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Net-Zero Banking Alliance

NZBA Transition Finance Guide

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Preamble

Purpose of transition finance and this guide

Over the coming decades, the global economy must radically and rapidly transition from a high volume of high-emitting activities towards a mix of lower-emissions activities which are holistically aligned with net zero¹ by 2050 pathways. The sectors associated to these high-emitting activities are the core focus of this guide.

While advanced economies are making overall progress in their transition to meet the goals of the Paris Agreement (though it should be noted that, collectively, the commitments made are not sufficient), it is critical that emerging economies, which represent significant portions of the global population and emissions, are supported by international and regional actors to transition, with both financial and non-financial aid (such as technologies, trainings, and talent). Without an alignment of all economies, whether emerging or advanced, it will be impossible for the world to meet its commitments under the Paris Agreement.

Practically, this means that the financial sector, policy makers and other regulators must understand the dependencies between banks (and the wider financial sector) and the real economy² and act responsively to finance and realize a decarbonization of the global economy as a whole. Businesses of all sizes, including micro, small, and medium enterprises (MSMEs) require certainty from both policy makers and financiers to make business decisions which, in the context of transitioning towards low-carbon economies, are often well beyond the scope of normal business planning. As such, all relevant actors should echo clear, aligned, and long-term responses to the following questions:

- What are the key levers in banks, and pathways to, decarbonization, for carbon-intensive sectors considering dependencies on national policies and value chain demand and supply factors?
- Which policy actions can unlock the decarbonization of carbon-intensive sectors?

1 Net-zero is defined by GFANZ as a state when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals. Organizations are considered to have reached a state of net zero when they reduce their GHG emissions following science-based pathways, with any remaining GHG emissions attributable to that organization being fully neutralized, either within the value chain or through purchase of valid offset credits. (https://assets.bbhub.io/company/sites/63/2022/06/GFANZ_Recommendations-and-Guidance-on-Net-zero-Transition-Plans-for-the-Financial-Sector_June2022.pdf)

2 Real economy is defined by GFANZ as economic activity outside of the financial sector, but in the context of engagement, this guide refers to “real economy” or “real economy firms” as corporate clients of banks. (https://assets.bbhub.io/company/sites/63/2022/06/GFANZ_Recommendations-and-Guidance-on-Net-zero-Transition-Plans-for-the-Financial-Sector_June2022.pdf)

- How can realistic pathways to net zero by 2050 be developed, considering individual countries or regions' starting points or individual firms' business mixes?
- What are the roles of different actors (policy makers, banks, etc.)?
- What coordinated messages need to be sent to real economy firms to convince and support them in transitioning their activities?
- What activities do banks and other financial institutions need to finance or enable in order to support real-economy companies' decarbonization efforts?

Based on this understanding of dependencies between banks, the real economy and policymakers, developing a general framework for financial institutions to assess real economy transition plans, combined with governments making public announcements and introducing incentive mechanisms will help minimize systemic risk and achieve an orderly and just transition.

In this regard, while banks recognize and are committed to fulfil their critical roles in transforming the world to net zero, it will be crucial that the financial sector, policy makers, regulators, and governments address remaining gaps to enable and support banks' net-zero commitments.

Ultimately, banks should send a clear message that their support for real economy firms' net-zero transitions, including transition finance, requires the firms themselves to commit to achieving net-zero targets and to develop credible transition plans. Banks may engage with firms to support and encourage their transition and outline planned support (time and capital) for clients with credible transition plans.

In doing so, banks may develop their own institutional set of goals, actions, and accountability mechanisms to align their business activities with a pathway to net-zero GHG emissions that delivers real-economy emissions reductions in line with achieving global net zero by 2050, at the latest. The diagram below illustrates GFANZ's transition plan framework, which banks may consider following. Banks could also establish an incentive mechanism for firms to commit to, while achieving their net-zero goals.

Financial Institution's Transition Finance Plan Framework (GFANZ)³

This framework was designed to support the role of financial institutions in enabling a net-zero economy that is in line with government pledges and science, by facilitating the allocation of capital and providing related services to transition activities. The report identifies four key financing strategies that define transition finance. These strategies are inclusive of financing, investment, insurance, and related products and services that are critical to delivering real-economy emissions reduction in support of an orderly, net-zero transition of the global economy:

1. **Climate solutions:** Financing or enabling entities and activities that develop and scale climate solutions;
2. **Aligned** (Financing or enabling entities that are already aligned to a 1.5°C pathway)
3. **Committed to Aligning:** Financing or enabling entities committed to transitioning in line with 1.5°C-aligned pathways
4. **Managed Phaseout:** Financing or enabling the accelerated managed phase-out (e.g., via early retirement) of high-emitting physical asset



Figure 1: GFANZ's four key financing strategies for net-zero transition planning (Source: Recommendations and Guidance on Financial Institution Net-zero Transition Plans)

3 https://assets.bbhub.io/company/sites/63/2022/06/GFANZ_Recommendations-and-Guidance-on-Net-zero-Transition-Plans-for-the-Financial-Sector_June2022.pdf

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The draft guide was reviewed by the NZBA Steering Group members, followed with consultation with external stakeholders for consultation in July 2022, where 25 parties provided feedback. This final guide reflects the inputs from the consultation process.

Members of the NZBA Financing & Engagement work track include representatives from:

- MUFG (Work track chair)
- Amalgamated Bank
- Banca Monte dei Paschi di Siena
- Banco Bradesco
- First Abu Dhabi Bank
- ING Bank
- Intesa Sanpaolo
- Investec Group
- Íslandsbanki
- KB Financial Group
- La Banque Postale
- Liechtensteinische Landesbank
- Nomura Holdings.
- Santander
- SpareBank 1 Østlandet
- Standard Chartered
- Sumitomo Mitsui Financial Group
- Sumitomo Mitsui Trust Holdings/Bank
- Swedbank AB
- UBS Group
- UniCredit

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This Guide includes contributions from members of the NZBA but does not represent the views or opinions of any individual member.

Important notice

This document is a guide from the NZBA Financing & Engagement work track members (“NZBA”) which aims to provide non-binding guidance and recommendations to financial institutions and the public sector on transition financing (the “Guide”). For the avoidance of doubt, nothing express or implied in the Guide is intended to create legal relations and the Guide does not create legally enforceable obligations. The information in this Guide, which does not purport to be comprehensive, nor render any form of legal, tax, investment, accounting, financial or other advice, has been provided by NZBA and has not been independently verified by any person. Nothing in this Guide constitutes an offer or a solicitation of an offer to buy or sell any securities or financial instruments or investment advice or recommendation of any securities or financial instruments. The Guide has been provided for information purposes only and the information contained herein was prepared at the date of publication. No representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by any member of NZBA or by any of their respective affiliates or any of their respective officers, employees, agents or advisers in relation to the adequacy, accuracy, completeness or reasonableness of this Guide, or of any other information (whether written or oral), notice or document supplied or otherwise made available to any interested party or its advisers in connection with this Guide. NZBA members are not automatically expected to adopt the principles and frameworks communicated within this guide.

Introduction

1. Supervisory expectations in the context of climate change

Banks intermediate capital to support businesses and individuals with key services such as deposit taking, lending, and settlement. Reflecting the recognition that banks provide critical financial services for the proper functioning of the capital market-based economy, they are intensely regulated to ensure the safety and soundness of individual banks (micro-prudence) and to preserve financial stability (macro-prudence).

Financial regulators are increasingly warning against the serious threat that climate change poses to the real economy and the financial system. As a result, many have begun stock-taking exercises to review existing regulatory frameworks which have been designed to ensure that financial stability is maintained when climate-related risks increasingly manifest in the short-, medium-, and long-term.

In many jurisdictions, financial regulators have proposed, or are in the process of developing, guidance to implement or update supervisory frameworks for banks that reflects an increasing understanding of climate-related risks. There is a general agreement that, at least initially, the regulatory focus should be on risk management to ensure that banks update their risk management frameworks to include climate-related risks, as evidenced by a recent Basel Committee on Banking Supervision (BCBS) publication.⁴

Responding to this regulatory development, banks have reviewed their risk management frameworks, including governance structure and processes, to make necessary changes to cover climate-related risks. However, while regulators have proposed new approaches to identify and quantify climate-related risks, the question of how banks should actively manage and mitigate risks is not addressed in regulators' publications.

Some stakeholders have suggested that banks should divest exposures to—or refrain from providing lending and other services to, carbon-intensive sectors⁵ to reduce global greenhouse gas (GHG) emissions, thus reducing transition risks in that institution. While divestment is an option for banks to reduce exposures, this may not necessarily be an appropriate path for the following reasons:

4 BCBS (June 2022), Principles for the effective management and supervision of climate-related financial risks (<https://www.bis.org/bcbs/publ/d532.pdf>)

5 "Carbon-intensive sectors" includes those with high GHG/CO₂e emissions, many of which provide essential products and services, such as electricity, steel, chemical, cement. Depending on the context, these sectors are sometimes referred to as "hard-to-abate sectors".

- a. Divestment does not address the real economy decarbonization (i.e., does not solve climate change challenges),
- b. Carbon-intensive sectors can still receive funding from less regulated non-bank financial institutions, resulting in maintenance of the status quo or even higher emissions, and
- c. Banks will no longer have a relationship with that client and therefore cannot play an active role in supporting the development of net-zero-aligned transition plans and solutions for clients in carbon-intensive sectors through financing or advisory services.

To this end, the Alliance, in its recent April 2022 anniversary publication, highlighted “real economy decarbonization” as a key pillar of its vision for change, and underscored the importance of banks engaging with clients. This report focuses on client engagement and financial solutions to facilitate clients’ decarbonization by supporting their transition. With the common understanding that continuous engagement in carbon-intensive sectors will unlock decarbonization opportunities across sectors, this guide advises that transition finance will be a key enabler to achieve this goal.

2. Banks’ net-zero commitments and client engagement

Since the Alliance was launched in April 2021, more than 100 banks from all regions have committed to achieving net-zero financed emissions by 2050. While the Alliance is UN-convened, this is a bank-led initiative with member banks making individual voluntary net-zero commitments. To reduce emissions to net zero by 2050, member banks’ business activities and portfolios should align with the Paris Agreement’s goals.

Alliance member banks have committed to individually setting initial emission reduction targets covering certain carbon-intensive sectors within 18 months of joining. Target setting requires a cross-functional collaboration within the bank to set credible and actionable targets, which can support the internal mainstreaming of net-zero transition planning. In addition, the increasing number of banks announcing their targets across all regions sends an important signal to the real economy.

Target setting is a critical first step of a long journey and should be followed by tangible internal and external actions. Furthermore, net-zero commitments should catalyse proactive engagement with banks’ clients to facilitate their decarbonization journey, in line with the NZBA’s vision of change. These changes will need to be supported by internal structures ranging from data management to product development.

Emissions in the real economy, including those financed by the private banking sector, must be reduced rapidly to meet or exceed Paris Agreement targets. Many sectors are taking tangible actions to transition to a sustainable and low-carbon economy but do require support from financial institutions to move this transition into action. Therefore, even while society manages the phaseout of technologies inconsistent with a 1.5°C temperature outcome, banks should be prepared to allocate their capital and their expertise to companies in such sectors in line with credible transition plans outlining the steps these companies are taking to decarbonize.

The NZBA Steering Group organized the Financing & Engagement work track to focus on client engagement and identify the role of transition finance in reaching net zero by 2050. This report is the product of the intensive discussions among the member banks to produce a practical guide on transition finance.

While the guide focuses on “stock” activities (i.e. lending) and uses associated terminology, it does not by design exclude relevant investment banking (including capital markets and underwriting) activities, to which similar principles and approaches can be applied where relevant. However, the nascent stage of development of methodologies for such activities means that more detailed guidance by the NZBA will be considered once future methodologies are established.

3. Client engagement as an answer to the “net zero” and risk-management imperative

Alliance members are facing three distinct challenges when addressing climate change:

- a. **individual client-level net-zero planning** (including existing loan portfolio),
- b. **portfolio-level net-zero planning** (including existing loan portfolio), and
- c. **climate-related risk management/mitigation** (both at an individual and portfolio level).

In addition, banks have a fiduciary duty to generate fair returns while maintaining safety and soundness throughout the process of making their business models sustainable.

In this context, the transition of all parties involved (i.e., individual clients, as well as banks) towards Paris-aligned goals addresses all the above points.

Engagement with real economy clients to facilitate their decarbonization—supported by financing of transition activities -- can address the risk management imperative mentioned above in the context of regulatory expectation. Through client engagement, banks can understand their clients’ climate-related risks, and can better assist their clients in developing and implementing strategies to mitigate or adapt to those risks that require deployment of capital and/or business model change. Therefore, banks are encouraged to proactively engage with clients to understand their decarbonization plans and support their achievement of net-zero emissions. This, in turn, will help reduce banks’ transition risks.

The full decarbonization of the real economy will span decades, even in advanced economies. As such, support from banks for individual firm-level transition, particularly for firms in carbon-intensive sectors will also be needed for decades to come. Real economy clients need capital and investment throughout the transition journey, which is where transition finance plays a critical role as banks can provide financing to clients specifically for the implementation of transition plans, in addition to financing for the development and scaling of climate solutions.

Therefore, banks can—and should—play a pivotal role in clients’ net-zero transitions as well as the overall transition of the real economy. Banks’ roles are as important as other

types of financial institutions, if not more, as banks can engage and support their clients over the long-term (even though individual loans are often short-term).

Through strategic, direct engagement with real economy firms including those in carbon-intensive sectors, banks are well positioned to inform and partner with the public sector to generate public policy supports needed to ensure a timely and orderly transition. In conjunction, the public sector can identify and address challenges that banks and real economy firms are facing but are beyond the market's ability to solve. In this sense, banks are an integral catalyst for the real economy transition, while the public sector enables the full potential of banks' contributions to achieve a net-zero target.

4. What issues can be addressed with this guide

Frameworks and tools to mobilize capital to *sustainable* or *green* or broader activities already exist. However, for the real economy (including carbon-intensive sectors) to decarbonize, the magnitude of capital mobilization needs to be significantly scaled up. As such, this guide seeks to complement existing frameworks, guides and other documents to grow financing aimed at transition and specifically to support carbon-intensive, real-economy companies' transitions.

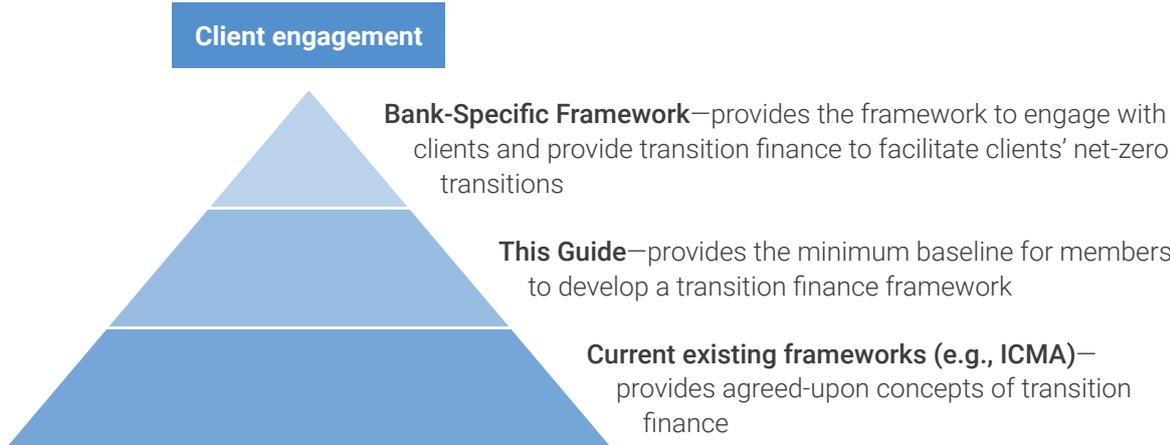


Figure 2: Purpose of NZBA Transition Finance Guide and role in the landscape

5. Defining success and next steps

This guide defines success as the **mainstream adoption of transition finance**, with particular emphasis on the financing carbon-intensive companies that are in the process of aligning to net zero or managing the phaseout of high-emitting assets—initially among Alliance members.

Transition finance can be broadly defined as financing that supports and enables a global transition towards a 1.5°C-aligned economy, through a range of means.⁶ It mobilises capital where it is most needed to facilitate the transition; in the context of this guide, this includes financing the development and scaling of climate solutions, but importantly also financing towards carbon-intensive companies which are gradually transitioning towards net zero but where further acceleration is necessary. Projects and initiatives that meaningfully advance a borrower’s net-zero journey can be considered under the umbrella of transition finance as long as the borrower has a credible 1.5°C transition plan.

Given the different starting points, geographic contexts, economic structures, and growth potentials, no two countries or firms will have identical pathways. Therefore, it is critical that net-zero goals and transition plans are clearly articulated.

The guide does not define what technologies or activities are eligible for transition finance, because each region and sector is at a different point and will follow its own unique pathway to decarbonization. The Alliance also does not view a “one-size-fits-all” approach as appropriate. Regional and sectoral specificities must be taken into consideration to make the Alliance-wide transition finance efforts inclusive.

Additionally, transition finance will be a key tool to facilitate client engagement on decarbonization. In fact, some Alliance members already have transition finance frameworks in place (see Standard Chartered Bank and DBS Bank’s transition finance frameworks in the Appendix), but this is only a small portion of the Alliance membership as of mid-2022. For this reason, this guide encourages member banks to prepare their own transition finance frameworks, including governance structures, due diligence processes, technology assessment approaches, and internal taxonomies (e.g., transition finance-eligible technologies or activities).

To ensure transparency and raise the ambition of Alliance members and their clients, this guide encourages (but does not mandate) member banks to publish a non-confidential net-zero transition plan, detailing their approach to transition finance.

The guide highlights areas where further alignment can be achieved to mainstream transition finance (see Section 5). In particular, the Alliance calls on policy makers to consider its recommendations and respond with the necessary policy measures to support banks, the wider financial sector, and real-economy companies in facilitating a transition of the real economy.

6 The recent GFANZ Publication “Financial Institutions Net-zero Transition Plans” provides four key approaches in which banks can support the real economy net-zero transition, namely, (1) climate solutions to replace high-emitting technologies/services, (2) financing to companies that are aligned to the 1.5°C pathway, (3) financing the transition of companies with robust net zero plans, and (4) financing to enable managed phase-out. assets.bbhub.io/company/sites/63/2022/06/GFANZ_Recommendations-and-Guidance-on-Net-zero-Transition-Plans-for-the-Financial-Sector_June2022.pdf



SECTION 1:
**Role of transition
finance in the
net-zero journey**



1.1 Definition of net zero

There is an international, scientific consensus that our planet's climate is warming at an increasing pace. Human activities, particularly those based on the burning of fossil fuels, have considerably increased the average temperature of our planet—approximately 1.2°C above pre-industrial levels as of 2022.

To avoid the worst impacts of climate change and preserve a liveable planet, global temperature increase must be limited to 1.5°C above pre-industrial levels. This requires global net anthropogenic emissions to decline by about 45% from 2010 levels by 2030, reaching net zero by 2050.⁷ Transitioning to a net-zero emissions world subsequently implies that all economic actors work towards this objective. For banks, this will require changes in their capital allocation or granting criteria, engagement with clients to navigate their net-zero journey, managed phaseouts⁸ of carbon-intensive economic activities, and a massive re-orientation of capital flows towards “transition” activities and solutions.

By acting in an aligned manner, banks can support a consistent best practice approach and drive further efficiency across the whole economy towards a net-zero emissions pathway.

Definition of Net Zero (UN)

Net zero: This term refers to a state when anthropogenic emissions of greenhouse gasses to the atmosphere are balanced by anthropogenic removals.

Organizations are considered to have reached a state of net zero when they reduce their GHG emissions following science-based pathways, with any remaining GHG emissions attributable to that organization being fully neutralized by like-for-like removals exclusively claimed by that organization, either within the value chain or through purchase of valid offset credits.⁹

7 IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. World Meteorological Organization, Geneva, Switzerland, 32 pp.

8 Managed phase-out is defined by GFANZ as efforts to reduce GHG emissions through accelerated retirement of high-emitting physical assets (or retrofit to improve efficiency in line with the net-zero goals). Financial institutions can finance or enable strategies for managed phase-out within a defined science-aligned time horizon, thereby limiting the likelihood that these assets will be stranded in a low-carbon future.

9 United Nations. “Race to Zero Lexicon,” June 2022. [climatechampions.unfccc.int/wp-content/uploads/2022/06/R2Z-Lexicon-2.0.pdf]

1.2 What net zero means for commercial banks

The Paris Agreement has three long-term goals. Two goals focus on climate change mitigation and adaptation, while the third focuses on the role of finance and financial flows, with the aim “to make all financial flows consistent with a pathway towards low-emissions, climate-resilient development.” This goal recognizes the critical role financial institutions (public and private) will play in achieving the objectives of the Paris Agreement.

As key intermediaries in the financial sector and the economy as a whole, commercial banks can influence stakeholders across the economy to transition towards a low-carbon future.

To achieve their net-zero financed emissions targets, GFANZ, in collaboration with NZBA and other net-zero financial alliances, have developed a transition finance framework of key financing strategies through which financial institutions can finance or enable:

- 1. (Climate solutions) Financing or enabling entities and activities that develop and scale climate solutions.** This strategy encourages the expansion of low-emitting technologies and services, including nature-based solutions, to replace high-emitting technologies or services, remove greenhouse gases from the atmosphere, or otherwise accelerate the net-zero transition in a just manner.
- 2. (Aligned) Financing or enabling entities that are already aligned to a 1.5°C pathway.** This strategy supports climate leaders and signals that the financial sector is seeking transition alignment behavior from the real-economy companies with which it does business.¹⁰
- 3. (Aligning) Financing or enabling entities committed to transitioning in line with 1.5°C-aligned pathways.** This strategy supports both high-emitting and low-emitting firms that have robust net-zero transition plans,¹¹ set targets aligned to sectoral pathways,¹² and implement changes in their business to deliver on their net-zero targets.
- 4. (Managed phaseout) Financing or enabling the accelerated managed phaseout (e.g., via early retirement) of high-emitting physical assets.** This strategy facilitates significant emissions reduction by the identification and planned early retirement of assets while managing critical issues of service continuity and community interests.

10 Financial institutions could use emissions disclosures, portfolio alignment metrics, and transition plans for assessing alignment, as well as third-party verification programs where available. Financial institutions should be transparent about the methodologies and data they are using to determine alignment while industry standards are still maturing. Note that while the pool of already-aligned companies is currently small, it is expected to grow as the transition progresses.

11 GFANZ. Expectations for Real-economy Transition Plans, 2022.

12 GFANZ. Guidance on Use of Sectoral Pathways for Financial Institutions, 2022.

Over the long-term, all four key financing strategies can be used in a coordinated manner to support the transition of the real economy. The combination of financing climate solutions and financing companies' transitions in line with credible net-zero transition plans, especially for carbon-intensive sectors, may accelerate the real economy transition most effectively.

Financing climate solutions (GFANZ Strategy #1)

To facilitate the uptake of climate solutions (e.g. technologies or services¹³), banks may choose to shift their lending and investment toward green and/or sustainable solutions, as often defined by internationally accepted guidelines, taxonomies, or local regulations. This may send a strong signal of support for green and sustainable economic solutions. It is worth noting that the shift to green and/or sustainable finance could lead to a reduction of a bank's overall portfolio emissions.

At present, there is a limited supply of qualitatively and quantitatively defined green and/or sustainable activities and related projects. A capital shift towards sustainable activities requires wider market evolutions (e.g., public policy support, research and development), especially in emerging economies, where much of the real economy is in an early "greening" stage.

Engagement with clients (GFANZ Strategies #2 and #3)

Banks should engage with their clients to:

- help them develop decarbonization strategies and implementation plans¹⁴
- support clients' transition plans by providing both expertise and capital
- support through other activities, such as advisory services and knowledge-sharing sessions.

Banks may evolve their agreements with clients by differentiating the cost of capital to provide incentives to reduce emissions (i.e., introducing net-zero-linked covenants).

In cases where their clients do not have any decarbonization strategies in place, banks should encourage clients to measure their GHG emissions baseline and develop a transition plan with interim and long-term targets. This, in turn, will allow banks to project the timeline in achieving their own net-zero targets. Banks may also opt to use their products and services to influence, enable, and facilitate their clients' decarbonization goals.

13 GFANZ definition: Technologies, services, tools, or social and behavioral changes that directly contribute to the elimination, removal, or reduction of real-economy GHG emissions or that directly support the expansion of these solutions. These solutions include scaling up zero-carbon alternatives to high-emitting activities—a prerequisite to phasing out high-emitting assets—as well as nature-based solutions and carbon removal technologies.

14 Banks may opt to refer clients to the criteria proposed in GFANZ's Expectations for Real-economy Transition Plans (page 2) assets.bbhub.io/company/sites/63/2022/06/GFANZ_Introductory-Note-on-Expectations-for-Real-economy-Transition-Plans_June2022.pdf

Managed phase-out (GFANZ Strategy #4)

Divesting from carbon-intensive sectors may sound like a simple, quick way for a bank to lower its financed emissions and meet their short- or medium-term targets. While this may be true for certain banks, divestment may not be an appropriate path because:

- **Divestment alone will not reduce emissions in the real economy.** As discussed throughout this guide, if the emissions of the real economy reach net zero, banks' financed emissions will reach net zero. The reverse, however, is not true.
- **Creation of "climate shadow banking."** While some banks may wish to achieve their net-zero target through divestment, the real economy firms (i.e., borrowers) may seek funding from other banks or non-bank financial institutions ("NBFIs") that may be less climate conscious or agnostic to the climate impact of their business activities. These circumstances are known as "climate shadow banking."
- **A massive divestment may cause economic and social dislocations, as well as financial instability.** Carbon-intensive sectors provide fundamental products and services in many economies, so a disorderly transition could severely disrupt social economics, as already seen in the global inflation and geopolitical situation in 2022. Many banks have legacy exposure to, and earn revenues from, carbon-intensive sectors. For instance, the results of the ECB's regulatory climate stress tests in 2022¹⁵ revealed that more than half of banks' interest income is derived from business with real economy firm clients in carbon-intensive sectors. In such a context, systemic and sudden divestment could trigger financial and economic instability and social upheaval due to sudden price adjustments. Results from another regulatory scenario analysis¹⁶ showcase the potentially significant impacts of divestment on business, clients, and macroeconomics unless it is carefully managed. GFANZ recently published a report for consultation which describes the importance and challenges of a managed phaseout approach for high-emitting assets, defined as a stakeholder-engaged, net-zero-aligned strategy for the early retirement of high-emitting assets, to offer an alternative approach to divestment.¹⁷

To avoid unintended consequences of divestment, as discussed above, GFANZ is currently developing voluntary guidance for a managed phase-out framework of high-emitting assets. The managed phase-out includes accelerating the retirement of high-emitting assets.

15 ECB 2022 stress test:

bankingsupervision.europa.eu/ecb/pub/pdf/ssm.climate_stress_test_report.20220708~2e3cc0999f.en.pdf

16 Bank of England scenario analysis from 2022 (bankofengland.co.uk/stress-testing/2022/results-of-the-2021-climate-biennial-exploratory-scenario)

17 GFANZ (2022). The Managed Phaseout of High-emitting Assets: How to Facilitate the Early Retirement of High-Emitting Assets as Part of a Just Transition to a Net-Zero World. assets.bbhub.io/company/sites/63/2022/06/GFANZ_Managed-Phaseout-of-High-emitting-Assets_June2022.pdf

The NZBA Transition Finance Guide stresses the need to support firms in realizing their transition, including, in due course through an appropriate combination of available levers and in-line with the need for a just and orderly transition. Alliance members are committed to a 2050 net-zero target and, to achieve this target, members are willing to provide expertise and capital for carbon-intensive sectors to transition, rather than abruptly stop financing to these carbon-intensive sectors.

1.3 What outcome is required?

The rapidly evolving and urgent nature of transitioning the global economy to align with a net-zero by 2050 goal means that all economic actors must be involved.

As of 2022, the pressure of civil society is pushing both authorities (governments, policy makers, regulators) and private actors to shift the allocation of their financial resources to a more sustainable and resilient economy.

- For **governmental authorities**, this may necessitate re-defining or revisiting national or regional sustainability policies designed to meet jurisdictional targets (e.g., Nationally Determined Contributions (NDCs)) and instituting regulatory changes related to disclosures (e.g., the International Sustainability Standards Board (ISSB)), risk management (e.g., the Basel Committee guidelines), or the definition of sustainable activities (e.g., EU Taxonomy, ASEAN Taxonomy, METI Technology Roadmap).
- For **corporates**, it requires transitioning their business models to align with jurisdictional or sectoral targets, in line with credible net-zero transition plans.¹⁸
- For **banks**, it means mobilizing capital towards sectors or regions where it is most needed to accelerate real economy decarbonization.

To encourage the real economy transition, **all stakeholders should align to an outcome in which banks' climate-related physical and transition risks (i.e., decarbonizing their own balance sheet) are addressed through the decarbonization of the real economy firm clients.**

1.4 Overview of the guide's purpose

The NZBA Transition Finance Guide provides members with a summary of key levers available to them, as well as an overview of some of the approaches and frameworks currently leveraged by market participants, to accelerate the shift of capital towards low-carbon activities. This guide also highlights potential inter-operability (and gaps) between such frameworks and suggests policy responses to scale up transition finance globally.

This guide is not binding by nature; it aims to support banks' engagement on transition finance by providing conceptual ideas for transition planning.

¹⁸ See, e.g., GFANZ, Expectations for Real-economy Transition Plans, 2022 [link available Sept 22]

SECTION 2:
**Stocktaking
of existing
frameworks**



A small selection of frameworks has been developed by market actors in recent years. This section provides a brief overview of key points for each framework.

2.1 International Capital Market Association (ICMA)

Source: “Climate Transition Finance Handbook 2020” and its “Related Questions”

Overview of the framework

The ICMA Climate Transition Finance Handbook provides additional guidance for issuers seeking to use green bonds, sustainability bonds, or sustainability-linked bonds towards the achievement of their climate transition strategy.

The Framework provides additional clarification for issuer-level disclosures, which are recommended to credibly position the issuance of Use of Proceeds instruments (defined as those aligned to the Green, Social Bond Principles, or Sustainability Bond Guidelines) or Sustainability-Linked instruments (General Corporate Purpose instruments aligned to Sustainability-Linked Bond Principles) used to finance the transition, particularly that of carbon-intensive sectors.

However, it does not provide definitions or taxonomies of transition projects. Instead, it seeks to clarify issuer-level disclosures that are recommended to credibly position the issuance of Use of Proceeds or Sustainability-Linked instruments to finance the transition, particularly of ‘hard-to-abate’ sectors.

Who are the target users of the framework?

All banks who are issuers seeking to use green bonds, sustainability bonds, or sustainability-linked bonds are targeted by this handbook.

What are the key pillars/principles/criteria in the framework?

There are four key elements to the disclosure recommendations.

Issuer’s climate transition strategy and governance

Suggested information and indicators

- A long-term target to align with the goals of the Paris Agreement (e.g., the objective of limiting global warming to, ideally, 1.5°C, or at the very least, to well-below 2°C)
- Relevant interim targets on the trajectory towards the long-term goals
- Disclosure on the issuer’s levers for decarbonization and strategic planning towards long-term targets aligned with the goals of the Paris Agreement
- Clear oversight and governance of transition strategy; and
- Evidence of a broader sustainability strategy to mitigate relevant environmental and social externalities and to contribute to the UN Sustainable Development Goals.

Business model environmental materiality

- Disclosure on materiality of the planned transition trajectory as a reference for item 1.
- Issuer's climate transition strategy and indicators
- Existing market guidance related to the consideration of materiality, such as the relevant guidance provided by accounting standards bodies.

Bank's climate transition strategy to be "science-based," including targets and pathways

Suggested information & indicators

- Short-, medium-, and long-term greenhouse gas reduction targets aligned with the Paris Agreement
- Baseline emissions
- The scenario utilized, and methodology applied (e.g., ACT, SBTi, etc.)
- Greenhouse gas objectives covering all scopes (Scope 1, 2 and 3); and,
- Targets formulated in both intensity and absolute terms

Implementation transparency

Suggested information and indicators

- Disclosure on the percentage of assets, revenues, expenditures, or divestments aligned to the various levers outlined in the item 1 above
- Consistency of capex plans with the overall strategy and climate science

How can the framework be used by banks?

The Framework can be used by banks seeking additional clarification before issuing green, sustainability, or sustainability-linked bonds.

2.2 Climate Bonds Initiative (CBI)

Source: “Financing credible transitions—How to ensure the transition label has impact”

Overview of the framework

CBI has developed a framework for identifying credible transitions which has two core purposes:

- Defining transition as a concept by presenting a starting point for the market to see a credible transition as ambitious, inclusive, and aligned with the Paris Agreement (thereby avoiding greenwashing).
- Putting forward a framework for use of the transition label in practice and proposing clearly demarcated roles for both a green and a transition label.

Who are the targeted users of the framework?

Actors in the capital markets, particularly corporates as bond issuers.

What are the key pillars/principles/criteria in the framework?

Defining transition as a concept

Whilst the green bond market has grown rapidly over recent years, there is currently insufficient volume and diversity of sectors. On their own, green bonds will not deliver the goals of the Paris Agreement.

All sectors of the economy must adjust to operating effectively in a low-carbon economy. Many sectors—especially carbon-intensive sectors—may need to fundamentally transform their strategy, considering the challenges brought about by a rapidly changing climate.

The CBI paper presents “5 Core Principles for an ambitious transition” that must be considered by any organization seeking to transition effectively.



Figure 3: CBI Core Principles for an ambitious transition

If a bond meets these principles, it's important to also check that:

- There is sufficient information to enable an informed decision
- It does not contribute to locking in GHG-intensive infrastructure.

In addition, the paper presents 3 key features of a transition:

- **Ambitious**—this means aiming *high* (i.e., in line with 1.5°C or with a significant emissions reduction potential) and aiming *well* (i.e., ensuring that reductions are met without offsets and plans are actionable).
- **Flexible**—applicable to whole entities, everything they do, and a range of associated financial products
- **Inclusive**—allows all sectors and activities to participate as long as they demonstrate compliance with the principles and framework outlined

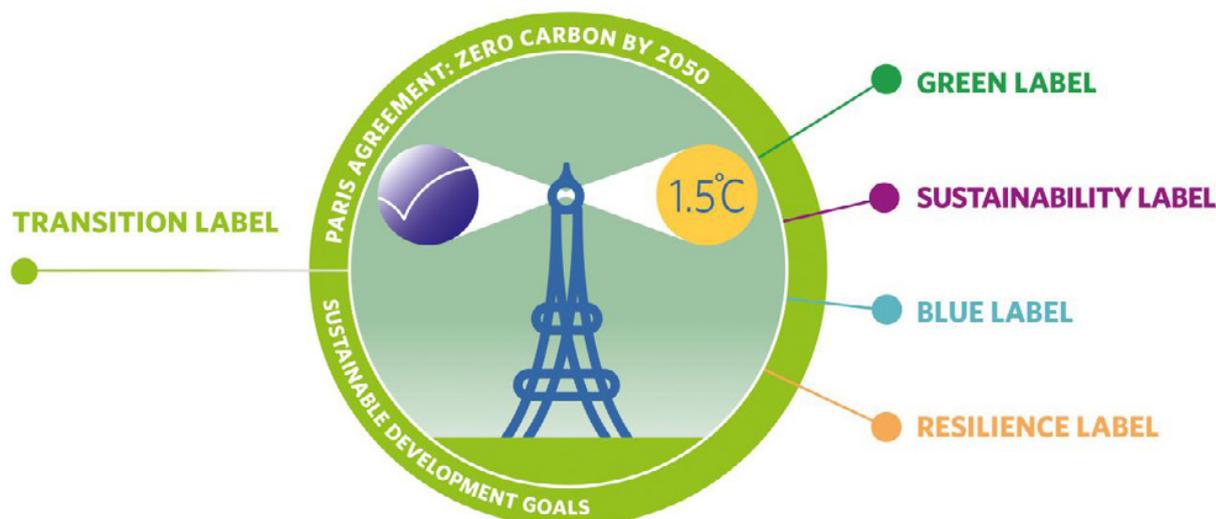
A framework for use of the transition label

Some low emission solutions are already available in certain sectors, so transition finance should be geared towards those solutions. For other sectors or technologies, solutions may not currently exist but low emission activities may be substituted, therefore transition finance should be directed towards these better alternatives. The nature of transition will differ depending on the need and potential to decarbonize. Different financial mechanisms can be employed to fund the transition and can be tailored to engage the appropriate investor.

In broad terms and in the context of this guide, CBI proposes:

- **Green Label:** to be used for eligible investments in activities or entities that have a long-term role to play and are either already near zero emissions or are following decarbonization pathways in line with halving global emissions by 2030 and reaching net zero by 2050
- **Transition Label** to be used for eligible investments that:
 - Are making a substantial contribution to halving global emissions levels by 2030 and reaching net zero by 2050 but will not have a long-term role to play; or
 - Will have a long-term role to play, but at present the long-term alignment to net-zero goals is uncertain

There are many pathways to Paris



© Climate Bonds Initiative 2020

Financing credible transitions

Figure 4: CBI types of labels

How can the framework be used by banks?

The framework is flexible and applies to entire entities and everything that they do. The transition concept (and label) is applicable for both entire entities and all their activities and therefore goes beyond the traditional use of the proceeds model common in the green bond market.

CBI proposes that the transition concept applies to entities if the entire company is on a transition pathway. CBI does acknowledge, however, that the work to map out and certify whole entity transitions is still at a nascent stage.

As such, the CBI framework applies to a broader range of financial products.

- **For whole entities:** equity investments, general-purpose bonds, and sustainability-linked loans/bonds.
- **For activities:** asset-backed securities and use of proceeds bonds (already well-used in the current green bond market).

2.3 EU Taxonomy

Source: "Transition Finance Report dated March 2021"

Overview of the framework

The EU taxonomy Regulation (2020/852) is the cornerstone of the EU Sustainable Finance agenda. It is a classification system that identifies activities that may be considered environmentally sustainable with respect to the EU's climate goal of reaching a 55% GHG reduction by 2030 and climate neutrality by 2050 while ensuring that the transition is just and fair as enshrined in the EU Climate Law.

The framework is designed to play an important role helping the EU scale up sustainable investment and implement the European green deal. The EU taxonomy would provide companies, investors and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable. In this way, it should create security for investors, protect private investors from greenwashing, help companies to become more climate-friendly, mitigate market fragmentation and help shift investments where they are most needed.¹⁹

Who are the targeted users of the framework?

The primary targets of the taxonomy are large corporates and financial institutions in Europe.

Under the EU Taxonomy regulation, there are disclosure obligations for three key users: (1) financial market participants, (2) large companies, and (3) the EU and Member states.

In 2022 large EU companies will report on their share of eligible activities, in line with the climate mitigation and adaptation taxonomy (i.e., green asset ratio for calendar year 2022 to be reported in 2023). Starting in 2023 (reporting in 2024), for those eligible activities, large EU companies will report on the proportion of turnover, capital expenditure, and operational expenditure aligned with taxonomy criteria.

The scope of application covers large, listed EU companies, including large financial companies, such as banks, investors, and insurance companies. The scope will expand with the application of the Corporate Sustainable Reporting Directive (CSRD), which will require taxonomy alignment reporting for companies with more than 250 employees for FY 2025 (reporting in 2026) and listed Small and Medium Enterprises (SMEs) for FY 2026 (reporting in 2027).

¹⁹ finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

Mandatory disclosures: The Taxonomy Regulation mandates three user obligations:

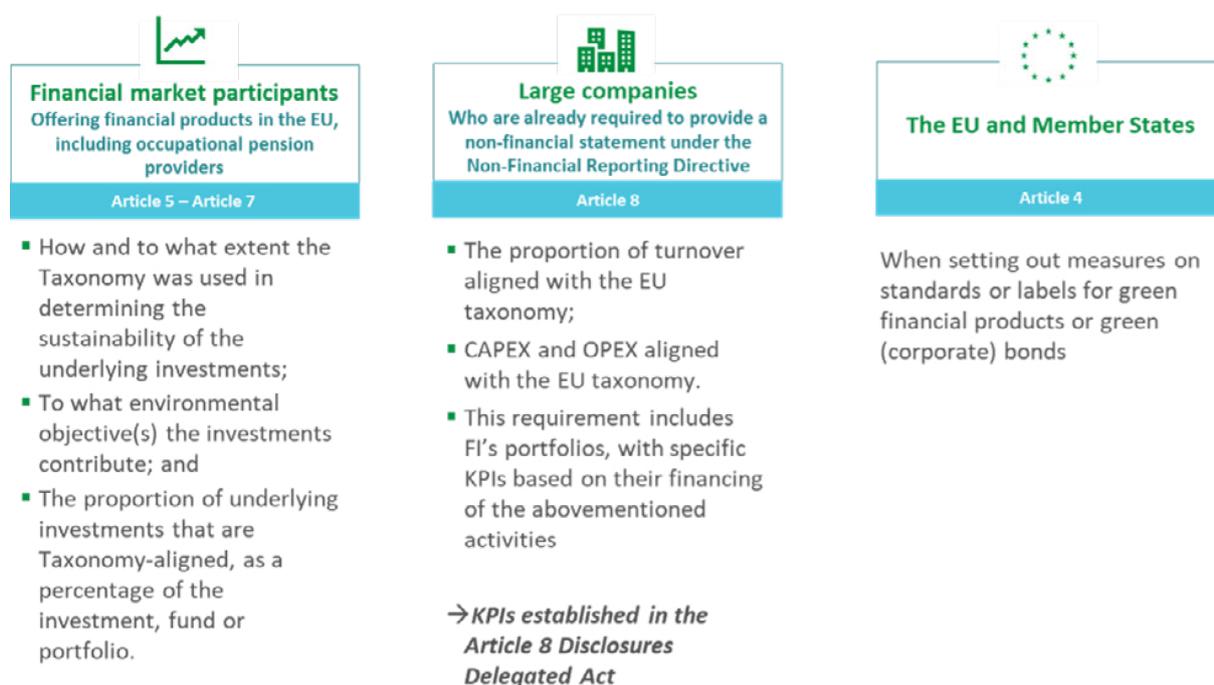


Figure 5: User obligations of the EU Taxonomy

Banks can also opt to use the Taxonomy to assess their own risks and opportunities and while developing their own transition finance approach. The UNEP FI and European Banking Federation (EBF) report, *Practical Approaches to Applying the EU Taxonomy to Bank Lending*,²⁰ provides banks with complementary tools to utilize the EU taxonomy as a forward-looking measure for transition finance and to accelerate transition finance in EU by engaging with and extracting key information from companies as necessary for transition finance (see appendix).

What are the key pillars/principles/criteria in the framework?

Not all economic activities undertaken in the EU economy (all economic activities) are defined under the EU Taxonomy. Only a subset of economic activities are defined (taxonomy-eligible), and only those that comply with the three requirements below are considered environmentally sustainable (taxonomy-aligned).

The EU Taxonomy Regulation sets **three broad requirements** for an activity to be aligned, and thus environmentally sustainable:

1. Substantially contribute (SC) to at least one of the six environmental objectives as defined in the Climate Delegated Act
2. Do no significant harm (DNSH) to any of the other five environmental objectives as defined in the Climate Delegated Act
3. Comply with minimum safeguards (MS), as defined in Article 18 of Regulation 2020/852

²⁰ European Banking Federation and UNEP FI (2022). *Practical Approaches to Applying the EU Taxonomy to Bank Lending*. unepfi.org/wordpress/wp-content/uploads/2022/02/Practical-Approaches-to-Applying-the-EU-Taxonomy-to-Bank-Lending-2022.pdf

The **six environmental objectives** for the identification of SC and DNSH are following:

1. Climate change mitigation
2. Climate change adaptation
3. Sustainable use and protection of water and marine resources
4. Transition to a circular economy
5. Pollution prevention and control
6. Protection and restoration of biodiversity and ecosystems

For now, SC and DNSH criteria have been only defined for climate change mitigation and adaptation.

Minimum Safeguards: Article 18 of the EU Taxonomy Regulation stipulates that, to comply with the safeguards, procedures shall be “implemented by an undertaking that is carrying out an economic activity to ensure the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including...the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights.”²¹

As a result, **economic activities** can be classified into three categories under the taxonomy:

1. Eligible and Taxonomy-aligned activities,
2. Eligible but not Taxonomy-aligned activities, and
3. Non-eligible activities.

How can the framework be used by banks?

The EU Taxonomy will provide the following benefits to banks:

- Functions as benchmark for banks to clearly and credibly identify sustainable activities that will align their loan and investment portfolio with a net-zero by 2050 goal;
- Helps banks understand their carbon footprint at a point in time through mandatorily disclosed information, starting in 2023;
- Streamlines collection of necessary climate-related data from clients, enhances data comparability across clients, and furthers understanding of clients’ progress and transition plans; and
- Support clients’ efforts to benchmark and align their activities with market standards and best practices.

21 eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0852&from=EN

2.4 Japanese Government Transition Finance Guideline

Source: “Basic Guidelines on Climate Transition Finance Japan Financial Services Agency, Ministry of Economy, Trade and Industry, and Ministry of the Environment Japan”

Overview of the framework

This guideline was drafted by the Japanese government following the ICMA Handbook to strengthen the position of climate transition finance and to ensure an efficient flow of financing, especially to the carbon-intensive sectors in Japan (but also applicable in other countries and regions in need of transition finance). The guideline provides examples of responses and interpretations so that the fundraiser, the financier, and other market participants can understand and lower the hurdles to distributing transition finance.

Who are the targeted users of the framework?

This guideline is for all market participants involved in transition finance, such as fundraisers, financiers, investors, and ESG rating and data providers.

What are the key pillars/principles/criteria in the framework?

There are 3 pillars in the guideline:

1. Providing the standpoint,
2. overview of transition finance and
3. the expectations for transition finance based on the ICMA Handbook.

In addition, the Japanese government drafted a Technology Roadmap for the carbon-intensive sectors (see appendix). The framework suggests referencing this roadmap when developing a science-based climate transition strategy.

- 1. Providing the Standpoint of the Basic Guidelines**
 - Formulated based on the ICMA Handbook
 - How and where the guidelines are to be applied (domestic (Japan) transition finance and other countries and regions in need of transition finance)
- 2. Overview of Transition Finance**
 - Definition of Transition Finance: promoting long-term, strategic GHG emissions reduction initiatives that are taken by a company
 - Introduction of the ICMA Handbook’s transition finance framework
- 3. Expectations for Transition Finance**

Describes detailed expectations, including disclosures and independent review, assurance, and verification for ICMA’s four elements.

 - Element 1: Fundraiser’s Climate Transition Strategy and Governance
 - Element 2: Business Model Environmental Materiality
 - Element 3: Climate Transition Strategy to be Science-based Including Targets and Pathways
 - Element 4: Implementation Transparency

How can the framework be used by banks?

Banks can use this guideline to understand the ICMA Handbook more concretely. There are several examples of trajectories for setting science-based targets, which may help banks assess their alignment with the Paris Agreement.

Summary of challenges

While existing frameworks are useful starting points for banks, there are several shortcomings, which this guide discusses in sections 3 and 4 which includes:

Lack of comparability and flexibility

- Existing jurisdictional taxonomies have different **thresholds for the categorization** of what constitutes “transition” activities. It will be critical to acknowledge regional nuances to ensure the usability of different frameworks.
- There is a lack of **common terminology definitions**: similar, but non-equivalent, terminology is frequently used by different frameworks and approaches.
- Frameworks often provide **limited flexibility** for “exceptional and temporary circumstances,” such as short-term recessions, wars, or other significantly disruptive events.
- They often do not provide **detailed technology roadmaps or clear guidance** on which technologies or activities are aligned from a regional perspective (though it should be noted that it would be difficult, from a practical perspective, for them to do so in an exhaustive manner useful for a global reach).
- Regional jurisdictions are currently adopting different regulatory approaches which may lead to **regional differences in the legal definition of “transition finance”** (even if underlying principles are similar).

Lack of standardization, common criteria and templates

- Many frameworks are missing:
 - Suggested **criteria for quantitative performance alignment and target setting metrics** per industry over time (i.e., physical intensity for some industries versus absolute emissions for others; scope focus)
 - **Reporting templates** for what constitutes credible transition plans
 - Full **coverage** of all carbon-intensive sectors

Interoperability

- Framework definitions are often not entirely **practical for client engagement**
- There is a general **lack of interoperability** with other initiatives, which is, in part, a reflection of the fact that many frameworks were drafted before financial institutions made net-zero commitments.



SECTION 3:
**NZBA Transition
Finance Guide**



3.1 Core guiding principles

As discussed throughout this guide, the core purpose of transition finance is to facilitate clients' decarbonization strategies to assist the real economy meet global climate objectives.

To facilitate a client's transition, banks should ask two material questions:

1. **Does the client have a credible, feasible, and sufficiently ambitious net-zero aligned transition plan (and how can "credibility" be verified)?**²²
2. **Will the financing in question meaningfully advance a client's or the wider economy's net-zero journey (and how can this be assessed and reported)?**

As such, the NZBA guide, while remaining flexible and inclusive, provides the following two guiding principles in structuring a transition finance framework:

Clients must have a credible, feasible, and sufficiently ambitious transition plan

Clients must have made a public commitment to achieve net-zero emissions by 2050, or at minimum, be in line with sectoral or jurisdictional decarbonization pathways in which they operate. A credible and feasible transition plan for a client consists of the following components:

- a. Ambitious targets and implementation strategy
- b. Net-zero-aligned KPIs to monitor progress
- c. Comprehensive and transparent disclosure, and
- d. Clear governance mechanisms and accountability processes

A further practical challenge that the banks face is the need to assess the credibility of transition plans that may span 30 years or more into the future, especially in carbon-intensive sectors. In most cases, these transition plans will go beyond the maturity of the lending terms (i.e., loan tenor). For example, typical lending periods are between one to five years (sometimes longer but mostly under 10 years), whereas a net-zero plan is likely to span 30 years. Consequently, a traditional credit assessment framework (including due diligence procedures) may not be sufficient to review the credibility of a net-zero transition plan.

- a. **Ambitious targets and implementation strategy:** The transition plans that banks' clients prepare must clearly state the ambition of the target (including short and mid-term interim targets) they are committing to, and how the plan will be implemented throughout the organization. Plans should be sufficiently ambitious yet achievable to meet the Paris Agreement and be aligned with low/no overshoot 1.5°C pathways. A firm's targets and transition plan should also cover baseline emissions (including how they are estimated), drivers to reduce emissions (including technological breakthroughs and dependencies on the upstream and downstream value chain), risks associated with the plan, and resourcing (funding plans).

²² See, e.g., GFANZ, Expectations for Real-economy Transition Plans, 2022

- b. Net-zero aligned KPIs to monitor progress:** Clients must set one or more KPIs to measure progress towards net-zero emissions. Transition finance facilitates clients' long-term decarbonization during and beyond the financing term. Banks should monitor progress toward net-zero emissions through pre-determined KPIs on a regular basis, at a minimum annually during the loan term. Alliance member banks should determine and agree on the most suitable KPIs, which may differ by sector, with clients before providing transition finance. To enhance the integrity and comparability of transition plans across different companies, NZBA member banks are encouraged to use the KPIs suggested by the International Sustainability Standards Board (ISSB), which aim to be finalized in 2022, or other disclosure regimes²³ where relevant. For example, KPIs could include progress on GHG emissions reduction, transition risks (e.g., the amount and percentage of assets or business activities vulnerable to physical and transition risks), and capital deployment (i.e., Capex) toward climate-related risks and opportunities. Banks may refer clients to the criteria proposed in GFANZ's Expectations for Real-economy Transition Plans²⁴
- c. Comprehensive and transparent disclosure:** Transparency will be crucial to transition finance. Clients should be encouraged to publicly disclose their transition plans, including targets and progress on 1.5°C-aligned KPIs,²⁵ on an annual basis, to the extent that it is practical, in their annual reports or sustainability reports. This may include green / sustainable finance frameworks already in place. However, not all information may be suitable for public disclosure, so a client may instead choose to share certain information privately with banks (for instance, in cases of commercially sensitive information).
- d. Clear governance mechanisms and accountability processes:** Clients must document and implement robust governance mechanisms around processes, controls (including external verification where applicable and available), incentive mechanisms, and procedures to monitor and manage their transition plan. The plan should include board oversight and management oversight responsibilities. The plan should also detail how the organization will ensure sufficient skills and knowledge for implementing the plan, as well as how it will embed the plan through a change management program.

Transition finance must meaningfully advance a client's net-zero journey

The core purpose of transition finance in carbon-intensive sectors is to reduce GHG emissions across all scopes at a client level to contribute to macro-level emissions reduction in the real economy.

For this reason, transition finance for aligned or aligning companies and/or for the managed phaseout of a client's high-emitting assets should provide a clear contribu-

23 For example, the Task Force on Climate-related Financial Disclosures (TCFD) framework, Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Caron Disclosure Project (CDP), CSRD/EFRAG framework, or SEC framework.

24 (page 2) assets.bbhub.io/company/sites/63/2022/06/GFANZ_Introductory-Note-on-Expectations-for-Real-economy-Transition-Plans_June2022.pdf

25 For borrowers that are publicly traded, disclosure will likely be mandatory once regulations are applicable, but non-publicly traded borrowers may not be required to do so.

tion to the client's decarbonization strategy, which should be quantified, measured, and reported by the client. In other words, financing which contributes to the client's net-zero journey or decarbonization can be considered transition finance regardless of the financing structure (i.e., in the form of clearly defined use of proceeds lending or general corporate purpose lending, as discussed later in this section).

While the climate transition is critical, minimizing any other negative impacts (for instance, the DNSH criteria of the EU taxonomy) and ensuring a just transition are equally important considerations for which regional specificities must be considered. Alliance members are encouraged to consider how they intend to review DNSH and just transition implications in the context of transition finance. Indeed, the imperative of ensuring a just, orderly, and economically viable transition provides a key rationale for transition financing in carbon-intensive sectors.

To this end, banks should consider the following to promote transition finance in a disciplined manner.

Use of proceeds instruments

Capital mobilization for new technologies and solutions (including associated research and development spending and capital expenditure) will determine the scale and speed of the macro-level transition.

For transition finance to accelerate the real economy transition, corporates must deploy science-based low-emission technologies. However, differing socio-economic circumstances, government policy and regulation, resources (including talent availability), national priorities, and visions for pre- and post-2050 will all translate to varying availability and viability of technologies in each region.

Frequently, many of the more advanced technologies are not accessible or viable for some regions or types of clients, especially for emerging countries or MSMEs. Given that context, financing for the best available, viable, and appropriate net-zero or low emissions technological alternatives in such regions could be classified as transition finance.²⁶

While the burden of proof for what should be defined as the best available and viable technological alternatives in the region should primarily fall on clients, banks should conduct robust due diligence on clients' claims.

The Alliance encourages international organizations and governments to establish guidelines that enhance the credibility of region-specific transition finance (including how to avoid long-term emissions "lock-in"). Banks could conduct due diligence to verify clients' claims of the emissions reduction potential of the best available technological alternative, for example, by benchmarking the technology in question against well-recognized frameworks or benchmarks, such as the EU Taxonomy, the ASEAN Taxonomy, or the Japan METI technology roadmap (see Appendix for case studies of a few recognized frameworks and benchmarks).

26 Referred to as a "climate solution" in the GFANZ product approaches. assets.bbhub.io/company/sites/63/2022/06/GFANZ_Recommendations-and-Guidance-on-Net-zero-Transition-Plans-for-the-Financial-Sector_June2022.pdf

In the absence of taxonomies, sectoral pathways may support banks in developing regional, sectoral or temporal transition plans.

While technological innovation will unlock the decarbonization potential of carbon-intensive sectors, orderly phasing out carbon-intensive assets should also be positioned as a key pillar of reducing emissions. Banks have an important role to play in “managed phaseout” of carbon-intensive assets while investing in new technologies. To achieve an orderly transition, the “phaseout” and “build-up” should be balanced and synchronized within a region or community (e.g., energy supply). In this regard, financing for managed phaseout projects can also be considered transition financing.²⁷

General corporate purpose instruments

While loans with specific use of proceeds allow banks to evaluate the impact of a single activity (e.g., an investment in a new technology) at some point in time, the aggregate impact of a borrower’s full range of economic activities (i.e., firm-wide strategy to reach net zero) is material in assessing overall mitigation impact. Another benefit of transition finance may, therefore, be to promote the transformation of the borrower’s entity-wide business model and strategy.

In this sense, various types of loan instruments and/or contingent facilities (such as commitment lines) for general corporate purposes may be classified as transition finance if they will advance a client’s transition journey at the entity level.²⁸ For example, the loan terms that are aligned to the client’s decarbonization strategy and performance may be included in this context.

For this to be practical and impactful, financial institutions should conduct more rigorous assessments (i.e., due diligence) of a client’s transition plan²⁹ for a general corporate purpose loan than for a specific use of proceeds loan. Consequently, the borrower’s disclosure of a credible and forward-looking transition plan is vital for effective assessment. As noted above, transition plans must be complemented with an implementation plan and their progress should be measurable with KPIs to demonstrate credibility.

Given the fungibility of money, clients can use proceeds from general corporate purpose financing for various purposes once granted. Banks are encouraged to engage with clients to understand how they intend to use the proceeds to advance their transition to net zero.

Banks are encouraged to agree to a set of climate-related KPIs for their clients, monitor them to review the progress of clients’ transition plan, and consider linking financing terms to the performance of the pre-determined KPIs to incentivize clients to advance their decarbonization journey as planned. The loans or other instruments could be structured such that interest rates would “step down” if the KPIs are met (or vice versa).

27 Further explanation of “managed phaseout” can be found in assets.bbhub.io/company/sites/63/2022/06/GFANZ_Managed-Phaseout-of-High-emitting-Assets_June2022.pdf

28 Referred to as “financing companies that are aligned to a 1.5 degrees pathway” or “financing the “transition of companies with robust net-zero plans” assets.bbhub.io/company/sites/63/2022/06/GFANZ_Recommendations-and-Guidance-on-Net-zero-Transition-Plans-for-the-Financial-Sector_June2022.pdf

29 GFANZ provides a framework for non-financial firms’ transition plans assets.bbhub.io/company/sites/63/2022/06/GFANZ_Introductory-Note-on-Expectations-for-Real-economy-Transition-Plans_June2022.pdf

Bank lending may be structured and negotiated bilaterally between a lender and a borrower, or among multiple lenders and a borrower for syndicated loans, so disclosure is critical to establish credibility across a broad set of stakeholders. It is therefore necessary that borrowers disclose their transition plans in full, or at least those elements which are publicly disclosable.

3.2 Next steps for banks

Given that transition pathways will need to be tailored to the sector and operating geography of a client and should reflect different individual starting points and pathways, the two principles set forth by this guide should be considered as a **minimum baseline** for Alliance member banks to mainstream transition finance with discipline and transparency.

To effectively mainstream transition finance, banks are encouraged to develop their own transition finance framework that reflects the bank's business models and operating footprint or geographies.

The approach put forward through this guide is a complement to existing guidelines, and any gaps that exist should be supplemented by bank-specific frameworks.

Bank-specific frameworks may include the following components:

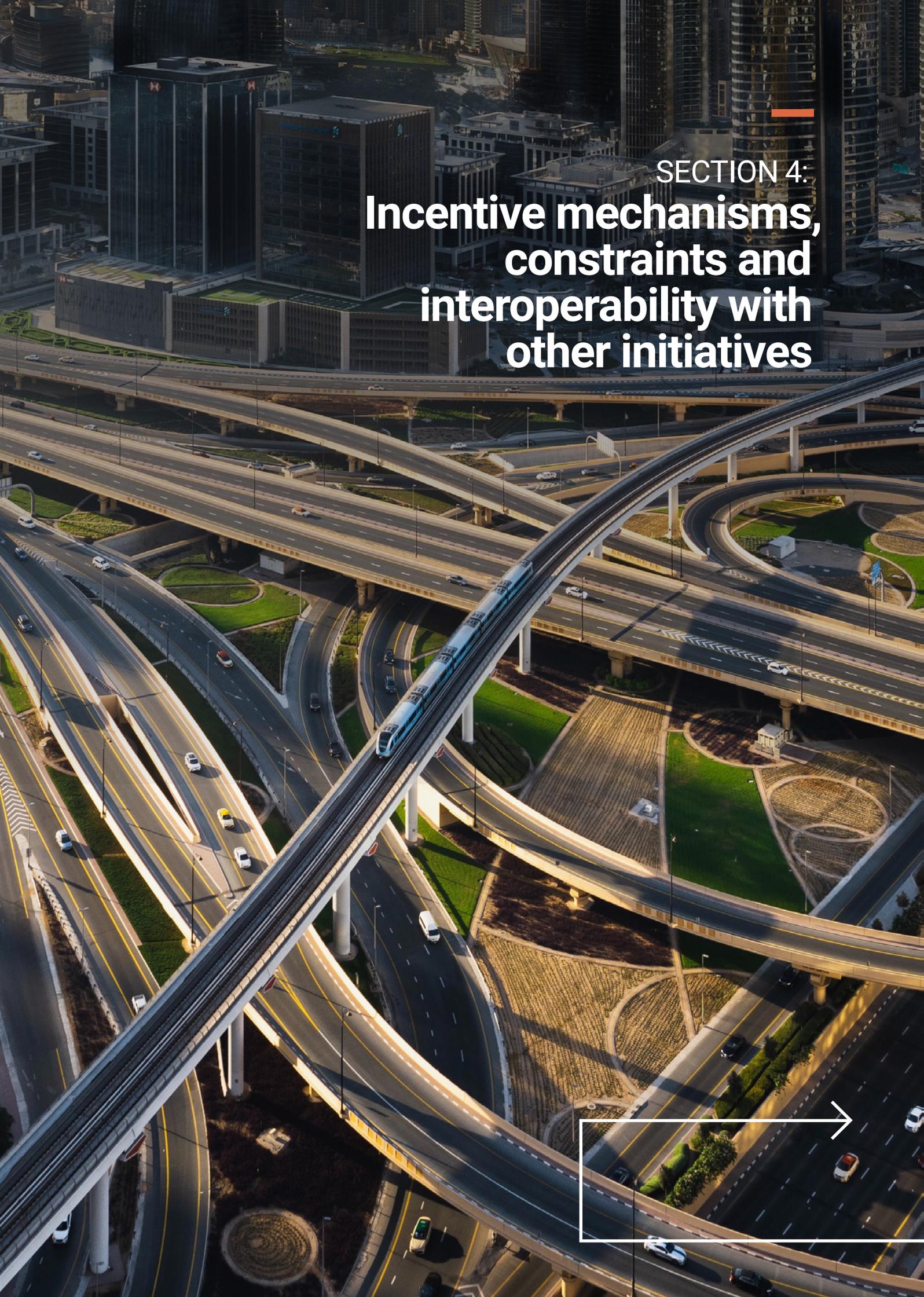
- Governance framework for transition finance, including the bank's own targets
- Product scope
- Risk management framework
- Due diligence processes (e.g., DNSH consideration, just transition considerations, etc.)
- Approaches to use of proceeds transition finance
- Approaches to general corporate purpose transition finance
- Disclosure policy
- Eligible activities and technologies or an internal taxonomy (referencing third-party roadmaps or taxonomies, as appropriate)

Bank-specific frameworks may be useful if:

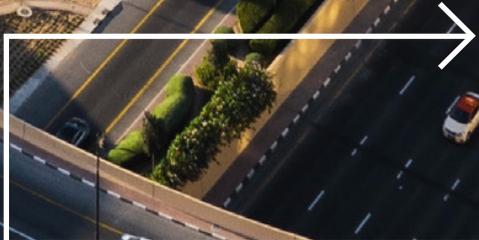
- They are detailed, practical, and actionable for client engagement purposes; and
- They are publicly disclosed (at least those elements which can be publicly disclosed for commercial reasons).

As more banks disclose their specific frameworks, best practices will be accumulated among the Alliance members and the wider banking community. In due course, the NZBA (and UNEP FI, its Secretariat) may conduct a stocktaking exercise to draw lessons learned from member banks' transition finance frameworks and revise this guide, as deemed appropriate.

Furthermore, the Alliance will look to publish a collection of leading practices to provide more granular guidance or further insights regarding banks' client engagement tools or approaches and their practical applications (i.e., introduction of a net-zero linked covenants, due diligence processes, and considerations for assessment of clients' transition plans).

An aerial photograph of a complex multi-level highway interchange in a city. A train is traveling on an elevated track that crosses over several levels of the highway. The scene is filled with concrete structures, roads, and green spaces. In the background, there are several modern high-rise buildings. The lighting suggests it's either early morning or late afternoon, with long shadows cast across the roads.

SECTION 4:
**Incentive mechanisms,
constraints and
interoperability with
other initiatives**



NZBA members have committed to publish their first round of net-zero-related targets within 18 months of signing the commitment and then, within 12 months, must also highlight the actions they are taking to meet those targets.

As of October 2022, more than 50 banks have disclosed initial targets for sectors they have identified as priorities, which, collectively, sends a strong and consistent signal to the real economy across regions.

Despite this initial progress, there is a relatively limited amount of financing that can be considered transition finance, which can be attributed to two core issues:

- Insufficient appreciation of the need to mobilize greater amounts of capital (and the significant absolute amount of capital) to carbon-intensive sectors to reduce emissions in line with net-zero goals, and
- The absence of clearly defined labelling standards by existing initiatives and a lack of transition-specific taxonomies.

Addressing these two issues is critical to achieving the goals of the Paris Agreement and supporting banks manage various potential risks (including reputational risks).

These issues cannot be solved solely by the Alliance members. This chapter provides a baseline for future discussions involving international standard setters, jurisdictional policy makers, real economy constituents, academia, civil society, and all other stakeholders, to mainstream transition finance.

Constraint 1: The role of transition finance is not sufficiently understood

According to a recent analysis,³⁰ carbon-intensive sectors, such as oil and gas, power generation, and agriculture, account for about 85% of global GHG emissions. Though clearly a source of significant GHG emissions, these sectors play a fundamental role in the world economy by representing approximately 20% of global GDP and are an essential component of virtually all “downstream” economic activities.

Transitioning these sectors will require significant amounts of resources, including time, resources, and significant capital investment. For example, the same study estimates that the NGFS Net Zero 2050 scenario requires annual capital spending within the global power sector of about US\$1 trillion in power generation, US\$820 billion on the power grid, and another US\$120 billion in energy storage between 2021–2050.³¹

- The power sector must phase out (or phase down) fossil fuel-based power generation while concurrently adding capacity for low-emissions power to meet the existing and additional demand arising from both economic development and the growing electrification of various sectors. This transition must take place in an orderly manner in each region (within the power grid connectivity) to avoid triggering inflation and/or social unrest.

30 McKinsey (25 January 2022), Sectors are unevenly exposed in the net-zero transition ([mckinsey.com/business-functions/sustainability/our-insights/sectors-are-unevenly-exposed-in-the-net-zero-transition](https://www.mckinsey.com/business-functions/sustainability/our-insights/sectors-are-unevenly-exposed-in-the-net-zero-transition))

31 Ibid

- The forestry and land-use sector will require US\$40 billion per year between 2021 and 2050 to reach net-zero emissions. About 75% of that amount must be spent in the next decade, primarily to acquire and protect land.³²

While ongoing investments in carbon-intensive sectors are often criticized by a range of stakeholders as appearing to go counter to global needs to decarbonize the economy (thus posing reputational risks for banks), this financing will play an essential role in facilitating net-zero transition. Net-zero plans in many sectors and regions require a managed phaseout of existing facilities (including retrofitting where possible) and associated funding. As noted throughout this guide, transition finance to carbon-intensive sectors will be essential to facilitate the transition the real economy, in both advanced and emerging markets. In other words, a sudden discontinuation of funding to carbon-intensive sectors will maintain the status quo and leave those sectors behind.

Critically, policy makers and governments must send a clear signal regarding the necessity and urgency of transition finance (as described in Section 3) to carbon intensive sectors through policies, statements, and other measures. This will allow a broader range of stakeholders to understand and appreciate transition finance so banks can confidently provide transition finance.

Constraint 2: Unaligned mechanisms of existing frameworks

Transition finance may increase financed emissions (in the short-term)

By committing to reach net-zero emissions by 2050 as a member of the Alliance, member banks are set to measure and disclose their emissions profile on an annual basis. Whether reported in absolute and/or intensity metrics (often on a sectoral basis), the emissions profile reflects a bank's portfolio mix, which includes not only new transition finance, but also existing exposures that are on the balance sheet.

To date, emission reduction commitments are made voluntarily, but a number of supervisory and regulatory bodies are beginning to require disclosure of a bank's emissions profiles. Though a range of top-down and bottom-up methodologies do exist, most banks currently use the Partnership for Carbon Accounting Financials (PCAF) methodology to calculate their financed emissions (Scope 3).

As highlighted by GFANZ, Table 1 demonstrates the interplay between the four key financing strategies and potential impact on portfolio emissions

³² McKinsey (25 January 2022), Sectors are unevenly exposed in the net-zero transition ([mckinsey.com/business-functions/sustainability/our-insights/sectors-are-unevenly-exposed-in-the-net-zero-transition](https://www.mckinsey.com/business-functions/sustainability/our-insights/sectors-are-unevenly-exposed-in-the-net-zero-transition))

Key financing strategy	Example impact on portfolio emissions (not exhaustive)
1. Climate solutions	If a portfolio company meets increased demand for its low-emissions technology, its own emissions will increase and the financial institution's overall portfolio emissions will also increase. Conversely, if entities using low-emissions technologies are included in the financial institution's portfolio, overall portfolio emissions could decrease as the technology is deployed.
2. Aligned	Portfolio emissions could decrease as more companies or clients in the portfolio are aligned to net zero.
3. Aligning	Portfolio emissions could increase with the addition of more high-emitting real-economy firms that are just beginning to transition. As firms execute their net-zero transition plans, reductions in portfolio emissions in line with 1.5°C-aligned pathways take place.
4. Managed phaseout	Portfolio emissions may initially be higher if the financial institution is financing high-emitting assets with plans to accelerate their retirement. Significant reductions in portfolio emissions may only occur as the phaseout plan is completed.

Table 1: Interplay between financing strategies and portfolio emissions (GFANZ)

Challenges with current carbon accounting methodologies

To support clients adopting new technologies that will reduce their emissions in years to come, banks may have to increase their exposure to carbon-intensive sectors.

If evaluating absolute emissions in a silo, support for client transition activities (i.e., new lending in line with the bank's own transition finance framework) may lead to short-term increases in the bank's absolute emissions. Methodological calculations may not necessarily reflect the longer timescales of transition finance (i.e., future decrease in clients' emissions). As a result, banks could be exposed to regulatory or reputational risks.

The possibility of stakeholder scrutiny may reduce a bank's willingness to engage with clients and provide transition finance, especially as 2030 interim targets approach.

There is also a risk that some stakeholders who only focus on disclosed financed emissions (absolute figures) may incorrectly assess GHG-related performance. In reality, however, the short-term increase in financed emissions could be the result of active engagement with clients and transition finance.

While financing schemes may allow some banks to avoid short-term increases in emissions, some clients may lack the capability and sophistication to structure and document innovative financing solutions.

To address these perceived reputational or regulatory risks, existing frameworks may wish to review or complement existing approaches and calculation methodologies to account for the nature of transition finance. For example, disclosed financed emissions can reflect future emission reductions through additional, complementary KPIs. Banks could disclose, as an example, what percentage of their financed emissions come from clients they deem to be "transition-aligned," to contextualize any short-term increase in financed emissions.

Treatment of transition finance in scenario analysis

Scenario analysis is becoming one of the primary tools for regulators to identify and quantify climate-related financial risks, and many supervisory authorities already require banks to conduct such an analysis.

As noted above with regards to emissions profiles, banks' exposure to carbon-intensive sectors may increase in the short-term as transition finance becomes a mainstream financial solution. Given the role transition finance will play in addressing climate change, the short-term increase in transition finance and financed emissions should not be regarded as an increase in transition risks. Instead, transition finance may, in the longer term, reduce transition risks, as discussed in the Introduction section.

Consequently, to avoid a potential barrier to mainstreaming transition finance, scenario analysis frameworks should provide sufficient granularity and predictability.

Alliance member banks may therefore consider working with standard setters and supervisory authorities to ensure transition finance transactions are appropriately assessed and accounted for through scenario analysis exercises.

Constraint 3: Disclosure requirements

In 2022, three major climate disclosure initiatives have conducted consultations:

- The International Sustainability Standard Board (ISSB) exposure drafts for General Requirements for Disclosure of Sustainability-related Financial Information Standards and Climate-specific Disclosures,
- The U.S. Securities and Exchange Commission's (SEC) mandatory Climate Change Disclosure Rules
- The European Commission's EU Sustainability Reporting Standards, building on the work of the European Financial Reporting Advisory Group (EFRAG)

Throughout these proposals, financial institutions would be required to disclose industry-agnostic information (such as Scope 1,2, and 3 emissions) as well as, in some instances, industry-based metrics.

To maximize comparability, the disclosure initiatives should promote synergies and establish a common global baseline (i.e., inter-operability), including additional transition finance-related metrics or KPIs for the banking sector, in such a way as to incentivize banks to mainstream transition finance. In other words, disclosure frameworks should allow banks to separately report KPIs that track the increase in banks' financed emissions as a result of active transition engagement, as discussed above.

Constraint 4: Transition plan scope considerations

While the Alliance has clear guidance on the carbon-intensive sectors to be covered in members' targets (agriculture; aluminium; cement; coal; commercial and residential real estate; iron and steel; oil and gas; power generation; and transport), proposed disclosure

rules relating to climate (e.g., ISSB, SEC, EFRAG) have limited guidance on mandatory sector coverage in the context of banks' transition plan disclosures.

Since transition plans must be developed and tailored for each firm (taking into consideration sectoral, regional, and national context, especially in emerging and vulnerable economies), disclosure initiatives should consider providing flexibility in how banks describe their transition plans.³³

The linkage between and interdependency of banks' and the real economy's transition plans should be clearly understood by all stakeholders, and transition plan disclosure frameworks should reflect this understanding.

Policy makers involved in establishing disclosure frameworks may wish to consider clarifying their expectations for banks' transition plan disclosures to allow banks the flexibility to provide transition finance to carbon-intensive sectors.

Future considerations

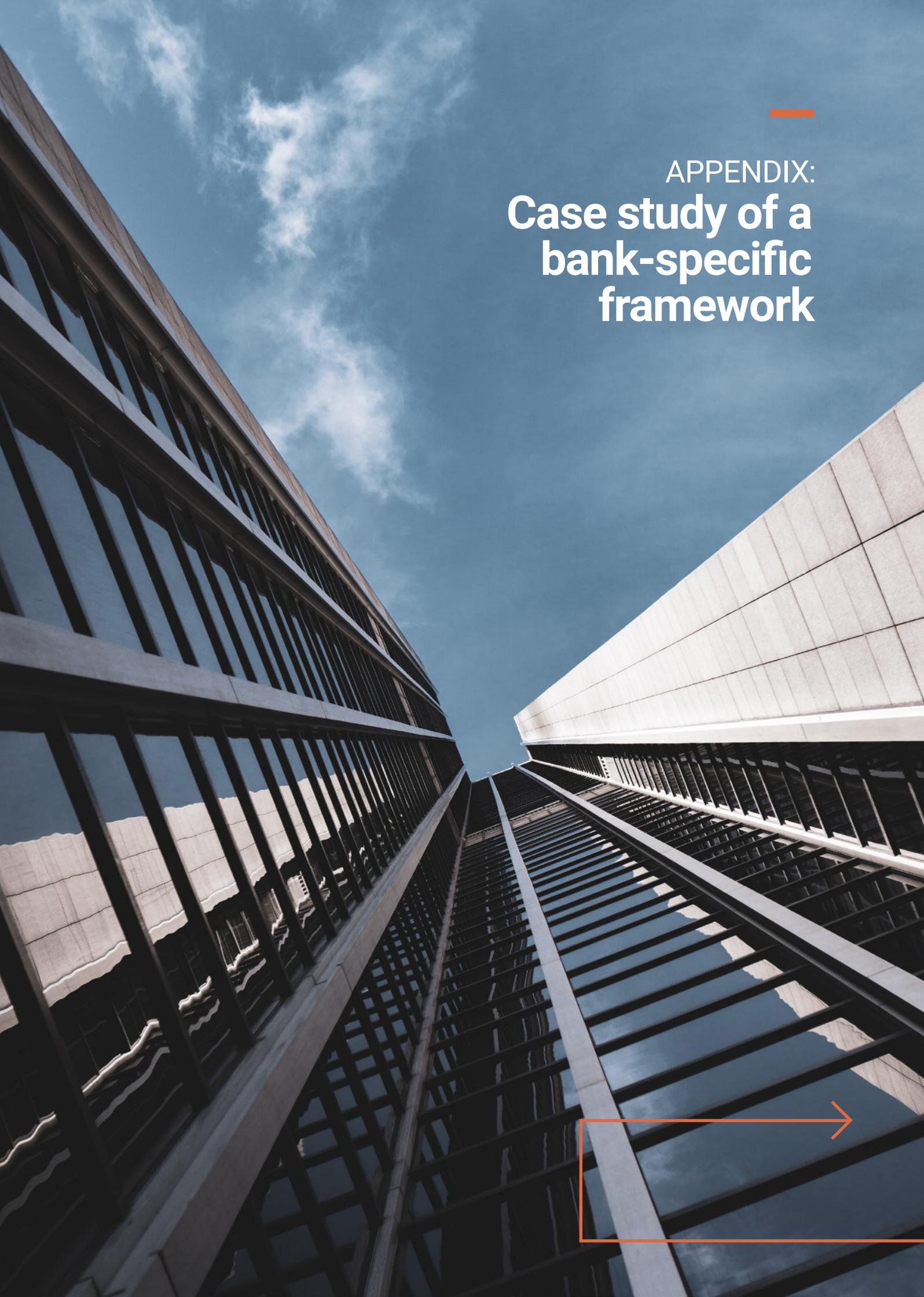
Transition finance will be a key enabler in achieving the net-zero targets of banks and their clients. To help catalyse the flow of capital towards transition finance activities, further consideration is needed on topics including, but not limited to:

- **Clear signals by policy makers:** The requirement for transition finance to be appreciated by a broader range of stakeholders, and opportunities to reduce macro-level emissions must be central to policy-related debate. Indeed, without banks engaging with carbon-intensive sectors and facilitating their transition, it is unlikely that net-zero emissions by 2050 will be achievable. Policy makers are strongly encouraged to give clearer signals, particularly to encourage transition finance for carbon-intensive sectors. The Alliance welcomes the recent announcement by the G20 Sustainable Finance Working Group (SFWG) that it intends to publish Transition Finance principles.
- **Incentive mechanisms and interoperability of existing frameworks:** PCAF's standard states, "it would investigate the challenges linked to steering on financed emissions and describe the metrics in use by investors as emerging practices in the future." PCAF and other frameworks should consider reflecting the "present value" of absolute emissions throughout the transitioning process, or consider "risk weighting" financed emission attribution for transition finance. From a disclosure perspective, reporting requirements could include additional, comparable KPIs for transition finance, such as a transition finance ratio (whether reported separately or as part of general reporting).
- **Framework to strengthen the credibility of banks' commitments:** Banks currently lack sufficient capabilities or capacities to assess the technology roadmaps and pathways claimed by clients, especially if the technology is considered innovative. If banks are required to seek independent expert reviews in all transition finance transactions, this may slow down the adoption of new technologies, especially in emerging economies. To achieve the ambition of the Paris Agreement, banks should be able to

33 GFANZ provides a transition plan framework for financial institutions. assets.bbhub.io/company/sites/63/2022/06/GFANZ_Recommendations-and-Guidance-on-Net-zero-Transition-Plans-for-the-Financial-Sector_June2022.pdf

practically engage all firms, sectors, and regions. Since transition pathways will vary among regions and sectors, governments are encouraged to create country-level and sector-level technology roadmaps and pathways for banks to use as benchmarks.

- **Data availability and reliability for GHG emissions in the real economy in all regions:** Standardized, clear, and detailed data definitions and a common global baseline for reporting obligations are needed to enhance the comparability, consistency, and accuracy of data that banks rely on. Standard setters, data preparers, and data providers should work together to improve the availability and quality of transition-related data. Reporting requirements should be decision-useful for banks and other stakeholders and cost-effective for companies to implement to maximize adoption.
- **Policy support for a just transition:** To achieve the goals of the Paris Agreement, the global net-zero transition must be just and equitable.
 - Broadly speaking, a just transition requires accounting for all UN SDGs, not just SDG 13 (Climate Action). For example, SDG 1 (No Poverty), SDG 7 (Affordable and Clean Energy), and SDG 8 (Decent Work and Economic Growth) are all linked to the net-zero transition through implications such as supporting economic opportunities in emerging economies, meeting growing energy demands cost-effectively with low-emission technologies, supporting workers transitioning to new jobs, creating new jobs and more.
 - Achieving a just transition is therefore highly contextual since various regions, countries, and communities have different priorities, so a one-size-fits-all approach is not suitable. In addition, some aspects may be beyond individual banks' abilities to engage in isolation with the approach, let alone deal with and fix the risk of "non-Just" transition.
 - A Just transition will require collaboration across a wider array of stakeholders. In particular, governments should look to take a central role in realizing a Just transition, though the level of responsibility may differ among regions/countries depending on their economic development and financial capacity.
 - Governments in countries with financial strength and a sufficient social safety net may choose to take on a large portion of these responsibilities while governments in many other countries may not.
 - Governments, especially with emerging economics are encouraged to proactively engage with all relevant parties involved in transition projects to deal with the consequences (including unintended ones) to ensure that the climate change agenda is not unintentionally stifled.
 - Member banks are, to the extent possible and practicable, encouraged to integrate relevant SDG considerations in their transition finance frameworks to ensure they are advancing social priorities in a just and equitable manner. Where necessary, banks may want to advocate for governments to take an active role in advancing a just transition to leave no one behind.



APPENDIX:
**Case study of a
bank-specific
framework**



Standard Chartered's Transition Finance Framework

Overview

Standard Chartered Bank (SCB) is one of the leading global banks with 85,000 employees and a presence in 59 markets, with ~80% of revenues coming from Asia, Africa, and the Middle East. These economies have the largest capital shortfall for the transition and are also most exposed to climate risks.

According to the "Just in Time" report published by SCB, it is estimated that emerging markets will need an additional US\$94.8 trillion, a sum higher than the current global GDP, to transition to net zero by 2060. As such, SCB has recognized the need to accelerate flows of finance for green **and** transition finance to the markets they operate in to help close this gap. In 2021, they set out a plan to aim to mobilize US\$300 billion in green and transition finance by 2030.

SCB's Green and Sustainable Product Framework already covers green financing but, to provide transparency on their approach to transition finance, they published a Transition Finance Framework in October 2021. The publication of this Framework also supports market development and learning and encourages discussion and debate in the absence of regulation on what is eligible as "transition."

The Transition Finance Framework consists of (a) a definition of transition finance, (b) principles of SCB's approach to transition finance, (c) governance, (d) a decision framework for asset-based financing, and (e) initially qualifying transition activities.

Connection with SCB's net-zero strategy

SCB's Transition Finance Framework is complementary to their Green and Sustainable Product Framework. Together, they identify the types of activities SCB will target for financing as a key lever to achieve their net-zero ambitions.

Definition and principles

SCB has defined transition finance as "any financial service provided to clients to support them align their business and/or operations with a 1.5°C trajectory." Their approach is derived from the IEA Net-zero Emissions 2050 scenario (augmented by their markets) and is informed by the Climate Bonds Initiative White Paper and Discussion Paper, the EU Sustainable Finance Taxonomy and Consultation Report on Taxonomy Extension Options, and their own sectoral Transition Playbooks. They set the following principles for labelling assets and activities as "Transition":

1. Be compatible with a 1.5°C trajectory, established by science; and,
2. Not hamper the development and deployment of low-carbon alternatives or lead to a lock-in of carbon-intensive assets; and,
3. Meet the minimum safeguards as defined in their Environmental and Social Risk Management Framework.

Governance

SCB has implemented robust governance processes to ensure that their Transition Finance Framework remains consistent with the latest thinking in science and industry. The Sustainable Finance Governance Committee and its delegates will have final decision-making rights on “Transition” labelling. Given the nature of transition finance, SCB plans to conduct an external verification/audit of progress against transition finance targets and their transition-labelled assets against their Transition Finance Framework, and to update the Framework, including the list of qualifying activities, on an annual basis. The annual updates are expected to be approved by their Group’s Responsibility and Reputational Risk Committee, which ultimately reports to the SCB’s Board.

Qualifying transition activities

At present, SCB’s Transition Finance Framework has been designed for financing with specific use of proceeds. In due course, they expect to consider eligibility of transition financing for general corporate purposes for companies with credible, science-based transition strategies, in line with the principles set out in the Climate Bonds Initiative Discussion Paper. SCB has selected qualifying activities as those that align with the IEA NZE 2050 scenario, and covers the following sectors:

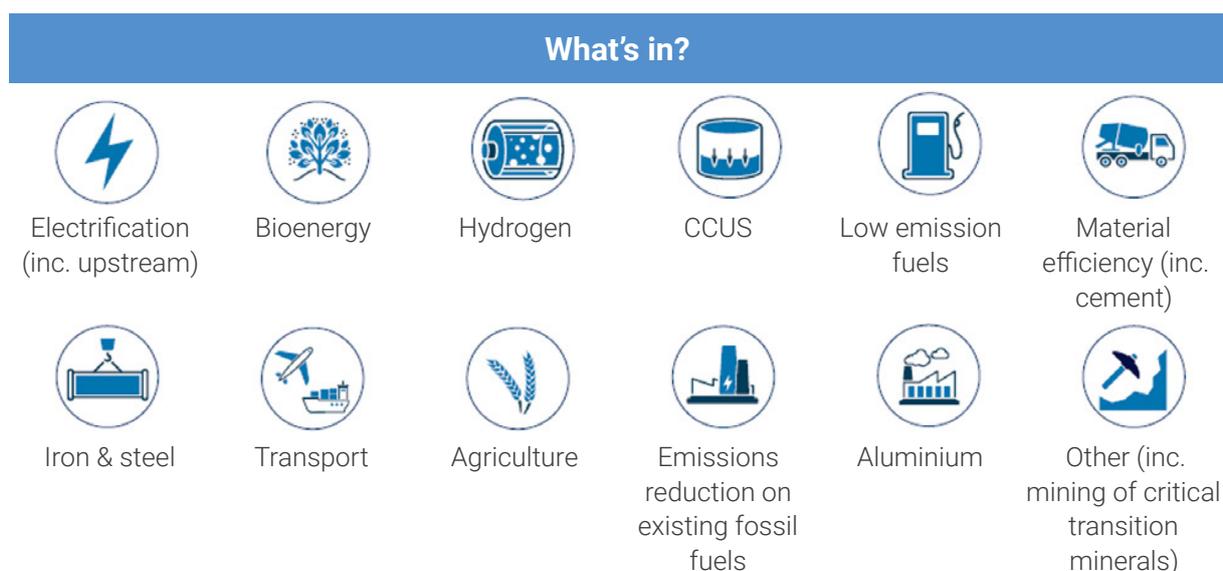


Figure 6: Standard Chartered’s Transition Finance Framework

Determining eligible assets

Eligibility is determined through three key questions:

1. Is the asset included in the qualifying activities listed in the Transition Finance Framework?
2. Is the asset in compliance with SCB’s Do No Significant Harm assessment, as defined by their Environmental and Social Risk Management Standard?
3. Does the client or group entity have, or is in the process of developing, a credible climate transition strategy?

Activities which sit outside those currently listed in the Transition Finance Framework, but with a science-based argument for inclusion, can be considered for eligibility by the Sustainable Finance Governance Committee. As part of this, key datapoints will be required such as: the full-lifecycle emissions of the project, sector / regional comparison to the SCB-augmented IEA NZE roadmap, expected useful economic life of the asset, and any dependencies on future technological developments.

This approach is demonstrated in the decision framework below.

Decision Framework



Figure 7: Standard Chartered’s Decision Framework

Implications for the Alliance member banks

SCB's Transition Finance Framework is well structured and provides transparency on how SCB approaches transition finance. This contributes to the enhanced credibility of SCB's transition finance approach in a situation where there is no global consensus on what is eligible for transition finance. Given that SCB applies this Transition Finance Framework across their global operations, including in Asia, Africa, and the Middle East, Alliance member banks in any region could learn from this framework when developing their own.

As reviewed in this guide, transition finance is evolving in nature, and pathways toward net zero should be tailored by country, sector, and company. Allowing some level of flexibility in the framework while keeping transparency and credibility will be key for bank-specific frameworks.

In this context, SCB's Transition Finance Framework, and especially the transparency around their approaches to governance and activities which sit outside the Transition Finance Framework, could help others grappling with similar issues.

DBS Bank's Sustainable & Transition Finance Framework and Taxonomy

Overview

DBS Bank (DBS) is a leading financial services group headquartered in Singapore with a presence in 18 markets globally, six of which are in Asia and are considered priority markets. These include Singapore, Mainland China, Hong Kong, Taiwan, India, and Indonesia, where decarbonization solutions may not yet be available at scale due to cost and technological barriers. To encourage clients to transition towards more carbon-efficient operations by considering commercially viable greener alternatives, DBS launched a Sustainable and Transition Finance Framework and Taxonomy in June 2020. DBS takes a prudent, science-based approach to evaluate the transitional qualities of economic activities and whether clients have a strategy to adapt their businesses in alignment with the Paris Agreement. The implementation of this Framework involves robust governance and reporting processes that enable transparency. The Framework has also received a second party opinion from Cicero, an independent, research-based organization, which has opined on the taxonomy and provided a broad, qualitative review of the climate and environmental risks and ambitions.

The Framework mainly consists of (a) Objective, (b) Scope, (c) Use of Proceeds, (d) Process for Project Evaluation and Selection, (e) Monitoring and Management of Transactions, (f) Reporting, and (g) Taxonomy.

Objective

The Framework has been developed to facilitate the categorization, monitoring, and reporting of financing of sustainable and transition activities, and to engage with clients in the face of climate change, resource scarcity, and income inequality. The Framework includes a taxonomy of sustainable and transition economic activities with the aim of:

- Making potential trade-offs explicit (e.g., where an activity that contributes to the United Nations Sustainable Development Goals may not be aligned with the Paris Agreement)
- Providing a science-based approach to avoid greenwashing
- Facilitating the examination of the relationship between an asset or projects' nature (green, carbon-intensive, transition) and credit quality
- Achieving scale in sustainable finance
- Pinpointing potential differences in how an economic activity intended as transition solution in Asia may differ from more developed markets

Forms and types

Instruments for sustainable or transition finance can be deployed and structured in two ways: (1) Use of proceeds specific financing and (2) Corporate-level financing with an intent to aid corporate clients' transition to low-carbon operations. The former is further classified into three types: A. Green, B. UN Sustainable Development Goals (SDGs), and C. Transition.

Use of proceeds specific financing

For transactions with specific use of proceeds, 100% of proceeds should be directed to an earmarked activity aligning with at least one of the following:

- a. **Green:** Economic activities that are completely aligned with the EU and/or CBI Taxonomy, meeting the technical screening criteria; or in line with the categories prescribed in the ICMA Green Bond Principles and/or LMA Green Loan Principles.
- b. **UN SDGs:** Economic activities that contribute to the UN SDGs.
- c. **Transition:** Economic activities meeting the following conditions:
 - Displace more carbon-intensive options, and document and independently verify the extent of GHG emissions reductions (forecasted or realized) compared to industry norms. DBS considers contextual information, as the activity should facilitate the graduation along the Paris Agreement-aligned trajectory, and not solely be less carbon-intensive in isolation; or
 - Enables the wider application or integration of less carbon-intensive options

DBS recognizes the complicated nature of transition finance, so thus takes a cautious approach the “transition” label. Therefore, although the bank has developed a taxonomy of “transitional” activities, DBS will evaluate each transaction or service on a case-by-case basis, taking into account contextual information, such as location of the economy activity, best available technology, the time horizon, and pace of change towards net-zero emissions, instead of classifying activities solely against the taxonomy.

Corporate-level Financing/General Corporate Purpose Financing

DBS will tag corporate-level financing with unspecified uses as “Corporate in Transition.” This transition differs from the transition labels used to describe individual economic activities under Use of Proceeds Specific Financing. **The label “Corporate in Transition” will be applied when any of the three “D’s” criteria is satisfied in the previous 12 months of any new transaction:**

- **Divest:** Exiting or decommissioning carbon-intensive assets
- **Diversify:** Decreasing the share of revenue derived from high-emitting activities over time. Diversification may take the form of acquisition of green or socially positive business, research and development investment, etc.
- **Decarbonize:** Demonstrating an overall reduction in GHG emissions intensity with independent verification. This is especially relevant for the carbon-intensive sectors. Clients must significantly enhance their emissions intensity performance beyond the industry average in the country or region, and over time.

Governance

DBS considers this Framework, including the taxonomy, as an evolving document and plans to update it periodically when market practices for sustainability evolve or as DBS’s business scope expands beyond the activities described in the taxonomy. At minimum, the Framework will be reviewed every 18 months. DBS will seek a renewed second party opinion when the taxonomy is expanded with additional economic activities.

Taxonomy

The DBS taxonomy mirrors the type of activities DBS serves and currently covers 16 industries including: Automotive, Metals & Mining, Food & Agri-Business, Real Estate, etc. This taxonomy is expected to be reviewed when new scientific evidence, technological advances, and policy changes emerge. Also, the taxonomy primarily focuses on the “what” rather than the “how.” For example, no matter how efficiently a thermal coal mine is operated, it will not be labelled “green” or “transition.”

Evaluation and selection process

The selection and evaluation of transactions’ eligibility for sustainable or transition finance is subject to a two-tier process by Relationship Managers (RMs) and IBG Sustainability as shown below.

The RMs will first identify potential eligible transactions and liaise with their clients. Then, the nominated transactions are escalated for technical review by IBG Sustainability, which advises clients on the measurement of required data where needed. As the last line of defense, Group Audit will carry out periodic review on the effectiveness, as well as compliance on the project evaluation and selection process.

Monitoring and management of transactions

DBS plans to establish and maintain a centralized database to track the progress of all concerned transactions with information including identifier, transaction amount, and tenor.

Also, the use of proceeds will be documented in the facility agreements to ensure the integrity of the labelled loans. For loans labelled as “transition,” the agreement will also include the requirement for independent verification of GHG emissions reductions (forecasted or realized).

Implications for the Alliance member banks

DBS was the one of the first banks in Asia to define transition activities and develop and disclose a bank-specific framework to cover transition finance. While the concept of transition finance was in very nascent stage and existing taxonomies tended to focus on independent economic activities (e.g., use of proceeds instruments), this Framework was significant in terms of incorporating the concept of the general corporate purpose instruments into transition and defining its conditions. As written in the guide, while loans with a specific use of proceeds allow banks to focus on evaluating the impact of a single activity at some point in time, the aggregated impact of a borrower’s full range of economic activities is also material in assessing the bank’s overall mitigation impact. In this sense, general corporate purpose instruments can be as effective as use of proceeds instruments to advance the borrower’s net-zero trajectory.

Given there is still no global consensus or guidance from standard-setters on the detailed definition of transition finance, and especially for the treatment of the general corporate purpose instruments, DBS's approach will be a good starting point for NZBA member banks to consider how to approach transition finance in their bank-specific transition finance framework.

DBS finds evaluating the transition attributes of financing more challenging than evaluating financing for a green label, as it requires data points that, based on their experience, are not readily available. Despite the challenge, DBS has been able to leverage the insights gained in their own net-zero studies to establish an emissions baseline for clients, project their future emissions trajectories, and benchmark them against a science-based reference pathway. DBS has purposely opted for alignment with international best practices even though they derive the majority of their business from financing the economic growth of Southeast Asia, as they believe in the constant ratcheting up of nations' climate pledges over time.

A full-page background image of the Eiffel Tower in Paris, France, captured at dusk. The tower's intricate iron lattice structure is silhouetted against a soft, orange and blue twilight sky. The base of the tower is visible, with its archway framing a view of the city below. In the foreground, a wide, paved road leads towards the tower, flanked by streetlights and some trees. The overall mood is serene and iconic.

APPENDIX:
**Case study of
well-recognized
frameworks and
benchmarks**



This guide encourages NZBA member banks to publish their bank-specific transition finance framework or approach. In this framework or approach, Alliance member banks should provide transparency on how they assess the best available technological alternative in their region. In other words, banks should be clear about their main benchmarks for the assessment.

While the Alliance is not in a position to exhaustively discuss which benchmarks are appropriate for technology assessment purposes, this section summarizes jurisdictional initiatives that banks may reference in this context: the EU taxonomy, ASEAN taxonomy, and METI's technology roadmap.

1. Practical Approaches to Applying the EU Taxonomy to Bank Lending

Overview

“Practical Approaches to Applying the EU Taxonomy to Bank Lending” is a report based on the efforts of 25 Banks, 12 banking Associations, and six observers coordinated and jointly published by the EBF and UNEP FI. Launched in February 2022, the report offers guidance on the classification of mandatory reporting under the EU taxonomy (Section A), how to adapt internal frameworks (Section B), and how to use the EU taxonomy for transition financing (Section C). Section C offers key insights on how to utilize the taxonomy as a forward-looking tool for engaging clients who perform economic activities that are taxonomy-eligible but not yet taxonomy-aligned.

This report is not legally binding and cannot be considered as an applicable legal interpretation of the legally binding aspects of the EU Regulation as EU law. However, the report is intended as a guide from banks to banks to prepare for EU Taxonomy alignment reporting and develop internal systems for further (voluntary) uses of the Regulation.

Background

As reviewed in Section 2, there are disclosure obligations for three key users: (1) Financial market participants, (2) large companies, and (3) the EU and Member states under the EU taxonomy. The scope of application covers EU-large, listed companies, and will be expanded to the broader companies, including SMEs, in 5 years.

However, the EU Taxonomy does not currently provide a mandatory requirement for non-financial corporations to publish information on the levels of performance of taxonomy-eligible activities against the SC, DNSH or MS criteria. Therefore, against this lack of mandatory information being provided, the report provides banks with complementary tools to utilize the EU taxonomy as a forward-looking measure for transition finance and to accelerate transition finance in the EU by engaging with and extracting key information necessary for transition finance from companies.

Objectives

The EU taxonomy classifies activities into three categories:

1. Eligible and Taxonomy-aligned activities,
2. Eligible but not Taxonomy-aligned activities, and
3. Non-eligible activities.

Because different companies have different starting points to become more sustainable or aligned with the taxonomy, capital must be mobilized not only to (1) already eligible and Taxonomy-aligned activities, but also to (2) eligible but not yet taxonomy-aligned activities to advance their alignment. Financing of both types of activities can contribute to EU climate goals.

In this context, the main purpose of Section C of this report is to help banks assess, engage, and finance the eligible but not taxonomy-aligned activities by providing the practical tools to plan, better align, and report on the transition pathways for those activities.

Definition of transition finance

In this report, **transition finance is defined as a financing pathway for eligible but non-taxonomy aligned activities to better align the activities and eventually meet the final Paris Agreement objective of 1.5°C and 2030–50 decarbonization targets, given that substantial contribution to Climate Change Mitigation (CCM) has this objective at its core.**

How to leverage this report for transition finance

This report offers a taxonomy-misalignment tracking tool and a taxonomy-alignment KPI framework.

The taxonomy-misalignment tool was developed to help banks understand the degree of misalignment of clients' activities with the EU taxonomy. The area and magnitude of misalignment can vary among activities. However, the tool simplifies the distance to alignment by assigning the activity to one of several buckets to attract managerial attention and assist with client engagement where needed. The visualization of where clients stand could enable banks to prioritize client engagement and offer or design financing solutions.

This tool can also be used to track substantial contribution to CCM performance. Though not all activities that perform at the Substantial Contribution level are fully taxonomy-aligned, the tool will show the level of CCM alignment. This is especially useful if combined with tracking of SC CCM and SC DNSH as, in some cases, they can provide a good example of levels of misalignment.

Exposure	Activity	Alignment with SC		Alignment with DNSH						Alignment with MS	Area/level of misalignment
		CCM	CCA	CCM	CCA	PoI	CE	Wat	Eco		
A	A.1	No = 0%			N	N	N	N	N	N	Full SC+DN-SH+MS
B	B.1	No = 0%			Y	Y	Y	Y	Y	Y	TSC only
C	C.1	Yes > 0%			N	N	N	N	N	N	DNSH+MS
D	D.1	Yes > 0%			N	N	N	N	N	Y	Full DNSH
	D.2	Yes > 0%			Y	N	Y	Y	Y	Y	Individual DNSH
E	E.1	Yes > 0%			Y	Y	Y	Y	Y	N	MS

Table 2: Taxonomy-misalignment tracking tool

The taxonomy-alignment KPI framework recommends that banks require clients to set clear KPIs based on the Technical Screening Criteria (TSC), outlined in the EU taxonomy, when financing transition activities to incentivize clients' alignment with the taxonomy. The report argues that "the topic of leveraging the TSC outlined in the EU Taxonomy to set the KPIs in such loans was discussed as a credible way to show how banks can support the EU's climate goals and finance the transition to sustainable operations across industries. Although target setting is completely voluntary and each bank is free to choose its own KPIs together with clients, such move will complement each bank's efforts to develop sustainable finance."

KPIs on:	Description	Alignment
<p>Taxonomy-alignment at company level</p> <p>This provides for a holistic approach to the whole company split by Taxonomy-alignment of different economic activities. This effectively increases the Taxonomy-aligned turnover of the enterprise within a certain period of time</p>	<p>This refers to provision of financing to a company linked to the increase of company's share of Taxonomy-aligned revenues by a certain %.</p> <p>This may refer to:</p> <ul style="list-style-type: none"> Addressing the level of Substantial Contribution in the company's share of economic activities undertaken; Ensuring compliance with DNSH criteria <p>AND/OR</p> <ul style="list-style-type: none"> Ensuring compliance with MS criteria Closing down operations in sectors that are not Taxonomy-aligned 	<p>Alignment is assessed through turnover compliance data and engagement can be undertaken thanks to the Article 8 Disclosures and recommendations provided in section C.2</p>
<p>Alignment at individual activity level—CapEx/OpEx figures.</p>	<p>KPIs focused on a specific economic activity Taxonomy-alignment, tackling its level of alignment as per TSC, DNSH or MS criteria compliance.</p>	<p>Alignment is assessed through CapEx/OpEx levels of Taxonomy-alignment</p>

Table 3: KPIs based on the TSC

In addition to these tools, among different options of engagement, the report also offers examples of credible transition plan components. These are shown in the figure below, which Alliance member banks may wish to refer to establish their bank-specific transition finance framework.

Examples of components of a transition plan

- The company's starting point, transition speed and decarbonisation objectives—including Taxonomy-relevant data that can help understand how the company will move with regards the activities it undertakes.
- Forward looking capex forecasts and past actual capex allocated to activities aligned with the EU Taxonomy
- The geographical location of its assets, as transition ambitions and technological developments differ across geographical areas.
- Information on the commitments taken by the company. These commitments should be reliable in terms of governance and transparency (results, pathway adjustments)
- Information on the resources (financial and human) a company uses to reach its objectives, E.g. credible financing plan, monitoring tools, CapEx
- Impact on indebtedness, projected cash flows and projected P&L
- As the transition plan based on the 1.5°C pathway can only cover the climate objective, it would be complemented by the remediation plans targeting to meet the "Do Not Significant Harm" and "Minimum Social Safeguards" criteria. This ensures that the Taxonomy approach that will be used to monitor the evolution of the company performance on the activity side, is tackled at the whole of the company level, with concrete actions to mitigate any negative impacts that may be happening holistically.

NZBA observation/comments

This report is written based on the early-stage analysis to be followed by further developments and discussions on solutions for transition finance using the EU taxonomy. Therefore, it has not yet provided the numerical measurement for the distance to EU Taxonomy alignment, timeline, or interim milestones for full alignment with the taxonomy. However, this alignment approach, which regards the taxonomy for sustainable activities as the goal of the transition pathway, may be useful for Alliance member banks, especially those who have a taxonomy for sustainable activities but do not yet have one for transition activities. As implied in this report, this approach is supported by other international organizations such as the Bank for International Settlements (BIS), TCFD, and the G20 SFWG.

In addition, the EU Taxonomy compliance information provided by companies, as well as other EU regulatory compliance information connected to sustainability (CSRD—using EFRAG EU Sustainability Reporting Standards (ESRS), which includes transition plans; Pillar 3 implementing technical standards (ITS) ESG Risk disclosures on transition risks and alignment metrics; the upcoming Directive on Corporate Sustainability Due Diligence (CSDD), etc.) will allow for a broader pool of information and data from which to build further insights and models for KPI and misalignment tracking.

Additionally, the Taxonomy Regulation requires the European Commission (EC) to deliver a report on a possible extension of the EU taxonomy to encourage transition finance given the large range of currently non-classified activities. The EU Platform on Sustainable Finance (PSF), which supported the development of the EU Taxonomy, published [“the Final Report on Taxonomy extension options supporting a sustainable transition”](#) in March 2020, which notes that the current taxonomy leaves a variety of economic activities non-classified. As a result, some stakeholders may interpret “non-classification” or “not green” as negative signal and avoid financing to those activities, which is not the EC’s intention. To address this issue, the report proposes a traffic lights system: green (activities aligned with SC), red (activities needing to transition away from significant harm), and amber (activities in between and to transition to green when possible).

The report considers any movement to exit from red and transition to green as a valid transition, while any activity staying within the red category is not. It also emphasizes the importance of clarifying amber performance because of its potential large negative impact on the environment.

The extended taxonomy is expected to enhance the clarity and credibility of transition finance in the EU.

The following diagram illustrates the process of tightening the quantitative criteria over time as “falling curves” of stricter SC and DNSH thresholds dropping over time towards the ultimate target of net zero by 2050. The PSF is tasked with advising on updated technical screening criteria in line with market developments based on available scientific evidence every three years (Article 19 of TR). The PSF acknowledges that it is impossible to determine when exactly any step will occur and not all sectors will follow the same curves or series of steps, as some have low-carbon technologies already available at scale, while others do not. It is also worth noting that the PSF indicates that some cases reach net-zero emissions later than 2050, such as is the case with heavy industries in emerging markets and developing economies.

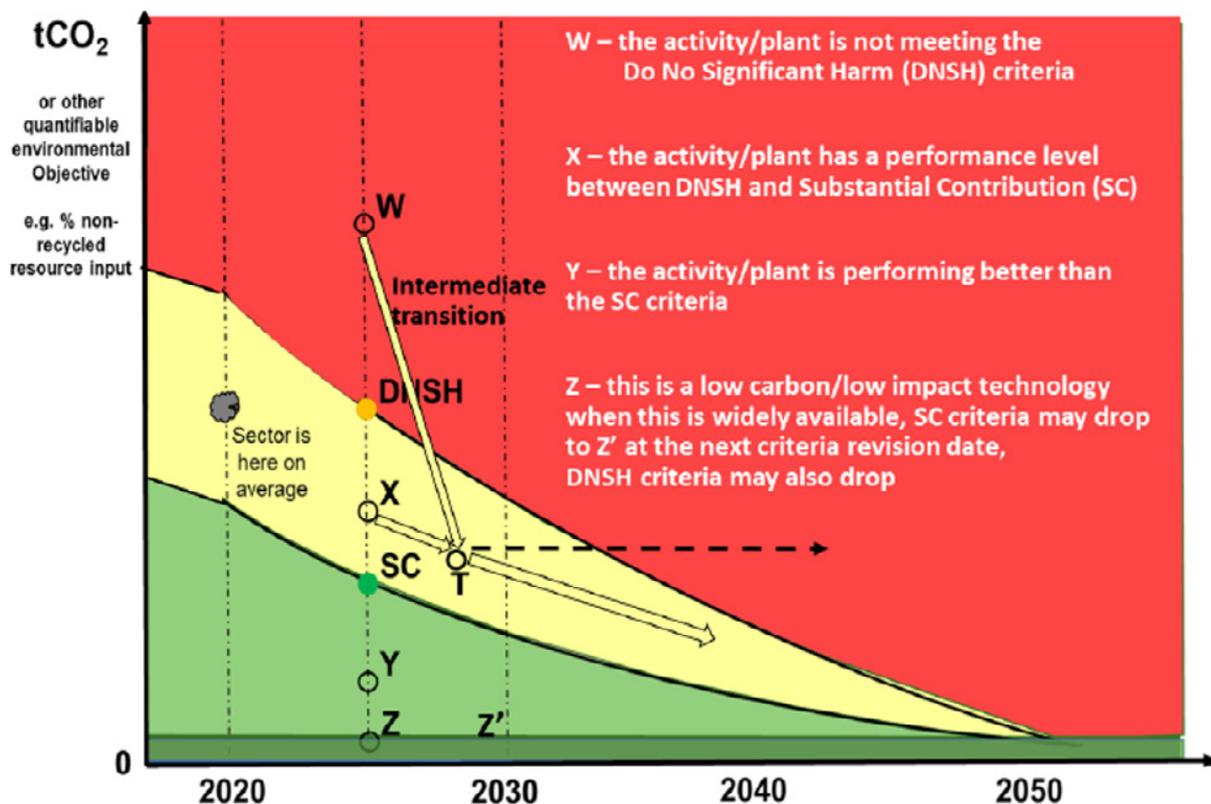


Figure 8: Example of “falling curves”-shaped diagram for climate change mitigation of a high-impact activity moving to net zero by 2050

2. ASEAN Taxonomy

Overview

The ASEAN Taxonomy for Sustainable Finance was launched in November 2021 to facilitate an orderly transition at all levels towards a sustainable Association of South-east Asian Nations (ASEAN). It was developed by the ASEAN Taxonomy Board, which consists of the ASEAN Capital Markets Forum, the ASEAN Insurance Regulators’ Meeting, the ASEAN Senior Level Committee on Financial Integration, and the ASEAN Working Committee on Capital Market Development, under the auspices of the ASEAN Finance Ministers and Central Bank Governors’ Meeting. The ASEAN Taxonomy will initially focus on decarbonization but will eventually cover all sustainable activities.

Though it was intended and designed to be interoperable with existing taxonomies, such as the EU Taxonomy, it has several unique aspects to meet the ASEAN needs.

Firstly, the ASEAN Taxonomy is not binding to allow ASEAN Member States, such as Indonesia, Malaysia, and Singapore, to have their own taxonomies to address their national priorities. In contrast, the EU taxonomy is legally binding. However, the ASEAN Taxonomy will be the overarching guide and common language for sustainable finance in the region. As such, ASEAN Member States Taxonomies will be interoperable with the ASEAN Taxonomy.

Secondly, the ASEAN Taxonomy aims to encourage ASEAN Member States and other entities to start their sustainability journey as soon as possible. It also recognizes that, given ASEAN's economic, social and resource diversity, Member States and other entities will have different starting points and pathways to decarbonize. As such, while the EU taxonomy primarily focuses on sustainable activities and sets a single threshold per activity to be considered sustainable, the ASEAN Taxonomy covers both sustainable and transitional activities and uses a multi-tiered approach as shown below. The approach includes a Foundation Framework (FF) that uses a qualitative assessment and a Plus Standard (PS) that provides detailed screening criteria using a quantitative assessment wherever possible. An economic activity must meet the criteria of the FF or PS, as relevant, before it may be classified per the ASEAN Taxonomy. However, under both the FF and PS, activities must contribute to one or more of four Environmental Objectives (climate change mitigation, climate change adaptation, protection of healthy ecosystems and biodiversity, and promotion of resource resilience and transition to a circular economy) of the ASEAN Taxonomy and fulfil two Essential Criteria (do no significant harm and remedial measures to transition) as minimum safeguards.

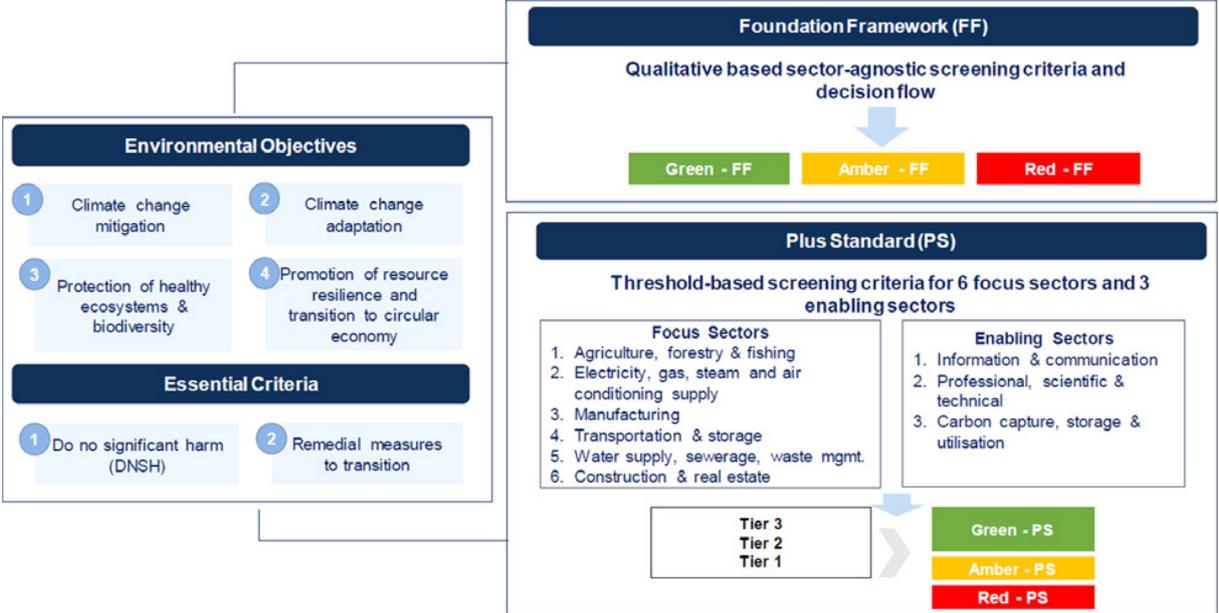


Figure 9: Overview of the ASEAN Taxonomy classification under the FF and PS:

The PS thresholds will take a stacked approach that provides multiple thresholds per economic activity at a single point in time to address the different starting points and pathways toward net zero. This approach allows countries and entities to start their decarbonization journey immediately by adopting either the FF or PS based on their readiness. In adopting the PS, they can select a tier that is achievable for them. To limit the higher emissions period from the less ambitious tiers, these tiers will be sunsetted over time to incentivize continuous improvement.

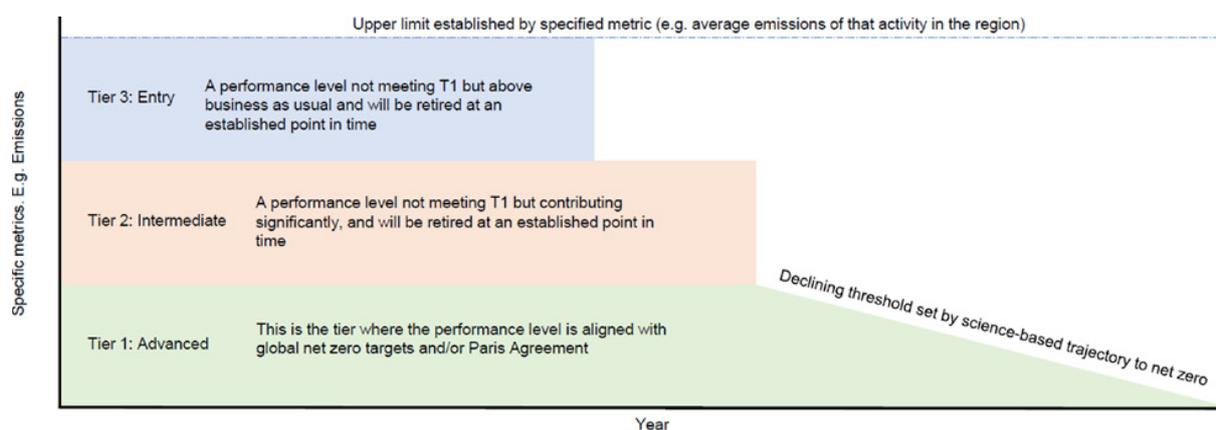


Figure 10: Stacked approach in the PS

Lastly, while the EU Taxonomy would be directly applied to the EU member states, the ASEAN Taxonomy allows ASEAN Member States who wish to adopt it as a national taxonomy to make the necessary augmentations to build the most suitable sustainable finance framework for their context.

Background

ASEAN consists of 10 Southeast Asian countries: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam, which greatly vary in terms of population, development progress, economic activities, industrial landscape, and so on.

The Member States also differ in the context of net zero, including national carbon neutrality targets, energy landscape, main GHG emissions contributors, etc. For example, Malaysia has announced its ambition to achieve net zero by 2050 at the earliest, Thailand by 2065, and Indonesia by 2060. In addition, half of ASEAN members, such as Cambodia and the Philippines, rely on oil for their transportation needs, and gas and/or coal for power generation, while more developed Member States use bioenergy.

Given these significant differences among the Member States, the region needed an inclusive taxonomy beneficial to all ASEAN Member States instead of a one-size-fits-all approach (such as the EU taxonomy operated under the single political block). The ASEAN taxonomy therefore took a multi-tiered approach to engage all Member States in the net-zero journey.

On the other hand, the availability and viability of decarbonization solutions, as well as transition speed, may be constrained in ASEAN Member States with more limited financial resources for the transition. Some may need to attract capital from international public organizations and global markets. Thus, ASEAN needs a consistent and credible taxonomy to secure global acceptance. Therefore, the ASEAN Taxonomy intends to align with the Paris Agreement and takes into consideration widely used taxonomies and other relevant taxonomies, as appropriate and contextualized to facilitate an orderly transition. Additionally, the ASEAN Taxonomy aims to be science-based where appropriate and incorporates detailed definitions and decarbonization thresholds for economic activities in the PS.

Objectives

The main purpose of the ASEAN Taxonomy is to provide banks, capital market participants, insurance companies, business entities, and other stakeholders in ASEAN with an overarching guide and common language, complementing the respective national sustainability initiatives to facilitate an orderly transition towards a sustainable ASEAN.

Definition of transition finance

The ASEAN Taxonomy classifies activities based on a traffic lights system into 3 colors: Green, Amber, and Red.

- Activities labelled as “green” clearly contribute to or enable climate change mitigation.
- Under the FF, for climate change mitigation, activities labelled as “amber” contribute to decarbonization and cause no significant harm to other environmental objectives or can mitigate such harm. Such activities can support climate change mitigation and/or enable other activities to support climate change mitigation or promote GHG reduction. Under the PS, amber activities are those making a substantial contribution to transition, in line with the decarbonization trajectory required by the Paris Agreement. This includes activities not currently at zero or near-zero emissions, but which are following a decarbonization pathway aligned with the trajectory required by the Paris Agreement, and activities facing significant barriers to decarbonization or interim solutions.
- Activities labelled as red do not contribute to climate change mitigation and/or cause significant harm to other environmental objectives.

Based on the ASEAN Taxonomy, transition finance can be considered as **financing that enables activities to move to a higher colour classification under the Foundation Framework, or a higher tier under the Plus Standard.**

How to leverage this report for transition finance

The first version of the ASEAN Taxonomy, launched in November 2021, has four environmental objectives and two essential criteria to guide the outcomes of the taxonomy. It also introduced the concepts of the multi-tiered approach in the taxonomy design and a stacked approach in setting the thresholds under the PS, which will be used as the basis for consultation, discussion, and collaboration with key stakeholders.

As a next step, the ASEAN Taxonomy is planning to integrate other environmental objectives (Version 1 focuses on climate change mitigation only) and develop guiding questions on the Environmental Objectives and Essential Criteria for the FF. It will also consider how to incorporate social aspects based on inputs from stakeholder consultations. The Taxonomy plans to develop a methodology to set metrics and thresholds for six focus sectors (1. Agriculture, forestry and fishing, 2. Manufacturing, 3. Electricity, gas, steam, and air conditioning supply, 4. Transportation and storage, 5. Construction and real estate activities, 6. Water supply; sewerage, waste management, and remediation activities) and three enabling sectors (1. Information and Communication Technology, 2. Professional, scientific, and technical activities, 3. Carbon capture, utilization, and stor-

age), develop metrics and thresholds specific to the environmental objective of climate change mitigation, and incorporate other environmental objectives into the methodology for the PS.

Therefore, it may take more time for banks to fully utilize this taxonomy for transition finance. However, once it is further developed, especially for the PS, it is expected to enable banks to assess the eligibility of an economic activity claimed by a client for transition finance against either the FF or PS.

Alliance observation/comments

While it is still under development, the idea of a multi-tiered approach introduced by the ASEAN Taxonomy may shed some light on establishing a more versatile bank-specific framework, especially for the Alliance member banks that operate in countries with different levels of development or with clients who have different sizes and statuses.

For example, NZBA member banks may be able to utilize the detailed quantitative assessment to finance the large mature companies while using the qualitative assessment and minimum safeguards for smaller companies that do not have the capability to collect and report on detailed data or companies that have just started their transition journey.

While a tiered approach may encourage borrowers' near-term efficient progress toward the overall net-zero goal (rather than focusing on an overly ambitious, distant target), it is important to avoid technological lock-in. As such, the less stringent tiers should only be available to borrowers in the short-term.

Alliance member banks, when using such a tiered approach, are encouraged to set early phaseout timelines for activities in less stringent tiers to incentivize ongoing improvement toward the higher tiers.

3. Japan METI's Technology Roadmap for Transition Finance

Overview

The "Technology roadmap for transition finance" (the roadmap) is a list of low-carbon or decarbonization technologies published by the Ministry of Economy, Trade, and Industry of Japan (METI) in collaboration with industries, financial institutions, and academia to guide the transition pathways of companies in carbon-intensive sectors and help financial institutions finance the transition of those sectors. This roadmap lists the currently available low-carbon technologies (e.g., energy saving, energy efficiency, energy conversion, etc.) and future innovative technologies based on national policies or international scenarios with the expected implementation timeframe and estimated GHG emissions reductions realized by such technologies heading toward 2050.

The first roadmap for the iron and steel sector was published in October 2021. The roadmaps for other sectors were published as follows: chemicals in December 2021, power,

gas, and oil in February 2022, paper and pulp in March 2022, and automobiles in FY2022. The roadmap is not legally binding and is intended to be a guide for voluntary use by companies in the covered sectors and financial institutions in Japan. A similar roadmap has also been published for shipping and aviation by the Ministry of Land, Infrastructure, Transport, and Tourism.

Background

Japan announced their commitment to 2050 carbon neutrality in October 2020, signaling that Japan will undertake the necessary transformation of industrial, economical, and societal structures. Japan's economy and society have been heavily supported by the carbon-intensive sectors, such as oil and gas, iron and steel, and chemicals, which have no available or viable decarbonization solutions at this stage. The Japanese government has implemented several policies and funds to encourage the research and development of innovative solutions, where firms and financial institutions may be reluctant to invest without sound backup from the public sector.

While developing innovative solutions, in addition to renewable energy, Japan will have to mainstream the best available low-carbon technologies for energy conservation and energy transition to achieve the ambitious goal of net zero by 2050. Private funds cannot fully cover the significant financial resources required. Although firms in carbon-intensive sectors have a strong desire to achieve net zero by 2050, they have been struggling to identify the right path. Financial institutions, on the other hand, have been facing great pressure from society to invest in these sectors, while facing challenges in assessing the credibility of interim solutions presented by their clients due to the lack of expertise in technologies and the absence of authenticated pathways.

Therefore, METI has taken the initiative to develop roadmaps (i.e., sectoral pathways) to engage firms in these sectors on their net-zero journey and encourage financial institutions to finance their transitions with confidence.

To enhance the credibility of the roadmap, METI has worked to make the roadmap comprehensive, ambitious, and feasible. This roadmap covers approximately 70% of GHG emissions in Japan, ensures science-based alignment with the Paris agreement, and implements policies and funds, such as an NDC (46% reduction by 2030), a long-term strategy, a green growth strategy, a basic energy plan, and the Green Innovation Fund—Social Implementation Plan.

Objectives

The main purpose of this roadmap is to bring transition finance to the mainstream to achieve carbon neutrality by 2050 in Japan. The roadmap provides sectoral pathways authorized by the Japanese government and is designed to be a guide for firms in carbon-intensive sectors for investment decision-making and for financial institutions to assess the credibility of firms' transition strategies and/or technologies eligible for transition finance.

Definition of transition finance

Transition finance extends beyond the investment for facilities and research and development toward low-carbon and decarbonization solutions introduced in the roadmaps. It also includes the costs of phasing out existing facilities, responses to other environmental or social impacts (e.g., land contamination associated with withdrawal from business, decommissioning of furnaces, impacts on employment, etc.), and efforts or activities that enable others to implement transition strategies through their own products and services, as indicated in the roadmap.

How to leverage this report for transition finance

METI expects financial institutions to assess transition plans and/or interim solutions presented by their clients against this roadmap. As shown in the example below, the roadmap provides the current best available or future innovative low-carbon or decarbonization technologies with the scientific rational, expected implementation timing, and emission intensity. Therefore, financial institutions could finance the listed technologies and predict how much they may contribute to a reduction of GHG emissions.

	Technology	Overview	Emission Intensity*1	Implementation year*2	Main References*3
Low-carbon technology	Ferro-Coke	Utilization of coke (ferro-coke) produced by effectively using low-grade iron ore and coal that cannot be utilized in the conventional ironmaking process	1.74~2.18 (10% reduction)	2020s	<ul style="list-style-type: none"> NEDO Implementation Plan Environment Innovation Strategy
	CO2 capture and separation (Part of COURSE50)	Utilization of CO2 capture and separation technology that makes better use of waste heat from steelworks	1.58~2.0 (20% reduction)	Late 2020s	<ul style="list-style-type: none"> Green Innovation Fund - Social Implementation Plan⁴ IEA ETP2020
	Utilization of on-site hydrogen (Part of COURSE50)	Iron ore reduction technology that utilizes on-site hydrogen (blast furnace hydrogen reduction technology)	1.74~2.18 (10% reduction)	Late 2020s	<ul style="list-style-type: none"> Green Innovation Fund - Social Implementation Plan IEA ETP2020
	Utilization of reduced iron (Part of Super COURSE50)	Utilization of reduced iron to cut the use of coke		2020s	<ul style="list-style-type: none"> Green Innovation Fund - Social Implementation Plan
	Utilization of biomass (Part of Super COURSE50)	Utilization of biomass as a substitute for coke	0.0~1.51 ⁵ (Reduction by 50% or more)	2040s ⁵	<ul style="list-style-type: none"> Green Innovation Fund - Social Implementation Plan IEA ETP2020
	Use of captured CO2 (Carbon recycling technology)	Utilization technology of reducing agents (synthetic methane), CO2 recycling steelmaking system, CO2 reduction technology, etc. ⁵			<ul style="list-style-type: none"> Green Innovation Fund - Social Implementation Plan IEA ETP2020 NEDO documents
	Utilization of external hydrogen*6 (Part of Super COURSE50)	Hydrogen reduction technology in blast furnaces that also utilize external hydrogen			<ul style="list-style-type: none"> Green Innovation Fund - Social Implementation Plan IEA ETP2020
	Direct hydrogen reduction (based on natural gas and H2)	Hydrogen reduction technology that uses direct reduction furnaces (Technology that uses hydrogen as part of the reducing material)	0.0~1.1 ^{7,8}	2030	<ul style="list-style-type: none"> Green Innovation Fund - Social Implementation Plan IEA ETP2020 Material Economics
Decarbonization technology	Direct Reduction				
	Direct hydrogen reduction *5	Hydrogen reduction technology that uses direct reduction furnaces (Technology that uses hydrogen as 100% of the reducing material)	0.0~ ^{7,8}	2040s	<ul style="list-style-type: none"> Green Innovation Fund - Social Implementation Plan IEA ETP2020 Material Economics

*1: Emission intensity includes the downstream process. Calculated from the CO2 reduction of the target technology based on the existing emission intensity. The CO2 reduction is accounted only from the relevant process.
*2: Refers to the starting year of introduction and expansion/cost reduction phase in Social Implementation Plan and available year from IEA.
*3: Underlined when referenced for Implementation Year.
*4: R&D and Social Implementation Plan in the Green Innovation Fund.
*5: Part of the carbon recycling technology has been implemented since the late 2020s. The GI Fund-Social Implementation Plan considers the utilization of reducing agents (synthetic methane) as a mean for 50% reduction in emission intensity.
*6: Implementation Year considers the establishment of hydrogen infrastructure in Japan (IEA assumes that both H-DRI (based on natural gas and H2) and H-DRI will be introduced in 2030).
*7: Emission Intensity is calculated as a mean of H-DRI and DRI. The emission intensity varies depending on the proportion of hydrogen used.
*8: Emission Intensity of 0.0 is when decarbonization includes the downstream process.

Figure 11: Example from the technology roadmap for iron & steel: Low-carbon and decarbonization technologies

The roadmap also provides the technological pathway toward carbon neutrality by 2050 and the assumed CO₂ reduction pathway as shown below. Financial institutions may use these pathways to assess the transition plans presented by their clients or engage clients in their net-zero journey.

Given uncertainties about the future, the roadmap will be a living document to be updated based on technological progress, geological observations, and feedback from financial institutions and the real economy.

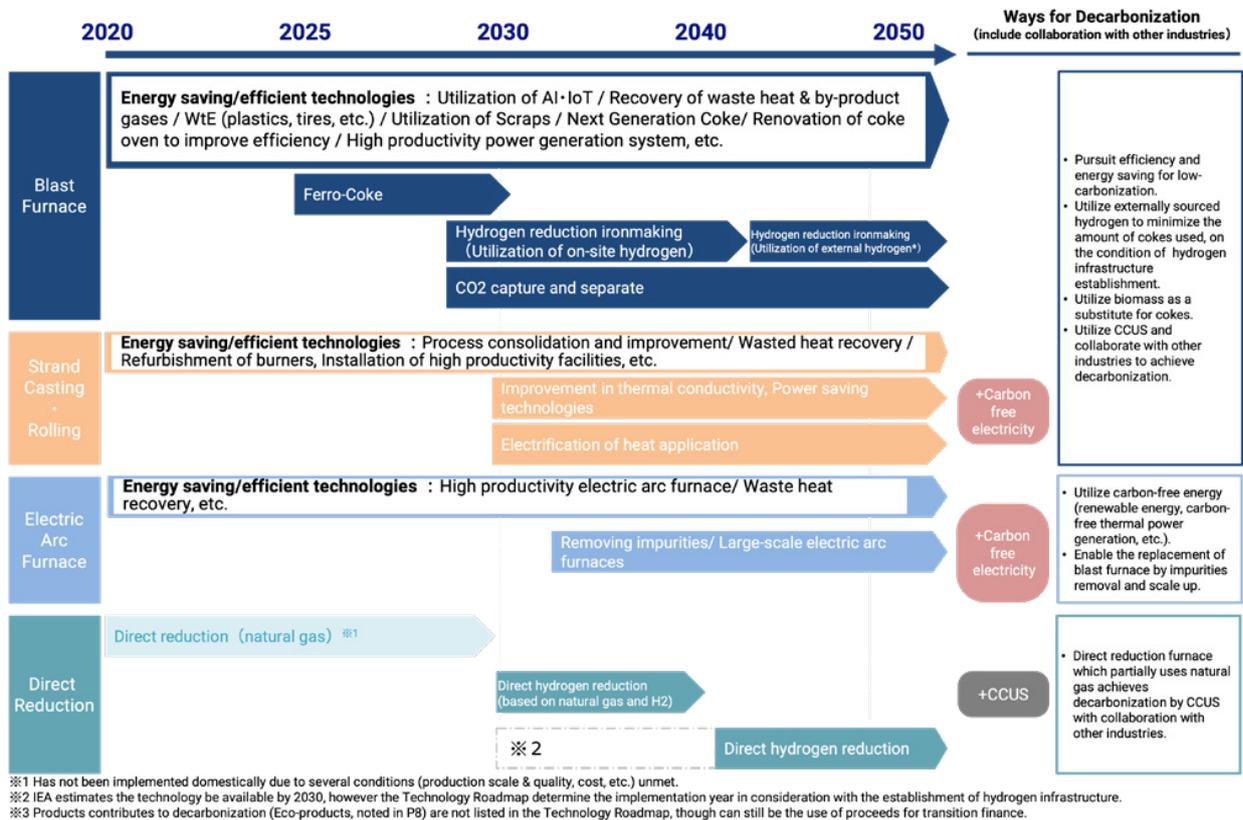


Figure 12: Example from the technology roadmap for iron and steel: Technological pathway

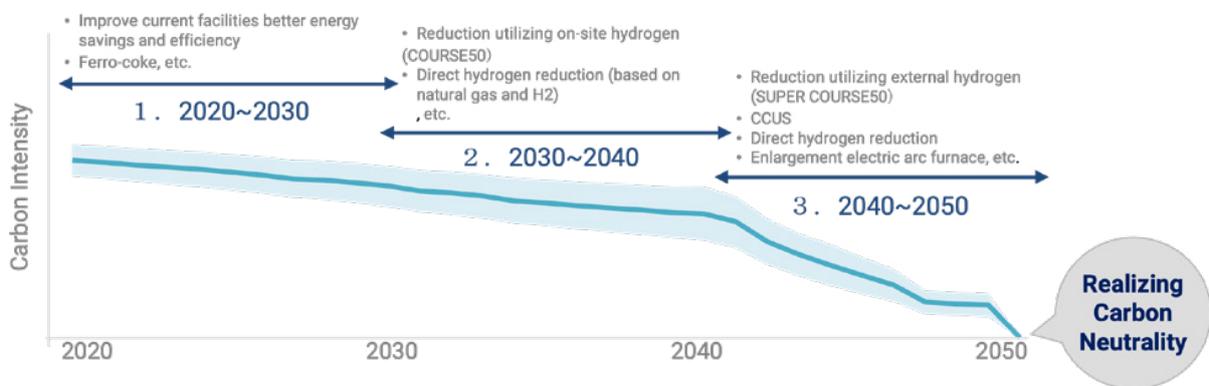


Figure 13: Example from the technology roadmap for iron and steel: Assumed CO₂ reduction pathway

Alliance observation/comments

This is a unique approach led by the public sector compared to a taxonomy-based approach, which lists the eligible economic activities for sustainable and/or transition finance.

The development of this kind of roadmap requires involvement of multiple stakeholders, including firms, the real economy, academia, financial institutions, organizations to authorize it, etc. Therefore, it is difficult to replicate such a roadmap without strong political and institutional will in other countries. Nonetheless, Alliance member banks can opt to incorporate some of the concepts introduced in this roadmap into their bank-specific framework. For example, Alliance member banks could add the expected implementation or sunseting timelines to their own taxonomy, develop a pathway to engage their clients, and ensure that clients are on the right path toward the ultimate goal of carbon neutrality.

In addition, this roadmap indicates that both public and private sectors must be involved to mainstream transition finance. Indeed, the public sector is critical to strengthening the implementation feasibility of commitments made by financial institutions (e.g., development of transition pathways, education around the role of transition finance for net zero) and facilitating transition pathways by sharing some of the risks (e.g., funds for research and development of innovative solutions).

Abbreviations

ACT	The Assessing low-Carbon Transition Initiative
ASEAN	The Association of South East Asian Nations
BCBS	The Basel Committee on Banking Supervision
BIS	The Bank for International Settlements
CBI	The Climate Bonds Initiative
CCM	Climate Change Mitigation
CDP	Carbon Disclosure Project
CSDD	Corporate Sustainability Due Diligence
CSRD	Corporate Sustainability Reporting Directive
DNSH	Do No Significant Harm
EBF	The European Banking Federation
EC	The European Commission
ECB	The European Central Bank
EFRAG	The European Financial Reporting Advisory Group
ESG	Environment Social Governance
ESRS	The EU Sustainability Reporting Standards
EU	The European Union
FF	The Foundation Framework
GDP	Gross Domestic Product
GFANZ	The Glasgow Financial Alliance for Net Zero
GHG	Greenhouse Gas
GRI	The Global Reporting Initiatives
G20 SFWG	The G20 Sustainable Finance Working Group
ICMA	The International Capital Market Association
IEA	The International Energy Agency
IEA NZE roadmap	The International Energy Agency Net-Zero Emissions roadmap
IPCC	The International Panel on Climate Change
ISSB	The International Sustainability Standards Board
ITS ESG Risk	Implementing Technical Standards ESG Risk
KPI	Key Performance Indicator
LMA	The Loan Market Association
METI	Ministry of Economy, Trade and Industry of Japan
MS	Minimum Safeguards

MSME	Micro Small and Medium Enterprises
NBFI	Non-bank Financial Institution
NDCs	Nationally Determined Contributions
NGFS	The Network of Central Banks and Supervisors for Greening the Financial System
NZBA	The Net-Zero Banking Alliance
OECD	The Organization for Economic Co-operation and Development
PCAF	The Partnership for Carbon Accounting Financials
PS	The Plus Standard
PSF	The Platform on Sustainable Finance
RM	Relationship Manager
SASB	The Sustainability Accounting Standards Board
SBTi	The Science Based Targets Initiative
SC	Substantial Contribution
SCB	Standard Chartered Bank
SDGs	Sustainable Development Goals
SEC	The U.S. Securities and Exchange Commission
SMEs	Small and Medium Enterprises
TCFD	The Task Force on Climate-Related Financial Disclosures
TSC	The Technical Screening Criteria
UN	The United Nations
UNEP FI	The United Nations Environment Programme Finance Initiative

The industry-led, UN-convened Net-Zero Banking Alliance brings together a global [group of banks](#) which are committed to aligning their lending and investment portfolios with net-zero emissions by 2050. Combining near-term action with accountability, this ambitious commitment sees [signatory banks](#) setting an intermediate target for 2030 or sooner, using robust, science-based guidelines.

The Alliance reinforces, accelerates and supports the implementation of decarbonisation strategies, providing an internationally coherent framework and guidelines in which to operate, supported by peer-learning from pioneering banks. It recognises the vital role of banks in supporting the global transition of the real economy to net-zero emissions.

The Alliance is convened by the [UN Environment Programme Finance Initiative](#), and is accredited by the [Race to Zero](#). In addition, the Alliance also executes coordinated advocacy and alignment as the banking element of the [Glasgow Financial Alliance for Net Zero](#) and the climate-focused element of the [Principles for Responsible Banking](#).

More information can be found on our website. Follow us on social media using the following platforms or send us an email if you any specific questions.



UN 
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United Nations Environment Programme Finance Initiative (UNEP FI) is a partnership between UNEP and the global financial sector to mobilise private sector finance for sustainable development. UNEP FI works with more than 450 members—banks, insurers, and investors—and over 100 supporting institutions—to help create a financial sector that serves people and planet while delivering positive impacts. We aim to inspire, inform and enable financial institutions to improve people’s quality of life without compromising that of future generations. By leveraging the UN’s role, UNEP FI accelerates sustainable finance.

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