

FINAL REPORT

Financial Institution Net-zero Transition Plans

Supplemental Information

NOVEMBER 2022



GFANZ

Glasgow Financial Alliance for Net Zero

This **Supplemental Information** document presents additional examples for components Policies and conditions and Metrics and targets, discussion on closely related topics where further work and refinement would be beneficial, and appendices with reference material. It is one of three documents that comprise the report Financial Institution Net-zero Transition Plans. Readers are referred to the first document, **Executive Summary**, for a high-level overview of the key concepts, recommendations, and guidance for net-zero transition planning in financial institutions. Readers are further directed to the second document, **Fundamentals, Recommendation, and Guidance** for details on the core concepts that underlie this work and the full set of voluntary, pan-sector, globally-applicable recommendations of the elements of a net-zero transition plan with accompanying guidance, examples, and case studies.

Acknowledgments

This report was developed by the GFANZ workstream on Financial Institution Net-zero Transition Plans, and consensus-endorsed by the GFANZ Principals Group and Steering Group, with input from the Advisory Panel, as outlined in the GFANZ Terms of Reference. This does not imply that every finding included herein is endorsed by every GFANZ sector-specific alliance member firm, including the firms represented on the Principals Group. The workstream was supported by the GFANZ Secretariat. Oliver Wyman provided knowledge and advisory support.

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GFANZ would like to thank all those who have contributed to our work and development of this report in support of a net-zero climate transition.

Important notice

This report was produced by a workstream of the Glasgow Financial Alliance for Net Zero (“GFANZ”). This report aims to provide voluntary guidance regarding the development of net-zero transition plans by financial institutions. For the avoidance of doubt, nothing expressed or implied in the report is intended to prescribe a specific course of action. This report does not create legal relations or legally enforceable obligations of any kind. Each GFANZ sector-specific alliance member unilaterally determines whether, and the extent to which, it will adopt any of the potential courses of action described in this report.

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Members of the seven financial sector-specific net-zero alliances comprising GFANZ have signed up to the ambitious commitments of their respective alliances and are not automatically expected to adopt the principles and frameworks communicated within this report, although we expect all members to increase their ambition over time, so long as it is consistent with members’ fiduciary and contractual duties and applicable laws and regulations, including securities, banking and antitrust laws.

How to Read This Report

This document is a report produced by the Glasgow Financial Alliance for Net Zero (“GFANZ”), which aims to provide financial institutions with background on potential avenues for meeting net-zero commitments intended to address the financial and economic risks and opportunities posed by climate change and the transitions that would be necessary to mitigate those risks. In particular, this report sets out a framework for transition finance, identifying four financing strategies that could facilitate real-economy transitions. The report includes components, arranged under themes, of potential net-zero transition plans. Each component includes recommendations, case studies, and examples. The report does not prescribe a specific course of action but offers information and options to help those financial institutions preparing net-zero transition plans.

Sector-specific alliance member firms include many different types of financial institution, including banks, insurers, asset owners, asset managers, financial service providers, and investment consultants. The report recognizes that financial institutions operate in different contractual and regulatory environments that may impact their approaches to the net-zero transition recommendations and voluntary/non-binding guidance outlined in this report. GFANZ acknowledges that net-zero transition plans will vary by institution and jurisdiction and will depend on the individual characteristics of financial institutions, including size, business model, sector coverage, fiduciary duty toward their clients, and other factors. The purpose of this report is to provide information that may inform financial institutions’ independent investment decision-making process in accordance with their contractual duties and the regulatory environment in which they operate.

For the purposes of this report, the term “GFANZ” refers to the [GFANZ Principals Group](#).

Voluntary guidance: This report presents a voluntary framework for financial institutions to apply when developing and implementing net-zero transition plans. Financial institutions are encouraged to use all five themes in the recommendations, but may choose to focus on a subset of the themes that they determine appropriate for their organization. Financial institutions are encouraged to use these recommendations wherever possible, but not superseding jurisdictional requirements on transition planning or climate-related financial disclosure where such requirements exist, or contractual requirements, including mandates with clients. Some types of financial institutions may also have unique legal or regulatory constraints that may differ by jurisdiction and that may impact the extent to which individual elements of this guidance should be considered.

Pan-sector approach: These recommendations and guidance present a pan-sector approach to transition planning. The principle behind each recommendation or piece of guidance aims to be applicable to institutions across the financial sector and to act as a reference for regulators and policymakers. Specific methodological approaches or considerations for individual components may differ by type of financial institution, and the relevance may vary for different types of institutions. The report is principles-based so that it can be interpreted and applied at the discretion of individual financial institutions’ own processes and policies. Financial institutions are encouraged to use these recommendations and guidance alongside the guidance produced by sector-specific net-zero alliances and other organizations.

Unique roles for different financial institutions:

Because this guidance is pan-sector, it does not reflect the different roles financial institution types play within the industry. Thus, as they develop their transition plans, financial institutions are encouraged to consider these types of relationships, focusing where they can on the areas where they are likely to be able to support client and portfolio company net-zero strategies and manage climate-related financial risk while considering all elements in this framework. Each financial institution is encouraged to implement the guidance based on considerations such as its business model and the contractual and regulatory environment within which it operates. The recommendations and guidance herein should be considered by financial institutions as resources and considerations that may be consulted as part of their transition planning efforts, not as a specific course of action.

Focus on development and implementation:

This framework aims to provide an approach for developing and implementing transition plans, rather than specific guidance on disclosing transition plans. While GFANZ encourages transparent disclosure of transition plans, this report does not intend to provide detailed guidance on disclosure. Each financial institution should determine specific content, location, and frequency for disclosing the components of its

transition plan, consistent with the requirements of their respective sector-specific alliances, business confidentiality, and jurisdictional requirements, if any. When preparing disclosures, institutions should consider the TCFD's Principles for Effective Disclosures.³²⁰

Institution-wide approach to transition planning:

This guidance focuses on addressing transition planning from the perspective of the whole of a financial institution. In other words, the focus is on aligning the financial institution's overall business strategy with the net-zero transition using the ten components. The guidance details how this strategy can be implemented throughout an organization but does not go into significant depth for individual business areas, product lines, or asset classes. Financial institutions should look to their net-zero alliance and other guidance providers for greater detail on how net-zero strategies can be developed and implemented at the level of specific products, services, and transactions.

Living guidance: GFANZ acknowledges that supporting pathways, tools, and methodologies may not yet be available for all situations and policy, regulation, technology, and science are evolving, often at a rapid pace. As financial institutions develop and execute net-zero transition plans more widely, we expect the necessary tools, methodologies, and datasets to further develop.

320 TCFD. [Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures](#), October 2021.

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Supplemental discussion and examples



The Financial Institution Net-zero Transition Plans — Supplemental Information report does not make recommendations on financial sector net-zero transition plan implementation. Rather, it presents GFANZ research and observations on current industry practices.

Policy examples

This section provides additional examples of how some financial institutions are approaching select high-priority sectors. It is intended to function as a resource for stakeholders that are considering or developing policies and conditions, and other interested parties.

As recommended earlier in this report (in “[Component: Policies and conditions](#)”), a financial institution’s net-zero transition plan should include policies and conditions on key sectors and climate-related topics, including thermal coal, oil and gas, and deforestation.

These topics have been highlighted given their importance in achieving GHG emissions reduction and reaching net zero globally by 2050. Bodies such as the IEA and IPCC agree that the shift away from fossil fuels over time is critical to the achievement of net zero. Halting deforestation is a priority because

forests absorb vast amounts of carbon dioxide. Agreements related to phasing out coal, reducing methane emissions, and halting deforestation were spotlighted at COP26.³²¹

GFANZ has taken stock of existing policies, industry guidance, and sector-specific alliance positions to ascertain current practices for policies on these issues, and provides this review to support raising the collective ambition where there is an opportunity to do so.

Please refer to the “[Component: Policies and conditions](#)” for GFANZ recommendations and guidance, upon which this section builds. This section offers more detailed information and examples of how financial institutions apply the elements of the Policies and conditions component. It also provides resources developed in the financial sector or by NGOs.³²²

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- 321 i. COP26. [Global Coal to Clean Power Transition Statement](#), November 4, 2021;
 ii. COP26. [Forests, Agriculture and Commodity Trade](#), November 2, 2021;
 iii. COP26 Presidency. [COP26: The Glasgow Climate Pact](#), 2021;
 iv. [Global Methane Pledge](#);
 v. [Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation](#), November 2, 2021. An updated timeline for financial institutions joining post-COP26 is outlined in the [addendum](#) of this letter;
 vi. Powering Past Coal Alliance (PPCA). [PPCA Declaration](#).
- 322 i. COP26. [Glasgow Leaders’ Declaration on Forests and Land Use](#), November 2, 2021, [COP26 Call for Climate Action Announcement from Private Finance Institutions](#), October 2021, and [Global Coal to Clean Power Transition Statement](#), November 11, 2021;
 ii. Forest500. [2022 Annual Report: A climate wake-up: but business failing to hear the alarm on deforestation](#), January 2022;
 iii. Global Witness. [Deforestation Dividends](#), October 2021;
 iv. PPCA. [PPCA Declaration](#); [Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation](#), November 2, 2021;
 v. Rainforest Action Network. [Banking on Climate Chaos](#), March 30, 2022; Reclaim Finance. [Oil and Gas Policy Tracker](#), 2022; SBTi. [Financial Sector Science-Based Targets Guidance, version 1.1](#), 2022;
 iv. Sustainable Finance Platform. [A Guideline on the Use of Deforestation Risk Mitigation Solutions for Financial Institutions](#).

Establishing policies and conditions supports a financial institution’s decision-making. Some financial institutions have already started applying policies and conditions on these topics (see “Deep dives”). Table 14 provides examples of real-world policy implementation.

Table 14. Outcomes of applying policies and conditions

FINANCIAL INSTITUTIONS	OUTCOMES OF APPLYING POLICIES AND CONDITIONS
LGIM ³²³	While LGIM had previously sanctioned 130 companies for failing to meet minimum standards, in 2022, only 80 companies were sanctioned under the same standards, demonstrating an improvement in company practices.
PKA ³²⁴	PKA has excluded numerous coal and oil and gas companies from investment for not meeting threshold conditions in PKA’s policies. In 2020, they continued investment in a small number of companies that exceeded their revenue threshold for coal under the condition that they incorporate the Paris Agreement’s objectives into their business strategy by the end of 2022.

DEEP DIVE: THERMAL COAL POLICIES

A wide range of financial institutions have established thermal coal³²⁵ policies (covering both mining and power generation). While they contain similar elements, there is variety in how these are applied. Industry practices in use at the time of writing are summarized in Table 15.

Table 15. Thermal coal policy elements

ELEMENT	DESCRIPTION (from Policies and conditions component)	INDUSTRY PRACTICES
Objective	The overarching goal of the policy, and how it supports implementation of the institution’s net-zero transition ambition and priorities, and how it is informed by science.	Policies typically seek to phase out the use of thermal coal for power generation.
Scope	The type of company, asset, project, and/or activity, as well as the consideration across the supply chain, to which the policy applies. Scope could include the types of business activities within the financial institution to which the policy applies, with the aim to cover the whole business where feasible over time.	Policies typically define a threshold at which the policy applies (e.g., percentage of total revenues derived from thermal coal).

323 LGIM. [Climate Impact Pledge 2022: Net zero: Going beyond ambition](#), 2022.

324 European Pensions. [PKA Tightens coal requirements; excludes 20 companies](#), July 20, 2020.

325 Coal typically has two uses: thermal and metallurgical. Thermal coal is used in energy production, whereas metallurgical coal is used to make coke, a reactant in steelmaking. The policies discussed within this section refer to thermal coal.

ELEMENT	DESCRIPTION (from Policies and conditions component)	INDUSTRY PRACTICES
Conditions	Criteria or conditions consistent with a science-based net-zero transition and under which the financial institution provides products and services within the activities, geographies, and sectors/business areas defined in the policy.	Policies allow for a range of situations where business is allowed, provided conditions are met (such as having science-based targets or Paris Agreement-aligned transition plans).
Exclusions	Specific prohibited companies, assets, projects, and/or activities that cannot be served or financed by the financial institution upon conditions not being met. Any exclusions which a financial institution chooses to apply should be informed by science-based pathways and determined unilaterally.	Some policies prohibit all activities; others specify certain types of activities (e.g., financing new coal-fired power stations).
Timelines	A roadmap for the transition to net zero in the context of the policy, outlining when and under what circumstances the new and existing conditions and exclusions will apply. These timelines should be consistent with the science-based pathways used to set net-zero targets.	Many policies state that thermal coal is to be phased out, but timelines to do so vary from today to 2050.

Thermal coal: Policy objective

Many net-zero scenarios, such as the IEA NZE and IPCC's C1 and C2 scenarios, include the phaseout of unabated thermal coal, and this is widely reflected in coal policies' objectives or ambition statements and conditions for financing. Specifically, the IEA NZE scenario states that no new unabated coal plants should be approved for development beyond 2021, and that unabated coal should be phased out in advanced economies by 2030, and in the rest of the world by 2040.³²⁶

Thermal coal: Scope

In a review of policies, percentage of revenue from coal-related activities was the metric most commonly used to define application of the policy (e.g., 10% or more of an entity's revenue from coal mining). Other metrics used to a lesser extent included share of production, reserves, generation, or generating capacity from coal.

326 IEA. [Net Zero by 2050: A Roadmap for the Global Energy Sector](#), October 2021.

Specifics, such as the revenue percent threshold and type of coal-related activity, varied widely. Table 16 highlights the range of revenue share cutoffs used across a sample within the industry. Implementing a lower cutoff means that the policy is imposed on a greater proportion of companies. For instance, large, diversified companies may have coal operations that constitute only a small percentage of their overall revenues. Guidance providers such as SBTi and NZBA recommend that a coal company is defined as one that generates greater than 5% of revenues from the thermal coal value chain.^{327, 328}

The scope of coal-related activities covered in policies was often broad, but not inclusive of the whole supply chain. Terms such as “thermal coal utilities,” “mining,” “power generation,” “transmission,” or more broadly, “coal-related activities” were used. These terms are open to interpretation and may introduce a risk that the policy is not applied to all clients and portfolio companies in the thermal coal value chain (e.g., in transportation), due to a lack of specificity.

Table 16. Threshold ranges for 20 surveyed financial institutions

REVENUE THRESHOLD	NUMBER OF FINANCIAL INSTITUTIONS
0%–5%	1
6%–10%	1
11%–20%	5
21%–30%	4
31%–40%	1
> 40%	2
Did not disclose	6

Thermal coal: Conditions

Policies should set out the conditions for doing business with clients and portfolio companies that have thermal coal operations or assets. Generally, conditions are additional steps a client or portfolio company needs to take, or specific requirements that need to be met, such that the financial institution is confident that an entity or activity is transition-aligned or progressing to become transition-aligned. In some cases, these conditions apply for a period of time before a broader exclusion is applied.

327 SBTi. [Financial Sector Science-Based Targets Guidance, version 1.1](#), August 2022.

328 NZBA. [Guidelines for Climate Target Setting for Banks](#), April 2021.

Examples of conditions financial institutions use for companies with thermal coal operations or assets include:

- having a strategy in place to transition away from coal at a pace compatible with the scientific pathways of limiting global warming to 1.5 degrees C;
- an independently verified net-zero transition plan,³²⁹ (e.g., following recommended practices for the managed phaseout of high-emitting assets);³³⁰
- regular reporting of progress against a net-zero transition plan and associated interim targets;
- employing technology for the complete or near-complete elimination of atmospheric carbon emissions, such as carbon capture technology; and
- a clear and identifiable just energy transition pathway for a specific region, providing secure energy where an alternative is unavailable.³³¹

Thermal coal: Exclusions

Thermal coal exclusions address an institution's approach toward new versus existing projects, or address company-level exclusions. Defining what activities or entities are excluded can impact a financial institution's exposure and portfolio emissions significantly. Most policies now exclude new coal projects,³³² but some financial institutions are phasing out existing projects.

Example 28. Santander Group and coal

Santander Group will not directly invest in and/or provide financial products and/or services to the following activities in any client segment:³³³

From 2030, any entities with more than 10% of revenues, on a consolidated basis, derived from coal-fired power generation.

Project-related financing for new coal-fired power plants projects worldwide, or for the upgrade and/or expansion of existing coal-fired plants.

Thermal coal: Timelines

The timeline typically provides a target date for the full phaseout of exposure to coal. This timeline is generally anchored in robust third-party net-zero scenarios and sectoral pathways, applied to the energy transition in the countries of operation. Current practices vary across organizations. A number of institutions have committed to a full phaseout by 2030 for OECD countries and 2040 for the rest of the world, consistent with SBTi and PPCA guidance, the COP26 Global Coal to Clean Power Transition Statement, and with net-zero scenarios and sectoral pathways.³³⁴

³²⁹ GFANZ. [Expectations for Real-economy Transition Plans](#), 2022.

³³⁰ GFANZ. [The Managed Phaseout of High-emitting Assets](#), 2022.

³³¹ In such situations, financial institutions could consider limiting the financing of coal to maintenance and retrofitting, rather than new coal plants.

³³² For example, see guidance from Reclaim Finance's [How to Exit Coal: 10 Criteria for Evaluating Corporate Coal Phase-Out Plans](#), October 2021.

³³³ Santander Group. [Environmental, Social & Climate Change Risk Management Policy](#), February 2022.

³³⁴ SBTi. [Financial Sector Science-Based Targets Guidance, version 1.1](#), August 2022; PPCA. [PPCA Declaration](#); COP26. [Global Coal to Clean Power Transition Statement](#), November 11, 2021; and IPCC. [Climate Change 2022: Mitigation of Climate Change: Summary for Policymakers](#), 2022.

DEEP DIVE: OIL AND GAS POLICIES

Major net-zero scenarios and sectoral pathways assume a transition from fossil fuels to renewable energy sources leading to decline in the use of oil and gas, but still include investment required for maintaining smooth energy supply during the transition.³³⁵ For example, an analysis by BNEF surveyed four key net-zero pathways from IEA and the IPCC,³³⁶ and found that each saw annual investment in fossil fuels decreasing during the transition but still being needed to maintain delivery and consumption infrastructure as part of an orderly transition from fossil fuels to clean alternatives.³³⁷

Reflecting the complexity of the topic and differences in financial sector business models, institutions take a variety of approaches to oil and gas policies. Some tend to focus on specific activities within the sector, targeting those with the

greatest environmental impact. Others have taken a more holistic approach, setting out their position on the sector as a whole and the activities that will and will not be supported over a defined time horizon.

Since many companies operate across both oil and gas, many financial institutions have treated them similarly. However, decarbonization pathways for oil are significantly different than for natural gas. Natural gas is seen as a transition fuel in some markets, while oil products have a wide range of different uses. Within these broad categories, further sub-categories have different emissions characteristics and wider environmental impacts and are expected to play different roles in the transition. These differences should be taken into account. This report explores these areas and implications for the financial sector.³³⁸ Current practices for oil and gas policies, at the time of writing, are summarized in Table 17.

Table 17. Oil and gas policy elements

ELEMENT	DESCRIPTION (from Policies and conditions component)	INDUSTRY PRACTICES
Scope	<p>The type of company, asset, project, and/or activity, as well as the consideration across the supply chain, to which the policy applies. Examples include companies whose share of revenue generated by specific activity (e.g., coal-fired power) exceed a threshold, a list of specific project types (e.g., gas pipelines), or geographies (e.g., the Amazon Basin).</p> <p>Scope could include the types of business activities within the financial institution (e.g., lending, underwriting, investing, advising, services) to which the policy applies, with the aim to cover the whole business where feasible over time.</p>	Some policies identify companies active in specific activities, for instance, categorizing by origin of fuel (e.g., shale gas, Arctic oil) or type of activity (e.g., exploration, extraction). Others consider the sector holistically.

335 Scenarios include those from IEA, NGFS, IPCC, OECM, and TPI. Reference [Guidance on Use of Sectoral Pathways for Financial Institutions](#) (GFANZ, 2022) and [Counting Cash in Paris Aligned Pathways](#) (BNEF, 2022).

336 IEA NZE; IPCC P1, P2, and P3.

337 BNEF. [Counting Cash in Paris Aligned Pathways: Projected energy investment requirements under IEA and IPCC de-carbonization scenarios](#), May 2022.

338 GFANZ. [Guidance on Use of Sectoral Pathways for Financial Institutions](#), 2022.

ELEMENT	DESCRIPTION (from Policies and conditions component)	INDUSTRY PRACTICES
Conditions	Criteria or conditions consistent with a science-based net-zero transition and under which the financial institution provides products and services within the activities, geographies, and sectors/business areas defined in the policy. For instance, the institution's policy could require more extensive due diligence on particular clients or portfolio companies, or a transition or managed phaseout plan. Engagement programs may focus on influencing companies to decarbonize operations.	Institutions' oil and gas policies may permit continued business because of the fuels' role in the transition, and lack of viable alternatives in certain regions and applications. The conditions may include having approved science-based targets and alignment to the Paris Agreement.
Exclusions	Specific prohibited companies, assets, projects, and/or activities that cannot be served or financed by the financial institution upon conditions not being met. Examples include the prohibition of services or financing to entities in scope that do not have mitigation plans or whose activities involve expansion of high-emitting sources. Any exclusions which a financial institution chooses to apply should be informed by science-based pathways and determined unilaterally.	Policies use various classifications (fuel type, activity type, or a broad sector definition) to impose exclusions/prohibitions on business.
Timelines	A roadmap for the transition to net zero in the context of the policy, outlining when and under what circumstances the new and existing conditions and exclusions will apply. These timelines should be consistent with the science-based pathways used to set net-zero targets.	Most policies focus on existing restrictions, rather than future-looking statements. Policies are starting to integrate science-based and sector bottom-up decarbonization pathways, timelines, and deadlines.

Oil and gas: Scope

Research into current practices revealed two approaches that financial institutions often use when defining application of their oil and gas policies. One option is to view the sector holistically and apply policies to the whole sector; for example, apply it to all major oil and gas producers. This approach makes it difficult to recognize the different climate and transition characteristics of oil usage versus natural gas usage. Oil is often used for transportation and natural gas is largely used to produce electric power and heat — different low-emissions alternatives, at varying levels of commercial maturity, address the end uses of transport versus power and heat.

Some financial institutions focus on specific fuel types or activity types, or whether the financing is to be used for new oil and gas fields. While the level of granularity differs, institutions tend to use the following categories to distinguish projects or activities:

- Exploration and Production: conventional oil and gas
- Exploration and Production: unconventional oil and gas (i.e., oil sands, shale gas, ultra-deep water, Arctic)
- Midstream
- Downstream

In addition, financial institutions may have policies specifically designed to address methane emissions by oil and gas companies.³³⁹

³³⁹ Refer to the [Oil and Gas Methane Partnership Framework](#) for further guidance on methane emissions reporting.

This approach reflects the complexity within the sector, even as many companies are considered to be integrated. It also allows different conditions and timelines as financial institutions acknowledge the role of oil versus gas in the transition across regions.

Oil and gas: Conditions and exclusions

Conditions are used to determine when products and services can be offered. In the absence of clients or portfolio companies meeting specified conditions, the client or asset would be excluded. Examples of conditions from our stocktake include the following:

- Having a credible strategy in place to transition away from fossil fuels at a pace compatible with the scientific pathways of limiting global warming to 1.5 degrees C.
- An independently verified net-zero transition plan³⁴⁰ (e.g., following recommended practices for the managed phaseout of high-emitting assets).³⁴¹
- Regular reporting of progress against a net-zero transition plan and associated interim targets.
- Employing technology that allows complete or near-complete elimination of atmospheric carbon emissions, such as carbon capture technology.
- A clear and identifiable energy transition pathway, providing secure energy and heating where an alternative is unavailable.

While not widely seen in the policies reviewed, the two fuels have differentiating characteristics:

- The majority of oil emissions occur downstream in the combustion of distillate products in transportation, while natural gas emissions primarily occur via methane leakage, flaring, industrial processes, and combustion for electricity generation. Technology and market solutions to address these emissions will differ.
- Consumption of oil versus natural gas in certain regions depends on factors such as viability and accessibility to alternatives, technological maturity of the region, and cost effectiveness.

These contextual considerations could affect the timing of phaseout of these fuels, and could be considered when identifying opportunities to finance the managed phaseout of high-emitting physical assets.

Oil and gas: Timelines

Financial institutions do not commonly commit to a blanket phaseout date for oil and gas. Policies typically outline the oil and gas restrictions currently in place, and very few have made forward-looking statements around increased stringency. Timelines should be revisited as per the policy review process to integrate the latest information on the role of oil and gas in the net-zero transition, for example, by using sectoral pathways as they are developed or other net-zero scenarios from sources such as the IEA.^{342, 343}

340 GFANZ. [Expectations for Real-economy Transition Plans](#), 2022.

341 GFANZ. [The Managed Phaseout of High-emitting Assets](#), 2022.

342 IEA. [The Oil and Gas Industry in Energy Transition](#), January 2022, and [Net Zero by 2050: A Roadmap for the Global Energy Sector](#), October 2021.

343 Other sources include OECM. [How to limit global warming to 1.5 degrees C: New research identifies the remaining global carbon budget for twelve main industries](#), 2021; TPI. [TPI Sectoral Decarbonisation Pathways](#), February 2022; and the [NGFS Climate Scenarios Portal](#).

DEEP DIVE: POLICIES ON ACTIVITIES THAT CONTRIBUTE TO DEFORESTATION

Approximately 22% of global GHG emissions stem from land-use activity, including logging, deforestation, and farming and half of that from deforestation.³⁴⁴ According to the WWF, 92% of Nationally Determined Contributions in October 2021 consider measures to address nature loss in their fight against climate change.³⁴⁵

Activities contributing to deforestation are becoming a priority for financial institutions to measure and manage, reflecting the important role natural systems play in capturing and sequestering carbon. There is growing consensus that the world will not reach net zero by 2050 unless deforestation is halted and reversed by 2025, and as described by IPCC, forest restoration would contribute substantially toward the goals of the Paris Agreement.³⁴⁶ At COP26, many financial

institutions signed the Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation.³⁴⁷ Additionally, SDG 13: Climate Action, integral to the Paris Agreement, urges companies to take urgent action to combat climate change and its impacts. Three of its five targets include building climate resilience, climate risk mitigation, and adaptation, all closely linked to the topic of deforestation.³⁴⁸

Financial institutions are taking varying approaches, including policies, in their efforts to contribute to halting deforestation. Industry guidance and disclosure frameworks to support these efforts, such as the work from the Taskforce on Nature-related Financial Disclosures (TNFD), are still in development.

Industry practices in use at the time of writing are summarized in Table 18.

Table 18. Policy elements for activities contributing to deforestation

ELEMENT	DESCRIPTION (from Policies and conditions component)	INDUSTRY PRACTICES
Objective	The overarching goal of the policy, and how it supports implementation of the institution's net-zero transition ambition and priorities, and how it is informed by science.	Policies express a clear ambition on deforestation. The Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation is one example. ³⁴⁹
Scope	The type of company, asset, project, and/or activity, as well as the consideration across the supply chain, to which the policy applies. Scope could include the types of business activities within the financial institution to which the policy applies, with the aim to cover the whole business where feasible over time.	Focus on activities or commodities with high deforestation risk (e.g., palm oil). Some policies focus only on companies that operate in regions where deforestation is common; others apply the policy to a company's supply chain.

344 IPCC. [Climate Change 2022: Mitigation of Climate Change: Summary for Policymakers](#), 2022.

345 WWF. [NDCs — A Force for Nature?, fourth edition](#), November 2021.

346 IPCC. [Climate Change 2022: Impacts, Adaptation and Vulnerability: Summary for Policymakers](#), March 2022, p. 1-55.

347 [Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation](#), November 2, 2021.

348 UN Department of Economic and Social Affairs. [SDG 13: Take urgent action to combat climate change and its impacts](#).

349 [Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation](#), November 2, 2021. An updated timeline for financial institutions joining post-COP26 is outlined in the [addendum](#) of this letter.

ELEMENT	DESCRIPTION (from Policies and conditions component)	INDUSTRY PRACTICES
Conditions	Criteria or conditions consistent with a science-based net-zero transition and under which the financial institution provides products and services within the activities, geographies, and sectors/business areas defined in the policy.	Policies specify activities and geographies that undergo heightened scrutiny due to association with deforestation (related to rare species, palm oil, soy, cattle, and timber production). The financial institution assesses the counterparty according to a set of criteria or requires third-party certification for sustainable forestry practices before agreeing to do business.
Exclusions	Specific prohibited companies, assets, projects, and/or activities that cannot be served or financed by the financial institution upon conditions not being met. Any exclusions which a financial institution chooses to apply should be informed by science-based pathways and determined unilaterally.	Policies typically include a list of prohibited activities, such as illegal logging, deforestation of a primary forest, and extraction from high conservation value forests.
Timelines	A roadmap for the transition to net zero in the context of the policy, outlining when and under what circumstances the new and existing conditions and exclusions will apply. These timelines should be consistent with the science-based pathways used to set net-zero targets.	Policies often allow for a grace period while counterparties work toward an independent certification or assessment. This defers the introduction of exclusions or restrictions, but still allows for exclusion timelines to be introduced.

Deforestation activities: Scope

The risk that a client or portfolio company's operations include activities contributing to deforestation can exist both directly and indirectly in its supply chains. This makes it complex to assess and identify which companies and activities would be governed by a deforestation policy. Financial institutions tend to first identify high-risk areas and activities and then require heightened diligence for the clients and portfolio companies active in these areas.

Activities deemed to be high risk in contributing to deforestation — which may be present in a company's supply chain — include:

- illegal logging;
- logging of primary forest (including tropical moist forests, temperate, and boreal forests);
- unsustainable harvesting/harvesting of rare species;

- extraction from officially protected areas, high conservation value forests, high carbon stock forests, or those deemed environmentally sensitive;
- land clearance by burning/fire;
- extraction and sale of native tropical wood species;
- palm oil, soy, cattle, and timber production that converts biodiverse forests into pasture or single-crop plantations; and
- clearance or extraction of, or new plantation development on, forested peatlands.

Deforestation activities: Conditions

Where a potentially high-risk activity is identified, financial institutions often impose greater scrutiny. Due diligence may involve desk research as well as interaction with the company, external experts, and non-governmental organizations.

Financial institutions compensate for the lack of transparency into their exposure to deforestation by using rigorous assessments, but currently, there is no common industry approach to such assessments.

Some conditions in forestry-focused policies include the following:

1. Requirement to be certified by an independent third-party. Certifications typically accepted include:
 - Roundtable on Sustainable Palm Oil (RSPO);
 - Round Table on Responsible Soy (RTRS);
 - Global Roundtable for Sustainable Beef (GRSB);
 - Forest Stewardship Council (FSC);
 - The Programme for the Endorsement of Forest Certification (PEFC);
 - The Soft Commodities Compact developed by the Banking Environment Initiative;
 - The Equator Principles;
 - Global Canopy Forest 500 ranking; and
 - Basel Criteria for Responsible Soy Production.

Example 29. MUFG's Environmental and Social Policy Framework

"When we consider providing financing for logging businesses, including management of forest plantations, we conduct an assessment of clients to ensure that developments and management are conducted in an environmentally and socially responsible manner. In addition to confirming that illegal logging and deforestation in high conservation value areas are not involved, we request our clients to certify the relevant operations according to

internationally recognized certification organizations such as Forest Stewardship Council ("FSC") and Programme for the Endorsement of Forest Certification ("PEFC"), when providing finance to the subject business activities mentioned above, in countries other than High Income OECD countries. We will request our clients to submit action plans to achieve certification when relevant operations are not certified."³⁵⁰

When relying on a third-party assessment, financial institutions should carefully evaluate the assessment criteria to understand how it aligns to the objectives of the deforestation policy.

2. Greater due diligence around exposure and compliance with the policy, through assessment procedures that emphasize traceability of commodities.

Example 30. LGIM's Climate Impact Pledge Sector Guides

"Assess companies' net zero pathways including 'Level of traceability of "forest risk commodities" across supply chain' and 'Percentage of commodities purchased under no deforestation principles' and 'Does the company have comprehensive zero-deforestation and regenerative agriculture policies?' (food).

Assess companies' net zero pathways including 'Traceability of fibres and compliance with zero-deforestation principles?' and 'Does the company have a fully comprehensive zero-deforestation policy?' (apparel)"^{351,352}

350 MUFG. [MUFG Environmental and Social Policy Framework](#), May 2022.

351 LGIM. [Climate Impact Pledge Sector Guide: Net zero: food](#), 2021.

352 LGIM. [Climate Impact Pledge Sector Guide: Net zero: apparel](#), 2021.

Deforestation activities: Exclusions

Some deforestation policies list prohibited activities, which preclude a financial institution from doing business with any institution engaging in these activities.

The prohibited (or restricted) activities typically listed include illegal logging, deforestation of a primary forest, and extraction from high conservation value forests.

Deforestation activities: Timelines

Some policies defer prohibitions or restrictions for a grace period while counterparties work toward an independent certification or assessment of their activities. One example is the Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation,³⁵³ which commits financial institutions to a timebound series of measurable targets and actions:

By the end of 2022: Assess exposure to deforestation risk through financing or investment, with a focus on “forest-risk” agricultural commodities — palm oil, soy, cattle products, timber, and pulp and paper — that are understood to be tied to the most significant deforestation impacts. Establish lending, investment, and/or insurance policies addressing exposure to agricultural commodity-driven deforestation. Engage with the highest-risk clients and assets on deforestation in their supply chains, operations, and/or financing. Engage with governments/public-sector organizations on policies that help businesses to avoid deforestation risks and impacts.

By 2023: Disclose deforestation risk and mitigation activities in portfolios, including due diligence and engagement.

By 2025: Publicly report credible progress on the milestones to eliminate deforestation driven by “forest-risk” agricultural commodities in portfolios. Provide financial products/services only to clients that have met risk-reduction criteria. Increase investment in nature-based solutions.

³⁵³ [Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation](#), 2021. An updated timeline for financial institutions joining post-COP26 is outlined in the addendum of this [letter](#).

Metrics and targets examples and case studies

This section builds on the guidance of the component [Metrics and targets](#). It offers examples of metrics and targets under the three categories of:

- Real-economy transition;
- Plan execution; and
- Financed emissions.

GFANZ believes the examples in this section are illustrative of metrics that financial institutions could use and are not exhaustive nor should they be viewed in isolation from one another. Fulfilment of a net-zero transition plan will occur in stages and will be multifaceted. Careful selection of a set of metrics should consider how to measure progress in all stages — from development of the plan, to execution of the plan, and finally, to emissions reduction in the real economy that is eventually reflected in the company and client portfolios of financial institutions.

Backward-looking metrics are well represented in the examples, as their methodologies in many areas of finance are advanced. Metrics such as historical GHG emissions footprints are useful to understand an entity's past climate performance and emission characteristics. Forward-looking metrics are not as mature, but in areas where they are developed, they may inform a better understanding of an entity's net-zero transition plan as shown in the examples. Areas of further work to expand the use cases for forward-looking metrics are discussed in the section "[Expansion of metrics and targets](#)" of this report.

In the examples below, many metrics can be reported as absolute (e.g., number of companies) or as a proportion within a portfolio or equivalent or other quantitative metric (e.g., ten decisions made or 30% of clients). Proportion metrics will also indicate what is not covered by the net-zero transition strategy. Financial institutions should consider that both metrics convey different information and may be tracked together.

BOX 8. PORTFOLIO ALIGNMENT MEASUREMENT

To enable the required business transformation compatible with a 1.5 degrees C-aligned world and achieve real-economy emissions reduction, it is vital that portfolio alignment measurement approaches be forward-looking and consider transition planning. Therefore, a robust projection of companies' forward-looking emissions is at the heart of the Portfolio Alignment Measurement framework. This forward-looking component enables an understanding of companies' transition readiness compared to net zero-aligned scenario pathways and, in turn, enables financial institutions to identify and finance those portfolio companies that are actively transitioning to a net-zero economy, regardless of their current carbon intensity. Please see [Measuring Portfolio Alignment: Driving Enhancement, Convergence, and Adoption](#), for more information on how to use portfolio alignment measurement.

Target setting based on accounting of emissions reduction is shown in the examples below. Target setting for climate solutions and managed phaseout is less developed and considerations for further work in this area is covered in the “[Expansion of metrics and targets](#)” section of this report.

1. METRICS AND TARGETS FOR REAL-ECONOMY TRANSITION

Metrics and targets that could be considered for real-economy GHG emissions reduction include those that are:

- Emissions-based: focused on how the activity changes real-economy GHG emissions year over year or cumulatively over time (e.g., through reduced emissions for a particular company or physical asset, emissions sequestration, and technology).³⁵⁴
- Transition-based: categorizes the focus of the financial activity according to the relationship

to net zero (e.g., Paris-aligned, climate solution, fuel mix, production volume); through frameworks such as a structured taxonomy (e.g., “green” climate solutions); or science-related (e.g., PACTA’s technology/fuel mix,³⁵⁵ production volume trajectory).

The applicability of both types of metrics to each of the four key financing strategies is shown in the examples below. The context around the metrics and targets used for each should be carefully considered and disclosed so that the progress against net-zero objectives can be clearly understood.

Financing or enabling the development and scaling of climate solutions to replace high-emitting technologies or services

Emissions-based metrics could include:

- avoided emissions from using a specific technology (e.g., lower emissions from energy-efficient technology).

³⁵⁴ For the purposes of this section, portfolio alignment metrics have been included as emissions-based metrics as they are underpinned by science-based emissions pathways, but they can also incorporate transition-based elements such as CapEx planning and qualitative elements of transition plans.

³⁵⁵ PACTA. [PACTA for Banks Methodology Document, version 1.1.0](#), September 18, 2020.

Transition-based metrics could include:

- amount, absolute or proportion, of portfolio under a net-zero or transition taxonomy, for example: the proportion of portfolio dedicated to Paris-aligned assets; proportion of portfolio made of entities deemed making a “significant contribution” to climate mitigation; absolute number, or proportion, of assets under management (AUM) or revenue that is subject to a transition plan; or AUM allocated for a specific solution;
- number and total value of financing and investments linked to transition strategy;
- amount, absolute or proportion, of portfolio, committed to climate solutions (e.g., forward-looking commitment to finance \$2 billion to climate solutions in two years); or a ratio of climate solutions financing to high-emitting activity finance; and
- physical indicators (e.g., number of sustainable aviation fuel plants financed).

Example 31. Examples of climate solutions metrics and targets used by financial institutions

Bank of America:³⁵⁶ Mobilization of \$2 billion in sustainable finance for the production of sustainable aviation fuel (SAF) and other low-carbon aviation solutions by 2030.

LSEG:³⁵⁷ Green Economy Mark is a recognition of companies and funds that derive more than 50% of their revenues from products and services that are contributing to environmental objectives such as climate change mitigation and adaptation, waste and pollution reduction, and the circular economy.

BNP Paribas:³⁵⁸ Target investment of €100 million by 2020 to encourage innovative start-ups to develop pioneering technologies and business models that address energy transition challenges.

Macquarie:³⁵⁹ Invested +A\$63 billion in green energy projects since 2010, and green impact investments in the year include generation of 35,115 GWh of renewable energy.

LBG:³⁶⁰ Target of £8 billion financing for electric vehicles and plug-in hybrid electric vehicles by 2024.

Impax AM:³⁶¹ Uses avoided emissions as a key metric of impact in its investing in climate solutions.

Nomura:³⁶² Monitors and reports the scale of climate solutions supported using metrics such as the power generation capacity of a sale (e.g., acted as the exclusive financial advisor on the sale of a 900MW pipeline of utility-scale solar projects).

Marsh McLennan:³⁶³ Provides carbon finance to seven projects including degraded land afforestation in Chile and domestic energy systems in India.

356 Bank of America. [Bank of America Sets 2030 Sustainable Aviation Fuel \(SAF\) Goal](#), February 2022.

357 LSEG. [Green Economy Mark Report 2021](#).

358 BNP Paribas. [TCFD Report 2020](#).

359 Macquarie. [Driving the transition to net zero: Our capabilities](#), October 2021.

360 Lloyds Banking Group. [2021 Results Presentation](#), 2021.

361 Impax AM. [Net zero and the role of the asset management sector](#).

362 Nomura Green Tech. [Transactions](#).

363 Marsh McLennan. [2021 ESG Report](#).

Financing or enabling companies that are already aligned to a 1.5 degrees C pathway

Examples of metrics that could be used:

- Emissions-based metrics that show alignment to a pathway, such as:
 - backward-looking emission trends year over year for a company or asset or
 - forward-looking metrics, such as those discussed in GFANZ’s report on portfolio alignment measurement, including those applied to a company or asset or set thereof.³⁶⁴
- Transition-based metrics that show progress achieved in the alignment to a net-zero pathway, such as the amount, absolute or proportion, of the companies or assets in a portfolio that:
 - have third-party certification of alignment to a pathway;
 - show complete, or near-complete, implementation of a net-zero transition plan (e.g., review against a disclosure framework);³⁶⁵ or
 - achieved categorization under a net-zero taxonomy.

Example 32. Example of “aligned” metrics and targets used by financial institutions

Anaxis:³⁶⁶ “We have chosen to measure the extent to which our investments in sensitive sectors are in companies meeting one of the following three criteria:

- **neutrality in terms of greenhouse gas emissions (or very close to neutrality);**
- alignment with a satisfactory trajectory (prioritizing the IPCC’s P1 scenario);
- on track to achieve alignment.

We are aiming for this percentage to be 100% by 2030, with an interim target of 70% by the end of 2026. This target applies to our investment activities as a whole and to each individual fund in our range.”

Robeco:³⁶⁷ Measured the degree of alignment to the Paris Agreement of companies covering the top-200 highest emitters in its portfolio. It found 10% are fully aligned, 11% are aligning, 24% are committed to align, 13% are not aligning, and 42% were unable to provide sufficient data.

³⁶⁴ GFANZ. [Measuring Portfolio Alignment: Driving Enhancement, Convergence, and Adoption](#), 2022.

³⁶⁵ Such as: GFANZ. [Expectations for Real-economy Transition Plans](#), 2022.

³⁶⁶ Anaxis Asset Management. [Ethical Management Policy](#), June 24, 2022.

³⁶⁷ Robeco. [Navigating the climate transition: Robeco’s roadmap to net zero emissions by 2050](#).

Financing or enabling the transition of real-economy firms according to transparent and robust net-zero transition plans in line with 1.5 degrees C-aligned sectoral pathways

Plans for transitioning to net zero or progress in transitioning can be measured by emissions-based metrics, including:

- forward-looking emissions metrics (e.g., portfolio alignment metrics);³⁶⁸
- backward-looking GHG emissions changes year over year; and
- cumulative emissions changes over time that are achieved or projected to be achieved.

Plans for transitioning to net zero or progress in transition can be measured by transition-based metrics, such as:

- the amount, absolute or proportion, of portfolio companies or clients that have a net-zero transition plan that has been assessed for completeness and credibility (e.g., by a third-party certification, as per industry guidance);³⁶⁹
- the amount, absolute or proportion, of portfolio companies or clients that have allocation of CapEx, OpEx, or R&D budgets to transition activities and/or the quantities of such allocation;
- the amount, absolute or proportion, based on revenue, in accordance with specified assessment criteria, that is coming from net zero-aligned products and services; and
- the amount, absolute or proportion, of portfolio companies or clients that are using a credible, science-based net-zero pathway.³⁷⁰

Example 33. Example “transition” metrics and targets used by financial institutions

Anaxis:³⁷¹ “We have chosen to measure the extent to which our investments in sensitive sectors are in companies meeting one of the following three criteria:

- neutrality in terms of greenhouse gas emissions (or very close to neutrality);
- alignment with a satisfactory trajectory (prioritizing the IPCC’s P1 scenario);
- on track to achieve alignment.

We are aiming for this percentage to be 100% by 2030, with an interim target of 70% by the end of 2026. This target applies to our investment activities as a whole and to each individual fund in our range.”

Aviva:³⁷² Originating £1.04 billion in climate transition-focused real estate loans, achieving over 100% progress toward its 2025 target.

Bank of America:³⁷³ Announced a 2030 goal to mobilize capital of \$1 trillion to accelerate the environmental transition.

368 GFANZ. [Measuring Portfolio Alignment: Driving Enhancement, Convergence, and Adoption](#), 2022.

369 Guidance such as: GFANZ. [Expectations for Real-economy Transition Plans](#), 2022.

370 GFANZ. [Guidance on Use of Sectoral Pathways for Financial Institutions](#), 2022.

371 Anaxis Asset Management. [Ethical Management Policy](#), June 24, 2022.

372 Aviva. [Aviva’s Climate Transition Plan — First Release](#), 2021.

373 Bank of America. [Bank of America Announced 2030 Financing Activity Targets as Part of Net Zero Commitment](#), April 2022.

BNP Paribas:³⁷⁴ Dedicate at least €200 billion to supporting large corporate clients' transition to a low-carbon economy by 2025.

Brookfield:³⁷⁵ \$15 billion transition fund to invest in companies with big carbon footprints.

CDPQ:³⁷⁶ Creating a \$10-billion envelope to support the transition of heavy emitters.

SEB:³⁷⁷ Global equity fund with current assets under management of \$985 million and a taxonomy alignment of 9.1%.

Financing or enabling the accelerated managed phaseout (e.g., via early retirement) of high-emitting physical assets

Financial institutions could consider the following when developing a managed phaseout strategy:

- number, absolute or proportion, of engagements to identify eligible high-emitting assets and proceed to early retirement;
- capital invested, deployed, or committed toward managed phaseout schemes;
- avoided emissions from early retirement of high-emitting assets;
- physical indicators; for example, GW of coal capacity or number of physical assets, in a managed phaseout strategy.

2. METRICS AND TARGETS FOR PLAN EXECUTION

Below are non-exhaustive examples of metrics from the financial industry that measure progress in executing the plan. These metrics measure the progress in mobilization of the institution to execute the net-zero transition plan.

Foundations metrics can include:

- number of business lines within the financial institution with specific net-zero objectives as part of their strategy; for example, 60% of business lines, representing 90% of the real-economy emissions in the portfolio, have net-zero objectives within their strategy; and
- confirmation of board approval, and record of ongoing updates and comments/queries on progress.

374 BNP Paribas. [BNP Paribas unveil its first 'climate analytics and alignment report' and carbon intensity reduction targets by 2025](#), May 2022.

375 Brookfield. [Brookfield Raises Record \\$15 Billion For Inaugural Global Transition Fund](#), 2022.

376 CDPQ. [2021 Sustainable Investing Report](#).

377 UN PRI. [EU taxonomy alignment case study: SEB](#), September 2020.

Implementation Strategy metrics can include:

- amount, number, or proportion of decisions made; for example, loan decisions, investment decisions, or amount of portfolio emissions covered by net-zero transition objectives;
- amount, number, or proportion of portfolio covered by key policies and conditions on topics such as coal, oil and gas, and deforestation; and
- amount, number, or proportion of products and services that are aligned to the net-zero transition plan.

Engagement Strategy metrics can include:

- amount, number, or proportion, of clients or portfolio companies included in climate-related engagement activities (by portfolio, by topic/theme, by type of company, etc.);
- collaboration activities with academia, peers, NGOs, and real-economy actors to address shared challenges; and
- outcomes, such as percentage of climate-related engagements that led to a material positive change such as increase in verification of net-zero targets using metrics like a binary target measurement.³⁷⁸

Governance metrics can include:

- number of training sessions completed by employees, board members, and management with specific responsibilities in the net-zero transition plan, and/or percentage of company aware of the organization's net-zero transition ambition, strategy, and priorities;
- number or proportion of senior management and board members or members of an equivalent strategy-setting group who contribute climate knowledge;
- number or proportion of individuals, including at senior levels, with remuneration linked to progress against and achievement of targets;
- percentage of internal reporting to senior levels that include reporting on the net-zero transition; and
- resource allocation to implementing the net-zero transition plan.

³⁷⁸ The GFANZ Workstream on Portfolio Alignment Measurement discusses this use case and presents examples of such. GFANZ. [Measuring Portfolio Alignment: Driving Enhancement, Convergence, and Adoption](#), 2022.

3. METRICS AND TARGETS FOR FINANCED EMISSIONS

Examples of metrics by characteristic are listed in Table 19.

Table 19. Examples of financed emissions metrics

CATEGORY	EXAMPLES
Coverage ³⁷⁹	Activities covered by financed GHG emissions
	Financed GHG emissions covered by target (%)
Absolute	Portfolio/sub-portfolio/sector-level Scope 1 GHG emissions (mtCO ₂ e) (and equivalent for Scope 2 and Scope 3)
Intensity-based	Portfolio/sub-portfolio/sector-level economic intensity (mtCO ₂ e/\$ revenue, \$ lent/\$ million investment or \$ lent/\$ AUM)
	Portfolio/sub-portfolio/sector-specific physical intensity (mtCO ₂ e/production metric)
Alignment-based	Portfolio alignment metrics ³⁸⁰
	Capacity-based metrics (to assess the technologies and asset-level distribution needed for Paris alignment) ^{381, 382}
	Binary target measurement metrics (e.g., percentage of clients, investments, or portfolio companies with declared net-zero or Paris-aligned targets)
Beyond value chain mitigation	Share of exposure to companies achieving carbon neutrality
	Percentage of companies using offsets (and of those, percentage of companies using offsets to achieve carbon neutrality)
	Percentage of residual emissions compensated for using high-quality carbon credits by type

Example 34. Goldman Sachs' carbon-focused metrics and targets

Sub-sector: Banking and Asset Management

Goldman Sachs (GS) “believe the most meaningful role we can play in the global climate transition is to drive decarbonization in the real economy in partnership with our clients.”³⁸³ Recognizing that its clients will require a diverse set of advice, capital, and financing solutions to measure, manage, and execute on their decarbonization strategies, GS set 2030 targets that include both direct and facilitated financing activities.

Capital markets facilitation is not currently a requirement of NZBA, but GS considers it a core service it provides to clients. Though GS recognizes there is currently no accepted industry-wide guidance on emissions intensity accounting for capital markets-facilitated financing, GS does include capital markets facilitation in its definition of

³⁷⁹ This broadly corresponds to the definition Scope 3 Category 15 emissions under the GHG Protocol, but in the pan-financial sector context also includes insurance-associated emissions and facilitated emissions.

³⁸⁰ GFANZ. [Measuring Portfolio Alignment: Driving Enhancement, Convergence, and Adoption](#), 2022.

³⁸¹ SBTi. [Foundations for Science-Based Net-Zero Target Setting in the Financial Sector Draft for Public Comment](#), 2021.

³⁸² SBTi. [Financial Sector Science-Based Targets Guidance](#), 2022.

³⁸³ Goldman Sachs. [Accelerating Transition: Task Force on Climate-related Financial Disclosures Report 2021](#), 2021.

what is in scope for net-zero target setting because developing new structures, products, and tools is core to its strategy of helping clients set and execute their own climate transition plans.

In setting its 2030 targets, GS selected three initial target sectors — oil and gas; power; and auto manufacturing. GS selected these sectors based on their materiality to both global emissions and its own portfolio (approximately 38% of its total portfolio of carbon-intensive activities), sufficient data availability, and the firm's unique position to engage its clients in these sectors. To measure these emissions, GS uses a physical emissions intensity metric (i.e., kilograms of CO₂e per megawatt hour of electricity). Using this metric enables the firm to manage and support its clients in transition by normalizing for company size and scale of production, allowing for growth in businesses that are emissions-efficient, and reducing volatility as a result of short-term changes in production levels. Moreover, use of a physical intensity metric also ensures that the firm is not constrained from providing capital to clients on transactions that result in meaningful carbon reduction and improved carbon performance of the economy, nor shifts in client activity on a year-by-year basis.

Under the banner of Carbonomics, GS's research series,³⁸⁴ GS introduced interim targets relative to alternative scenarios that are consistent with the ambition of the Paris Agreement and the carbon budget projections of the IPCC.³⁸⁵ GS's analysis highlights where significant capital, innovation, and collaboration will be required to address current gaps between the benchmark 1.5 degrees C-aligned scenarios and the current state of policies, commitments, and technologies. The use of target ranges demonstrates the dependency on system-level action, where the collective impact of public policy, corporate action, technological advancements, and changes to consumer behavior will be needed to align the world to a net-zero pathway, which may not follow a linear trajectory.

Example 35. Intesa Sanpaolo sets 2030 emissions reduction targets in four sectors

Sub-sector: Banking

Italian banking group Intesa Sanpaolo (ISP) released its 2022-2025 Business Plan in February 2022. The plan is underpinned by four key pillars, one being ISP's commitment to ESG and specifically to achieving net-zero emissions, in its own emissions by 2030 and in its loan and investment portfolios, asset management, and insurance emissions by 2050.

In the 2022-2025 Business Plan, ISP made significant commitments to climate and communicated its 2030 financed emissions reduction interim targets for four priority high-emitting sectors.³⁸⁶

384 Goldman Sachs. [Accelerating Transition: Task Force on Climate-related Financial Disclosures Report 2021](#), 2021.

385 The Goldman Sachs Carbonomics 1.5 degree C net-zero path assumes a carbon budget for remaining net cumulative CO₂ emissions from all sources from 2020 to be c. 500 GtCO₂, in line with the IPCC AR6 WGI Summary for Policymakers, and consistent with a 50% probability of limiting warming to 1.5 degrees C by 2100.

386 Intesa Sanpaolo. [2022-2025 Business Plan](#), February 2022, p. 69.

Net-Zero aligned targets for 2030 in high-emitting sectors⁽¹⁾...

	Sector and scope	Metrics	Baseline 2019 ⁽³⁾	Target 2030 ⁽⁴⁾
High-emitting sectors ⁽¹⁾	Oil & Gas ⁽²⁾ (Scope 1, 2, 3)	gCO ₂ e/MJ	64	52-58
	Power generation (Scope 1, 2)	kgCO ₂ e/MWh	214	110
	Automotive (Scope 3)	gCO ₂ e/km	162	95
	Coal mining (exclusion policy)	€ bn exposure	0.2	0 by 2025

1. Sectors consistent with NZBA. Reference scenario: IEA Net-Zero 2050

2. The Group already has a policy in place to phase out unconventional oil and gas by 2030

3. Portfolio composition as of 6/30/21, latest available emissions data as of FY 19

4. Targets may be updated over time following the evolution of the emissions calculation methodology, the regular updates required by NZBA and SBTi, and any issuance of new external guidelines

ISP also disclosed that its 2030 emissions reduction targets cover more than 60% of its Non-Financial Corporates portfolio financed emissions.³⁸⁷ The group also noted that its targets may be updated over time as emissions calculation methodologies evolve and industry requirements and external guidance are updated. ISP has also committed to seeking SBTi certification.

Parallel to its financed GHG emissions reduction targets, ISP has also committed to contributing €115 billion in financing to social and green transition between 2022-2025, of which €88 billion is committed to lending to support the green transition (including net zero) and the circular economy;³⁸⁸ targeting planting over 100 million trees; and targeting to increase assets under management invested in ESG products to €156 billion in 2025 up from €110 billion in 2021. Also, ISP has disclosed that its subsidiaries, Eurizon, Fideuram Asset Management SGR, Fideuram Asset Management (Ireland), Asteria Investment Management, and Intesa Sanpaolo Vita Group, are working to publish their first targets in the coming months, within one year from becoming a signatory to NZAM and NZAOA. These targets will be in line with the guidelines set out by these alliances. ISP's target-setting approach reflects its consideration of interim targets, focus on high-emitting sectors, and move to include real-economy impact.

387 In sectors identified by the Net-Zero Banking Alliance.

388 Intesa Sanpaolo. [Press Release: 2022-2025 Business Plan](#), February 2022.

Example 36. MUFG's carbon-focused metrics and targets

Sub-sector: Banking

Mitsubishi UFJ Financial Group, Inc. (MUFG) has committed to achieving net-zero GHG emissions from its financed portfolio by 2050. In line with the GFANZ recommendations, the company's targets consider both MUFG's operational emissions reduction targets as well as the impact in the real economy. In MUFG's 2022 Progress Report, the company updated its targets using three broad categories:³⁸⁹

1. Net-zero GHG emissions from the financed portfolio

- Net-zero GHG emissions from the financed portfolio by 2050
- Power sector interim target: Reduce emissions intensity to 156–192 gCO₂e/kwh by 2030 (from 2019 baseline)
- Oil and gas sector interim target: Reduce absolute emissions by 15%–28% by 2030 (from 2019 baseline)

2. Decarbonization through financial services

- Target of ¥35 trillion cumulative investment into sustainable finance (with ¥18 trillion specifically for the environment) by FY 2030
- Reduction of project financing for coal-fired power generation by 50% by FY 2030 and by 100% by FY 2040 (from FY 2019 baseline)
- Reduction of corporate financing for coal-fired power generation by 100% by FY 2040

3. Net-zero GHG emissions from own operations (out of scope for GFANZ guidance)

- Net zero by 2030
- Completely shifting to 100% renewable energy for electricity procured domestically by FY 2022

In setting interim targets for GHG emissions from the financed portfolio (category 1), MUFG used four guiding approaches: science-based, standardized and transparent, data quality, and sector-specific. In addition to target setting, MUFG measures and monitors a wider range of metrics, including:

- arrangement of loans and project finance for sustainable finance;
- underwriting and sales of green bonds;
- carbon-related assets (e.g., credit amounts); and
- the credit balance of project finance and corporate finance for coal-fired power generation.

MUFG is also reporting on performance against targets; therefore, it's transparently reporting on its progress.³⁹⁰

Metric	The amount of CO ₂ to be reduced through renewable energy project finance
Target	Reduction by 70 million tons (cumulative total from FY 2019 to FY 2030)
Results	Reduction by 14.55 million tons (cumulative total from FY 2019 to FY 2020)

1. Projects that contribute to the transition toward a decarbonized society are exceptional following the MUFG Environmental and Social Policy Framework

2. As of the end of FY 2019: \$3,580 million

389 MUFG. [MUFG Progress Report: Moving towards Carbon Neutrality](#), April 2022.

390 MUFG. [MUFG Sustainability Report 2021](#), 2021.

Example 37. Ninety One's emissions metrics and targets

Sub-sector: Asset Management

Driven by its objective to support real-world decarbonization,³⁹¹ the South African- and UK-based asset manager has set an overall target based on the SBTi portfolio coverage approach, focusing on its largest sources of emissions. Meeting its target involves investing in companies that deliver different components of the transition to net zero: low-carbon and sustainable solutions; enablers of transition; and higher emitters requiring “transition finance” and engagement to shift their business models.

Ninety One's Global Environment portfolio invests in companies providing solutions and enabling the transition. Believing that no single data point or metric can describe whether a company is delivering this role in the transition to net zero, it has implemented a sustainability data dashboard to help investors compare the portfolio to other investments.³⁹²

The dashboard compares aggregate portfolio carbon data metrics for the period covered in the current Impact Report versus the previous report.³⁹³ The dashboard shows the percentage of portfolio companies reporting GHG emissions and GHG emissions footprints for Scopes 1 and 2, Scope 3, carbon avoided, and carbon intensity. The notes to the dashboard provide useful context and explanation, particularly with respect to metrics related to Scope 3.

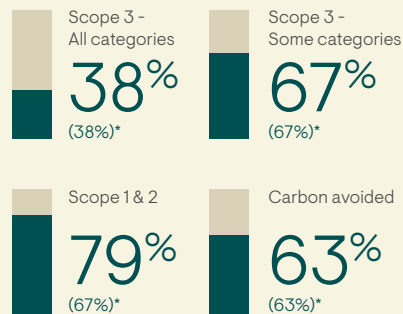
391 Ninety One. [Global Environment Impact report](#), October 2021. p. 3.

392 Ibid., p. 3.

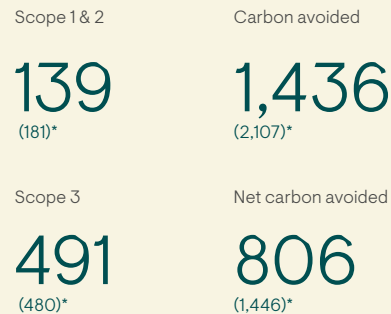
393 Ibid., p. 5.

Sustainability data dashboard

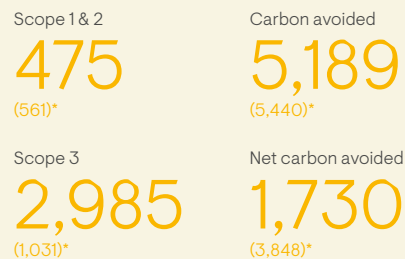
% of portfolio companies reporting emissions



Footprint (tCO₂e for US\$1m invested)



Carbon intensity (weighted average tCO₂e/US\$m revenue)



Renewable energy generated (MWh for US\$1m invested)



Given its view that portfolio-level metrics are not always indicative of the underlying sustainability performance of its investments, Ninety One provides detailed position-level reporting that it believes tells the stories behind the data for all companies in the portfolio. Each company summary report (consisting of two pages per company) includes information on a range of quantitative and qualitative metrics, including taxonomy-eligible revenue, environmental data progression, EU taxonomy assessment, net-zero targets, decarbonization, and engagement progress and goals. GHG emissions reporting is also a key focus for all its engagements, even for companies it considers at the better end of the reporting spectrum.³⁹⁴

³⁹⁴ Ibid., p. 27.

Further refinement and
ongoing considerations



Further refinement and ongoing considerations

This section does not make recommendations on financial sector net-zero transition plan implementation. It highlights some important and challenging topics, which require further work to develop a more comprehensive pan-sector approach. Financial institutions should consider following and engaging in the development of these topics, if resources allow.

GFANZ recognizes that while considerable work has taken place in the areas of carbon credits and metrics and targets as reflected in the recommendations and guidance previously stated, refinement of these core elements of transition planning is ongoing. Direction of this work is discussed in this section.

GFANZ recognizes that there are multiple areas that are related to and intertwined with net-zero transition planning, but pan-sector guidance is still developing. This section discusses the gaps in these areas of broader consideration.

GFANZ recognizes that the net-zero transition will need improvements in data and consistent disclosure to be fully supported. Both topics are included in this section.

Industry guidance and practice in all the stated areas are quickly evolving, with many expert groups working to clarify definitions and sector needs. In the meantime, GFANZ offers our research and observations on these topics and encourages financial institutions to consider these areas when drafting net-zero transition plans. This section summarizes recent developments.

Core element refinements

CARBON CREDITS

A carbon credit is defined as an emissions unit that is issued by a carbon crediting program and represents an emissions reduction or removal of a greenhouse gas emission. Carbon credits are uniquely serialized, issued, tracked, and canceled by means of an electronic registry.³⁹⁵ Carbon credits are often referred to interchangeably as carbon offsets. While the concept of carbon credits has been used for years, challenges still exist in ensuring quantity and quality of credit supply and guidance for usage in financial institution net-zero commitments.

There are two main types of carbon credits: avoidance and removal credits. Avoidance credits are from actions that avoid GHG emissions outside an organization's value chain. Removal credits are from actions that directly remove GHG emissions from the atmosphere.³⁹⁶ Both types of carbon credits are used in the market today and can vary in attributes and quality, including, for example, how long the removed emissions are stored or how avoided emissions are calculated. However, supply of removal credits is scarce and meaningful technological advancements will be required to make them available at scale.

Other issues being debated in the industry is how to use credits vis a vis emissions reduction targets and track such usage. For example, the Science Based Targets Initiative states that carbon credits “may

not be used to meet” near-term targets, and that financial institutions are not expected to purchase carbon credits on behalf of companies, thus incentivizing companies to reduce their own value chain emissions.³⁹⁷

GFANZ recognizes the vital role that voluntary carbon markets can play in directing capital to credible climate solutions, and the need for further work to establish standards. Carbon credits can help fund a range of climate needs, including raising capital for carbon reduction or removal projects, creating incentives for companies to reduce emissions, creating incentives to protect natural carbon sinks, and allowing companies to take action to catalyze new technologies. They can also be used to finance emerging markets and developing economies' climate ambitions, and to deliver additional sustainable development goal benefits, such as protecting biodiversity and supporting community development. Therefore, there is value in financial institutions' using high-quality carbon credits to compensate and neutralize emissions on the path to net zero, above and beyond the absolute emissions reduction they finance and enable.³⁹⁸

Financial institutions rely on guidance from local carbon credit and industry bodies on the use of credits, as well as on third-party verifiers to ensure credits are high-quality and high-integrity (e.g., one aspect is the permanence of removals). New

395 ISSB. [Exposure Draft: IFRS Sustainability Disclosure Standard](#), March 2022.

396 GHG emissions are to be stored for a long enough period of time to fully neutralize their impacts. Removal actions include direct air capture technologies and afforestation.

397 SBTi. [Foundations for Science-Based Net-Zero Target Setting in the Financial Sector: Draft for Public Comment](#), version 0, November 2021, p. 39. SBTi also states that carbon credits should only be used for residual emissions, which should be approximately the last 10% of emissions after 90% value chain reduction.

398 IIF. [Calling for a High Ambition Path to Net Zero](#), July 2021.

global guidance is currently being developed by the Voluntary Carbon Markets Integrity Initiative (VCMI) on the appropriate use of carbon credits by corporates, and the Integrity Council for Voluntary Carbon Markets (IC-VCM) on the integrity of carbon credits (see [Box 9](#)).

Considerations for further work

While institutions have started to develop guidance on credible deployment of carbon credits as part of a net-zero commitment, more specific guidance is needed for financial institutions and real-economy companies around different types of carbon credits and credible use cases. Work is underway on many of the challenges above, including how financial institutions can assess the quality of a carbon credit, and leadership practice in the use of credits.

Some steps that could contribute to the improvement of voluntary carbon market structures, rigorous standards, and the supply and quality of carbon credits may include:

- encouraging and incentivizing real-economy companies and other entities to disclose information regarding the type, amounts of credits purchased, location of projects, and the accounting methodologies that underpin net-zero claims;
- developing guidance on different ways to monitor carbon credit use considering type of credits, e.g., avoidance versus removal, and how credits are used in the context of a net-zero commitment, e.g., neutralization of residual emissions versus compensation of emissions beyond emissions reduction targets on the path to net zero;
- contributing to the work of industry and regulatory bodies to develop standards for classifying, assessing, and verifying the integrity of carbon credits by engaging in consultation and other opportunities for industry dialogue; and
- achieving progress on public policy regarding voluntary carbon markets and their interaction with nationally determined contributions of countries hosting carbon projects, including full implementation of Article 6 of the Paris Agreement.

BOX 9. INTEGRITY COUNCIL FOR VOLUNTARY CARBON MARKETS (IC-VCM) AND VOLUNTARY CARBON MARKETS INTEGRITY INITIATIVE (VCMI) OVERVIEW

At a high level, IC-VCM focuses on the supply side of carbon markets, providing a framework to ensure credits are of sufficient quality and integrity, while VCMI focuses on the demand side, providing guidance for net zero-aligned parties to use credits in a credible and transparent manner. Both organizations strive for transparent and credible use of carbon credits to support a just transition that limits the global temperature rise to 1.5 degrees C above pre-industrial levels.

IC-VCM Core Carbon Principles:

IC-VCM guidance centers on the quality of carbon credits entering the market, and their draft version of ten Core Carbon Principles (CCPs) includes attributes to enable market classification of credits. Their Assessment Framework can be used to determine whether carbon credit programs and their underlying quantification and verification methodologies meet the CCPs. The purpose of the CCPs and

Assessment Framework, per the IC-VCM, is “to provide a credible, rigorous, and readily accessible means of identifying high-quality carbon credits that create real, additional and verifiable climate impact with high environmental and social integrity.”³⁹⁹

The ten CCPs are additionality, mitigation activity information, no double counting, permanence, program governance, registry, robust independent third-party validation and verification, robust quantification of emissions reduction and removals, sustainable development impact and safeguards, and transition toward net-zero emissions.⁴⁰⁰

Best practices and criteria for meeting each CCP are laid out in the Assessment Framework and are considered alongside how a carbon-crediting program is implemented and the level of enforcement in practice. IC-VCM has laid out an Assessment Procedure in which carbon-crediting programs will be invited to apply for assessment and approval against the CCPs.

VCMI Provisional Claims Code of Practice:

VCMI is focused on how businesses and other entities can use carbon credits as part of credible net-zero transition strategies.⁴⁰¹

As such, VCMI’s Provisional Claims Code of Practice outlines 4 steps for making credible claims: 1) meet the prerequisites, 2) identify claims to make, 3) purchase high-quality credits, and 4) report transparently on the use of carbon credits. VCMI requires that companies only use carbon credits in addition to science-aligned value chain decarbonization, and as such “must” meet a number of prerequisites including setting public emissions targets and transition plans and aligning advocacy activities with the Paris Agreement. VCMI also states that entities “must” publicly report a number of metrics behind their use of carbon credits.

VCMI gives only high-level guidance on what determines a “high-quality credit” but notes that credits “must” be associated with a recognized and credibly governed standard-setting body, be of high environmental quality, and derive from activities compatible with human rights and positive socioeconomic impacts. Users are directed to IC-VCM and the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) for further guidance on cross-cutting quality criteria for carbon credits.

VCMI sets out a mitigation hierarchy against which to measure an entity’s claims. A company that is both on track to achieve its next interim target for Scopes 1, 2, and 3 through value chain emissions reduction and covers all remaining unabated emissions through carbon credits is considered “VCMI Gold.” “VCMI Silver” also requires meeting interim targets for all scopes through value chain emissions, while “VCMI Bronze” allows for the use of carbon credits toward Scope 3 interim targets.⁴⁰²

399 IC-VCM. [Public Consultation on the draft Core Carbon Principles, Assessment Framework and Assessment Procedure](#).

400 IC-VCM. [Draft Core Carbon Principles](#), July 2022.

401 VCMI. [Provisional Claims Code of Practice](#), June 2022.

402 This allowance appears to be counter to SBTi’s guidance that carbon credits may not be counted toward companies’ near-term targets.

EXPANSION OF METRICS AND TARGETS

For the Metrics and targets component of this report, GFANZ considered the maturity and use of different metrics and target setting approaches for the four key financing strategies and recognized gaps in the existing options. A recent SBTi report on science-based net-zero target setting summarizes these challenges.⁴⁰³ GFANZ believes the goal should be to select metrics that reflect the real-economy transition and targets that incentivize financial support to real-economy emissions reduction in line with 1.5 degrees C scenarios with an emphasis on near-term targets. GFANZ recognizes that additional work is needed, including analysis by financial institutions to understand the feasibility of the metrics and targets in these areas and how these might fit into regulatory and transparency considerations.

The challenge is two-fold. First, use of metrics for monitoring progress in some areas, particularly support for climate solutions and managed phaseout of high-emitting assets, is new and there is a lack of widely agreed-upon approaches. Sector-specific pathways are available but can be limited in their detail and sector coverage with more focus on developed regions than developing. Second, target setting for climate solutions and managed phaseout is even less developed and there are few pathways with the level of granularity needed for determining asset-level retirement timeframes. Both challenges make it difficult to compare and assess goals and progress against a net-zero commitment, and further work needs to be done to provide consistent metrics and targets benchmarks to the financial sector.

Metrics

Metrics that could address the first challenge include forward-looking portfolio alignment metrics and non-emissions-based metrics.

Forward-looking portfolio alignment metrics can be used to assess if clients and portfolio companies are aligned to a 1.5 degrees C pathway or scenario.⁴⁰⁴ Portfolio alignment methodologies continue to be refined to address gaps as they have the advantage of focusing on an entity's forward-looking transition plans, including planned actions like early retirement of high-emitting physical assets, rather than on historical emissions. However, methodologies for forward-looking alignment metrics that can cover climate solutions and managed phaseout are currently under development and may require further work before being used more widely.⁴⁰⁵ These metrics are also dependent on their inputs, and work continues to develop sectoral pathways particularly in high-emitting sectors and for geographic contexts.⁴⁰⁶

Non-emissions-based metrics, such as those related to allocation to particular business lines, percentage of business dedicated to specific activities, or more granular use of proceeds information, can be used to monitor financial support of transition activities such as climate solutions, managed phaseout, or energy efficiency upgrades. One such metric that could capture climate solutions is an energy investment ratio, for example, comparing the investment in low-carbon energy supply versus fossil fuels, normalized for population and energy demand growth.⁴⁰⁷ The concept of a ratio could also be applied to assets aligned to transition-related issues other than

403 SBTi. [SBTi Foundations for Science-based Net-Zero Target Setting in the Financial Sector, version 1.0](#), April 2022, p. 5.

404 GFANZ. [2022 Concept Note on Portfolio Alignment Measurement](#).

405 GFANZ. [2022 Concept Note on Portfolio Alignment Measurement](#).

406 GFANZ. [Guidance on Use of Sectoral Pathways for Financial Institutions](#), 2022.

407 BNEF. [Investment Requirements of a Low-Carbon World: Energy Supply Investment Ratios](#), October 2022.

energy, for example, the ratio of the portfolio that is consistent with a net-zero sectoral pathway.⁴⁰⁸ Other metrics may be needed to complement such a top-down approach. Metrics specific to identifying high-emitting physical assets suitable for early retirement also are needed.⁴⁰⁹

Target setting

A related challenge is in target setting against a credible 1.5 degrees C benchmark for specific climate solutions or for setting 1.5 degrees C-aligned retirement dates. While sectoral pathways exist, there are few pathways that provide the necessary level of detail at an asset level to be actionable for financial institutions. For example, to determine the appropriate target for allocating financing toward renewable energy, a financial institution would need a 1.5 degrees C scenario, ideally for that sector and geography, that details the necessary deployment of renewable energy solutions over the relevant timeframe, so that the financial institution could translate it to their specific portfolio.

Generally, sectoral pathways focus on the emissions profile of a sector with solution deployment being an input into the modeling.⁴¹⁰ One possible solution

is to calculate the energy investment ratio of a net-zero scenario as an overall target. Further work is needed to develop benchmark pathways for climate solutions.

Similarly, 1.5 degrees C pathways that provide granular detail on the appropriate timing and quantity of retirement of high-emitting assets would provide useful benchmarks. Further work needs to be done on developing sectoral and geographical pathways where they do not exist and repurposing sectoral pathways to support efforts to determine both necessary investment levels in climate solutions and appropriate early retirement timeframes for high-emitting assets.

Other considerations

GFANZ suggests that it may be useful to express a financial institution's progress to net zero as a proportion of the business supporting the four key financing strategies. We believe that as the real economy and financial sector make progress on net-zero transition planning, opportunities under the key financing strategies will increase and so too will the percentage of transition finance in portfolios. Further work should be considered.

408 One such discussion paper on this type of metric was authored by ING: [Stimulating EU transition financing](#), November 2021.

409 GFANZ. [The Managed Phaseout of High-emitting Assets](#), June 2022.

410 GFANZ. [Guidance on Use of Sectoral Pathways for Financial Institutions](#), June 2022.

Overarching issues

ADAPTATION AND RESILIENCE

The physical effects of climate change will occur with increasing severity and frequency and “many of these risks are unavoidable in the near-term, irrespective of emission scenario.”⁴¹¹ The impacts can be divided into those driven by events (acute) and those caused by longer-term shifts in climate patterns (chronic), such as changes in rainfall and sustained higher temperatures.⁴¹² The latest IPCC report states that “current global financial flows for adaptation, including from public and private finance sources, are insufficient for and constrain implementation of adaptation options.”⁴¹³

Resilience is the ability of systems to cope with or bounce back from a hazardous event, trend, or disturbance while maintaining their essential functions, identities, and structures. Increasing resilience to acute and chronic climate impacts requires adaptation measures.⁴¹⁴

Resilience and finance

Traditional financial risk management focuses on potential negative impacts on the value and stability of an asset, client, or portfolio company. Financial institutions can manage and mitigate negative financial risks from physical impacts of climate change in various ways. Portfolios can be diversified across sectors and regions and assets can obtain insurance. Institutions also have an opportunity to finance adaptation projects or companies that contribute to resilience.

Longer-term, financial institutions can help societies increase their resilience to the worsening impacts of climate change through large-scale adaptation projects. However, these projects may require a regional or global scale and years, if not decades, to complete.

Resilience financing is still nascent. Current examples include parametric insurance, which pays out based on a trigger event, and critical infrastructure financing often related to major economic centers. Financial institutions can also incorporate resilience principles — such as preventing deforestation — into their policies.

Challenges to overcome

The alignment of finance with climate resilience poses numerous challenges, which include:

- unclear definitions, lack of agreed goals and unquantified standards;
- difficulty assessing the financial impact of resilience based on assumptions, scenarios, pathways, and the need for location-specific context;
- lack of standard methodologies and data to measure adaptation risk and resilience; and
- difficulty capturing external factors, such as environmental degradation, in valuation methods.

411 IPCC. [Climate Change 2022: Impacts, Adaptation, and Vulnerability: Summary for Policymakers](#), March 2022.

412 United Nations Environment Programme. [Driving Finance Today for the Climate Resilient Society of Tomorrow, for the Global Commission on Adaptation](#), July 2019.

413 IPCC. [Climate Change 2022: Impacts, Adaptation, and Vulnerability: Summary for Policymakers](#), March 2022.

414 IPCC. [AR5 WGII “Glossary.”](#) 2015.

Considerations for future work

GFANZ encourages financial institutions to consider the role of adaptation and resilience finance within their strategies around climate change, and to share learnings across the industry. While adaptation and mitigation are related, but different areas of climate change management, financial institutions should consider raising their awareness of how their decisions in support of a net-zero commitment may impact adaptation risk and opportunities as the latter becomes more defined.

Developing a strategy around adaptation and resilience will likely build on the climate-related risks and opportunities a financial institution identifies in its TCFD disclosures but may also involve broader considerations. Different types of financial institutions are likely to have different levels of expertise with supporting resilience, and different business models are likely to be more directly relevant to resilience. Moreover, given geographical variation in the distribution of projected climate change impacts, financial institutions in different regions likely have different exposures to both physical climate-related risks and resilience opportunities.

Broadly accepted definitions, frameworks, and methodologies for adaptation and resilience finance are needed to enable more widespread

action by the financial sector. Additional work is also needed to provide structure and guidance on how adaptation and resilience may overlap with net-zero transition planning. GFANZ invites organizations developing guidance around adaptation and resilience guidance to consider these linkages.

Resources: Organizations with relevant published guidance (not already referenced):

- Climate Policy Initiative (CPI)⁴¹⁵
- Coalition for Climate Resilient Investment (CCRI)⁴¹⁶
- Global Center on Adaptation (GCA)⁴¹⁷ and UNEP FI⁴¹⁸
- Institutional Investors Group on Climate Change (IIGCC)⁴¹⁹
- Inter-American Development Bank (IDB)⁴²⁰
- Investor Agenda ICAPs⁴²¹
- UK Centre for Greening Finance & Investment (CGFI)⁴²²
- World Bank⁴²³

Organizations currently working on guidance:

- Atlantic Council
- NZAOA

415 CPI. [Framework for Sustainable Finance Integrity](#), October 2021.

416 CCRI. [Risk and Resilience: Addressing Physical Climate Risks in Infrastructure Investment](#), 2021.

417 GCA. [State and Trends in Adaptation Report 2020](#), December 18, 2020.

418 UNEP FI. [Physical Risks & Resilience Statement](#), February 14, 2022.

419 IIGCC. [Addressing physical climate risks: key steps for asset owners and asset managers](#), 2020, and IIGCC. [Understanding physical climate risks and opportunities — a guide for investors](#), 2022.

420 IDB. [A Framework and Principles for Climate Resilience Metrics in Financing Operations](#), December 2019.

421 Investor Agenda. [Investor Climate Action Plans \(ICAPs\) Guidance on Using the Expectations Ladder](#), July 2022, p. 24.

422 CGFI. [Aligning Finance with Climate-resilient Development](#), October 2021.

423 The World Bank. [What You Need to Know About the Climate Change Resilience Rating System](#), January 25, 2021.

Example 38. Insuring adaptation: Understanding risk in order to build Resilience

Sub-sector: Insurance

The insurance industry comprises many roles, including risk managers, risk carriers, and investors. Through the NZIA and the NZAOA, the industry can commit to decarbonize both its insurance underwriting and investment portfolios. Beyond this climate change mitigation role, insurers help communities and economies cope with the physical impacts of climate change and build resilience through risk management services and insurance solutions.

Disasters undermine sustainable development and can destroy decades of progress in an instant. In 2021, global economic losses from natural catastrophes were \$270 billion, of which only around 40% was covered by insurance,⁴²⁴ generating widespread social and economic losses. UNEP's Principles for Sustainable Insurance Initiative (PSI),⁴²⁵ which hosts the NZIA, believes that climate-resilient communities and economies are a precondition to a successful net-zero transition, disincentivizing public and private actors from backsliding on their decarbonization commitments.

As risk managers, insurers help communities understand, prevent, and reduce climate-related risks and build resilience through their expertise in risk research and analytics, natural catastrophe risk models, and loss prevention measures. Insurers also advocate for improved policies from legislators and regulators to support climate change adaptation. Examples include more effective land-use planning, zoning, and building codes; ecosystem-based disaster risk reduction; and disaster preparedness.

As risk carriers, insurers protect households, businesses, and public entities by absorbing financial shocks related to severe weather-related risks, such as cyclones, floods, extreme heat, and droughts, thereby building financial resilience. Furthermore, risk-based insurance pricing provides risk signals that can incentivize risk reduction measures, such as flood prevention and climate-resilient construction.

The PSI offers three concrete examples of activities that build climate resilience:

- To better understand climate risk, the PSI has worked with 22 leading insurers and reinsurers to pilot state-of-the-art approaches — particularly the use of climate change scenarios — to better assess climate-related physical, transition, and litigation risks.⁴²⁶
- The PSI also hosts the Sustainable Insurance Facility (SIF) of the Vulnerable Twenty Group of Finance Ministers (V20).⁴²⁷ The V20-SIF is a vulnerable country-led insurance facility that aims to deliver insurance protection to micro, small, and medium-sized enterprises (MSMEs) — the backbone of V20 economies — to build their climate resilience and support the transition to net-zero economies.
- Finally, the PSI has been championing the concept of nature-positive insurance.⁴²⁸ This includes insurance solutions for ecosystems such as forests, wetlands, and mangroves, which act as natural buffers to climate risks, such as storm surge, as well as store carbon and serve as biodiversity hubs. The PSI has also produced guidance to protect natural World Heritage Sites that stabilize soils, prevent floods, and store carbon from harmful industrial activities, particularly in relation to sectors such as oil and gas, mining, and large-scale hydropower.⁴²⁹

424 Swiss Re Institute. [Natural catastrophes in 2021: the floodgates are open](#), March 30, 2022.

425 UNEP FI. [Principles for Sustainable Insurance Initiative \(PSI\)](#).

426 UNEP FI. [Insuring the climate transition: Enhancing the insurance industry's assessment of climate change futures](#), January 2021.

427 [Sustainable Insurance Facility \(SIF\) of the Vulnerable Twenty Group of Finance Ministers \(V20\)](#).

428 PSI. [Nature-positive Insurance series](#).

429 UNEP FI, WWF, and UNESCO. [Protecting our world heritage, insuring a sustainable future: The first guide for the global insurance industry to protect our world's priceless and irreplaceable assets](#), 2019.

JUST TRANSITION

The concept of a just transition to net zero is rapidly evolving, as governments, real-economy companies, financial institutions, and civil society organizations are developing approaches to both minimize negative social impacts of the transition and provide positive social co-benefits. The GFANZ Call to Action makes a series of recommendations to G20 governments, which taken together would support public and private capital flows working hand in hand with public policy to accelerate the global transition to net zero, while ensuring a just transition for all.⁴³⁰

This report recognizes the imperative for further work and consultation to develop the concept of a just transition that is pertinent to financial institutions, including intervention by governments and policymakers to accelerate finance for transition activities in a just and equitable manner. A just transition is a nuanced and critical topic that centers on some of our world's most vulnerable populations and will require context-specific guidance for different communities, regions, and financing relationships. As such, it will take time to develop guidance with the care and sensitivity it warrants.

The Grantham Research Institute on Climate Change and the Environment, one of the leading organizations beginning to develop financial institution-specific guidance on the topic of a just transition, published a report, *Making Transition Plans Just*, in October on embedding just transition principles in financial sector net-zero transition plans.⁴³¹ The report calls for increased action

and transparency from financial institutions and outlines a range of recommendations for financial institutions to apply principles and develop frameworks that will help ensure the road to net zero is fair for all.

Considerations for future work

The transition to net zero will affect many areas of the economy and society in ways not yet fully understood. Discussions about pathways have therefore been accompanied increasingly by calls for a just transition.

Financial institutions have a role to play in a transition that is just for all people and communities by developing transition plans that pursue economy-wide decarbonization in an equitable way by sharing benefits and minimizing risks. According to the Council for Inclusive Capitalism, “For the global energy transition to succeed, governments, investors, businesses, and civil society must act intentionally and collaboratively so that the transition advances environmental, social, and economic justice.”⁴³²

In general, this means anticipating and addressing the societal implications of a transition to a low-carbon economy. These implications are far-reaching and evolving and include a range of topics related to ensuring “climate-vulnerable” populations do not bear the brunt of the transition cost. Financial institutions may encounter multifaceted trade-offs between sustainability goals, social implications, and financial risk as they develop transition plans, and will need support and guidance to develop a deep understanding of the impacts of their decisions.⁴³³

430 GFANZ. [Policy Call to Action](#), October 2021.

431 The Grantham Research Institute on Climate Change and the Environment. *Making Transition Plans Just*, October 2022.

432 Council for Inclusive Capitalism. [Just Energy Transition: A Framework for Company Action](#), 2021.

433 IGCC. [Empowering communities: How investors can support an equitable transition to net zero](#), July 2021.

A just transition is consistent with the Paris Agreement and commitments to the UN's Sustainable Development Goals.^{434, 435} As such, organizations should raise their awareness of how decarbonization of the real economy will impact areas such as employment, quality of life, affordability, and access to resources, and should consider integrating these considerations into transition plans and targets. It is important that financial institutions assess the impacts and trade-offs associated with the design and delivery of their transition plans, and how these may differ between regions, particularly emerging markets and developing economies. Impacts and trade-offs can be regularly reevaluated as understanding of the interconnectivity of transition activities and social issues increases and the science behind decarbonization pathways and targets further develops.

Institutions could also consider how to proactively engage excluded and marginalized populations, including low-income communities and women, through transition-related activities. Some groups are developing guidance on how financial institutions can address just transition concerns and elevate the voices of impacted populations in their climate work. For example, the Women in Finance Climate Action Group has explored how financial institutions can better integrate gender-related considerations in climate planning — such as expanding women's access to climate finance, increasing gender diversity in climate-related leadership roles and decision-making, and

incorporating gender metrics and data in reporting to improve climate outcomes.⁴³⁶

While guidance for financial institutions has been limited to date, initial considerations and approaches may include the following:

- Investors can engage with portfolio companies to raise the profile of just transition risks and opportunities. Consensus documents, such as the ILO guidelines, can be used to press for improvements from real-economy companies in the social dimension of their transition plans. Investors can actively seek to finance companies that are committed to a positive social impact for workers, communities, and consumers.^{437, 438}
- Financial institutions can integrate just transition principles into their purpose and culture, for example, through staff training and awareness-raising.
- Financial institutions can outline an action plan that identifies financial targets tied to a just transition. For customers, they can develop financial products that contribute to achieving net zero in a socially inclusive manner.⁴³⁹
- Insurance companies can align their underwriting strategies at the individual firm and sector levels to support a responsible transition away from GHG emissions-intensive activities, and insurance products, such as pensions, critical illness, and other life and health protection products can play a part in the evolution of social protection systems to support a just transition.⁴⁴⁰
- Financial institutions can carefully consider how the managed phaseout of specific high-

434 “The Paris Agreement stated the imperative of just transition as essential elements of climate action.” UNFCCC. [Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs](#), April 2020.

435 “The just transition concept links to 14 of the 17 Sustainable Development Goals, explicitly drawing together SDGs 12 — climate action, 10 — reduced inequalities, 8 — decent work and economic growth, and 7 — affordable and clean energy.” European Bank for Reconstruction and Development. [“What is a just transition?”](#).

436 Women in Finance Climate Action Group. [Women in Finance Climate Action Group report](#), November 2021.

437 ILO. [Guidelines for a just transition towards environmentally sustainable economies and societies for all](#), 2015.

438 Grantham Research Institute on Climate Change and the Environment. [Climate change and the just transition — A guide for investor action](#), December 6, 2018.

439 Grantham Research Institute on Climate Change and the Environment. [Financing climate action with positive social impact: How banking can support a just transition in the UK](#), July 14, 2020.

440 Net-Zero Insurance Alliance. [Insuring the net-zero transition: Evolving thinking and practices](#), April 2022.

emitting assets may impact communities, and work with clients and portfolio companies to ensure phaseout plans account for and minimize economic hardship or job loss for workers and communities, while simultaneously taking precautions to ensure just transition concerns are not used as an excuse for slow or reduced action.⁴⁴¹

- Financial institutions can advocate for policies regionally, nationally, and globally that support a just transition, including identifying

and supporting social policies that put in place protections against transition risks for vulnerable populations.

- When reviewing and setting internal climate strategy, financial institutions could also assess the social (e.g., employment) impacts of the transition and pursue dialogue with workers or key intermediaries to integrate just transition factors into policies. This could include regular engagement with civil and social sector organizations and representatives.

Example 39. ICEA Lion's Commitment to Creating Value⁴⁴²

Sub-sector: Insurance

"Shared value refers to policies and operating practices that enhance the competitiveness of an organization while simultaneously advancing economic and social conditions in the communities it operates."

"Creating shared value is at the core of our business strategy. This helps us focus on the right kind of profits — profits that create societal benefits rather than diminish them. Below is an illustration of how our strategy creates shared value and aligns to the Sustainable Development Goals (SDGs)."



441 Grantham Research Institute on Climate Change and the Environment. [Financing climate action with positive social impact: How banking can support a just transition in the UK](#), July 14, 2020, p. 6 and 15.

442 ICEA Lion. [Scaling New Horizons: 2021 Integrated Report](#).

Example 40. Generation Investment Management's Just Climate

Sub-sector: Asset Management

In October 2021, Generation Investment Management (Generation) launched Just Climate, an investment business dedicated to climate-led investment. Just Climate's aim is to have a transformational positive climate impact by directing and scaling capital toward climate solutions in hard-to-abate sectors and hard-to-decarbonize areas that have the potential to have the most impact.⁴⁴³

Just Climate seeks to catalyze timely climate impact via a just transition to net zero, which it defines as a transition that pursues the necessary shift away from GHG emissions across all industries while proactively addressing the associated social and economic impacts, particularly for marginalized communities. Core to a just transition is a process in which workers and communities have understanding and agency over the decisions that affect their daily lives, as part of the shift to net zero. According to Just Climate's Chief Investment Officer, underpinning its investment processes, alongside climate change mitigation and traditional financial risk and reward analysis, are outcomes associated with the just transition, for example: respect for human rights, fair distribution of costs and benefits, access to fair and green jobs, community self-determination and voice, and climate change adaptation.

Just Climate is an example of the integration of just transition factors into decision-making. Positive and negative just transition outcomes are assessed during Just Climate's due diligence for a prospective investment. Those outcomes that are significant, assessed from the perspective of the affected stakeholder, are also monitored and evaluated over the life of an investment.

443 BloombergNEF. [Just Climate Takes a New Approach to Green Investing: BNEF Q&A](#), October 28, 2021.

Resources: Organizations with relevant publications (not already referenced; non-exhaustive):

- African Development Bank (ADB)⁴⁴⁴
- Business and Human Rights Resource Centre⁴⁴⁵
- Business for Inclusive Growth (B4IG)⁴⁴⁶
- Ceres⁴⁴⁷
- Clifford Chance LLP, the Institute for Human Rights and Business and the CDC Group⁴⁴⁸
- EU Commission⁴⁴⁹
- Harvard Kennedy School Initiative for Responsible Investment⁴⁵⁰
- Interfaith Center on Corporate Responsibility⁴⁵¹
- International Labour Organization (ILO)⁴⁵²
- Investor Agenda⁴⁵³
- Just Transition Centre⁴⁵⁴
- London School of Economics and Political Science, and Grantham Research Institute on Climate Change and the Environment⁴⁵⁵
- OECD Guidelines for Multinational Enterprises⁴⁵⁶
- Sustainable Markets Initiative (SMI)⁴⁵⁷
- The Energy and Resources Institute (TERI)⁴⁵⁸
- United Nations Human Rights⁴⁵⁹
- World Benchmarking Alliance (WBA)⁴⁶⁰

444 ADB. [Just Transition Initiative to Address Climate Change in the African Context](#).

445 Business and Human Rights Centre. [Fast and Fair Renewable Energy Investments: A Practical Guide for Investors](#), July 1, 2019.

446 B4IG. [Business for Inclusive Growth calls to put people at the heart of climate action](#), November 8, 2021.

447 Ceres. [Practices for Just, Sustainable and Equitable Development of Clean Energy](#), December 3, 2020.

448 Clifford Chance. [Just Transitions: A White Paper on Just Transition and the Banking Sector](#), December 2021.

449 EU Commission. [The Just Transition Mechanism: making sure no one is left behind](#).

450 Harvard Kennedy School Initiative for Responsible Investment. [Investing in a Just Transition Initiative](#).

451 Interfaith Center on Corporate Responsibility. [Just Transition to a Clean Energy Economy](#).

452 ILO. [User's manual to the ILO's Guidelines for a just transition towards environmentally sustainable economies and societies for all](#), November 2021.

453 Investor Agenda. [Investor Climate Action Plans \(ICAPs\) Guidance on Using the Expectations Ladder](#), July 2022, p. 10.

454 Just Transition Centre. [Just Transition: A report for the OECD](#), May 2017.

455 Grantham Research Institute on Climate Change and the Environment. [Just zero: 2021 report of the UK Financing a Just Transition Alliance](#), October 25, 2021. [From the grand to the granular: translating just transition ambitions into investor action](#), July 23, 2021. [Just Nature: How finance can support a just transition at the interface of action on climate and biodiversity](#), August 23, 2022.

456 OECD. [Guidelines for Multinational Enterprises](#).

457 SMI. [A practitioners guide for banks: Considerations for banks in setting a net zero strategy](#), October 2021.

458 TERI. Working Paper on [Assessing vulnerability from coal dependence and need for a Just Transition](#), June 24, 2021, and Working Paper on [Harnessing opportunities for a Just Transition in India](#), June 24, 2021.

459 United Nations Human Rights. [Guiding Principles on Business and Human Rights](#).

460 WBA. [Financial System Benchmark](#), 2021.

NATURE

Methodologies for understanding and managing nature-related financial risks and opportunities are under development and will pave the way to integrate nature considerations into transition planning for financial institutions. The [Taskforce on Nature-related Financial Disclosures](#) (TNFD) has a beta version of the TNFD framework on nature-related risks and opportunities available⁴⁶¹ and the [Science Based Targets Network](#) has initial guidance on setting targets for nature.⁴⁶² Financial institutions can consider participating and reviewing these initiatives as further guidance is developed.

More than half the world's economic output is highly or moderately dependent on nature, according to the World Economic Forum (WEF).⁴⁶³ Organizations rely on the land, ocean, freshwater systems, and atmosphere for ecosystem services, such as a clean and regular water supply. Biodiversity in nature supports the ecosystem services and natural capital upon which people and

industries depend.⁴⁶⁴ Thus, nature loss can drive economic losses impacting the financial sector.

Nature, including biodiversity, and climate change are inextricably linked on many levels. Climate change impact is one of the five direct drivers of nature loss.⁴⁶⁵ Further, destruction of natural carbon sinks accelerates warming as nature's ability to absorb and store carbon decreases. The degradation of nature and worsening physical climate impacts reinforce each other and may intensify financial losses.

However, conservation, restoration, and improved management of land and sea can support climate mitigation by preserving or improving carbon storage and avoiding GHG emissions. These activities can also support building resilience and supporting adaptation. In the context of achieving net zero, several studies have estimated that the mitigation potential of nature-based solutions could be between 10 and 12 billion metric tonnes of CO₂e per year.⁴⁶⁶

461 The beta version can be accessed on the [TNFD website](#). The final version of the framework is due to be released in September 2023. The TNFD represents financial institutions, corporates, and market service providers with \$19.4 trillion in assets.

462 SBTN. [Science-based Targets for Nature: Initial guidance for business](#), September 2020. The SBTN brings together more than 45 NGOs, business associations, and consultancies, builds on the Science Based Targets initiative, and aims to develop methods to set integrated targets across all Earth systems by 2022.

463 World Economic Forum. [Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy](#), January 19, 2020.

464 TNFD. [The TNFD Nature-related Risk and Opportunity Management and Disclosure Framework](#), beta v0.1 release, March 2022.

465 Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). [The Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policymakers](#), 2019.

466 CarbonBrief. [Q and A: Can 'nature-based solutions' help address climate change?](#) December 1, 2021.

Example 41. Nature and finance examples

Bancolombia will not finance projects related to “the production, marketing, or use of products, substances or activities from... commercial operations of tree felling or felling machinery for use in virgin forests and rainforests.”⁴⁶⁷

AXA's dedicated climate and biodiversity impact investing fund is a private equity vehicle that supports global solutions that conserve natural capital and ecosystems, promote resource efficiency and sustainability, and protect and empower vulnerable communities whose livelihoods are affected by the challenges of climate change and ecosystem degradation.⁴⁶⁸

Given the potential for financial impacts associated with nature loss, as well as the interrelationship between climate change and nature, the financial sector has increased interest in supporting the protection of nature. Net-zero transition planning could be a good vehicle to operationalize this as part of institutions' broader climate change mitigation strategy. Alongside deliberate choices to invest in nature-based solutions, financial institutions and real-economy companies can design and finance emissions reduction and removal strategies to avoid negative impacts and potentially drive positive impacts on nature and biodiversity.

To establish a consistent approach for the financial sector to design transition plans with nature in mind, GFANZ suggests that additional resources and guidance are needed, including:

- guardrails to avoid unintended negative consequences to nature when financing and enabling climate solutions (e.g., monocultures for biofuel and large infrastructure projects);
- a framework to place nature decisions into the context of transition planning, ranging from a focus on individual nature-based climate solutions to a broader approach of full integration and support of nature-positive outcomes;

- guidelines for development, assessment, and use of nature-based carbon credits;
- nature-based risk and opportunity definitions, and identification, assessment, and management tools; and
- nature-related metrics and targets for nature-based solutions, nature-positive outcomes, biodiversity challenges, and related topics.

As financial institutions increasingly assess and manage nature-related risks and opportunities, including supporting nature-based solutions, they are starting to systematically examine their impacts and dependencies on nature. One assessment approach, being developed by the TNFD as a central part of the TNFD framework, is called the LEAP approach, with a tailored version for financial institutions called LEAP-FI (see Figure 21).⁴⁶⁹ As part of the LEAP approach, the TNFD has proposed criteria for selecting metrics and indicators, which financial institutions can use to start thinking about assessing their impacts and dependencies on nature and their ongoing measurement and target setting. TNFD will publish the full framework on nature-related risks and opportunities in September 2023.

467 Bancolombia. [Controversial Themes Policy: Version 2](#), September 2021.

468 PRI. [The AXA Impact Fund: climate & biodiversity — making a difference](#), November 2020.

469 TNFD. [The TNFD Nature-related Risk & Opportunity Management and Disclosure Framework, beta v0.2 release](#), June 2022.

Figure 21. The LEAP-FI approach (from TNFD framework beta v0.2)



The broadest and most ambitious approach to integrating nature in transition planning would be to design a transition plan to be “nature-positive”. While the definition of this is still being developed, it generally refers to a plan that would lead to no

net loss from nature. To accomplish this, drivers of negative nature effects would need to be addressed and restoration of nature would need to be supported. This is an ongoing area of work.

Resources: Organizations with relevant publications (not already referenced):

- Cambridge Institute for Sustainability Leadership (CISL)⁴⁷⁰
- Climate Disclosure Standards Board (CDSB)⁴⁷¹
- Environmental Finance⁴⁷²
- European Financial Reporting Advisory Group (EFRAG)⁴⁷³
- IBAT alliance⁴⁷⁴
- International Union for Conservation of Nature (IUCN)⁴⁷⁵
- Investor Agenda ICAPs⁴⁷⁶
- Natural Capital Investment Alliance (NCIA)⁴⁷⁷
- Network for Greening the Financial System (NGFS)⁴⁷⁸
- Partnership for Biodiversity Accounting Financials (PBAF)⁴⁷⁹
- Principles for Responsible Banking (PRB)⁴⁸⁰
- Science Based Targets Network⁴⁸¹
- Stockholm Resilience Centre⁴⁸²
- Sustainable Insurance Forum (SIF)⁴⁸³
- UN Environment Programme and UNEP Financial Initiative and Global Canopy⁴⁸⁴
- World Economic Forum (WEF)⁴⁸⁵

470 CISL. [Integrating Nature: The case for action on nature-related financial risks](#), April 7, 2022, [Handbook for Nature-related Financial Risks](#), March 1, 2021, and [Biodiversity loss and land degradation](#), May 2020.

471 CDSB. [CDSB Framework: Application guidance for biodiversity-related disclosures](#), November 2021.

472 Environmental Finance. [Investing in Nature: Private Finance for Nature-based Resilience](#), November 26, 2019.

473 Multiple standards out for public consultation can be found on the EFRAG [website](#), including Pollution, Water and marine resources, Biodiversity and ecosystems, and Resource use and circular economy.

474 [Integrated Biodiversity Assessment Tool](#).

475 IUCN. [IUCN Global Standard for Nature-based Solutions, first edition](#), 2020.

476 Investor Agenda. [Investor Climate Action Plans \(ICAPs\) Guidance on Using the Expectations Ladder](#), July 2022. p. 24.

477 [The Natural Capital Investment Alliance](#).

478 NGFS. [Biodiversity and financial stability: building the case for action](#), 2021.

479 PBAF Netherlands. [Paving the way towards a harmonised biodiversity accounting approach for the financial sector](#), September 2020.

480 PRB. [Guidance on Biodiversity Target-setting. Principles for Responsible Banking](#), June 2021.

481 SBTN. [Science-Based Targets for Nature: Initial Guidance for Business](#), September 2020.

482 Stockholm Resilience Centre. [Assessing nature-based solutions for transformative change](#), May 2021.

483 SIF. [SIF Scoping Study: Nature-Related Risks in the Global Insurance Sector](#), November 2021.

484 UNEP FI. [Beyond “Business as Usual”: Biodiversity Targets and Finance](#), June 30, 2020.

485 WEF. [Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy](#), January 2020.

Supporting data and disclosures

DATA

Net-zero transition plans rely on extensive data. Financial institutions need a range of data to set meaningful targets, to align business strategies and decision-making to net zero, and to calculate the metrics used to monitor progress. Those targets and metrics are, in turn, a key data output that may be used by a financial institution's stakeholders to monitor results and press for accountability.

Key climate data challenges to overcome include low and non-standard levels of disclosure (particularly of Scope 1, 2, and 3 emissions), inconsistent views/definitions, limited availability, variable quality, and analytical methodologies that are not broadly accepted or harmonized.

Significant work has been done by organizations, such as the TCFD, CDP, and more recently, the International Sustainability Standards Board (ISSB), to provide structure to corporate disclosure of sustainability and climate-related data. Disclosure is also becoming mandatory in certain jurisdictions, which could improve availability of data inputs for transition plans, though policy is still in development and challenges remain.

In response to these challenges, in June 2022, Michael Bloomberg and French President Emmanuel Macron established a Climate Data Steering Committee (CDSC) to advise on key data needed to support and accelerate an orderly transition to a net-zero economy.⁴⁸⁶ To standardize foundational climate transition-related data across data providers, the committee recommends developing an open climate transition-related data utility that can be made free and openly available to accelerate and support more effective means of tracking progress. The CDSC will work to develop recommendations for an open-data repository for climate transition-related data and will develop an open data utility designed to be a part of the UNFCCC's Global Climate Action Portal.

Real-economy data challenges

Disclosure of Scope 1, 2, and 3 emissions data by real-economy companies varies considerably.⁴⁸⁷ Variations include: Emissions reporting may not cover 100% of an organization's operations, organizations may use different operational boundaries and have different disclosure timelines, and reporting may face significant lags. The lack of consistent and comparable figures poses significant challenges to portfolio carbon footprint analysis.

⁴⁸⁶ GFANZ. [Announcement of the Net Zero Data Public Utility](#), 2022.

⁴⁸⁷ Approximately 30% of companies covered by the Bloomberg ESG Universe publicly disclosed Scope 1 GHG emissions in 2020, with Scope 3 GHG emissions available for less than 18% of companies. A March 2022 MSCI study found that 69% of companies reporting to CDP did not disclose Scope 3 emissions. (MSCI. [Reported Emission Footprints: The Challenge is Real](#), March 9, 2022.)

Emissions accounting methodologies continue to evolve and reported emissions may change based on updated methodologies. Comparison and forward-looking target setting is hampered when historical emissions are not restated using the most recent methodologies.

To bridge gaps in disclosure, financial institutions rely on estimation methodologies, which may introduce inaccuracies. At a portfolio level, errors may also be introduced when financial institutions rely on multiple data providers. Firms are recommended to provide transparency regarding usage of estimated emissions data.

Recent developments on climate disclosure may drive data standardization. For example, the U.S. Securities and Exchange Commission has proposed rules to require public company disclosure of climate-related information, including GHG emissions data and certain climate-related financial metrics.⁴⁸⁸ Similarly, the ISSB’s Exposure Draft on IFRS S2, Climate-related Disclosures, proposes requirements related to disclosing climate-related risks and opportunities.⁴⁸⁹

Further work is needed to increase consistency across reporting standards and increase transparency and alignment on emissions

estimation methodologies. While it will take time to achieve high-quality data disclosure across multiple sectors, firms should move forward in the development of their transition plans and should provide transparency into the data sources and methodologies used.

Financial institution data challenges around target setting and monitoring

Setting ambitious, specific targets is an essential component of a net-zero transition plan. However, the types, targets, and underlying information used to set the targets face a number of challenges, including:

- inconsistency of targets disclosed and the calculation methodologies used;
- lack of standard taxonomies that define “climate solutions”;
- differing views of where real-economy Scope 3 emissions are considered “material”; translating into an under-accounting for industries where upstream Scope 3 emissions are significant in the supply chain; and⁴⁹⁰
- limited availability of fit-for-purpose transition pathways to set targets and benchmark portfolio alignment to specific temperature outcomes.

488 Securities and Exchange Commission. [The Enhancement and Standardization of Climate-Related Disclosures for Investors](#), 2022.

489 ISSB. [Exposure Draft of IFRS S2 Climate-related Disclosures](#), 2022.

490 For example, in the Bloomberg ESG Universe, approximately 12% of Energy companies and 15% of Utilities report on Scope 3 downstream emissions, while 12% of Consumer Discretionary companies, 13% of Consumer Staples companies, and 12% of Materials companies report on Scope 3 upstream emissions (BICS Sector Classification).

Also, the aggregation of targets across a portfolio produces a challenge to developing a topline view of the portfolio's net-zero performance. In particular, combinations of targets derived using bottom-up models often exceed a science-aligned budget, as they sometimes assume higher emissions reduction in other sectors. Conversely, top-down targets lack inclusion of industry, technology (e.g., CCUS, energy efficiency, infrastructure), regional or country specificity, and feasibility.

If a financial institution does not disclose the pathways it has used to develop their targets, conducting diligence on the downstream impacts may not be feasible. All the previously stated areas need further work and several industry and expert groups, including GFANZ, standard setters, and data providers continue to develop standards, references, and methodologies.

Financial institution data challenges around portfolio policy development

As financial institutions develop and implement policies regarding portfolio holdings, they will need to effectively screen portfolio constituents. There are two fundamental data challenges related to screening companies: First, how real-economy companies report revenue segmentation is often contingent on the sectoral classification a company

uses. Geographic revenue segmentation can be an alternative means of screening for certain policies, but at this point, geographic segmentation is mainly reported in terms of location of sales of end products rather than location of production. Second, company-reported revenue segmentation may not be granular enough to fully describe actors in the company's value chain (e.g., transportation services for coal may not be included under coal-related revenue).

Increased transparency around locations of firm facilities and, where possible, information relating to relative value and environmental impacts of their facility footprint would be helpful.

Data management for net-zero transition plans

The development of a credible net-zero transition plan requires large-scale data collection and management. Institutions will need to develop the data infrastructure necessary to enable climate data sharing/use across the organization. Challenges around data quality and lack of normalization increase the effort organizations require for consolidating necessary data, which can impede transition plan development. Institutions with limited internal data management infrastructure may benefit from the development of central, open climate data repositories and assurance mechanisms to validate data.

NET-ZERO TRANSITION PLANS

GFANZ’s Policy Call to Action⁴⁹¹ (summarized in Appendix 5) and subsequent **Call to Action: One Year On**⁴⁹² calls on G20 governments to “act now” to accelerate the net-zero transition. Among other recommendations, GFANZ advocated that governments set targets for establishing policy regarding climate-related financial disclosure in line with the recommendations of the TCFD and providing guidance on the disclosure of transition plans by public and private companies. While several jurisdictions and standard setters have begun developing frameworks for transition plan disclosure, it remains a relatively nascent area for regulation in most countries.

Transition plan disclosure provides transparency and enhances the credibility of financial institutions’ net-zero transition efforts and, collectively, those of the financial sector. GFANZ has provided suggestions on what this disclosure might include but recognizes that developing detailed recommendations for disclosure requires a separate effort to appropriately

consider more detailed disclosure considerations than what is covered in this report.

GFANZ believes that a globally consistent approach to disclosing transition plans will enable comparability across institutions and support stakeholders — including policymakers, regulators, civil society, and financial institutions using transition plans as an input to their own efforts. As this report has set out a pan-sector, globally applicable net-zero transition plan framework, GFANZ invites governments, regulators, and standard-setters to leverage the framework as they develop approaches to disclosure of transition plans in their respective jurisdictions.

GFANZ is also calling on governments to develop national, economy-wide transition plans that detail the steps they are taking to achieve their net-zero targets and NDCs. Greater transparency on company- and sector-level plans to achieve net zero will enable policymakers to develop national-level plans and assess progress against them.

491 GFANZ. [Policy Call to Action](#), 2021.

492 GFANZ. [Call to Action: One Year On](#), 2022.

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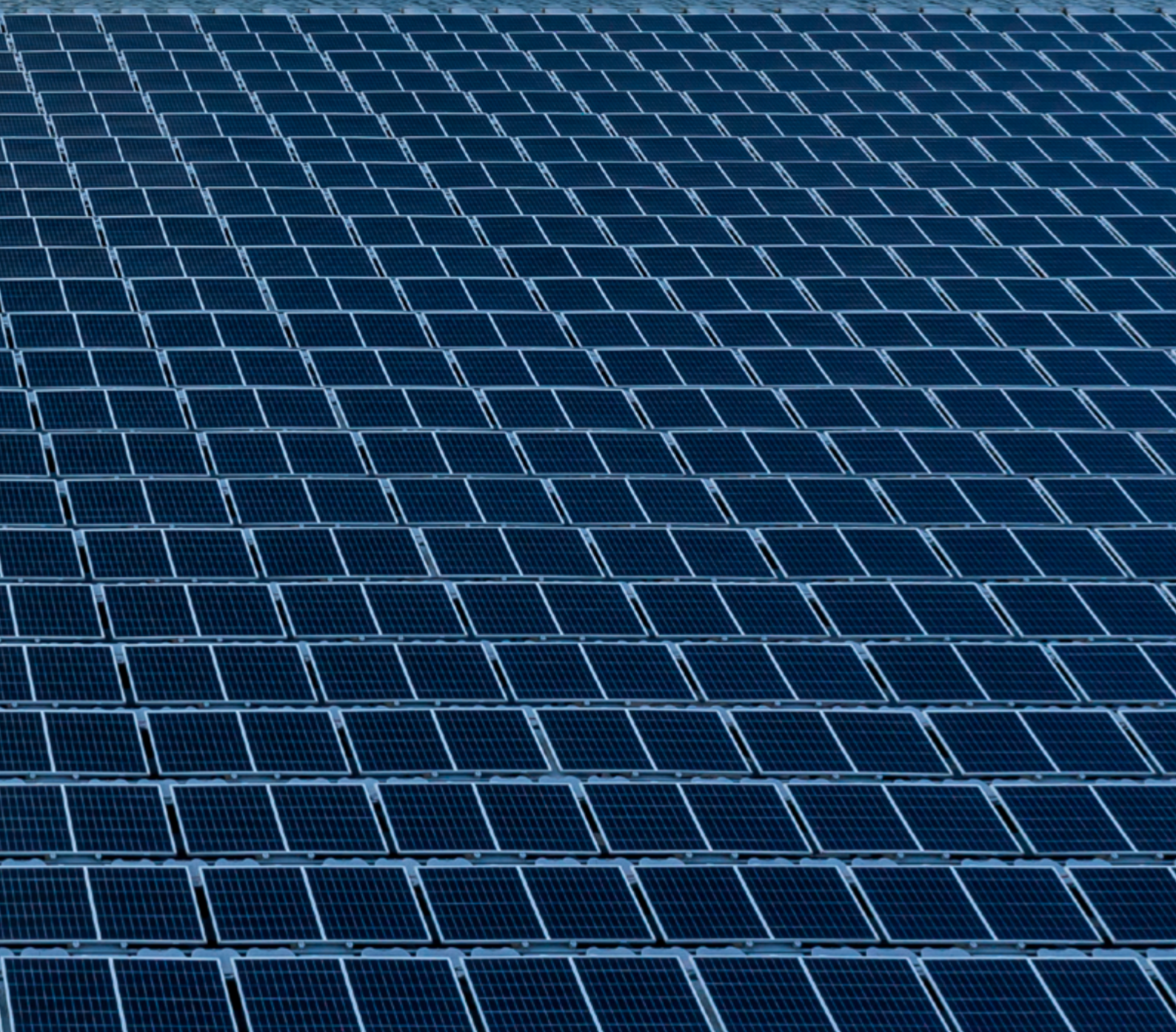
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APPENDIX 2

Glossary and abbreviations

KEY TERM	DEFINITION
1.5 degrees C-aligned	A pathway of emissions of greenhouse gases and other climate forcers that provides an approximately one-in-two to two-in-three chance, given current knowledge of the climate response, of global warming either remaining below 1.5 degrees C or returning to 1.5 degrees C by around 2100 following an overshoot. ⁴⁹³ Pathways giving at least 50% probability based on current knowledge of limiting global warming to below 1.5 degrees C are classified as “no overshoot,” while those limiting warming to below 1.6 degrees C and returning to 1.5 degrees C by 2100 are classified as 1.5 degrees C “low overshoot.” ⁴⁹⁴
AIGCC	Asia Investor Group on Climate Change
Assets	In this report, unless otherwise specified, “assets” can refer to physical or financial assets and sometimes both depending on the application to various financial products, services, and business models. Physical assets are also known as tangible assets. For most businesses, physical assets usually refer to properties, equipment, and inventory. A financial asset is an asset that gets its value from a contractual right or ownership claim. Cash, stocks, bonds, mutual funds, and bank deposits are all examples of financial assets.
Avoidance credits	One of two main types of carbon credits: credits from actions that avoid GHG emissions outside of an organization’s value chain (e.g., a renewable power project).
Absolute emissions	Greenhouse gas emissions expressed in metric tons of CO ₂ e. ⁴⁹⁵
BNEF	Bloomberg New Energy Finance
CCPs	Core Carbon Principles
CDP	Formerly known as Climate Disclosure Project.
Carbon credit	An emissions unit issued by a carbon crediting program that represents an emissions reduction or removal of greenhouse gas emissions. Carbon offsets are uniquely serialized, issued, tracked, and canceled by means of an electronic registry. ⁴⁹⁶ Note that this is used interchangeably with “carbon offset.”
Certified carbon credit	Certified carbon credits are carbon offsets that take the form of transferable or tradable instruments, certified by governments or independent certification bodies, representing a removal of emissions of one metric ton of CO ₂ , or an equivalent amount of other greenhouse gases. ⁴⁹⁷ Note that this is used interchangeably with “certified carbon offset.”

⁴⁹³ IPCC. [Annex 1: Glossary](#), 2018.

⁴⁹⁴ IPCC. [Summary for Policymakers](#), 2018, p. 24.

⁴⁹⁵ Adapted from PCAF. [The Global GHG Accounting & Reporting Standard for the Financial Industry](#), November 18, 2020.

⁴⁹⁶ Definition taken from [ISSB](#).

⁴⁹⁷ Definition taken from [ISSB](#).

KEY TERM	DEFINITION
Climate solutions	Technologies, services, tools, or social and behavioral changes that directly contribute to the elimination, removal, or reduction of real-economy GHG emissions or that directly support the expansion of these solutions. These solutions include scaling up zero-carbon alternatives to high-emitting activities — a prerequisite to phasing out high-emitting assets — as well as nature-based solutions and carbon removal technologies. In this report, “climate solutions” is used to refer to solutions that support mitigation of climate change and emissions reduction. GFANZ acknowledges that a broader use of the term may include solutions that are aimed at developing adaptation.
COP27	27 th session of the Conference of Parties to the UNFCCC (United Nations Framework Convention on Climate Change)
Disorderly	Action that is late, disruptive, sudden and/or unanticipated.
Economic intensity metric	Measurement of GHG impact per unit of economic value
ESG	Environmental, social, and corporate governance
EFRAG	European Financial Reporting Advisory Group
Emissions intensity metric	Emissions per a specific unit, for example: tCO ₂ e/\$M invested, tCO ₂ e/MWh, tCO ₂ e/ton product produced, tCO ₂ e/\$M company revenue. ⁴⁹⁸
EPRG	Expert Peer Review Group
Financed emissions	This broadly corresponds to the definition Scope 3 Category 15 emissions under the GHG Protocol, but in the pan-financial sector context also includes insurance-associated emissions. GFANZ encourages the use of the PCAF Standards, built on and accepted by the GHG Inventory Protocol, and acknowledges their ongoing work to further develop and refine methodological guidance to measure and disclose GHG emissions associated with different asset classes and categories of financial activity and for financial institutions to utilize these standards, as appropriate, as they are released (e.g., at the time of writing, PCAF is working on insured emissions and capital market instruments methodologies).
Financial assets	An asset that derives its value from a contractual right or ownership claim. Cash, stocks, bonds, mutual funds, and bank deposits are all examples of financial assets.
GFANZ	Glasgow Financial Alliance for Net Zero
GIIN	Global Impact Investing Network
Government/public sector	Policymakers, central banks, regulators, supervisors, and standard setters.
GHG	Greenhouse gases, emissions, which include carbon dioxide, methane, and nitrous oxide, among others. ⁴⁹⁹
IRIS	Impact Reporting and Investment Standards
Industry-related bodies	May include civil society and non-governmental organizations providing subject matter expertise, targeted initiatives, and collaborative opportunities among other purposes (e.g., ShareAction, WWF, World Resources Institute, and others).
IIGCC	Institutional Investors Group on Climate Change
ICVCM	Integrity Council for the Voluntary Carbon Market (Integrity Council)
IPCC	Intergovernmental Panel on Climate Change

498 Adapted from PCAF. [The Global GHG Accounting & Reporting Standard for the Financial Industry](#), November 18, 2020.

499 IPCC. [IPCC Updates Methodology for Greenhouse Gas Inventories](#), 2019. The definition excludes water vapor.

KEY TERM	DEFINITION
IEA	International Energy Agency
ISSB	International Sustainability Standards Board
ICAP	Investor Climate Action Plan
IGCC	Investor Group on Climate Change
Key performance indicator (KPI)	A type of performance measurement that evaluates the success of an organization or of a particular activity in which it engages.
Low-overshoot pathways	Pathways limiting warming to below 1.6 degrees C and returning to 1.5 degrees C by 2100.
Managed phaseout projects	Targeted efforts to reduce GHG emissions through accelerated retirement of high-emitting physical assets (shortening their operating life). Financial institutions can finance or enable strategies for managed phaseout of these assets within a defined science-aligned time horizon, thereby limiting the likelihood that these assets will be stranded in a low-carbon future. ⁵⁰⁰ These projects require appropriate scrutiny and governance to ensure that emissions reduction occurs as planned. Further information can be found in the Managed Phaseout of High-emitting Assets report, which outlines the challenges and opportunities for financial institutions in these transactions, as well as details on how financial institutions can develop strategies for managed phaseout projects.
MPP	Mission Possible Partnership
Nationally Determined Contributions (NDCs)	A country's climate action plan to cut emissions and adapt to climate impacts. Each Party to the Paris Agreement is required to establish an NDC and update it every five years.
Nature-based solutions	Actions to protect, sustainably manage, and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits. ⁵⁰¹
Net zero	A state when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals. Organizations are considered to have reached a state of net zero when they reduce their GHG emissions following science-based pathways, with any remaining GHG emissions attributable to that organization being fully neutralized by like-for-like removals exclusively claimed by that organization, either within the value chain or through purchase of valid offset credits.
Neutralization	Measures that companies take to remove carbon from the atmosphere and permanently store it to counterbalance the impact of emissions that remains unabated. ⁵⁰²
NGFS	Network for Greening the Financial System
NZAM	Net Zero Asset Managers initiative
NZAOA	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

500 IPCC's [AR6](#) cites the "combined global discounted value of the unburned fossil fuels and stranded fossil fuel infrastructure has been projected to be around 1-4 trillion dollars from 2015 to 2050 to limit global warming to approximately 2 degree C, and it will be higher if global warming is limited to approximately 1.5 degrees C." p. 36-37.

501 IUCN. [Guidance for using the IUCN Global Standard for Nature-based Solutions](#), 2020.

502 SBTi. [Financial Sector Science-Based Targets Guidance](#), 2022.

KEY TERM	DEFINITION
Net-zero transition plan (NZTP)	A set of goals, actions, and accountability mechanisms to align an organization's business activities with a pathway to net-zero GHG emissions that delivers real-economy emissions reduction in line with achieving global net zero. For GFANZ members, a transition plan should be consistent with achieving net zero by 2050, at the latest, in line with commitments and global efforts to limit warming to 1.5 degrees C, above pre-industrial levels, with low or no overshoot. ^{503, 504, 505}
No overshoot pathways	Pathways giving at least 50% probability based on current knowledge of limiting global warming to below 1.5 degrees C.
Non-governmental organizations (NGOs)	Type of organization that is generally formed independent from government and are typically nonprofit entities focused on humanitarianism.
One Earth Climate Model (OECM)	A model commissioned by the UN-convened Net-Zero Asset Owner Alliance and the European Climate Foundation which provides a roadmap for sectoral decarbonization by offering detailed and standardized net-zero pathways for 12 industry sectors.
Orderly scenarios	Early, ambitious action to a net-zero GHG emissions economy as opposed to disorderly scenarios with action that is late, disruptive, sudden and/or unanticipated.
Orderly transition	A net-zero transition in which both private sector action and public policy changes are early and ambitious, thereby limiting economic disruption related to the transition (e.g., mismatch between renewable energy supply and energy demand). In an orderly transition, both physical climate risks and transition risks are minimized relative to disorderly transitions or scenarios where planned emissions reductions are not achieved.
PAAO	Paris Aligned Asset Owners
PAII	Paris Aligned Investment Initiative
Paris Agreement	Also known as the Paris Accords or the Paris Climate Accords; refers to an international treaty on climate change adopted in 2015. It covers climate change mitigation, adaptation, and finance.
Pathway	A goal-oriented scenario or combination of scenarios answering the question “What needs to happen?” to accomplish a specific objective (e.g., what are the steps needed to reach net zero by 2050, limit global warming to 1.5 degrees C, with low or no overshoot?). ⁵⁰⁶
PCAF	Partnership for Carbon Accounting Financials
Physical assets	Usually refers to properties, equipment, and inventory. Also known as tangible assets.
Physical intensity metric	Measurement of GHG impact per unit of physical activity.
PRI	Principles for Responsible Investment
Real economy	This refers to economic activity outside of the financial sector.
Removal credits	One of two main types of carbon credits: credits from actions that directly remove GHG emissions from the atmosphere and store them for a period of time long enough to fully neutralize their impacts (e.g., direct air capture technologies, afforestation).
Residual emissions	Emissions sources that remain unabated by the time net zero is reached in scenarios that limit warming to 1.5 degrees C with low or no overshoot. ⁵⁰⁷

503 Pathways giving at least 50% probability based on current knowledge of limiting global warming to below 1.5 degrees C are classified as “no overshoot,” while those limiting warming to below 1.6 degrees C and returning to 1.5 degrees C by 2100 are classified as “1.5 degrees C limited overshoot.”

504 These requirements reflect sector-specific alliance member commitments.

505 Through their net-zero alliances, members have all committed to setting an interim target for 2030 or sooner.

506 Definition taken from [Guidance on Use of Sectoral Pathways for Financial Institutions](#).

507 Definition taken from [SBTi](#).

KEY TERM	DEFINITION
Resilience	The ability of systems to cope with or bounce back from a hazardous event, trend, or disturbance while maintaining their essential functions, identities, and structures. Increasing resilience to acute and chronic climate impacts requires adaptation measures.
SBTi	Science Based Targets initiative
SBTN	Science Based Targets for Nature
Scenario	Projections of what can happen by creating plausible, coherent, and internally consistent descriptions of possible climate change futures. Scenarios are not predictions of the future. ⁵⁰⁸
Scope 1 emissions	Direct emissions from owned or controlled sources.
Scope 2 emissions	Indirect emissions from the generation of purchased energy.
Scope 3 emissions	<p>All indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.</p> <p>Scope 3 financed emissions consistent with the net-zero, sector-specific alliance commitments include those emissions associated with a financial institution's investment, lending, and underwriting portfolios, or from clients of investment consultants or financial service providers, whereas Scope 3 emissions from a financial institution's own operations pertain to business travel, supply chain, etc.</p> <p>Note that this report uses "financed emissions" and "portfolio emissions" interchangeably.</p>
Sustainable development goals (SDGs)	A collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all." The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by 2030.
SMI	Sustainable Markets Initiative
Tangible assets	An asset that has a finite monetary value and usually a physical form. Tangible assets can typically be transacted for some monetary value, though the liquidity of different markets will vary. Tangible assets are the opposite of intangible assets, which have a theorized value rather than a transactional exchange value. Also referred to as physical assets in this report.
Task Force on Climate-Related Financial Disclosures (TCFD)	A framework created by the Financial Stability Board (FSB) to help public companies and other organizations disclose climate-related financial risks and opportunities.
TNFD	Taskforce on Nature-related Financial Disclosures
Transition finance	Investment, financing, insurance, and related products and services that are necessary to support an orderly, real-economy transition to net zero as described by the four key financing strategies, which finance or enable: 1) entities and activities that develop and scale climate solutions; 2) entities that are already aligned to a 1.5 degrees C pathway; 3) entities committed to transitioning in line with 1.5 degrees C-aligned pathways; or 4) the accelerated managed phaseout of high-emitting physical assets.
TPI	Transition Pathway Initiative
UNEP FI	United Nations Environment Programme Finance Initiative
US SEC	U.S. Securities and Exchange Commission
VCMI	Voluntary Carbon Markets Integrity Initiative
Voluntary carbon credit	A payment to receive credit for a certified unit of emissions reduction or removal carried out by another actor (Oxford Offsetting Principles). These instruments are also known as carbon offsets or verified emissions reduction (VERs).
WEF	World Economic Forum

508 Definition taken from [Guidance on Use of Sectoral Pathways for Financial Institutions](#).

APPENDIX 3

Select transition plan frameworks

The GFANZ recommendations in this report set out global, pan-sector guidance to net-zero transition planning. The recommendations build on — and are complementary to — guidance and criteria issued by sector-specific alliances and other industry bodies, and amplify existing messages across the financial sector. Financial institutions that have already made progress following existing guidance and criteria from alliances and other bodies will have a strong foundation to build on if choosing to also follow the GFANZ guidance. The recommendations and guidance in this report aim to provide a holistic view of all the themes and components a financial institution should consider when designing its net-zero transition plan, though the emphasis and priority of each may differ by sector (e.g., asset managers versus financial service providers).

Though a complete and comprehensive survey of existing guidance is beyond the scope of this report, GFANZ considered a broad range of publicly available frameworks throughout the development of this document, including the sector-specific alliance commitment documents. GFANZ believes all these documents reinforce each other. Table 20 indicates whether the listed reports contain any overlap with each theme and component within the GFANZ framework.

Financial institutions are encouraged to familiarize themselves with all relevant reports. A number of regulators and standard-setting bodies, including ISSB, EFRAG, and TPT, among others, are also developing frameworks focused on or related to transition planning. These regulatory frameworks are not included in the table as most are still under development and subject to change.

While the GFANZ framework focuses on the actions an institution can implement to fulfill a net-zero commitment, the guidance reviewed in the table ranged from thought leadership to action plans. We expect the available guidance and criteria to rapidly evolve.

The organizations listed in Table 21 were chosen to illustrate the broad range of sources for existing available guidance. The list is not comprehensive of all relevant reports.

The reports listed in Table 20 refer to the primary transition planning-related document(s) of the respective initiative. Many of the initiatives have a suite of works — reports, frameworks, notes, toolkits, etc. — that expand on topics raised in the primary report or support its implementation. Financial institutions are encouraged to explore the full set of guidance available to them.

Table 20. Select transition plan frameworks

	REPORT	WHO THE FRAMEWORK APPLIES TO
	This report	Financial institutions
CA 100+	Disclosure Framework Indicator Summary	Real economy
CBI	Transition Finance for Transforming Companies	Financial institutions
CDP	CDP Climate Change 2022 Questionnaire and CDP Technical Note: Reporting on Transition Plans	Corporates and financial institutions
IA ICAPs	Guidance and Expectations Ladder	Investors
ICMA	Climate Transition Finance Handbook and The Green Bond Principles Guidance Handbook 2022	Financial institutions
NZAOA	Target Setting Protocol	Asset owners and managers
NZBA	Guidelines for Climate Target Setting for Banks	Banks
NZIA	Insuring the net-zero Transition: Evolving Thinking and Practices	Insurers
PAII NZIF	Net Zero Investment Framework	Investors
SBTi	Foundations for Science-Based Net-Zero Target Setting in the Financial Sector and Financial Sector Science-Based Targets Guidance	Financial institutions
TCFD	Metrics, Targets, and Transition Plans	Corporates and financial institutions
TPI	Methodology and Indicators report	Real economy

Table 21. Mapping to select transition plan frameworks and related works

■ Common topics

GFANZ COMPONENT	CA 100+	CBI	CDP	IA ICAPs	ICMA	NZAOA	NZBA	NZIA	PAII NZIF	SBTi	TCFD*	TPI
Theme: Foundations												
Objectives and priorities	■	■	■	■	■	■	■	■	■	■	■	■
Theme: Implementation strategy												
Products and services	■	■	■	■	■	■	■	■	■	■	■	■
Activities and decision-making	■	■	■	■	■	■	■	■	■	■	■	■
Policies and conditions	■	■	■	■	■	■	■	■	■	■	■	■
Theme: Engagement												
Clients and portfolio companies	■	■	■	■	■	■	■	■	■	■	■	■
Industry	■	■	■	■	■	■	■	■	■	■	■	■
Government and public sector	■	■	■	■	■	■	■	■	■	■	■	■
Theme: Metrics and targets												
Metrics and targets**	■	■	■	■	■	■	■	■	■	■	■	■
Theme: Governance												
Roles, responsibilities, and remuneration	■	■	■	■	■	■	■	■	■	■	■	■
Skills and culture	■	■	■	■	■	■	■	■	■	■	■	■

* Assessed in the context of disclosure

** Overlap for this component focuses on financed emissions and engagement metrics and targets

APPENDIX 4

GFANZ governance

GFANZ is a global coalition of leading financial institutions that is committed to accelerating and mainstreaming the decarbonization of the world economy and to reaching net-zero emissions by 2050. GFANZ brings together seven financial sector net-zero alliances, representing more than 500 members, into a global strategic alliance to address common challenges and elevate best practices across the sector. GFANZ's core areas of work are practitioner-led and advised by leading technical civil society organizations.

Members of the alliances comprising GFANZ have committed to criteria developed by their respective

alliance. GFANZ is led by a Principals Group of top executives from member firms representing diverse geographies and business models. This group sets GFANZ's strategic direction and priorities, monitors progress against them, and provides oversight of the GFANZ work program. These priorities are implemented through a Steering Group comprising senior staff from each of the firms represented on the Principals Group, representatives from the secretariats of the sector-specific alliances, and the chairperson of the GFANZ Advisory Panel. The GFANZ Advisory Panel is a group of civil society organizations who provide technical climate expertise to the GFANZ work program.

APPENDIX 5

GFANZ 2021 Policy Call to Action⁵⁰⁹

Commitment

More governments need to commit to the Paris target of 1.5 degrees C by 2050. They need to make immediate cuts to emissions and explicitly pledge to sustainable and climate-resilient development.

Clarity

Governments need to establish practical steps to cut emissions and clarify the roles expected to be played by different agents. Making clear the ambition and the pathway to net zero alignment is key for success.

Coordination

Governments and global regulators need to work faster, together to ensure the world's economic and regulatory framework supports and incentivises green investment.

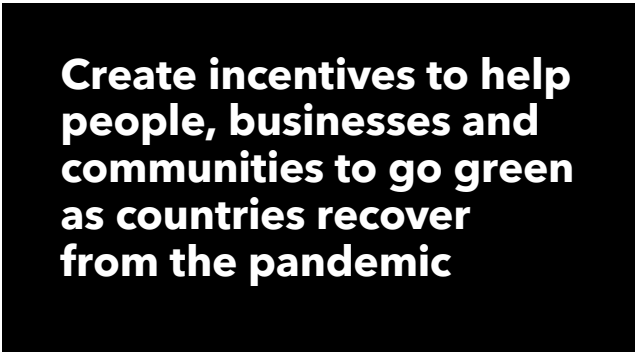
3




Set economy-wide net zero targets for 2050 or earlier



Green the multilateral and international financial architecture to deliver net zero




Create incentives to help people, businesses and communities to go green as countries recover from the pandemic



Commit to pricing the externalities of carbon emissions



Mobilise capital flows to emerging markets and developing countries



GFANZ commits to use our collective positive influence to work with governments, regulators, societies, and others to accelerate the world's transition to net zero.

509 GFANZ [Policy Call to Action](#), October 2021, p. 3, 4, 6, 8, 10 and 12.

APPENDIX 6

Workstream members

FIRM	COUNTRY	ALLIANCE
Aviva (Workstream co-chair)	United Kingdom	NZAM, NZAOA, NZIA
Bloomberg	United Kingdom	NZFSPA
Bradesco	Brazil	NZBA
CDP	United States	
Ceres	United States	
Commercial International Bank	Egypt	NZBA
Dai-ichi Life International Limited	Japan	NZAOA
HSBC (Workstream co-chair)	United Kingdom	NZAM, NZBA
ICEA Lion	Kenya	NZIA
IIGCC	United Kingdom	
Impax Asset Management	United Kingdom	NZAM
Intesa Sanpaolo	Italy	NZAM, NZAOA, NZBA, NZIA
Legal & General Investment Management	United Kingdom	NZAM
Macquarie	Australia	NZAM, NZBA
Mitsubishi UFJ Financial Group, Inc.	Japan	NZBA
Moody's	United States	NZFSPA
MSCI	France	NZFSPA
Nationwide Building Society	United Kingdom	NZBA
Robeco	Netherlands	NZAM
UBS	Switzerland	NZAM, NZBA
UNEP-FI	United Kingdom	
Wells Fargo	United States	NZBA
WTW	United Kingdom	NZAM, NZICI

Please see

Section 1: [Executive Summary](#)

Section 2: [Fundamentals, Recommendations, and Guidance](#)

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