Unlocking Capital: Aligning Asia Pacific Green Building Rating Tools to the ASEAN Taxonomy for Sustainable Finance

Insights Report July 2025

WORLD GREEN BUILDING COUNCIL
Asia Pacific

OCBC

Authors

Benjamin Towell — Executive Director, Global Wholesale Banking Sustainability Office, OCBC

Jeff Oatman — Chair, WorldGBC Asia Pacific Network

Jorge Chapa — Chief Impact Officer, Green Building Council of Australia

Supported by:

Julie Emmrich — Sustainable Finance Lead, WorldGBC

Joy Gai — Asia Pacific Programmes Head, WorldGBC

With thanks to:

Green Building Council of Australia

Singapore Green Building Council

China Green Building Council

Hong Kong Green Building Council

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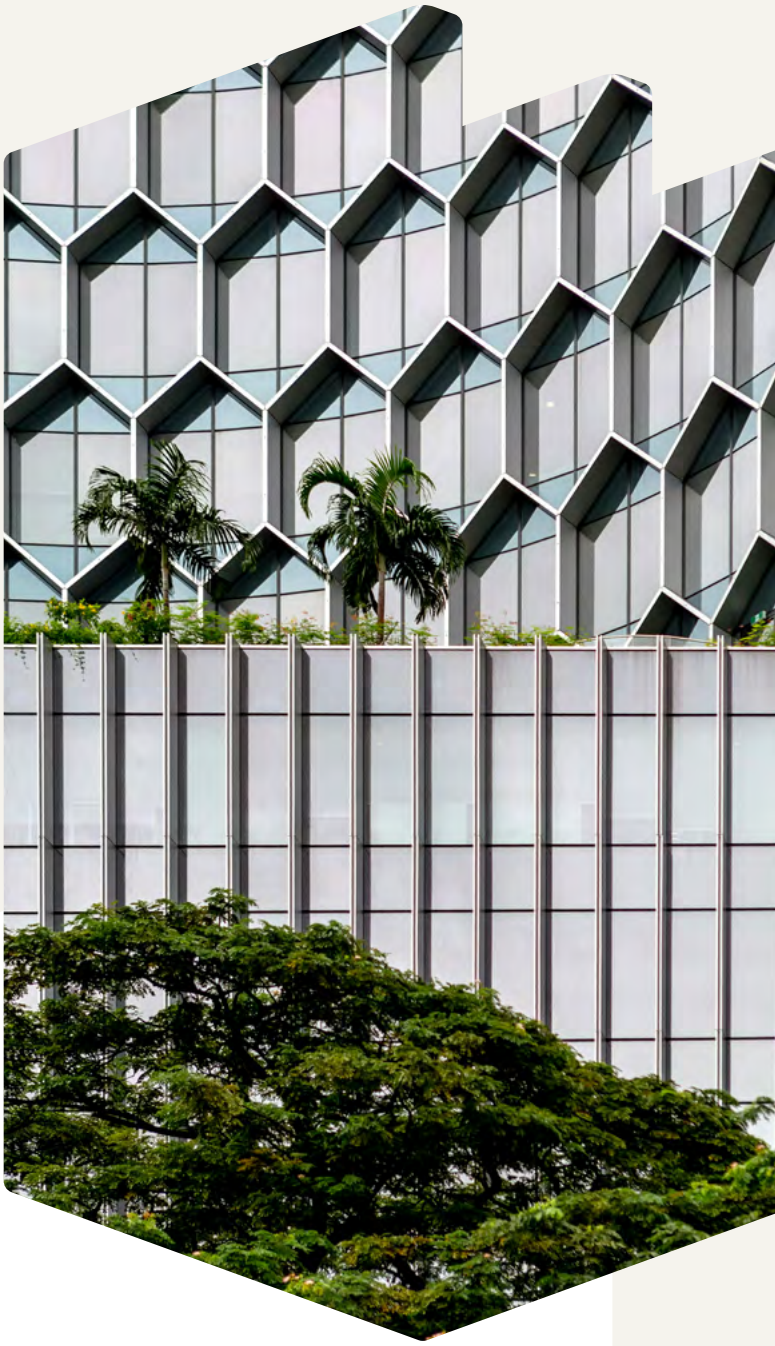


About WorldGBC

At the World Green Building Council (WorldGBC) our role is to help property and construction markets around the planet reach tipping points towards decarbonisation and regeneration.

That means building the right policy environments, the right financing environments and the right social and cultural environments to deliver more resilient and sustainable built environments.

Our unique local–regional–global network helps us catalyse waves of change that ripple across cities, countries, companies and communities. Amplifying the leadership of our members and partners; building on success; and scaling local action into global impact.

Today, buildings and related activities are responsible for 34% of all carbon emissions. With our network, we believe we have the scale and shared ambition to target the total decarbonisation of the sector by 2050.

Together, we're building the momentum to create a better future for all.

"This report is a pivotal step in connecting the built environment with the sustainable finance ecosystem. By aligning regional green building rating tools with the ASEAN Taxonomy, we are creating a clearer path for climate-aligned investment and scaling the impact of trusted sustainability standards. At WorldGBC, we see this alignment as essential to translating ambition into action — and accelerating the transition to a decarbonised, resilient built environment."

Cristina Gamboa
CEO, World Green Building Council

Foreword

As the Asia-Pacific region experiences unprecedented urbanisation and faces mounting climate challenges, the need to transform how we design, construct, and finance buildings has never been more urgent.

OCBC is proud to extensively collaborate with WorldGBC and Green Building Councils across the Asia-Pacific region to systematically map rating tools against the ASEAN Taxonomy for Sustainable Finance. The result is an unparalleled resource for the industry.

What began as a technical exercise has evolved into something far more significant, a roadmap for unlocking the trillions of dollars needed to decarbonise our built environment. Through meticulous analysis of fourteen major rating systems across more than eleven countries, we have identified not just where alignment exists today, but where the greatest opportunities lie for accelerating sustainable building investment tomorrow.

This work reveals a compelling narrative: the green building movement and sustainable finance sector are more aligned than many realise, yet significant opportunities remain untapped. The rating tools that have driven building performance improvements for decades possess the technical rigour that financial markets demand, while taxonomies like ASEAN's provide the standardised language that capital markets require. The convergence of these two powerful forces creates an unprecedented opportunity to mainstream sustainable building practices across the region.

The findings are both encouraging and instructive. Leading rating systems already demonstrate strong alignment with climate mitigation and resource efficiency objectives, providing immediate pathways for project financing. Yet our analysis also illuminates emerging frontiers — climate adaptation, comprehensive carbon accounting, and ongoing performance verification — where continued evolution will strengthen the bridge between building performance and financial frameworks.

This report will form an essential resource for developers, financial institutions, policymakers, and Green Building Councils, providing the insights needed to navigate the intersection of building standards and sustainable finance, transforming complexity into clarity and ambition into action.

Mike Ng
Group Chief Sustainability Officer, OCBC

> "What began as a technical exercise has evolved into something far more significant, a roadmap for unlocking the trillions of dollars needed to decarbonise our built environment."

Introduction

The built environment is one of the most powerful levers for climate action. It contributes significantly to global emissions and increases exposure to climate risks, particularly in urban communities.

While the finance sector now recognises climate risk as financial risk, there remains a lack of clear, practical guidance to define what constitutes a future-fit investment in buildings.

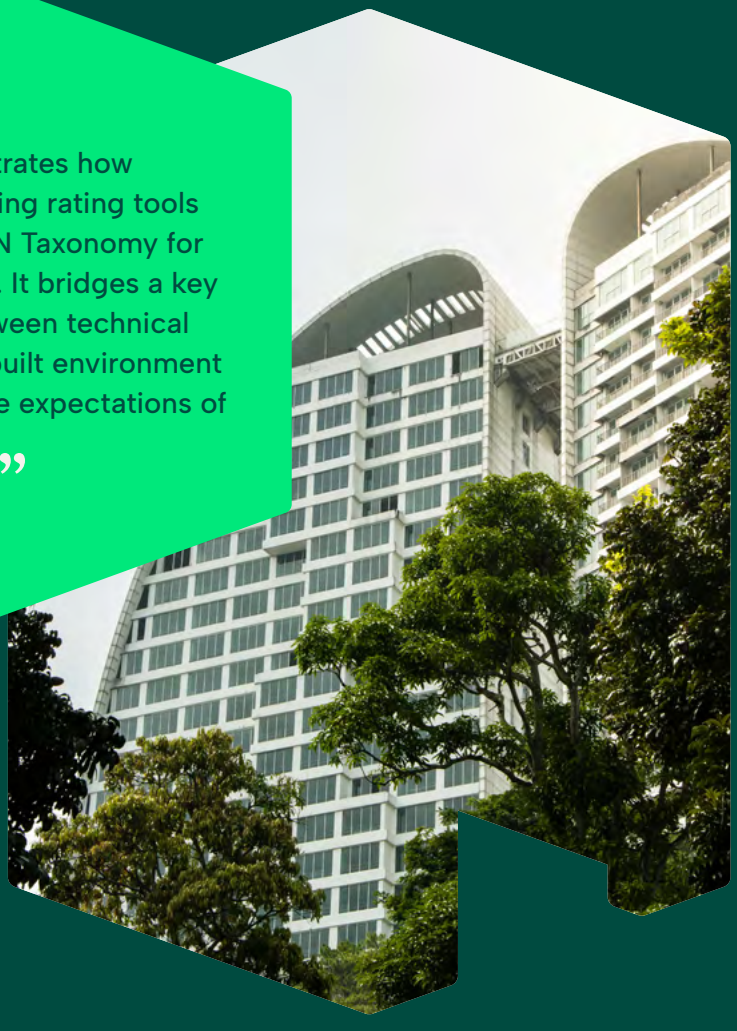
Green Building Councils (GBCs) have played a leading role in this space for many years. Their rating tools and certifications are widely adopted by industry and increasingly referenced in policy frameworks. These tools have become de facto gold standards for identifying and certifying sustainable buildings.

Meanwhile, policymakers are introducing sustainable finance taxonomies that establish consistent definitions and criteria for green economic activity. These taxonomies reduce ambiguity, guide capital allocation, and provide a shared language for markets.

This report — developed by the WorldGBC Asia Pacific Network in partnership with OCBC — demonstrates how regional green building rating tools align with the ASEAN Taxonomy for Sustainable Finance. It bridges a key knowledge gap between technical benchmarks in the built environment and the performance expectations of sustainable finance.

The report is supported by a detailed mapping paper and a technical annex, to be published in September 2025. It builds on the approach used in *Unlocking the Value* and *Financing Transformation*, reports developed by a coalition including Alliance HQE-GBC France, BRE, GBCA, Singapore GBC and USGBC.

“This report demonstrates how regional green building rating tools align with the ASEAN Taxonomy for Sustainable Finance. It bridges a key knowledge gap between technical benchmarks in the built environment and the performance expectations of sustainable finance.”



Unlocking green capital

Green loans and green bonds are have emerged as pivotal tools used to finance sustainable projects.

Guided by the *Green Loan Principles* (GLP) and *Green Bond Principles* (GBP), these instruments provide a framework for ensuring that financial activities support environmental objectives.

These principles are built around four pillars:

1. **Use of proceeds**
   Directing funds exclusively toward eligible projects, such as green buildings.
2. **Project evaluation and selection**
   Ensuring eligibility through transparent criteria and use of tools such as green building certifications.
3. **Management of proceeds**
   Clear processes and transparency for allocating and tracking funds.
4. **Reporting**
   Transparent measurement and disclosure of environmental impact.

The International Capital Market Association (ICMA) has developed guidance to standardise impact reporting for green building investments. Green building rating tools generally align well with this guidance, particularly in offering quantifiable impact metrics.

However, GLP and GBP do not define the performance level that qualifies a building as 'green'. This is where sustainable finance taxonomies, such as the ASEAN Taxonomy, are crucial.

ASEAN Taxonomy: key concepts

Sustainable finance taxonomies are transparency and labelling tools built upon a classification system that defines which economic activities qualify as environmentally sustainable by providing clear criteria and benchmarks for green activities. Taxonomies guide investors and lenders by reducing ambiguity and standardising definitions. Key components of taxonomies typically include:

- **Environmental objectives** (EOs):
  - EO1: Climate Change Mitigation
  - EO2: Climate Change Adaptation
  - EO3: Protection of Ecosystems and Biodiversity
  - EO4: Resource Resilience and Circular Economy
- **Technical screening criteria** (TSC)

  Performance thresholds, such as being in the top 15% for energy performance.
- **Do No Significant Harm** (DNSH) principles

  Ensuring an activity (e.g. carbon reduction) does not negatively affect other Eos (ecosystem protection).
- **Social safeguards**

  Minimum social and governance standards (including labour rights and community impacts)

More than 50 Sustainable Finance Taxonomies are planned, in development or already implemented worldwide. Three international taxonomies serve as primary references: the Climate Bonds Sustainable Finance Taxonomy, the EU Taxonomy for Sustainable Finance, and the ASEAN Taxonomy for Sustainable Finance.

This alignment analysis focuses on the ASEAN Taxonomy for Sustainable Finance — the regional classification system designed to guide sustainable investments across ASEAN member countries.

Key features of the ASEAN Taxonomy

The ASEAN Taxonomy uses a dual structure:

- **The Foundation Framework** applies broad, qualitative criteria for all member states.
- **The Plus Standard** adds science-based, quantitative thresholds.

This two-tier approach allows inclusivity for countries at different stages of market maturity with respect to environmental performance, while still encouraging advanced performance where possible.

Environmental objectives: Activities must substantially contribute to at least one of the four aforementioned Eos.

A colour-coded classification system labels activities as green, amber, or red based on their level of compliance with taxonomy criteria:

- Green indicates substantial contribution to one or more environmental objectives, meeting the most stringent criteria.
- Amber represents transitional activities on a pathway to sustainability. For some sectors, amber is split into Tier 2 and Tier 3, reflecting different levels of intermediate performance.
- Red designates activities that do not align or cause significant environmental harm.

For the Construction and Real Estate sector, only Amber Tier 2 is currently defined as transitional — no Tier 3 criteria exist for this sector.

The taxonomy's Plus Standard sets out specific thresholds for buildings. It explicitly recognises credible green building certifications as valid evidence of meeting sustainability criteria.

Importantly, even if a building satisfies the green-level TSC for one objective, it must still meet the DNSH requirements across the others to be considered aligned overall. For example, a highly energy-efficient building must also demonstrate compliance with DNSH safeguards for climate resilience, water management, and biodiversity protection.

Summary of Approach

This alignment analysis takes a bottom-up approach. Every relevant credit or criterion in each green building rating tool was assessed against the ASEAN Taxonomy's:

- **Technical Screening Criteria** (TSC)
- **Do No Significant Harm** (DNSH) requirements

Each rating tool's alignment was categorised based on how closely its criteria aligns with the taxonomy's environmental objectives TSC and DNSH thresholds. The analysis differentiates between:

- Mandatory performance requirements (prerequisites) that are fully aligned
- Optional, scored credits, which are fully aligned, and
- Partially aligned credits which meet the spirit or intent of the taxonomy criteria

To determine advanced certification levels, the study adopted a simplified comparative approach by focusing on the top two holistic certification levels within each tool. While this enables practical benchmarking, it should not be interpreted as suggesting performance equivalence across different rating systems or certification tiers.

The analysis covered both the TSC and DNSH elements for all four environmental objectives:

- EO1: **Climate Change Mitigation**
- EO2: **Climate Change Adaptation**
- EO3: **Protection of Ecosystems and Biodiversity**
- EO4: **Resource Resilience and Circular Economy**

Geographic scope and visual methodology

The analysis includes major green building rating tools across the Asia Pacific region. (Fig.1.)

To visualise the findings, a heat map summarises the level of alignment for each tool across the four environmental objectives, using the following colour-coded system. (Fig.2.)

This visual approach helps identify clear alignment patterns and gaps across rating tools and environmental objectives.

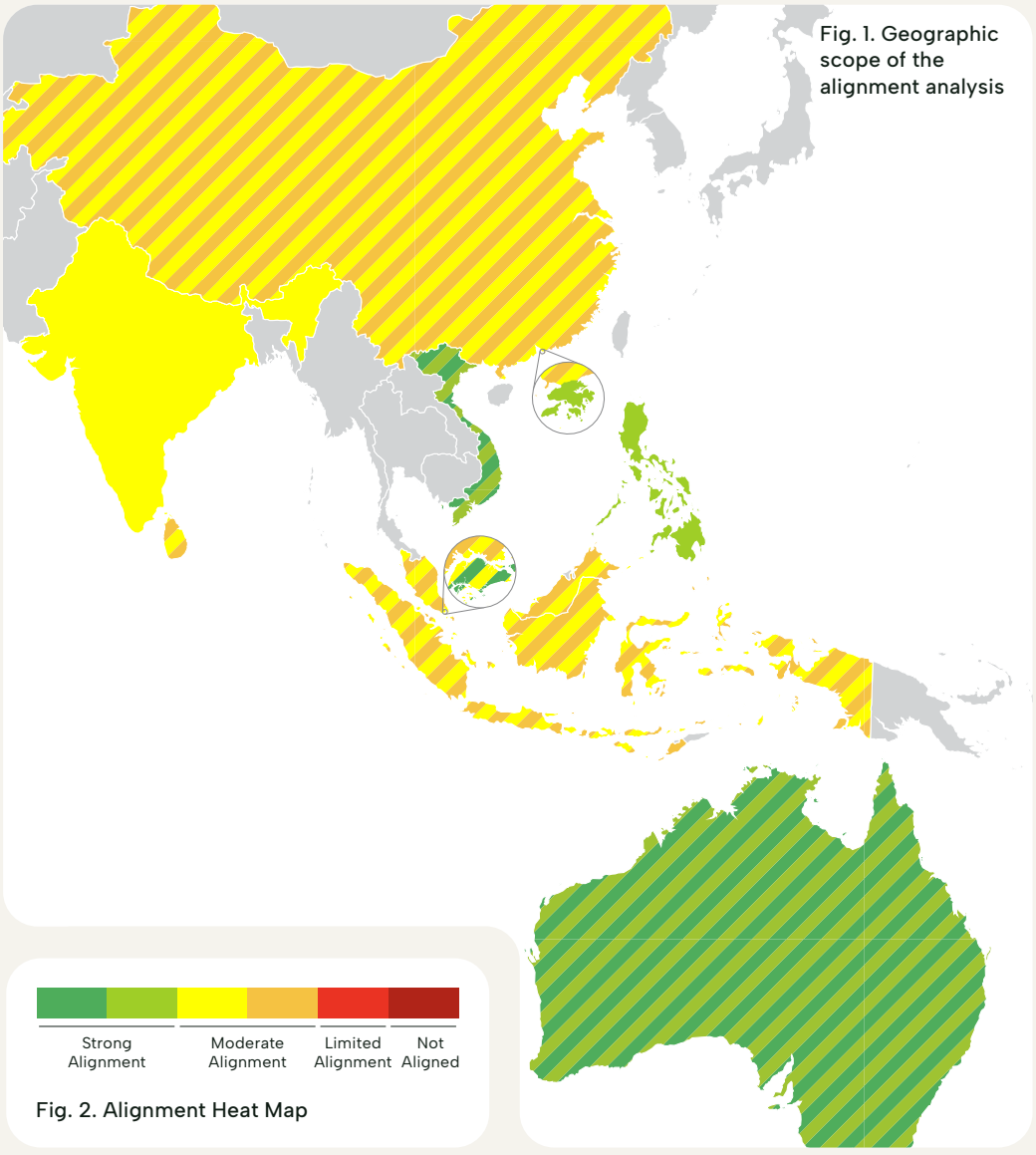


Fig. 1. Geographic scope of the alignment analysis

Fig. 2. Alignment Heat Map

Assessment methodology

The evaluation followed a structured three-step process:

1. **Development of the assessment template**
   A structured template was designed to assess each rating tool against the ASEAN Taxonomy criteria.
2. **Data collection from GBCs and tool providers**
   Participating Green Building Councils and/or rating tool providers completed the template. This process was supplemented with desk research by the lead authors.
3. **Review and harmonisation**
   The authors verified and aligned the information submitted to ensure consistent and credible comparison across tools.

Detailed findings for each tool will be provided in the technical paper and annex: "*Detailed Mapping of APAC Rating Tools to the ASEAN Taxonomy*" (forthcoming, September 2025).

Key findings

The alignment analysis shows **moderate to strong alignment between assessed Asia Pacific green building rating tools and the ASEAN Taxonomy for most criteria** (see Figure 3).

Tools such as Green Star, Green Mark, LEED v5, BEAM Plus, and BERDE consistently demonstrate strong alignment across environmental objectives and Do No Significant Harm (DNSH) safeguards. These top-performing tools also include advanced features, such as:

- **Lifecycle carbon accounting**
- **Integration of climate risk**
- **Post-certification performance tracking**

Figure 3 summarises this alignment across all four environmental objectives.

Country / region	Rating tool	Alignment
Australia / Pacific	Green Star Buildings	
Australia / Pacific	Green Star Performance	
SG / Asia	Green Mark 2021	
SG / Asia	Green Mark 2021 In Operations	
China	GB/T 50378-2019 (New Buildings)	
China	GB/T 51141-2015 (Existing Buildings)	
HK	BEAM Plus New Buildings v2.0.2025	
HK	BEAM Plus Existing Buildings v3.0. Beta0	
India	IGBC Green New Buildings Rating System v3.0 Sep 2016	
India	IGBC Green Existing Buildings Operations and Maintenance (O&M) v2 Nov 2023	
Indonesia	Greenship New Buildings 1.2	
Indonesia	Greenship Existing Buildings 1.1	
Malaysia	GBI Non-Residential New Construction	
Malaysia	GBI Non-Residential Existing Building	
Malaysia	GreenRE Non Residential v4	
Malaysia	GreenRE Existing Non Residential Buildingv3.3	
Malaysia	MyCREST Operation and Maintenance v2.0	
Malaysia	MyCREST Design and Construction v2.0.1	
Philippines	BERDE Buildings v5.0.0	
Sri Lanka	Green SL Rating System for New Constructions v2.1	
Sri Lanka	Green SL Rating System for Existing Buildings v 1.0	
Vietnam	LOTUS New Construction v4 draft 29.04.2025	
Vietnam	LOTUS Buildings In Operation v1 2019	
USA / International	LEED BD+Cv5	
USA / International	LEED O+Mv5	
International	EDGE v3 01.12.2024	

Fig. 3. Summary of alignment levels between green building rating tools and the ASEAN Taxonomy's Technical Screening Criteria (TSC) and Do No Significant Harm (DNSH) requirements across all four environmental objectives.

Other rating tools are progressing toward improved alignment, with several updates expected in the coming years. This analysis provides valuable insight into how building standards intersect with sustainable finance frameworks across environmental themes.

Areas of strong alignment

- EO1: **Climate Change Mitigation**
  Rating tools typically promote energy performance that exceeds national building codes. Many also incorporate renewable energy use or carbon limits, corresponding strongly to the taxonomy's TSC. For instance, Green Mark, Green Star, LEED v5, and draft LOTUS v4 include credits or prerequisites for energy efficiency and net zero carbon commitments.
- EO4: **Resource Resilience and Circular Economy**
  Many tools contain components of resource resilience (e.g. water conservation, waste minimisation, and materials reuse). However, comprehensive lifecycle carbon analysis remains limited — a key gap for full taxonomy alignment.

Areas for continued improvement

- DNSH for EO1: **Comprehensive Carbon Accounting**
  While operational energy is well covered, explicit carbon accounting for Scope 1, 2, and 3 emissions — particularly embodied carbon from materials — are often not fully addressed. This represents a gap in mitigation alignment, especially for taxonomy criteria on embodied carbon and lifecycle emissions. Top performers are beginning to close this gap.
- EO2: **Climate Change Adaptation**
  The ASEAN taxonomy requires identification of climate risks (e.g. flooding, extreme heat, etc.) and implementation of adaptation measures. Some rating systems — such as newer versions of Green Star, Green Mark, BEAM Plus, BERDE, LEED v5, and draft LOTUS v4 — include climate risk assessments and resilience planning. However, these are typically optional rather than mandatory.
- EO3: **Biodiversity and Ecosystems**
  All tools include site sustainability or ecology credits, but few comprehensively address DNSH expectations such as avoiding ecosystem harm or requiring formal environmental impact assessments. Certified green buildings might need additional measures to fully meet taxonomy expectations, though in some cases, local planning laws may help fill these gaps.

Other key findings

- **Climate Transition Plans**
  The ASEAN Taxonomy encourages forward-looking transition strategies (e.g. an Energy Efficiency Improvement Plan). Only a few tools — notably Green Star and Green Mark — require a Zero Carbon Action Plan or similar. Where these are missing, it becomes more difficult to classify projects as making a "substantial contribution" under taxonomy thresholds.
- **Ongoing Performance Verification**
  Long-term monitoring — such as energy tracking post-occupancy or regular recertification — is not consistently required across tools. This can limit alignment with sustainable finance expectations. Investors increasingly seek evidence of actual performance over time. Certification older than five years (from issuance or building completion) may be deemed non-aligned unless renewed or revalidated

Call to action

The built environment is diverse — shaped by cultural, climatic and market-specific conditions across the Asia Pacific region. There is no one-size-fits-all solution for delivering sustainable buildings at scale. These contextual differences make it difficult to implement large-scale, consistent, and interoperable performance metrics, creating barriers to unlocking investment and managing climate-related risks effectively.

This is where green building rating tools play a vital role.

Aligning rating tools and sustainable finance taxonomies

Aligning green building rating tools with sustainable finance taxonomies bridges two critical gaps:

- **Between industry sustainability ambitions and financial sector expectations**, and
- **Between established market practices and national and regional policy goals**.

When rating tools align with taxonomies, and taxonomies explicitly recognise those tools, the result is a streamlined pathway for sustainable investment. Capital can flow more efficiently into impactful projects. Complexity is reduced. Diverging standards are brought into alignment. This empowers stakeholders — developers, policymakers, investors — to make sustainability a central part of real estate and infrastructure decision-making.

The long-term vision is clear: green buildings as the foundation of a low-carbon, climate-resilient future.

Collaboration is critical

Achieving this vision demands stronger collaboration between the built environment sector, financial institutions, and policymakers — particularly across Asia Pacific. Without more coordinated action, the investment flows required for deep transformation will fall short.

Collaboration can address the fragmentation and complexity that currently block progress. It can unlock capital and improve the flow of finance into sustainable buildings.

- **Policymakers** can refine and align sustainability criteria, introduce incentive and penalty mechanisms, and strengthen implementation pathways.
- **Banks and financial institutions** can support taxonomy-aligned investment with greater transparency and accountability.
- **Green Building Councils** (GBCs) can lead the charge in aligning rating tools, lowering compliance burdens, and supporting data-driven impact measurement.

Each stakeholder plays a pivotal role — and together, they can accelerate transformation.

WorldGBC's role

The World Green Building Council (WorldGBC), through its regional networks and national GBCs, is uniquely positioned to serve as a trusted intermediary between finance and the built environment. With deep technical expertise and established industry relationships, WorldGBC can:

- Foster collaboration
- Provide clarity on sustainability criteria
- Help de-risk green building investment
- And ultimately, translate sustainability ambitions into financial outcomes

Through this coordinated effort, Asia Pacific can take the lead in shaping a global built environment that is sustainable, investable, and resilient, underpinned by trusted tools and transparent taxonomies.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