QuadReal™

QUADREAL'S APPROACH TO THE TCFD RECOMMENDATIONS

CONTENT

Signature

Dennis Lopez
CEO, QuadReal
Property Group

MESSAGE FROM THE CEO

As a global real estate investment, operating and development company, we thrive by creating and managing healthy environments for our tenants, residents, and communities. Climate change presents clear risks and challenges across the real estate industry. We see near and long-term benefit to proactively reduce the carbon emissions related to the portfolios we manage, as well as to mitigate the physical climate risks of our investments.

Climate risks in real estate are not just felt when a storm hits or when a property is underwater. We see large potential for market disruption once the industry builds consensus on heightened future costs due to storms, floods, and wildfires, leading to rapid increases in insurance premiums and declining asset valuations. It is also the risk of increasing carbon emission regulations requiring properties to invest in costly retrofits in order to maintain compliance and competitiveness in the market.

For real estate, the science is clear on what is needed. In 2015, over 190 countries signed the Paris Agreement to recognize climate change as a serious threat to human survival and agreed to limit global greenhouse gas (GHG) emissions so that global temperatures are maintained to 1.5 - 2°C above pre-industrial levels. QuadReal acknowledges the role we have in contributing to climate change. We are committed to achieving the science-based carbon reduction goals in line with those set by the International Panel on Climate Change (IPCC).

QuadReal manages BCI's real estate program. **BCI has a twenty plus year history of climate action** which has included support for the creation of the Taskforce on Climate-Related Financial Disclosures (TCFD); and now includes annual disclosures aligned with the TCFD recommendations. We believe that transparent marketplaces perform better, and that climate-related information is increasingly material to financial decisions. This is our first TCFD report, which will be updated and published annually. We provide direct responses to each of the TCFD recommendations. This showcases our data-based decision processes that feed into clear management structures.

Since I joined QuadReal I have put in place a robust analysis of all investments for physical climate risks and that we divest of properties where the risks are too high. In addition, I stepped up our carbon reduction commitment, with a focus on tangible 2025 and 2030 targets towards net-zero by 2050. These are deeply collaborative efforts that involve our clients, employees, tenants, partners, and the communities in which we operate. Climate action is one part of Being a Responsible Company.

ALIGNING WITH THE TCFD

As a global real estate investment company, we understand the importance of a stable financial and environmental landscape. One of QuadReal's core responsibilities is to align with like-minded partners in the industry to promote the need for reliable and accurate disclosure.

The Financial Stability Board (FSB) established the Task Force on Climate-Related Financial Disclosures (TCFD) in 2015 to develop recommendations for more effective climate-related disclosures that could promote more informed investment, credit, and insurance underwriting. TCFD-aligned disclosure supports market participants and other stakeholders to better understand the concentrations of carbon-related assets in the market and the broader financial system's exposures to climate-related risks.

The following sections follow the TCFD framework. The recommendations and quotes come directly from the TCFD and are followed in each case by how QuadReal's practices align. This provides a consistent disclosure with BCI in its TCFD report.

GOVERNANCE

Recommendation A

Describe the Board's oversight of climate-related risks and opportunities.

QUADREAL'S ALIGNMENT:

QuadReal's Board of Directors is responsible for the oversight of our approach to sustainability and climate-related risks and opportunities impacting the business. Annually, a sustainability strategy and progress update are presented to the Board for their review. This includes a summary of physical climate risks across the portfolio, progress against our decarbonization targets, as well as climate transition risks and recommended approaches. The Board also approves QuadReal's annual strategic plan which includes activities related to carbon reduction and climate risk management.

Recommendation B

Describe Management's role in assessing and managing climate-related risks and opportunities.

QUADREAL'S ALIGNMENT:

QuadReal's Chief Executive Officer (CEO) has overall responsibility for climate-related risks and opportunities. Sustainability performance is part of the annual performance scorecard of the CEO and is further cascaded down within the organization. The CEO chairs the Management Investment Committee, which reviews all new investments and divestment decisions. Each review includes a memo outlining the climate risk exposure of the asset and any mitigating factors planned or implemented. See the **QuadReal's Process for Prioritizing Physical Risk** section for a full description of the physical climate risk assessment process.

The Sustainability Committee is chaired by the Global Portfolio Manager and the Canadian President and includes people from key teams across the company. The Sustainability Committee provides guidance on strategy as well as monitoring progress. Climate-related risks and opportunities is a core topic for the committee. Two areas of focus have been on energy efficiency and carbon reduction progress in the directly managed Canadian portfolio, as well as annual ESG reporting of our international investment partners.

STRATEGY

Recommendation A

Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

QUADREAL'S ALIGNMENT:

QuadReal uses a physical risk modelling tool provided by Moody's ESG Solutions to analyze physical hazards under future climate scenarios. The service provides data on risk exposure across a range of physical climate hazards under Representative Concentration Pathway 8.5 (RCP 8.5), which aligns with a 4°C global warming scenario. The hazard data covers both acute and chronic risks. QuadReal prioritizes flood, sea level rise, and wildfire, as they present the greatest potential for catastrophic damage and market-level impacts. See the **QuadReal's Process for Prioritizing Physical Risk** section for a full description of the how the physical hazard data is utilized.

IDENTIFIED PHYSICAL RISKS & OPPORTUNITIES:

Short-Term Physical Risks:

1. **Fluvial Flood –** Historically, riverine flooding has been one of the costliest climate perils for real assets[1]. Flood events can directly impact real estate investments through property damage, tenant disruption, and clean-up costs. Properties can also experience indirect impacts such as insurance premium increases and reputational risks.
2. **Wildfire –** Wildfires present significant damage potential to assets located in the wildland urban interface (WUI). While the impacts of wildfires are limited to specific regions, high exposure areas are becoming increasingly challenging to protect which could lead to insurers withdrawing from the market.

Medium/Long-Term Physical Risks & Opportunities:

3. **Coastal Flooding and Sea Level Rise –** Exacerbated coastal flooding from hurricanes and sea level rise under future climate scenarios could impact market stability and result in stranded assets. While there is limited evidence to suggest sea level rise risk is currently capitalized in real estate[2], it is reasonable that this risk will eventually be priced in.
4. **Heat Stress –** Heat stress from higher mean temperatures and increasing heat island effects impacts regional livability, as well as accelerated HVAC system degradation.

[1] Insurance Bureau of Canada. 2020. Facts of the Property and Casualty Insurance Industry in Canada
[2] Murfin, J. & Spiegel, M. Is the Risk of Sea Level Rise Capitalized in Residential Real Estate?, The Review of Financial Studies, Volume 33, Issue 3, March 2020, Pages 1217–1255

IDENTIFIED TRANSITION RISKS & OPPORTUNITIES:

Short-Term Transitional Risks & Opportunities:

1. **Regulation –** Increasing regulation aimed at mitigating building-related emissions may result in non-compliance penalties for emissions-intensive properties. There is a potential for negative impacts on reputation as well.
2. **Green financing –** Investing early in emissions reduction can provide assets with access to green financing opportunities at lower rates.

Medium/Long-Term Transitional Opportunities:

3. **Stranded assets –** We may see reduced demand for emissions-intensive properties. Assets that are challenging to decarbonize may see a brown discount applied or become stranded in the long-term. The overall portfolio is overweight to Canada (relative to its global share of GDP), where physical climate risks to real estate are comparatively low.
4. **Green premium –** Pursuing green building certifications is valued by our tenants and residents. Literature on green premiums and the value of green certifications are well established, with a rent premium of 4-8% reported across asset classes and geographies. It is reasonable that a similar premium may emerge for low carbon assets.

Recommendation B

Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

QUADREAL'S ALIGNMENT:

As a global real estate company, our operations are exposed to both physical and transition risks and opportunities from climate change. Physical risks relate to the direct impacts of acute hazards, such as floods and wildfire, as well as chronic stressors, such as sea level rise. Transition risks are driven by systematic efforts to mitigate the worst physical impacts of climate change, such as emerging regulatory changes and tenant demands related to energy and emission performance. We consider both physical and transitional risks when analyzing the potential impact of climate change on our businesses, strategy, and financial planning.

BCI has developed an in-house framework that measures and monitors the potential implications of systemic ESG risks and opportunities, including climate change, across the portfolio. The framework analyzes climate change transition risk across all real estate and mortgages using scenario analysis and financial impact sensitivity testing. At QuadReal, we use the framework to understand the current exposure to systemic ESG risks and opportunities in the portfolio and monitor how this exposure changes over time.

QUADREAL'S PROCESS FOR PRIORITIZING PHYSICAL RISKS:

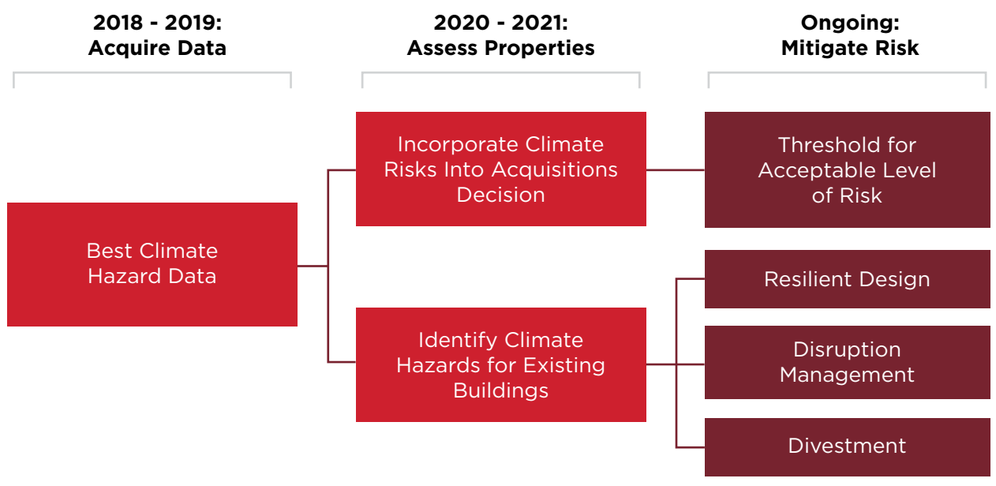
QuadReal's entire portfolio is assessed annually for physical risk exposure under RCP 8.5. Using Moody's ESG Solution's climate data, we evaluate all assets for exposure to a range of physical hazards. Assets that exceed our internal exposure thresholds for flood, sea level rise and/or wildfire risk are flagged for further assessment. High exposure assets are assessed for mitigating factors, such as building or regional resilience infrastructure and investments in operational readiness. Assets with a high level of exposure and limited mitigation are identified to portfolio management for accelerated disposition.

A similar climate risk assessment process is carried out during due diligence for all prospective acquisitions and new development projects. Investments are assessed for risk exposure and mitigating factors, with the ESG team providing one of three recommendations to Investment Committee based on their findings:

1. **Positive:** Sufficient mitigation in place to proceed with the acquisition as planned;
2. **Conditional:** Approval pending implementation of adaptive measures and/or insurance availability/cost;
3. **Negative:** Recommend against investment.

The Investment Committee makes the final decision on whether to proceed with the investment, considering climate risk amongst all other factors. Figure 1 below illustrates our process:

Figure 1:



QUADREAL'S PROCESS FOR PRIORITIZING TRANSITION RISKS:

Using QuadReal has developed a Sustainability Development Playbook and Checklist for new developments where the greatest weighting is on carbon reduction. The checklist is used on all Canadian developments and is being shared with our international partners. The checklist enables a forecast of future emissions, as well as estimating transition risks from escalating carbon taxes and local carbon intensity regulations.

For directly managed assets, we track progress toward our carbon reduction target annually, ensuring our operational practices are aligned with the Paris Agreement. We developed a carbon reduction planning tool and processes to ensure the portfolio remains on pace for a 50% reduction in absolute emissions by 2030 compared to a 2007 baseline. The tool allows for asset level comparison to the Carbon Risk Real Estate Monitor (CRREM) pathways and local carbon intensity carbon regulations to evaluate stranded asset risk. From the asset-level, we can roll-up projected energy performance to understand how our portfolio emissions will change over time. These programs and targets are reviewed every three years in light of changes in policy and other transition risks.

Recommendation C

Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

QUADREAL'S ALIGNMENT:

In alignment with the TCFD recommendations, QuadReal worked with our parent company, BCI, to assess these risks to our investment strategy under four different climate change scenarios. The scenarios developed internally by BCI are based on information from the International Energy Agency (IEA) and the Network for Greening the Financial System (NGFS). These scenarios provide insight into direct transition impacts to the energy system and overall economic damages to form an in-house GDP Damages scenario. This provides an estimate of net economic impacts to growth sensitive industries and to direct impacts to the energy and utilities sectors.

1.5°C scenario: BCI tested a 1.5°C or net-zero aligned scenario this past year. This scenario assumes deep decarbonization across all industries and requires a rapid and extensive shift in many sectors of the economy. This scenario has the most pronounced short-term transition impacts, which are not expected to be orderly in all jurisdictions and industries.

2°C scenario: The 2°C scenario reduces some of the more significant long-term physical impacts from climate change and has the potential to provide substantial investment opportunity for low-carbon infrastructure. The direct impacts of transitioning the energy and utilities sectors will support broader decarbonization of the economy.

3°C scenario: This scenario creates a trajectory where immediate impacts to the energy system are less severe relative to the 2°C scenario, but transition impacts still materialize. Negative impacts result as we see transition risks occurring alongside increases in severity and frequency of physical risks.

4°C scenario: This scenario is the most negative over the long term as economic damages from climate change occur from direct physical damages and economic disruption across most asset types. As discussed under **QuadReal's Process for Prioritizing Physical Risk**, we use Moody's physical risk modelling tool across the portfolio to evaluate the location-specific physical hazard risk to asset types.

RISK MANAGEMENT

Recommendation A

Describe the organization's processes for identifying and assessing climate-related risks.

QUADREAL'S ALIGNMENT:

Physical risk identification and assessment:

Managing climate-related risks starts with ensuring that a detailed evaluation of the risks is incorporated into each investment decision. See the **QuadReal's Process for Prioritizing Physical Risk** section for details on our physical climate risk assessment process.

Transition risk identification and assessment:

QuadReal's Sustainability Committee identifies emerging transition risks as part of an annual review of risks and opportunities. The review includes risks presented by new policies and regulations, such as energy disclosure requirements or changes in carbon pricing regimes. As with physical risk, limiting the addition of new high-risk assets to the portfolio is critical to managing transition risk. See the **QuadReal's Process for Prioritizing Transition Risks** section for discussion on how we ensure the portfolio remains resilient under the transition to a low-carbon economy.

Recommendation B

Describe the organization's processes for managing climate-related risks.

QUADREAL'S ALIGNMENT:

In 2019, we initiated a multi-phased approach to managing the physical climate risks of our investments identified from Moody's physical risk modelling tool. Our first step was to implement a process for evaluating climate risks during acquisition due diligence. For our existing assets, we conduct an annual portfolio-level exposure analysis. These processes outlined under **QuadReal's Process for Prioritizing Physical Risk**. Our climate hazard data serves as a way for us to incorporate better climate resilient and long-term decisions into our acquisitions, as well as benchmark our current assets.

To further improve portfolio resilience, we developed an in-house vulnerability and preparedness assessment for flood risk in 2021. We piloted the assessment in 2021 and rolled it out to all properties exposed to riverine and coastal flood risk in 2022.

Recommendation C

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

QUADREAL'S ALIGNMENT:

QuadReal conducts several climate-related risk management strategies at the portfolio level. Our Enterprise Risk Management framework includes climate risk in its risk universe alongside concerns like cyber risks. As per other investment risks, it is part of the ongoing risk monitoring discussed at the senior management level and with QuadReal's clients. Macroeconomic climate-related risks and opportunities are also incorporated in our investment strategy.

All new investments receive a climate risk assessment, as discussed under **QuadReal's Process for Prioritizing Physical Risk**. Climate risk is considered alongside all other investment risks and impacts in our Investment Committee's decision on any investment with material climate risk.

METRICS AND TARGETS

Recommendation A

Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

QUADREAL'S ALIGNMENT:

QuadReal prepares an annual report for the Canadian portfolio aligned with the Sustainability Accounting Standards Board (SASB) Real Estate Industry Standard. The SASB framework allows us to make year-over-year comparisons on our energy and water consumption, GHG emissions, and climate change adaptation metrics. These metrics are used as a benchmark for our climate-related targets and sustainable initiatives.

The climate-related metrics QuadReal currently measures and monitors include:

- Energy consumption;
- Water consumption;
- % of the portfolio exposed to a 100-year floodplain;
- Scope 1, 2, and 3 GHG emissions.

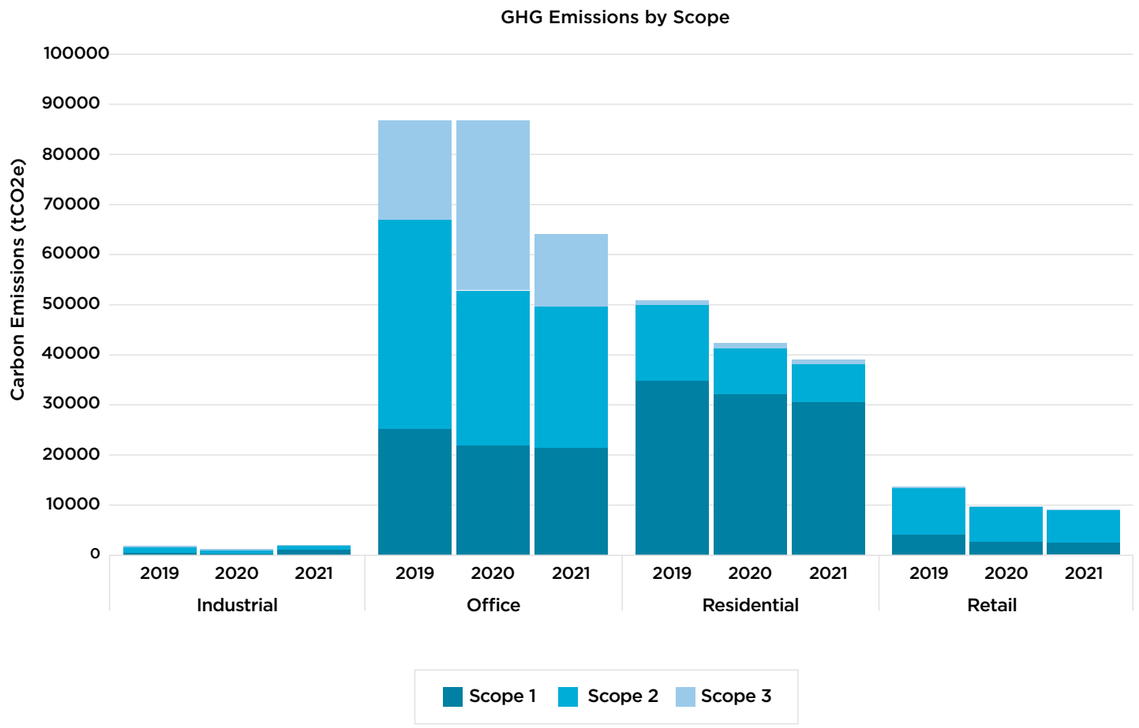
In terms of physical risk exposure metrics, we have selected the following indicators from Moody's physical risk modelling tool based on known business impacts caused by changes in the physical environment:

- Floods;
- Heat Stress;
- Hurricanes & Typhoons;
- Sea Level Rise;
- Water Stress;
- Wildfires.

A full list of our metrics can be found in our **SASB report**.

Recommendation B

Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.



Scope 1 emissions are direct emissions from owned or controlled sources. For QuadReal this includes natural gas.

Scope 2 emissions are indirect emissions from the generation of purchased energy. For QuadReal this includes common area electricity, cooling and heating fuels.

Scope 3 emissions are other indirect emissions that occur upstream and downstream in the value chain of the reporting company. For QuadReal this includes water, waste and tenant electricity.

Accounting Metric	Measurement	2019	2020	2021	SASB Code
Total location-based portfolio GHG emissions, by scope	Tonnes of CO_2 equivalent (tCO_2e), Scope 1	64,246	56,850	55,422	N/A
	Tonnes of CO_2 equivalent (tCO_2e), Scope 2	67,028	47,096	42,153	N/A
	Tonnes of CO_2 equivalent (tCO_2e), Scope 3	49,392	17,622	15,901	N/A
Total location-based portfolio GHG emissions	Tonnes of CO_2 equivalent (tCO_2e)	180,666	121,568	113,476	N/A
Total market-based portfolio GHG emissions, by scope	Tonnes of CO_2 equivalent (tCO_2e), Scope 1	64,246	56,850	55,422	N/A
	Tonnes of CO_2 equivalent (tCO_2e), Scope 2	17,475	11,182	10,273	N/A
	Tonnes of CO_2 equivalent (tCO_2e), Scope 3	29,241	1,815	1,860	N/A
	Tonnes of CO_2 equivalent (tCO_2e), Offsets purchased	(14,982)	(34,271)	(36,623)	N/A
Total market-based portfolio GHG emissions net of offsets	Tonnes of CO_2 equivalent (tCO_2e)	95,981	69,847	30,933	N/A

QUADREAL'S ALIGNMENT:

QuadReal has chosen to voluntarily disclose our GHG emissions data including scope 1, 2 and 3 emissions, in accordance with the GHG Protocol, in addition to the SASB metrics.

See our GHG emissions methodology on our **website**.

Recommendation C

Describe the targets used by QuadReal to manage climate-related risks and opportunities and performance against targets.

QUADREAL'S ALIGNMENT:

QuadReal currently has the following targets related to our climate risk activities:

- For energy use under our control, we have averaged a 2% annual reduction in energy use over the past 10 years. In order to align with a 2-degree scenario, we are escalating our target pace to a 4% annual reduction.
- 50% absolute carbon reduction of directly managed portfolio by 2030.
- Net Zero of office portfolio by 2040.
- Net Zero across our global portfolio by 2050, including all emissions from on-site uses and embodied carbon.
- Public disclosure of our green certifications which make up over 95% of our Canadian portfolio.
- Directly managed properties disclosure performance on leasing pages. Metrics include green building certification levels, energy use intensity (EUI), greenhouse gas intensity (GHGI).

Any questions?
Reach out to sustainability@quadreal.com

www.quadreal.com/sustainability

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