

What Makes a Transition Plan Credible?

Considerations for financial institutions

March 2022



ACKNOWLEDGMENTS

The authors would like to acknowledge and thank the Advisory Council for the Framework for Sustainable Finance Integrity for their guidance in developing this issue brief. They would also like to acknowledge the team who supported this effort: Barbara Buchner, Bella Tonkonogy, Rob Kahn, Vikram Widge, Valerio Micale, Matthew Solomon, Jake Connolly (CPI) and Sarah O'Brien (ECF). In addition, they acknowledge the many people who provided inputs on early drafts, including staff from Advisory Council institutions. This publication has been supported by the European Climate Foundation. Responsibility for the information and views set out in this publication lies with the authors. The European Climate Foundation cannot be held responsible for any use which may be made of the information contained or expressed therein.

AUTHORS

Nicole Pinko Nicole.pinko@cpiglobal.org

Angela Ortega Pastor Angela.pastor@cpiglobal.org

ABOUT THE FRAMEWORK

The **Framework for Sustainable Finance Integrity** ("Framework") provides a universal set of sustainability guardrails across the financial system, contributing to a clear pathway for more coordinated action, encouraging ambition to deliver meaningful sustainability and net zero results, and reinforcing the multiplier effect these actions will have on the real economy.

The Framework's Advisory Council, comprised of leading personnel and organizations from each segment of the public and private financial ecosystem across Asia, Africa, Europe, and the Americas, requested a deep dive into the topic of credible transition plans to better implement the Framework's recommendations.

ABOUT CLIMATE POLICY INITIATIVE

CPI is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. CPI has six offices around the world in Brazil, India, Indonesia, Kenya, the United Kingdom, and the United States.



CONTENTS

1. Introduction 1				
2.	Key elements of a credible transition plan 2.1 Quantitative, detailed, and time-bound interim emission targets supporting	4		
	a 2050 net-zero goal	5		
	2.2 Implementation	7		
	2.3 Whole-institution approach	9		
	2.4 Sustainability	10		
	2.5 Transparency, verification, and accountability	11		
	2.6 Flexibility, responsiveness, and rapidly escalating ambition	12		
3. Actions to support credible transition plans		14		
	3.1 Counterparty engagement	14		
	3.2 Building a better enabling environment	15		
	3.3 Transition plans and developing economies	17		
4. CONCLUSION				
5.	5. ANNEXES			
	5.1 Framework for sustainable finance integrity metrics	20		
	5.2 Current examples of corporate commitments	20		
	5.3 Glossary of common target setting terms for shared understanding	21		
6. REFERENCES				

1. INTRODUCTION

The last two years have seen a steady increase in the number of climate and net zero announcements made by public and private financial institutions to align their financial flows with the Paris Agreement and Sustainable Development Goals. Because on average 97 percent of financial institutions' emissions are in their portfolio (Lütkehermöller et al. 2020) rather than in their operations, tangible results in the real economy are only possible with action from financial institutions.¹ Counterparties, as used here, broadly refers to companies on the other side of a financial transaction that have a close relationship to the real economy (e.g., an energy company or a consumer goods company).

Climate transition plans can be defined as time-bound action plans that outline how an organization plans to pivot its existing assets, operations, and business model towards a trajectory that aligns with the most recent and ambitious climate science recommendations (CDP 2022). Whether for financial institutions or the companies in which they invest or lend to, climate transition plans should set out a theory of change for the real economy, recognize the critical changes required in governance, organizational and business processes, and identify the learning and capacity building needs within an entity for effective implementation to take place. In addition to examining the company's climate-related financial risks, a responsible company must also consider its impact on the climate (CDP 2022).

Figure 1. Transition plan evaluation as part of sustainable finance integrity



CPI's <u>Framework for Sustainable Finance Integrity</u> (the Framework) outlines the necessary actions financial institutions need to consider when developing their own transition scenarios, and informs financial institutions about the credibility of their own transition plans (Pinko et al. 2021). The Framework recommends financial institutions develop and publish a detailed

¹ In CPI's *Paris Misaligned* report, investors across all categories were found to still be funding high-emissions activities and sectors, despite movement to do otherwise (Macquarie et al. 2020).

policy for engagement and relationships with counterparties that fail to adopt and implement credible transition plans, and advocate for an environment that requires standardized climate reporting and encourages climate action. The outstanding question to address is 'what makes a counterparty transition plan credible'?

There are a number of initiatives that guide the evaluation of company targets and financial institution engagement with counterparties. The CA100+ benchmarks, a set of ten disclosure indicators designed to assist investors in assessing the robustness of a company's business plan and climate targets against a range of climate scenarios, are intended to guide the organization's engagement with target companies in high-emitting industries (Climate Action 100+ 2021). The Net Zero Asset Owners Alliance and the European Investment Bank have laid out a similar checklist to support counterparties' alignment with the Paris Agreement (EIB 2021; NZAOA 2022). The Science-Based Targets initiative (SBTi), while providing target-setting protocols for both the financial sector and other industries, has encouraged financial institutions to push for counterparty participation in the SBTi certification process as a measure of commitment (SBTi 2021). The Transition Pathway Initiative (TPI) tool is a ready-made evaluation of companies in a set universe of large, publicly traded companies on a global exchange, focusing on governance, strategy, risk management, and metrics (TPI 2021). While this brief does not address the specific issues related to financial intermediaries, including asset managers, the Framework for Sustainable Finance Integrity's necessary action metrics can inform climate action for the financial sector.

This brief complements the Framework and these initiatives by:

- proposing a set of key elements for financial institutions to consider when evaluating the credibility of counterparty transition plans;
- outlining steps financial institutions can take in response to the transition plan assessment, depending on the credibility of the counterparty transition plan, as an answer to the "what next" question;
- discussing how financial institutions can support the external regulatory and policy mechanisms that are needed to create an enabling environment for counterparties to effectively develop and enact their transition plans; and
- opening a discussion on the impact of transition plans and net zero expectations on financial institutions and companies in developing economies, an area that deserves further research and consideration.

The elements outlined in this brief were developed through an evaluation of existing transition plans, current disclosure guidance, and discussion with subject experts, with an aim to identify which criteria acted as signifiers of ambitious climate action. Acknowledging that data and methodological challenges still exist on this topic, the elements have been crafted to allow them to be applied to a variety of sectors, geographies, and counterparty types and sizes, and the criteria within are designed to be ambitious while still acknowledging the uncertainty around transition planning.

This brief is not intended to displace the existing benchmarks or criteria for net zero company plans. The overlap between the assortment of existing initiatives and this brief serves as a complement and highlights the importance of engagement with counterparties as a way to reduce real economy emissions. The elements outlined in this brief were developed to examine what criteria would be most relevant from a financial institution's perspective, to identify the places where financial institutions are best equipped to provide support, and to apply to a broad swath of companies, including those in different geographies, in different sectors, and of different sizes. Rather than focusing solely on emissions mitigation targets, these elements include climate adaptation, just transition, and larger sustainability goals. The brief aims to look for signs of commitment to climate action and the long-term viability of the transition plan, seeking to identify the information that truly signifies credibility from a counterparty.

2. KEY ELEMENTS OF A CREDIBLE TRANSITION PLAN

The following proposed elements are intended to guide the evaluation of a transition plan's credibility. These should be seen as key signals of credibility in a transition plan and are not necessarily exhaustive. The proposed elements were gathered via a review of leading benchmarks in existing plans (outlined in Annex 5.2), leading guidelines and plan guidance for multiple sectors, such as the GHG Protocol Corporate and Reporting Standard, the Common Ground Taxonomy, the Task Force on Climate-related Financial Disclosures' 2021 Guidance on Metrics, Targets, and Transition plans, and expert recommendations (Ranganathan et al. 2015; IPSF 2021; TCFD 2021; Day et al. 2022). While the elements put forward in this brief were designed with the intent to be as universally applicable as possible, financial institutions should consider factors that may impact counterparties' ability to meet them, such as sector, geography, and size of counterparty.

Figure 2. Elements of a credible transition plan

1	Quantitative, detailed, and time-bound interim emission targets supporting a 2050 net zero goal	The plan includes progress benchmarks on emissions reductions that are clearly outlined for defined timeframes and consistent with 1.5°C no or low overshoot pathways.
2	Implementation	The plan sets out how the company will deliver on its climate commitments – both to reduce its own risks as well as in support of climate action – through policies, products, tools, services, and relationships.
3	Whole-institution approach	The plan covers the whole organization, builds capacity in-house, and is integrated into the overall business strategy including budgeting and investment plans.
4	Sustainability	The plan sets context-specific sustainability targets and attempts to ensure there are no negative externalities to the environment or communities.
5	Transparency, verification, and accountability	The plan sets out a framework for transparently reporting on progress, assumptions, monitoring, and accountability.
6	Flexibility, responsiveness, and rapidly escalating ambition	The plan is reviewed and revised regularly, and updates the level of ambition based on progress.

A credible transition plan will incorporate:

2.1 QUANTITATIVE, DETAILED, AND TIME-BOUND INTERIM EMISSION TARGETS SUPPORTING A 2050 NET-ZERO GOAL

In credible transition plans, companies should set short-term targets, for periods of no more than five years at a time, consistent with the Intergovernmental Panel on Climate Change (IPCC) 1.5°C limited to no overshoot pathways, which require an immediate reduction in emissions to address short-term physical and transition risks. Aggressive short-term targets, covering Scope 1, 2, and 3 emissions, where significant, can incentivize companies to make rapid changes early and help identify opportunities and challenges early on (Fifita et al. 2018).

Supporting five-year targets, credible transition plans must also clearly outline annual progress benchmarks which dynamically adjust the level of ambition and action based on whether the company has made fast or slow progress towards meeting its targets. Financial institutions evaluating counterparty transition plans should consider whether the key measures and metrics that are currently available are included in the plans (Day et al. 2022).

Further, these progress benchmarks should be defined for Scopes 1, 2 and Scope 3 emissions where significant. For counterparties, Scope 3 emissions comprise emissions that come from end use of products and services, such as emissions relating to the extraction and production of materials, business travel, and the burning of fossil fuels (EPA 2022). Moreover, companies, where applicable and significant, should include in their Scope 1, 2, and 3 reporting emissions associated with subsidiary companies. Reporting subsidiary emissions can incentivize companies to shift away from high-emission activities and assets instead of continuing these activities through subsidiaries (Day et al. 2022).

To define their targets, counterparties should use scenarios and models adapted to their sector and industry, as determined by industry best practice, and clearly set out the assumptions underlying the different scenarios (Andrews and Fischer 2021). Where there are limitations on the current scope of sectoral benchmarks, Sections 3.1 and 3.2 outline ways financial institutions can support the development of more robust and usable metrics and benchmarks. In turn, to adequately consider and incentivize how counterparty reduction targets contribute to the financial institution's own trajectory towards net zero by 2050, financial institutions must be able to benchmark companies against their sectoral and geographic peers. Box 1 details some strategies to guide financial institutions in their approaches to sectoral alignment and targets (Andrews and Fischer 2021).

Emissions can be accounted for in either absolute terms, which measures the total GHG emissions over a set time period, or via intensity metrics, which measures the total emissions for each set amount of products or actions (Andrews and Fischer 2021). Credible transition plans will account for emissions in absolute terms, as emissions can most easily be measured against the IPCC pathways (PCAF 2020; Andrews and Fischer 2021). However, while absolute carbon-emission targets are critical for pathway evaluations and should be prioritized, they have the potential to overlook the differences in efficiency and intensity of operations that impact emissions levels. For example, a counterparty with high emissions per unit of output may record a decline in total emissions because of a contraction in growth rather than actual emissions reductions (Jaller and Matthews 2021). As such, counterparties are encouraged to set additional intensity-based metrics, as these can be linked to performance benchmarks and help identify the magnitude of intensity-reduction requirements needed; these should be updated and recalculated on an annual basis to account for changes in the underlying assumptions (Andrews and Fischer 2021). A credible transition plan will use robust and standardized industry emissions accounting methods and disclose the methodology used; accounting methodologies for each scope of emissions are meticulously detailed in the GHG Protocol Corporate Accounting and Reporting Standard.

Box 1. Sectoral alignment approaches and targets

As outlined in the Framework for Sustainable Finance Integrity, financial institutions, like counterparties, must accurately and transparently disclose their portfolio emissions on an absolute basis to assist in the creation and measurement of absolute targets like net zero. Where reliable asset-level data exists, the UNEP-Finance Initiative recommends financial actors couple these absolute targets with sectoral decarbonization targets that adhere to the appropriate scenarios (Andrews and Fischer 2021).

This approach has two key benefits. First, as it benchmarks companies against their sector peers, it allows for over-weighting of best-in-class performers within a portfolio, thereby giving financial institutions the option to direct capital to companies that are leading within a sector (Andrews and Fischer 2021). Second, it can highlight what elements of a portfolio are aligned and which are lagging.

Implementing this approach requires financial institutions to account for emissions using an absolute-contraction approach and a sectoral alignment approach. To measure Scope 3 emissions in absolute terms, a financial institution needs to perform a baseline analysis of the carbon in its portfolio at a point in time, identify a global average reduction rate that aligns with its end goal, and set appropriate interim targets. Necessary action, as defined in the Framework, requires a 29% reduction in portfolio emissions by 2025 to be on a viable net zero 2050 pathway (One Earth 2020; NZAOA 2022).

To implement a sectoral alignment approach, as recommended by the UNEP-FI, financial institutions will have to:

- Assess the carbon or greenhouse gas (GHG) efficiency of a given entity in their portfolio against the entity's primary output (e.g., CO₂ per ton of steel produced).
- Benchmark this metric against their sector peers and against sector-specific decarbonization pathways.

This approach not only allows financial institutions to consider the sectoral nuances within their portfolio but will also allow capital to flow towards the most carbon/GHG efficient companies within a sector, while slowly withdrawing capital from high emitting companies as part of an escalation strategy, and introducing an incentive for high-emitting companies to decarbonize. This will bring financial institutions closer to meeting their Scope 3 emission reduction targets.

2.2 IMPLEMENTATION

Near term actions, that is actions undertaken within a timeframe of 18-24 months, are a key first step to implementing longer term, more ambitious targets (Andrews and Fischer 2021). A credible transition plan will set out in detail how the company intends to deliver on its climate commitments and shift from the business-as-usual scenario through relevant policies, products, services, and relationships and their related quantitative and qualitative milestones to measure progress. Early evidence of progress made towards implementing concrete actions is critical to consider, as it is important for counterparties to embark on a path to net-zero as soon as the commitment is made.

Further, in order to adequately evaluate the credibility and impact of implementation actions proposed by counterparties, financial institutions must build an understanding of sector-specific decarbonization pathways. Actions like clean energy procurement, which lowers a company's Scope 2 emissions through increasing the use of clean energy, and value-chain decarbonization, which ensures that decarbonization efforts are being made by upstream and downstream subsidiaries and partners, are suitable for almost all companies. Other actions will be sector specific; for example, adopting electric transport and zero-carbon fuels are actions suitable for transport sector companies, but less relevant for other industries. Therefore, the credibility and relevance of implementation efforts should be assessed against each company's emission profile and circumstance (Day et al. 2022). The amount of funds, where counterparties are able to divulge that information, allocated to emissions reduction and other climate relevant investments is useful in analyzing counterparty priorities.

In addition, companies and financial institutions alike should provide guidance on how they intend to use carbon offsets, clearly stating the share of emissions to be mitigated using offsets – which should decline with time - and ensuring that the type of offsets utilized will be consistent with emerging global standards for "high quality". While the standards for voluntary offsets are still under development, what constitutes credible offset use is a key question for industries and countries around the world (see Box 2). Voluntary use of carbon offsets should not be a default tactic for the private sector to neutralize its emissions, and must not come at the expense of mitigation efforts. Offsets can, however, play an important role in helping hard-to-abate sectors decarbonize and developing economies protect natural capital.

Box 2. Carbon Offsets and Integrity: What constitutes credible offset use?

Voluntary carbon offsets are an accounting mechanism for a unit of GHG emissions reduced, which is then traded as a credit in a carbon market (Irfan 2020). There are currently no internationally accepted standards on how to price, evaluate, and purchase carbon credits in the global voluntary carbon market, and a plethora of unregulated trading platforms without standardized monitoring and evaluation of offset programs (Widge 2021).

At their best, voluntary carbon markets provide an opportunity for private finance to mitigate climate change and channel significant finance into investment-ready carbon saving activities (VCMI 2021). By buying offsets on a voluntary carbon market, private industry is actively funding the decarbonization of high-emissions activities, often in developing economies or within activities that have significant negative externalities. Carbon offsets for clean cooking, for example, not only reduce emissions from three-stone cooking fires by providing more efficient cookstoves that use a less GHG-intensive fuel, but also reduce the significant negative health impacts and gender disparities that stem from the pollution and wood-gathering involved in using three-stone fires (SEforALL 2021).

At their worst, offsets are a way for private companies with high GHG emissions, such as airlines or oil and gas companies, to continue business-as-usual without mitigating their own emissions (al Ghussain 2020). With the option to simply pay for offsets, there are concerns that emissions mitigation—what is needed to avoid global temperature increase in the long run—will lose its urgency. There are also concerns on the supply-side that the lack of global oversight or requirement for offsets to be certified has created opportunities for low-quality offset offerings that have little impact on real emissions (al Ghussain 2020).

There is a growing movement for voluntary carbon markets that focus on integrity and work to complement climate regulations. These markets would have a formal governance mechanism and quality assurances, including certification by voluntary standard setting and carbon crediting entities. One such movement is the Voluntary Carbon Markets Integrity Initiative (VCMI), which is working to create a shared vision for high-integrity voluntary carbon credits that finance carbon mitigation activities (VCMI 2021). Another is the Taskforce on Scaling Voluntary Carbon Markets, which developed the Core Carbon Principles in 2021, a set of 20 actions to deliver a robust, transparent, and verifiable carbon market, and are currently being operationalized by the taskforce's successor, the Integrity Council for the Voluntary Carbon Market (IIF 2021). The new council is a governance body established to set and enforce global standards for the voluntary market (ICVCM 2022).

Box 3. Considering of the impact on climate - double materiality

Considering how a company is not only being affected by a changing climate but also contributing to climate change is a key next step for counterparties to take. This is known as double materiality and has already been embedded in the EU's sustainable finance disclosure regime for financial institutions (European Parliament 2019; Täger 2021). Including an acknowledgement of how a company contributes to climate change can facilitate effective management of emissions and other environmental and social impacts within financial institutions and their counterparties (Täger 2021). It is also a shift from the mainstream evaluation of ESG risks by the financial sector, which focuses on the financial risks faced by the company due to physical and transitional climate risks, to an evaluation of the risks the company may pose to the climate.

Credible transition plans should therefore not only outline how the company intends to manage climate risks, but also consider the company's positive and negative contributions to climate risks (often through GHG emissions but also through co-benefits like adaptation and biodiversity) and outline how it intends to manage this impact. For some companies, this may include how they intend to mitigate emissions from high emission assets, including details on the use of offsets, and how the company intends to manage potential stranded assets. The latter will be particularly relevant for sectors reliant on high-emitting infrastructure like the oil and gas sector. For such sectors the concept of double materiality should feature prominently on transition plans (Althor et al. 2016).

2.3 WHOLE-INSTITUTION APPROACH

Engaging the whole institution in the transition effort and integrating the transition plan into the overall business strategy is key to both the credibility of a transition plan and the plan's chances of success. Institutions that mainstream climate and sustainability considerations across the organization are more likely to be able to sustain the effort even after significant turnover, are more likely to identify action levers and potential obstacles to success, and are able to accurately convey that information to leadership (Ingram et al. 2019). As the first step in this effort, net zero targets and sustainable development goal (SDG) commitments should be fully integrated into counterparty mandates, business plans, key performance indicators, executive compensation, risk management frameworks, investment tenors, and performance management across the company, including those with budgetary and investment authority.

A whole-of-institution approach includes tying executive compensation to meeting climate and sustainability targets (Ritz 2020). In this case, the transition plan should detail at what level of the executive hierarchy this requirement would apply, and how the targets are defined and quantified, as well as actions that will be taken if targets are not met on an annual basis (Hill 2021). These targets should be quantifiable and ambitious, ideally tied to emissions mitigation, and reflected in both short- and long-term executive compensation plans. At the board level, a whole of institution approach could include incorporating climate risks in the mandate of any board committees, detailing who on the board holds a background in climate or sustainability, and clearly outlining the hierarchy of any existing sustainability department or climate-related decision making.

Effective implementation of transition plans requires a commitment from counterparties; the strength of this commitment will be evident in the level of resources allocated to realizing

the goals set out in the plan. Counterparties ought to allocate sufficient human resources and invest in capacity building, systems processes and tools to support implementation requirements. The plan should detail the ability, the capacity, and any gaps that the counterparty has to effectively implement the plan as well as what measures will be taken to develop in-house capacity.

Developing internal capacity, rather than solely relying on external vendors, is an important step to instill a sense of ownership over the transition plan within an organization. Another way for counterparties to demonstrate their serious intent could be to make available budget provisions that support the stated requirements. When evaluating these components, financial institutions should benchmark counterparties against their sector and geography peers as well as consider the scale of change that is required within an counterparty's operations (e.g. entities with smaller carbon footprints will need less resources to bring about decarbonization targets than entities with larger, harder-to-abate, footprints).

2.4 SUSTAINABILITY

A credible transition plan will set context-specific short-term sustainability targets, including to prevent loss of biodiversity, pollution, and social impacts from the low carbon transition in climate equity (Pinko et al. 2021). These targets should not conflict with the counterparty's broader SDGs, but rather be cumulative and exploit synergies across areas of operations. When evaluating sustainability targets, it is important for financial institutions to have a broad understanding of sustainability initiatives across the sector in question to benchmark the proposed counterparty actions and to identify any important gaps.

Further, it is critical that the transition plans and suggested climate action will not support activities that negatively impact environmental and biodiversity indicators. Should there be any unavoidable trade-offs or negative effects due to the company's operations, these should be fully and transparently documented. Transition plans should also include a comprehensive and context-specific exclusion list to prevent harmful activities where relevant (e.g., banning arctic oil and gas drilling, or banning activities that support rainforest deforestation).² Financial institutions should consider how the proposed exclusions relate to the counterparty's activities when evaluating the ambition of transition plans.

Supporting the just transition is essential to accelerate the transition to net-zero. Financial institutions have a role to play by making sure that the full scope of equity issues are fully integrated into their assessment of counterparty transition plans, capital allocation, and policy lobbying positions (Robins, Muller, et al. 2021). Counterparty transition plans should take into consideration any unequal impacts on workers, suppliers, communities, and consumers (Robins, Muller, et al. 2021). In practice, this means counterparties should focus on the impact of their activities and transition plans on the real economy and actively seek to engage with stakeholders to mitigate any actions that lead at any point to unjust or inequitable results, including avoiding 'stranded workers' or 'stranded communities' (WWF 2021). For example, as set out in the framework of expectations developed by the Financing a Just Transition program at the Grantham Institute, this includes anticipating employment shifts, ensuring dialogue with workers, supporting suppliers in taking account of their own net-zero goals, strengthening local supply chains, understanding the spillover effects on

² The EU Taxonomy for Sustainable activities provides an example of how entities may approach developing exclusion lists.

communities, and prioritizing implications for consumers with limited access to sustainable goods and services (Robins, Muller, et al. 2021).





Source: Grantham Research Institute on Climate Change and the Environment (Robins, Muller, et al. 2021)

2.5 TRANSPARENCY, VERIFICATION, AND ACCOUNTABILITY

Transparency is a critical underpinning of a credible transition plan. Counterparties should transparently report on all of the elements of the transition plan described above and clearly commit to transparently report on annual emissions. Full transparency includes disclosing climate risks to internal and external stakeholders, as well as outlining the accountability mechanisms in place to support the transition plan. Moreover, where possible, counterparties should transparently benchmark the level of ambition put forward in their climate transition plan against action taken by their sector and geography peers.

Including a robust accountability mechanism is key to support the delivery of the plan's goals as it incentivizes the monitoring and evaluation of the company's climate risks and climate impacts, including greenhouse gas (GHG) emissions reductions (Bartlett 2021). A robust accountability mechanism will include clearly defined roles and responsibilities including effective governance mechanisms to monitor and evaluate progress, details on who holds responsibility for overseeing and implementing the transition plan, as well as accountability measures at the operational level (Bartlett 2021). It is critical to know who, or what department, at the counterparty is ultimately responsible for climate risks and opportunities.

Where possible, financial institutions should seek third-party verification of counterparty emissions reporting, else institutions may operate under incorrect portfolio assumptions that undermine the financial institutions' own climate targets.

Full disclosure of climate-related risks and opportunities are also essential elements of a robust and credible transition plan as they provide the basis for informed decision making for stakeholders (Madhani 2009). At minimum, a credible transition plan will report on progress in line with the recommendations from the Taskforce on Climate-Related Financial Disclosures (TCFD). There are concerns regarding a reliance on non-public voluntary disclosures, however, as the disclosures and data lack independent verification and may follow the outline of a disclosure regime without fully undertaking the analysis and treating the disclosure as a box-checking exercise. Third-party verification, as discussed in Section 3, is a potential solution to this issue.

2.6 FLEXIBILITY, RESPONSIVENESS, AND RAPIDLY ESCALATING AMBITION

A credible transition plan will incorporate flexibility, responsiveness, and above all be ambitious throughout its development and implementation. Flexibility and responsiveness are necessary as the pathways towards decarbonization cannot all be firmly determined today, particularly in hard-to-abate sectors. As such, a credible transition plan should incorporate a review schedule that updates the level of ambition based on the progress of both the counterparty and the industry. Allowing for plans to change and adapt to emerging technologies and breakthrough solutions is key to accelerating transition efforts.

Companies should also establish a regular and reasonable revision and update timetable for their transition plans, ideally on an annual basis. This requirement, however, does not imply that counterparties should develop new transition plans every year, rather they should apply learnings, revisit assumptions, and identify levers for action as well as areas that may be falling behind. Introducing flexibility and responsiveness into a plan can also help the company more easily adapt to changing regulatory circumstances.

When reviewing revised transition plans, financial institutions should consider how counterparties are escalating the ambition of their plans. That is, if milestones are missed, are counterparties responding with more aggressive interventions to compensate? As the milestone dates approach are counterparties seeking to outperform expectations? Financial institutions should take into account any future plans and interventions announced by counterparties to ensure sufficient financing is flowing to support the transition. Similarly, financial institutions should support any actions taken in service of advancing the transition efforts, for example investments in R&D that have contributed to cleaner technology development.

It is also important to recognize that counterparties will all have different starting points for emissions, climate action, and governance, often impacted by geography and counterparty size. As such, each counterparty should be benchmarked both on their own progress and against sectoral and geographic peers. While a 1.5°C pathway with limited or no overshoot requires counterparties to commit to net zero, each counterparty's progress along that

pathway may be different depending on unique circumstances. The critical issue is that counterparties with higher starting emissions engage in ambitious action to reach net zero.

Overall, to determine a transition plan's level of ambition, financial institutions will need to consider the proposed targets and interventions at a counterparty, sectoral, and global level. That is, financial institutions will need to assess whether the counterparty's plan is internally consistent with the latest science and necessary action for Paris-alignment, and benchmark the counterparty's plan against sector and geography peers and guidelines developed by sectoral initiatives.

3. ACTIONS TO SUPPORT CREDIBLE TRANSITION PLANS

There are a variety of actions financial institutions can take to support counterparties in their efforts to develop and enact credible transition plans. This includes options for engagement, ways for financial institutions to help counterparties build capacity and climate knowledge, and methods to assist in the global need for sectoral and geographical benchmarks as a tool for climate action and evaluation.

3.1 COUNTERPARTY ENGAGEMENT

After evaluating a counterparty transition plan using the elements above, financial institutions are able to respond based on the results of the assessment. Depending on the evaluation, there are several paths open to financial institutions.

- 1. If the transition plan and counterparty show commitment to climate action and lay out a clear plan for the transition, a financial institutions can offer support for any issues that arise and continue business.
- 2. If a transition plan suggests the counterparty is willing to take action on climate, but lacks the institutional capacity or knowledge to fully take effective action, a financial institution can offer multiple means of support, outlined below.
- **3.** If a transition plan and counterparty show no interest in climate action, suggest that the status-quo is acceptable, treat transition planning as a box-checking exercise, or otherwise appear less than credible to the financial institution, there is a responsibility to reassess business with that counterparty and clearly state the reason why. Responses can include options for divestment or aggressive engagement, along with the option for future business if the counterparty changes its ways and makes credible headway on climate action.

If a counterparty is committed to climate action but lacks capacity, a key role for financial institutions is supporting the development and implementation of more accurate and effective counterparty transition plans. Counterparties, particularly smaller companies, companies in developing countries, or companies with a traditionally smaller carbon footprint, may not have the internal capacity to conduct the necessary research on what information a credible transition plan should include or how a company should measure and present that information.

Financial institutions, aside from general knowledge sharing on best practices, have an opportunity to invest in counterparty capacity building. This includes investing in counterparties with the explicit goal of enabling teams, both within any existing sustainability departments and in the larger organization, to conduct climate risks assessments and engage on decarbonization strategies and target-setting. This could also encompass investments in counterparty training to develop a deeper understanding of climate-related financial risks or transition expertise for their industry.

Capacity building for hard-to-abate sectors should be both a priority for financial institutions and undertaken with a singular goal to reduce emissions. By providing the required finance to advance decarbonization strategies, financial institutions can help hard-to-abate industries reduce emissions. It is key here that such financing is successfully focused on mitigation practices in order to have the greatest impact on real economy emissions, in a manner similar to loans provided to the signatories of the Poseidon Principles or DFI loans earmarked for specific projects (Bhat and Mitchell 2021; Fuchs et al. 2021). This can also include engagement with trade associations and industry groups, to lay a viable path forward for hard-to-abate industries.

In addition to direct counterparty engagement, financial institutions should engage with third-party providers, such as rating agencies, to help develop transparent and usable methodologies for transition plan evaluation. Using rating agencies to act as a third-party evaluator of plans would add an accuracy and accountability mechanism that is currently missing from voluntary climate reporting, and address the potential for greenwashing. Additionally, a standardized set of transition plan elements, such as those laid out in Section 2, would provide guidelines for companies across industries and geographies when determining what information is necessary to include and how it will be evaluated.

Technical assistance is also hugely important in building effective transition plans. The Addis Ababa Action Agenda, from the Third International Conference on Financing for Development, highlights the importance of technical assistance and data-sharing through multilateral, regional, or even bilateral platforms as a way to increase climate action (UNDESA 2015). Assisting in the development of industry and geographic benchmarks through this data sharing would make climate progress easier to measure and compare, and act as a way for counterparties to set their own expectations. Without accurate metrics for tracking emissions and methodologies to create sectoral and geographic benchmarks, both financial institutions and counterparties are operating in the dark, particularly in developing economies that may not have the capacity to build these benchmarks themselves. While GHG emissions reporting is a critical piece of a transition plan, it will become insufficient without meaningful benchmarks for comparison.

If the evaluation of counterparty transition plans is a key part of climate action for financial institutions, the response to the transition plan assessment is equally important.

3.2 BUILDING A BETTER ENABLING ENVIRONMENT

As recommended by the Framework's necessary action metrics, financial institutions should leverage their influence on external policies to create a better enabling environment for climate action. This includes supporting national and global climate policies that help create an environment that encourages or mandates the development, implementation, and measurement of credible transition plans is through policy advocacy. While individual advocacy is important, the industry also has clout through its coalitions, such as the Global Finance Alliance for Net Zero and the sectoral coalitions that it comprises, such as the Net Zero Asset Owners Alliance.

Private financial institutions have created several policy calls to action for governments and international actors, including a push to create incentives to help communities and businesses to recover from the COVID-19 pandemic in a way that promotes climate mitigation, resilience, and adaptation (GFANZ 2021). There have also been multiple calls for either country governments or a global movement to assist in greening the multilateral and international financial architecture to help achieve net zero emissions by mid-century (Carney 2021; GFANZ 2021; Marrakesh Partnership 2021; Robins, Dikau, et al. 2021; Waygood 2021). This would include recognizing challenges faced by emerging markets on climate action and working to mobilize greater capital flows to developing countries for climate projects and supportive development aid.

Additionally, as attention grows on the topic, financial institutions have an opportunity to support policies for just transition initiatives. The movement to protect employees and communities and to ensure they aren't stranded in the shift to a low-carbon economy is key as the transition moves forward. While some initiatives, like efforts to protect coal miners and coal-reliant communities have already been implemented in places, many more sectors will be negatively impacted by the transition. Financial institutions can support policy measures that protect workers and communities, particularly on issues like job retraining as the topic gains momentum.

On a larger scale, financial institutions should support efforts, both nationally and globally, at creating a standardized climate disclosure framework. Creating a global disclosure framework on climate risks and transition planning that is comparable and standardized across industries would allow for better decision-making by financial institutions and identify any sectors or industries that were falling behind expectations (IFRS 2020; Bingler et al. 2021). One of the necessary action metrics in the Framework for Sustainable Finance Integrity is for financial institutions to advocate for global and standardized reporting as part of ambitious climate action.

There has been progress in this area, as the G20 has called for global mandatory climate disclosure (G20 2021). All concrete actions to date have been taken by distinct countries, and have often focused on the financial sector in lieu of an economy-wide mandate. In France, Loi 173 requires listed companies to disclose their climate-related financial risks, and for financial institutions to disclose their climate stress tests and climate policies (PRI 2016). The UK recently required financial institutions to submit detailed net zero plans for expert review by 2023, as part of a larger effort to become the first net zero financial center, although follow through on any commitments made will not be mandatory (Plummer and Timmins 2021). The Netherlands worked with financial institutions to agree to a mandatory measuring and reporting of emissions from 2021 onwards, and the Swiss government invited financial markets to test their portfolios against net zero (Coalition of Finance Ministers for Climate Action 2021). But despite these measures in the financial sector, governments have often left other industries, often high-emitting ones, without guidance on disclosure.

Along with mandatory disclosure frameworks, the use of accountability mechanisms is a common policy recommendation.³ At the moment, there are multiple taxonomies of climate-friendly actions and investments, with some required in their home country and none required elsewhere. A standardized, global taxonomy, accounting for economic and geographic differences, would help financial institutions know which investments are

³ The French Observatory is a public-private initiative that aims at increasing the level of reporting by key financial entities.

climate-friendly and assist in evaluating climate actions and disclosures for credibility. Making stress testing mandatory for financial institutions' climate risks would also even the playing fields between countries and strengthen the global economic system by hedging against climate shocks.

Finally, financial institutions should work with country governments to create and enact ambitious national climate targets that align with net zero by 2050. Many countries still have nationally determined contributions (NDCs) that are not Paris-aligned, reducing the incentives of local financial institutions to align with net zero. Detailed NDCs could include sectoral pathways and sectoral policy expectations for the transition, giving guidance to companies as they work to develop and implement climate targets. Governments should work to announce market direction signals more clearly, with the support of financial institutions, as more countries commit to pricing in the externalities of carbon emissions. In the absence of government direction, there are currently no legal parameters or platforms to discuss agreements on a number of issues, including a global voluntary carbon market. Guidance on potential carbon prices, offsets, and carbon markets will be critical to developing a robust, climate-resistant economy. Additionally, clear public policy direction on sectoral transitions is critical for setting sectoral benchmarks, which are necessary for clear, measurable, and comparable transition plans and climate targets.

3.3 TRANSITION PLANS AND DEVELOPING ECONOMIES

In evaluating counterparty transition plans from developing economies, financial institutions need to take the different stages of developing economies into consideration. Transition plans, including their methodologies for calculating emissions and the scenarios that guide company action, are largely geared toward financial institutions and companies in developed economies. The global adoption of universal expectations for transition plans, however, has the potential for unintended consequences for companies and financial institutions in developing economies. There could be a domino effect created by the lack of guidance for emerging and developing economies, as local financial institutions are unable to create their own commitments due to a lack of information on portfolio emissions, and local companies have difficulty accessing finance from developed countries due to a lack of transition plans.

Current research on transition plans in developing economies largely focuses on the development and implementation of NDCs, at the government level, rather than any potential action or guidance for companies or financial institutions. The lack of targeted scenarios and guidance on the public level also raises the question of whether most climate scenarios expected to be used in transition plans are designed for companies in developed economies.

There are outstanding questions on the different responsibilities of developed and developing economies as well, given the stark differences in current and historical emissions levels. Developing economies are also more likely to face physical climate impacts due to geography, adding another climate stressor to developing markets.

As discussed in Section 3.1, supporting policies and platforms for data sharing and benchmark creation is a key next step for financial institutions and transition plans evaluation. While initiatives like The French Observatory (OPDH) and CPI's Net Zero Finance Tracker are making progress on collecting and evaluating data for the financial sector, more data and more participation is needed to help create sectoral benchmarks that are manageable for developing countries (CPI 2021; Observatoire de la Finance Durable). Without these benchmarks, it is difficult for financial institutions to support counterparties and industries in developing countries with the development and implementation of their transition plans, especially given the data limitations that may exist around short-term target setting. There is also no clear actor who has taken on collecting such data and building the necessary tools.

A potential option could be a new tier in evaluating transition plans and climate targets. By starting with simpler transition plans, evaluated by a less stringent set of metrics and expectations, it could provide companies in developing economies access to the financing and capacity building tools they need in order to develop a more robust transition plan. This could be an area of opportunity for regional development banks to both strengthen involvement in climate action and help increase capacity of counterparties on a local level with real economy impacts.

There is significant interest in examining the levers of influence to encourage climate targets and transition plans across developing economies, and how to broaden existing networks of net-zero coalitions to include greater numbers of financial institutions from developing economies. While most of these conversations focus on how to effectively open doors for institutions in developing economies, there is also a need to focus on any unintended impacts these net zero targets may have on developing economies – financial markets, communities, and governments.

This section is intended to be a brief overview of questions that the financial community should consider for future analysis. Further research in this area is necessary to get a fuller understanding of how climate requirements could leave some developing countries behind, and what doors need to open in order to allow more financial institutions from developing countries into net zero coalitions. This will have to be built with the understanding that the vast majority of historical emissions did not come from developing economies, but they will be the countries to face the worst impacts of climate change. As such, on-ramps and other incremental measures should be considered to encourage participation.

4. CONCLUSION

Transition plans are a critical way for financial institutions to determine if a counterparty is seriously considering climate risks and taking ambitious climate action. There can be however a disconnect between what a company says and what it does. As financial institutions have made more commitments to only work with counterparties that have published credible transition plans, it raises the question of 'what makes a transition plan credible'?

This brief has proposed six key elements that bring credibility to a transition plan, taken from an evaluation of existing transition plans, current disclosure and evaluation guidance, and subject experts. While the list of key elements is not exhaustive, it is intended to guide evaluation of counterparty transition plans, based on actions that signify ambition without being far outside mainstream reporting guidelines.

As part of this, it is also critical that financial institutions react to the transition plan assessment. This can include identifying opportunities to support climate reporting and climate action through counterparty engagement, if a counterparty is acting in good faith but requires additional capacity. Additionally, there is an opportunity for financial institutions to leverage their influence to support external policies and regulations that support the creation of an enabling environment for counterparties to create effective climate transition plans and take ambitious climate action. A key part of this is support for a global, standardized, and comparable disclosure framework; if this is developed and mandated, it will take the responsibility of determining credibility out of the hands of financial institutions.

It is also vital to recognize that the discussion of transition plans has largely been confined to developed economies. That does not mean, however, that the expectation for and impact of transition plans is limited to developed economies as well. As discussed, financial institutions and counterparties in developing economies face a unique set of challenges that should be addressed by the global financial sector, such as better data sharing and sectoral benchmarking. Facilitating participation in net zero commitments and coalitions by a wider geographic and economic spread of companies and financial institutions is key to tacking climate change in the real economy. This brief has identified a series of questions that deserve greater consideration and analysis as the financial sector looks for ways to open doors to a larger, more inclusive process on net zero.

5. ANNEXES

5.1 FRAMEWORK FOR SUSTAINABLE FINANCE INTEGRITY METRICS

Figure 4. Overview of necessary action metrics in the Framework for Sustainable Finance Integrity

Targets & Objectives	Implementation	Metrics & Transparency
1. Set Paris-aligned, net zero targets Consistent with the IPCC's no or limited 1.5°C overshoot pathways, and in addition to 2050 targets, set 2025 target	4. Whole institution approach Fully integrate targets and commitments into mandates, governance, executive compensation, risk management frameworks, and performance management.	9. Transparently disclose climate risks Align with the TCFD and future TNFD disclosure frameworks,
to reduce portfolio scope 1, 2, and 3 emissions by 29% on absolute level against a 2019 base year, according to fair share of reductions.	5. Proactive counterparty engagement Lead engagements with counterparties to publicly commit to 1.5° C-aligned business strategies and publish a detailed policy for those that fail to adopt and implement credible	and any globally adopted disclosure regimes, ensuring disclosures, finance data, and impact are independently verified.
2. Set complementary SDG targets Set context-specific complementary targets by 2025, encompassing: biodiversity; adaptation; climate equity; pollution; and direct contributions for climate investments in developing economies and hard-to-abate sectors.	6. Develop and deploy substantially more sustainable finance Drastically increase sustainable finance volumes through new instruments and business models, including supporting developing economies in their transition.	10. Track emissions and sustainability investments Promote standardized and comparable approaches to defining sustainable investments and tracking emissions.
3. Use credible offsets Only use offsets where no mitigation options exist, and ensure offset credits cause no harm, prioritizing positive co-benefits where possible.	7. Align and engage around climate policy Proactively engage on and advocate for sustainable finance policy and regulatory measures to ensure Paris-aligned financial flows, including for mandatory global climate risk reporting for public and large private companies.	
	8. End fossil fuel financing Immediately end all finance for new thermal coal projects and phase out existing coal power finance by 2030 in OECD countries and 2040 in developing economies. Eliminate finance and subsidies for all new oil and gas projects, and phase out existing oil and gas financing and subsidies where a credible transition plan does not exist.	

5.2 CURRENT EXAMPLES OF CORPORATE COMMITMENTS

The 2022 Corporate Climate Responsibility Monitor from New Climate Institute and Carbon Market Watch has identified various promising examples emission reduction measures and sustainability goals that can be easily replicated by other companies in their transition efforts:

 Apple and IKEA, for example, support their upstream supplies to procure high-quality renewable electricity (Ikea 2020; Apple 2021). Apple further holds its suppliers accountable to environmental standards by including them in contract agreements (Apple 2021). DHL has established a Green Carrier Certification program to encourage their delivery contractors to green their fleets and operations (Deutsche Post DHL Group 2021; Day et al. 2022).

- Sony Group Corporation, provides a good example of robust and transparent interim target setting (Day et al. 2022). In 2020, Sony updated its Road to Zero environmental plan, which includes a net-zero by 2050 target that covers the environmental footprint throughout the whole life cycle of products, and sets frequent interim targets (-72% reduction in scope 1 and 2 emissions by 2035 and -45% reduction in scope 3 emissions by 2035) (Sony 2021; Day et al. 2022). Maersk, the largest vessel operator in the world, also offers a good example of detailed target setting. The company has set targets for reductions across all emission scopes as well as interim emission reduction targets for shipping and terminal related emissions (Maersk 2021). Notably, the company has presented comprehensive plans for Scope 1 emission reductions (which account for 65% of the company's emissions) and proposed various measures to address Scope 3 emissions (Maersk 2021; Day et al. 2022).
- Deutsche Post DHL's process for sourcing offsets includes five minimum criteria for offset credits, related to third-party monitoring and verification, transparency and the avoidance of double counting, permanence, sustainable development, and leakage (Deutsche Post DHL Group 2021). In addition, DHL prioritizes credits with more recent vintage dates over older ones, and focuses on projects with co-benefits for local communities, and located in developing countries (Deutsche Post DHL Group 2021; Day et al. 2022).

5.3 GLOSSARY OF COMMON TARGET SETTING TERMS FOR SHARED UNDERSTANDING

Sources: IPCC and UNFCCC

- Adaptation Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- **Baseline scenario** Synonymous with the term business-as-usual (BAU) scenario. Baseline scenarios serve as counterfactual constructions that can serve to highlight the level of emissions that would occur without further policy effort.
- Benchmarking Benchmarking is comparing one's performance with a standard point of reference for measurement. The resulting benchmark then represented a defined level of performance which can be used as a reference for comparison. Benchmarks can be based on averages - or percentiles - of real performance and is often based on policy-driven objectives such as 'net zero carbon' (the idea of reducing one's carbon footprint to a cumulative zero.
- Capacity building In the context of climate change, the process of developing the technical skills and institutional capability in developing countries and economies in transition to enable them to address effectively the causes and results of climate change.
- Carbon budget The estimated cumulative amount of global carbon dioxide emissions that is estimated to limit global surface temperature to a given level above a reference period.
- **Carbon footprint** A carbon footprint is the total amount of greenhouse gases produced to support human activities, both directly and indirectly. It can be attributed to an

individual, organization, country, etc. and is usually expressed in equivalent tons of carbon dioxide (CO_2). Activities like driving, heating, and food production have associated CO_2 emissions. The carbon footprint is then the sum of all of these emissions that were induced by activities within a given timeframe (usually a year).

- **Carbon intensity** The amount of emissions of carbon dioxide (CO₂) released per unit of another variable such as gross domestic product (GDP), output energy use or transport.
- Carbon neutrality Carbon neutrality, or net-zero CO₂ emissions, means annual zero net anthropogenic CO₂ emissions by a certain date. By definition, carbon neutrality means every ton of anthropogenic CO₂ emitted is compensated with an equivalent amount of CO₂ removed or avoided.
 - Net zero by 2050 refers to reaching net-zero carbon emissions by 2050.
 - **Climate neutrality** follows the same concept as carbon neutrality but extends to emissions beyond CO₂. Carbon and climate neutrality are often interpreted interchangeably, but they cannot be compared.
 - **Net zero GHG emissions** are achieved when emissions of all greenhouse gases are balanced by greenhouse gas removals.
- **Climate target** Climate target refers to a temperature limit, concentration level, or emissions reduction goal used towards the aim of avoiding dangerous anthropogenic interference with the climate system.
- **Equity** Equity is the principle of fairness in burden sharing and is a basis for understanding how the impacts and responses to climate change, including costs and benefits, are distributed in and by society in more or less equal ways.
- **Green infrastructure** The interconnected set of natural and constructed ecological systems, green spaces and other landscape features. It includes planted and indigenous trees, wetlands, parks, green open spaces and original grassland and woodlands, as well as possible building and street-level design interventions that incorporate vegetation.
- **Greenhouse Gas** Emissions are gases and other particles that are released into the atmosphere because of burning fuels and other processes. Generally, these emissions are most likely to come from cars, power generation and industrial processes. A greenhouse gas, then, is a classification of gases that, when released into the atmosphere, can absorb infra-red radiation. Consequently, this process will trap and hold heat in the Earth's atmosphere. This is called the greenhouse effect, and ultimately is what leads to global warming. Greenhouse gases include carbon dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O). A greenhouse gas emission is when a greenhouse gas is released into the atmosphere.
- **Greenhouse Gas Protocol** The Greenhouse Gas (GHG) Protocol is a global standard, developed by the World Resources Institute (WRI), that informs companies and organizations on how to measure, manage and report greenhouse gas emissions.
- **Institutional capacity** Institutional capacity comprises building and strengthening individual organizations and providing technical and management training to support integrated planning and decision-making processes between organizations and people.

- **Leakage** The concern that if financial institutions with ESG targets divest from high emitting companies, they will be replaced with financial institutions with less stringent climate requirements.
- **Lock-in** A situation in which the future development of a system, including infrastructure, technologies, investments, institutions, and behavioral norms, is determined or constrained ('locked in') by historic developments.
- Measurement, Reporting and Verification (MRV)
 - **Measurement** Processes of data collection over time, providing basic datasets, including associated accuracy and precision, for the range of relevant variables.
 - **Reporting** The process of formal reporting of assessment results to the UNFCCC, according to predetermined formats and according to established standards, especially the IPCC Guidelines and Good Practice Guidance.
 - **Verification** The process of formal verification of reports, for example the established approach to verify national communications and national inventory reports to the UNFCCC.
- **Mitigation** In the context of climate change, a human intervention to reduce the sources or enhance the sinks of greenhouse gases.
- **Negative emissions** Removal of greenhouse gases (GHGs) from the atmosphere by deliberate human activities, i.e., in addition to the removal that would occur via natural carbon cycle processes.
- Net zero CO, emissions see carbon neutrality.
- **Paris aligned** Paris alignment refers to the alignment of public and private financial flows with the objectives of the Paris Agreement on climate change, that is to be climate-resilient and consistent with the Agreement's long-term goal of limiting global warming to well below 2°C and pursuing 1.5°C.
 - Article 2.1c of the Paris Agreement defines this alignment as making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.
 - Article 4.1 of the Paris Agreement sets a clear, longer-term target for abating global emissions over the coming decades—the achievement of "a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century"—that is often described as "net zero emissions".
- Pathways
 - **1.5°C pathway** A pathway of emissions of greenhouse gases and other climate forcers that provides an approximately one-in-two to two-in-three chance, given current knowledge of the climate response, of global warming either remaining below 1.5°C or returning to 1.5°C by around 2100 following an overshoot.
 - **Overshoot pathways** Pathways that exceed the stabilization level (concentration, forcing, or temperature) before the end of a time horizon of interest (e.g., before

2100) and then decline towards that level by that time. Once the target level is exceeded, removal by sinks of greenhouse gases is required.

- **Non-overshoot pathways** Pathways that stay below the stabilization level (concentration, forcing, or temperature) during the time horizon of interest (e.g., until 2100).
- **Offsets** A carbon offset is a reduction in emissions of carbon dioxide or other greenhouse gases made in order to compensate for emissions made elsewhere.
- **Reference period** The period relative to which anomalies are computed.
- **Resilience** The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation.
- **Risk** In the context of the assessment of climate impacts, the term risk is often used to refer to the potential for adverse consequences of a climate-related hazard, or of adaptation or mitigation responses to such a hazard, on lives, livelihoods, health and wellbeing, ecosystems and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure.
- **Risk assessment** The qualitative and/or quantitative scientific estimation of risks.
- **Stranded assets** Assets exposed to devaluations or conversion to 'liabilities' because of unanticipated changes in their initially expected revenues due to innovations and/ or evolutions of the business context, including changes in public regulations at the domestic and international levels.
- **Sustainable development (SD)** Development that meets the needs of the present without compromising the ability of future generations to meet their own needs and balances social, economic and environmental concerns.
- Sustainable Development Goals (SDGs) The 17 global goals for development for all countries established by the United Nations through a participatory process and elaborated in the 2030 Agenda for Sustainable Development, including ending poverty and hunger; ensuring health and well-being, education, gender equality, clean water and energy, and decent work; building and ensuring resilient and sustainable infrastructure, cities and consumption; reducing inequalities; protecting land and water ecosystems; promoting peace, justice and partnerships; and taking urgent action on climate change. See also Sustainable development (SD).
- United Nations Framework Convention on Climate Change (UNFCCC) The UNFCCC was adopted in May 1992 and opened for signature at the 1992 Earth Summit in Rio de Janeiro. It entered into force in March 1994 and as of May 2018 had 197 Parties (196 States and the European Union). The Convention's ultimate objective is the 'stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.' The provisions of the Convention are pursued and implemented by two treaties: the Kyoto Protocol and the Paris Agreement.

6. **REFERENCES**

Althor G, Watson JEM, Fuller RA. 2016. Global mismatch between greenhouse gas emissions and the burden of climate change. Scientific Reports. 6(1):20281. doi:10.1038/srep20281. Available at: https://doi.org/10.1038/srep20281.

Andrews J, Fischer R. 2021. High-Level Reccomendations for Credible Net-Zero Commitments from Financial Institutions. Available at: https://g20sfwg.org/wp-content/uploads/2021/10/2021-UNEP-FI.-Recommendations-for-Credible-Net-Zero-Commitments.pdf.

Apple. 2021. Environmental Progress Report 2021. Available at: https://www.apple.com/ environment/pdf/Apple_Environmental_Progress_Report_2021.pdf.

Bartlett N. 2021. Climate transition plans: Critical to keep companies accountable for netzero. CDP. Available at: https://www.edie.net/blog/Climate-transition-plans-Critical-tokeep-companies-accountable-for-net-zero/6098973.

Bhat S, Mitchell J. 2021. Sustainable Ship Loans Set Sail. Rocky Mountain Institute. Available at: https://rmi.org/sustainable-ship-loans-set-sail/.

Bingler JA, Kraus M, Leippold M. 2021. Cheap Talk and Cherry-Picking: What ClimateBert has to say on Corporate Climate Risk Disclosures. Social Science Research Network. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3796152.

Carney M. 2021. Building a private finance system for Net Zero. Available at: https://ukcop26.org/wp-content/uploads/2020/11/COP26-Private-Finance-Hub-Strategy_Nov-2020v4.1.pdf.

CDP. 2022. Are companies being transparent in their disclosure? 2021 Climate Transition Plan Disclosure. Available at: https://cdn.cdp.net/cdp-production/cms/ reports/documents/000/006/127/original/2021_Climate_transition_plan_disclosure_ FINAL.pdf?1646240437.

Climate Action 100+. 2021. Climate Action 100+ Net Zero Company Benchmark. Available at: https://www.climateaction100.org/wp-content/uploads/2021/03/Climate-Action-100-Benchmark-Indicators-FINAL-3.12.pdf.

Coalition of Finance Ministers for Climate Action. 2021. Paris Alignment for Private Financial Institutions: Commitments and Methodologies. Available at: https://www. financeministersforclimate.org/sites/cape/files/inline-files/Financial%20Sector%20 Paris%20Alignment%20%28CFMCA%29%20-%20Presentation%20of%20Key%20 Findings_0.pdf.

CPI. 2021. Net Zero Finance Tracker. Available at: https://www.climatepolicyinitiative.org/ netzerofinancetracker/?page=institutions&view=dashboard&dimension=total.

Day T, Mooldijk S, Smit S, Posada E, Hans F, Fearnehough H, Kachi A, Warnecke C, Kuramochi T, Höhne N. 2022. Corporate Climate Responsibility Monitor

2022. Available at: https://newclimate.org/wp-content/uploads/2022/02/ CorporateClimateResponsibilityMonitor2022.pdf.

Deutsche Post DHL Group. 2021. Impact on Enviroment, Social and Governance structures 2021. Available at: https://www.dpdhl.com/en/investors/esg.html.

EIB. 2021. The EIB Group PATH Framework - Supporting counterparties on their pathways to align with the Paris Agreement. Available at: https://www.eib.org/attachments/publications/the_eib_group_path_framework_en.pdf.

EPA. Greenhouse Gases. United States Environmental Protection Agency. Available at: https://www.epa.gov/greeningepa/greenhouse-gases-epa.

European Parliament. 2019. Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector. European Parliament, Council of the European Union. Available at: https://eur-lex.europa.eu/eli/reg/2019/2088/oj.

Fifita S, Forster P, Ginzburg V, Handa C, Kheshgi H, Kobayashi S, Kriegler E, Mundaca L, Séférian R, Vilariño MV. 2018. Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development. Available at: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter2_Low_Res.pdf.

Fuchs S, Kachi A, Sidner L, Westphal M. 2021. Aligning Financial Intermediary Investments with the Paris Agreement. Available at: https://germanwatch.org/sites/default/files/ Aligning%20Financial%20Intermediary%20Investments_23-06-2021_0.pdf.

G20. 2021. Energy Transition and Climate Sustainability Working Groups Joint G20 Energy-Climate Ministerial Communique. Available at: http://www.g20.utoronto.ca/2021/210723climate-energy.html

GFANZ. 2021. Policy call to action. Available at: https://assets.bbhub.io/company/ sites/63/2021/10/GFANZ-call-to-action.pdf.

al Ghussain A. 2020. The biggest problem with carbon offsetting is that it doesn't really work. Greenpeace. Available at: https://www.greenpeace.org.uk/news/the-biggest-problem-with-carbon-offsetting-is-that-it-doesnt-really-work/.

Hill A. 2021. Executive pay and climate: can bonuses be used to reduce emissions? Financial Times. Available at: https://www.ft.com/content/c1d0e4d5-b42f-4287-8bfe-319f31a7acbe.

IFRS. 2020. Consultation paper on Sustainability Reporting. Available at: https://www. ifrs.org/content/dam/ifrs/project/sustainability-reporting/consultation-paper-onsustainability-reporting.pdf.

Ikea. 2020. Sustainability Strategy. Available at: https://gbl-sc9u2-prd-cdn.azureedge. net/-/media/aboutikea/newsroom/documents/ikea-sustainability-strategy-people-planetpositive-2020-511938_v3.pdf

Ingram G, Nguyen M, Bala M. 2019. How corporations are approaching sustainability and the Global Goals. Brookings. Available at: https://www.brookings.edu/blog/up-front/2019/01/08/how-corporations-are-approaching-sustainability-and-the-global-goals/.

Institute of International Finance (IIF). 2021. Taskforce establishes core carbon principles, publishes roadmap for scaling voluntary carbon markets. Availabe at: https://www.iif.com/tsvcm/Main-Page/Publications/ID/4254/Taskforce-Establishes-Core-Carbon-Principles-Publishes-Roadmap-for-Scaling-Voluntary-Carbon-Markets

Integrity Council for the Voluntary Carbon Market (ICVCM). 2022. The integrity council for the voluntary carbon market. Available at: https://icvcm.org/

IPSF. 2021. Common Ground Taxonomy - Climate Change Mitigation. Available at: https:// ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/ documents/211104-ipsf-common-ground-taxonomy-instruction-report-2021_en.pdf.

Irfan U. 2020. Can you really negate your carbon emissions? Carbon offsets, explained. Vox. Available at: https://www.vox.com/2020/2/27/20994118/carbon-offset-climate-change-net-zero-neutral-emissions.

Jaller M, Matthews S. 2021. Can Carbon Intensity Metrics Help Achieve Net Carbon Reductions? Available at: https://faculty.engineering.ucdavis.edu/jaller/wp-content/ uploads/sites/298/2021/06/92021-Jaller-and-Matthews-Can-Carbon-Intensity-Metrics-Help-Achieve-Net-Carbon-Reductions.pdf.

Lütkehermöller K, Mooldijk S, Roelfsema M, Höhne N, Kuramochi T. 2020. Unpacking the finance sector's climate related investment commitments. Available at: https://newclimate. org/wp-content/uploads/2020/09/NewClimate_Unpacking_Finance_Sector_Sept20.pdf.

Macquarie R, Micale V, Naran B, Rosane P, Wetherbee C, Falconer A. 2020. Paris Misaligned? Available at: https://www.climatepolicyinitiative.org/publication/paris-misaligned/.

Madhani PM. 2009. Value Addition Through Good Governance in Corporate Sector: Role of Disclosure and Transparency. Vision 2020: Managerial Challenges & Strategies.:310–332. Available at: https://papers.srn.com/sol3/papers.cfm?abstract_id=1518276.

Maersk. 2021. Sustainability Report 2021. Available at: https://www.maersk.com/ sustainability/our-priorities/the-environment/climate-change.

Marrakesh Partnership. 2021. Climate Action Pathway - Finance Vision and Summary. Available at: https://unfccc.int/sites/default/files/resource/Finance_ VisionSummary_V2.pdf.

NZAOA. 2022. Target Setting Protocol. Available at: https://www.unepfi.org/wordpress/ wp-content/uploads/2022/01/NZAOA-Target-Setting-Protocol-Second-Edition.pdf.

Observatoire de la Finance Durable. Data from the Observatory. Available at: https://observatoiredelafinancedurable.com/en/.

One Earth. 2020. Below 1.5oC: a breakthrough roadmap to solve the climate crisis. Available at: https://www.oneearth.org/below-1-5-c-a-breakthrough-roadmap-to-solve-the-climate-crisis/.

PCAF. 2020. The Global GHG Accounting and Reporting Standard for the Financial Industry. Available at: https://carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf. Pinko N, Ortega Pastor A, Tonkonogy B, Choi J. 2021. Framework for Sustainable Finance Integrity. Available at: https://www.climatepolicyinitiative.org/publication/framework-for-sustainable-finance-integrity/.

Plummer R, Timmins B. 2021. COP26: UK firms forced to show how they will hit net zero. BBC. Available at: https://www.bbc.com/news/business-59136214.

PRI. 2016. French Energy Transition Law, Global Investor Briefing. Available at: https://www.unepfi.org/fileadmin/documents/PRI-FrenchEnergyTransitionLaw.pdf.

Ranganathan J, Corbier L, Bhatia P, Schmitz S, Gage P, Oren K. 2015. A Corporate Accounting and Reporting Standard. Available at: https://ghgprotocol.org/corporate-standard.

Ritz RA. 2020. Climate targets, executive compensation, and corporate strategy. Energy Policy Research Group, University of Cambridge. Available at: http://www.jstor.org/stable/resrep30320.

Robins N, Dikau S, Volz U. 2021. Net-zero central banking: A new phase in greening the financial system. Available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/03/Net-zero-central-banking.pdf.

Robins N, Muller S, Szwarc K. 2021. From the grand to the granular: translating just transition ambitions into investor action. Available at: https://www.lse.ac.uk/granthaminstitute/publication/from-the-grand-to-the-granular-translating-just-transition-ambitions-into-investor-action/.

SBTI. 2021. SBTI Corporate Net-Zero Standard. Available at: https://sciencebasedtargets. org/resources/files/Net-Zero-Standard.pdf.

Schramek C. 2021. G20 backs global climate reporting standard. Green Central Banking. Available at: https://greencentralbanking.com/2021/07/12/g20-backs-global-climate-reporting-standard/.

SEforALL. 2021. Energizing Finance: Understanding the Landscape 2021. Available at: https://www.seforall.org/system/files/2021-10/EF-2021-UL-SEforALL.pdf.

Sony. 2021. Sustainability Report 2021. Available at: https://www.sony.com/en/ SonyInfo/csr_report/.

Täger M. 2021. 'Double materiality': what is it and why does it matter? Grantham Research Institute on Climate Change and the Environment. Available at: https://www.lse.ac.uk/ granthaminstitute/news/double-materiality-what-is-it-and-why-does-it-matter/.

TCFD. 2021. Guidance on Metrics, Targets, and Transition Plans. Available at: https://assets. bbhub.io/company/sites/60/2021/07/2021-Metrics_Targets_Guidance-1.pdf.

TPI. 2021. Transition Pathway Initiative Data. Available at: https://www. transitionpathwayinitiative.org/sectors.

UNDESA. 2015. Addis Ababa Action Agenda of the Third International Conference on Financing for Development. Available at: https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf.

VCMI. 2021. Aligning Voluntary Carbon Markets with the 1.5°C Paris Agreement Ambition. Available at: https://vcmintegrity.org/wp-content/uploads/2021/07/VCMI-Consultation-Report.pdf.

Waygood S. 2021. Harnessing the international financial architecture to deliver a smooth and just transition. Aviva Investors. Available at: https://www.avivainvestors.com/en-us/about/ responsible-investment/climate-finance-challenge/sustainable-finance-proposals-g7-g20/.

Widge V. 2021. Delicious and abundant: yes, we're talking about voluntary carbon market. Climate Policy Initiative. Available at: https://www.climatepolicyinitiative.org/delicious-andabundant-yes-were-talking-about-voluntary-carbon-markets/.

WWF. 2021. Toolkit for assessing effective Territorial Just Transition Plans. Available at: https://just-transitions-plan.wwf.eu/upload/WWF%20TJTP%20scorecard%20tool%20 overview.pdf.

climatepolicyinitiative.org