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Making good on financial sector net zero commitments

Building the road to policy

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Abstract

Recent years have seen a proliferation of commitments by companies and financial institutions to achieve "net zero" greenhouse gas emissions, in line with global climate change goals under the Paris Agreement. Initiatives like the UN Race to Zero campaign and Glasgow Financial Alliance for Net Zero have established criteria and guidelines for these efforts, and in 2022 a UN High-Level Expert Group (HLEG) was convened to develop definitive recommendations for "high-integrity" commitments. While various initiatives have consolidated around common principles, there are important differences in their specific requirements – such as policies related to financial support for fossil fuels – and in how they are being put into practice. There also remain fundamental questions about the conceptual framing of net zero commitments, especially for financial institutions. Most challengingly, both companies and financial institutions are committing to reduce emissions at a scale and pace that *individually* they have no hope of achieving – something most financial institutions readily acknowledge in disclaimers to their commitments. The HLEG thus called for a "road to regulation" that would (a) bring greater accountability to voluntary net zero commitments and (b) "transform [them] into ground rules for the economy overall". This report argues that greater attention is needed to the second objective. To be successful, voluntary net zero commitments must be tied more directly to advancing national and global climate policy, including efforts to decarbonize energy systems and phase out fossil fuels. Further coordination is needed between governments, voluntary net zero initiatives, companies and financial institutions to jointly explore this vision.

Acronyms used in this report

CDP	Carbon Disclosure Project
FI	Financial Institution
GFANZ	Glasgow Financial Alliance for Net Zero
HLEG	UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities
IGCC	Investor Group on Climate Change
IIGCC	Institutional Investors Group on Climate Change
ISO	International Organization for Standardization
ISSB	International Sustainability Standards Board
NZAM	Net Zero Asset Managers initiative
NZAOA	UN-Convened Net-Zero Asset Owner Alliance
NZBA	Net-Zero Banking Alliance
NZFSPA	Net Zero Financial Service Providers Alliance
NZIA	Net-Zero Insurance Alliance
NZICI	Net Zero Investment Consultants Initiative
PAAO	Paris Aligned Asset Owners
PAII	Paris Aligned Investment Initiative
PCAF	Partnership for Carbon Accounting Financials
PRI	Principles for Responsible Investment initiative
RtZ	United Nations Race to Zero campaign
SBTi	Science-Based Targets initiative
TCFD	Task Force on Climate-Related Financial Disclosures
UNEP FI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
VCA	Venture Climate Alliance
VCMI	Voluntary Carbon Markets Integrity Initiative

Executive summary

Achieving "net zero" greenhouse gas emissions has become the dominant organizing principle for global climate action. Countries, corporations, financial institutions, cities and subnational governments have all committed to net zero, to the point where over 90% of the global economy is nominally covered by net zero emissions targets.

As the number of commitments has grown, so have concerns about their rigour, consistency and credibility. Multiple initiatives, including the Science-Based Targets initiative (SBTi), the UN Race to Zero campaign (RtZ), the Glasgow Financial Alliance for Net Zero (GFANZ) and others have sought to address these concerns by providing criteria and guidance for making and implementing credible commitments.

In 2022, the UN Secretary-General convened the High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities (HLEG) to survey these efforts and develop a definitive set of conditions for "high-integrity" net zero targets (see Section 2). According to the HLEG, commitments should cover an actor's entire greenhouse gas footprint, including both direct and indirect emissions. For financial institutions (FIs), this means covering both financed and facilitated emissions (i.e., all emissions from their investment, lending and underwriting activities). Moreover, committed actors must adopt an ambitious transition plan, indicating how they will achieve both near-term and long-term reductions in their covered emissions in line with global scenarios for limiting global warming to 1.5°C. Commitments must also minimize reliance on carbon offsets, reserving their use for netting out unavoidable "residual" emissions with permanent greenhouse gas removals. Finally, the use and support of fossil fuels must be phased out, which includes ending financial support for new coal, oil and gas projects.

While the HLEG's recommendations reflect common principles for net zero commitments, challenges remain when it comes to putting them into practice, especially for FIs. Current initiatives still diverge on some important criteria. There are still challenges in the conceptual framing of net zero commitments. And in practice, companies and FIs frequently fall short of what net zero initiatives require. To overcome these challenges, initiatives will need to focus much more explicitly on tying voluntary net zero commitments to the advancement of *government* climate policies needed to collectively achieve global net zero emissions.

Current net zero initiatives still have room for improvement

A review of existing net zero initiatives reveals that, for the most part, they are aligned with the HLEG's core criteria (Sections 2.1 and 2.2). However, there are also important divergences – especially where FI net zero commitments are concerned – and areas where improvement is needed to meet the HLEG's bar for integrity. Problematic areas include varying scope and coverage requirements, inconsistent requirements for the level of detail required in net zero transition plans, inconsistent and overly flexible policies on financial support for fossil fuels, and limited governance and accountability structures (Section 3).

Conceptual challenges: what does it mean for financial institutions to achieve net zero?

While the inconsistencies in net zero guidance and criteria across various initiatives are significant, they could be addressed through ongoing efforts to bolster requirements and to provide more effective oversight and accountability. Potentially more challenging to address are issues with the conceptual framing of net zero commitments themselves, including in the HLEG's framing (Section 4). These issues are particularly notable when it comes to the net zero commitments of FIs. Key questions include:

- **How can financial institutions achieve net zero emissions?** FIs influence emissions indirectly through investments and lending. Achieving deep emissions reductions in their portfolios – without the use of carbon offsets – is therefore a challenge. Divesting from high-emitting companies may not reduce real-world emissions, while the alternative – engaging with fossil fuel companies to help them decarbonize – presents its own challenges. Many FIs acknowledge this, noting that realization of their net zero targets is contingent on transitions in the "real" economy driven by government policy.
- **What are "residual emissions"?** The term "residual emissions" lacks clear definition at company, country and global levels. This is especially problematic for the fossil fuel sector, where defining residual emissions requires politically laden judgements about technical potentials and burden sharing. To be useful and actionable, voluntary net zero targets – especially among FIs – should be linked to national decarbonization pathways and emissions targets.
- **Who bears responsibility for netting out emissions?** Companies and FIs are asked to set targets for more than just their own direct emissions, meaning there is considerable overlap across their net zero commitments. Greater coherence is needed around who will net out whose emissions, with responsibilities assigned in ways that support the development of national and international policy frameworks.
- **How should equity, fair share and just transitions be addressed?** While the need to ensure equity is acknowledged in most net zero initiatives, practical guidance is lacking. Current initiatives are mostly disconnected from policy processes that could mediate what "just transitions" and "fair share" mean in specific contexts. Ensuring equity is a key area where the connection between voluntary climate action and policymaking needs to be strengthened.

Practical challenges: net zero commitments in practice

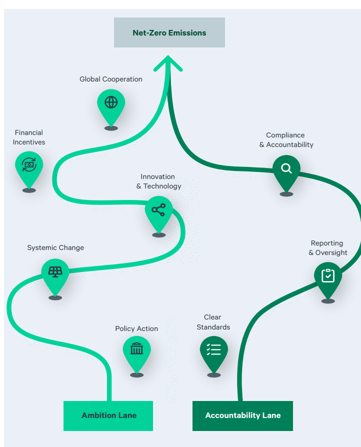
Complicating things further is the fact that, in practice, corporate and FI net zero commitments frequently diverge from what initiatives require. Identified issues include poorly defined targets, over-reliance on carbon offsets, lack of credible strategies, limited action and mixed levels of transparency (Section 5). Shortcomings are especially apparent when it comes to FIs' continuing financial support of the fossil fuel sector. For example:

- A 2022 Accenture analysis found that, given current trends, 93% of the world's largest companies will fail to meet their net zero targets (Accenture, 2022).
- Only 5% of FIs with net zero commitments have translated these into near-term targets (World Benchmarking Alliance, 2022).

- Many actors lack credible transition plans, particularly in the fossil fuel sector; a review of the net zero commitments of 112 fossil fuel companies found that none has plans to fully transition away from fossil fuel extraction and production (Net Zero Tracker, 2023a).
- FIs with net zero commitments do not appear to be applying much pressure, adopting only tentative policies towards engaging with or withdrawing financing from fossil fuel companies (Sachs et al., 2023).

A broader challenge is that, while the number of voluntary net zero commitments has grown, there is far from universal uptake. According to the European Central Bank, for example, 90% of Euro-area banks have portfolios misaligned with Paris Agreement goals (European Central Bank, 2024). The mixed track record of net zero commitments has led some to question whether they may be a distraction, creating the appearance that meaningful action is forthcoming without actually delivering it.

The road to regulation: beyond accountability, towards more ambitious policy



A fundamental obstacle to delivering on net zero commitments as prescribed by the HLEG and net zero initiatives is their sheer ambition. Although there is an urgent need for ambitious action to achieve global climate goals, it is unrealistic to expect that corporations and FIs can voluntarily and by themselves achieve emissions reductions at the pace and magnitude required. Without collective progress towards net zero, competitive pressures and fiduciary obligations will limit their ability to act. Government intervention will be needed to level the competitive playing field, provide regulatory certainty and drive collective progress.

In apparent recognition of this challenge, in 2022 the HLEG called on governments and voluntary actors to work together to accelerate progress along “the road to regulation” (UN HLEG, 2022, p. 33). This “road” has two ostensible lanes. The first is what we refer to in this report as the **accountability lane**. For example, the HLEG calls on governments to provide strong standards and oversight related to voluntary net zero pledges, including disclosure and transparency requirements. Voluntary net zero initiatives have limited capacity to provide such oversight themselves, but governments seem increasingly willing to provide it, with the EU, Japan and others requiring companies and FIs to disclose transition plans, and multiple countries adopting (or contemplating) net zero-related disclosure requirements and other regulations.[1] Bodies like the UNFCCC Recognition and Accountability Framework and the newly constituted Task Force on Net Zero Policy are working to aid governments in their efforts to ensure accountability.

But the HLEG also notes the need to “transform the groundswell of voluntary commitments into ground rules for the economy overall”. The implication is that voluntary net zero commitments must transition into comprehensive, economy-wide policies and mandates. We refer to this as the **ambition lane** of the road to regulation.

This report argues that greater attention is needed to the ambition lane (aka the “road to policy”). To truly drive ambitious climate action, voluntary net zero

1 https://netzeroclimate.org/regulation-tracking/

commitments must become spurs for policy action. Governments must enact policies that transform these commitments into “ground rules” for the entire economy, including through carbon pricing, removal of fossil fuel subsidies, support for green technology development, energy- and industrial-sector transition programs, and policies to preserve and restore natural ecosystems (Section 6).

Over time, this approach could lead to a reorientation of voluntary net zero commitments, away from achieving net zero at a corporate or FI level, and towards advancing global transitions. Such a reorientation could present its own challenges, but may hold greater promise than a system which asks voluntary actors to commit to what they cannot realistically achieve, and then seeks to hold them accountable for not achieving it.

Next steps

To be successful, we argue that voluntary net zero commitments must be tied more directly to advancing national and global climate policy, including efforts to decarbonize energy systems and phase out fossil fuels. For this road to policy to be realized, stronger coordination is needed between governments, voluntary net zero initiatives, companies and FIs. In particular:

- FIs and other voluntary actors must explicitly and publicly **identify in their net zero transition plans the types of policies needed** to enable the achievement of their net zero targets. The requirement to identify needed policies and regulations should be made a centrepiece of net zero commitments, with the goal of motivating action by governments.
- In turn, **governments must provide greater direction** to companies and FIs about where voluntary climate action is most needed by developing sector-specific transition goals, especially in the fossil fuel sector, and identifying priorities for mitigation finance.
- Governments can also **adopt and implement policies that enable more voluntary action**, such as providing public finance guarantees and other supporting policies to aid the accelerated phaseout of coal, oil and gas assets, promote investment in climate solutions and ensure a just transition for workforces in fossil fuel and high-emitting industrial sectors.

Most importantly, *governments* must drive collective climate action through regulation and policies that drive systemic change across the global economy, remove barriers to investment in green technologies, enable the rapid and substantial phasedown of fossil fuel consumption and production, and align the activity of *all* actors with achieving global net zero emissions.

Through joint action, governments, companies and FIs can unlock greater potential than any one entity could alone, transforming individual commitments into a powerful collective force for climate action.

1. Introduction

From its genesis in policymaking discussions leading up to the 2015 Paris Agreement (Darby, 2019), the idea of achieving "net zero" greenhouse gas emissions has become the dominant organizing principle for global climate action. Countries, corporations, institutions, cities and subnational governments have all committed to net zero, to the point where over 90% of the global economy is nominally covered by net zero emissions targets (Net Zero Tracker, 2023a). A key question lingers over these commitments, however: what do they add up to in terms of likely future action to mitigate climate change?

Net zero commitments arrived faster than standards defining their content, leading to concerns that they lacked rigour, consistency and credibility (Hale et al., 2022; Rogelj et al., 2021). Beginning in 2020, several high-profile initiatives were launched to address these concerns, focused on the commitments of corporate and other non-state actors. The United Nations Race to Zero campaign (RtZ) – spearheaded by the UN High-Level Climate Champions – produced an initial set of "starting line criteria" for credible net zero commitments in June 2020. The Glasgow Financial Alliance for Net Zero (GFANZ) – launched in 2021 at the 26th Conference of Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC) – set to work producing guidance and recommendations for the net zero commitments of financial institutions. In parallel, independent initiatives like the Science-Based Targets initiative (SBTi) and the International Organization for Standardization (ISO) developed and published their own detailed net zero standards for corporate and other non-state actors.

Despite these initiatives, concerns have persisted about lack of rigour and the potential for "greenwashing". Independent reviews of corporate net zero commitments, for example, continue to reveal both ambiguities in how targets are set and a lack of action commensurate with companies' implied ambitions. Noting these concerns, the UN Secretary-General convened a High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities (HLEG). The HLEG produced a set of recommendations in late 2022, spelling out a definitive set of conditions for "high-integrity" net zero targets (UN HLEG, 2022). Essential elements include:

- **Maximal coverage of an entity's greenhouse gas footprint**. Notably, targets should cover direct emissions (scope 1) as well as *all* indirect emissions arising from an actor's activities (scopes 2 and 3). For financial institutions, targets must cover both financed and facilitated emissions (i.e., all emissions from investment, lending and underwriting activities).

- **Adoption of an ambitious net zero "transition plan".** Such plans must indicate how actors will achieve both near-term and long-term reductions in their own covered emissions, in line with global scenarios for limiting global warming to 1.5°C. Targets should "be reflective of the [actor's] fair share" of needed global climate mitigation, reflect "the fact that global emissions must decline by at least 50% by 2030", and lead to net zero emissions by 2050 or earlier.

- **Minimal reliance on carbon offsets**. Actors must achieve emissions reductions directly, without relying significantly on carbon offsets. Use of carbon credits is only permissible when "neutralizing" or "counterbalancing" any unavoidable emissions that remain in the long term because feasible abatement technologies are not available, and these may only be offset using permanent greenhouse gas removals.

- **Phasing out of fossil fuels**. According to the HLEG, all net zero commitments should include specific targets for "ending the use of and/or support for fossil fuels". For financial institutions, this means ending finance for new coal infrastructure, power plants, and mines, and for new oil and gas exploration, reserve expansion, and production.

The HLEG recommendations are a distillation of requirements elaborated under initiatives like the RtZ and SBTi. What is notable is their stark ambition. The HLEG – perhaps more so than other standard setters – does not equivocate about what companies, financial institutions and other actors are expected to commit to if they wish to publicly proclaim a net zero target.

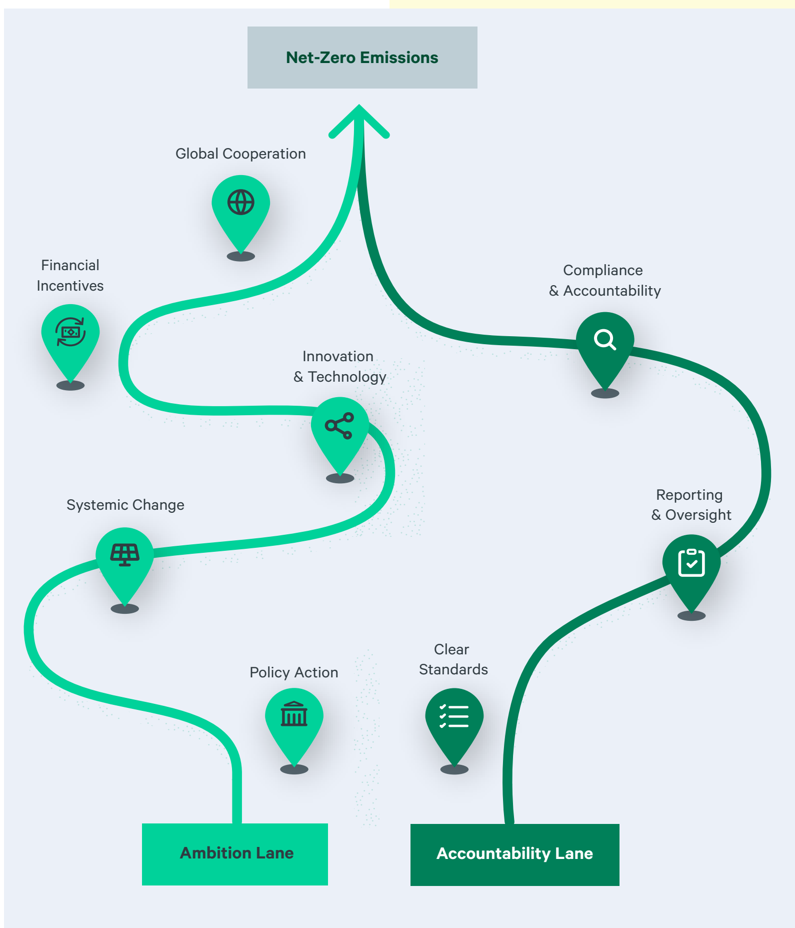
Although the need for more ambition to achieve global climate goals is clear, real questions can be raised about whether these actors can *voluntarily and by themselves* achieve emissions reductions at this expected pace and magnitude, especially for emissions they do not directly control. In apparent recognition of this, the HLEG report also calls on governments and voluntary actors to accelerate progress along the "road to regulation" (UN HLEG, 2022).

This road has two ostensible lanes. To deter greenwashing, the HLEG calls on governments to provide strong standards and oversight related to voluntary net zero pledges, including disclosure and transparency requirements (referred to in this report as the "accountability lane"). Secondarily (in terms of emphasis), the HLEG notes the need to "transform the groundswell of voluntary commitments into ground rules for the economy overall". The implication is that voluntary net zero commitments must transition into comprehensive, economy-wide policies and mandates – referred to here as the "ambition lane" (Box 1).

In theory, voluntary net zero commitments can lead to a virtuous cycle, where the coalescing of commitments around a common set of criteria and standards can pave the way for future regulation, and regulation solidifies net zero-aligned decarbonization efforts throughout the economy. This "conveyor belt" model underpins the theory of change behind initiatives like the RtZ campaign (Hale, 2021). The transition to regulation, however, may not be straightforward. Putting aside the political challenges involved in adopting net zero-aligned policies and regulations, it is not clear that voluntary net zero standards – tailored as they are for evaluating the commitments of individual actors – provide robust blueprints for policy action in the ambition lane.

BOX 1. THE TWO LANES OF THE NET ZERO "ROAD TO REGULATION"

The UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities calls for "accelerating the road to regulation" as a means to bolster the integrity of voluntary net zero commitments (UN HLEG, 2022, Recommendation 10). The idea is broader, however, than simply policing these commitments. Although the HLEG does not make an explicit distinction, there are really two identifiable "lanes" in this road.



The accountability lane. Part of what the HLEG calls for is simply better oversight of the voluntary net zero claims and commitments made by different actors, including companies and financial institutions. Here, governments can play a role by defining the minimum criteria for credible net zero commitments, standardizing reporting requirements, and ensuring that actors follow through on their commitments. Regulations along these lines are already taking shape at multiple levels, including under the UNFCCC Recognition and Accountability Framework (UNFCCC, 2023) and under mandatory disclosure rules in the UK, EU and elsewhere. In many cases, these regulatory efforts build off the independent standards and initiatives reviewed in this report.

The ambition lane. Ultimately, governments must adopt policies and regulations that drive action towards net zero emissions across the economy, making such action mandatory, or providing financial incentives and enabling conditions that spur businesses to reduce emissions and invest in climate solutions. The ambition lane is where (in principle) voluntary commitments are translated into policy action that drives the systemic change needed to achieve net zero emissions globally.

Although the ambition lane is arguably where the world should focus its attention, it is underplayed in most net zero initiatives, and is largely implicit even in the HLEG's recommendations. This report argues that voluntary net zero commitments – especially in the financial sector – should be tied much more concretely to advancing government policy in the ambition lane.

Nearly every FI net zero initiative ... disclaims that commitments are made with "the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met.

This issue is especially prominent when it comes to the net zero commitments of financial institutions. Financial institutions (FIs) – including investors, banks and insurers – play a pivotal role in allocating capital and shaping investment decisions across the global economy. Their engagement with the fossil fuel industry (coal, oil and gas) can directly impact the industry's growth, sustainability and transition towards cleaner energy sources. That said, FIs typically have little direct operational control over the greenhouse gas emissions associated with their investment, lending and underwriting activities. Achieving deep emissions reductions in their portfolios – without the use of carbon offsets – is therefore a challenge. They can choose to divest or withhold funding from high-emitting companies and assets, but this may do little to drive real-world emissions reductions. The alternative – engaging with fossil fuel companies to help them decarbonize – has its own challenges. Many FIs acknowledge this, noting that realization of their net zero targets is contingent on transitions in the "real" economy driven by government policy. Nearly every FI net zero initiative, for example, disclaims that commitments are made with "the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met". The question of how (and whether) these commitments can translate into policy of the type envisioned in the ambition lane is therefore a paramount concern.

This report proceeds as follows. **Section 2** surveys the criteria, guidance and recommendations of major corporate net zero initiatives, including those (like GFANZ) focused on the net zero commitments of financial institutions. Notably, there are key commonalities in how these initiatives define a "high-integrity" net zero commitment (in line with the HLEG recommendations cited above).

Despite these commonalities, there are also important differences when it comes to more detailed requirements and guidance. **Section 3** discusses these differences and identifies some "missing pieces" where initiatives could still be improved. These include policies among FI net zero initiatives related to financially supporting fossil fuels.

Even with such improvements, current definitions of net zero are imperfectly aligned with the goal of advancing global climate action. **Section 4** examines some foundational concerns with how voluntary net zero commitments are currently conceived and outlines where closer alignment is needed with national and global policy objectives.

Section 5 surveys how companies and FIs with net zero targets are currently faring against the criteria and guidance of major net zero initiatives. Shortcomings in how net zero commitments are implemented in practice again point to the need not just for better accountability, but also a stronger emphasis on advancing government policy.

Finally, **Section 6** argues for greater attention to the HLEG's road to regulation, emphasizing the development of an ambition lane (or a road to policy) that ties *voluntary* net zero commitments more closely to enhancing *government* ambition. Governments, net zero initiatives, corporate actors and FIs all have roles to play in orienting net zero commitments towards this goal.

The proliferation of corporate and financial net zero commitments in recent years reflects a willingness of these actors to play the critical roles required of them to transition to a net zero economy. Fundamentally, however, there remains a disconnect between the ambition of these voluntary commitments and the means that FIs and others have for achieving them. In too many contexts, *government* leadership and support for what voluntary actors should be doing is missing: what types of action are needed, where, and in furtherance of what national goals? To build the road to policy:

- governments must provide greater direction to companies and FIs about what kinds of voluntary climate action are most needed;
- FIs and other actors must explicitly and publicly identify the types of policies needed to enable achievement of their net zero targets (e.g., as a discrete element of their net zero "transition plans"); and
- governments must adopt and implement policies that both enhance voluntary action and – more importantly – drive climate action across the economy and align the activity of *all* actors (those with and without voluntary commitments) with achieving global net zero emissions.

Orienting net zero commitments along these lines could change their framing and focus. Rather than emphasizing the "achievement" of net zero emissions for individual companies and FIs, for example, they could instead emphasize contributing to the achievement of national and global net zero objectives. Further dialogue between governments, voluntary net zero initiatives and companies, and FIs themselves is needed to jointly explore this vision.

2. Defining "high-integrity" net zero commitments

The idea that achieving *net* zero emissions will be needed to arrest climate change is not new, but it did not have a formal status in international climate policy until the Paris Agreement (Dyke et al., 2021). In 2018, the Intergovernmental Panel on Climate Change (IPCC) underlined the concept's necessity: all plausible scenarios for limiting long-term warming to 1.5°C involve both rapidly reducing greenhouse gas emissions and dramatically scaling up efforts to remove CO_2 from the atmosphere – achieving net zero emissions around mid-century and net *negative* emissions thereafter (IPCC, 2018).

For many national governments as well as private companies and institutions, the IPCC report was a wake-up call. At the end of 2018, only a handful of countries (including several small-island states) had pledged or adopted some form of net zero target (Darby & Gerretsen, 2019). By December 2020, the number had grown to over 120 (Net Zero Tracker, 2023a), and today stands at over 150.[2] Among large publicly listed companies, around 400 had formally declared net zero targets by the end of 2020.[3] This has now more than doubled to over 1000 (Net Zero Tracker, 2023a).

2 https://zerotracker.net/ (accessed 29 December 2023)

3 Prior to the Paris Agreement, many companies had adopted "carbon neutrality" goals of some sort; it is unclear from existing sources how many of these goals may have been repurposed as "net zero" targets. The lack of a clear conceptual distinction between "carbon neutrality" and "net zero" has contributed to concerns about the credibility of net zero targets.

By 2020, it was clear that despite rapidly growing commitments, little guidance was available on what "net zero" means (or should mean) when applied to individual actors like countries, companies, cities or institutions. In the spring of 2020, the Oxford Net Zero network[4] convened a series of dialogues to develop a common set of criteria for net zero pledges, focusing on non-state actors. These were formally published in June 2020 as the "starting line criteria" for the UN RtZ campaign (UN Race to Zero, 2020), an umbrella campaign designed to recognize and encourage fledgling net zero initiatives (which themselves set criteria and guidelines for individual members). Over the following year, the RtZ further refined these criteria amidst a growing body of commentary on the potential pitfalls and need for greater clarity around setting net zero targets (Dyke et al., 2021; Fankhauser et al., 2021; Rogelj et al., 2021).

Since the RtZ was launched, multiple high-profile initiatives have established criteria for defining and operationalizing net zero commitments. These include well-recognized standard setters such as the SBTi and ISO, as well as related initiatives like the Voluntary Carbon Markets Integrity (VCMI) Initiative. Their focus has primarily been on the net zero targets of corporate actors. In parallel, a series of initiatives – including those organized under the GFANZ – have elaborated net zero criteria and guidelines for financial institutions. At the end of 2022, the HLEG published its own general recommendations for defining net zero commitments for all non-state actors, drawing on – and amplifying – criteria established by the RtZ and these other major initiatives. Table 1 provides an overview of initiatives reviewed in this report.

Table 1. Net zero initiatives and guidelines reviewed in this report

Initiative/organization	Sectors covered	Description	Accountability & oversight functions?
Science-Based Targets initiative (SBTi)	Corporate Financial	SBTi sets and applies standards for net zero commitments of corporate and financial actors	**Yes**. Validates company and FI net zero targets against published standards
International Organization for Standardization (ISO)	Corporate Financial Institutional	ISO has published guidelines for voluntary net zero commitments, and is developing a net zero standard	None currently
Voluntary Carbon Markets Integrity Initiative (VCMI)	Corporate	Framework for recognizing corporate climate action aligned with net zero criteria	**Yes**. Validates companies claiming adherence to VCMI principles and requirements
UN Race to Zero campaign (RtZ)	All	Umbrella campaign designed to recognize and encourage net zero initiatives in multiple sectors	**Limited.** Screens member initiatives against "starting line criteria" and monitors their progress. Does not review or validate commitments of individual entities
UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities (HLEG)	All	Expert group convened to establish recommendations for defining credible net zero commitments	None
Glasgow Financial Alliance for Net Zero (GFANZ)	Financial	Umbrella campaign for organizing and supporting financial institution net zero commitments	None
GFANZ member alliances	Financial	Coordinating alliances for different types of financial institutions (see Annex B)	**Limited**. FIs participating in each alliance commit to meeting each alliance's principles and criteria
Institutional Investors Group on Climate Change (IIGCC)	Financial	Independent financial sector initiative based in Europe and active since 2001	**Limited**. Members commit to meeting IIGCC principles and requirements

4 https://netzeroclimate.org/

As others have noted, there is now significant alignment among major initiatives and the HLEG when it comes to defining ambitious and credible net zero targets for corporations and financial institutions (Net Zero Tracker, 2023a). However, there are also important differences, and some notable ambiguities, in how certain common criteria are defined. These issues are important to consider when assessing how net zero commitments might translate into policy action, and we therefore explore them further in Sections 3 and 4.

2.1 Strong convergence on the key elements of corporate commitments

There are numerous initiatives today offering criteria and/or guidelines for companies setting net zero targets (Becker et al., 2024; McGivern et al., 2022). Many of these are focused on galvanizing climate action among specific groups of corporate actors; this diversity was the impetus for coordinating efforts like the UN Race to Zero and HLEG. For this report, we examined five major independent initiatives that provide comprehensive frameworks – including standards, guidelines and/or criteria – for recognizing corporate net zero commitments (Box 2).[5]

BOX 2. CORPORATE NET ZERO GUIDELINES AND CRITERIA ASSESSED FOR THIS REPORT

Science-Based Targets initiative (SBTi) – Net Zero Standard (Version 1.1). SBTi pioneered high-ambition standards for corporate climate action, and today offers the preeminent international standard for companies seeking to demonstrate leadership on climate change. Initially, SBTi's standards focused on reducing corporate greenhouse gas emissions in line with science-based scenarios limiting global warming to "safe" levels (e.g., 1.5°C or 2°C). The growing recognition that global science-based pathways to 1.5°C require achieving *net* zero emissions (not simply zero) prompted SBTi to develop its own net zero standard for corporate actors. Version 1.0 of the standard was published in October 2021 (SBTi, 2021).

International Organization for Standardization – Net Zero Guidelines (First Edition). The ISO is an international federation of national standards bodies, and a globally recognized setter of standards for corporate greenhouse gas accounting and climate action. The ISO's Net Zero Guidelines were published in November 2022 (ISO, 2022). Though not a standard as such (the document provides "guiding principles and recommendations" for organizational net zero commitments), the ISO's guidelines provide a detailed set of definitions, criteria and recommendations.[6]

5 Several of these initiatives also broadly cover the net zero commitments of other types of non-state actors, including institutions and subnational governments.

6 In June 2024, the ISO announced it would be building off these guidelines to develop a full net zero standard: https://www.iso.org/contents/news/2024/06/netzero-standard-underway.html

The Voluntary Carbon Markets Integrity (VCMI) Initiative – Claims Code of Practice (June 2023). The VCMI is not strictly a net zero standard, but rather a framework for recognizing high-ambition corporate climate action. It is included here because it is an internationally recognized initiative that requires companies to make (and follow through on) net zero commitments to be recognized as "responsible" users of carbon credits. The VCMI Code of Practice (VCMI, 2023) refers companies to SBTi's standard for net zero target-setting, and includes many similar recommendations.

UN Race to Zero (RtZ) campaign – Starting Line and Leadership Practices (Version 3.0). This is the latest version (effective June 2022) of the "starting line criteria" established by the RtZ, which provide minimum requirements for a credible net zero pledge (UN Race to Zero, 2022a). RtZ uses these criteria to screen and approve partner initiatives, who are responsible for defining and overseeing the net zero commitments of their individual members (who may be corporations, small businesses, institutions or subnational governments, depending on the partner).

The UN High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities (HLEG) – "Integrity Matters" report (November 2022). The UN HLEG's recommendations for defining credible net zero commitments provide a de facto benchmark for corporate net zero targets (UN HLEG, 2022). The recommendations distil key elements of other net zero guidelines, and emphasize elements related to target-setting, reporting, transition plans, promoting just transitions and phasing out fossil fuels.

Among these initiatives, there is a high degree of alignment around the core elements of credible, "high-integrity" corporate net zero commitments. For example:

- All the initiatives require companies to set **both long-term and interim targets** for reducing their emissions, in line with global scenarios consistent with limiting warming to 1.5°C. Interim targets are seen as essential for the credibility of net zero commitments, which otherwise might not require immediate action.
- In all cases, net zero emissions must be achieved **by 2050 or sooner**.
- Companies are expected to set targets for both **direct and indirect** ("value chain") emissions.
- **Carbon credits (or "offsets") may not be counted** towards a company's reduction targets.
- Companies may, however, use carbon *removal* credits to **net out their "residual" emissions** to claim achievement of net zero (however, see discussion in Section 4.2, below).[7]
- All initiatives call for **public disclosure of targets and annual reporting** of progress in achieving them.

7 The exception is VCMI, which encourages companies to purchase carbon credits proportional to their emissions, but stipulates that these should be claimed as "contributions" to global mitigation efforts, not used as a basis for claiming a company's own achievement of net zero.

The initiatives also address common principles associated with implementing net zero commitments. Four out of five, for example, stress the need to align lobbying and policy advocacy with corporate and/or global net zero goals (ISO, VCMI, RtZ and HLEG). Three address the need to consider equity and just transition principles in setting targets and undertaking emissions reductions (ISO, RtZ and HLEG). Finally, three of the initiatives (ISO, RtZ and HLEG) explicitly address the need for companies to reduce their use of fossil fuels, and to divest from and/or phase out fossil fuel assets.[8]

Annex A provides a more detailed summary of how each of the initiatives addresses these elements and principles.

2.2 A focus on portfolio emissions and transition plans for financial institutions

In parallel to corporate-focused net zero initiatives, multiple initiatives have formed to define credible net zero commitments for financial institutions.[9] The most prominent of these is GFANZ, which was launched in 2021 in partnership with the UN RtZ campaign. GFANZ serves as an umbrella group for a collection of eight separate "member alliances", each of which serves as a net zero initiative for different types of FIs (see Box 3).[10]

Notably, GFANZ does *not* define how to set net zero targets (i.e., specifying how far emissions must be reduced on what schedule, and the scope and coverage of such targets). Instead, it provides guidance on how targets can be pursued and implemented through the development of so-called "transition plans" (GFANZ, 2022e). Detailed target-setting guidance is left up to each member alliance. In addition, GFANZ's guidance, though extensive, is purely advisory. As a result, target-setting requirements and guidelines – and actual practice – differ among the member alliances.

Although GFANZ serves as a central organizing body for finance sector net zero commitments, the GFANZ alliances are not the only initiatives providing net zero

8 SBTi does not address fossil fuel phaseout in its corporate net zero standard; however, it addresses questions of divestment and phaseout extensively in its net zero standard for financial institutions. SBTi also does not currently recognize net zero pledges from fossil fuel companies; net zero criteria for such companies are still in development. VCMI is silent on fossil fuel policies, but largely references SBTi for guidance.

9 Most of these are supported by longstanding finance sector sustainability initiatives, which have now embraced the net zero paradigm. Key players include the United Nations Environment Programme Finance Initiative (UNEP FI); multiple initiatives focused on climate-related financial disclosure (e.g., the Carbon Disclosure Project, the Partnership for Carbon Accounting Financials, the Task Force on Climate-Related Financial Disclosures and the International Sustainability Standards Board); and many others. For a thorough list of climate-related finance sector initiatives, see Sachs et al. (2023), Annex A.

10 These coalitions are themselves comprised of members of pre-existing initiatives. UNEP FI, for example, is the convenor for the Net Zero Asset Owners Alliance, Net Zero Insurance Alliance and Net Zero Banking Alliance. The Net Zero Asset Managers initiative was founded by multiple networks including the Asia Investor Group on Climate Change, the Carbon Disclosure Project, Ceres, the Investor Group on Climate Change, the Institutional Investors Group on Climate Change, and the Principles for Responsible Investment initiative. In turn, several of these networks are behind the Paris Aligned Investment Initiative (PAII), which itself is the convenor of the Paris Aligned Asset Owners.

guidance and standards. The SBTi is developing its own net zero standards for the finance sector, and released a consultation draft of these in June 2023 (SBTi, 2023d). Separately, the IIGCC (which itself is a partner in GFANZ-related initiatives like the Net Zero Asset Managers initiative) has released a net zero standard for banks (IIGCC, 2023b). We review these standards in Annex A along with the various commitment statements, criteria and guidelines adopted by GFANZ and its members (see Box 3).

BOX 3. FINANCIAL INSTITUTION NET ZERO COMMITMENTS, GUIDELINES AND CRITERIA ASSESSED FOR THIS REPORT

- **Glasgow Financial Alliance for Net Zero (GFANZ) – Suite of guidance documents**. GFANZ serves as an umbrella campaign for organizing and supporting FI net zero commitments. It coordinates the efforts of the eight member alliances (further described in Annex B). As the secretariat for these alliances, GFANZ has developed tools and methodologies for elaborating and implementing net zero commitments. The core of these methodologies is a framework for developing FI net zero "transition plans" (GFANZ, 2022e). This framework is supplemented by additional guidance on assessing "real economy" transition plans (to determine whether investees and clients are themselves aligned with net zero) (GFANZ, 2022a), assessing FI portfolio alignment with net zero pathways (GFANZ, 2022d) and undertaking managed phaseouts of high-emitting assets (GFANZ, 2022f).

- **Science-Based Targets initiative (SBTi) – Financial Institutions Net-Zero Standard (consultation draft documents)**. In June 2023, SBTi published a consultation draft of its net zero standard for financial institutions (SBTi, 2023d). The draft standard provides a framework and "initial criteria" for net zero commitments by FIs. It is complemented by supplementary documents on "near-term" criteria (SBTi, 2023c), target-setting guidance (SBTi, 2023a) and a position paper on fossil fuel finance (SBTi, 2023e).

- **Institutional Investors Group on Climate Change (IIGCC) – Net Zero Standard for Banks**. The IIGCC is an independent initiative based in Europe which has been active since 2001. It is affiliated with the Net Zero Asset Managers and Paris Aligned Asset Owners alliances (see Annex B). In June 2023, it published a net zero standard for banks, outlining target-setting criteria, implementation strategies, and governance and reporting criteria (IIGCC, 2023b).

The commitments, criteria and guidelines offered by these initiatives largely mirror the criteria of corporate-focused net zero frameworks. For example:

- Under these initiatives, FIs commit to **reducing their portfolio emissions** – i.e., the emissions they finance or enable – in line with scenarios for limiting warming to 1.5°C, with net zero achieved before 2050 and interim targets set for 2030 or sooner.
- FIs are **encouraged to set broad boundaries** for the emissions covered by their targets (although not universally so – see further discussion below).
- The FI initiatives all establish the same **guardrails around the use of carbon credits**, stating that credits may not be used to substitute for direct reductions in portfolio emissions.
- A major focus of the GFANZ initiatives is the development and **adoption of net zero transition plans**, along with **regular annual reporting** of progress in achieving reductions.

In addition, the FI initiatives address common principles and guardrails, such as aligning lobbying and policy engagement with net zero and incorporating equity and fair share considerations into target-setting and mitigation plans.

A major consideration for FI net zero commitments is how to address financial support for the fossil fuel industry. Several FI initiatives propose explicit policies for limiting financial support to fossil fuel companies, infrastructure and/or physical assets; however, the policies vary in their scope and prescriptiveness (see Section 3.2). In addition, nearly all the initiatives endorse managed phaseout and transition strategies (i.e., actively engaging with companies to help them decarbonize) to achieve portfolio emissions reductions, rather than simply shifting financial support to lower-emitting companies and clients through divestment. The guidance from most initiatives is nuanced on this matter, however, as further discussed in Section 4.1.

As with the corporate net zero initiatives, Annex A provides a more detailed summary of how each of the FI initiatives addresses these elements and principles.

3. Missing pieces: where net zero initiatives could still improve

In adopting common criteria, the standards and initiatives reviewed here have followed independent recommendations by academics and others for bringing greater rigour, definition and accountability to net zero commitments (Day et al., 2023a; Fankhauser et al., 2021; McGivern et al., 2022; e.g., Rogelj et al., 2021). The common approach of these initiatives provides important direction to companies and FIs eager to undertake net zero commitments – and an essential basis for holding them accountable.

At the same time, not all the initiatives are consistent in their details. The HLEG's recommendations – which apply not just to corporations, but also FIs and other types of actors – set a high bar for the comprehensiveness, rigour and prescriptiveness of net zero commitments. Yet fidelity to the HLEG's recommendations among major initiatives is mixed, especially among those addressing net zero commitments for the financial sector. Among the GFANZ initiatives, for example, there are varying requirements for the scope and coverage of emissions targets, and a range of nuanced policies concerning financial support for fossil fuels. Furthermore, among all the initiatives there remain gaps in criteria, guidance and oversight which could complicate efforts at accountability, and which will need to be addressed – largely through public policy and regulatory action – if voluntary net zero commitments are to be realized and ultimately translated into policy action.

3.1 Slippery scope and coverage requirements

Among the GFANZ initiatives there are ... a range of nuanced policies concerning financial support for fossil fuels.

Nominally, all the major net zero initiatives call on corporate and financial actors to set broad targets for reducing emissions, covering not just their direct emissions but also emissions from their entire value chain (i.e., the emissions of upstream suppliers of energy, goods and services consumed by a company, as well as downstream emissions from the use and disposal of a company's own goods and services). The HLEG does not mince words: "Non-state actors cannot focus on ... tackling only a part of their emissions rather than their full value chain (scopes 1, 2 and 3)" (UN HLEG, 2022, p. 7). Within scope 3 emissions, the HLEG even recommends that targets include "embedded emissions within fossil fuel reserves" (UN HLEG, 2022, p. 18).

In practice, most of the initiatives offer some wiggle room. The HLEG acknowledges that not all actors may have full data on their scope 3 emissions, which can complicate target-setting. The ISO guidelines recommend that targets cover "all" emissions, but allow for exclusions if they can be justified. Recognizing the practical challenges of complete coverage, SBTi's corporate net zero standard calls for covering at least 67% of scope 3 emissions in the near term, expanding to at least 90% in the long term.

Practical concessions are most evident for the financial sector, especially when it comes to financing fossil fuels. The broader (not exclusively financial institution-focused) initiatives set a high bar. The HLEG and ISO, for example, recommend inclusion of all financed and *facilitated* emissions; that is, not just emissions associated with investment and lending, but also with underwriting activities. The

RtZ recommends a comprehensive interpretation of these emissions: targets related to investments in fossil fuel companies, for example, should include emissions from extraction and production, but also downstream emissions from the use of those fuels.[11] Among FI-specific standards, both SBTi and the IIGCC propose similarly comprehensive target boundaries, subject to the availability of appropriate data and methods.

The commitments of the GFANZ initiatives, however, frequently fall short of these aspirations. For example:

- NZAM members commit to set targets for the ***proportion* of the assets they will manage in line with achieving net zero emissions**, with "a view to" increasing this proportion over time to 100% (NZAM, 2021b). In practice, net zero commitments may cover as little as 0.55% of assets under management (Fletcher & O'Neill, 2021).[12]
- **NZBA members commit to covering only financed emissions** (those arising from lending and investment), not facilitated emissions (arising from their underwriting activities) (NZBA, 2021; UNEP FI, 2021). When it comes to banks' financial support for fossil fuel companies, however, more than half comes in the form of underwriting (Lerin et al., 2022; Sierra Club, 2022).
- The NZIA requires coverage of both investment and underwriting emissions, **but only for a subset of common business lines for which methodologies are available to calculate emissions**. Within these business lines, members may choose boundaries for their targets based on materiality and data availability. Members are encouraged to expand the scope of targets over time, but data availability is identified as a significant near-term obstacle (NZIA, 2023).
- Members of NZAOA (the UN-convened Net-Zero Asset Owner Alliance) initially commit to setting targets only for certain asset subclasses, with expectations of increasing coverage over time. Furthermore, the NZAOA has decided to exclude indirectly financed (scope 3) emissions from portfolio targets "until interpretation of these emissions in a portfolio context becomes clearer and data becomes more reliable" (NZAOA, 2023b). One implication is that **while the direct emissions of fossil fuel producers in an asset owner's portfolio may be subject to targets, downstream emissions from the fuels they produce are not.** Along these lines, the NZAOA does "not currently recommend setting carbon-intensity-based" targets for oil and gas sector downstream emissions due to "data availability and lack of consistent metrics" (NZAOA, 2023b, p. 32).
- The PAAO similarly recommends that portfolio scope 3 emissions be "phased in" over time, and that any **scope targets "should be set and reported on separately given measurement and aggregation challenges"** (PAII, 2021a, p. 10).

To be clear, these limitations do not necessarily reflect a lack of ambition. All the GFANZ initiatives call for expanding the scope and coverage of targets over time. However, the

11 "Scope 3 for financial institutions should mean including portfolio/loanbook/insured/facilitated emissions, which are composed of the investee companies and/or clients' emissions, *including the Scope 3 of the underlying investee companies and/or clients*" (emphasis added) (Race to Zero Expert Peer Review Group, 2022, p. 4).

12 Furthermore, expanding coverage could still exclude most financed emissions, since as little as 10% of equity holdings may give rise to 85% of emissions (Sachs et al., 2023).

current limitations and caveats reveal real practical challenges associated with adopting expansive net zero emissions targets. One consequence is that the full scope of what FIs (and other actors) have committed to may be difficult to assess – and, indeed, may vary from institution to institution. The gap between FIs' actual commitments and what is nominally expected under broader corporate standards and initiatives (e.g., under HLEG recommendations or RtZ criteria) could open them up to reputational risks.

Going forward, a critical question is whether, and how, FI net zero initiatives can facilitate expanded target coverage over time. The challenges are technical (e.g., data- and methodology-related), but also relate to "real economy" policy and regulatory conditions, and the ability of FIs to exert influence over certain classes of financed and facilitated emissions (see further discussion in Section 4.1).

Notably, SBTi has proposed limiting target coverage to only those financial activities over which FIs have some emissions influence (SBTi, 2023d). This is a potentially significant constraint, although details on its interpretation are still forthcoming (SBTi has identified a preliminary list of required "in scope" financial activities). Even where potential influence is clear, however, challenges remain. A particularly fraught area is financial support for the fossil fuel sector.

3.2 Mixed messages on financial support for fossil fuels

Nearly all the major net zero initiatives call on companies and FIs to phase out support for fossil fuels as part of their commitments. The HLEG and RtZ are the most explicit on this point. According to the HLEG, net zero commitments are "entirely incompatible with continued investment in fossil fuels" and "actors cannot claim to be net zero while continuing to build or invest in new fossil fuel supply" (UN HLEG, 2022, p. 7). The HLEG calls for FIs to completely phase out financial support of coal (by 2030 in OECD countries, and by 2040 elsewhere), and to set specific timelines for ending support for oil and gas exploration and production. Similarly, the RtZ notes that achieving net zero "requires … phasing down and out all unabated fossil fuels" (UN Race to Zero, 2022a) and stipulates that actors "shall phase out [their] development, financing, and facilitation of new unabated fossil fuel assets, including coal, in line with appropriate global, science-based scenarios" (Race to Zero Expert Peer Review Group, 2022, p. 8).

Among the FI-focused initiatives, SBTi's proposed standard would set similarly strict conditions: an "immediate cessation" of new financial flows to coal-related companies and projects (with the exception of decommissioning activities), as well as to unabated oil and gas projects and to companies engaged in oil and gas supply expansion (SBTi, 2023e).[13] For existing financial flows, SBTi's standard would require FIs to set transition targets, and phase out financial support to fossil fuel companies and projects that fail to align with these targets.

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13 Concerns have been raised, however, about how these criteria will be interpreted in practice, with provisions proposed that could allow for continued financial support for oil and gas companies and some companies engaged in coal production. See: https://reclaimfinance.org/site/en/2023/12/08/science-based-target-initiative-dumps-science-with-massive-fossil-finance-loopholes/

When it comes to GFANZ and its member alliances, however, commitments are more varied. In surveying the policies of individual FIs, GFANZ notes that they typically have clear timelines for exiting coal, but “do not commonly commit to a blanket phaseout date for oil and gas” (GFANZ, 2022b, p. 108). This discrepancy is reflected in the nuanced commitments of GFANZ member alliances:

- NZAM requires members to **cease investment in new thermal coal power plants, and to adopt broader fossil fuel phaseout policies aligned with other initiatives** (specifically SBTi’s Financial Institution Net-Zero Standard, the PAAO’s Investment Framework, or NZAOA’s Target-Setting Protocol) (NZAM, 2021a).
- The PAAO “recommends” exclusion of financing for companies engaged in new thermal coal and tar sands projects, **but is otherwise not prescriptive about fossil fuel exclusion policies** (PAII, 2021a).
- NZAOA calls for ceasing new finance to existing coal, oil and gas assets that are not net zero-aligned, as well as ceasing finance for new coal, oil and gas projects (NZAOA, 2023b, 2023a). **It does not, however, prohibit members from financially supporting *companies* engaged in expanding fossil fuel supply**, except where expansion occurs in “sensitive environments” (NZAOA, 2023a).[14]
- The NZIA, NZFSPA, NZICI, and VCA **do not prescribe policies on fossil fuels**.
- The NZBA likewise prescribes no policy, and appears to have publicly backed away from RtZ criteria calling for the phasing out of support for unabated fossil fuel assets (Bindman, 2022d).

Separate from the GFANZ alliances, the IIGCC’s net zero standard for banks is similarly non-committal, suggesting that banks “may wish to consider” certain types of fossil fuel exclusion policies (IIGCC, 2023b, p. 9).

...many GFANZ members have been reluctant to adopt binding language on fossil fuel financing, and most have been careful to word their commitments to indicate that exclusion policies are at the discretion of individual FIs

Part of the hesitancy of these initiatives arises from antitrust concerns. When the RtZ announced criteria in June 2022 calling for the cessation of funding to new coal projects, GFANZ members immediately balked, concerned that this could be viewed as a collective commitment not to finance certain sectors or activities (Ellfeldt, 2022b).[15] Fears of legal risk have been exacerbated by political conservatives in the United States, in particular state attorneys general who have threatened antitrust lawsuits against GFANZ member alliances (CPI, 2023; Ellfeldt, 2022a). Although these threats have questionable legal grounds (Dolmans et al., 2023; Sachs et al., 2023), they have nevertheless caused some FIs to pull back on their commitments or withdraw from GFANZ alliances altogether (Bindman, 2022e; Wilkes, 2023; Wilkes et al., 2023). In this environment, many GFANZ members have been reluctant to adopt binding language on fossil fuel financing, and most have been careful to word their commitments to indicate that exclusion policies are at the discretion of individual FIs (and therefore not a product of collusion).

A more fundamental issue, however, may be that FIs simply feel constrained in what they can commit to. In a telling response to criticisms of NZBA commitments, for

14 For context, in the banking sector, project-specific finance comprises only about 4% of total annual financing (Rainforest Action Network et al., 2023).

15 The RtZ subsequently revised its language (Hale, 2022), but GFANZ nevertheless decided to cease requiring its members to adhere to RtZ criteria (Jessop, 2022). GFANZ member alliances remain official partners of the RtZ, but some have qualified their commitments (e.g., McDermott, 2022).

Nearly every GFANZ alliance disclaims its commitment by stating that achievement of net zero is contingent on meeting regulatory obligations and the needs of clients.

example, one representative argued they "fail to reckon with the highly regulated, highly diversified, highly complex nature of financial institutions, which operate in equally complex economic and political environments" (Bindman, 2022c). In short, FIs of all types may be limited by fiduciary obligations to their clients and shareholders, and by the political and regulatory environments in which they operate. Nearly every GFANZ alliance disclaims its commitment by stating that achievement of net zero is contingent on meeting regulatory obligations and the needs of clients .[16] The global imperative to phase out fossil fuels may be clear, but FIs face clients, regulatory environments, and near-term financial incentives that favour ongoing investment. **This issue goes to the heart of what FIs commit to when they commit to "net zero" emissions** (see further discussion in Section 4) – **and points to the crucial role of broader public policy in eliminating policy and regulatory constraints to the realization of net zero targets** (see Section 6).

3.3 The bedevilling details of net zero transition plans

For a credible net zero commitment, setting a target is not sufficient – it is important to have an explicit *plan* for achieving the target (Day et al., 2023a; Fankhauser et al., 2021; Rogelj et al., 2021). The RtZ requires adoption and public disclosure of a net zero "transition plan" as one of its starting line criteria (UN Race to Zero, 2022a). The HLEG likewise states that companies must publicly disclose transition plans (UN HLEG, 2022). Both ISO and the VCMI encourage adoption of plans. Among the major corporate-focused initiatives, only SBTi is silent on transition planning (although the need for such plans is strongly implied).

For its part, GFANZ has devoted the bulk of its work program to providing guidance on transition planning, covering essential elements of FI transition plans (GFANZ, 2022e) as well as what FIs should look for in the transition plans of their clients and investees (GFANZ, 2022a). Under GFANZ's framework, a robust plan must address foundational objectives, metrics and target-setting, governance, financing, and implementation and engagement strategies.

Yet transition planning is still an evolving area of practice. A September 2023 review identified no fewer than 28 distinct net zero transition plan disclosure and assessment frameworks,[17] covering over 250 separate indicators for assessing the ambition, credibility and feasibility of corporate and FI transition plans (Bingler et al., 2023).

16 For example: "the scope for asset managers to invest for net zero and to meet the commitments set forth above depends on the mandates agreed with clients and clients' and managers' regulatory environments" (NZAM, 2021b); "in order to meet our fiduciary duty to manage risks and achieve target returns, this Commitment must be embedded in a holistic approach to managing sustainability considerations, incorporating but not limited to, climate change" (NZAOA, 2022a); "[t]his Commitment recognizes the vital role of banks in supporting the transition of the real economy to net-zero emissions, but we will only succeed in achieving this objective if our clients and other stakeholders also play their part" (NZBA, 2021); "[t]hese commitments set out a general framework … which will be developed in accordance with competition laws and other applicable laws and regulations. This may include consultation with appropriate regulatory authorities on how these commitments can be implemented" (NZIA, 2021).

17 These include frameworks developed under the main initiatives reviewed in this report, along with multiple frameworks developed by institutions, reporting platforms and other organizations directly or indirectly supporting these initiatives.

A 2023 consultation for the UNFCCC Recognition and Accountability Framework identified the need for a "universal baseline for transition plans" detailing these plans' essential elements (Bloom Raskin & Leng, 2024). Furthermore, when it comes to credibility, detail matters. In practice, there is still significant variation in the level of detail that major initiatives require for transition plans. Among GFANZ member alliances, for example, few offer detailed prescriptive guidance for transition plans; the NZBA allows for plans that are "high-level" (UNEP FI, 2021, p. 7).

Until clear standards can be developed for the fossil fuel companies themselves, it will be difficult to develop such standards for the FIs that finance them.

Most troublingly, the "high-level" plans of NZBA members **lack detail on how banks will transition finance away from new coal, oil and gas assets** (Bindman, 2022c). **A key challenge here is the lack of clear transition plans for the fossil fuel industry itself.** Both GFANZ and SBTi, for example, have struggled to produce guidance on net zero transition pathways for the oil and gas sector.[18] Reflecting this dearth of guidance, a review of the net zero commitments of 112 fossil fuel companies found that *none* has plans to fully transition away from fossil fuel extraction and production (Net Zero Tracker, 2023a). This lack of credible transition plans poses a challenge for FI accountability. Until clear standards can be developed for the fossil fuel companies themselves, it will be difficult to develop such standards for the FIs that finance them.

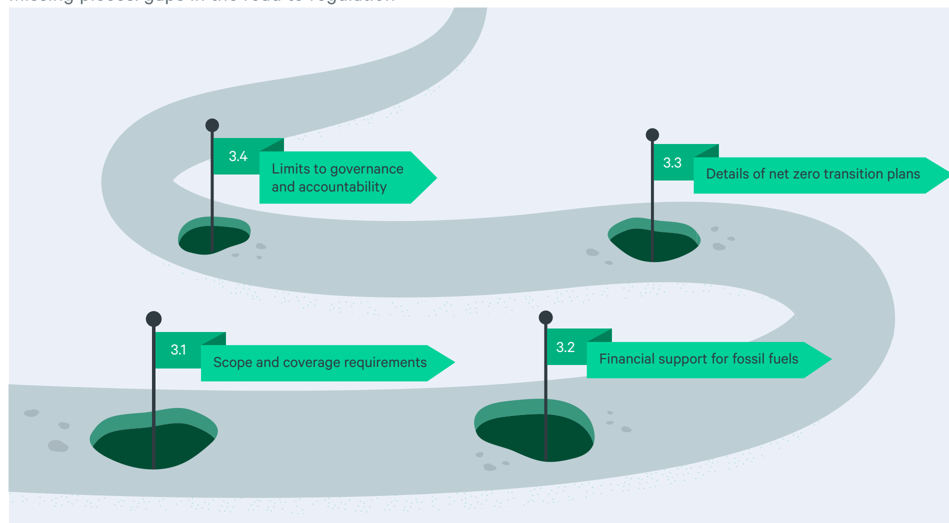
Going forward, greater consistency, detail and prescriptiveness in transition planning will be needed to support robust net zero commitments (Bingler et al., 2023). Yet this may pose another challenge, related to disclosure. There are already indications that companies and FIs may be reluctant to publicly disclose the details of their transition plans out of competitiveness concerns. In a purely voluntary context, this reluctance could be difficult to overcome. The involvement of regulatory bodies is a possible solution, both to compel minimum levels of disclosure and accountability, but also to provide greater guidance about what these plans must contain (see Section 6).

3.4 Limits to governance and accountability

Inconsistencies in transition planning guidance point to another deficit of current net zero initiatives: limits in their effective governance. The net zero initiatives reviewed here have focused on establishing guidelines for making credible commitments. Of these initiatives, only two – SBTi and VCMI – provide any explicit oversight role in terms of reviewing and approving individual commitments and evaluating progress against them (see Table 1). The RtZ reviews and approves member initiatives, each of which is expected to police individual participants in some way, but does not yet have a formal compliance review mechanism (Sachs et al., 2023). The HLEG has provided a standard for reviewing commitments (often written in terms of what actors "shall" or "must" do), but it was never constituted as an oversight body.

18 GFANZ indicated in June 2022 that "sector briefs" would be forthcoming for aviation, steel, and oil and gas, illustrating in more detail what net zero-aligned decarbonization pathways could look like for these "hard-to-abate" sectors (GFANZ, 2022c). As of this report's publication, they have yet to be released. SBTi's sectoral guidance for oil and gas is still in development; in the meantime, SBTi will not accept or validate net zero commitments from fossil fuel companies (see https://sciencebasedtargets.org/sectors/oil-and-gas#what-is-the-sb-tis-policy-on-fossil-fuel-companies).

Missing pieces: gaps in the road to regulation



Other initiatives are mostly advisory in nature. ISO's guidelines indicate only what actors "should" or "can" do in making net zero commitments. GFANZ has published extensive guidance, but following this guidance is not obligatory – a fact that may not be fully appreciated by external stakeholders (Sachs et al., 2023). Among the GFANZ member alliances, guidance sometimes specifies what participating members are "required" to do, but more often is advisory or aspirational in nature, such as "with a view to" expanded coverage (NZAM, 2021b), or "ideally showing a positive trend" over time (NZAOA, 2023b).

In a purely voluntary context, effective oversight and accountability can be a challenge. Current net zero initiatives all emphasize the need for regular (annual) public reporting as a primary means for accountability. However, the specificity of required reporting – what must be disclosed as well as where it should be reported – varies from initiative to initiative (see Annex A). Only two of the initiatives (VCMI and HLEG) require (or suggest requiring) independent auditing or verification of reported information.[19] Data currently reported to the UN-administered Global Climate Action Portal are not granular or consistent enough to allow meaningful comparisons of companies' commitments (Bloom Raskin & Leng, 2024).

Even for initiatives like SBTi, which nominally provides certification and oversight for companies setting net zero targets, the efficacy of this oversight has been questioned (Day et al., 2022). SBTi has since taken steps to bolster its capacities and avoid potential conflicts of interest (SBTi, 2023f), but as a voluntary initiative its regulatory powers are inevitably limited.

Going forward, efforts to institutionalize oversight under multilateral bodies like the UNFCCC (UNFCCC, 2023), and under national regulatory frameworks (Hale et al., 2024) – that is, the accountability lane of the road to regulation – will be important for improved transparency and credibility, especially to overcome reluctance around public disclosure of emissions and transition plans. As noted, however, some issues related to the credibility of corporate and FI net zero commitments go beyond questions of oversight and accountability.

19 SBTi validates members' targets and reviews reported information itself; VCMI requires participants to obtain third-party assurance of reported information.

4. Foundational questions: what does it mean to achieve net zero?

While the current weaknesses and inconsistencies in net zero guidance and criteria across various initiatives are significant, they could in principle be addressed through ongoing efforts to bolster requirements (e.g., to align with HLEG recommendations), and to provide more effective oversight and accountability. Potentially more challenging to address are questions about the conceptual framing of net zero commitments themselves. These questions are particularly notable when it comes to the net zero commitments of financial institutions.

Net zero commitments invariably concern an actor's own emissions footprint – whether a company or FI achieved net zero emissions itself – not, for example, how the actor might best contribute to global net zero.

In short, net zero commitments invariably concern an actor's own emissions footprint – whether a company or FI achieved net zero emissions itself – not, for example, how the actor might best contribute to *global* net zero (Broekhoff, 2021). This framing raises some important questions around how net zero is achieved. How deeply must an actor reduce its emissions, and what is its fair share of global emissions reductions? Should FIs divest from fossil fuel companies, or seek to actively manage their transition to clean energy? Who must counterbalance emissions with removals? It is difficult to arrive at definitive answers to these questions in a purely voluntary context, divorced from national and global policy objectives.

4.1 What does achieving net zero mean for financial institutions?

Defining net zero commitments for the finance sector poses something of a conceptual challenge. Unlike most corporate actors in the "real economy", FIs have few operational and supply chain emissions. Instead, FIs *enable* emissions through the financing and services they provide. While their capacity to influence these emissions may be considerable (e.g., by choosing which entities they will invest in, lend to and provide with services), it is also mostly indirect – sometimes highly so. This is a different challenge from reducing a company's value chain emissions and netting them out with removals.

In SBTi's formulation, the core objective of FI net zero commitments is to "[make] financial flows consistent with a net-zero economy" (SBTi, 2023d, p. 12). What this means, however, is open to interpretation. In the years after the Paris Agreement was signed, a major focus was on encouraging FIs to disclose and reduce their *climate risk* exposure – the financial risk that could arise if policy and economic changes were to adversely affect the valuation of fossil fuel companies and high-emitting assets in their portfolios.[20]

One way to reduce such risk is to decarbonize portfolios by shifting holdings away from high-emitting assets towards low-emitting ones. This kind of rebalancing may align a portfolio to be "consistent with a net zero economy". However, it may not contribute much to the decarbonization of the real economy. Fossil fuel companies,

20 See, for example, TCFD (2017).

for example, may have access to capital from other investors and simply continue to operate as before. Among net zero initiatives, therefore, a major focus has been on how FIs can achieve real impact, driving down actual greenhouse gas emissions as they decarbonize their portfolios (Caldecott et al., 2022). The result has been an ongoing debate about the merits of "divestment" versus "managed phaseout" of high-emitting assets.

Under a managed phaseout approach, FIs engage with fossil fuel companies to help accelerate the phaseout of fuel production and transition to alternative lines of business. Nearly every initiative reviewed in this report endorses some version of managed phaseout as a preferred approach (see Annex A). The HLEG strongly endorses managed phaseouts,[21] as do many critics of FI net zero commitments more generally (Sachs et al., 2023). For its part, GFANZ has emphasized managed phaseout of high-emitting assets as a core area of its work program (GFANZ, 2022f), along with other strategies for facilitating corporate transitions rather than divestment (GFANZ, 2022e).

While FIs capacity to influence emissions may be considerable (e.g., by choosing which entities they will invest in, lend to and provide with services), it is also mostly indirect.

At the same time, most of the net zero initiatives reviewed here – especially those targeting the financial sector – allow for flexibility. The ISO guidelines allow FIs to phase out fossil fuels "both by selling assets and responsibly retiring them" (ISO, 2022, p. 22). The PAAO allows for "selective divestment" as part of "the toolbox for aligning a portfolio" (PAII, 2021a, p. 13). SBTi identifies engagement as a "first best" strategy, but endorses divestment where engagement approaches fail to achieve desired outcomes within two years (SBTi, 2023e, pp. 3, 7). The more pragmatic stance of these initiatives reflects a basic reality: FIs will likely need to deploy both approaches as part of their net zero strategies.

However, it may also reflect a more fundamental challenge, which is that neither strategy (alone or in combination) is likely to drive decarbonization of the real economy in ways that would allow an FI to unilaterally achieve its pledged targets. Although little-noticed, nearly every FI initiative acknowledges this. **Most of the GFANZ alliances, for example, disclaim that their commitments are made with "the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met"** (see Annex A). The implication is that, without policy action to achieve net zero emissions throughout the whole economy, FIs cannot truly commit to achieving net zero themselves.[22]

Some might view these disclaimers as disingenuous. However, they likely reflect real constraints FIs perceive in meeting highly ambitious portfolio emissions targets. Such constraints raise fundamental questions about how net zero commitments are framed. For example, should the focus of net zero commitments be on portfolio emissions,

21 The HLEG suggests phaseout strategies "*must* … avoid transference of fossil fuel assets to new owners" (emphasis added) (UN HLEG, 2022, p. 23).

22 Across the initiatives, the NZAOA offers perhaps the clearest admission of this, noting that "there is a clear need for governments and policymakers, as well as corporates around the world, to facilitate [the transition to net zero] by moving in line with science and in sync with Alliance members' intended portfolio trajectories, respectively. Without this collective movement the Alliance may need to tolerate a 'buffer' or slight lag behind the scientific pathways, otherwise members may be faced with a decision to exit the majority of the investible universe, which exposes them to other (investment) risks" (NZAOA, 2023b, p. 8).

rather than what FIs can (concretely and realistically) contribute to net zero transitions in the real economy? And if action by governments is needed for the realization of these commitments (however they are defined), where are the connections to policy getting made? We return to these questions in Section 6.

4.2 The challenge of defining “residual” emissions

All the initiatives reviewed here stipulate that, for a credible net zero commitment, companies and FIs must reduce emissions in line with global efforts to limit warming to 1.5°C. For some companies, aligning with a global 1.5°C scenario may mean eliminating greenhouse gas emissions entirely by 2050 (i.e., “absolute zero”, not net); for others, especially in hard-to-abate sectors, some emissions will remain and must be netted out with removals. The emissions that remain are typically referred to as “residual”, and the initiatives are clear that companies and FIs may claim to achieve (or “reach a state of”) net zero emissions *only* if their emissions are reduced to residual levels, and they compensate for those emissions with removals.

The challenge is that residual emissions are not conceptually or quantitatively well-defined, whether at company, country or global levels (Buck et al., 2023b, 2023a). SBTi suggests that for most companies, a residual level of emissions means at least a 90% reduction in the long term (SBTi, 2023b, p. 20). The ISO variously suggests that reaching residual emissions means reducing them as “as far as possible”, “to the extent feasible” or to “the full potential” (ISO, 2022).

In practice, determining an appropriate level of residual emissions for individual companies and FIs requires “disassembling” global scenarios into sector- and company-specific targets (Allen et al., 2022). Such an exercise is both technically complex (Bjørn et al., 2021) and fraught with (often unstated) value judgements. Among net zero initiatives, SBTi is the most advanced in terms of elaborating guidance to define net zero pathways for specific sectors, which in turn suggest the levels of residual emissions that could be appropriate for each.[23] However, even SBTi’s guidance does not cover all sectors. In a broad survey, Day et al. (2023a) found that for multiple industries, few studies exist from which to derive net zero-aligned decarbonization pathways. This presents an acute challenge for FIs, whose portfolios may span multiple sectors. The NZIA, for example, cites the lack of credible sector-specific decarbonization pathways as a key reason for limited target coverage (NZIA, 2023, p. 11).

The lack of clarity around residual emissions is especially problematic when it comes to the fossil fuel sector. Although decarbonization is synonymous with transitioning away from fossil fuels, modelling studies reveal a range of scenarios for the pace of production phaseouts in 1.5°C-aligned pathways, depending largely on assumptions about deployment of carbon capture and storage and “negative emission” technologies (Achakulwisut et al., 2023). Choosing among these scenarios requires making politically laden judgements about technical potentials and burden sharing, a difficult undertaking within nominally “science-based” net zero initiatives. Possibly for this

23 See https://sciencebasedtargets.org/sectors

reason, these initiatives have been slow to produce official guidance for the fossil fuel sector. SBTi's oil and gas sector guidance, for example, is still unfinished after three years of development, though a push is underway to issue it by the end of 2024 (SBTi, 2020).[24] GFANZ has yet to produce an oil and gas sector "case study" initially promised by the end of 2022 (GFANZ, 2022c).

Over time, SBTi, GFANZ and other initiatives may fill the gaps and elaborate sector-specific net zero pathways for more sectors, allowing broader target coverage for FIs, along with clearer benchmarks and milestones for phasing out fossil fuels. As the fossil fuel example illustrates, however, it will be difficult to undertake this exercise without – implicitly or explicitly – making judgements about global policy priorities. This is where the *ambition lane* of the road to regulation is critically needed. **Ideally, to be useful and actionable, voluntary net zero targets – especially among FIs – should be linked to national decarbonization pathways and emissions targets**, an issue we return to in Section 6.

Finally, even if sector-specific net zero pathways are more clearly defined, another conceptual ambiguity remains: exactly *when* do emissions become residual? All the voluntary net zero initiatives reviewed here strongly imply that "residual" corresponds with an end state, but in principle none of their criteria would prohibit a company or FI from aligning its emissions to an appropriate pathway, offsetting these emissions with permanent removals, and claiming to have achieved "net zero" today. The point in time at which such a claim becomes valid or credible is not defined. Perhaps inevitably, multiple companies – including in the oil and gas sector – have announced that they have already achieved "net zero" emissions or "carbon neutrality" (e.g., Ambani, 2023).

This raises important questions about the connection between voluntary commitments and global policy goals. If companies and FIs were to orient their commitments more towards advancing *global* net zero outcomes, for example, should they prioritize offsetting their emissions with removals, or focus on other mitigation priorities, such as supporting accelerated decarbonization in other sectors? The framing of net zero commitments in terms of an actor's own emissions may inadvertently cut off such considerations. Once again, building stronger connections to national and global policy objectives (the ambition lane) could help make voluntary net zero commitments – by FIs and others – more coherent and productive.

4.3 Whose job is it to net out emissions?

Most of the net zero standards and initiatives reviewed here endorse the idea that, to claim achievement of net zero, companies and FIs must balance out residual emissions with removals.[25] However, they are asked to take responsibility for more than just their own direct emissions. Companies must set emissions targets across their

24 See also https://sciencebasedtargets.org/resources/files/Oil-and-Gas-TOR.pdf

25 The VCMI cautions companies against making offsetting claims, and therefore leaves the achievement of "net zero" emissions somewhat ambiguous; however, even under the VCMI's approach, companies are still responsible for purchasing carbon credits in proportion to their residual emissions. Several GFANZ member initiatives are vague about the use of removals by FIs to claim net zero (see Annex A).

full value chains (scopes 1-3); FIs are asked to reduce and net out all financed and facilitated emissions. The broad coverage of emissions targets encourages maximum responsibility, but it means that one company's net zero commitment may overlap with those of others. This is especially true for FIs, who may financially support companies with net zero targets of their own. Indeed, a core strategy for FIs (per GFANZ) is to financially support companies that are themselves "aligned" or "aligning" with net zero (GFANZ, 2022e, 2022a).

Because of these overlapping accounting boundaries, if every company and FI were to net out the residual emissions for which they are responsible, removals would exceed emissions many times over. This may seem like a welcome "problem", but it points to an important disconnect between voluntary net zero pledges and the obligations governments might impose in a regulatory framework to achieve net zero. An efficient policy approach, for example, might require only direct emitters to pay for removals. By contrast, if FIs commit to balancing out residual emissions across their portfolios, this could imply that the companies they finance (including, for example, fossil fuel companies) do not need to do so. Among the FI net zero initiatives, only SBTi's proposed guidance explicitly acknowledges that residual emissions may be netted out at *either* a company or FI portfolio level (netting at both levels is not required).[26] However, SBTi's guidance does not indicate a preference.

When it comes to regulation, many options are possible. Advocates for a regulatory "carbon takeback" approach, for example, call for requiring fossil fuel *producers* to remove one metric ton of CO_2 for every ton embedded in the fuels they produce (Jenkins et al., 2023). Others see the need for a broad array of policy instruments, supported in the near term through (publicly funded) research, development and demonstration activities (Burke & Gambhir, 2022; Edenhofer et al., 2023; Honegger et al., 2021). Greater clarity around removal policy and governance is needed at a global level. For voluntary net zero commitments to help advance global policy goals, greater coherence and specificity is needed around who will net out whose emissions, with responsibilities assigned in ways which support the development of national and international policy frameworks. This is an area where building out the ambition lane of the HLEG's road to regulation is essential (see Section 6).

4.4 Equity, fair share and just transitions

From a public policy perspective, *how* the world achieves net zero emissions is as important as the goal itself. Transitioning from fossil fuels to renewable energy may disrupt businesses, workers and local communities dependent on the hydrocarbon economy (Muttitt & Kartha, 2020). A narrow focus on balancing carbon emissions and removals risks neglecting the many adverse social, environmental and public health impacts of continued fossil fuel production (Achakulwisut et al., 2022). Over-reliance on land-based removals could have significant ecological and social impacts, and increase

26 Separate from SBTi, the NZIA notes that "carbon offsets only feature in real-economy GHG accounting, and thus cannot be transferred to [insurance-associated emission] accounting and used against [insurance-associated emission] reduction targets" (NZIA, 2023, p. 21). However, it is not clear whether this applies to netting out residual emissions *once targets are achieved* (as opposed to using carbon offsets to nominally achieve residual emissions targets).

systemic climate risks (Dooley & Kartha, 2018). Underlying all pathways to net zero is the question of who pays for the transition, and what the “fair share” contribution of different actors is to global mitigation efforts (Höhne & Wachsmuth, 2020; Lenzi et al., 2021; Rajamani et al., 2021).

Underlying all pathways to net zero is the question of who pays for the transition, and what the “fair share” contribution of different actors is to global mitigation efforts.

Most, though not all, of the net zero initiatives reviewed here offer broad statements about the need to consider equity and just transition principles when pursuing net zero targets. In most of their formulations, this means minimizing the potential adverse social and environmental consequences of mitigation actions, and/or setting targets that reflect a “fair share” of efforts to reach global net zero targets. Very little guidance is provided on how to do operationalize these ideas. GFANZ identifies guidance on just transitions as an area for further work and elaboration (GFANZ, 2022e, 2022f). The NZAOA explicitly states that just transition guidance is “presently out of scope” (NZAOA, 2023b, p. 11). The RtZ identifies the concept of “fair share” as an area for ongoing inquiry, suggesting that members should “explain how they are operationalizing the idea of ‘fair share’ in order to generate greater transparency around this idea and encourage experimentation that can lead to best practice” (Race to Zero Expert Peer Review Group, 2022, p. 6).

A fundamental challenge is how to grapple with the equity implications of different emissions reduction pathways. For example, a company’s “fair share” is typically determined from sectoral allocations within modelled global scenarios (see, for example, Race to Zero Expert Peer Review Group, 2022), but these modelling exercises are often opaque about their ethical assumptions and biases (Dooley et al., 2021; Kartha et al., 2018). Several initiatives acknowledge that different regions may need to decarbonize at different paces, but do not articulate how this might change a company or FI’s own emissions trajectory – the common requirement is simply to achieve net zero by 2050 or “sooner”. The equity implications of a world in which all actors achieve net zero by 2050, however, look very different from one where achievement is differentiated by region (Lenzi et al., 2021). Furthermore, nowhere is it acknowledged that under nearly all scenarios, a fair share contribution from actors in wealthy countries would require massive technical and financial assistance to actors in lower income countries, above and beyond the achievement of their own net zero targets (Höhne & Wachsmuth, 2020; Lenzi et al., 2021).

These deficits may not be so easily fixed. Initiatives like the RtZ are continuing to explore issues of equity, justice and fair share through ongoing work programs. But as noted above, these initiatives are engaged in largely technocratic exercises, disconnected from policy processes and institutions that could legitimately mediate what “just transitions” and “fair shares” of mitigation effort – globally, nationally and sub-nationally – should look like (Newell et al., 2023). To be sure, the track record of governments in addressing these issues is also limited, but **equity, fair share and just transitions are key areas where the connection between voluntary climate action and policymaking needs to be strengthened**.

5. Net zero commitments in practice

The criteria and guidelines of net zero initiatives reviewed in Sections 2-4 have been in place for only a few years,[27] so their uptake by the corporate and financial communities is still a work in progress. Nevertheless, when considering how they may advance global policy goals, it is worth assessing their potential influence. How big is the gap between what the initiatives prescribe and current practice? How widespread are voluntary net zero commitments, and what is their potential for growth? Most importantly, is there evidence that voluntary corporate net zero commitments lead to concrete climate action, and are they helping or hindering the adoption of government climate policies?

5.1 Shortcomings in current net zero commitments

Although the number of actors announcing net zero commitments has grown rapidly, independent reviews suggest current commitments frequently fall short of what initiatives require (Day et al., 2022, 2023b; Hale et al., 2022; Net Zero Tracker, 2023a; O'Connor & Coffin, 2022; Shugar et al., 2022). A review published in late 2023 by Net Zero Tracker, for example, found that only 4% of large corporate net zero commitments meet the RtZ's "starting line" criteria (Net Zero Tracker, 2023b). Commonly identified issues include:

- **Incomplete and inconsistent coverage of greenhouse gas emissions**. Problems here include significant variation in scope 3 and/or financed emissions covered by net zero targets; exclusion of major emissions sources and/or high-emitting subsidiaries; and inconsistent treatment of land-use change (Comello et al., 2021; Day et al., 2023b; Madera et al., 2024; Shugar et al., 2022). Incomplete coverage is a particular concern for the net zero targets of fossil fuel companies, which consistently fail to include downstream emissions from the use and combustion of their products (Net Zero Tracker, 2023a; O'Connor & Coffin, 2022; Wood Mackenzie, 2022).[28] Among FIs, limited target coverage has already been noted as a significant shortcoming among GFANZ initiatives (see Section 3.1). This has not always been clearly communicated. Early press releases, for example, implied the total assets of GFANZ members (over $130 trillion) were "committed to transforming the economy for net zero", not the much smaller portion subject to their net zero targets and transition plans (Sachs et al., 2023).
- **Ambiguously defined targets and lack of near-term targets.** Several reviews note that companies and FIs have poorly defined or unambitious reduction targets. Day et al. (2023b) note that despite committing to net zero in the long run, many companies lack ambitious targets for the near term (e.g., 2030). Similarly, the World Benchmarking Alliance finds that only 5% of FIs with net zero commitments have translated these into near-term targets (World Benchmarking Alliance, 2022).

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27 While the SBTi has been in operation since 2013, the first version of its net zero standard was finalized in 2021.

28 A "net zero" emissions pledge announced at COP28 by 50 oil and gas companies continued this practice, covering only scope 1 and 2 emissions (Gupte et al., 2023).

- **Potential over-reliance on offsets**. To achieve their net zero targets, many companies do not clearly indicate how much they plan to reduce emissions versus offset them with removals (Day et al., 2022, 2023b; Hale et al., 2022). Concern about potential over-reliance on offsets may be warranted. Despite clear guidance from net zero initiatives that offsetting should be reserved for "residual" emissions, for example, analysis by Carbon Tracker suggests that companies with net zero pledges are among the most active purchasers of carbon offsets – with major oil companies topping the list (Ferris, 2024; Gabbatiss & Pearson, 2023; Trencher et al., 2023). Similarly, according to a 2021 survey, nearly 9 in 10 companies viewed the use of offsets as an important part of achieving net zero strategies, including 56% that viewed use of carbon offsets as having "the highest potential for my company in the long-term" (IETA, 2021, p. 15).
- **Lack of credible emissions reduction strategies**. As noted in Section 3.3, most major net zero initiatives emphasize the need for credible "transition plans", even as they are still in the process of elaborating what such plans should contain. Current practice seems to reflect the dearth of detailed guidance, with many companies and FIs adopting only high-level plans, or plans that appear insufficient to reach their objectives (Day et al., 2023b; Hale et al., 2022; Net Zero Tracker, 2023a; Sachs et al., 2023). Lack of credible plans is particularly notable in the fossil fuel sector, with most major oil and gas companies failing to commit to phasing down production (or else retrenching on such commitments)[29] and many refusing to commit to absolute emissions reductions (Bordoff, 2023; O'Connor & Coffin, 2022; Sachs et al., 2023).[30] FIs with net zero commitments do not appear to be applying much pressure, adopting the same tentative policies towards fossil fuel companies prescribed by GFANZ member alliances, as described in Section 3.2 (Sachs et al., 2023).
- **Lack of concrete action**. More broadly, independent assessments suggest that companies and FIs are failing to take steps aligned with their stated climate goals (Bindman, 2022c; Davey, 2022; InfluenceMap, 2023; Persefoni et al., 2023; Sachs et al., 2023; Sierra Club, 2022). A 2022 Accenture analysis found that, given current trends, 93% of the world's largest companies will fail to meet their net zero targets (Accenture, 2022). Where companies are taking action, they sometimes engage in "paper shuffling" exercises, like using renewable energy certificates to achieve apparent reductions in their electricity emissions (Brander et al., 2018; Day et al., 2023b) or, in the case of major oil and gas companies, selling off high-emitting assets to privately owned companies (Arnold et al., 2023; Manuell, 2023; White, 2024). FIs have also pursued divestment, despite GFANZ and other initiatives emphasizing engagement and managed phaseout as preferred strategies (Atta-Darkua et al., 2023; Sachs et al., 2023). Meanwhile, some FIs have begun retreating from engagement strategies (InfluenceMap, 2023), or backtracking on commitments altogether (Tabuchi, 2024). These actions are consistent with a tendency to focus on climate *risk reduction* – reducing exposure to potential liabilities – rather than on concrete actions for reducing emissions (Cenci et al., 2023; Sachs et al., 2023; Wilson & Caldecott, 2021). Finally, in many cases, both companies and FIs with net zero commitments have failed to change their

A 2022 Accenture analysis found that, given current trends, 93% of the world's largest companies will fail to meet their net zero targets.

29 In 2023, for example, both Shell and BP backed off prior commitments to reduce oil and gas output (Halper & Gregg, 2023; Pylas, 2023).

30 Indicative of this trend, a "Net-Zero Producers Forum" announced in 2021 by major oil- and gas-producing countries failed to mention any need to reduce production (Achakulwisut et al., 2023).

political activities, and are continuing to support lobbying and advocacy – often through trade associations – against the adoption of climate policies which might assist them in achieving their pledges (Bindman, 2022b; Brulle & Downie, 2022; InfluenceMap, 2022b, 2022a).
- **Mixed levels of transparency.** Day et al. (2023b) conclude that large companies have demonstrated a "moderate degree of transparency" in reporting greenhouse gas emissions, and that their reporting practices are improving. Other reviewers suggest that greater transparency is needed, especially related to companies' proposed actions and transition plans (Bjørn et al., 2023). For FIs, while reporting on climate risk exposure and financed emissions is (relatively) commonplace, reporting on the *impact* they are having through their net zero strategies is less so (Caldecott et al., 2022; Howell & Schreck, 2023; Sachs et al., 2023). A major question going forward is the degree to which companies and FIs will be forthcoming about the details of their transition plans.

The HLEG was convened precisely to address these kinds of shortcomings and, in the words of its Chair, "draw a red line around greenwashing" (UN HLEG, 2022, p. 6). The HLEG itself, however, produced only recommendations. It remains to be seen whether voluntary net zero initiatives with oversight functions – including SBTi, RtZ, VCMI, or the recently announced UNFCCC Recognition and Accountability Framework[31] – can effectively police voluntary commitments and compel improved practices over time.

5.2 Selective adoption of net zero commitments

Most companies and FIs worldwide have not committed to net zero. Among 2000 public companies reviewed by Net Zero Tracker, half have announced net zero targets, which altogether cover two-thirds of these companies' annual revenue (Net Zero Tracker, 2023b). While this is a significant number, close to 80% of the remaining companies appear not to have *any* sort of climate change mitigation target (Net Zero Tracker, 2023a). Among both public and private firms, the consulting firm Accenture found that only 34% have publicly declared net zero targets (Accenture, 2022). Private companies have lagged behind public ones in adopting commitments (Lino et al., 2022; Net Zero Tracker, 2022).

The European Central Bank finds that 90% of Euro-area banks have portfolios misaligned with Paris Agreement goals.

The situation is broadly similar among financial institutions. Despite public announcements that GFANZ members comprise many trillions of dollars in assets, the World Benchmarking Alliance found that only 37% of leading FIs (among 400 they reviewed globally) have long-term net zero targets (World Benchmarking Alliance, 2022). Furthermore, it is clear that despite net zero and other climate-related commitments, banks and other FIs as a whole are continuing to provide substantial financial support to the fossil fuel industry (Ambrose, 2023; Bindman, 2022a; Giannetti et al., 2023; Hodgson, 2022; Jolly, 2022; Kusnetz, 2023; Lerin et al., 2022; Nace & Hickox, 2022). The European Central Bank finds that 90% of Euro-area banks have portfolios misaligned with Paris Agreement goals (European Central Bank, 2024).

31 See https://unfccc.int/tracking_and_recognition

The prevalence of net zero commitments also varies by geography and sector. Companies with net zero-aligned emissions reduction targets tend to be concentrated in the wealthy countries, for example, with the highest concentration in European countries (Accenture, 2022; Bjørn et al., 2022; Net Zero Tracker, 2023a; Ruiz Manuel & Blok, 2023). Such companies are also more prevalent in the service and consumer goods sectors, and less common within heavy manufacturing and extractive industries (Bjørn et al., 2022).[32] Within these sectors, the companies that adopt targets tend to be those with already-low emissions compared to their peers (Bolton & Kacperczyk, 2023).

Finally, while the number of corporate actors with net zero commitments is still growing (Accenture, 2022; Net Zero Tracker, 2023a), the same cannot be said for FIs. As noted in Section 3.2, threats of legal action have led to weakening commitments and an exodus of member institutions from GFANZ alliances, especially in the insurance sector, along with multiple FIs going publicly silent about their commitments (Joselow, 2023; Smith & Bryan, 2023).

5.3 A catalyst for change, or a distraction?

The lack of universal uptake of net zero commitments is not necessarily a problem. The point of adopting such commitments is to show leadership. The goal of net zero initiatives is to ensure such commitments have substance, and help to drive real change that, in the words of the HLEG and RtZ, can ultimately translate into "ground rules for the economy", i.e., policies and regulations that will drive net zero-aligned climate action for all actors globally (UN HLEG, 2022; UN Race to Zero, 2022b). Given the current state of net zero commitments, however, it is fair to ask whether this goal seems realistic.

Encouragingly, there is evidence that companies with net zero commitments do reduce their emissions (Bjørn et al., 2022; Bolton & Kacperczyk, 2023; Ruiz Manuel & Blok, 2023), and that companies with more robust targets tend to cut emissions the fastest (Accenture, 2022). However, Bolton and Kacperczk (2023) note that companies that make net zero commitments, and those that make more ambitious commitments, tend to have lower emissions to begin with. They conclude that "[o]verall, the commitment movements have been successful in drawing the willing but have found greater resistance from the companies that most need to reduce their emissions" and go on to say that "unless their efforts are supported by public policy to curb emissions and institutional investor pressure, it will be increasingly difficult to persuade the vast majority of companies that are still on the sidelines to join the decarbonization commitment drive" (Bolton & Kacperczyk, 2023, p. 30).

Such conclusions may seem at odds with the rapid growth in adoption of net zero commitments by the world's largest companies. The problem, as described above, is that these commitments too often fall short of what net zero initiatives require for high credibility. Comello et al. note the substantial "wiggle room" in how net zero

32 A notable exception here would be fossil fuel companies, around two thirds of which have some form of net zero pledge; as noted above, however, observers have questioned the credibility of such pledges in relation to the standards of net zero initiatives (Ashrafkhanov & Coffin, 2023; Net Zero Tracker, 2023a).

commitments are formulated, concluding this “may allow some firms to wear the ‘green mantle’ without having to make significant efforts beyond those that will emerge anyhow from more stringent carbon regulations in the future” (Comello et al., 2021, p. 21). This would appear to be a particular concern for the financial sector, where net zero initiatives themselves afford significant leeway with respect to support for fossil fuels (Section 3.2), and where nearly every net zero commitment is made with “the expectation that governments will follow through on their own commitments” (Section 4.1).

Such concerns have led some commentators to suggest that highly ambitious, voluntary climate commitments are likely to be a “costly distraction”, creating the appearance that meaningful action is forthcoming but without providing the means to deliver it, which ultimately must come from governments (Trexler & Schendler, 2015). Bjørn et al. suggest that further research is needed to decide whether adoption of these commitments will “facilitate or hinder” a broader transition to net zero (Bjørn et al., 2022). However, **if commitments are largely unaligned with criteria for credibility and high integrity, and they are not prevalent among key sectors of the economy, the risk that they will play a “distracting” role appears significant.** What seems clear is that, if voluntary net zero commitments are to play a meaningful role in advancing *global* goals, they must be married much more closely to advancing climate policy. Achieving this will require the involvement of both net zero initiatives and governments.

6. Building the road to policy

Voluntary net zero commitments, when defined rigorously and pursued in good faith, can play an important role in advancing global action on climate change. Not only do they have a strong symbolic value, but there is practical value as well: by setting and pursuing net zero targets, corporations and financial institutions can gain an understanding of what it will take to decarbonize their operations, supply chains and portfolios (Maltais et al., 2021). This in turn can pave the way for broader policy action needed to reach national and global net zero goals (Hale, 2021; Hale et al., 2024).

However, the translation of voluntary net zero commitments into policy – i.e., the ambition lane in the HLEG's road to regulation – is not a foregone conclusion. As the prior sections suggest, there are still important gaps in how net zero commitments are being defined and shortcomings in how they are being adopted in practice. These shortcomings are particularly evident in financial sector net zero commitments and their mixed policies and practices when it comes to financial support of the fossil fuel industry. Rectifying these shortcomings requires effective oversight, but as discussed in Section 3.4, current initiatives lack strong mechanisms for accountability. Among financial sector net zero initiatives, there is currently "little consequence for FIs that misrepresent their strategies and their effectiveness, that do not align their business plans or practices with their stated strategies, or that miss their own targets" (Sachs et al., 2023, p. 6).

6.1 Build the accountability lane, and...

A possible solution here is more *government* oversight – i.e., building out the accountability lane of the road to regulation. Indeed, when the HLEG discusses the need for regulation, this is their primary focus (UN HLEG, 2022, pp. 33–34). Promisingly, many governments are already moving in this direction. A 2023 survey by Oxford Net Zero, for example, found that multiple countries – including some in the global South – are considering or have adopted regulations addressing net zero "claims" and financial products, net zero-aligned government procurement, climate-related financial disclosures and net zero transition plans (Dias et al., 2023). Furthermore, regulators have frequently looked to independent standards for inspiration in setting requirements, a clear example of the "road" from voluntary initiatives to regulatory policy (Hale et al., 2024; UN Race to Zero, 2022b).

Holding actors accountable for their net zero commitments should not be an end in itself.

While these are welcome developments, holding actors accountable for their net zero commitments should not be an end in itself. Such regulation risks becoming its own kind of distraction, as governments expend resources to police voluntary commitments that could be better spent directly regulating emissions and implementing broader decarbonization programs (Bindman, 2023; Maxton, 2023; Pucker, 2021). It is possible that, if firms adopt robust net zero commitments and are held accountable for implementing them, they will exert pressure on policymakers for broader regulation (Hale et al., 2024). But empirical support for this is mixed at best. SBTi's recent "removal" of the net zero commitments of over 200 companies – with many companies leaving because they were "not sure they could achieve net zero" – suggests that exit strategies are just as likely (Robinson-Tillett, 2024).

This is also reflected in the decisions by major oil companies to walk back their climate commitments (Yoder, 2023).

In short, if corporate and FI net zero commitments are to have staying power, they must be much more tightly connected to advancing *government* climate policy more generally. Divorced from this, they risk becoming, at best, a kind of heuristic exercise for FIs and their investees to understand what a transition to net zero might entail, but without any real power to advance the deep, economy-wide structural changes – including a phaseout of fossil fuels – needed to achieve net zero emissions globally. The ambition lane of the road to regulation is in urgent need of attention.

6.2 Focus on the ambition lane

With the adoption of the Paris Agreement, national governments formally called on non-state actors to help advance ambitious climate action (UNFCCC, 2015).[33] The response was a proliferation of corporate and financial net zero commitments. In calling for action, however, national governments failed to give explicit direction: what kinds of action, where, and in furtherance of what (national) goals? In the absence of this direction, FIs, companies and other non-state actors have picked up the mantle of achieving net zero for themselves, reproducing at an organizational level a version of what must be accomplished globally. But as explained in Section 4, this approach raises multiple questions about what these entities should actually be doing and about their respective roles in larger efforts to address climate change.

Fundamentally, there remains a disconnect between the *ambition* of these voluntary commitments and the *means* that FIs and others have for achieving them. Rectifying this disconnect will require much tighter coordination between governments, net zero initiatives, and the FIs, companies and other actors pursuing net zero targets. To build the ambition lane of the road to net zero, the following steps must be taken.

Step 1. Governments must go beyond regulating net zero claims and climate-related disclosure, and provide positive direction to voluntary actors on how they can help advance national policy goals

To better orient voluntary net zero commitments towards advancing climate policy, governments must point the way. With support from net zero initiatives, NGOs and multilateral organizations, governments should pursue the following.

a. Establish jurisdiction-specific net zero pathways and transition plans
Most voluntary net zero initiatives require, or strongly encourage, the adoption of net zero transition plans, and many governments are starting to require such plans as part of net zero regulation (Dias et al., 2023). As noted in Section 3.3, however, there is large variability in both standards and practice related to transition planning. The UNFCCC Recognition and Accountability Framework has identified the need for a "universal baseline for transition plans" detailing these plans' essential elements.

33 See https://unfccc.int/climate-action/introduction-climate-action/history-non-party-stakeholder-engagement

While a universal baseline would be welcome, a fundamental challenge is that many actors are being asked to develop plans in what amounts to a policy vacuum. They must effectively guess what emissions reduction pathways should look like for different sectors (including fossil fuels), in different countries where they invest or operate, over different time periods – and make plans accordingly. As indicated in Section 4, while substantial methodological work has gone into educating these guesses, many elements of net zero target-setting and transition plans – including definitions of “residual” emissions, “hard-to-abate” sectors and equity considerations – involve making judgements about national and global policy priorities. Because of this, basic ambiguities will remain so long as governments are unclear about their own goals and policy direction. As Buck et al. (2023b) note, while the standards and norms developed by net zero initiatives provide a useful foundation for setting targets, there is “a much clearer role for governments in this area” (p. 355).

The HLEG’s recommendations effectively acknowledge this, calling on *governments* to enable net zero target-setting through “the development of relevant sector emission reduction pathways” (UN HLEG, 2022, p. 34). Sector-specific goals should detail the pace at which emissions must be reduced, in which locations, and the expected long-run levels of “residual” emissions (Buck et al., 2023a). Sector goals should be accompanied by implementation plans that explicitly address the equity and distributional impacts of sectoral transitions (Bloom Raskin & Leng, 2024; Rogelj et al., 2023). Many countries have begun these efforts by incorporating sector-specific detail into their Nationally Determined Contributions (NDCs) under the Paris Agreement, as well as their Long-Term Low-Emission Development Strategies (LT-LEDS). However, current practice could go much further. Large gaps persist, for example, between the stated goals of major fossil fuel-producing countries and their actual plans for phasing out production (SEI et al., 2023).

Elaborating sector-specific targets and plans may not be an easy task for governments, any more than it is for private actors. There are political advantages to leaving sectoral targets “strategically ambiguous” (Buck et al., 2023b), for example, especially when it comes to phasing out fossil fuels. But greater clarity and specificity are needed both for the credibility of national targets (Buck et al., 2023a; Rogelj et al., 2023) and to signal to voluntary actors how they can assist in the achievement of national policy goals. As noted in Section 4.2, for the financial sector and fossil fuel industries in particular, credibility requires anchoring net zero targets in national decarbonization pathways and policy priorities. Net zero-aligned investment and climate action are easier in jurisdictions with greater policy certainty (IGCC, 2024) than in those with less (BSI, 2024).

b. Clarify priorities for investing in carbon dioxide removal, “climate solutions” and other climate finance

As discussed in Section 4.3, current net zero frameworks remain ambiguous about which entities (e.g., companies or FIs) should “net out” emissions with removals, and when. A key part of the challenge, once again, is that firms are voluntarily making net zero commitments outside a specific policy context, under which responsibility for investing in removals might be explicitly assigned. To help rectify this, governments should supplement jurisdictional net zero transition plans with clear plans for who will generate removals, using what means, for how long and at what scale to net out residual

emissions (Buck et al., 2023b, 2023a; Honegger et al., 2021). Such plans are critical for informing how non-state actors should approach the question of removals, and could clarify, for example, how FIs should think about portfolio alignment with net zero.

Similar guidance would be helpful for another element of net zero transition plans: investing in "climate solutions", including low- and zero-emission products, services, assets and activities (Falk et al., 2024; GFANZ, 2022e; IIGCC, 2023a). Financially supporting climate solutions is a core strategy of FI net zero frameworks (see Annex A), yet what qualifies as a climate solution is open to interpretation. Many governments have started to develop official taxonomies designating certain economic activities as environmentally sustainable (IIGCC, 2023a). While not perfect (the EU's taxonomy, for example, has been criticized for including natural gas), these taxonomies are an important complement to sector-based transition goals and strategies. To leverage voluntary action in service of national policy goals, they should be expanded and augmented.

Finally, some governments are experimenting with leveraging investment by voluntary actors to support international climate finance. The United States, for example, has floated the idea of an "Energy Transition Accelerator" (ETA) that would fund sector-wide decarbonization strategies in the power sectors of emerging economies, funded through voluntary purchases of carbon credits (U.S. State Department et al., 2023). The ETA is similar in conception to the Joint Energy Transition Partnerships (JETPs), which are government- and development bank-supported financing mechanisms designed to support just energy transitions in coal-dependent economies (Kramer, 2022). Steering voluntary climate finance towards these kinds of large-scale, transformative investment vehicles is a promising way to join the net zero ambitions of companies and FIs with global policy priorities.[34]

Step 2. Financial institutions and other voluntary actors must explicitly call out where government action is needed to enable the achievement of net zero commitments

At the heart of FI net zero commitments is a fundamental tension. On the one hand, FIs clearly have power to influence the strategies, operations and activities of their portfolio companies, and drive net zero-aligned impacts through engagement and capital allocation (Kölbel et al., 2020). On the other hand, there are limits to the potential influence of even the most committed FIs. Desire for impact must be balanced against managing risk and FIs' perceived fiduciary and legal obligations. To achieve the outcomes to which they aspire, they must be aided by government policy.

34 The HLEG, for example, calls for "a new deal for development that includes financial institutions and multinational corporations working with governments, Multilateral Development Banks and Development Finance Institutions to consistently take more risk and set targets to greatly scale investments in the clean energy transition in developing countries" (UN HLEG, 2022, p. 13). The challenge is that under current net zero frameworks, such investments are superfluous to the formal "achievement" of net zero at a corporate or financial portfolio level. (The SBTi, for example, would classify them as "beyond value chain mitigation" – an optional category for actors wishing to demonstrate additional leadership [Benson et al. 2024]). This is where a rote focus on corporate- and financial-level net zero may be counterproductive, or at least overly limiting. Further dialogue between governments, voluntary actors and FIs is needed to explore viable pathways for jointly supporting large-scale climate finance, e.g., by shifting the focus from "achieving net zero" individually to pursuing and supporting broader net zero-aligned climate action (Broekhoff, 2021).

This is something FIs will readily concede (Nykvist & Maltais, 2022). As noted in Section 4.1, the GFANZ alliance members all acknowledge that they are making their commitments with the expectation that governments will help make them a reality. In the second edition of its target-setting protocol, NZAOA states this directly: to avoid a scenario where asset owners must "exit the majority of the investable universe ... there is a clear need for governments and policymakers, as well as corporates around the world, to facilitate [the transition to net zero] by moving in line with ... Alliance members' intended portfolio trajectories" (NZAOA, 2022b, p. 26). In the absence of such action, NZAOA acknowledges that members may need to tolerate a "lag" in the achievement of their targets.

Although such constraints may be most acute for the financial sector, they apply in varying degrees to the net zero commitments of all corporate actors – including fossil fuel companies. In short, for private sector actors, pursuing net zero-aligned climate action is *inherently* a matter of public-private collaboration.

Buried in its list of detailed recommendations, the HLEG states that companies must "Outline the specific policies and regulations, including carbon pricing, needed to facilitate transition plans" (UN HLEG, 2022, p. 22). Far from being one of many elements in a net zero transition plan, **the requirement to identify needed policies and regulations should be made a centrepiece of net zero commitments**. Specifically, when making commitments:

- **Financial institutions should clearly communicate how they interpret their fiduciary and other legal duties, and the constraints these may place on the achievement of portfolio emissions targets, the implementation of transition plans and the pursuit of managed phaseout and divestment strategies** (Sachs et al., 2023).
- **Both companies and FIs should explicitly and publicly identify the kinds of government policy interventions needed to successfully implement net zero transition plans, over the near and long term,** including:
  - direct regulation of the real economy
  - carbon pricing and other financial incentive policies
  - public investment and infrastructure needs
  - financial and regulatory support needed to mitigate investment risks and – where fossil fuels and high-emitting assets are concerned – successfully pursue managed phaseout strategies.

Existing net zero initiatives already speak to the need to engage with policymakers and other stakeholders as part of implementing net zero plans. To be truly effective, however, voluntary net zero commitments must be tied much more directly to fostering an "ambition loop" where: (a) voluntary actors look to government-identified net zero targets and sectoral plans (or propose such targets where they do not yet exist or are insufficiently ambitious); (b) identify the actions they must take to align with those targets and plans; and (c) publicly identify the types of policies needed to enable those actions, both for themselves and potential competitors, as a means to spur policy action by governments.

Step 3. Governments must close the "policy gap" and provide the necessary regulation, incentives, policies and infrastructure needed to realize national and global net zero targets

The ambition lane of the road to regulation must ultimately lead to policy action that, in the words of the HLEG, creates "ground rules for the overall economy". Leadership by FIs and other voluntary actors can help lay the foundation for this, especially if they adhere to rigorous standards for transparency and translate their commitments into explicit calls for regulation. However, while it is sometimes implied that voluntary climate action can make up for a lack of (national) government ambition, it is ultimately governments that must deliver transformative change. Governments are the only bodies capable of shaping markets at sufficient breadth and scale – through regulations, incentives, support for basic research and development, public finance and procurement – to transform economies, phase out fossil fuel production and consumption, decarbonize energy and industrial systems, protect natural ecosystems and scale up carbon dioxide removal technologies.

In the near term, governments should continue to encourage climate leadership and engagement by voluntary actors, by supporting net zero initiatives, improving transparency and accountability, and creating *enabling conditions* for net zero-aligned climate action and investment. With respect to FIs, key priorities include public finance guarantees and supporting policies that derisk the accelerated phaseout of coal, oil and gas assets, promote investment in climate solutions, and ensure a just transition for workforces in fossil fuel and high-emitting industrial sectors. In parallel, government and multilateral institutions must continue efforts to reform financial systems in support of net zero and sustainable development goals (Browne et al., 2023; Sachs et al., 2023).

In the longer term, governments must erase the distinction between "voluntary" and "policy-driven" climate action through a wide range of approaches, including carbon pricing, removal of fossil fuel subsidies, support for green technology development, energy- and industrial-sector transition programs and policies to preserve and restore natural ecosystems (to name just a few). The road to regulation for voluntary net zero commitments must lead to enhanced *governmental* ambition on a scale that delivers global net zero emissions, equitably, in line with the goals of the Paris Agreement.

7. Conclusion

Recent years have seen the growing adoption of corporate and FI net zero commitments, signalling an awareness of the urgent need for action on climate change and a widespread willingness of these actors to play the critical roles required of them to transition to a net zero economy. Above all, this has created a space for advancing climate action at a time when national governments – despite having net zero commitments of their own – are still falling short of the ambition required to meet the goals of the Paris Agreement.

At the same time, voluntary net zero initiatives are at a critical juncture. They have invested substantial resources in developing criteria for "high-integrity" commitments, and requirements for net zero-aligned transition planning and climate action. For companies and FIs pursuing commitments in good faith, these frameworks offer a useful guide to what will be required of them in a world undergoing rapid transitions to net zero emissions. They can be a meaningful basis for action, at least in the near term. Yet, as noted in Section 5, there is often limited adherence to these frameworks among committed actors – and net zero commitments are far from universal.

One response is to establish better oversight and ensure greater accountability. Voluntary net zero initiatives may have limited capacity for this themselves, but governments seem increasingly willing to provide such oversight, and bodies like the UNFCCC Recognition and Accountability Framework and the newly constituted Task Force on Net Zero Policy[35] are working to aid governments in their efforts to ensure accountability. In what the HLEG calls the "road to regulation", this is the "accountability lane".

More fundamentally, however, there are still important gaps in the framing, definitions and requirements of current net zero initiatives. Some of these are shortcomings in existing criteria and guidance – e.g., limited scope and coverage requirements, muddled or equivocating policies on phasing out fossil fuels, and lack of coherence in defining transition plans. Other gaps, however, are more foundational, and go to the heart of what it means to "commit to net zero". These gaps are rooted in the presumption that the primary goal of a net zero commitment is to achieve net zero emissions at a corporate or portfolio level – in essence mirroring for individual corporations and FIs what must be achieved globally. Framing commitments this way has an intuitive appeal, but it raises important questions about how to meaningfully define emissions targets (including an appropriate level of "residual" emissions), the responsibility of different actors for achieving mitigation (including removals needed to net out residual emissions), the equity and distributional impacts of net zero-aligned climate action and – most importantly – both the agency and capacity actors have for reducing emissions.

Most challengingly, corporations and FIs are being asked to commit to reducing emissions at a scale and pace that *individually* they have no hope of achieving. Over the long run, this is untenable. Changes will be needed in how voluntary net zero commitments are conceived and formulated, tying them more directly to advancing

35 See https://www.unpri.org/policy/taskforce-on-net-zero-policy

Voluntary net zero transition plans must become spurs for policy action.

national and global climate policy. This is the “ambition lane” of the road to regulation. Governments themselves have a crucial role in building this lane, by providing clearer direction to voluntary actors on sector-specific transition goals – especially in the fossil fuel sector – and identifying priorities for mitigation finance. But companies and FIs can also help build this lane, by more explicitly identifying the specific kinds of policy measures that will be needed for them to realize net zero targets. Voluntary net zero transition plans must become spurs for policy action. Governments must in turn enact policies that turn these plans into ground rules for the entire economy. The ambition lane must become its own “road to policy”.

Over time, this approach could lead to a reorientation of voluntary net zero commitments, away from achieving net zero at an individual level and towards advancing global transitions. Such a reorientation could present its own challenges, but may hold greater promise than a system that asks voluntary actors to commit to what they themselves cannot achieve, and then holds them accountable for not achieving it. The road to regulation must focus on enabling ambitious action through policy.

8. Annex A: Summary of net zero initiative criteria and guidelines

Multiple initiatives have been launched in recent years with the aim of encouraging companies and financial institutions to adopt net zero commitments. Major initiatives have published – through standards, guidance and recommendations, and/or through joint commitment statements on behalf of their members – criteria for credible, "high-integrity" net zero commitments. Although details differ among the initiatives, criteria generally cover three sets of common elements:

- **Target-setting requirements**. A key focus of net zero commitments is on setting targets for reducing emissions. The major initiatives all define common criteria for target-setting, including the need for both near- and long-term targets.
- **Implementation**. Most initiatives address the need for companies and financial institutions to establish implementation plans and take action to achieve their targets. They also stipulate reporting requirements for communicating targets and tracking progress towards achieving them.
- **Principles and guardrails**. The major initiatives typically address a common set of principles and guardrails for achieving net zero targets, including policies on the use of carbon credits, guidelines for external engagement and policy advocacy, incorporation of equity and just transition principles, and the need for explicit policies on the use and/or production of fossil fuels. (Though not reviewed here, several initiatives also offer principles related to supporting nature-based solutions.)

Tables A-1 and A-2 provide detailed summaries of the guidelines provided by each of the initiatives reviewed in this report, related to each of these common elements. Key commonalities and differences among initiative guidelines are summarized below for those addressing corporate actors and financial institutions, respectively.

Table A-1: Detailed summaries of the guidelines provided by each of the initiatives reviewed

		SBTi Net Zero Standard (Version 1.1)	ISO Net Zero Guidelines	VCMI Claims Code of Practice (June 2023)	UN Race to Zero Campaign Criteria (Version 3.0 – June 2022)	UN HLEG
Target-setting	**Definition of net zero**	A company may claim to have reached net zero only once its "long-term science-based target for all scopes is achieved and the company has neutralized residual emissions" with permanent removals. Residual emissions must include all remaining scope 1-3 emissions, including those not explicitly covered by targets.	To claim achievement of net zero, a company should provide evidence that it has reduced emissions "as far as possible", "to the extent feasible", or to "the full potential" (various formulations are used), so that only residual emissions remain, and these emissions are "counterbalanced by removals". A company should not make a net zero claim if it is on a path to net zero "and still has GHG emissions that are not residual emissions, even if the emissions are counterbalanced". In addition, to claim net zero companies should "provide a plan to maintain the net zero balance over the long term, multiple decades at a minimum, including a plan to address any reversal of removed GHGs".	Not independently defined. Rather, companies are expected to set near-term science-based targets in line with SBTi requirements, and for long-term targets are required to "disclose the definition of net zero they have adopted, in line with globally recognized sustainability frameworks or guidance, as well as the principles and/or methodology they have used or intend to use to set their net zero target".	A company is considered to have reached a state of net zero when it "reduces its emissions following science-based pathways, with any remaining GHG emissions attributable to that actor being fully neutralized by like-for-like removals (e.g. permanent removals for fossil carbon emissions) exclusively claimed by that actor, either within the value chain or through purchase of valid offset credits".	A company may be considered net zero-aligned when it has adopted robust and verified emissions reduction targets (near- and long-term) "consistent with limiting warming to 1.5°C" and publicly demonstrates it is achieving or exceeding those targets. A company can be recognized as net zero or as having achieved its net zero pledge when "it has achieved its long-term net zero target with any residual emissions neutralised by permanent greenhouse gas removals according to reports verified by a credible, independent third party based on publicly available data".
	General target-setting requirements					
	Specification	Companies must reduce covered emissions to "zero or to a residual level that is consistent with reaching net-zero emissions at the global or sector level in eligible 1.5°C scenarios or sector pathways". Targets must be modeled using methods approved by SBTi.	Companies should set long-term targets to "meet net zero by or before 2050". Net zero is met once residual emissions are achieved and counterbalanced by removals. Residual emissions reflect "all possible actions to implement emission reductions" in the target year (and thereafter) and should be estimated "using a 1.5°C aligned science-based pathway".	Companies must publicly commit to achieve "net zero emissions no later than 2050, including scopes 1, 2 and 3 GHG emissions, as well as land-based GHG emissions where applicable". In defining targets, companies are encouraged to align with recommendations from the UN Race to Zero campaign and UN High Level Expert Group.	Companies must "pledge at the head-of-organisation level to reach (net) zero GHGs as soon as possible, and by 2050 at the latest, in line with the scientific consensus on the global effort needed to limit warming to 1.5C with no or limited overshoot, recognising that this requires phasing down and out all unabated fossil fuels as part of a global, just transition."	Long-term targets must be "at least consistent with the latest IPCC net zero greenhouse gas emissions modelled pathways that limit warming to 1.5°C with no or limited overshoot, and where global emissions decline at least 50% below 2020 levels by 2030, reaching net zero by 2050 or sooner".
	Required reduction	SBTi suggests that for most companies a "residual" level means at least a 90% reduction in the long term, though this varies by sector.	Not specified, although examples of 2050 emission reduction targets in the 95–100% range are given for a handful of sectors.	Not specified	Not specified	Not specified
	Interim target requirements					
	Specification	Companies must set near-term emissions reduction targets (to be achieved within 5-10 years) consistent with long-term target pathways. Once achieved, successive near-term targets must be defined until long-term target is achieved.	Companies should set interim targets to achieve "substantial emission reductions ... by 2030 or earlier". Interim targets should be set at 2- to 5-year intervals.	Near-term targets must be set following SBTi requirements and guidance.	Companies must set an interim target to be achieved "in the next decade."	Companies should "have short-term targets of five years or less, with the first target set for 2025".
	Required reduction	Not prescribed, but a typical target for 2030 might be 50% below 2020 emissions.	Interim targets should align with achieving long-term targets, and "reflect maximum effort towards the full mitigation potential of the [company], consistent with a fair share of 50% global GHG emissions reduction by 2030 ... from a 2018 base year".	Not specified (other than to be aligned with SBTi).	Interim targets must reflect "maximum effort toward or beyond a fair share of the 50% global reduction in CO2 by 2030."	Interim targets must be consistent with a pathway "where global emissions decline at least 50% below 2020 levels by 2030".
	Required scope of targets	Targets must cover all major greenhouse gases, and at least 95% of scope 1 and 2 emissions. For scope 3 emissions: - Near-term targets (5-10 years) must cover at least 67% of emissions if those emissions constitute 40% or more of total emissions (scopes 1-3) - Long-term targets (2050 or earlier) must cover at least 90% of scope 3 emissions - All companies involved in sale or distribution of fossil fuels must set scope 3 targets for the use of sold products	Net zero targets should "include emissions related to all relevant GHGs" and cover "all Scope 1, Scope 2 and Scope 3 emissions, as appropriate". Exclusions should be justified. Companies are advised to set separate targets for scope 1, 2, and 3 emissions. (Companies with low scope 1 emissions may adopt a combined scope 1-2 target.) Scope 3 targets should include emissions from product use, as well as emissions "related to financed, facilitated and insured activities".	Must follow SBTi requirements for near-term targets; long-term targets must include scopes 1-3, but percent coverage is not specified. Companies are encouraged to clearly disclose the scope of emissions included in their targets. Targets may be on an absolute or intensity basis.	Targets must cover "all greenhouse gas emissions" and include emissions in Scopes 1- 3. No further specificity is provided around percent coverage or materiality.	Targets must include scope 1-3 emissions (from a company's "full value chain"); all emissions "facilitated by financial entities"; and any "embedded emissions within fossil fuel reserves". Where data are missing for scope 3 emissions, companies must "explain how they are working to get the data or what estimates they are using".

		SBTi Net Zero Standard (Version 1.1)	ISO Net Zero Guidelines	VCMI Claims Code of Practice (June 2023)	UN Race to Zero Campaign Criteria (Version 3.0 – June 2022)	UN HLEG
Implementation requirements	**Specification of plans and actions**	No explicit requirements.	Companies should "determine a plan of prioritized actions to be taken to achieve interim targets which support the stated long-term net zero target". Plans should address measures for measurement, monitoring and evaluation, as well as external engagement and communication.	To demonstrate that companies are on track to achieving their targets, they are encouraged to adopt net zero "transition plans" (following a framework developed by the UK Transition Plan Taskforce), including elements related to tracking emissions reductions, financial contributions to achieving reductions and the incorporation of net zero targets into the company's governance structure.	Within 12 months of committing to net zero, companies must publicly disclose a "transition plan", including "what actions will be taken within the next 12 months, within 2-3 years, and by 2030". Companies must also "take immediate action through all available pathways toward achieving (net) zero, consistent with delivering … interim targets".	Companies must "publicly disclose comprehensive and actionable net zero transition plans which indicate actions that will be undertaken to meet all targets, as well as align governance and incentive structures, capital expenditures, research and development, skills and human resource development, and public advocacy, while also supporting a just transition". Transition plans should be updated every five years.
	Reporting, disclosure, and verification	Companies must publicly report their targets as well as report annually on their progress towards achieving targets. SBTi does not prescribe use of a specific reporting platform.	Companies should make information "publicly available" on their progress in achieving net zero targets and plans. Reporting on progress towards targets should be done at least annually, using "relevant public reporting platforms".	Companies must "maintain and publicly disclose an annual greenhouse gas emissions inventory" and regularly report information needed to show compliance with VCMI claims criteria. This includes information on the details of carbon credits used (including whether host countries have authorized the credits). To make a VCMI claim, companies must obtain third-party assurance of all reported information.	Companies must annually report progress against both interim and longer-term targets, along with the actions they are taking. Reports must be provided in a standardized, open format via platforms that feed into the UNFCCC Global Climate Action Portal.	Companies are required to annually disclose progress towards meeting targets, disclose supporting data and provide details on their transition plans. All reports must be verified by independent third parties, and "large" companies should seek independent evaluation of their progress and reporting. Companies must report in a standardized, open format via public platforms that feed into the UNFCCC Global Climate Action Portal.
Principles and guardrails	**Role of carbon credits in achieving net zero**	Carbon credits may not be used to achieve emissions reduction targets, but may be used to achieve neutralization (i.e., removals to counteract residual emissions). Carbon credits may also be used as part of voluntary strategies to achieve "beyond value chain" mitigation in addition to net zero targets.	Credits should only be counted towards a net zero target if they are associated with removals and are used to counterbalance residual emissions. Prior to achieving net zero, companies may use credits for other purposes, including to support "additional voluntary action", but not a net zero claim.	Use of carbon credits is required to make VCMI-compliant claims, which correspond to the level of emissions covered (20-60% for silver; 60-100% for gold; and 100% for platinum). Companies must demonstrate they are "on track" to achieve their scope 1-3 emissions reduction targets in order to make a VCMI-compliant claim. Carbon credits are assumed to convey "contribution claims", i.e., they represent a contribution to global net zero goals, and are not a basis for claiming a company's achievement of net zero (or "carbon neutrality").	Companies should prioritize their own emissions reductions, but are encouraged to "contribute toward global net zero" through "beyond value chain mitigation efforts", which may include use of high-quality carbon credits. Guidance states that carbon credits should "by no means" substitute for a company's own emissions reductions. "Neutralisation" of residual emissions with removals is identified as a "leadership practice."	Carbon credits "cannot" be counted towards a company's interim reduction targets. Credits may be used to "counterbalance" long-term residual emissions to achieve net zero. Companies are "strongly encouraged" to "balance out" their emissions on the way to net zero, as long as they continue to meet interim targets.
	Engagement & advocacy	For scope 3 emissions, companies may set supplier or customer "engagement" targets, under which they encourage suppliers and customers to adopt their own science-based targets. Otherwise, no requirements related to engagement or policy advocacy.	Companies should "ensure alignment between policies and actions, including public policy and advocacy".	Companies must demonstrate that their public policy advocacy "supports the goals of the Paris Agreement and does not represent a barrier to ambitious climate regulation".	Within 12 months of committing to net zero, companies must "align external policy and engagement, including membership in associations, to the goal of halving emissions by 2030 and reaching global (net) zero by 2050".	Companies must "align their external policy and engagement efforts, including membership in trade associations, to the goal of reducing global emissions by at least 50% by 2030 and reaching net zero by 2050". Companies should also "contribute to investor, supplier, consumer and employee engagement and work with peers to transform the economic sectors in which they operate". Companies are also encouraged to publicly identify policies that would aid them in achieving net zero targets.
	Equity & just transition principles	Not explicitly addressed.	Net zero targets "should take into account needs for inclusivity, fair share and just transition to global net zero". Companies able to do so are encouraged to set more aggressive interim targets in support of global net zero. Companies are also encouraged to consider how their net zero strategies will contribute to sustainable development goals, climate justice and equity, and other objectives, and take action for "wider positive impact".	Not explicitly addressed.	As a principle, companies should "consider the broader societal/ social consequences and impacts of mitigation actions, including on race, gender and intergenerational equity" and "develop pledges, plans, and actions in consideration of justice, drawing notably on the Sustainable Development Goals and Articles 2 & 4 of the Paris Agreement, as well as its Preamble". Interim targets must reflect a "fair share" of global 2030 reduction targets, and Race to Zero members must "explain how they are operationalizing the idea of fair share".	Net zero targets must "be reflective of [a] … corporation's fair share of the needed global climate mitigation". In addition, companies and financial institutions are encouraged to identify how their net zero transition plans contribute to social and environmental goals in developing countries, and contribute to race, gender and intergenerational equity.

	SBTi Net Zero Standard (Version 1.1)	ISO Net Zero Guidelines	VCMI Claims Code of Practice (June 2023)	UN Race to Zero Campaign Criteria (Version 3.0 – June 2022)	UN HLEG
Fossil fuel sector requirements & guidance	Companies involved in exploration, extraction, mining and/or production of fossil fuels, or which derive 50% or more of their revenue from fossil fuel sales, or which realize more than 5% of their revenue from fossil fuel assets, must await a forthcoming sector-specific methodology to have their targets validated.	Companies should take actions "such as": - "transitioning away from dependence on the use of fossil fuels, including phasing out the use of coal"; and - establishing, applying and disclosing "financing policies to phase out fossil fuels (e.g. halting coal use by 2030 in OECD countries and 2040 in non-OECD countries), both by selling assets and responsibly retiring them, meeting obligations to local ecology and communities".	No explicit requirements.	RtZ criteria call for achieving net zero as soon as possible, "recognising that this requires ... phasing down and out all unabated fossil fuels as part of a global, just transition". The Race to Zero interpretation guide states that each company "shall phase out its development, financing, and facilitation of new unabated fossil fuel assets, including coal, in line with appropriate global, science-based scenarios". The guidance notes that "phasing down and out fossil fuels must be carefully crafted to avoid perverse outcomes, such as inhibiting activities that would involve engaging with fossil fuel assets in order to accelerate their phaseout, or simply passing fossil fuel assets from one owner to another". The RtZ calls on financial institutions to "use sector-specific targets that drive emissions reductions and do not simply shift investment from high-emitting to low-emitting sectors".	The HLEG notes that "[n]on-state actors cannot claim to be net zero while continuing to build or invest in new fossil fuel supply". Company net zero pledges "should include specific targets aimed at ending the use of and/or support for fossil fuels" in line with IPCC and IEA net zero scenarios. This includes specific timelines for ending support for increasing or extending coal production, and ending oil & gas exploration and production. Transitions "must be just for affected communities, workers and all consumers to ensure access to energy, and avoid transference of fossil fuel assets to new owners". Transitions away from fossil fuels "must be matched by a fully funded transition to renewable energy."

Table A-2: Guidelines reviewed, by organization and category. (Please zoom in to view.)

		GFANZ	NZAM	NZAOA	PAAO	NZBA	NZIA	NZFSPA	NZICI	VCA	SBTi Financial Institutions Net Zero Standard (Consultation Draft)	IIGCC Net Zero Standard for Banks
Target-setting	Commitment definition	GFANZ, as an umbrella group, does not specify a net zero commitment that financial institutions must follow. Instead, commitments and target-setting criteria are defined by each GFANZ member alliance. GFANZ has elaborated a framework for "net zero transition plans" for members to follow in realizing the targets they adopt. The framework presumes a general alignment of financial activity with global 1.5°C-aligned net zero pathways. Although GFANZ initially required member alliances to partner with the UN Race to Zero campaign (RtZ), GFANZ no longer requires members to follow RtZ requirements (Jessop 2022).	NZAM members commit to "support the goal of net zero … emissions by 2050, in line with global efforts to limit warming to 1.5C". Members commit to do this by "supporting investing aligned with net zero emissions by 2050 or sooner" and working "in partnership with asset owner clients on decarbonisation goals … across all assets under management".	NZAOA members commit to "transitioning … investment portfolios to net-zero GHG emissions by 2050 consistent with a maximum temperature rise of 1.5°C above pre-industrial levels, taking into account the best available scientific knowledge including the findings of the IPCC".	PAAO members commit to "transitioning … investments to achieve net zero portfolio GHG emissions by 2050, or sooner".	NZBA members commit to "transition all operational and attributable GHG emissions from our lending and investment portfolios to align with pathways to net-zero by mid-century, or sooner, including CO2 emissions reaching net-zero at the latest by 2050, consistent with a maximum temperature rise of 1.5°C above pre-industrial levels by 2100".	NZIA members commit to "[t]ransitioning all operational and attributable greenhouse gas emissions from … insurance and reinsurance underwriting portfolios to net-zero emissions by 2050 consistent with a maximum temperature rise of 1.5°C above pre-industrial levels by 2100 in order to contribute to the implementation of the COP21 Paris Agreement".	Members commit to "support the goal of net zero greenhouse gas emissions by 2050 or sooner, consistent with a maximum average global temperature rise of 1.5°C above pre-industrial levels". To achieve this, members commit to "[a]lign all relevant services and products to achieve net zero greenhouse gas emissions by 2050 or sooner, scaling and mainstreaming Paris Agreement-alignment into the core of our business".* Members also commit to setting science-based emissions reduction targets for their own operational emissions. * Note that financial service providers consist of a diverse set of actors – rating agencies, exchanges, index providers, research providers, investment advisors and auditors – each of which may intepret this commitment in different ways with respect to their own business streams.	NZICI members commit to "support the goal of [global] net zero greenhouse gas emissions by 2050 or sooner". Members also commit to "[s]et emissions reduction targets across all our operational emissions in line with 1.5°C scenarios".	VCA members commit to achieving net zero or negative emissions by 2030 for their own operational emissions. In addition, they commit to encouraging portfolio companies to set targets for net zero alignment by 2050, and to assist portfolio companies to reach these targets, "with the goal of achieving portfolio net zero alignment by 2050".	"Through the alignment of its own portfolio, an FI must reach a state where its financing does not contribute to the accumulation of GHGs in the atmosphere and deliver its fair share of the emissions reductions and removals required to be consistent with 1.5°C pathways."	"Banks should establish a comprehensive commitment to net zero by 2050 or sooner that is consistent with the Paris Goals, including limiting warming to 1.5°C."
	General target-setting requirements	N/A	NZAM members may choose among several methodologies for setting net zero targets (including defining their own). NZAM endorses use of the NZAOA Target Setting Protocol, the SBTi Financial Institutions Net Zero Standard or the PAII Net Zero Investment Framework.	NZAOA has developed a Target-Setting Protocol for members to follow in realizing this commitment. Under the NZAOA Target-Setting Protocol, members must set mutliple kinds of targets: an engagement target; a sector decarbonization (emissions intensity) target; a (sub)portfolio emissions (absolute emissions) target; and a "climate solution" financing target. Members must adopt at least 3 out of these 4 target types, and should adopt all four. Emission targets must be "guided by science and in line with 1.5°C degree no or limited overshoot scenarios".	PAAO members are obligated to follow the Paris Aligned Investment Initiative's Net Zero Investment Framework to set targets and realize their commimtents. Under this framework, targets should be set in line with "science-based pathways that are consistent with achieving net zero global emissions by 2050, or sooner". The Framework calls for a combination of decarbonizing investment portfolios and increasing investment in "climate solutions" (based on the EU taxonomy mitigation criteria).	The NZBA commitment statement and Guidelines for Climate Target Setting for Banks stipulate that emissions targets must be informed by decarbonization scenarios from "credible and well-recognised sources" that avoid overshooting temperature goals, rely conservativley on negative emissions, and are aligned with sustainable development goals.	Like the NZAOA and PAII, the NZIA has developed its own target-setting protocol (published January 2023). The NZIA Target-Setting Protocol identifies five types of targets for re/insurers, within three general target categories: (1) emissions reductions (including targets for overall portfolio emissions reductions and sectoral decarbonization); (2) engagement (covering targets for portfolio coverage and focused engagement with clients); and (3) climate solution transitions (i.e. establishing a target for growing business related to climate solutions). Members must initially (in 2023) commit to setting at least one of these target types. By 2024, members must set at least one type of target within each of the three categories. Emission reduction targets must be based on "decarbonisation scenarios from the latest climate science findings by the IPCC and from other credible and well-recognised sources that lead to the earliest reductions and the least cumulative emissions, in line with a 1.5°C-aligned pathway with no or limited overshoot."	No specific methodologies prescribed.	No specific methodologies prescribed.	No specific methodologies prescribed.	SBTi's proposed standard requires financial institutions to set two types of targets: (1) Portfolio alignment goals, under which institutions must achieve net zero-aligned financial flows. Portfolio alignment goals "must capture and incentivize the change needed in the real economy, both in terms of transition of existing activities and the growth of net-zero aligned activities" (i.e., they should avoid a simple decoupling of portfolios from the real economy to achieve apparent emissions reductions.) (2) Emissions reduction goals, targeting portfolio emissions reductions that result from progressively greater portfolio alignment. To complement emissions reduction goals, SBTi also stipulates that financial institutions must achieve net zero by (in the long term) neutralizing their remaining portfolio emissions through permanent removals.	Banks "should establish a pathway of short, medium and long term targets for reducing real economy emissions associated with their on- and off-balance sheet financing activities that extends to at least 2050". The standard notes that a variety of different types of targets may be necessary, including targets for reducing financed & facilitated emissions, as well as for financing 1.5°C-aligned companies; financing companies which are transitioning to being 1.5°C-aligned; and financing for "transition-enabling activities" (e.g., "climate solutions"). The standard also recommends setting emissions intensity targets for different sectors (focusing on high-emitting sectors, and using physical denominators, e.g., emissions per unit of physical output), and absolute emissions reduction targets. The standard notes that long-term absolute targets should be net zero, but allows for short-term absolute emissions increases where banks may be facilitating the transition of activities in hard-to-abate sectors.
	Interim target requirements	N/A	For the portion of assets managed in line with net zero, members commit to set interim targets for 2030 "consistent with a fair share of the 50% global reduction in CO2" identified as necessary by the IPCC.	Members must commit to setting interim targets within 12 months of joining, in line with the NZAOA Target-Setting Protocol. According to the protocol, portfolio emission targets "shall strive for" CO2e emission reductions "in the range of -22% to -32% by 2025, and -40% to -60% by 2030". Sector-based emission intensity targets must be set by individual members using appropriate modelled sector pathways.	All targets must be set for 10 years or less, and reviewed and updated every 5 years.	NZBA members must set an interim "scenario-based" target for 2030, and may set further interim targets prior to 2030, focusing on GHG-intensive and GHG-emitting sectors. All targets must be reviewed at least every 5 years to "ensure consistency with current climate science".	Members must set interim targets for no later than 2030. Subsequent targets must then be set at 5-year intervals, starting with 2035. (Sectoral decarbonization targets may cover a period up to 10 years, but must be reviewed/updated on 5-year schedules.) Initial overall emission reduction targets must be set "in line with a range of 34% to 60% [or greater] reduction for the period of 2019 to 2030"; however, less stringent targets may be adopted for some world regions.	NZFSPA members commit to "[s]et an interim target for relevant services and products offered to be aligned to the net zero transition which is consistent with a fair share of the 50% global reduction in carbon emissions needed by 2030" and to "[r]eview and update such targets at least every five years with a view to increasing the proportion of services and products to achieve full alignment". Interim targets must be set for 2025 that are "pertinent to each subsector". For operational emissions, members commit to set interim targets for "no later than 2030 across all operational emissions."	The NZICI commitment statement indicates that meeting Paris goals globally will require "greenhouse gas emissions to drop by half by 2030 and reach net zero around mid-century", and guidance suggests that members should assist their clients in setting interim targets consistent with this goal. For own operations emissions, members are expected to set an interim target for reduction for 2030.	Not specified (other than to achieve net zero or negative emissions for members' own operations by 2030).	Proposed options include setting an intial target at (1) no more than 5 years from validation or (2) for 2030. Additional interim targets must then be set at 5 year intervals after the initial target.	The standard encourages banks to "establish a pathway of short [and] medium" term targets, but otherwise does not offer requirements or guidance for the timing and ambition of these targets.
	Scope of targets	N/A	NZAM targets must cover a growing portion of assets under management (AUM). Members must initially set an "interim" target for the proportion of assets to be managed in line with net zero, and commit to review this target at least every 5 years "with a view to ratcheting up the proportion of AUM covered until 100% of assets are included". For covered assets managed in line with net zero, members commit to "take account of portfolio Scope 1 & 2 emissions and, to the extent possible, material portfolio Scope 3 emissions".	Portfolio emission targets must cover corporate & infrastructure equity and debt finance, real estate, and public debt – with specific asset sub-classes phased in over time to eventually cover all portfolio emissions. In terms of emissions, targets shall cover asset owners' scope 3 emissions (including financed emissions), and should cover their own scope 1 and 2 emissions (which are typically <5% of scope 3). NZAOA members are required to set targets only for the scope 1 & 2 emissions of companies in their portfolios. Asset owners should set targets for the scope 3 emissions of individual portfolio companies "as soon as possible". At a portfolio level, however, "the Alliance requirement is that members should track, but not yet set targets on Scope 3 emissions until interpretation of these emissions in a portfolio context becomes clearer and data becomes more reliable". This leaves a potentially significant gap in target coverage for the oil & gas sector, for example, since emissions from the use of fossil fuels would fall under scope 3. Separately, the NZAOA Target-Setting Protocol requires asset owners to set sector decarbonization targets for the oil & gas sector. However, while recommended emissions intensity metrics for such targets include all emission scopes (including end-use emissions), NZAOA does "not currently recommend setting carbon-intensity-based Scope 3 sector targets for oil and gas in the short term" due to "data availability and lack of consistent metrics for Scope 3".	Portfolio targets must cover listed equity and corporate fixed income, and real estate. According to the PAAO commitment statement, targets must cover scope 1, 2 and 3 emissions associated with asset owner portfolios. However, the PAII Investment Framework indicates scope 3 coverage may be phased in over time, and that scope 3 targets "should be set and reported on separately given measurement and aggregation challenges". Members further commit to a 2030 (or earlier) target for "increasing investment in climate solutions, consistent with a fair share of the 50% global reduction in CO2 identified as a requirement in the Intergovernmental Panel on Climate Change special report on global warming of 1.5°C". Separately, members commit to setting and achieving net zero targets associated with their own operational (scopes 1 and 2) emissions. Although not covered in the PAAO commitment statement, the PAII Investment Framework also stipulates that investors should set an an "engagement goal" ensuring at least 70% of financed emissions in "material sectors" are either "assessed as net zero, aligned with a net zero pathway, or the subject of direct or collective engagement and stewardship actions". The threshold should increase "to at least 90% by 2030 at the latest".	Targets must cover lending activities and should cover investment activities. Underwriting activities are excluded. Off-balance sheet activities, including facilitated financing activities (underwriting), may be considered in future guidelines. Targets must cover banks' scope 1, 2, and 3 emissions. Banks' scope 3 emissions "should include their clients' Scope 1 and 2 and Scope 3 emissions, where significant, and where data allow". Targets must be set for absolute emissions and/or emissions intensity. Targets are expected to cover "a majority" of banks' scope 3 financed emissions, with coverage expanding between each review period (scope 3 emissions for the oil and gas sectors must be included from 2021 onwards "where data allow", and by 2026 scope 3 emissions must be included for all sectors for which targets are set "where significant and where data allows"). Sector-level targets must be set for all, or a "substantial majority" of, carbon-intensive sectors. Targets must include the emissions of any clients with more than 5% of their revenue coming from "thermal coal mining, and electricity generation activities".	Following the NZIA Target-Setting Protocol, targets must be set at the parent company or group level, and cover a subset of commercial, statutory and personal business lines based on available methodologies from the Partnership for Carbon Accounting Financials (PCAF). Members commit to addressing their own operational emissions (scopes 1, 2, and 3) and emissions associated with their investments, along with emissions associated with their underwriting portfolios. However, the NZIA Target-Setting Protocol focuses only on emissions associated with underwriting; members are encouraged to join related initiatives (such as NZAOA) with respect to their assets and investments. For underwriting within identified business lines, the scope of targets is largely up to individual members' discretion. Target boundaries must cover "material and relevant" portions of member portfolios "where reliable data is available" (emphasis by NZIA). Members must explain their choice of boundary. Members should expand the scope of targets over time (and NZIA may provide additional requirements and guidance for doing so in the future); they are also encouraged to set targets for scope expansion. Data availability – especially for members whose portfolios comprise smaller non-listed companies and/or individuals – is identified as a significant near-term obstacle for scope expansion.	Service provision targets must cover "all relevant services and products". For service providers, however, targets are not necessarily emissions-based, but rather reflective of various indicators related to "alignment" of services and products with net zero goals, such as promoting "climate themed" products and engaging with clients. Operational targets for service providers themselves must cover scopes 1 and 2, and "where material" scope 3 emissions.	The NZICI commitment applies to investment advisory services, fully discretionary services and own business operations. Only business operations are subject to an explicit emissions target, covering scopes 1 and 2. For fully discretionary services, members commit to "align with the Net Zero Asset Manager Initiative as soon as practically possible". For investment advisory services, the commitment is focused on supporting client transitions to net zero.	VCA members' own emissions targets cover scopes 1, 2, and 3, with the exclusion of financed emissions for scope 3. Scope and coverage with respect to portfolio targest is unspecified. Further clarification may be forthcoming once the VCA adopts a methodology for assessing net zero alignment.	Targets must cover a subset of all "financial activities", both on- and off-balance sheet (i.e., both financed and facilitated emissions), that fall within a financial institution's organizational boundary (defined at the parent company or group level). The standard refers to this as "Scope 3, Category 15+" (SBTi has adopted an expansive definition of facilitated emissions). The required subset of "in scope" financial activities is determined by (1) the availability of methods for greenhouse gas accounting and target setting for the financial activity in question; and (2) the degree of direct or indirect influence a financial institution may have over the underlying greenhouse gas emissions linked to the activity. SBTi has identified a preliminary list of required "in scope" financial activities. Target-setting criteria are focused on portfolio alignment, and may be defined at different levels of aggregation (e.g., company, sector or cross-sector) using a variety of prescribed methods (e.g., sectoral decarbonization, portfolio coverage or temperature rating). In addition to portfolio alignment targets, activity-level targets must be defined with regard to SBTi's fossil fuel finance policy (see below). Note: The FI Net Zero standard covers financed and facilitated emissions; FIs are separatley expected to also set targets for their own scope 1, 2, and remaining scope 3 emissions.	Banks' net zero commitments "should cover all on- and off-balance sheet activities, as well as operational emissions. Where this is not yet done, banks should explain or publish plans to expand the scope of commitments over time." The standard envisions expanding the coverage of financed & facilitated emissions over time: targets should "eventually cover all of a bank's business activities, including corporate lending, loans to sovereigns or public entities, underwriting, project financing, acquisition financing, asset-backed financing and asset management". The standard acknowledges a lack of available methodologies for assessing facilitated emissions, but neverthless encourages banks to "pursue efforts to" set targets for these. Banks are also expected to set targets for their own operational emissions (scopes 1 & 2).
Implementation requirements	Commitment required at Board level?	"Where appropriate and possible…"	No	No	Board or "investment committee" level	Yes	No	No	No	No	"FIs should make portfolio alignment with the Paris Agreement a board priority—including explicit attribution of this responsibility within the board" (emphasis added).	Yes
	Specification of plans and actions	GFANZ has developed a voluntary framework for financial institution net zero transition plans (FI NZTPs), which can inform the approaches of member alliances. The framework calls for financing and enabling: (a) entities or activities associated with climate solutions; (b) entities that are already aligned with a 1.5°C pathway; (c) entities that are committed to transitioning to a 1.5°C-aligned pathway; and (d) the accelerated managed phaseout of high-emitting physical assets. The transition planning framework is supported by three main GFANZ guidance documents on (a) measuring portfolio alignment, (b) expectations for real-economy transition plans, and (c) managed phaseout of high-emitting assets. The first presents a framework for assessing portfolio alignment with net zero targets, based on forward-looking assessments of client and portfolio company transition plans. The expectations document provides guidance on the essential elements of net zero transition plans for individual companies, which FIs may use to inform transition plans and portfolio alignment. The managed phaseout document provides rationales and principles for accelerating the phaseout of carbon-intensive assets. (These documents are all further supplemented by guidance on how to use sectoral pathway analysis to inform transition plans.)	NZAM members commit to "[a]s required, create investment products aligned with net zero emissions by 2050 and facilitate increased investment in climate solutions" and "[p]rovide information to asset owner clients with information and analytics on net zero investing and climate risk and opportunity". Members commit to publishing "climate action plans".	The NZAOA Target-Setting Protcol prescribes multiple kinds of targets consistent with asset owners' overall commitment to transitioning their investment portfolios. This implies that members will plan and take actions related to engagement, supporting sectoral decarbonization (emissions intensity), reducing portfolio emissions (absolute emissions) and funding climate solutions. NZAOA calls on members to "immediatley" develop transition plans. Little guidance is provided for transition plans, but as members of GFANZ, NZAOA members may follow GFANZ's general guidance. The NZAOA commitment statement emphasizes engagement strategies as a means to achieving targets: members pledge to "seek to reach this Commitment, especially through advocating for, and engaging on, corporate and industry action, as well as public policies, for a low-carbon transition of economic sectors in line with science and under consideration of associated social impacts".	PAAO members commit to publishing an Investor Climate Action Plan for achieving their targets (following, for example, guidance from the Task Force on Climate-related Financial Disclosures). They also explicitly commit to "[i]mplementing a stewardship and engagement strategy, with clear voting policy that is consistent with an objective for all assets in the portfolio to achieve net zero emissions by 2050 or sooner". Engagement includes engaging with asset managers, other financial institutions, consultants, and service providers to ensure that their funds, products, and services are consistent with net zero objectives. The PAII Investment Framework highlights several strategies for achieving targets, including incorporating climate-related considerations into strategic asset allocation decisions, asset class alignment, and policy advocacy and market engagement.	Within 12 months of setting a target, NZBA members must publish a "high-level transition plan" identifying a timeline for "categories of actions expected to be undertaken" to meet targets. Categories of actions may include client engagement, exclusion policies, divestment, capacity building, development of new tools and products, assessment of portfolio alignment, assessment of portfolio exposure/risks, development of policies, public policy positions and advocacy for government/regulatory action, and strategy to grow customer base.	NZIA members commit to realizing targets "in such a manner that is at the discretion of my company and in accordance with applicable laws and regulations" through setting underwriting criteria and guidelines; engaging with high-emitting clients on decarbonization strategies; developing products for companies engaged in climate solutions; improving claims management in line with net-zero objectives; and incorporating "independently determined and company-specific" net zero-related criteria into risk management frameworks. Members also commit to supporting relevant disclosure frameworks, supporting net zero-aligned public policies, and engaging with peers and other financial institutions.	NZFSPA members commit to building internal capacity to understand net zero risks and opportunities; "consistently raise" with stakeholders the importance of adopting net zero targets and strategies; work to ensure that products and services "take into account the best available climate science"; support innovation and the development of products and services that support net zero transitions; and "proactively engag[e]" with stakeholders and policymakers on corporate climate action and public policy.	With respect to investment advisory services, NZICI members commit to integrate advice on net zero alignment with their clients; work with institutional asset owners to identify climate risks and align their portfolios with net zero; help clients "prioritize real economy emission reductions"; and build assessments of asset manager progress towards net zero into their client recommendations.	Members commit to assisting their clients in setting and achieving net zero targets. Otherwise, not addressed.	SBTi's draft standard identifies three main elements of financial institution net zero strategies: (1) "incentivizing, engaging, and enabling" decarbonization of portfolio emissions (including managed phase down and phaseout of high-emitting assets); (2) stopping finance for further development of high-emitting assets; (3) financially supporting the growth of a net zero-aligned economy (e.g., financing "climate solutions"). Guidance related to influence or engagement strategies is limited; however, SBTi recommends consideration of measures such as adopting climate-related investment principles and policies (including within strategic asset allocation policies), establishing climate-related governance structures and developing tools to measure impact.	Banks "should provide a clear plan, with milestones, as to how they will achieve their net zero goals across financing and facilitated emissions, and operational emissions, together with critical assumptions and dependencies for the successful delivery of the strategy and achievement of their targets." The standard allows for flexibility in the content of plans and individual bank strategies, "but the underlying expectation is that banks should support their clients to align their strategies with a 1.5°C pathway".
	Reporting, verification, and disclosure	No explicit guidance is offered, though GFANZ notes that "financial institutions should be transparent about key elements of their transition plan in a clear, consistent, and comparable way". GFANZ also "recommends that financial institutions disclose their net-zero transition plans, including interim targets, to stakeholders and disclose progress against their plans with their climate disclosures at least annually". GFANZ guidance includes some suggestions on disclosure content.	Members commit to "[p]ublish TCFD disclosures, including a climate action plan, annually, and submit them to the Investor Agenda via its partner organisations for review to ensure the approach applied is based on a robust methodology, consistent with the UN Race to Zero criteria, and action is being taken in line with the commitments made here".	NZAOA members commit to setting and publishing interim targets within 12 months of joining, and are required to "be transparent regarding the scenarios they use to inform their targets". Members also commit to publicly disclosing, on an annual basis, their progress towards meeting interim targets, as well as reporting on such progress to the NZAOA using a standard reporting tool. The NZAOA compiles such reporting into annual progress reports for the alliance. NZAOA does not prescribe how individual members must publicly disclose information on their targets and progress (this is up to individual members).	PAAO members commit to "[d]isclosing objectives and targets, and publishing a clear Investor Climate Action Plan for achieving these goals as soon as possible" no later than one year from making a commitment. They must also report annually on "the strategy and actions implemented and progress towards achieving objectives and targets", in line with TCFD recommendations. The PAII itself does not maintain a specific reporting standard or platform, but encourages members to "implement disclosures in line with regulatory requirements and specific best practice relevant to their jurisdiction".	NZBA members agree to annually publish their progress in achieving targets and implementing transition plans "following relevant international and national GHG emissions reporting protocols". Banks are "encouraged" to seek "independent limited assurance" (independent verification) with respect to their reporting.	NZIA members were initially required to publish targets within 6 months of the publication of the NZIA Target-Setting Protocol (in January 2023), or within 6 months of joining the initiative. This requirement has since been relaxed. Once targets are published, members commit to "independently report publicly on an annual basis in whatever form and detail they consider appropriate on the progress against such individual intermediate targets". The target-setting protocol requires only that members use "offical channels for independent disclosure and reporting". The NZIA target setting protocol notes that in the future it intends to "recommend a target-setting validation process."	NZFSPA members commit to "[r]eport progress, individually as firms signing this Commitment, at least annually, including publishing disclosures aligned with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD) and climate action plans".	NZICI members commit to reporting annually on progress towards their commitments "in the public domain". Guidance indicates that members will "[t]o the extent possible, … report via platforms that feed into the UNFCCC Global Climate Action Portal, such as Principles for Responsible Investment (PRI) reports".	Members commit to annually share information on progress towards their commitments. Such disclosure "may not include detailed company-by-company emissions data or other information we are not authorized to share but will provide enough clarity for a pre-approved, independent third party to determine whether our firm is on the right track".	Financial institutions must release annual public reports on their progress towards meeting published targets, including through the reporting of complete GHG inventories and disclosure of target indicators. Targets must be submitted to SBTi for validation, and must be reviewed and (if necessary) recalculated and revalidated at least every 5 years.	Banks are expected to regularly disclose their financed and facilitated emissions on both an absolute and sector emissions intensity basis, and annually report on climate risk exposure following TCFD recommendations. Audits are expected to test "management assumptions and judgements for the consistency with climate-related disclosures".
	Role of carbon credits	The FI NZTP framework states that the "primary focus" of FIs should be on "decarbonisation and real-economy emission reductions" within financial instituion value chains, but that FIs "may use" carbon removal credits to neutralize residual emissions. In addition, the NZTP suggests that FIs may opt for a "high ambition path to net zero" where carbon credits are used to compensate for emissions alongside (but not in lieu of) decarbonization efforts.	If using offsets, members commit to "invest in long-term carbon removal, where there are no technologically and/or financially viable alternatives to eliminate emissions".	In line with GFANZ guidance, NZAOA emphasizes that carbon credits are "complementary instruments". Specifically, NZAOA members "shall not use carbon removals for their own sub-portfolio or sector target achievement at this time or at any time before 2030". However, members are "highly encouraged to contribute to a liquid and well-regulated carbon removal certificate market before 2030 as such a market is important for accelerating decarbonisation". While the emphasis is on carbon removals as a complement to net zero strategies, NZAOA guidance also suggests that carbon credits for avoided emissions may be used to "compensate" for emissions as part of strategies to contribute to the development of carbon markets. NZAOA's target setting protocol also calls on asset owners to "encourage investees to prioritise abatement," and emphasizes that investee companies "shall not use carbon removals exceeding emission levels indicated by broadly accepted sector pathways aligned with 1.5°C ('residual emissions' as defined by science-based sector pathways) to claim net-zero target achievement." Furthermore, investee companies are required to only use carbon credits associated with "long-lived storage" (following the Oxford Principles for responsible offsetting).	PAAO members commit to using offsets only "where there are no technologically and/or financially viable alternatives to eliminate emissions" and to invest in "long-term carbon removals" where necessary to offset emissions. Along these lines, the PAII Investment Framework notes that "[a]s a general principle, investors should not use purchased offsets at the portfolio level to achieve emissions reduction targets." The document indicates that PAII plans to further investigate the appropriate use of offsetting in specific sectors.	The NZBA commitment statement indicates carbon offsets can play a role to "supplement" decarbonization goals. Offsets used for achieving net zero should be restricted to carbon removals to "balance residual emissions where there are limited technologically or financially viable alternatives to eliminate emissions".	The NZIA Target-Setting Protocol forbids counting carbon offsets towards the achievement of members' emissions reduction targets. A footnote clarifies that "carbon offsets only feature in real-economy GHG accounting, and thus cannot be transferred to IAE accounting and used against IAE reduction targets". However, members may support carbon offset projects through, for example, their engagement and service provision targets. The NZIA Target-Setting Protocol notes that removals are important for long-term net zero target-setting and NZIA therefore intends to address removals in future protocol versions.	Members commit to following "best practices" with respect to net zero methodologies, including the incorporation of "best methodologies" for use of carbon offsetting. (No further guidance or commitment is given.)	NZICI guidance indicates that members "will advise their clients that carbon offsets should be reserved for emissions that occur because there are no technologically and/or financially viable ways to eliminate emissions. The role of offsets is expected to be primarily to neutralize residual emissions, enabling clients to attain the state of net zero emissions in their portfolios."	Not addressed.	As under the SBTi corporate net zero standard, carbon credits may not be counted towards achievement of portfolio alignment or emissions reduction targets. However, carbon credits associated with permanent removals may be used to neutralize residual emissions "by the net zero target year". SBTi's standard for financial institutions proposes two options for who may achieve neutralization: (1) FIs may directly neutralize their residual portfolio emissions (through carbon credits, or net removals achieved by portofolio companies); or (2) FIs rely on their portfolio holdings to each neutralize their own residual emissions.	Carbon offsets "should not be counted" against financed and facilitated emissions targets, and their use should be minimized for achieving operational emissions targets.
Principles and guardrails	Engagement & advocacy	Engagement is a core theme of the FI NZTP framework, which provides guidance on engaging with clients and portfolio companies, financial sector peers and industry associations, and governments. In particular, the guidance notes that "[d]irect and indirect lobbying and public-sector engagement should, in a consistent manner, support an orderly transition to net zero, and as appropriate, encourage consistency of clients' and portfolio companies' lobbying and advocacy efforts with the institution's own net-zero objectives".	Members commit to implementing stewardship and engagement strategies "consistent with our ambition for all assets under management to achieve net zero emissions by 2050 or sooner", and to engage with other financial sector actors "to ensure that products and services available to investors are consistent with the aim of achieving global net zero emissions by 2050 or sooner". Members also commit to "[e]nsure any relevant direct and indirect policy advocacy we undertake is supportive of achieving global net zero emissions by 2050 or sooner".	Engagement and advocacy are core elements of the NZAOA commitment; engagement is a primary means by which members are expected to achieve their targets. Members are required to set "engagement targets" related to corporate, sector, and asset manager engagement. A key focus is engagement with asset managers. Members are required to educate asset managers about how they "are representing the asset owner's long-term climate interests" and to increase alignment of their interests with respect to achieving net zero. Recognizing the importance of private asset classes, the NZAOA has also published a "call to action" targeted at private market asset managers. Members are encouraged to develop key performance indicators (KPIs) for tracking engagement, and to develop escalation strategies when engagement expectations are not being met. NZAOA also encourages members to join collaborative engagement initiatives such as Climate Action 100+. Finally, NZAOA encourages members to support policy action by gov gh support of NZAOA-led policy advocacy efforts. As part of this, members "should review their membership and participation in all industry associations and organisations" and "consider taking an advocacy position within organisations that do not align their own advocacy with the Paris Agreement and the goals of the Alliance".	As noted above, engagement both with other financial sector actors and policymakers is a core element of PAAO members' net zero implementation strategies. Members also commit to "[e]nsure any direct and collective policy advocacy we undertake supports policy and regulation relevant for achieving global net zero emissions by 2050 or sooner".	Engagement – with clients, other financial institutions, industry and governments – is identified in the NZBA commitment statement as a key strategy for realizing net zero targets. The NZBA Transition Finance Guidance emphasizes client engagement as a key priority.	Engagement approaches – with clients, prospective clients, peer institutions and governments – are identified as core components of members' net zero strategies. The target-setting protocol explicitly notes that "re/insurance contracts create no ownership or transfer of equity/loan and do not result in financial or direct operational control of re/insureds. In some cases, the client may not even be a company. This is important as re/insurers rely on having an ongoing relationship to support and encourage clients on their transition."	NZFSPA commitments and targets are largely (if not entirely) premised on engagement with clients and stakeholders to encourage their alignment with net zero transitions.	Members commit to engage with partners in the financial community to develop methodologies for net zero alignment, and to engage "independently or as a group" with regulators and policymakers to address barriers faced by their clients in transitioning to net zero.	Members commit to assisting their clients in setting and achieving net zero targets. Otherwise, not addressed.	The SBTi standard envisions that FIs will achieve their targets through engagement with portfolio companies and activities. Standard guidance also suggests that financial institutions should publicly commit "to support policies that aim to reduce emissions in line with the Paris Agreement, be transparent about lobbying activities and related expenditures, and exit third-party organizations (e.g., business and trade associations) that promote policies that pose a risk to the Paris Agreement".	Engagement with clients and sectoral initiatives are highlighted as potential strategies for achieving targets. The standard also emphasizes policy engagement, including reviews to ensure that both direct and industry-association lobbying efforts are aligned with net zero goals.
	Statement on the role of public policy	"GFANZ recognizes that financial institutions implementing the recommendations and guidance contained in this report will face challenges. The private financial sector's actions will influence the pace and shape of the transition but will be more effective with ambitious policy action from governments in line with the net-zero pledges they have made. Additional action may be needed from government and other actors in the ecosystem, particularly relating to business with or investment in high-emitting sectors and emerging markets and developing economies."	The NZAM commitment statement says: "We also acknowledge that the scope for asset managers to invest for net zero and to meet the commitments set forth above depends on the mandates agreed with clients and clients' and managers' regulatory environments. These commitments are made in the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met, including increasing the ambition of their Nationally Determined Contributions, and in the context of our legal duties to clients and unless otherwise prohibited by applicable law."	NZAOA highlights the necessity of government action to enable the achievement of its members' net zero targets. The NZAOA commitment statement explicitly notes that commitments are made "with the expectation that governments will follow through on their own commitments to ensure the objects of the Paris Agreement are met". NZAOA's Position on the Oil and Gas Sector document expressly calls on governments to "implement ambitious policy frameworks that provide the certainty and stability for businesses to make capital investment decisions that are aligned with a 1.5°C transition", including through carbon pricing, subsidies, infrastructure investment, not permitting new fossil fuel supply and mandatory disclosure policies.	The PAAO commitment statement explicitly says that "[o]ur commitment is based on the expectation that governments and policy makers will deliver on their commitments to achieve the 1.5°C temperature goal of the Paris Agreement, and in the context of fulfilling our fiduciary obligations".	The NZBA commitment statement states that members "make this Commitment with the expectation that governments will follow through on their own commitments to ensure that the objectives of the Paris Agreement are met".	According to the NZIA Target-Setting Protocol: "The NZIA Commitment is made with the expectation that governments will follow through on their own commitments under the Paris Agreement.… NZIA members rely on the intergovernmental ambition established under the Paris Agreement". "The NZIA and its members … acknowledge that they cannot deliver a net-zero future on their own without comparable commitments from governments and wider industry actors (including intermediaries). If the actual speed of decarbonisation across the broader global economy lags too far behind a net-zero compatible pathway, NZIA members might not be able to achieve their stated targets. The NZIA may need to tolerate a 'buffer' behind the scientific pathways in future iterations of the Protocol to reconcile members' ambition to reach net zero with the need to continue to provide insurance capacity to activities essential to the global economy and society."	Members make their commitments "with the understanding that our clients and stakeholders, including regulators, policy-makers and standard-setters, will endeavor to facilitate these objectives".	NZICI guidance indicates that members' commitments are made "in the expectation that governments will follow through on their commitments to ensure the objectives of the Paris Agreement are met". In addition, the NZICI commitment statement notes that commitments are made "in the context of [members'] legal and fiduciary duties to clients and unless otherwise prohibited by applicable law. [Commitments are] subject to the mandates agreed with … clients and their regulatory environments."	Not addressed.	Not addressed.	The standard encourages banks to identify "critical assumptions and dependencies" for achieving their targets, which "would be expected to include advances in public policy and regulation, progress and breakthroughs in technology innovation and changing consumer demand".
	Equity & just transition principles	The FI NZTP notes the importance of a "just transition" to net zero, and encourages FIs to disclose how they approach just transition principles as part of their plans, but GFANZ identifies this as an area for further work and elaboration.	Not explicitly addressed.	Just transition is identified as an important consideration in the NZAOA Target-Setting Protocol, although NZAOA considers a work program on just transition to be "presently out of scope". Members are encouraged to give "due consideration for societal impacts" in realizing their commitments.	The PAII Investment Framework mentions incorporating just transition principles in decisions related to asset class alignment and selective divestment. However, these considerations are not discussed at length.	Banks commit to setting targets based on scenarios that "minimise misalignment with other Sustainable Development Goals".	The NZIA Target-Setting Protocol notes that "re/insurance strategies dealing with climate change must consider the social consequences that a rapid net-zero transition might cause, while ensuring that it is inclusive and that no one is left behind.… Re/insurers should recognise that not all regions, countries or communities can be expected to transition at the same pace. Re/insurers should consider different decarbonisation trajectories for identified segments of their own portfolios and adapt their individual engagement to facilitate their net-zero transition strategies to address these disparities, while monitoring that the average pace of their overall portfolio emissions reductions remains in line with the necessary global ambition."	Not explicitly addressed by the NZFSPA commitment statement. The NZFSPA target-setting guidance for exchanges indicates that targets should be "developed in a manner that recognises … the principle of just transition".	NZICI guidance notes that "good governance and the social factors for a just transition are integral to the successful achievement of net zero". Otherwise, equity and just transition are not explicitly addressed.	Not addressed.	The SBTi standard addresses just transition concerns in the context of fossil fuel phaseout requirements, with longer phaseout times allowed for projects and companies located in middle- and low-income countries. Beyond this, no guidance is provided on how financial institutions might support equitable and just transition strategies (e.g., through retraining, support for affected communities and alternative development financing).	Banks "should identify potential social impacts associated with their net zero strategy and set out how they intend to help address these by maximising social benefits of the transition, and minimising potential harms". In doing so, banks "should consider both the impacts associated with the growth of transition-related activities (e.g. impacts on communities due to mining of critical metals), and the impacts associated with the decline of carbon intensive activities (e.g. loss of jobs due to retirement of coal mines)". Banks should also "publish policies that support 'Just Transition'-related outcomes across different activities, e.g. Just Transition-related requirements in covenants and conditions, and pre-investment screening. To assist with this, banks should appropriately incorporate relevant recommendations in the ILO Guidelines for a Just Transition, and engage with clients to help ensure adherence to the UN Declaration on the Rights of Indigenous Peoples, including the right to free, prior, and informed consent."
	Fossil fuel sector requirement & guidance	No explicit policy or guidance on financial support of fossil fuel companies, aside from general recommendations to support companies "aligned" or "aligning" with net zero pathways, and to manage the phaseout of high-emitting assets. In supplemental information to the FI NZTP framework, GFANZ identifies parameters around which individual FIs could establish oil & gas secotor finance or investment policies. Parameters include policy scope (e.g., types of activities or fuel sources affected), conditions, exclusions and timelines. The information notes that few (if any) FIs currently have policies addressing timelines for phaseout or divestment.	NZAM requires members to cease investment in new thermal coal power projects and to adopt a "robust and science-based policy … in relation to fossil fuel phase out". To these ends, members are expected to adopt policies in line with the stated positions of at least one of the following: the Paris-Aligned Investment Initiative's Net Zero Investment Framework; the Investor Agenda; the Science Based Targets initiative for Financial Institutions; the Net Zero Asset Owner Alliance (position on coal assets); or the Powering Past Coal Alliance. Note that, with the exception of SBTi, these positions focus primarily or exclusively on proscribing support for new coal, not for new oil and gas (e.g., NZAM endorses the NZAOA position on coal assets, not its position on oil and gas assets).	NZAOA calls for refusing to finance new coal assets, canceling new thermal coal projects in the pre-construction phase and phasing out existing coal-fired generation. NZAOA's March 2023 Position on the Oil and Gas Sector document notes that members "shall not" provide new finance to coal, oil and gas assets (and associated infrastructure) that are not aligned with 1.5°C net zero pathways. Along these lines, asset owners should avoid funding new oil and gas fields, new pipeline infrastructure, new refineries and petrochemical facilities, oil-fired power generation (new or old), new unabated baseload gas generation and new gas infrastructure, unless such infrastructure is "designed with carbon reduction measures sufficient to align" with appropriate net zero pathways. The paper notes, however, that "some investors may choose to continue investing in new oil and gas infrastructure in exceptional circumstances". The document also calls on major producers and users of oil and gas to set independently validated, science-based emissions reduction targets covering all scopes (including scope 3 end-use emissions), and to publish transition plans for fulfilling these targets. However, the guidance does not explcitly prohibit asset owners from investing in companies engaged in the development of new oil and gas production or infrastucture, except where this occurs in "sensitive environments" (such as the Arctic or deep ocean).	The PAII Investment Framework recommends exclusion of new financial support for companies engaged in new thermal coal and tar sands projects and infrastructure, and – where investors already have existing holdings in these companies – recommends working with them to instead phase out unabated coal and tar sand assets "in line with net zero pathways". The guidance notes that "investors should recognise the need for a just transition in countries or regions where there is significant economic dependence on thermal coal power or mining".	Apart from requiring banks to set targets for all sectors using scenarios consistent with 1.5°C-aligned net zero scenarios, NZBA does not prescribe any policies on fossil fuel lending or investments. Although NZBA is formally a UN Race to Zero campaign partner, it published a letter in October 2022 indicating that "RtZ does not have the ability to impose requirements either on the NZBA as a whole or on individual members". This was ostensibly in response to RtZ's new criteria and guidance related to fossil fuel investments (Bindman 2022).	Not explicitly addressed.	Not explicitly addressed.	Not explicitly addressed.	Not addressed.	SBTi's proposed standard requires an "immediate cessation" of new financial flows to coal-related companies and projects (with the exception of decommissioning activities) and an immediate cessation of new finance to unabated oil and gas projects as well as companies engaged in oil and gas supply or capacity expansion. SBTi also proposes that financial insitutions must set transition targets for fossil fuel companies and projects subject to existing financial flows, along with phasing out financial flows to unaligned companies and projects on a schedule that varies according to country income level (see below).	Banks "may wish to consider policies covering the details of how they will avoid financing or facilitation" of new coal activities, new "long lead-time" conventional oil & gas activities, and various types of unconventional oil & gas extraction, along with unabated gas-fired power generation that is not consistent with achieving net zero power sector emissions.
	Position on divestment vs. managed phaseout?	GFANZ explicitly endorses a managed phaseout approach for high-emitting assets, as a core part of net zero transition plans. It also endorses engagement with companies to assist them in aligning with net zero (though does not explicitly rule out support for companies engaged in fossil fuel capacity expansion). GFANZ guidance notes that divestment approaches may fail to yield real-world emissions reductions. In 2022, GFANZ indicated its intention to produce guidance related to identifying and assessing net zero-aligned pathways for oil & gas companies; publication was slated for early 2023 but has been delayed.	Not explicitly addressed. However, members commit to "[p]rioritise the achievement of real economy emissions reductions within the sectors and companies in which we invest".	The NZAOA Position on the Oil and Gas Sector document notes that investors have "two main levers" for supporting low-carbon transitions in the real economy: decisions related to portfolio asset allocation and stewardship activities. Portfolio allocation options can include investing in companies that are "transition ready" (e.g., those that are well-managed, efficient and not invested in high carbon-intensity or risky supply options). Note that "transition ready" does not necessarily imply that companies are "aligning" with net zero (per GFANZ recommendations) – only that they are better positioned than competitors in the context of a broader sectoral (e.g., policy-driven) transition. Portfolio allocation measures may also involve "selective divestment" from companies that asset owners consider to be "laggards" (e.g., those engaged in unconventioanl production or non-net zero-aligned expansion plans). Stewardship guidance focuses on engaging with fossil fuel companies to adopt science-based targets and transition plans, including through more effective engagement on shareholder resolutions. NZAOA does not directly address strategies for managed phaseout of individual high-emitting assets.	The alliance favors managed phaseout approaches over divestment, but acknowledges both approaches may have a role: "Overall, the PAII recommends that an investment strategy should prioritise engagement and stewardship and direct management (where relevant), particularly for existing assets, as the primary mechanism to drive alignment. Portfolio construction can also be a relevant tool to weight portfolios towards assets aligned or transitioning towards net zero as an incentive for these companies to align. Selective divestment is recommended in specific circumstances as part of the toolbox for aligning a portfolio."	NZBA target-setting guidelines endorse a range of strategies for achieving banks' net zero targets, including exclusion policies and divestment. Although the NZBA has published offical guidance on transition finance that welcomes managed phaseout approaches, it does not formally endorse managed phaseouts as a preferred approach.	Not explicitly addressed.	Not explicitly addressed.	Not explicitly addressed.	Not addressed.	SBTi identifies engagement with fossil fuel companies as a "first best" option for promoting 1.5°C-aligned transitions, and requires financial institutions to set engagement targets related to fossil fuel companies in their portfolios. However, SBTi sets limits on such engagement strategies, requiring that financial institutions phase out financial flows to fossil fuel companies if engagement fails to bear fruit within 2 years. In addition, the proposed SBTi standard requires financial institutions to phase out "all financial activities linked to unaligned companies and projects" according to specified time frames, which vary by the income level of the countries where the companies/projects operate.	Banks should plan for "both phasing out financing of inconsistent activities which present particular risks … while pivoting financing towards climate solutions". The standard identifies providing "explicitly transition-linked financing and facilitation of carbon-intensive borrowers" as a key target area and strategy, but does not explicitly identify a preference for managed phaseout or transition over withholding financing.
Sources:		GFANZ Recommendations and Guidance on Financial Institution Net Zero Transition Plans (FI NZTP) GFANZ Towards a Global Baseline for Net Zero Transition Planning GFANZ Measuring Portfolio Alignment GFANZ Expectations for Real Economy Transition Plans GFANZ The Managed Phaseout of High-Emitting Assets	The Net Zero Asset Managers Commitment Net Zero Asset Managers initiative: Network Partners' expectation of signatories with regard to fossil fuel investment policy	NZAOA Position on the Oil and Gas Sector NZAOA Target-Setting Protocol, Third Edition NZAOA Commitment Document for Participating Asset Owners NZAOA Aligning Climate Policy Engagement with Net-Zero Commitments NZAOA Call to Action to Private Market Asset Managers The Net in Net Zero: The Role of Negative Emissions in Achieving Climate Alignment for Asset Owners	Paris Aligned Asset Owner Commitment Statement Paris Aligned Investment Initiative Net Zero Investment Framework Implementation Guide Net Zero Investment Framework: IIGCC Supplementary Guidance on Target Setting	UNEP-FI Convened Net-Zero Banking Alliance Commitment Statement UNEP-FI Guidelines for Climate Target Setting for Banks, Version 1.0 UNEP-FI NZBA Transition Finance Guidance COP27 and beyond: An open letter from the NZBA Chair to members UNEP-FI The Use of Carbon Credits in Climate Target Setting (September 2023)	UN-Convened Net-Zero Insurance Alliance Statement of Commitment by Signatory Companies UN-Convened Net-Zero Insurance Alliance Target-Setting Protocol, Version 1.0	Net Zero Financial Service Providers Alliance Commitment Statement Net Zero Target-Setting Guidance for Exchanges	The Net Zero Investment Consultants Commitment Net Zero Investment Consultants Initiative (NZICI): Guidance and Q&A	Venture Climate Alliance Commitment Venture Climate Alliance FAQs	The SBTi Financial Institutions Net-Zero Standard: Conceptual Framework and Initial Criteria – Consultation Draft (June 2023) SBTi Near-Term Criteria and Recommendations for Financial Institutions – Consultation Draft (June 2023) Near-Term Financial Sector Science Based Targets Guidance, Version 2.0 – Consultation Draft (June 2023) The SBTi Fossil Fuel Finance Position Paper – Consultation Draft (June 2023)	IIGCC Net Zero Standard for Banks (June 2023)

8.1 Net zero for corporate actors

Target-setting

- **Target specification**
  - **Need for both long-term and interim targets.** All the initiatives require companies to set both long-term and interim targets for reducing their emissions, in line with global scenarios consistent with limiting warming to 1.5°C. Interim targets are seen as essential for the credibility of net zero commitments, which otherwise might not require immediate action.
  - **Target time horizons.** Long-term targets must achieve net zero emissions (emissions balanced by removals) by 2050 or earlier. Interim targets must specify reductions in line with achieving long-term targets, with an initial target in the 2025–2030 timeframe, and subsequent targets every 2–10 years thereafter (the required timing varies by standard).
  - **Intensity vs. absolute targets.** Interim targets may be absolute or intensity-based (or both), but all initiatives require absolute reductions in the long term.

- **Target scope**
  - **Full coverage of value chain emissions**. All initiatives stipulate that emissions reduction targets must cover a company's direct and indirect emissions (scopes 1, 2 and, less clearly, 3). This means companies must set and achieve deep emissions reduction targets across their full value chains, including the upstream emissions of their suppliers and energy providers, the direct emissions from their own operations and fuel combustion, and the downstream emissions of their customers (among other indirect sources, like commuting and business travel).
  - **Variable/unclear stipulations for coverage of scope 3 emissions**. The initiatives vary somewhat in what they require for scope 3 coverage. RtZ states simply that "all greenhouse gas emissions" must be included; the HLEG suggests an expansive definition for scope 3, including "embedded emissions within fossil fuel reserves", but allows for exemptions where data are missing; ISO suggests inclusion of "all" emissions, but allows for exclusions if they are justified; and SBTi is more explicit in stipulating 67% coverage of scope 3 emissions for interim targets and 90% coverage for long-term targets.

Implementation

- **Guidelines for specifying net zero plans and actions**
  - **Differing requirements**. The initiatives differ in what they expect of companies with regard to planning and taking action to achieve their net zero targets. SBTi's net zero standard is silent on this topic. ISO indicates companies should "determine a plan of prioritized actions". VCMI, RtZ and HLEG all state that companies must formally adopt net zero "transition plans" that indicate both plans for reducing emissions and how net zero targets will be embedded in corporate governance.

  - **Few details**. None of the initiatives offers much detail on what a transition plan should contain. VCMI refers companies to standards being developed by the United Kingdom Transition Plan Taskforce.[36]
  - **Little explicit requirement for immediate action**. RtZ is alone in stipulating that companies must also take *immediate* action towards their targets.

- **Reporting of targets and progress**
  - **Annual reporting of progress.** The initiatives all require some form of annual reporting on net zero progress.
  - **Differing modes of disclosure.** ISO suggests progress reports should be made "publicly available" through "relevant public reporting platforms". SBTi and VCMI similarly require reporting but do not specify a reporting platform. RtZ and HLEG opt for a standardized format that is made available through the UNFCCC Global Climate Action Portal.
  - **Inconsistency on validation/verification.** Only VCMI and HLEG state that information should be verified by independent auditors.

Principles and guardrails

- **Guardrails on use of carbon credits**
  - **Consistent prohibition of carbon credits for meeting reduction targets.** The initiatives are aligned in stipulating that carbon credits may not be counted towards a company's own emissions reduction targets, and cannot substitute for achieving value chain reductions.
  - **"Neutralization" is (mostly) allowed to achieve net zero.** At the same time, most of the initiatives agree that carbon credits backed by *removals* may be used to "counterbalance" or "neutralize" *residual* value chain emissions to achieve net zero. RtZ considers this a "leadership practice", not a direct requirement. Unlike the other initiatives, VCMI is explicit in arguing that carbon credits should be used to demonstrate "contributions" to global net zero efforts, and are not a basis for claiming that a company itself has "achieved" net zero (or related claims like "carbon neutrality").
  - **Encouragement of additional mitigation action through carbon credits.** All the initiatives encourage companies to use carbon credits to achieve *additional* mitigation beyond reductions in their own value chain emissions – sometimes referred to as "beyond value chain mitigation". However, only VCMI is explicit in requiring this practice as a basis for receiving recognition. The HLEG refers to this as "balancing out" remaining emissions; others are more circumspect about whether companies can claim to have offset their emissions when using carbon credits (apart from "neutralization" using removals).

- **Engagement and policy advocacy**
  - **Agreement on need to align corporate policy advocacy with net zero goals**. With the exception of SBTi, all initiatives require companies to ensure that their policy engagement and advocacy support (and do not contradict) their net

36 See https://transitiontaskforce.net/

zero commitments. RtZ and HLEG are explicit that this must include advocacy through trade organizations.
  - **Partner engagement**. The HLEG emphasizes engagement with suppliers, peer companies and other stakeholders as a means for realizing net zero targets. SBTi also explicitly allows for "engagement targets", under which companies encourage suppliers to also adopt science-based emissions targets.

- **Equity & just transition principles**
  - **Inconsistently addressed.** SBTi and VCMI guidelines do not speak to equity issues or just transition principles.
  - **Underdefined requirements.** ISO, RtZ and HLEG encourage companies to consider how their actions and net zero strategies will affect and/or contribute to justice, equity and just transition goals. They also encourage setting aggressive interim targets that reflect a "fair share" contribution to global goals. Guidance for doing so, however, is lacking.

- **Approach to fossil fuels**
  - **Mixed views on divestment vs. managed phaseout**. ISO, RtZ and HLEG call on companies to "transition away" from and "phase out" development of new fossil fuel assets. However, ISO allows that this could be accomplished "both by selling assets and responsibly retiring them", while RtZ and HLEG caution against simply selling high-emitting assets. SBTi and VCMI are silent on this question (SBTi's net zero guidance for financial institutions, however, addresses it in detail).
  - **Explicit transition.** The HLEG notes that fossil fuel phaseout must be "matched" by a "fully funded" transition to renewable energy. Other initiatives are silent on this topic.

8.2 Net zero for financial institutions

Target-setting

- **Target specification**
  - **High-level alignment with corporate net zero target definitions and requirements.** The financial institution initiatives all commit to achieving net zero emissions; for FIs, the focus is on *portfolio* emissions (i.e., the emissions they finance or enable). The level of reduction required and the required timing mirror the criteria of the more general corporate net zero initiatives (e.g., achieving reductions in line with scenarios for limiting global warming to 1.5°C, with net zero achieved before 2050 and interim targets set for 2030 or sooner). Several FI initiatives call for setting both absolute and emissions-intensity reduction targets (e.g., with the latter defined separately for different economic sectors).
  - **Requirements for multiple *types* of targets.** While the focus of corporate net zero initiatives is on setting (net) emissions targets, many FI initiatives have taken a broader approach. All initiatives call for setting portfolio emissions targets, but NZAOA, for example, also prescribes targets for (a) sector-based emissions-intensity reductions; (b) engagement (i.e., working

with portfolio companies to help them align to net zero); and (c) investing in "climate solutions" (i.e., low-emitting technologies or services). PAAO, NZIA, SBTi, and IIGCC call for similar taxonomies of separate targets, including "portfolio alignment" goals. These approaches reflect the complexities of addressing emissions enabled by financial activities; they obligate FIs to target not just emissions reductions, but also the means through which reductions may be achieved.

- **Target scope**
  - **Limited scope requirements.** In contrast to corporate net zero initiatives, which generally call for full (or nearly full) coverage of direct and indirect emissions, FI initiatives typically prescribe a more limited scope for net zero targets. FI operational emissions (though small) are typically included, but there is wide variation in the required coverage of portfolio emissions. NZAM members, for example, commit to managing a *proportion* of assets in line with net zero, with "a view to" increasing this proportion over time. NZAOA members initially commit to setting targets only for certain asset subclasses, again with expectations of increasing coverage over time. NZBA members commit to covering only financed emissions (those arising from lending and investment), not facilitated emissions (arising from their underwriting activities). NZIA requires coverage of investment and underwriting emissions, but members may choose boundaries for their targets based on materiality and data considerations. SBTi and the IIGCC require inclusion of financed and facilitated emissions, but allow for limited initial scopes based on data and method availability.

Implementation

- **Guidelines for specifying net zero plans and actions**
  - **A framework for FI transition plans**. GFANZ's core work has been to develop a framework for robust "net zero transition plans" for financial institutions. The framework identifies four overarching strategies: financing and enabling (a) entities or activities associated with climate solutions; (b) entities that are already aligned with a 1.5°C pathway; (c) entities that are committed to transitioning to a 1.5°C-aligned pathway; and (d) the accelerated managed phaseout of high-emitting physical assets. The framework addresses governance structures, implementation strategies, engagement strategies, and metrics and targets needed to successfully pursue transitions. Supplementary guidance addresses how to assess the transition plans of investees (e.g., to determine whether they are credibly committed to net zero themselves), as well as how to pursue managed phaseout strategies.
  - **Varying levels of detail**. Individual member alliances differ in the level of detail they provide about transition planning and implementation. Most offer guidance and examples on the kinds of strategies members may pursue (e.g., aligning products and services, engaging with clients). Most initiatives call for adopting some form of transition plans (or "climate action plan", e.g., following TCFD recommendations); however, few offer detailed guidance for this (for NZBA, plans may be "high-level").

  - **Little explicit requirement for immediate action**. As with the corporate net zero initiatives, few FI initiatives explicitly call for immediate actions or implementation measures (though the need for such actions may be implied by their targets and commitments).

- **Reporting of targets and progress**
  - **Different requirements for target disclosure.** NZAOA and PAAO ask members to publish their targets within 12 months of joining. NZIA initially committed members to publish targets within 6 months of the adoption of NZIA's target-setting protocol (in January 2023); it has since backed off this commitment. Other initiatives are not explicit about the timing for adoption and disclosure of targets.
  - **Disclosure of transition plans.** Public disclosure of transition plans and climate action plans is expected for all initiatives, following GFANZ recommendations.
  - **Annual reporting.** As with corporate initiatives, all FI initiatives commit to some form of annual reporting on net zero planning and progress.
  - **Differing modes of disclosure.** Initiatives differ in what they require for the modes of public reporting. NZAOA orchestrates reporting on behalf of its members. NZAM members report to the Investor Agenda. PAAO and NZIA members are asked to report through "official channels", in line with regulatory requirements and best practice relevant for their jurisdictions. FIs seeking SBTi recognition must have their targets validated and "publicly" report progress.
  - **Lack of guidance on validation/verification.** Among the GFANZ initiatives, only NZBA explicitly calls on members to seek "independent limited assurance" of reported information. NZIA has indicated that it intends to recommend a "target-setting validation process" in the future. Other initiatives are mostly silent on the need for validation or verification. SBTi stands out for requiring target validation.

Principles and guardrails

- **Guardrails on use of carbon credits**
  - **Potential flexibility on use of carbon credits.** Although FI guidance around the use of carbon credits largely follows that of corporate net zero initiatives (i.e., carbon credits should not substitute for achieving portfolio emissions reduction targets, only removals with long-lived storage should be used to net out residual emissions, etc.), some FI initiative language is ambiguous. PAAO, for example, indicates that achieving portfolio targets with offsets should be avoided "as a general rule". Both PAAO and NZAM suggest that carbon credits may be used "where there are no technologically and/or financially viable alternatives to eliminate emissions"; while this constrains their use, it does not explicitly prohibit substituting offsets for targeted reductions. NZFSPA and NZICI have similarly ambiguous wording with respect to carbon credits.
  - **Ambiguity on responsibility for using carbon credits**. SBTi explicitly notes that FIs may neutralize their emissions by using carbon credits directly, or by relying on removals achieved within their portfolio holdings (including through use of carbon credits by investees, for example). Other initiatives mostly imply that FIs themselves must ultimately net out their emissions. NZAOA calls on

members to ensure that investee companies do not over-rely on carbon credits themselves. NZIA suggests that carbon credits used by clients/investees may not be counted towards NZIA member targets.

- **Engagement and policy advocacy**
  - **Partner engagement**. All FI initiatives emphasize the importance of engagement with clients, investees and other stakeholders as a primary means through which they may achieve their net zero targets.
  - **Agreement on need to align corporate policy advocacy with net zero goals**. Nearly all FI initiatives explicitly call on their members to align policy engagement and advocacy with their net zero commitments.
  - **Disclaimers related to public policy**. Nearly every FI initiative stipulates in its commitment statement that members make their net zero commitments "in the expectation that governments will follow through on their own commitments" to achieve the goals of the Paris Agreement (or similar language).

- **Equity and just transition principles**
  - **Only addressed at high level.** Most (though not all) FI initiatives mention the need to consider just transition principles in developing and applying their net zero transition plans and strategies. None of the initiatives, however, offers much guidance on how to do so. NZAOA notes that such guidance is "presently out of scope". IIGCC offers the most explicit guidance, referencing (for example) the International Labour Organization Guidelines for a just transition. SBTi and NZIA note that equity considerations may affect net zero-aligned decarbonization pathways for different geographies.

- **Approach to fossil fuels**
  - **Mixed policies on fossil fuel investment**. Several FI initiatives offer explicit policies that restrict financial support for fossil fuel companies, infrastructure, and/or producing or consuming physical assets (e.g., coal-fired power plants). However, these policies are formulated in different ways. NZAM requires members to cease investment in new thermal coal power plants, and to adopt fossil fuel investment policies aligned with those of other initiatives. NZAOA calls for refusing financing to new coal, oil and gas projects – but does not prohibit members from financially supporting *companies* engaged in fossil fuel supply expansion (except where expansion occurs in "sensitive environments"). PAAO "recommends" exclusion of financing for companies engaged in new thermal coal and tar sands projects. IIGCC indicates that banks "may wish to consider" fossil fuel exclusion policies; GFANZ offers guidance on what such policies might contain. SBTi's draft position paper offers perhaps the strongest policy, prohibiting new financial flows to coal-related companies and projects, as well as to unabated oil and gas projects and to companies engaged in oil and gas supply expansion. NZIA, NZFSPA, NZICI and VCA offer no policies on fossil fuels. NZBA likewise offers no policy, and appears to have publicly backed away from UN RtZ criteria calling for the phasing out of support for unabated fossil fuel assets (Bindman, 2022d).
  - **(Mostly) strong support for engagement and managed phaseout.** Several FI initiatives follow GFANZ's lead in explicitly endorsing managed phaseout and transition strategies (i.e., actively engaging with companies to help them

decarbonize) to achieve portfolio emissions reductions, rather than simply shifting financial support to lower-emitting companies and clients through divestment. In contrast to GFANZ's guidance, however, most initiatives adopt a nuanced approach – identifying divestment as an appropriate strategy, for example, where investee companies lag in meeting their commitments or in aligning to net zero. The banking initiatives/standards (NZBA and IIGCC) do not express a preference for either strategy. NZIA has no formal position.

9. Annex B: GFANZ Member Alliances

The Glasgow Financial Alliance for Net Zero (GFANZ) serves as an umbrella initiative for the following member alliances, each of which represents and coordinates the net zero commitments of different types of financial institutions.

Net Zero Asset Managers initiative (NZAM). NZAM was launched in December 2020 to "galvanise the asset management industry to commit to a goal of net zero emissions"[37] and is itself a joint initiative of six different investor networks. NZAM has not developed guidance separate from GFANZ, but has published a commitment statement establishing key elements and principles for asset manager net zero commitments (NZAM, 2021b). It has also published a set of "expectations" for members with respect to fossil fuel investments (NZAM, 2021a).

UN-convened Net-Zero Asset Owner Alliance (NZAOA). NZAOA is an initiative of institutional investors convened by UNEP FI and PRI. The NZAOA is more advanced than other GFANZ initiatives in providing net zero protocols and guidance documents. While the NZAOA Commitment Statement lays out high-level elements and principles (NZAOA, 2022a), its Target-Setting Protocol provides detailed requirements and guidance for setting net zero targets and reporting progress (NZAOA, 2023b). Elements of the Target-Setting Protocol are compulsory. NZAOA has produced multiple other guidance documents,[38] including a position paper on investments in the oil and gas sector (NZAOA, 2023a).

Paris Aligned Asset Owners (PAAO). PAAO is a group of 56 investors organized under the Paris Aligned Investment Initiative (established in May 2019). Like NZAOA, PAAO's membership of institutional investors commits to achieving net zero portfolio emissions by 2050 or sooner. PAAO's Commitment Statement provides key elements and principles for its members' commitments (PAII, 2021b). The PAII was also one of the first initiatives to publish detailed criteria and implementation guidance for net zero commitments (PAII, 2021a), along with guidance on target-setting (IIGCC, 2021).

Net-Zero Banking Alliance (NZBA). NZBA is a group of global banks convened by UNEP FI that is "committed to financing ambitious climate action to transition the real economy" to net zero. The NZBA commitment statement establishes key parameters and principles for net zero commitments by banks, covering emissions from banks' lending and investment (but not underwriting) portfolios (NZBA, 2021). UNEP FI has also published multiple supplementary guidance documents for NZBA, including guidelines for net zero target-setting (UNEP FI, 2021).

Net-Zero Insurance Alliance (NZIA). NZIA is another UNEP FI-convened initiative, focused on supporting insurers to set net zero targets and decarbonize their portfolios. Like the other initiatives, key parameters and principles for member targets are contained in the NZIA commitment statement (NZIA, 2021), with detailed target-setting requirements enumerated in a target-setting protocol (NZIA, 2023).

37 https://www.netzeroassetmanagers.org/
38 See https://www.unepfi.org/net-zero-alliance/resources/

Net Zero Financial Service Providers Alliance (NZFSPA); Net Zero Investment Consultants Initiative (NZICI); and Venture Climate Alliance (VCA). NZFSPA, NZICI and VCA are separate GFANZ alliances related to financial service providers, consultants and venture capital firms, respectively. For these types of FIs, emissions-based net zero targets are somewhat challenging to define; instead, members of each alliance commit to *facilitating* net zero transitions among their clients or beneficiaries. Each has a commitment statement outlining key elements and principles for their commitments (NZFSPA, 2021; NZICI, 2021; VCA, 2023).

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