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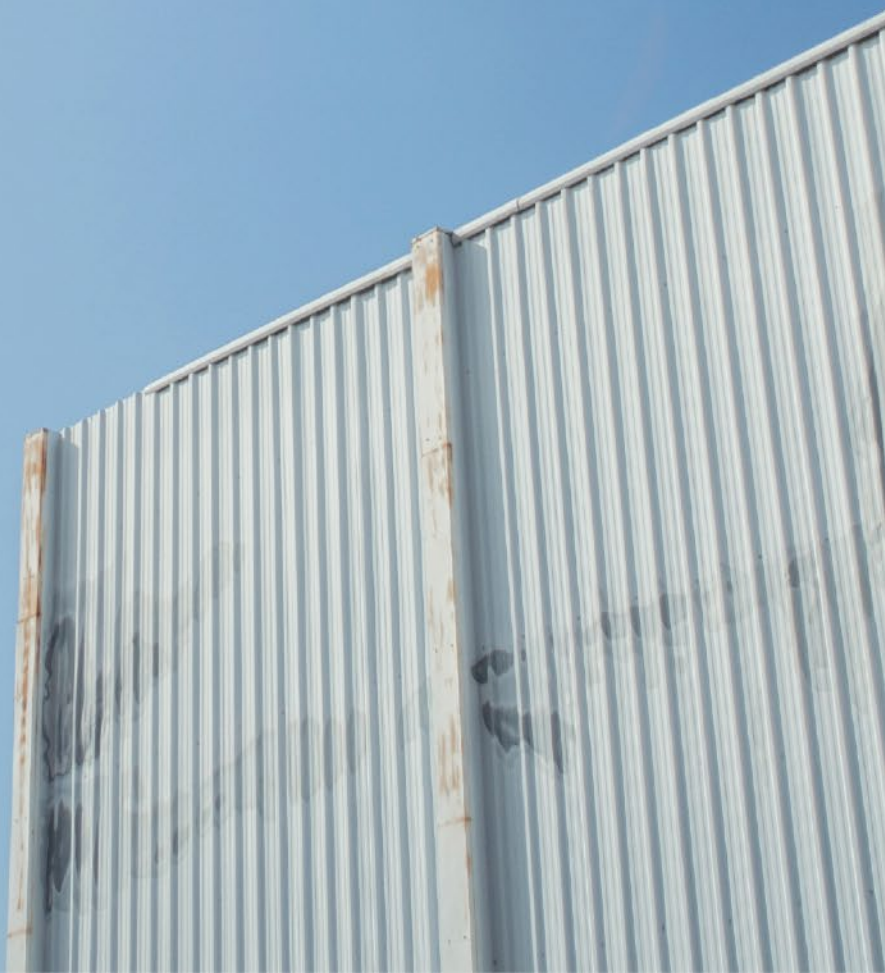
Using Climate Intelligence to confidently adapt to climate risk in the real estate sector



For real estate leaders, accounting for climate risk is, literally, part of the job. As the United Nations Environment Program (UNEP) Finance Initiative points out, climate risk is built into the very nature of how the real estate sector operates. What leaders in some sectors are only just comprehending – that climate risk needs to be factored into business decisions – leaders in real estate have known for decades. But accelerating climate events are driving another realization: they need to adapt their playbook to keep pace. They can't afford not to.

When Storm Filomena brought Madrid, Spain the heaviest snowfall in 50 years, it caused nearly $2 billion of damage. Over the last three years, the U.S. has experienced disaster costs exceeding $150 billion per year, compared with approximately $16 billion per year (adjusted for inflation) 30 years ago. As the climate becomes increasingly volatile, these costs will continue to rise.

Whether you're a property investor evaluating your next acquisition, a hotel owner with interests across multiple properties, or an investor managing a portfolio of commercial fixed assets, having a complete picture of the climate risk facing the assets you own, manage or rely on is key to protecting your bottom line.

Fortunately, technology offers a fresh solution to the problem of understanding and managing climate risk. Machine learning advances have made it possible for the first time to translate the complexity of climate science into Climate Intelligence. Climate Intelligence (CI) is asset-level business intelligence for decision making. It provides critical analysis and insight into the probabilistic likelihood of climate shocks such as flooding or heat waves could impact individual assets or entire portfolios across multiple timeframes and emissions scenarios. CI enables real estate professionals to understand their climate risk, share this information with colleagues, executives and suppliers, make informed decisions to build resilience, and abide by mandatory reporting requirements. Using CI, real estate decision-makers can confidently build climate adaptation and resilience into their property portfolios.

What about Net Zero?

For businesses, having a decarbonization strategy in place is a solid start, and is essential to future climate stability. But Net Zero goals alone won't protect your assets against accelerating climate events. Even if every business, sector and nation were to reach their Net Zero goals tomorrow, decades of historic emissions mean escalating climate change impacts on built assets for many years to come.

"Stakeholders can address the risk posed by climate change only if they understand it clearly and see the nuances that make it so complicated to confront."

McKinsey on Climate Change, September 2020

The industry's unique challenges – and opportunities

The real estate industry's fixed assets, such as hotels, factories, skyscrapers, stores and industrial units, create unique risk management problems. From UNEP's (United Nations Environment Programme) point of view, it's an industry renowned for its "relative illiquidity compared to many other asset types [due to its] physical, permanent locations and long investment cycles". Risky real estate assets cannot simply be relocated to less volatile areas, or disposed of quickly.

Growing awareness of the impacts of climate change is creating further challenges for the sector. Owners will find it increasingly difficult to sell properties for profit in at-risk locations. Securing insurance coverage and bank loans will be equally challenging. Asset lifecycle plans, fed by the latest Climate Intelligence, will prove to be an essential and highly effective risk management tool.

Investors and real estate professionals whose assets have not yet been affected by climate events are in the minority – and trends suggest it's only a matter of time before that changes. In a recent Cervest survey, nearly 90% of respondents reported having at least one of their assets impacted by extreme weather (such as flooding, drought or wildfire) in the last five years. More than half reported negative climate impacts on multiple assets – in some cases, all company assets were affected.

There's no question that the intensity, frequency and duration of extreme weather events will increase. As these impacts intensify, the fight is on to protect the bottom line. Forward-thinking real estate leaders who use Climate Intelligence to segment and quantify climate risk across their portfolio, and build this insight into asset lifecycle planning, are likely to both realize far fewer losses and identify new opportunities.

A CDP report identifies four key areas of climate opportunity for businesses:

- Increased revenue through demand for low emissions products and services - worth US$970 billion
- Better competitive position to reflect shifting consumer preferences - worth US$487 billion
- Increased revenue through new solutions to adaptation needs - worth US$236 billion
- Increased capital availability (as more investors favor low-emissions producers) - worth US$198 billion

Climate impacts are insurance impacts

When extreme weather hits, insurance policies typically cover repair and reconstruction costs, and revenue losses. Yet as climate change accelerates, insurance companies are looking to reduce their exposure and mitigate their risk by factoring climate-based risk calculations into policies. Underwaterwriting, for example, takes the possibility of flooding into account when calculating insurance premiums and coverage.

For many property owners, real estate is a long-term investment. That creates a very real risk of owning a property that becomes prohibitively expensive to insure as the local climate becomes more volatile. Insurance coverage availability for at-risk properties is projected to decrease and premiums will rise. In fact, according to a UNEP Finance Initiative report, "some insurers are already signaling that climate change may make buildings uninsurable in the future."

To avoid being stranded with uninsurable assets, real estate owners can use Climate Intelligence to prepare for a more certain future. CI enables a clear picture of risks facing every property in a portfolio – as well as right across the portfolio itself. Property owners, investors and managers can investigate multiple climate hazards (from heat stress to flooding), timescales and scenarios to determine exactly where, and what their precise risks are – and their opportunities. Equipped with these actionable insights, they can make decisions, informed by the latest climate science, to avoid near- and longer-term losses.

Shocks and stresses: property risk explained

Lack of clarity about the emissions path humanity will take creates significant uncertainty about the likelihood, extent and timing of climate impacts on specific assets, locations or regions. This hampers informed decision-making on investment, divestment and day-to-day operations. Climate Intelligence, which considers three emissions scenarios, equips real estate professionals to confidently make decisions about the most critical actions to take and how to effectively allocate resources.

Shocks

Extreme weather events, such as hurricanes and floods, present short, sharp shocks with serious and long-lasting financial repercussions:

- Costs of repairing or rebuilding damaged or destroyed assets
- Erosion of asset value
- Property downtime and business disruption
- Increased cost or lack of insurance
- Reputational cost

Stresses

Longer-term changes, like shifts in temperature or rising sea-levels, pose increasingly costly climate risks to the sector:

- Refusal of claims or inability to insure exposed assets
- Lack of access to funding for vulnerable assets
- Rising maintenance costs for increased wear and tear
- Higher operational costs (e.g. energy, heating, cooling, water)
- Maintenance and repair delays due to unworkable conditions (e.g. heatwaves)
- Acceleration of large-scale property damage such as subsidence, weathering and corrosion
- Reduced market appeal and loss of value of climate-vulnerable assets
- Reputational costs due to lack of confidence in climate resilience
- Failure to align with upcoming regulations, with consequent penalties

Action is needed now

The sooner businesses analyze, anticipate and adapt with climate change, the greater the benefits. As the Global Commission on Adaptation affirms, "Adapting now is in our strong economic self-interest." From reduced energy costs for heating and cooling to the increased market value of flood-protected assets, early adaptation efforts create direct financial dividends. Using Climate Intelligence, real estate decision-makers can confidently start building climate adaptation and resilience into their property portfolios today.

The overall rate of return on investments in improved resilience is very high, with benefit-cost ratios ranging from 2:1 to 10:1, and in some cases even higher.

Global Commission on Adaptation, "Adapt Now: A Global Call for Leadership on Climate Resilience"

The industry – and the communities and economies it serves – will benefit hugely as more and more property owners and managers make resilience planning core to their business strategy. From enabling the provision of human homes and security, to the delivery of goods and services, real estate provides the lifeblood that enables value chains to prosper.

Meantime, pressure from shareholders, boards and customers for visibility into climate risk exposure and adaptation planning is mounting. They're increasingly demanding climate action, and avoiding dealings and decisions that contribute to climate harm. They are demanding transparency – which companies are starting to deliver. Early movers are starting with internal reporting to executives and boards. Others are looking to expand their public-facing ESG reports.

There's also growing pressure from regulators to disclose climate related financial risk. The Task Force on Climate-related Financial Disclosures (TCFD) set out a global framework that is now already law in the EU, Singapore, Japan, Canada and South Africa. In the UK, listed companies and large asset owners must comply with TCFD reporting requirements by April 2022 with further requirements becoming mandatory by 2025. In the US, President Biden issued an Executive Order on Climate-Related Financial Risk in May 2021, mandating disclosure by federal agencies.

For a full overview of disclosure requirements, download our ebook 'Navigating Climate-Related Financial Disclosure'.

Real estate professionals should prepare now for government-mandated financial disclosure of climate risk to avoid fines for non-compliance, as well as reputational damage. Building capacity to fully comply with the TCFD takes time – but Cervest offers products to help real estate professionals discover, understand, and report their climate risk from today, including auto-generated TCFD-aligned risk reports.

Use case one: Quickly identifying investment opportunities based on climate risk

A real estate investment firm needed help to discover and assess climate risk across hundreds of properties it was considering acquiring, in order to identify those with low climate risk for potential purchase.

Using EarthScan™, they were able to gain insights on both individual and portfolios of properties, and get a view of those assets across single and combined climate risk. Investment cycles and holding periods can be incredibly long in the real estate industry, and buildings average an 80-year service life, so the ability to view climate risk up until 2100 was invaluable to understand the risks facing each asset. EarthScan allowed them to identify not only the potential risks from climate change, but to also find attractive, new opportunities for investment.

Climate Intelligence on any asset, anywhere

EarthScan allows real estate professionals a comprehensive view of historical, current and future climate risk on any of their physical assets.

- Build portfolios to analyze historic and projected risks across hazards, including flooding, windstorms and drought, and multiple scenarios, ranging from the best-case scenario, a Paris-Aligned world where emissions peak by 2040, to the worst-case "business as usual" scenario, where average global temperature increases could be 4°C.
- Access on-demand global Climate Intelligence to feed into an array of real estate use cases, and benchmark climate risk to your assets against over 220 million mapped assets.
- Plan for property purchasing and divestment.
- Manage costs of building maintenance by understanding which assets need shoring up against which physical risks, so unknown issues don't escalate to more expensive renovation or repair.
- Create fully customizable, dynamically generated TCFD-aligned reports which are shareable at the touch of a button.

Equipped with Climate Intelligence on individual assets, entire portfolios and across supply chains, real estate businesses can make business-critical strategic and operational decisions.

Use case two: Adapting assets to localized climate hazards

A real estate customer is using EarthScan to accurately determine which acquisitions and building projects require flood protection, such as drainage and surface run-off features, and which need increased temperature control measures. By identifying assets located in areas predicted to experience a reduction in average wind speed over time, they were able to make a plan to install better artificial air ventilation to compensate for the decrease in natural air flow. Implementing these measures not only ensures the prolonged resilience of the buildings and protection of inhabitants, but raises the potential resale price in the future.

EarthScan at a glance

Benefits

- Get real-time, on-demand Climate Intelligence, providing insight on single assets or multiple portfolios
- Make climate informed decisions based on asset-level insights created from multiple trusted public and private data sources
- Access a queryable inventory of over 220 million assets worldwide, or upload your own asset information
- Forecast major hazards such as flooding, windstorms, drought and extreme temperatures for all assets you own or manage, including those held by your suppliers
- Get risk analysis across various emissions scenarios: Paris-aligned, stable emissions, and 'business as usual'
- Integrate analysis of historic, current and forecasted risks from 1970 to 2100
- Get EarthScan Ratings™ for at-a-glance risk prioritization and benchmarking
- Easily produce internal reporting on your climate risk for stakeholders, and prepare for upcoming mandatory disclosure with TCFD-aligned reports

For real estate businesses, investors and professionals, climate resilience can't wait.

Sign up to our EarthScan Early Access Program

About Cervest

Cervest is the Climate Intelligence (CI) company putting climate at the core of every decision. The company provides personalized, dynamic and science-backed Climate Intelligence on any asset, anywhere, anytime — giving enterprise and government decision-makers the most comprehensive view possible of climate risk at an asset level.

Learn more at cervest.earth

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