

Reporting Edition. You can't avoid the obligation of climate risk reporting, but you can avoid unnecessary effort



Four main challenges keep those responsible for climate reporting on their toes. **You too?**

1

More companies are now required to publish sustainability data. What reporting standard should I use?

Many companies around the world are now required to publish sustainability data, especially if regulations require ESG reporting. Compliance with standards such as TCFD, ISSB, CSRD and the EU taxonomy is presenting companies with new challenges. With Munich Re's Reporting Edition, you can ensure full compliance with these standards, using the latest IPCC climate scenarios to generate accurate and comprehensive reports.

2

How can I ensure compliance with climate risk reporting requirements and avoid legal and reputational risks?

A robust ESG management system is crucial when it comes to avoiding risks. With Munich Re's Reporting Edition, you can thoroughly assess one of the most serious business risks arising from climate change and natural catastrophes while generating accurate, auditable reports, minimising the risk of non-compliance and ensuring your ESG disclosures are reliable.

3

How do I get all the data I need in a consistent, audit-ready format that meets all the criteria auditors expect?

Consistent data is essential, but it is challenging to collect. Munich Re's Reporting Edition simplifies this by providing data formats of your choice and an easy-to-use interface, ensuring that all information is readily available, so you can fully comply with auditing standards while saving preparation time and stress.

4

How do I move from reporting to a holistic approach that manages risks and creates opportunities?

Moving to a holistic approach requires proactive risk management and strategic planning. Munich Re's Reporting Edition uses future climate projections to help you identify risks and opportunities, guide sustainable investments, and improve business resilience while meeting stakeholder expectations.

May we help you find your way through the reporting jungle?



- EU-wide classification system for defining what investments qualify as sustainable
- Mandates the evaluation and disclosure of a detailed list of physical climate risks, covering temperature, wind, water and solid-mass related hazards
- Intended to combat greenwashing

TCFD

- While generally voluntary, it forms the basis for the mandatory disclosure regulation of many countries around the world
- Many frameworks are moving away from voluntary to mandatory assessment
- Currently being replaced in many countries by the ISSB standard, which includes the same physical risk disclosure requirements (see right)



- The European Union's new reporting standard, making climate risk assessment mandatory for thousands of companies in or connected to the EU
- Covers various aspects of ESG: from climate and nature risk to human rights
- Works closely with ISSB to promote transparency on the "interoperability" between disclosure standards



- Provides capital market participants with the information they need for better economic and investment decision-making
- Global ISSB disclosure standards (IFRS S1 and S2) consolidate several established climate risk disclosure standards (TCFD, GRI and CDP)
- Aims to reduce the burden on companies having to disclose the same information repeatedly for different standards



- Once implemented, this Senate Bill (SB) requires companies with annual revenue above \$500M and doing business in California to publish a climate-related financial risk report
- Definition of "doing business" and calculation of the \$500M threshold will be clarified by the California Air Resources Board (CARB)
- The reporting deadline is 1 January 2026. Final rulemaking will be completed Q1 2026. Disclosures should align with TCFD or IFRS S2 to demonstrate good-faith compliance

The EU regulatory authorities require reports on 28 physical climate risks – Reporting Edition has you covered

This is what makes Munich Re's Reporting Edition unique: its very comprehensive risk coverage paired with high data quality.

With Reporting Edition, you can reliably generate comprehensive reports that fully comply with all regulatory requirements at the push of a button. In other words, exactly the way auditors want it. It couldn't be more secure.

	Temperature-related acute	Heat Wave The Heat Wave Score combines heat wave parameters measuring the intensity and frequency of prolonged periods of successive unusually hot days. Geographic coverage: Global Resolution: 0.1° (~11 km, Raster) Projection years: Current, 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re
		Cold-Frost The Cold-Frost Score describes frost and ice days which occur when temperatures drop to or below freezing, causing frost formation. Geographic coverage: Global Resolution: 0.1° (~11 km, Raster) Projection years: Current, 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re
		Wildfire The Wildfire Score describes the hazard of wildfire, based on climatological data and land cover data, capturing wildland-urban interfaces in high-risk areas in high resolution. Geographic coverage: Global Resolution: 1 km (Raster) Projection years: Current Source: Munich Re
	Temperature-related chronic	Changing Temperatures The Changing Temperature Score describes the chronic and gradual change of mean near-surface air temperatures. Geographic coverage: Global Resolution: 0.1° (~11 km, Raster) Projection years: 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re
		Heat Stress The Heat Stress Score combines multiple temperature-related parameters and classifies the climatological heat stress situation. Geographic coverage: Global Resolution: 0.1° (~11 km, Raster) Projection years: Current, 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re
		Temperatures Variability The Temperature Variability Score combines several temperature variability metrics which capture fluctuations of near-surface air temperatures over timescales ranging from diurnal to seasonal. Geographic coverage: Global Resolution: 0.1° (~11 km, Raster) Projection years: Current, 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re
		Permafrost Thawing The Permafrost Thawing Score depicts the existence of permafrost and the future melting hazard of permanently frozen soil by combining ground temperatures with ground properties that affect permafrost stability. Geographic coverage: Global Resolution: 1 km (Raster) Projection years: Current, 2050, 2100 Scenarios: RCP2.6, RCP4.5, RCP8.5 Source: ESA Climate Change Initiative



Wind-related
acute

Cyclone- Hurricane- Typhoon

The Tropical Cyclone Score is based on globally consistent, basin-specific models for tropical cyclones (known as hurricanes and typhoons in some regions). Future projections incorporate a high-atmospheric-resolution climate model to quantify projected changes in the intensity and frequency of tropical cyclones.

Geographic coverage: Global | Resolution: 5 km (Raster) | Projection years: Current, 2030, 2050, 2100 | Scenarios: RCP4.5, RCP8.5 | Source: Munich Re

Storm

The Storm Score depicts the hazard posed by extratropical storms (also known as winter storms) as well as sand and dust storms.

Geographic coverage: Global | Resolution: 0.01° (~1 km, Raster) | Projection years: Current | Source: Munich Re, UNCCD

Tornado

The Tornado Score is based on the annual frequency of tornadoes over an area of 10,000 km², derived from meteorological data.

Geographic coverage: Global | Resolution: Vector geometry (Polygons) | Projection years: Current | Source: Munich Re



Wind-related
chronic

Changing Wind Patterns

The Changing Wind Patterns Score describes the gradual shifts in the characteristics of wind and its variability.

Geographic coverage: Global | Resolution: 0.1° (~11 km, Raster) | Projection years: 2030, 2040, 2050, 2100 | Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 | Source: Munich Re



Water-related
acute

Drought

The Drought Score is based on the dry-spell conditions and the Standardised Precipitation Evapotranspiration Index (SPEI), which is used to describe the duration and magnitude of drought conditions.

Geographic coverage: Global | Resolution: 0.1° (~11 km, Raster) | Projection years: Current, 2030, 2040, 2050, 2100 | Scenarios: SSP2-4.5, SSP5-8.5 | Source: Munich Re

Heavy Precipitation

The Heavy Precipitation Score combines the meteorological hazard posed by hail and high precipitation.

Geographic coverage: Global | Resolution: 0.1° (~11 km, Raster) | Projection years: Current, 2030, 2040, 2050, 2100 | Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 | Source: Munich Re

Flood

The Flood Score describes the hazard of flooding by storm surges (coastal flooding), river floods (fluvial flooding) and flash floods (pluvial flooding).

Geographic coverage: Global | Resolution: 30 m (Raster) | Projection years: Current, 2030, 2050, 2100 | Scenarios: SSP2-4.5, SSP5-8.5 | Source: Munich Re, JBA Risk Management

Glacial Lake Outburst

The Glacial Lake Outburst Score identifies regions at risk of glacial lake outburst flooding, a catastrophic event in which a glacial lake suddenly releases its water.

Geographic coverage: Global | Resolution: Vector geometry (Polygons) | Projection years: Current | Source: Munich Re



Water-related chronic

Changing Precipitation Patterns	<p>The Changing Precipitation Patterns Score offers insights into changes in annual precipitation due to global warming.</p> <p>Geographic coverage: Global Resolution: 0.1° (~11 km, Raster) Projection years: 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re</p>
Precipitation Variability	<p>The Precipitation Variability Score describes fluctuations of precipitation on timescales ranging from daily to annual.</p> <p>Geographic coverage: Global Resolution: 0.1° (~11 km, Raster) Projection years: Current, 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re</p>
Ocean Acidification	<p>The Ocean Acidification Score captures the change in pH of ocean water, due to the uptake of atmospheric carbon dioxide into the ocean.</p> <p>Geographic coverage: Global Resolution: 1° (~110 km, Raster) Projection years: 2030, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: IPCC</p>
Saline Intrusion	<p>The Saline Intrusion Score describes the hazard of saltwater intruding into coastal freshwater aquifers, contaminating groundwater supplies and making them unfit for drinking and irrigation.</p> <p>Geographic coverage: Global Resolution: 30 m (Raster) Projection years: Current, 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP5-8.5 Source: Munich Re</p>
Sea Level Rise	<p>The Sea Level Rise Score depicts areas with a risk of permanent water inundation and storm surge intensification due to rising sea levels, based on IPCC AR6 projections and referenced against the historical baseline.</p> <p>Geographic coverage: Global Resolution: 30 m (Raster) Projection years: 2030, 2040, 2050 and 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re</p>
Water Stress	<p>The Water Stress Score is derived from the ratio of total water demand to available renewable surface and groundwater supplies.</p> <p>Geographic coverage: Global Resolution: Vector geometry (Polygons) Projection years: Current, 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP3-7.0, SSP5-8.5 Source: WRI Aqueduct Water Risk Atlas</p>



Solid Mass-related | acute

Avalanche	<p>The Avalanche Score describes the threat posed by avalanches and is derived from potential avalanche starting zones combined with a flow accumulation model.</p> <p>Geographic coverage: Global Resolution: 250 m (Raster) Projection years: Current Source: Munich Re</p>
Landslide	<p>The Landslide Score describes the landslide hazard on a global scale, combining rainfall-triggered and earthquake-triggered landslide hazards.</p> <p>Geographic coverage: Global Resolution: 1 km (Raster) Projection years: Current Source: World Bank</p>
Subsidence	<p>The Subsidence Score describes the hazard of gradual sinking or sudden collapse of the ground. It accounts for natural shrink-swell subsidence in clay soils as well as man-made subsidence due to groundwater depletion, groundwater depletion-related sinkholes and mining activities.</p> <p>Geographic coverage: Global Resolution: 500 m (Raster) Projection years: Current, 2030, 2040, 2050, 2100 Scenarios: SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 Source: Munich Re</p>



Solid Mass-
related | chronic

Coastal Erosion

The Coastal Erosion Score is derived from potential erosion of maritime coastlines over time, taking account of the coast type and incoming wave energy. Geographic coverage: Global | Resolution: 0.005° (~ 550 m, Raster) | Projection years: 2050, 2100 | Scenarios: RCP4.5, RCP8.5 | Source: Munich Re

Soil Erosion

The Soil Erosion Score describes the hazard of soil being worn away by natural forces such as water and wind.

Geographic coverage: Global | Resolution: 100 m (Raster) | Projection years: Current, 2050, 2100 | Scenarios: SSP1-2.6, SSP2-4.5, SSP5-8.5 | Source: Munich Re

Soil Degradation

The Soil Degradation Score is derived from the Land Multi-degradation Index (LMI), which indicates how many of twelve land degradation processes affect agricultural land in Europe (such as soil erosion and deterioration of soil properties).

Geographic Coverage: Europe | Resolution: 500 m (Raster) | Projection years: Current | Source: European Soil Data Centre (ESDAC), European Commission, Joint Research Centre

Solifluction

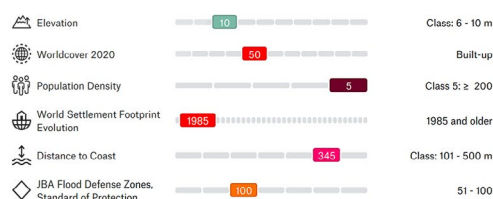
The Solifluction Score describes the susceptibility of areas to active solifluction processes, characterised by the slow freeze-thaw induced downslope flow of soil.

Geographic Coverage: Global | Resolution: 250 m (Raster) | Projection years: Current | Source: Munich Re

Logistics Centre, South Europe, ESP12

Asset Info

3



Seiten

Logistics Centre, South Europe (ESP12) Reporting Physical Climate Risk - Overview

Water-related Assets

Asset	Scenario	2050	2050	2050	2050
Flood	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Drought	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Heavy Precipitation	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Land	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Soil Degradation	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Solifluction	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%

1

Logistics Centre, South Europe (ESP12) Reporting Physical Climate Risk - Scenario Overview

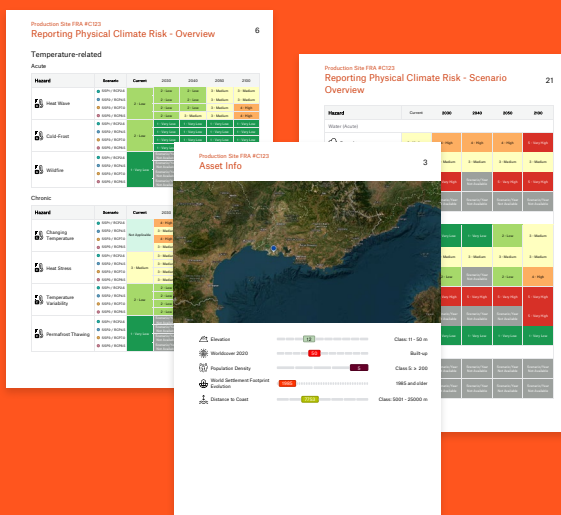
Asset

Asset	Scenario	2050	2050	2050	2050
Flood	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Drought	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Heavy Precipitation	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Land	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Soil Degradation	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%
Solifluction	High	100%	100%	100%	100%
	Medium	100%	100%	100%	100%
	Low	100%	100%	100%	100%
	Very Low	100%	100%	100%	100%

3

3 simple steps

to assess the risks for any location in the world



The fastest way to a physical climate risk assessment for any location worldwide

- 1 Create an account and buy credits
- 2 Enter any address or coordinate
- 3 Get all the risks displayed in a clear panel for downloading as a report

Start your risk assessment now!