



THE IMPACT OF EXTERNALITIES

WHERE METRICS ALONE DO NOT TELL THE WHOLE STORY

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Senior Sustainability and Climate Finance Leader

- Geopolitics – a shift in tectonic plates
- Traditional Economic Principles – challenged fundamentals
- Social Structures / Generational Approach – changing priorities
- Planetary Boundaries - an urgent review to ensure a future
- Climate Change – exponential global impact on all of life and assets
- Technology – the evolution of scalable solutions

THE SHIFT IN BUSINESS VIABILITY TODAY

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Given the rapid changes in the world, companies have to adapt equally quickly to stay viable. The more successful the business, and the longer that cycle of success, the harder it is to pivot and adapt.

“The smartest people are constantly revising their understanding, reconsidering a problem they thought they had already solved. They’re open to new points of view, new information, new ideas, contradictions and challenges to their own way of thinking.” Jeff Bezos

THE GLOBAL INSTITUTIONAL INVESTOR PERSPECTIVE



THE RECENT WITHDRAWAL OF CLIMATE COMMITMENTS IN LARGE GLOBAL INSTITUTIONS



In 2023, Vanguard, one of the world's largest asset managers, withdrew from the Net Zero Asset Managers (NZAM) initiative. This wasn't a sign that climate risk was becoming irrelevant. It was a demonstration of how politically charged and complex the **transition risk** management has become. Vanguard stated it withdrew to provide clarity to investors and avoid constraints on its investment choices.
September 2025 : While reporting on engagement behaviour, Vanguard shared having materially scaled back engagement on topics that include climate, leading to a reduction on related meetings by ~44% in 2025.

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December 2024 to January 2025 - Six of the biggest U.S. banks (Goldman Sachs, Wells Fargo, Citigroup, Bank of America, Morgan Stanley, J.P. Morgan) left the Net Zero Banking Alliance, signalling an end to that industry coalition commitment

September 2025 : Reuters analysis reported BlackRock reduced the number of related meetings with company executives by ~28% in 2025, signalling a pullback in direct engagement on governance/policy topics including climate after new SEC guidance.

WHY IT MATTERS TO THE INVESTORS WHO STAY COMMITTED



The New York State Common Retirement Fund pressuring BlackRock on its climate voting record—is a classic case of investors focusing on **transition risk** (the risk of being invested in companies unprepared for the low-carbon transition).



This agenda is not only still active but intensifying and becoming more sophisticated. Investors are moving beyond simple portfolio decarbonization to targeted strategies that address both physical and transition risks in very concrete ways.

WHAT MATTERS TO THOSE INSTITUTIONS

Climate Action 100+: Active Engagement

- Investors are not just asking for *reported* emissions.
- They are demanding credible *transition plans*.

The Norwegian Government Pension Fund Global (NBIM):

- Exclusions Based on
- Transition Risk &
- Physical Risk

Dutch Pension Fund via its manager PGGM chose not to renew mandates with Blackrock and LGIM (PFZW):

- Sustainability- Oriented Strategy Overhaul

The Australian Council of Superannuation Investors (ACSI):

- Pushing for "Climate Competent" Boards

The People's Pension (TPP) withdrew £28 billion in assets from State Street in early 2025 to appoint Amundi and Invesco over responsible investment and ESG policies. State Street's perceived lack of progress on ESG goals prompted the shift to other managers focused on sustainability and active stewardship.



THE GLOBAL EVOLUTION OF METRICS

Region	2015-2020	2020-2024	2025 - 2029
North America	Voluntary & Operational: GHG (Scopes 1 & 2), energy/water use, driven by shareholders & GRI.	Climate Risk Integration: TCFD adoption, Scope 3 emissions, SEC regulatory pressure.	Financially relevant : SEC rule implementation, TNFD (nature), focus on financial impact & transition plans.
Europe	Regulatory Pioneer: NFRD mandates, circular economy metrics, early EU Taxonomy development.	Systemic Overhaul: Green Deal & CSRD implementation, double materiality, full ESRS standardization.	Value Chain Management: CSRD in full effect, deep value chain data focus, metrics drive capital allocation via Taxonomy. EUDR
Asia	Localized & Compliance-Driven: Air/water quality, energy intensity, government-led guidelines.	Net-Zero Alignment: TCFD adoption post-national pledges, growing ESG investor demand, regional taxonomies.	Pragmatic Transition: Balancing climate goals with development, transition finance metrics, adaptation resilience.



THE APPROACH IN MALAYSIA



CALIBRATING METRICS FOR MALAYSIA

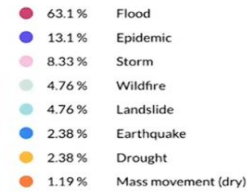
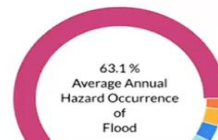
NDC-GAIN Readiness Score

0.51

Rank 54 of 198 countries

Source: Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index, Readiness

Domestic Natural Hazard Occurrence



Source: World Bank
https://climateknowledgeportal.worldbank.org/themes/custom/wb_cc/kp/resources/data/Metadata.pdf

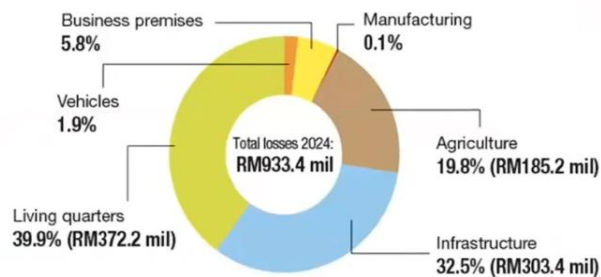
Adaptation actions prioritized by Malaysia's NDCs

1. Agriculture ●●●●●●●●	2. Coastal Zone ●●●●●●●●	3. Cross-Cutting Area ●●●●●●●●
4. Disaster Risk Management (DRM) ●●●●●●●●	5. Economy-wide ●●●●●●●●	6. Education ●●●●●●●●
7. Energy ●●●●●●●●	8. Environment ●●●●●●●●	9. Health ●●●●●●●●
10. Social Development ●●●●●●●●	11. Tourism ●●●●●●●●	12. Urban ●●●●●●●●
13. Water ●●●●●●●●	14. Urban ●●●●●●●●	15. Water ●●●●●●●●



FINANCIAL IMPACT OF PHYSICAL RISK ON ASSETS

Total flood losses in Malaysia by sector in 2024



Source: DOSM

THE EDGE





COMPELLING PRIMARY DRIVERS FOR MALAYSIAN COMPANIES

- National Regulatory Push:** Bursa Malaysia's Sustainability Reporting Framework is continuously enhanced. The **National Energy Transition Roadmap (NETR)** and **Phased Carbon Pricing** will make specific metrics non-negotiable.
- Global Supply Chain Demands:** As a major exporter, Malaysian companies will need to meet the ESG data requirements of multinational customers, especially those adhering to EU regulations like the **CSRD** and **CBAM**.
- Access to Green Capital:** Investors and lenders are increasingly tying financing to ESG performance. Metrics aligned with frameworks like **TCFD** and **IFRS S2** will be critical for securing loans and attracting investment.
- Physical Climate Risks:** Malaysia's high exposure to floods, heatwaves, and water stress makes adaptation and resilience metrics essential.

CORE ENVIRONMENTAL METRICS

Category	Specific Metrics	Relevance
Air Pollution	Total Air Pollution ranking 122 out of 180 globally Adjusted emissions growth rate for nitrous oxide (NOX) ranked 86. Adjusted emissions growth rate for sulphur oxide (SOX) 147	Malaysia relative to its size has a high growth rate for CO ₂ , SOX and NOX, which impacts its natural air quality score which is 79 and purely based on exposure as opposed to management
Waste & Circularity	Total Waste Generated per capita ranking 122 out of 180. Waste Management ranking 71 out of 180 mainly due to good waste recovery rate	Addresses the national waste factors. Reduce disposal costs. Self sufficiency. Aligns with global circular economy expectations from customers.
Biodiversity & Land Use	Total Ecosystem Vitality ranking 147 out of 180. Biodiversity & Habitat ranking 152 out of 180 assessing the country's actions on retaining natural ecosystems	Crucial for sectors like agriculture, forestry, palm oil to maintain market access (e.g., EUDR). Growing investor focus on nature-related risks (TNFD framework).

Environmental Performance Index
Score by Country
Malaysia 41

Score 100
80
60
40
20
0

Category	Specific Metrics	Relevance
Greenhouse Gas (GHG) Emissions	Scope 1 & 2 Emissions (absolute, and intensity per unit of revenue/production). Scope 3 Emissions (begin tracking, especially for purchased goods/services and downstream use of products).	Mandatory for listed companies. Foundation for all climate strategy. Scope 3 is increasingly demanded by global supply chains. Essential for carbon pricing readiness.
Energy Management	Total Energy Consumption (by source). % of Renewable Energy (via on-site generation, Solar Power Purchase Agreements - SPA, Green Electricity Tariffs - GET). Energy Intensity (energy use per unit of production).	Core to the NETR . Reduces operational costs and exposure to fossil fuel price volatility. Directly impacts GHG metrics.
Climate Risk & Resilience	TCFD-aligned Risk Assessment: - Physical Risks: Quantified potential impact of floods, droughts, heat stress on operations/supply chain. - Transition Risks: Analysis of policy changes (carbon tax), market shifts, and technology	Protects assets and ensures business continuity. Required by investors (TCFD/IFRS S2) and Bursa Malaysia.
	Carbon Price (shadow price). Net-Carbon Technologies (Capex). Transition Plan (with interim targets)	Prepares for the government's phased carbon pricing mechanism. Demonstrates strategic foresight to investors.

CLIMATE CHANGE AND ENERGY TRANSITION METRICS

Category	Specific Metrics	Relevance
Supply Chain Management	% of Suppliers Screened for ESG Risks. Supplier Code of Conduct implementation. Metrics on supplier ESG performance (e.g., their GHG emissions, labour practices).	Essential for exporters to demonstrate a responsible value chain, especially with regulations like the EU CSDDD .
Labour Practices & Diversity	Employee Turnover Rate. Training Hours per Employee. Gender Diversity Ratio (especially in management). Pay Equity.	Attracts and retains talent. Demonstrates fair and ethical operations, which is a key component of ESG scores.
	Board ESG Oversight (committee structure). Anti-corruption & bribery training rates. Whistleblower policy & cases.	Strong governance is the bedrock of credible ESG performance. Non-negotiable for institutional investors.

Social and Governance Metrics

WHAT MOVES THE NEEDLE FOR INVESTORS?

Start with TCFD: Use the Task Force on Climate-related Financial Disclosures framework as your guide. It forces you to think about governance, strategy, risk management, and metrics/targets in an integrated way.

Conduct a Double Materiality Assessment: Identify which ESG issues have the most significant impact on your business (financial materiality) *and* which issues your business has the most significant impact on (environmental/social materiality). This will prioritize your metrics.

Focus on Data Quality: Move from estimates to primary data collection. Invest in systems to track energy, water, and waste accurately. This data is the foundation for credible reporting and effective management.

Look Beyond Your Fence Line: Your value chain (Scope 3) and supply chain will be your frontier. Start engaging with your key suppliers now.

By focusing on these metrics, companies will not only ensure compliance but also build resilience, unlock new opportunities, and secure a competitive advantage in the evolving global economy.

