and the EU's Carbon Border Adjustment Mechanism (CBAM) are designed to penalise emissions. For apparel, where over 90% of emissions are upstream, costs initially paid by suppliers will be passed to brands, directly increasing finished goods costs and eroding margins.

Technological transformation and capital costs

Apparel manufacturing processes, like dyeing and finishing, face obsolescence in a net-zero transition. Companies risk holding stranded assets by failing to invest in technologies like waterless dyeing or advanced textile recycling. Modelling the financial trade-offs between retrofitting and new infrastructure investment is essential to remain competitive and compliant.

Client use case: a global luxury brand

A luxury brand with a long-standing heritage leveraged Risilience's platform to build a sophisticated digital twin, modelling performance under different climate pathways and quantifying the financial impact of key transition risks. The analysis delivered critical insights in two areas:

1. Modelling how shifts in consumer preferences towards lower-impact goods would affect revenues, informing product design and material choices
2. Quantifying financial risk from rising carbon prices, enabling targeted supplier engagement to protect margins and plan for cost pass-through where feasible

Embedded into budgeting and risk management, these insights strengthened the company's TCFD disclosures and accelerated adoption of sustainable materials.

Advanced scenario analysis

Multi-risk integration

Apparel companies require scenario analysis that integrates physical risks (affecting supply and manufacturing), transition risks (affecting demand and costs) and acute risks (affecting logistics and operations) simultaneously; an embedded feature of the Risilience-powered Riise platform.

Time horizon considerations

The combination of short product cycles and long-term infrastructure investments requires analysis across multiple time horizons, from near-term supply chain disruptions to long-term transition pathways.

Applying what-if analysis

Advanced analysis must go beyond identifying risks to model the financial outcomes of strategic responses. The Risilience digital twin quantifies the costs and benefits of actions such as shifting raw material sourcing or investing in water-saving technologies, providing a powerful strategic tool for guiding investment decisions.

Client use case: insights for strategic decision-making

The Risilience-powered Riise platform enables apparel companies to compare physical and transition risks under a single framework, using consistent metrics to prioritise the risks that matter most.

- A specialty fibre producer used our models to navigate complex trade-offs across multiple pathways, diversifying its raw material portfolio from pine into more resilient inputs such as eucalyptus and beech.
- A luxury brand modelled consumer preference shifts alongside rising carbon prices to proactively align product design to future demand for lower-impact goods.
- A fashion giant with stores worldwide identified heatwaves and water stress as its most material physical hazards, driving strategic decisions on sourcing and site locations.

For these three Fashion & Apparel leaders, climate analysis evolved from a matter of compliance into a source of competitive advantage.

About Risilience

At Risilience, our mission is to help global businesses transition profitably to the low-carbon economy. Our award-winning platform, Riise, and multidisciplinary team of experts drive actionable insights, connecting climate and nature to deliver decision-useful business intelligence, robust disclosures, and transition strategies designed for commercial success.

Developed in partnership with the Cambridge Centre for Risk Studies at the University of Cambridge Judge Business School, our environmental frameworks, combined with advanced analytics, deliver audit-ready disclosures and commercially viable transition plans that align with business strategy to provide value for all stakeholders.

Get in touch: **contact@risilience.com**

Learn more: **risilience.com**

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