MUSHTAQ KAPASI

International Capital Market Association

Asia's Sustainable Finance

Introduction

If we accept the scientific evidence that human societies have accelerated climate change, and that the effects on our planet may be wide-ranging and unpredictable, then we must invest to transform our economies to mitigate these effects and also invest to protect the places where we live. The amount of investment required in Asian emerging markets for climate mitigation and adaptation has been estimated as USD1.1 trillion per year. The financial markets have an important role to play to help source and channel capital investment for environmental and social benefit.

ICMA Principles and the Sustainable Bond Market

The International Capital Market Association (ICMA) has been at the forefront of global sustainable finance, with the introduction of the first set of widely used market guidance for financial products dedicated to sustainability. These are the Green Bond Principles (GBP), introduced in 2014, followed more recently by the Social Bond, Sustainability Bond, and Sustainability-Linked Bond Principles. The Green, Social, and Sustainability Bond Principles are based on use of proceeds – in other words, the money raised through these bonds must be directed towards sustainable ends. The Sustainability-Linked Bond Principles (SLBP), by contrast, allow use of proceeds for any purpose, but require an issuer such as a company or a government to set ambitious sustainability metrics and targets, and link the economic payments on the bond to the issuer's progress toward these concrete sustainable goals.

It is worth noting that national and regional market standards such as the ASEAN Green Bond Standards and China GBP both align with ICMA's GBP in terms of their use of proceeds approach and issuance processes.

The two sets of Principles together now serve as the foundation for 97% of the volume of all bonds labelled as "sustainable" worldwide – a total of USD4.6 trillion in issuance (excluding certain Chinese and United States [US] municipal issuances). Approximately USD1 trillion of this total has come from Asia, with USD200 billion last year.

This is considerable progress, but the volumes are still small compared to the total amount of financing needed, not to mention the size of the global fixed income securities market which is USD140 trillion. We also must admit that a large amount of financing, not only in the public bond markets but also in private markets, continues to go toward the fossil fuel and other carbon-heavy industries. Also, though beyond the scope of this article, it may be argued that governments continue to subsidize fossil fuels through inefficient pricing mechanisms as well as undercounting of environmental costs.

Focusing on the debt capital markets, ICMA research has shown that in recent years 10-15% of bonds by volume from Asian issuers are offered internationally, that is, outside the domestic markets, compared to 30-40% of bonds globally. But if we examine the international bonds from Asia, we find that more than 21% of these bonds by volume were sustainable in 2024, compared to 9% of international bonds from all issuers globally. This means that the international capital markets in Asia still have room to grow, and that Asian sustainable finance products are especially sought-after by international investors.

Sustainable Finance in Asia

Of course, Asia is vast and diverse with 4.8 billion people (and 59% of the world's population), and a multitude of markets at all points in the spectrum of development. But it is possible to note some regional characteristics. Asia has greater population density, more coastal megacities, more dependence on agriculture, and therefore more potential physical risk from typhoons, droughts, and floods brought on by climate change. At the same time, Asia's energy supply relies far more on coal than other regions: about 50% for Asia compared to less than 30% globally, and much of this from younger plants in China and ASEAN. Asia also has a much larger emerging middle class, forecasted to grow from 2 billion to 3.5 billion during this decade, which means that efforts to reduce carbon emissions must be balanced against economic development and the eradication of poverty. Indeed, we see that in the sustainable bond markets, Asia issuance is more weighted towards social and sustainability (combining social and green) bonds, with more than 50% of Asian sustainable bonds either fully or partially dedicated to social investment, compared to less than 25% globally.

Overall, this has led to a more pragmatic, yet persistent approach to sustainable finance in Asia, where the questions tend to be less about what is green and what is not green, and more about how to reach our climate goals in the most efficient and realistic way possible.

Transition Finance and Related Guidance from ICMA

This is the idea behind transition finance, which seeks not only to provide capital for companies and projects that are *already* green, but to enable companies and industries to become green. Indeed, it is mostly in Asia where transition finance has first taken off and where we have seen much of the innovation that is now driving global growth in the sector.

ICMA's Climate Transition Finance Handbook (CTFH), first published in December 2020, was arguably ahead of its time in recommending minimum suggested steps and standards for sustainable finance issuers to take in order to demonstrate a robust and credible climate transition strategy.

ICMA's transition handbook provides guidance for issuers on raising funds for climate transition-related purposes. The handbook makes four key recommendations:

1. **Climate transition strategy and governance:** The issuer should have a clear and ambitious corporate strategy to reduce climate change risks and have clear governance structures to monitor this strategy.

2. **Environmental materiality:** The climate transition strategy should focus on the issuer's core business activities, especially those related to greenhouse gas emissions.

3. **Science-based targets:** The issuer's climate transition strategy and emission reduction targets should be demonstrably aligned to the objectives of the Paris Agreement.

4. **Transparency in implementation:** Issuers should ensure clear disclosures about their climate transition plans, notably on how funds will be used both for capital investment and operational expenses.

The ICMA transition handbook was updated in 2023 to include guidance on Scope 3 emissions reporting, science-based emissions reduction trajectories, and alignment with well-below-2°C scenarios. It also provides details on carbon cost assumptions, phase-out plans for carbon-intensive activities, and disclosures regarding locked-in emissions, all highly relevant for Asian economies.

The CTFH not only recommends robust governance frameworks around transition planning but also recommends external reviews assessing the credibility of the entity's climate strategy and targets, for example sustainable bond second party opinions.

Since developing a proper transition strategy and ensuring proper implementation may require additional resources, it is legitimate to question whether the benefits outweigh these costs. Each company must consider this in terms of its own operations and markets in which it conducts business. But in most Asian jurisdictions, where the national policy is clearly moving toward decarbonization and climate transition, the capital markets are encouraged to invest in transition-friendly companies and projects. Therefore, as ICMA recommended in the 2024 report "Transition Finance in the Debt Capital Market," there is clearly a benefit for issuers to align their strategy accordingly while early movers can drive competitive advantage from this growing trend.

Also, over the last couple of years we have seen tremendous growth in the resources available to both financial and non-financial companies for transition planning. The regional multilateral development banks have been active especially to advise smaller Asian banks keen to expand their investor base through sustainable finance. Climate consultancies and reviewers have become more numerous and sophisticated. And many jurisdictions including Japan have moved beyond high-level transition frameworks to develop more detailed practical guidance by sector to implement transition strategies.

The CTFH is particularly suited for companies in carbon-intensive sectors, which would normally face some reputational risk when issuing labeled green or sustainable bonds because of the nature of their core business. The additional transparency recommended by the CTFH can help these companies demonstrate to the market that they are on a valid transition trajectory.

In fact, the CTFH may be applied to various sustainable finance debt products that support climate transition. ICMA's guidance considers transition to be a potential theme applied to both use-of-proceeds and sustainability-linked bonds and also recognizes that issuers may also wish to apply a label of "transition bond" to certain transactions.

As of end 2024, over USD30 billion have been raised through transition-labeled bonds, roughly half of which were issued by Japanese issuers, including the Japanese government. Issuers of labeled transition bonds ranged across several sectors, including aviation, automotive, and financial. Proceeds from the transition bond issuances have funded, for example, electric vehicle research and development, decarbonization of in-factory power generation, and upgrading to fuel-efficient aircraft.

Transition Finance Guidance in Japan

Japan has been a global leader in producing tangible initiatives to build a financial ecosystem around climate transition. The CTFH served as an inspiration and model for Japan's Basic Guidelines on Climate Transition Finance (2021), the jurisdiction's first official guidance acknowledging the transition label. Jointly published by the Japan Financial Services Agency (FSA), Ministry of Economy, Trade and Industry (METI), and Ministry of the Environment, the guidelines – just like the CTFH – focus on organization-level disclosures and strategies.

Accompanying the guidance are sectoral roadmaps for industries with high greenhouse gas emissions. These include strategic steps and potential technologies together with timelines to reach carbon neutrality by 2050. Following these, Japan published its Transition Finance Follow-up Guidance (2023), which highlights ways for investors and companies to continue an honest and structured dialogue to help ensure that climate goals can be met and that strategies can be adapted as necessary. In the same year, Japan released its Climate Transition Bond Framework – in line with ICMA's GBP and CTFH – and established the Green Transformation (GX) Acceleration Agency, a first of its kind globally, to help coordinate both public and private sector transition finance efforts.

Market Integrity

As the sustainable finance market has evolved from niche to mainstream, preserving market integrity has become a concern in all markets including Asia. Unfortunately, the term "greenwashing" can mean different things to different people. ICMA proposes a focused definition of greenwashing that could help identify, quantify, and regulate it: "For financial regulatory purposes, greenwashing is a misrepresentation of the sustainability characteristics of a financial product and/or of the sustainable commitments and/or achievements of an issuer that is either intentional or due to gross negligence."

For the green bond market, ICMA argues that the GBP have effectively allayed these concerns. In fact, ICMA research suggests that controversies over greenwashing are very uncommon in the green bond markets, where the bonds' allocations have usually been made to traditional pure green sectors with a high level of transparency on the ultimate use of funds. In the sustainability-linked bond market, an ICMA study of 100 issuances from 2022-2023 did show a higher prevalence of controversy related to the perceived materiality and ambition of targets.

With both types of bonds, though, the risk of exaggeration or misrepresentation related to sustainability is highly mitigated by the presence of multiple stakeholders. In particular, the bond arrangers, investors, and external reviewers all serve as a useful check to make sure that claims of sustainability are truthful and legitimate. On the other hand, the most serious and rare cases of greenwashing have involved either fraud or negligence in terms of a specific product such as a fund, or a claim about a sustainable strategy such as alignment with a net zero pathway.

Official sector guidance or regulations that require or encourage corporate sustainability reporting can help investors evaluate whether sustainable bond issuances are consistent with an issuer's wider transition strategy. In particular, disclosure of transition plans can enable investors and other stakeholders to assess whether a transition-themed green bond or SLB issuance is consistent with an issuer's wider transition strategy.

Several Asian regulators have issued guidance to the market in an effort to address greenwashing concerns. Some of this guidance has been more general or indirect, and some has been focused on a particular product.

For the sustainable fund market – in the absence of international industry standards – there are several regulatory initiatives under way to promote market integrity. The International Organization of Securities Commissions (IOSCO) recommends that regulators and policymakers provide additional requirements or guidance on product-level disclosures and practices that would cover the naming of products, investment objectives, and investment strategies or guidance on product-level disclosures and practices. In 2025, ICMA published a report called "A time for change in the sustainable fund market – Reflections and recommendations in a new regulatory environment" which looks at, among other things, regulatory fund naming, categorization, and labelling rules.

The FSA has, in its Comprehensive Guidelines for Supervision of Financial Instruments Business Operators (2023), noted that the number of investment products which incorporate environmental, social, and governance (ESG) factors in their names and investment strategies has been increasing both in Japan and overseas, sometimes leading to concerns that their actual investments may not be commensurate with their ESG claims. FSA guidelines were amended in March 2023 to include an "ESG fund" definition with accompanying naming restrictions for funds that do not fall under this category, as well as requirements for additional disclosures.

Separately, the Hong Kong Monetary Authority (HKMA) set out expected standards for the Sale and Distribution of Green and Sustainable Investment Products (2023) by registered institutions, indicating that they should ensure adequate management supervision so that investment products are not portrayed as being more environmentally or climate-aligned than they are. More specifically for green bonds, the Securities and Exchange Board of India (SEBI) has advised that issuers should quantify the negative externalities of green projects and obscuring negative effects or selectively disclosing data.

Integrating Transition in Taxonomies

Sustainable finance taxonomies can also be helpful to provide the financial sector reassurance on reputational risks and innovative financial instruments and are an important tool for market participants to align with activities and projects that deliver on climate and social goals. Indeed, the GBP have recommended since June 2021 that issuers disclose the alignment of their projects with official and market-based taxonomies.

ICMA offers some basic suggestions on how to design taxonomies so that they are most effective to promote international sustainable investment. Ideally, taxonomies should be:

1. Targeted in their purpose and objectives.
2. Additional in relation to existing international frameworks.
3. Usable by the market for all intended purposes.
4. Open and compatible with complementary approaches and initiatives.
5. Transition-enabled, incorporating trajectories and pathways.

Perhaps the most fundamental of these recommendations is that a taxonomy should have a clear purpose and application in mind. This will ensure that the taxonomy is usable for that purpose and that it is designed appropriately for those who will use it.

For taxonomies designed primarily to facilitate transition, the energy sector is usually a focus. It is essential to identify transition pathways to allow for investments in activities that may not be green during the initial stage of the investment but are nonetheless intended to achieve significant greenhouse gas emissions reduction. Different jurisdictions have integrated these recommendations into their taxonomies to varying extents. The European Union (EU), which produced the first major official sector taxonomy, has defined transitional activities as (i) having no technologically and economically feasible low carbon alternative; (ii) consistent with the 1.5°C objective by having the best greenhouse gas performance in the sector and the industry; (iii) not hampering the development and the deployment of low carbon alternatives; and (iv) not causing carbon lock-in.

To account for differences in national trajectories to meet the Paris Agreement, as well as key transition industries in different economies, several Asian countries have developed their own taxonomies that better support more nuanced transition efforts. Region-specific frameworks such as the ASEAN Taxonomy for Sustainable Finance and the Singapore-Asia Taxonomy (SAT) aim to broaden access to sustainable financing for a wider range of industries, including those that currently rely on coal-fired power.

Notably, these two taxonomies pioneered the traffic light system to classify sustainable economic activities, though they take different approaches to classification and phase-out of coal. Generally speaking, green denotes activities that substantially contribute to climate goals by operating at near zero emissions or are on a 1.5°C-aligned pathway. Amber represents transitional activities that are not presently on a 1.5°C-aligned pathway but are moving toward a green transition pathway within a defined time frame or facilitate significant emissions reductions in the short term with a prescribed cessation date. Red indicates activities that are neither green nor amber. The ASEAN Taxonomy uses the green and amber categories to classify coal-related activities depending on their relative emissions and how quickly they will be phased out. Coal plants are eligible for financing under the taxonomy as long as they adhere to a dedicated timeline for early retirement, capped at a maximum of 35 years. For an activity to be classified as green, the facility must be aligned with a 1.5°C outcome and be consistent with the International Energy Agency Net Zero Emissions Pathway for the power sector to achieve net zero emissions by 2050. Otherwise, a facility can be classified as amber if it is aligned with a 1.5°C outcome for coal phase-out that is derived from science-based, regional-or country-specific pathways.

Under the SAT, early coal phase-out activities are not classified using the traffic light system but are instead evaluated under a separate set of criteria. This is because, unlike the amber category, coal power plants are not expected to qualify as green anytime in the future. Distinct from the ASEAN Taxonomy which only specifies facility-level criteria, the SAT goes a step further by requiring an entity-level transition plan that includes commitments to not develop or procure new coal power plants or establish new or extend existing fossil-fuel based power purchase agreements.

So far, the SAT has been referenced twice in direct relation to transition. A steel company applied the taxonomy to its green and transition finance framework, which includes six eligible business activities spanning across important technologies for the sector's transition, including direct reduced iron (DRI), electric arc furnace (EAF), carbon capture utilisation and storage (CCUS), manufacture and storage of hydrogen, and renewable energy. On a deal level, a green and transition loan for a real estate company defined green and transition activities directed towards enhancing energy efficiency and decarbonizing the company's key properties over a period of time.

Under the ASEAN Taxonomy, a metals company has applied the amber category to infrastructure of low-carbon alternatives, such as power generation infrastructure co-fired by fossil fuels, that meet the taxonomy's lifecycle greenhouse gas (GHG) emissions threshold, with an intent to switch away from coal or oil power.

In China, the most recent Green and Low-Carbon Transition Industries Guidance Catalogue (2024), classifies green and transition industries into seven themes, including energy efficiency and emissions reduction, environmental protection, resources recycling, green energy transition, ecosystem restoration, green infrastructure, and green services. The revised catalogue does not separate "green industries" from "transition industries," in contrast to other taxonomies.

While Japan does not currently have a taxonomy of its own, the scope of transition finance is effectively defined by the national GX policy, which is focused on energy security and takes into account Japan's domestic industrial infrastructure. The GX policy is reflected in METI's sectoral roadmaps linked to the Japan Basic Guidelines on Climate Transition Finance, which reflect the view that not all countries, regions, and industries can decarbonize at once, and that engagement can be more effective than divestment to support the decarbonization efforts of hard-to-abate sectors. In addition, Japan has made a commitment at the 2024 G7 summit to phase out unabated coal power generation during the first half of the 2030s, or in a timeline consistent with the Paris Agreement goal and in line with its national net-zero pathway.

The Japan Basic Guidelines on Climate Transition Finance and ICMA's guidance are compatible in accommodating a "climate transition" designation for bonds. A bond that is aligned with the relevant ICMA Principles (either Green, Social, Sustainability, or Sustainability-Linked) and that follows the four elements of disclosure recommended by ICMA's transition handbook is eligible to be designated as "transition." Conversely, though, some issuers may be hesitant to finance their transition-focused projects with "green bonds" since the transition projects may not fall within ICMA's (non-exhaustive) eligible green project categories.

Broadening the Sustainable Financing Conversation

ICMA and the Green and Social Bond Principles community have not, as of mid-2025, published a global, industry-led taxonomy or catalogue specifically for transition finance. This is partly due to the technical and dynamic nature of transition finance, but also due to the lack of clear international consensus among stakeholders about the legitimate technologies, sectors and pathways.

Even so, the CTFH is intended to promote transition at the corporate entity level, and the GBP have recently published guidance on products in the value chain of green projects that may not themselves be green. These are called "green enabling" projects and may include for example: mining and metals, building and construction materials, chemicals, telecommunication networks, and manufacturing of industrial components. Such projects are still essential to the transition to a low-carbon economy in line with the goals of the Paris Agreement while recognizing the complexities of value chains and challenges of multiple end-uses.

Under the guidance, green enabling projects do not require a known end-use and can rely on scenario analysis, market share trends or expected future uses to assess the environmental benefits. The guidance also requires green enabling projects to address eligibility issues such as no carbon lock-in, and to demonstrate clear, quantifiable and attributable environmental benefits either through actual impacts or potential outcomes assessed through a life cycle analysis.

It is understandable that the current sustainable bond market is much more focused on those investments that are clearly and traditionally green. Less than 10% of sustainable bonds issued in 2024 came from sectors that the guidance identifies as green enabling. It is possible that the share of issuance from these sectors has been small because there is not enough clear guidance about when and how green-enabling activities can be eligible use of proceeds for sustainable debt. So, it is hoped that recognition of the importance of green enabling, as well as industry guidance on additional disclosures, can help to facilitate more sustainable bond issuance to finance projects along the full length of green value chains.

Next Steps in the Development of Sustainable Finance

ICMA's climate transition finance working group is currently working on additional market guidance based, among other things, on a mapping of transition finance projects and existing official or market guidelines. This work will also help identify any necessary updates to the CTFH, green enabling projects guidance, and other relevant existing Principles guidance.

ICMA is also actively exploring the role of carbon markets and their potential use cases in financing instruments that contribute to global decarbonization efforts. For example, Japan's USD140 billion GX economy transition bond issuance plan is linked to a future carbon pricing mechanism in which the government intends to complete redemption of the bonds through carbon pricing revenues raised. Carbon credits may also be relevant to more innovative sustainable bond structures as well as corporate transition strategies.

Together with stakeholders in the market, ICMA also continues to develop impact reporting guidelines for environmental and social projects funded by sustainable bonds and transition strategies. It is also worth mentioning that technology and AI are playing a more crucial role in sustainable finance on many levels such as data analysis, reporting, and risk assessment, with Asia leading much of this innovation.

In fact, ICMA will be holding the 11th Annual Conference of the Principles in Tokyo in November 2025. This is the premier global annual event for the sustainable bonds market, and holding the worldwide conference in Asia demonstrates the importance of the Asian and Japanese sustainable markets in the global evolution of sustainable finance.

MUSHTAQ KAPASI

Managing Director and Chief Representative for Asia Pacific
International Capital Market Association (ICMA)

Mushtaq Kapasi leads ICMA's work in the Asia-Pacific region. He has been based in Hong Kong since 2002, engaged in senior strategy, capital market and legal roles covering the region at international banks active in Asia. He has worked as a lawyer in debt capital markets and derivatives, a structurer in equities and fixed income, a manager of complex trades with regulatory and accounting considerations, and an adviser to top executives on emerging market strategy. He has also designed financial structures of renewable energy projects in frontier markets. He studied mathematics at the University of Texas and law at Yale University.