IIGCC

# Considerations for Emerging Markets and Developing Economies: Supplement to NZIF

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# Introduction

Over the last decade, Emerging Markets and Developing Economies (EMDEs) collectively accounted for two-thirds of the world's energy-related carbon dioxide ($CO_2$) emissions and for 95% of the increase in emissions.[1] Most future emissions are projected to come from EMDEs, in part to meet demand for commodities and products elsewhere.

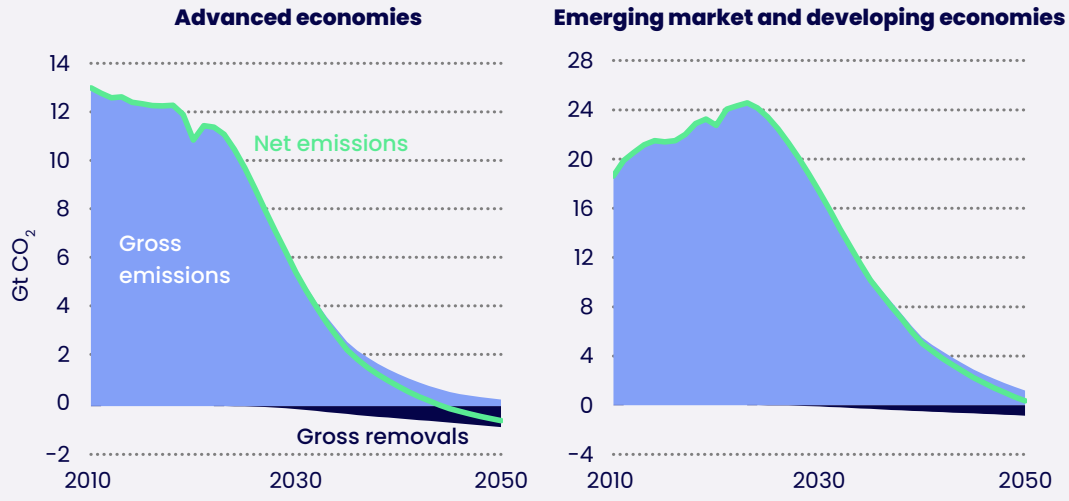
**As such, the EMDE transition, or lack thereof, poses a global systemic risk to institutional investor portfolios. Net zero is a global goal and cannot be met regionally; systemic financial risks posed by climate change can only be mitigated if EMDEs decarbonise too.**

Institutional investors are increasingly aware of the need to mobilise capital to EMDEs. The speed and orderliness of the transition in EMDEs affects investor portfolios even without direct local investments. It is likely that a substantial proportion of scope 3 emissions, or consumption emissions in Developed Markets (DMs), are produced in EMDEs, given the prevalence of globally integrated supply chains. DM multinationals also have a significant direct presence in EMDEs. For universal owners, the EMDE transition affects the value of portfolios – particularly affecting liabilities to beneficiaries set to retire later in the century.

A focus on reducing financed emissions in pursuit of net zero risks adverse consequences for EMDEs.[2] In pursuing sharp year-on-year emissions reductions, such strategies can inadvertently reduce allocations to EMDEs due to factors including: challenges regarding incorporating differentiated country pathways; more limited climate-related data, and; limited availability of investable opportunities that fit investor requirements in terms of risk adjusted returns, minimum ticket size, and liquidity.

Regarding differentiated country pathways, the principles of 'fair share' and 'Common But Differentiated Responsibilities and Respective Capability' set out in the Paris Agreement mean that DMs are expected to decarbonise faster than EMDEs. Net zero by 2050 is a global average goal; exact pathways differ between regions and sectors. The different pathways for advanced and EMDE markets in the International Energy Agency's Net Zero Emissions scenario (IEA NZE) are outlined in Figure 1. Yet, investors currently lack the tools to integrate this regional differentiation into their strategies, meaning EMDE assets can be inaccurately assessed, risking exclusion from climate-aware funds. This is exacerbated by the need to balance simplification and aggregation at fund or portfolio level with the complexities of assessing multinational corporates with global footprints through a 'fair share' lens.

**Figure 1: Gross emissions and removals, and net emissions by aggregated region in the IEA NZE scenario, 2010-2050[3]**




As a group, advanced economies reach net zero emissions before emerging market and developing economies, and also achieve net negative emissions by 2050. Note: Gt $CO_2$ = gigatonnes of carbon dioxide.

# NZIF 2.0 and the scope of this guidance

**The Net Zero Investment Framework 2.0 ('NZIF 2.0') underlines that a narrow focus on *financed emissions* might have unintended consequences. It focuses on the components of a net zero strategy and transition plan that deliver *real economy decarbonisation* and increase investment in *climate solutions*.**

NZIF 2.0 committed to further work on EMDEs, which this guidance now progresses (for other related work, see Annex 1). This guidance assists investors who are seeking to incorporate EMDE nuances into their net zero investment strategies, consistent with their individual NZIF objectives. It aims to support investors in preventing unintended capital outflows from EMDEs due to net zero investment strategies while also promoting investment in climate solutions in these regions, with consideration of links to scope 3 and value chain-based engagement strategies.

It is recognised that some of the recommendations will be easier for NZIF users to implement using existing resources, while others will require new resources and actions from external actors. **An 'implement or explain' approach is encouraged, consistent with that of NZIF 2.0.**[4] Where actions are currently hard to implement, NZIF users may want to increase their focus on policy and market engagement to address the barriers.

**A note on the 'Just Transition'**

The Intergovernmental Panel on Climate Change (IPCC) defines the Just Transition as 'a set of principles, processes and practices that aim to ensure that no people, workers, places, sectors, countries or regions are left behind in the transition from a high-carbon to a low-carbon economy.' This guidance focuses on the 'macro-level' elements of the just transition; the need to incorporate elements of equity between countries in the transition. Incorporating the 'micro' elements of the just transition – that is, considering the interests of those most affected by and vulnerable to the transition within a specific market - is also important and acute in EMDEs but not covered in detail by this guidance.

# Key considerations

## Defining EMDEs

This guidance considers EMDE investments as investments located in EMDEs. This includes activities in EMDEs by corporates listed in DMs, across assets and value chains.

NZIF users should set and disclose their own definitions for EMDEs, recognising that this will depend on each organisation's unique context. Investors may consider grouping countries with similar characteristics, rather than taking a binary 'EMDE' or 'non-EMDE' approach, in order to:

- Avoid treating EMDEs as one homogeneous group, which can lead to an inflated sense of risk.
- Set more effective strategies that better harness the opportunities present in EMDEs.[5]
- Monitor and evaluate the extent to which finance flows within EMDEs are concentrated within a few markets, and the implications this has for managing climate-related risks.[6, 7]

Characteristics that could be incorporated in country grouping process and potential data sources are highlighted in Annex 2.

Investors may also want to draw on the following public definitions to inform their approach:

- International Energy Agency (IEA): The IEA's Emerging Market definition includes markets outside of the 'Advanced Economy' regional grouping. Note: the IEA Financing Clean Energy Transitions in Emerging and Developing Economies excludes China.
- International Monetary Fund (IMF): The country classification in the IMF's World Economic Outlook of EMDEs is not based on strict criteria and has evolved over time.
- Organisation for Economic Co-operation and Development (OECD): The OECD database tracks countries against a range of indicators. OECD members are listed here.
- World Bank/International Finance Corporation (IFC): The World Bank classifies country groups based on GNI per capita. These are updated periodically.
- UNFCCC: Parties (country groupings) in the UNFCCC process are listed here.

It is recognised that many investors use MSCI Emerging Markets Indexes and J.P. Morgan Emerging Market Bond Index (EMBI) to inform their approaches:

- MSCI focuses on 'emerging markets' over 'developing' or 'frontier' markets. The list can be found here.
- The EMBI are the most widely used emerging market sovereign debt benchmarks.

## Country profiles: data availability

Country profile data availability remains a significant challenge for investment in EMDEs, particularly in assessing net-zero commitments and just transition indicators. Annex 2 highlights key open-source databases; however, it is not an exhaustive list. While data gaps persist, they do not present an insurmountable barrier – alternative approaches such as the use of proxy indicators, engagement with local institutions, and collaboration with regional organisations can help address these limitations. Additionally, enhanced data transparency can be fostered through private-sector initiatives and strategic partnerships, ultimately facilitating more informed investment decisions and strengthening market confidence. Annex 3 maps out data availability across regions globally.

## Summary recommendations

The key recommendations in this guidance are:

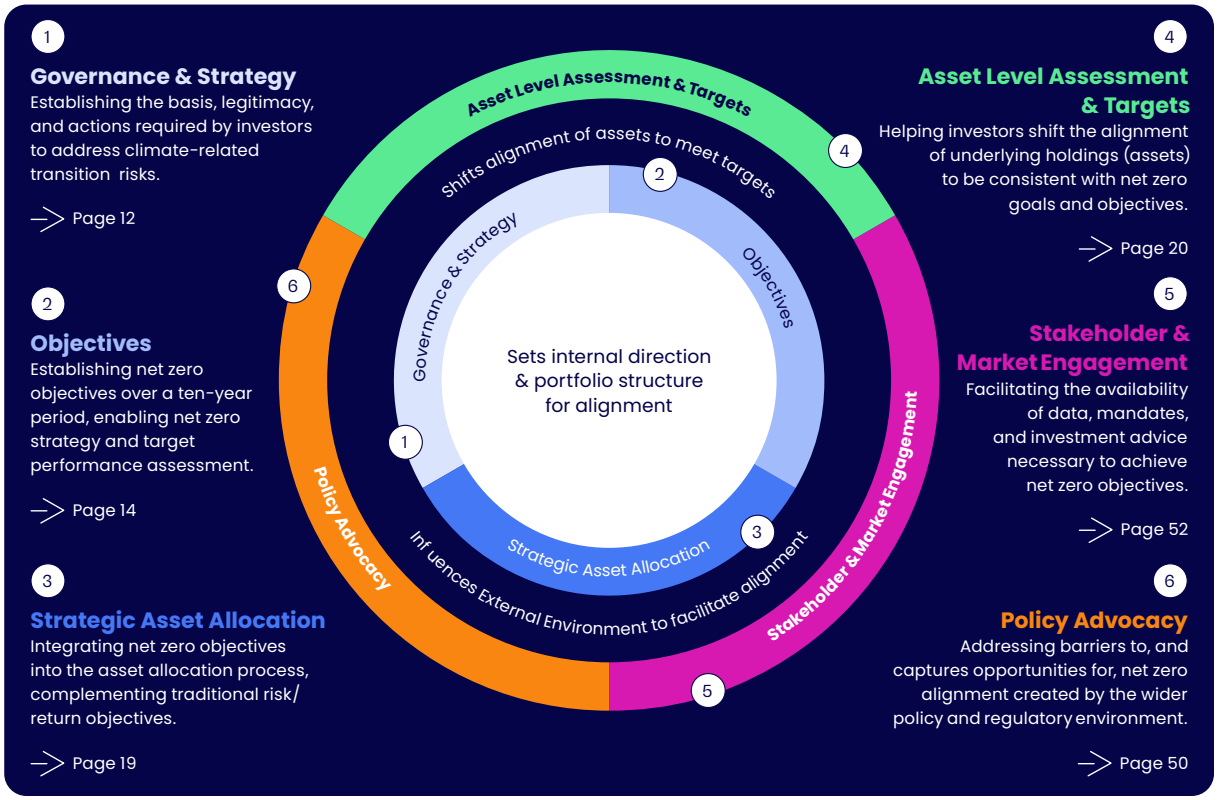
- Incorporate 'fair share' principles and differentiated country pathways into approaches for EMDEs vs. DMs.
- Carefully consider EMDE definition, recognising the heterogeneity of 'EMDEs' as a category.
- Prioritise real economy decarbonisation over financed emissions reductions and consider interdependencies between DM scope 3 and consumption emissions with EMDE activities. Incorporating the costs of inaction and the interconnections between a delayed or failed transition in EMDEs and the resulting physical, financial, and systemic risks is likely to imply a renewed focus on EMDEs even when mandates are concentrated in DMs.
- Disclose EMDE allocations as part of existing climate reporting processes. Where possible, seek to increase allocation to EMDEs where they represent opportunities for achieving greater real-world decarbonisation and investment to climate solutions, aligning with the NZIF 2.0 'STEM emissions' approach.[8]
- Consider providing 'tilts' to companies that lead their peers within regional groupings.
- Update policy and market engagement activities to tailor to EMDE contexts.

# NZIF components

The next section of this guidance outlines EMDE considerations across each component of NZIF 2.0: governance, objectives, strategic asset allocation, asset alignment and targets, policy and market engagement. The NZIF wheel summarises these components, emphasising that each element interacts and there is no hierarchy.

**NZIF users can implement these to the extent possible, embracing an 'implement or explain' approach, and seeking 'good' over 'perfect'. Challenges with implementation feasibility may lead to an increased focus on policy and market engagement, at least in the short term.**

**Figure 2: NZIF 2.0 wheel**

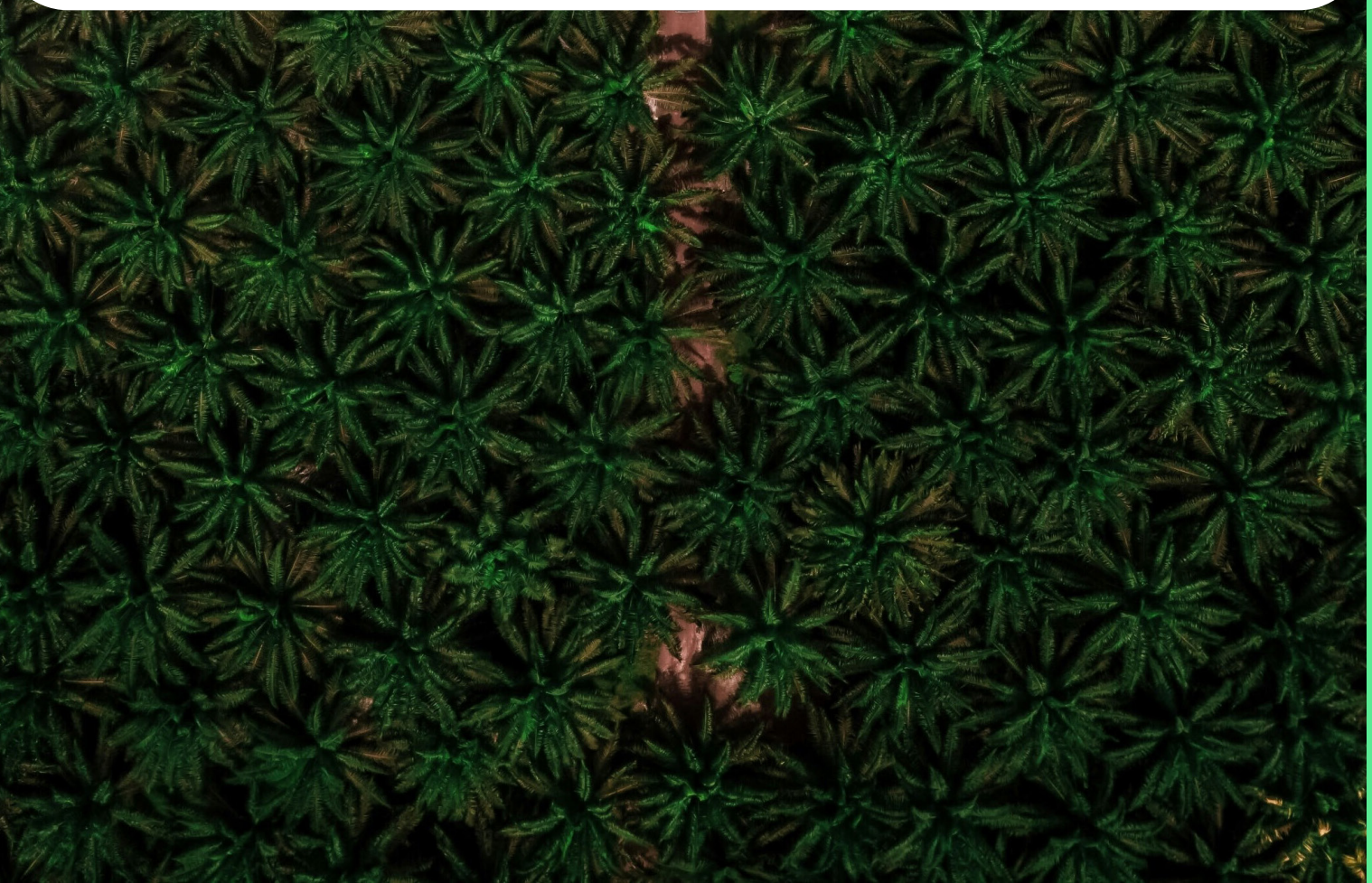



Page numbers refer to the NZIF 2.0 Report

# Governance

Currently, NZIF does not include any EMDE-specific expectations under 'Governance', but most of the recommendations can be approached with a greater EMDE focus. For example, investors can:

- Disclose approach to the EMDE transition recognising its essential role in achieving net zero. Explain any constraints on taking action in this area and actions taken to address these.
- Disclose EMDE allocations and seek to increase these where they represent opportunities for achieving greater real economy decarbonisation and investment toward climate solutions.[9]
- Emphasise the importance of differentiated country pathways and impact on real economy emissions in net zero commitments and set specific EMDE objectives within these.
- Provide training to investment committees and boards on the regional and sectoral net zero pathways required to meet *global average* net zero by 2050 and, the interconnections between a delayed or failed transition in EMDEs and the resulting risks to portfolio.[10]
- **Asset Owners:** Incorporate EMDE considerations into manager selection and monitoring processes where the mandate has exposure to EMDEs (see 'engagement with external fund managers' in 'policy and market engagement' section).
- **Asset Owners:** Where possible and aligning with fiduciary duty, explore opportunities to increase the number of EMDE mandates where these are currently low.
- **Asset Managers:** Educate clients on the importance of EMDEs in achieving real economy decarbonisation and the actual risks of investing in these countries and increase the number of mandates where feasible.



# Objectives

The current EMDE-related expectations in NZIF 2.0 are to:

- Identify financed emissions associated with emerging markets as part of incorporating fair share principles into net zero strategies, and 'STEM' emissions.
- Disclose how targets represent fair share contributions towards global GHG emissions reduction efforts.

The next section of this guidance focuses on explaining 'STEM' emissions in more detail and how this concept can be applied to portfolios. By using 'STEM', asset managers and owners can standardise approaches, helping to increase consistency and comparability in methodologies.

Investors can also consider **re-baselining** as an approach for adding or growing allocations to EMDEs (more details on this approach can be found in NZIF Implementation Guidance, p. 47-49).

## Identifying 'STEM' emissions and disclosing how targets represent fair share contributions

NZIF 2.0 introduces the concept of **'STEM' emissions** - financed emissions associated with climate-related solutions, transition and/or emerging markets investments and recommends identifying and monitoring these specifically as 'STEM' emissions represent avenues for significant real economy emissions reductions and for incorporating fair share principles.

In practice, investors could implement this by:

- Step 1: Identifying financed emissions that are climate solutions or transition finance across DMs and EMDEs separately.
- Step 2: Setting separate portfolio emissions objectives for increasing allocations to climate solutions and transition finance – particularly in emerging markets – over time as a % of total portfolio emissions.
- Step 3: Reporting, tracking and measuring these objectives separately – where possible, through existing reporting requirements.

Figure 3 provides a visual illustration of this approach across a five-year period.

**Figure 3: Monitoring 'STEM' emissions and illustrative change over time**


Such an approach supports investors to integrate regional differentiation into NZIF's recommendations for running **attribution analysis**[11] for emissions reductions, providing a quantitative measure aimed at supporting internal accountability. It enables investors to start incorporating fair share principles by:

- Recognising that while allocations to EMDEs may not reduce emissions in the short to medium term and may still be on the rise, they can play an outsized role in advancing progress toward achieving global net zero goals.
- Avoiding risks of EMDE divestment or systematic exclusion due to data availability and carbon intensity.

To note, care should be taken in identifying and segmenting these financed emissions. They should not include assets that are high-emitting and will not contribute to net zero goals i.e., the ability to transition or the location of the asset is not alone sufficient to categorise their emissions as 'STEM'.[12] Ultimately, the aim of this guidance is to address emissions globally – while ensuring fair share pathways are integrated. EMDEs need to have credible and ambitious targets and strategies for this to happen, and investors can work with other actors to support the development of these (see 'policy and market engagement' section for recommended actions).

## Setting objectives and measuring outcomes (i.e. measuring real economy impact and emissions in an EMDE context)

The objective of STEM emissions is to identify opportunities that may currently have high emissions but ultimately could have an outweighed positive impact on net zero delivery. The approach to regions is analogous with how NZIF identifies the role of high impact material sectors in the transition. It puts real economy transition at the core of investor climate strategies, in contrast to approaches that may incentivise divestment from high carbon assets and EMDE allocations.[13]

Establishing clear and consistent portfolio-level objectives for assessing the real economy transition in EMDEs and DMs alike is complex, recognising that failing to transition is the worst financial, social and development outcome. Different EMDEs will have different capacities to transition at different paces. EMDEs must be supported in developing decarbonisation pathways that align with development objectives while avoiding pathways with high carbon lock in. Low carbon pathways can bring major economic and societal benefits (e.g. health benefits from improved air quality, rural electrification through distributed resources, lower energy bills from more efficient cooling products) but require international efforts to accelerate inflows of capital.[14] It is also recognised that global macroeconomic conditions are a major determinant of overall levels of capital flows to EMDEs.

Examples of approaches, objectives and metrics that may help to incorporate real economy impact at portfolio level include:

- **Integrating fair share principles.** Currently, some of the tools for investors to support the integration of fair share principles are ASCOR (Assessing Sovereign Climate-related Opportunities and Risks),[15] Climate Action Tracker (CAT),[16] Climate Change Performance Index (CCPI)[17] and Transition Pathway Initiative's regional assessments (for some sectors).[18] For Sovereign Bonds, investors can consider incorporating **consumption emissions** (see case study below) into the design of the Portfolio Decarbonisation Reference Objective on a best effort basis.[19] However, more granular tools that consider fair share with a sector view are required to support investor decision-making processes. IIGCC has progressed work on investor expectations for policymakers on sector decarbonisation pathways.[20]
- **Prioritising opportunities that build adaptation and resilience capacity** to respond to climate change impacts.
- **Considering wider impact factors** including affordability, availability, economic growth, sustainability and just transition, for example through the goals of the United Nations Sustainability Development Goals (UN SDGs). Some asset managers already integrate impact metrics due to client requirements, while for others this could be resource intensive. Potential resources include the UN SDG Indicators,[21] the International Finance Corporation (IFC) – Social and Environmental Performance Standards,[22] the Impact Management Project,[23] the Global Impact Investing Network (GIIN) IRIS+ System,[24] the Climate Bonds Initiative – Social Impact Reporting and Climate Bonds Standard,[25] ICMA's Green Bond Principles (GBP) and Social Bond Principles (SBP),[26] the Impact Disclosure Taskforce's Sustainable Development Impact Disclosure (SDID),[27] the European Investment Bank (EIB) – Social Impact Framework and the World Bank – Environmental and Social Framework (ESF).[28]
- **Consideration of forward-looking metrics** such as expected emissions reduction and avoided emissions.

**Figure 4: Case study: PGIM Fixed Income on incorporating consumption emissions**

*"Climate frameworks tend to focus intently on what countries are doing within their own borders and turn a blind eye to their interactions with other countries. At PGIM Fixed Income, we have designed a framework that looks beyond national borders and more comprehensively considers what each country is doing to tackle the global problem we face. To implement this principle into our framework we assess the extent to which a set of key developed countries* are fulfilling their commitment to provide their fair share of the estimated amount of climate finance required by developing countries per year. Less ambition here will further reduce their score, while significant overperformance could potentially provide a boost (which is important for countries with high emissions per capita today, for which the required reduction rate to stay within their carbon budget may be almost impossibly steep).*

*In addition to looking at climate finance, **we also adjust all emissions figures for international trade.** This means that producing countries are not penalized for emissions associated with goods that are consumed elsewhere. For example, a large part of the goods produced in China are consumed by people in the USA. While China profits economically from selling these goods to the USA, the USA benefits from a carbon accounting perspective because the emissions associated with producing the goods fall under China's balance. Given that it is US demand that drives the production of the goods it felt unfair to us to attribute all of the emissions to China. However, it equally felt unfair to attribute all of the emissions to the US because China is profiting from the trade. As a result we share embodied emissions equally between the importer and exporter. A similar logic to the trade adjustments led us to investigate data on the emissions embodied in the fossil fuels that a country exports. We reasoned that, although emissions figures should be adjusted for all goods, exporting a significant amount of fossil fuels meant that some countries were further entrenching reliance on fossil fuels around the world – and profiting immensely while doing so. As a result, where emissions embedded in a country's fossil fuel exports are especially high (scaled of course to a country's size), we make further adjustments to its score on the climate theme."*

*Countries labelled Annex II under the UNFCCC framework.

## Implementation feasibility

NZIF users should embrace and implement the use of 'STEM' emissions to the extent possible. In the short term, the implementation of 'STEM' emissions may be something to aspire to due to challenges with the appropriate identification of assets as DM vs. EMDE and lack of consistent methodologies for climate solutions and particularly transition finance across different types of assets. This could lead to an increased focus on policy and market engagement actions that improve the enabling environment and clearer categorisation. Actions and resources that can help include:

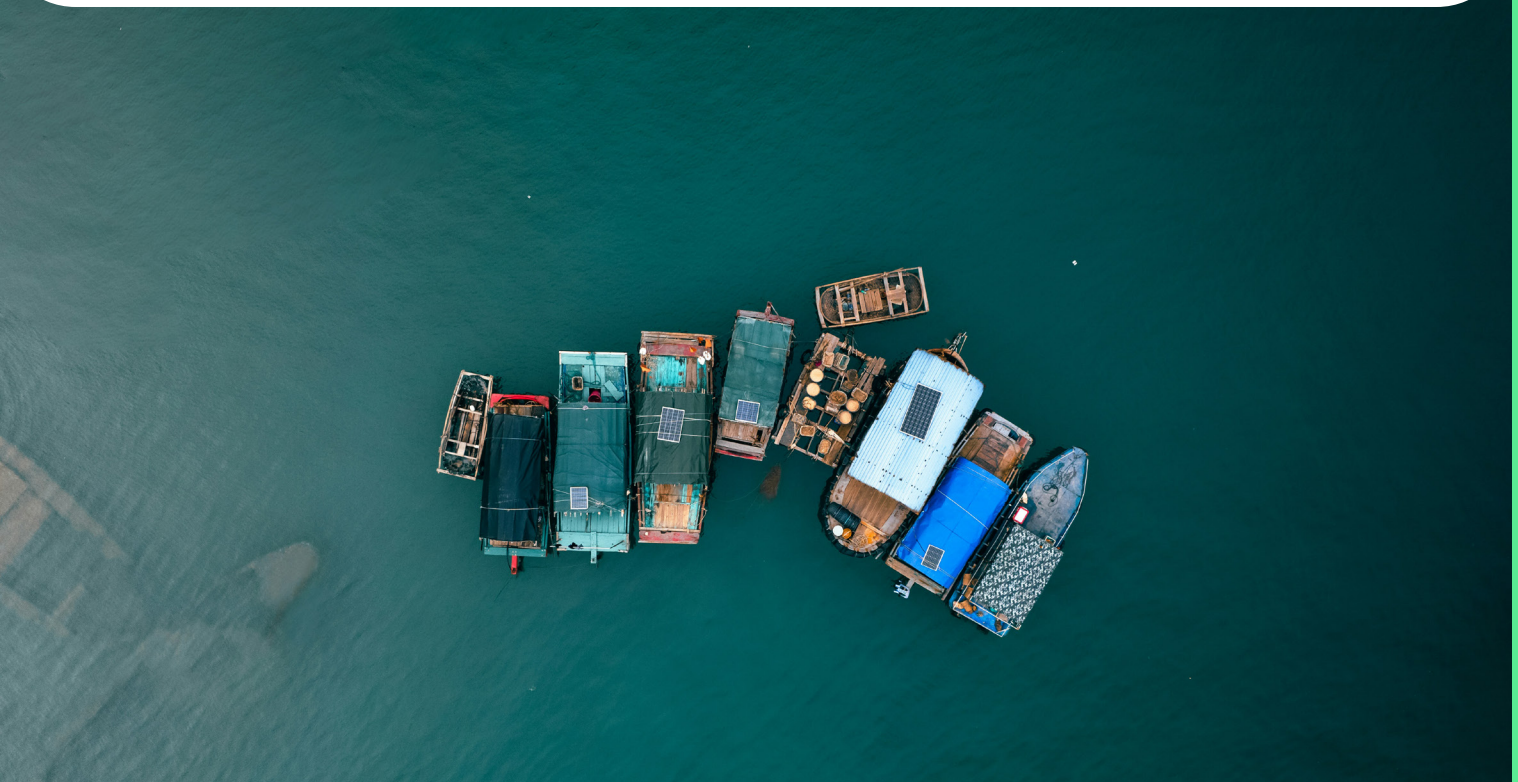
- **IIGCC's Transition Finance paper** explores how to allocate capital to real economy emissions reductions.[29] It outlines the core principles of transition finance as 'intentionality' (the finance has a clear objective to deliver transition outcomes) and 'accountability' (there is a mechanism in place to ensure that outcome is delivered), while recognising that terms are complex and evolving.
- **IIGCC's approach to climate solutions,** 'Investing in climate solutions: IIGCC supplementary guidance', is forthcoming.[30]
- **Engagement with Multilateral Development Banks (MDBs) and Development Finance Institutions (DFIs)** can play a particularly important role in financing climate solutions in EMDEs. According to OECD data, MDBs contributed USD 47 billion out of the USD 116 billion in climate finance counted toward the USD 100 billion goal from their own accounts.[31] Collaborating with MDBs/DFIs and underscoring the need for MDBs/DFIs to shift from an 'originate-to-hold' to 'originate-to-share' model in order to mobilise private capital at scale and enhance the catalytic effect of public finance may be a particularly effective action that NZIF users can take. ILX is an example of an EM vehicle that supports investors in advancing their net zero and decarbonisation strategies. The fund provides institutional investors access to investment opportunities of the Development Finance asset class, by investing in private-sector loans arranged by MDBs and DFIs.[32]

# Strategic Asset Allocation

Regarding Strategic Asset Allocation (SAA), NZIF 2.0 underlines that judgement is necessary to ensure portfolios are not over-exposed to specific risk factors or policy uncertainties, and are well-diversified across regions, technologies, sectors. In an increasingly multipolar world, EMDEs can provide an opportunity for diversification. However, current approaches to SAA are not necessarily suited to expanding EMDE allocations; the cross-cutting nature of EMDEs across traditional asset classes (i.e. EMDEs are not a single asset class), plus wider barriers to EMDE investments combine to make the inclusion of an EMDE climate and development thematic difficult. Investors can create 'sleeves'[33] or 'envelopes'[34] and earmark these to specific EMDE themes to help address this challenge. IIGCC's Strategic Asset Allocation paper includes a specific Emerging Markets case study example.[35] Investors may also want to consider scope 3 and value chain-related risk, and how management of these risks may increase their focus on EMDEs through DM listed assets. Investors can:

- Specify asset class variants using systematic approaches to increase exposure to climate solutions in EMDEs (such as 'emerging markets renewables infrastructure') and reduce EM carbon intensity (for example, through custom benchmarks, climate-tilted indices).
- Apply an EMDE 'lens' to climate scenario analysis and engage with consultants and data providers to continuously improve tools. Consider scenario analysis focused on systemic risk over asset level risk, incorporating the costs of inaction and the interconnections between a delayed or failed transition in EMDEs and the resulting physical, financial, and systemic risks.
- Embrace use and reporting of segregated benchmarks over global benchmarks to fully incorporate fair share pathways and different contexts, while ensuring that the benchmark is still able to capture market performance.[36] This helps to avoid risks of divestment due to data availability and carbon intensity.
- Where feasible, aim to develop alternative indices for EMDE strategies that mitigate the over-concentration found in traditional indices, which can be limited to a few markets.

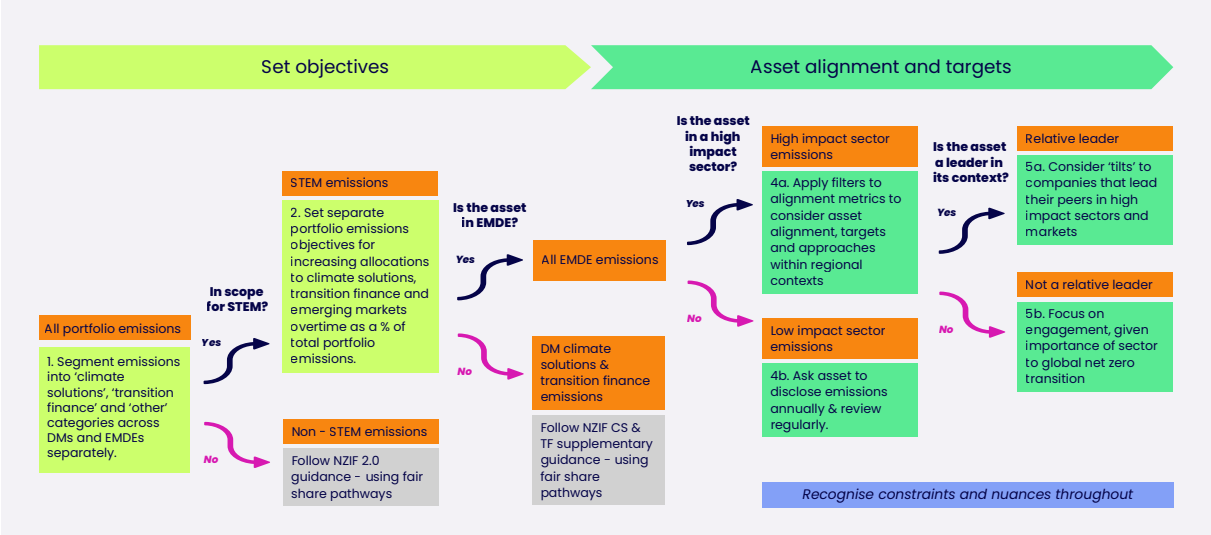
The implementation of these recommendations can be resource intensive. Where barriers exist, NZIF users may choose to focus efforts on engagement with consultants and data providers to develop the necessary tools.



# Asset level assessment and targets

Across DM and EMDE markets, NZIF 2.0 encourages investors to consider the baseline alignment, targets and approaches that incorporate **country-specific contexts and fair share pathways.**

**Figure 5: Flow diagram illustration of how separate asset level assessments and targets continue on from separate EMDE objective setting (i.e. NZIF 'objectives section' to NZIF 'asset level assessment and targets section')**




As outlined in Figure 5, investors can:

1. **Take different approaches for high and low impact sectors,** aligning with the NZIF approach.

This helps to keep reporting and disclosure expectations proportionate; a key consideration in EMDEs where capacity and resources can be limited, especially among SMEs relevant to portfolio supply chains. For example, an approach for monitoring EMDE assets in low impact sectors could be asking them to disclose emissions annually and engage their supply chain/scope 3 emissions, with regular review. Investors can refer to 'NZIF high impact material and material impact sector mapping' to support definitions of high and low impact sectors.

2. **Incorporate metrics for high impact sectors** to consider asset alignment, targets and approaches within regional contexts, embracing complexity and nuance.

For high impact sectors, NZIF uses a set of 10 criteria to assess assets, but only a subset to determine alignment. The subset differs across each asset class due to specificities and whether assets are in high impact material sectors. NZIF also recognises that for regions, while the criteria are the same, the starting points and metrics for improvement may vary.

Investors can determine and disclose which of the NZIF metrics are most useful for assessing the relative progress of EMDE assets and may also want to replace or compliment these with other metrics, for example from ASCOR, the EU's Sustainable Finance Disclosure Regulation (SFDR), or the UK's Sustainability Disclosure Requirements (SDR). Embracing complexity and nuance is key, recognising that some EMDEs outpace DMs in terms of climate action plans and wider sustainability and resilience goals. Some EMDE assets have access to resources and capacity that mirror those of DMs. Ultimately, the aim is to incentivise climate action and reduce climate-related financial risks globally.

An example of how investors may adapt the NZIF criteria to an EMDE context is outlined in Figure 6, taken from IIGCC's sovereigns guidance.

**Figure 6: NZIF alignment for sovereigns[37]**

| | NZIF Criteria | Definition | Criteria adjusted for EMDEs -> 'Fair share' considerations |
|---|---|---|---|
| Determining criteria | **1. Ambition** | **A long term goal consistent with the global goal of achieving net zero by 2050,** as well as interim goals and targets that are coherent with it (NDCs absolute emissions targets). | Medium term goals may be acceptable. Alignment with a 2-degree scenarios or reaching Net Zero post 2050 may be acceptable. |
| | **2. Targets** | **Science-based short- and medium-term emissions reduction targets aligned with global net zero goals.** These are typically set at the production emissions level (scope 1) and should be consistent with the Paris Agreement (NDCs). | Consider ambition in context |
| | **3. Emissions performance** | **Current absolute GHG emissions trend is at least equal to a relevant net zero pathway,** or converging in a manner that is satisfactory. | Fair share pathways are acceptable as benchmark. Increase in absolute emissions may be acceptable in the near-term. |
| | **4. Disclosure of emissions** | **Comprehensive and timely disclosure of emissions** (e.g., data quality, historical data, consumption emissions, LULUCF, etc.) | Consider data quality and ambition in context |
| | **5. Decarbonisation strategy** | **A robust quantified plan setting out the measures that will be deployed to deliver GHG targets** (LT-LEDS), and how the sovereign is enacting the policies necessary to deliver against its NDCs. | Consider data quality and ambition in context |
| | **6. Budget/ capital allocation alignment** | A clear demonstration that the **budgeting actions of the country are consistent with achieving global net zero goals.** (e.g., adequate climate budget tagging, an ambitious share of the public budget is green). | Consider data quality and ambition in context |
| Additional | 7. Climate Policy Engagement / Climate finance | A Paris-aligned climate position and alignment of its direct and indirect international lobbying and finance activities | Consider in context |
| | 8. Climate governance | Clear oversight of net zero transition planning linked to delivering targets and transition | Consider in context |
| | 9. Just Transition | Considers the impacts from transitioning to a lower carbon economy on its workers and communities | Consider in context |
| | 10. Climate risk and accounts | Provides disclosures on risks associated with the transition, in issuance legal documentation, other type of sovereign reporting, and incorporates such risks into its financial accounts | Consider in context |

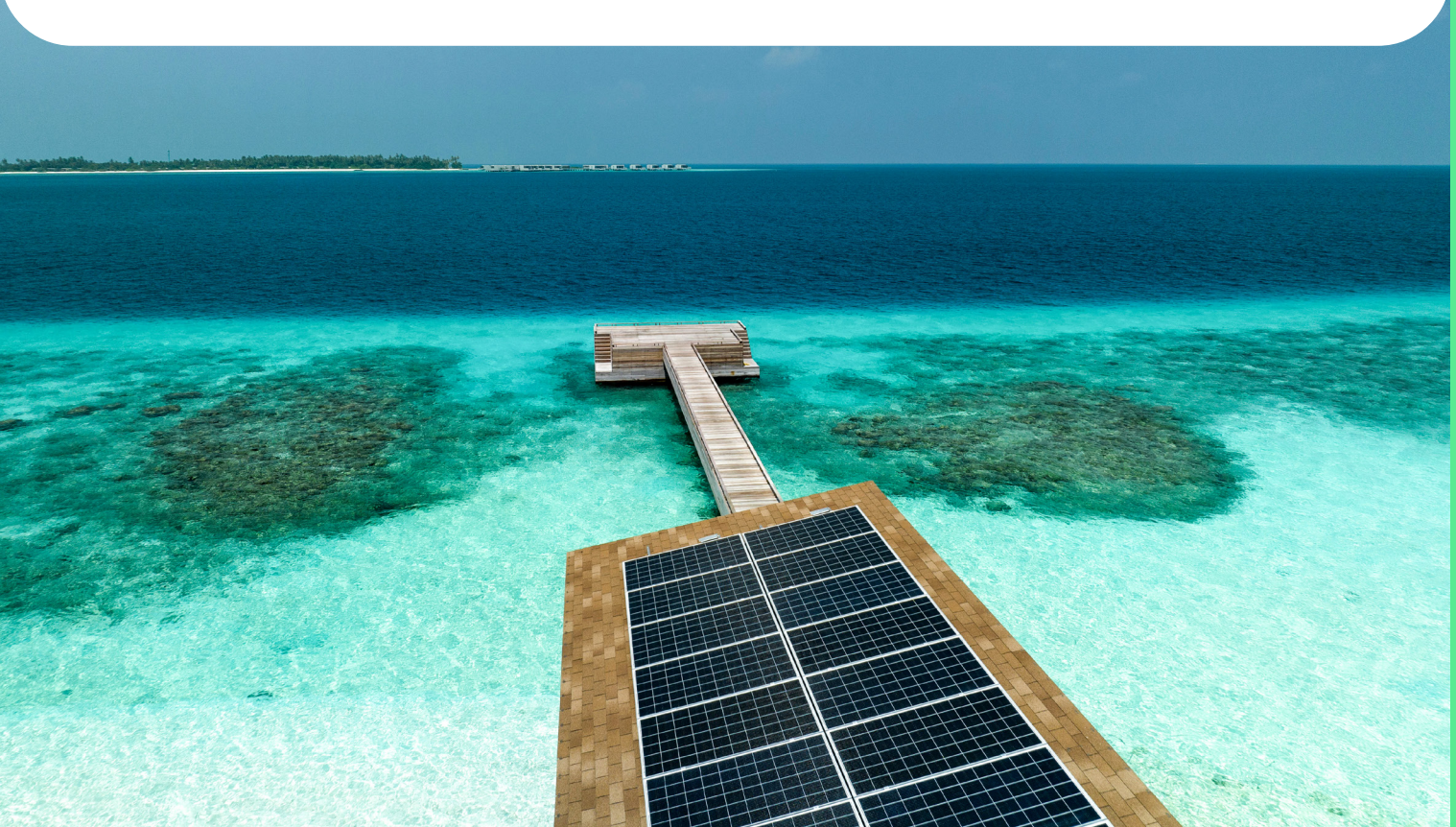
3. **Provide 'tilts' to companies that lead their peers** in high impact sectors and markets.

Investors can group assets by country or income to consider relative progress against the alignment scale within a regional context. They can provide tilts to relative leaders within each grouping, supporting wider progress to global net zero. As outlined in the objectives section, the focus should be on climate solutions and transition finance.

## 'Advanced action points' in NZIF's asset level assessment and targets section

Most of the existing NZIF advanced action points can be approached with a greater EMDE focus:

- Disclose portfolio construction approaches implemented and/or products developed to facilitate allocation to products aligned with net zero objectives in EMDEs:
  - Increase focus on EMDE mandates and/or development of EMDE products tying to the cost of inaction rationale.
  - Consider interdependencies between scope 3 emissions in DM mandates and EMDEs, and steps taken to monitor and manage these.
  - Disclose if/how the strategy adopts an active investment approach focused on improving sustainability performance to address data asymmetry, across all investment strategies.
  - Disclose if/how the strategy adopts a balanced view that does not rely solely on sustainability scoring systems and screening methods.
- Adopt a balanced approach to engagement, stewardship, and/or direct management actions with companies and sovereign entities in EMDEs (including across supply chains).
- Regarding screening and exclusion policies:
  - Develop bespoke approaches to screening in EMDEs, incorporating fair share pathways across all sectors. Where this is not possible, include a preliminary assessment of the impact of various sustainability approaches and policies on EMDE allocations, both in total and for individual countries. Managers should share these results with clients.



## Asset classes

### Figure 7: A summary of the opportunities, challenges and resources for specific asset classes (non-exhaustive)

| | Opportunities | Challenges | Resources |
|---|---|---|---|
| **All asset classes** | **Impact additionality of EMDE investments:**<br>▪ Allocating capital into EMDEs is critical to achieving the Paris Agreement goals. EMDEs account for most current and future emissions growth, and so climate investments have a disproportionate impact. Investors can consider avoided emissions vs. cost, considering the IEA estimates that the average cost of emissions avoidance in EMDEs is around half the level of advanced economies.<br>▪ EMDEs can have lower per capita emissions intensities (despite higher absolute emissions).<br>▪ EMDE investments can support broader adaptation, resilience, and development goals.<br>▪ EMDE investments offer positive externalities benefitting universal shareholders, especially through diversified public market equity holdings.<br>**New opportunities and diversification:**<br>▪ EMDEs offer opportunities for portfolio diversification.<br>▪ EMDEs represent almost all future population growth and urbanisation.<br>▪ New grid infrastructure can be built from the outset for renewable energy integration, avoiding a typical challenge to decarbonisation in DMs (the need to retrofit grids designed for traditional baseload).<br>▪ Many EMDE governments are implementing regulations and policies to support the net-zero transition (subsidies, taxonomies, etc.), and leap-frogging DMs in terms of technological innovation. This is a huge opportunity, especially in green mobility, renewables, agriculture and ensuring rising energy and resource demand is met in sustainable ways.<br>**MDB/DFI/donor government initiatives:**<br>▪ Examples of government and industry collaboration, driving capacity building and awareness of investable opportunities in Denmark (Climate Investment Fund and SDG Fund), Netherlands (ILX Fund), Norway (Norfund-KLP Climate Investment Fund) and UK (recent report 'The UK as a Climate Finance Hub' setting out recommendations for mobilising capital to EMDEs) provide promising avenues for engagement.<br>▪ Flexible sources of capital are seeking ways to expand their ability to mobilise capital. For example, the Climate Investment Funds's (CIF) Capital Markets Mechanism (CCMM) has raised funds in an innovative issuance focused on mobilising finance for climate action and sustainable development. | **Absolute emissions:**<br>▪ In some EMs, absolute emissions are likely to increase in the short term and may be necessary for socioeconomic development (e.g. expanding energy access, medical facilities, transport).<br>**Pathways, data and tools:**<br>▪ Limited availability of country and sector specific pathways across all asset classes that incorporate fair share principles.<br>▪ Most climate standards, expectations and guidance are still DM specific. Different approaches are required for EMDEs (e.g. for agriculture and forestry).<br>**Data availability:**<br>▪ Compared to DMs, investable opportunities in EMDEs can face issues with relatively scarce historical data on key investment metrics, including past return performance, default rates, recovery rates, and asset correlations. Although this varies across asset classes, it can pose a barrier for risk assessment and investment decision-making.<br>▪ Data gaps remain when it comes to awareness of available investable opportunities in EMDEs.<br>▪ Poor provision of data and limited information that Credit Rating Agencies (CRAs) can use to calibrate their own models, can affect ratings and assessment of risk.<br>**Policy and supply chain barriers:**<br>▪ The technologies required for decarbonisation pathways pursued in DMs (and some EMDEs) are not always commercially viable in other EMDEs. A supportive enabling policy and regulatory environment is key.<br>▪ Companies (including SMEs in the supply chain) can be reliant on grid decarbonisation to reduce scope 3 emissions. Grid decarbonisation alongside expansion to meet growing consumption requires collaboration and investment from multiple actors.<br>**Knowledge/behavioural:**<br>▪ Investors can exhibit conservatism bias away from investments in EMDEs, due to a lack of knowledge and familiarity. (ODI)<br>▪ Investors may lack the capacity to develop an understanding of specific country contexts and available technologies.<br>▪ Knowledge gaps around calculating tools for smaller issuers/ companies and the need for education to address these gaps.<br>**Capacity building:**<br>▪ Some EMDEs face gaps in resources with technical and sectoral expertise in decarbonisation. | ▪ The EU's High Level Expert Group outlines recommendations on scaling EMDE investment.<br>▪ Industry-led report setting out recommendations to UK Government on mobilising institutional investor capital to EMDEs.<br>▪ **Emerging Markets Investment Alliance** enables institutional investors in emerging markets to support good governance, promote sustainable development, and improve investment performance in the governments and companies in which they invest.<br>▪ **Newsletters** are available that raise awareness of investable opportunities and activities across asset classes and markets. Examples include ImpactAlpha - Impact Investing News, Sustainable Finance; Phoenix Capital Group Impact Investment Advisor; Emerging Markets Impact Report - New Private Markets; and the Emerging Markets Investors Alliance Newsletter. |

| | Opportunities | Challenges | Resources |
|---|---|---|---|
| **Listed equity and fixed income** | **Notable capital flows into public EMDE markets:**<br>▪ Growing issuance of listed assets in EMDEs. Over the past six years, EMDE corporate and sovereign bond issuance surpassed USD 3 trillion. Total stock of outstanding bonds (face value) exceeded USD 4 trillion at the end of 2023. (IIGCC, The UK as a Climate Finance Hub)<br>▪ For fixed income, there is scope to get exposure to EMDEs through Sovereign bonds, Quasis/State-Owned Enterprises and then EMDE corporations.<br>**Indices/Benchmarks:**<br>▪ There are emerging index/benchmark solutions that integrate climate criteria based on leading/best-in-class companies within a sector. A similar approach can be used in EMDEs.<br>**Labelled bonds**<br>▪ Labelled bonds provide an accessible investment option for institutional investors. Efforts to address greenwashing concerns have increased.<br>**Stewardship:**<br>▪ Long-term, well-structured engagements in multinational corporates with presence and/or integrated value chains across EMDEs can be effective. | **Indices/Benchmarks:**<br>▪ Reliance on indices/benchmarks that reflect market concentration. As of September 2024, MSCI Emerging Markets Index allocates 81% to five countries: China (28%), India (20%), Taiwan (18%), South Korea (10%), Brazil (5%).<br>▪ One could argue that no existing public market aggregate index adequately tracks assets that align with the UN SDGs and the Paris Agreement in EMDEs.<br>▪ Paris Aligned Benchmarks (PABs) fail to account for fair share principles and risk diverting investment from EMDEs.<br>**Pathways:**<br>▪ The lack of granularity in decarbonisation pathways across regions and sectors makes it challenging to assess multinational corporations with global footprints.<br>**Stewardship:**<br>▪ Across DMs and EMDEs, controlling shareholders can constrain the impact of engagement and voting approaches.<br>▪ Effective stewardship requires a commitment to long-term engagement with management teams and an understanding of the local context, which is resource intensive for both investors and the EMDE companies. | ▪ **International Capital Market Association (ICMA)** promotes the development of the international capital and securities markets, pioneering the rules, principles and recommendations which have laid the foundations for their successful operation.<br>▪ **Climate Bonds Initiative** supports partners to develop a large and liquid Green and Climate Bonds Market that helps drive down the cost of capital for climate projects in EMDEs; grow aggregation mechanisms for fragmented sectors; and support governments seeking to tap debt capital markets.<br>▪ **Climate Action 100+** and the **Net Zero Engagement Initiative** provide platforms for investors to engage companies. |
| **Sovereign bonds** | **Increasing innovation and opportunities:**<br>▪ Increased issuance of labelled bonds (Use of Proceeds and Sustainability-Linked Bonds linked to GHG performance) at sovereign and multilateral level.<br>▪ More local government/municipality bonds create opportunities for localised issues.<br>▪ There are opportunities to increase focus on creating 'investable Nationally Determined Contributions and Long-Term Strategies' (NDCs and LTS).<br>**Collaboration between investors, governments and MDBs:**<br>▪ 'Country platforms' and other initiatives offer opportunities for institutional investors to partner with MDBs, DFIs and policymakers.<br>▪ Debt restructuring can offer opportunities to align economic and climate goals.<br>▪ Collaboration between partners creates opportunities to incorporate social inclusion aspects and just transition.<br>**Data:**<br>▪ Available resources are increasing (see 'Resources' column).<br>**New ideas:**<br>▪ There are new ideas emerging. For example, a new type of bond, a transition linker, could allow investors to hedge risky asset return correlation with national energy transition progression, helping to mitigate the risk of lower returns from 'risky assets' in a disorderly transition while incentivising policy action. | **Limited universe of issuers and limited data availability:**<br>▪ The limited number of issuers and concentrated nature of the market can lead to concentration risks.<br>▪ Limited data availability can make it more challenging to make informed decisions.<br>**Asset Liability Management (ALM) or Liability Driven Investing (LDI) restrictions**<br>▪ A significant portion of sovereign bond portfolios follow ALM or LDI strategies (especially asset owners). These are strategies that seek to ensure that the assets in an investment portfolio are structured to meet future liabilities. This can reduce appetite for 'riskier' EMDE products.<br>**Higher real or perceived risks in EMDEs:**<br>▪ Heightened real and/or perceived sense of social and political risk in some EMDEs.<br>**Data/frameworks:**<br>▪ Limited availability of robust data and reporting systems that incorporate fair share principles create challenges when seeking to align with IIGCC guidance and PCAF recommendations.<br>**Geopolitical and policy uncertainty:**<br>▪ Lack of binding framework around NDCs, which also have ambition and implementation gaps.<br>▪ Policy uncertainty amidst differing world views around the urgency of addressing climate goals. | ▪ IIGCC's Sovereigns Guidance recommends that investors: (1) track and measure financed emissions for sovereign bond holdings, (2) create or endorse methodologies to assess net zero alignment at country (issuer), (3) set net zero alignment objectives and targets and (4) where possible, engage with sovereign issuers and disclose policy engagement actions.<br>▪ Increasing availability of tools for investors to integrate fair share principles at sovereign level include **ASCOR**, **Climate Action Tracker (CAT)**, **Climate Change Performance Index (CCPI)** and **Transition Pathway Initiative's regional assessments** (for some sectors). More details on these tools can be found in IIGCC's Sovereigns Guidance.<br>▪ **International Capital Market Association (ICMA)** promotes the development of the international capital and securities markets, pioneering the rules, principles and recommendations which have laid the foundations for their successful operation. |

| | Opportunities | Challenges | Resources |
|---|---|---|---|
| **Private markets and real assets (real estate/ infra-structure)** | **EMDEs present opportunities for:**<br>▪ Expanding collaboration with more flexible sources of capital.<br>▪ Potential for yield pickup and premium, if the risk/return is understood.<br>▪ Historical performance: in recent years, EMDE credit infrastructure performance has been strong, with low default rates, high recovery rates and only marginally higher loss rates when compared to developed markets, whilst delivering a substantial return premium. (IIGCC report to UK government) (Global Emerging Markets Risk Database Consortium 2024)<br>**Private markets offer opportunities for flexibility and impact:**<br>▪ More influence with investees means investors can move quickly and have greater potential for impact than listed assets.<br>▪ Greater access to smaller projects.<br>▪ Potentially greater access and impact in innovation and disruptive technologies that can aid the transition.<br>**Private finance models:**<br>▪ Increasing emergence of private financing solutions that are scalable, for example because they leverage the MDB's originate-to-share financing model (e.g., ILX, FinnFund).<br>**Place-based opportunities:**<br>▪ By 2030, global floor area is expected to increase by around 15%, equivalent to the entire built floor area of North America today. Around 80% of this floor area growth is expected to be in EMDEs.<br>▪ There are particular place-based opportunities in this asset class, that can be aligned with other sustainable outcomes (e.g. affordable housing/energy). For example, Phoenix participated in a World Bank project to boost affordable housing in Panama.<br>▪ Cities and sub-sovereigns' action and investments in sustainable real estate, transport, nature-based solutions and other infra-related sectors create opportunities.<br>**Promising signals:**<br>▪ There has been an increased interest in sustainability and climate-aware metrics for real estate.<br>▪ AI could facilitate access and availability of data – including both transition and physical risk assessments, early warning and supply change mapping dependencies, among others. (Environmental Finance)<br>▪ Certifications are a useful tool. | **Incentives vs. cost:**<br>▪ Commercial implications of decarbonisation costs.<br>▪ Competing priorities – particularly for less carbon intensive assets that may have higher relative risk/opportunities in other regions – may reduce EMDEs as a priority. Real estate in EMDEs is often not a priority despite floor growth.<br>▪ Starting points can be at an earlier stage, as private placements can be strategically motivated to avoid ambitious targets and climate scrutiny.<br>**In-country capacity:**<br>▪ There can be limited availability of expertise, technology and climate solutions in EMDEs, including across in-country supply chains.<br>**Policy ambition and framework gaps:**<br>▪ Geopolitical uncertainty increases risk.<br>▪ Policy constraints to realising decarbonisation pathways creates challenges.<br>**AI**<br>▪ Opportunities and challenges around AI and data centres are at an early stage of understanding. As such there is risk that AI exacerbates conservatism biases, false data issues and emissions consumption.<br>**Investable pipeline:**<br>▪ In some EMDEs, there are limited opportunities that meet institutional investor needs: size, access, liquidity, risk diversification, track record, risk-adjusted return profiles. MDB/DFI opportunities can be small and niche.<br>▪ Insufficient pipeline funding for early-stage development, which is often required before institutional investor involvement. Donor government budgets are constrained. | ▪ **EDGE** is an innovation of IFC. It is a tool to identify the most cost-effective ways to reduce the resource intensity of a building, and an internationally recognised certification system to make it fast and easy to verify resource efficiency. The tool covers EMDEs, including the MENA region.<br>▪ The **Carbon Risk Real Estate Monitor** (CRREM) is the most widely used real estate decarbonisation pathway and tool by investors. Its geographic scope continues to grow and increasingly covers EMDEs in the APAC region.<br>▪ **GRESB** has introduced a new approach to rewarding operational energy efficiency in the Real Estate Standard, aligning with ASHRAE standard and focusing on real world impact.<br>▪ The **Global Emerging Markets Risk Database (GEMs) Consortium** (2024) discloses the default and recovery statistics of investments by DFIs in EMDEs, which could provide information and confidence to the private sector for investing in EMDEs. These findings reveal that investing in certain EMDE assets is less risky than commonly perceived, and that more granular data in the future -including that from private actors - could help build the investment case for EMDE investment with risk and investment committees.<br>▪ **ARISE** provides frameworks and tools for investors to assess city and asset level. |

**A note on nature (cross-cutting theme)**

Nature is still a nascent area. Bespoke and complex public-private finance opportunities are not always attractive to institutional investors. Data transparency and disclosures are a key barrier. Yet, engagement through multinationals can present opportunities for engagement around supply chains. A nature lens also provides opportunities for localised and place-based impacts, as well as bringing together just transition, adaptation and resilience goals with decarbonisation. Platforms such as Nature Action 100 and Finance Sector Deforestation Action (FSDA) provide support for engagement for investors.

# Policy and market engagement

Policy and market engagement to advance decarbonisation efforts in EMDEs can be one of the most effective levers available to investors with DM-concentrated portfolios, recognising that the resilience, value and scope 3 emissions of these portfolios is likely to be highly dependent on globally integrated supply chains with a footprint in EMDEs. DM multinationals also have a significant direct presence in EMDEs.

Investors can implement the following non-exhaustive list of actions to support engagement with EMDEs in the wider ecosystem, whether the portfolio is EMDE or DM-based, or a mix:

### Working with governments and related partners:

- Respond to relevant calls for evidence, calls to action and consultations in bilateral and multilateral fora (e.g. through UNFCCC, G20 finance tracks and membership bodies such as AIGCC, Ceres IGCC, IIGCC, NGFS).[38]
- Advocate for EMDE nuance to be incorporated into DM climate policies and financial regulations (e.g. EU taxonomy, SFDR).
- Advocate national governments increase their focus on private finance mobilisation in MDB/DFI mandates.
- Engage with policymakers to create 'investment-ready' NDCs/national decarbonisation plans, noting need for regional pathways. Where resources allow, work with local EMDE partners and MDBs/DFIs to enhance the in-country policy, regulatory, governance and data environment.
- Disclose and communicate policy engagement actions.

### Engagement with MDBs/DFIs:

- Engage MDBs/DFIs and shareholder governments to enhance the quantity and quality of products that efficiently mobilise institutional investor capital to support global climate finance goals.
- Engage with DFIs to build a deeper understanding of EMDE-related risk and opportunities.
- Collaborate with MDBs/DFIs where there are opportunities to exchange locally based knowledge. Many MDBs have worked extensively with EMDEs to develop country-owned transition plans and pathways, as well as the development of impact metrics that incorporate social and environmental factors.

### Engagement with companies:

- Distinguish between EMDEs and DMs in company engagement strategies, and adopt context-specific approaches, targets, and timelines that reflect an asset's starting point.[39]
  - To address limitations with data availability, initial engagements may focus on governance or 'engagement for information' to improve the quality of data or disclosed practices that build the foundation for future climate engagement.
  - Engagement is a multi-year activity. Goals should iterate and deepen to leverage the relationships built.
- Given the greater reliance on private debt, and smaller equity markets in EMDEs, be conscious that the most effective engagement strategies can vary across asset classes (for example, for private debt see: IIGCC Bondholder Stewardship Guidance[40]).
- Be conscious that factors such as greater ownership concentration – including state-ownership, varied governance structures, or a lack of company-level data – may impact i) engagement prioritisation, and ii) the best avenue to achieve engagement objectives.

- Update screening and voting approaches to incorporate fair share pathways and regional nuance (e.g. lower expectations for TPI management quality and lobbying disclosure for listed companies in EMDEs).[41]
- Develop policy that outlines engagement approach with companies that are reallocating away from EMDEs to align with climate strategies and targets when this does not correlate with real economy decarbonisation.
- Partner with investment consultants and local partners to support on needed areas, such as market-specific knowledge.

### Engagement with external fund managers (EFM):

- Tailor the fund mandate as required and integrate relevant EMDE considerations into EFM selection and appointment process, to provide confidence that the selected EFM has the requisite resources, cultural alignment, and local market knowledge. Consider:
  - Whether the manager has strong stewardship and net zero commitments that differentiate between DM and EMDE pathways, including in voting.
  - Whether the manager has climate stewardship experience in EMDEs, including strong networks, both at micro and macro levels.
  - Whether the manager focuses on engagement with EMDE domestic policy initiatives and MDBs/DFIs, to deepen collaboration on research, challenges and opportunities.
  - Whether the manager uses alignment metrics that focus on real-world decarbonisation.
- Communicate EMDE-specific expectations prior to appointment, and coordinate with EFMs on how they will structure their EMDE company engagement activities; agree the objectives, targets, and reporting structure and frequency.
- Consider any lobbying activities or policy engagement the EFM may undertake in EMDEs, to harness opportunities and gauge any potential misalignment, prior to appointment.
- If typically retaining responsibility for engagement activities when using EFMs, decide whether to adjust the scope of delegated stewardship activities for the EMDE-focused fund (i.e. voting), based on your familiarity with the market.

### Engagement with data providers, index providers, consultants and stock exchanges:

- Engage with data and index providers (commercial and/or free) to incorporate fair share pathways into index construction and 'off the shelf' product offerings on climate-aware standard indexes.
- Advocate for climate-aware benchmarks that do not exclusively focus on current emissions and that consider the nuances of EMDEs.
- Engage data and index providers to develop alternative indices for EMDE strategies that mitigate the over-concentration found in traditional indices, and to develop indices/benchmarks across the full range of asset classes, including private markets in EMDEs.
- Provide better availability of indexes and research on single-market countries' indexes with a climate focus.
- Work with stock exchanges to promote greater disclosure of necessary data.
- Advocate for and support the development of essential investor tools, such as national and sector-level pathways.
- Engage with Credit Rating Agencies on i) how increased data availability can improve 'climate smart' ratings, ii) how credit enhancement mechanisms are factored into the rating process.

# Annex 1: Embedding in other materials

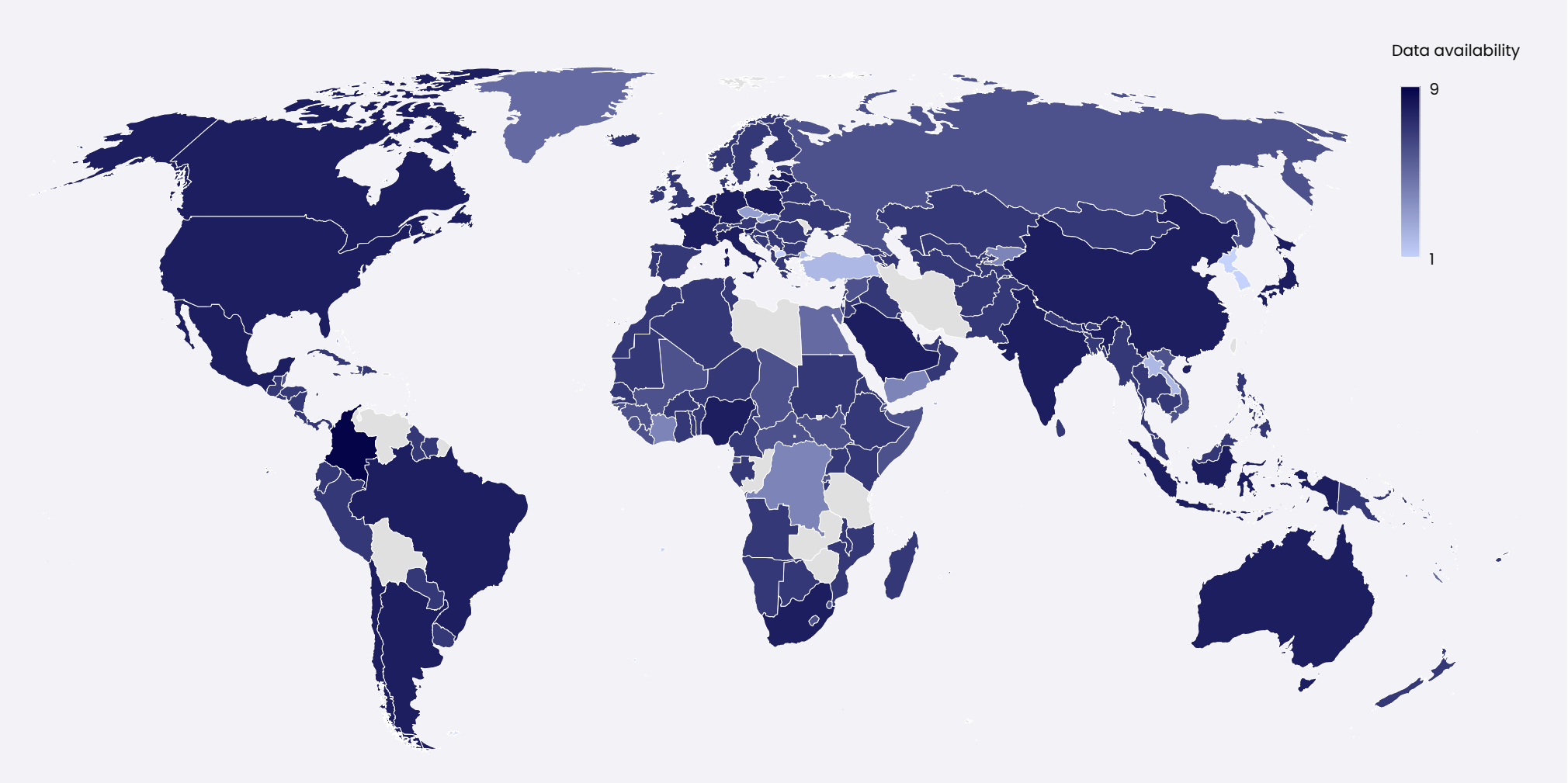
This guidance compliments and builds on existing relevant work from IIGCC and other networks:

| Resource | Summary |
|---|---|
| **The Net Zero Investment Framework 2.0** | ▪ Emphasises net zero by 2050 as an *average* global goal.<br>▪ Stresses the importance of incorporating country pathways and fair share considerations when determining a Portfolio Decarbonisation Reference Objective.<br>▪ Includes recommendations from the IIGCC Sovereign Bonds target setting guidance, which calls for the incorporation of consumption emissions on a best effort basis.<br>▪ Emphasises the consideration of climate solutions, transition finance and emerging markets ('STEM' emissions) in investor portfolios.<br>▪ Highlights the importance of selecting contextually specific decarbonisation pathways and approaches when assessing assets and setting targets. |
| **IIGCC Net Zero Benchmarks paper and Transition Finance paper** | ▪ Aligns with the NZIF 2.0 approach, detailing the unintended consequences of a narrow focus on 'financed emissions'. |
| **IIGCC guidance for policymakers on making investable NDCs** | ▪ Progresses the policy dialogue on investable NDCs from a Developed Market (DM) and EMDE perspective. |
| **IGCC guidance on Mobilising Climate Investment in Emerging Markets** | ▪ Explores EMDE nuance for Australian pension and superannuation funds. |
| **IIGCC-synthesised industry-led report to the UK Government The UK as a Climate Finance Hub: Unlocking capital from institutional investors towards EMDEs** | ▪ Identifies recommendations for UK Government and industry to implement on this topic. |
| **AIGCC** | ▪ AIGCC facilitates investor feedback on the development of climate finance frameworks such as taxonomies, mandatory disclosure, transition planning guidelines as well as mitigation and adaptation-related targets and policies in markets across Asia including Japan, China, Korea, Singapore, Hong Kong, Malaysia, Indonesia, India as well as ASEAN regionally. |

## Annex 2: Characteristics that could be incorporated in country grouping process and potential data sources

| Indicator | | Data Sources | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | World Bank Development Indicators | World Bank Annual Report | World Bank Energy Data | UN Energy Stats | IRENA | ITC Trade Map | IEA (only European countries) | OECD (only OECD countries) | UN SDG data | ASCOR | Additional Data Sources |
| **Country Profile** | GDP | ✓ | ✓ | | | | | | ✓ | | | IMF World Economic Outlook, UN National Accounts |
| | Structure of economy (including energy imports/ exports) | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | IEA World Energy Balances, UN Comtrade, EIA |
| | Political environment/ stability (conflicts) | | | | | | | | ✓ | ✓ | ✓ | EIU Political Stability Index, Freedom House, World Governance Indicators |
| | Governance (qualitative analysis) | ✓ | ✓ | | | ✓ | | | ✓ | | ✓ | WGI, Transparency International Corruption Perceptions Index; EIU Democracy Index |
| | Social stability (government change) | ✓ | ✓ | | | | | | ✓ | | ✓ | Fragile States Index, Global Peace Index, EIU Democracy Index |
| | Market size and accessibility | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | | | WTO Trade Profiles, UNCTAD Trade and Development Report |
| **Emissions Trend** | Historical, current and projected | ✓ | ✓ | ✓ | | | | ✓ | ✓ | | | Climate Watch (WRI), Global Carbon Atlas, IPCC |
| | Energy consumption | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | IEA |
| | Energy access | ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | | IEA Energy Statistics |
| **Policy and planning measures** | Climate tech/ solutions (patent) | | | | | | | | | | | |
| | Government climate actions and measures taken | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | | ✓ | Climate Policy Initiative, Climate Budget Tagging (World Bank, UNDP); Climate Action Tracker |
| | Incorporation of UN Sustainability Development Goals (UN SDGs) | ✓ | ✓ | | ✓ | | | ✓ | ✓ | | ✓ | UN SDG Indicators Database, SDSN Sustainable Development Report |
| | Adaptation | ✓ | ✓ | | | ✓ | | | ✓ | | ✓ | UNEP Emissions Gap Report, UNFCCC Adaptation Communications |
| **Financial flows** | Access to international public and private financial flows | ✓ | ✓ | | | | ✓ | | ✓ | | ✓ | CPI Global Landscape of Climate Finance, Green Climate Fund, OECD Climate Finance Database |
| | Contribution to overseas financial flows | ✓ | ✓ | | | ✓ | ✓ | | ✓ | | ✓ | AidData, OECD Development Assistance Committee (DAC) |

## Annex 3: Data availability across regions




**Method note:** IIGCC has developed the heat map in Annex 3 to illustrate the frequency of country-level data availability across key open-source databases. Data was sourced from the World Bank Development Indicators, World Bank Annual Report, World Bank Energy Data, UN Energy Statistics, IRENA, ITC Trade Map, ILO, OECD, and ASCOR. Countries were ranked based on the number of times they appeared across these sources, with darker shades indicating higher data availability and lighter shades representing limited reporting, highlighting disparities in data accessibility across different regions.

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3 IEA, Net Zero Roadmap A Global Pathway to Keep the 1.5 °C Goal in Reach (2023 update), p. 6.

4 IIGCC, Net Zero Investment Framework (2024), p. 8.

5 Tailored strategies recognise that decarbonisation challenges vary by EMDE market and thus require different solutions.

6 Finance flows to EMDEs are currently highly concentrated in a few markets, which may exacerbate the challenge for progress towards global net zero.

7 Pensions for Purpose, Real-world impact in emerging markets – an asset owner perspective (2024), delves into the benefits of a more nuanced approach to defining EMDEs.

8 This expectation reflects that currently it can be hard to understand how much most asset owners allocate to EMDEs as a % of AUM.

9 This expectation reflects that currently it can be hard to understand how much most asset owners allocate to EMDEs as a % of AUM.

10 When setting net zero goals and objectives, NZIF continues to recommend the IPCC 1.5°C Special Report, the IEA's Net Zero by 2050 roadmap and the One Earth Climate Model. These global net zero pathways are consistent with global carbon emissions reaching net zero by 2050, with low or no overshoot, and thus providing a sufficient probability of limiting warming to 1.5°C. See NZIF, p. 11.

11 IIGCC, NZIF: Implementation Guidance for Objectives and Targets (2024), p. 43.

12 More information on 'STEM' emissions is available in the Net Zero Investment Framework 2.0, p. 17.

13 As a general rule, NZIF does not recommend divestment from secondary equity markets as an approach to drive alignment in individual portfolios. IIGCC, NZIF (2024), p. 24. See also 'Emissions-intensive asset exits: A Universal Owner Perspective on Sales and Managed Closures' (IGCC. 2023c), for more information on how investors can act to alleviate potential and unintended negative consequences from the sale of emissions intensive assets.

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34 CDPQ, Climate Strategy (2021).

35 IIGCC, Strategic Asset Allocation: How are investors developing climate aware models? (2025).

36 The more tailor-made benchmarks become, the more closely they resemble specific portfolios and as such lose their ability to compare a portfolio's return against the relevant market/investment universe. Investors need to balance the need for segregated benchmarks with maintaining an ability to measure performance against the wider market performance.

37 IIGCC, Sovereign bond target setting and implementation guidance (2024), p. 13.

38 AIGCC facilitates investor feedback on the development of climate finance frameworks such as taxonomies, mandatory disclosure, transition planning guidelines as well as mitigation and adaptation-related targets and policies in markets across Asia including Japan, China, Korea, Singapore, Hong Kong, Malaysia, Indonesia, India as well as ASEAN regionally.

39 Refer to AIGCC and PRI's Asia Engagement Guide (2022) for more information.

40 IIGCC, Net Zero Bondholder Stewardship Guidance (2023).

41 LSE/TPI, How can climate assessment tools support investment in emerging markets? (2024) explores the differences with assessing EM corporates.

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