PRI Principles for Responsible Investment

INCORPORATING CLIMATE CHANGE IN PRIVATE MARKETS

AN INVESTOR RESOURCE GUIDE

UN environment programme | finance initiative

United Nations Global Compact

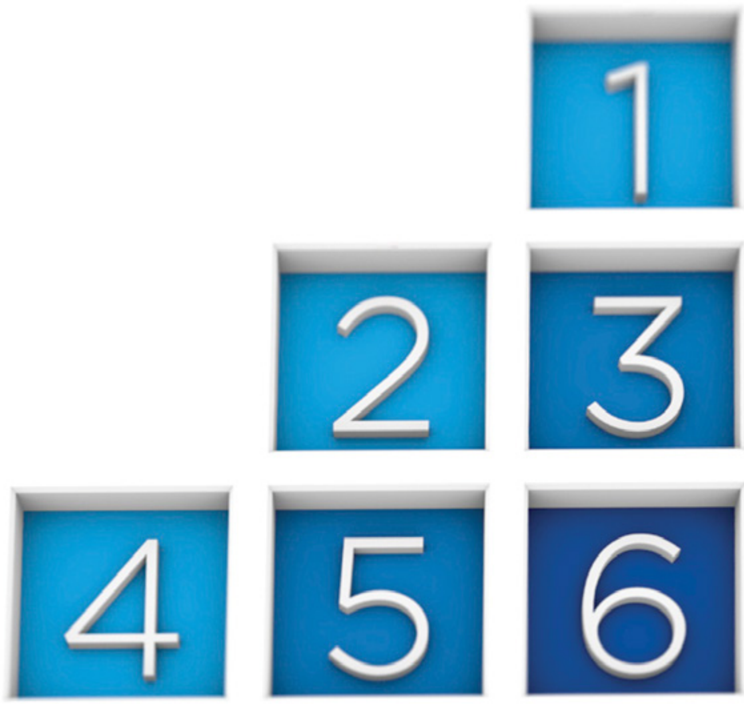
An investor initiative in partnership with UNEP Finance Initiative and UN Global Compact

THE SIX PRINCIPLES

PREAMBLE TO THE PRINCIPLES

As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time). We also recognise that applying these Principles may better align investors with broader objectives of society. Therefore, where consistent with our fiduciary responsibilities, we commit to the following:

1. We will incorporate ESG issues into investment analysis and decision-making processes.
2. We will be active owners and incorporate ESG issues into our ownership policies and practices.
3. We will seek appropriate disclosure on ESG issues by the entities in which we invest.
4. We will promote acceptance and implementation of the Principles within the investment industry.
5. We will work together to enhance our effectiveness in implementing the Principles.
6. We will each report on our activities and progress towards implementing the Principles.



PRI's MISSION

We believe that an economically efficient, sustainable global financial system is a necessity for long-term value creation. Such a system will reward long-term, responsible investment and benefit the environment and society as a whole.

The PRI will work to achieve this sustainable global financial system by encouraging adoption of the Principles and collaboration on their implementation; by fostering good governance, integrity and accountability; and by addressing obstacles to a sustainable financial system that lie within market practices, structures and regulation.

CONTENTS

ABOUT THIS RESOURCE GUIDE

This resource guide is aimed at direct and indirect private equity and real assets equity investors looking to identify publicly available resources and initiatives to help them incorporate climate change considerations throughout the investment process.

It builds upon the Investor Agenda's Investor Climate Action Plans (ICAPs) expectations ladder and associated guidance document, which were published to help investors develop comprehensive net-zero transition strategies across asset classes and serve as a baseline of how they can plan to implement climate pledges.

This document complements the PRI's Climate change for private markets resource hub by contextualising the resources included there – we encourage readers to use them together.

It is not exhaustive, however, and does not cover the non-financial disclosure requirements and climate-related considerations that are increasingly being mandated by regulation, including the Sustainable Finance Disclosures Regulation, the Financial Conduct Authority's Sustainable Disclosure Requirements, and country- or regional-level sustainable finance taxonomies.

We will periodically update this document and the resource hub and encourage signatories to suggest additional resources for consideration.

Contact us at privatemarkets@unpri.org.

ABOUT THE CLIMATE CHANGE FOR PRIVATE MARKETS RESOURCE HUB

The resource hub provides private markets investors with easy access to tools, guides and insights to support their actions towards net-zero emissions and building more resilient companies and assets. Developed following discussions with the PRI's private equity and infrastructure advisory committees, it also includes a comprehensive list of relevant investor initiatives dedicated to climate change, which this resource guide will refer to. The ICAPs expectations ladder encourages direct and indirect investors to support, actively participate in, and lead such initiatives.

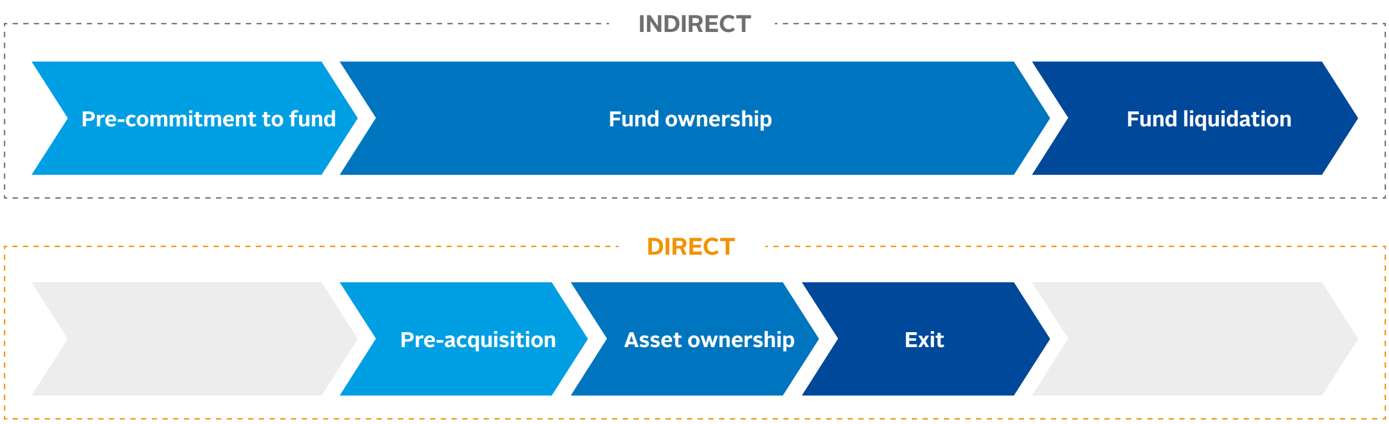
USING THIS RESOURCE GUIDE

The ICAPs expectations ladder covers five focus areas: investment, corporate engagement, investor disclosure, governance and policy advocacy.

This guide maps the relevant actions for these (with the exception of policy advocacy[1]) against the investment process of indirect and direct private markets investors (see Figure 1) and provides commentary and links to relevant PRI or third-party guidance that can inform their action plans.

Readers are encouraged to use Figures 2 and 3 to navigate the indirect and direct investor sections respectively. Clicking on an investment stage or topic will redirect readers to that part of the guide.

Figure 1: Indirect and direct investment process



1 As the ICAPs Policy Advocacy actions relating to investor statements, lobbying and advocacy would not usually be incorporated into the investment process, this area is not included.

SECTION A: INDIRECT INVESTORS

This section targets investors that are one step removed from their investments. This includes limited partners (LPs) in private market funds, fund of fund general partners (GPs) and LPs in secondaries-focused funds.

Figure 2: The ICAPs expectations ladder mapped to the indirect investment process

Governance	Investment	External manager engagement	Investor disclosure
Pre-commitment to fund			
▪ Policy ▪ Accountability ▪ Planning and evaluation ▪ Skills assessment	▪ Strategy ▪ Risk management ▪ Asset allocation ▪ Additional target setting	▪ Engagement	▪ Commitments, objectives and targets ▪ TCFD alignment
Fund ownership			
▪ Accountability ▪ Board reporting ▪ Skills assessment	▪ Risk management	▪ Engagement	▪ Commitments, objectives and targets ▪ Carbon emissions ▪ Portfolio assessment ▪ TCFD alignment
Fund liquidisation			
N/A	N/A	N/A	▪ Carbon emissions ▪ Assessment of disclosures

Climate change incorporation and co-investments

Although resources referring to co-investments exist, for example the Science Based Targets initiative's private equity guidance and the Institutional Investors Group on Climate Change (IIGCC)'s Net Zero Investment Framework (NZIF) private equity consultation document (pg.12, section D), guidance specific to climate change incorporation in the context of co-investments is not readily available. Indirect investors are encouraged to apply the guides and tools referenced throughout this section to their co-investments.

I. PRE-COMMITMENT TO FUND

Governance	Investment	External manager engagement	Investor disclosure
Pre-commitment fund			
■ Policy ■ Accountability ■ Planning and evaluation ■ Skills assessment	■ Strategy ■ Risk management ■ Asset allocation ■ Additional target setting	■ Engagement	■ Commitments, objectives and targets ■ TCFD alignment

GOVERNANCE

To effectively and systematically incorporate climate change into the investment process, indirect investors should ensure that they have robust internal governance structures in place prior to making an investment. They can do so by embedding climate change into their investment policies, developing accountability mechanisms, including by defining clear roles and responsibilities, and climate plans, alongside assessing organisation-wide skills and expertise.[2]

Indirect investors should also ensure that appropriate climate governance structures exist within their underlying managers' operations. See External manager engagement (pg.8) for tools to do so.

Key resources

- The PRI's TCFD for private equity GPs (pgs.16-18) and TCFD for real assets investors (pgs.14-16) provide guidance on meeting the TCFD's governance-related recommendations.
- The Private equity sector science-based target guidance looks at how private equity managers can integrate climate change across their operations and portfolios, including creating climate-related investment principles, governance structures and impact measurement tools (pgs.65-66). As well as assessing how managers do so, indirect investors can adapt these for their own use.
- The ERM-Ceres guide, The changing climate for private equity, shares leading practices (pgs.27-30) and provides recommendations for indirect investors (pg.45) related to climate governance.
- How to Set Up Effective Climate Governance on Corporate Boards, published by the World Economic Forum, sets out eight climate governance principles and accompanying questions that indirect investors can use to assess their own and their managers' climate governance (pgs.11-17) .

2 Skills assessment should be undertaken pre-commitment and assessed throughout the investment process.

INVESTMENT

Given their limited influence post-investment, indirect investors need to set out their climate expectations for their managers prior to making a commitment, to have them embedded within managers' investment decisions and strategies.

Indirect investors should focus on setting emissions reduction strategies and targets for their private markets portfolio, and establish formal investment and manager selection, appointment and monitoring policies that reflect these objectives.

At the investment level, they should redirect capital towards funds targeting assets that are aligned or seeking to align to a low-carbon economy, and assess the physical and transition risks of potential investments made through such funds (including through the use of scenario analysis).

Key resources

Alignment target and additional target setting:

- The Private equity sector-science based target guidance includes advice for secondaries and funds of funds (pgs.55-57) on setting science-based targets.
- The second edition of the UN-convened Net-Zero Asset Owner Alliance's (NZAOA) Target Setting Protocol provides guidance for asset owners on setting emissions reduction targets for real estate (pgs.43-47) and infrastructure (pgs.47-55).
- The NZIF includes guidance for investment managers and asset owners on aligning real estate portfolios to net zero (pg.20). A proposed private equity framework also includes an asset class-specific methodology to measure net-zero portfolio alignment and provides indirect investors with portfolio assessment and management guidance (pg.11, section A).
- The Oxford Principles for Net Zero Aligned Carbon Offsetting set out high-level principles for developing credible decarbonisation plans (pgs.5-12). Indirect investors can use these to inform their own, and to assess their external managers' plans.

Strategy and asset allocation:

- The PRI's Sustainable real estate investment: Implementing the Paris Climate agreement – an action framework provides guidance for indirect real estate investors on developing (pgs.16-19) and executing (pgs.20-23) an ESG and climate investment strategy.
- The PRI's How to invest in the low-carbon economy explains how investors can increase their investments in unlisted, low-carbon opportunities (pgs.13-15) and highlights possible actions to reduce exposure to thermal coal-related assets (pg.29).
- Incorporating responsible investment requirements into private equity fund terms
- The Chancery Lane project has developed the Environmental Targets for a Limited Partnership Agreement and Management Equity Ratchet Terms that indirect investors can use to incorporate climate change into fund terms and incentivise management teams to meet climate change targets.

Risk management:

- TCFD for private equity GPs (pg.24) and TCFD for real assets investors (pgs.18-20) explain how to conduct scenario analysis, based on the TCFD's sector-agnostic scenario analysis guidance.
- The proposed NZIF private equity framework provides indirect investors with guidance on assessing and managing net-zero portfolio alignment (pg.11, section A).
- Indirect investors can use the SASB Materiality Finder to identify the industries for which climate risk is financially material and to inform their climate risk management approach.

EXAMPLE

SWEN Capital Partners – Climate meeting clause

In 2017, SWEN Capital Partners introduced a climate meeting clause for new investments, requiring GPs to hold a meeting with them 18 months after subscription to discuss how they integrate climate change into their investment process. The clause is discussed before investing in a GP, resulting in developing climate awareness at an early stage. See TCFD for real assets investors (pg.26).

EXTERNAL MANAGER ENGAGEMENT[3]

Indirect investors should engage with external managers on climate change before making a commitment, to:

- understand their managers' climate change-related policies and practices;
- communicate their climate change strategy, targets and expectations;
- encourage better governance, management and disclosure of physical and transition risks; and ultimately
- inform their investment decisions.

Key resources

- The PRI LP Private equity responsible investment DDQ includes climate change-related questions, following the structure of the TCFD recommendations, that indirect investors can ask external managers as part of their due diligence.[4] They can use this information to inform their manager engagements prior to making a commitment.
- The ILPA ESG assessment framework includes a TCFD-aligned climate supplement (pg.7) that indirect investors can use to assess external managers' climate change-related activities.
- The proposed NZIF private equity framework provides indirect investors with guidance on external manager selection and engagement (pgs.11-12, sections B and C).
- The IIGCC and PRI's A guide on climate change for private equity investors includes climate change incorporation questions that indirect investors can ask their managers (pgs.11-16).
- Sustainable real estate investment: Implementing the Paris Climate agreement – an action framework explains how indirect real estate investors can select external managers and advisers in line with their ESG and climate investment strategy (pgs.24-27).
- The Investor Leadership Network has developed a set of questions that investors can use to engage with managers on their use of 1.5-degree scenario analyses, along with criteria to assess the level of maturity of the scenarios used.
- The IIGCC's Building Resilience to a Changing Climate: Investor Expectations of Companies on Physical Risks and Opportunities sets out investor expectations and questions around physical climate risks and opportunities that indirect investors can communicate to, and use to engage with, external managers (pgs.11-19).

INVESTOR DISCLOSURE

Indirect investors should ensure that what they implement prior to committing to a fund as described above – relating to climate governance, investment strategy, target setting and engagement – is adequately disclosed. This includes disclosing their commitments, objectives and targets and reporting information in line with the TCFD recommendations.

Signatories to the different climate initiatives (e.g., NZ AOA, PAII) may have additional climate reporting and disclosure requirements as part of the commitments they have made. See the relevant initiative websites to learn more.

Key resources

Commitments, objectives and targets:

- Private equity sector-science based target guidance explains how to communicate science-based targets (section 7, pgs.58-60).

TCFD alignment:

- Technical guide: TCFD for private equity general partners
- Technical guide: TCFD for real assets investors
- The NZIF provides recommended disclosures on climate governance, strategy, metrics and targets, and management (pg.23) to supplement TCFD-aligned climate disclosures.

3 We use the term external manager engagement rather than mirroring the ICAPs expectations ladder terminology (corporate engagement) to better reflect the indirect investment process.

4 The PRI has also developed real estate- and infrastructure-specific DDQs, although those do not yet cover climate in detail.

II. FUND OWNERSHIP

Governance	Investment	External manager engagement	Investor disclosure
Fund ownership			
▪ Accountability ▪ Board reporting ▪ Skills assessment	▪ Risk management	▪ Engagement	▪ Commitments, objectives and targets ▪ Carbon emissions ▪ Portfolio assessment ▪ TCFD alignment

GOVERNANCE

During fund ownership, indirect investors should maintain adequate oversight and accountability of climate-related risks and opportunities, and regularly report on those to their boards and senior management. The resources shared in the Pre-commitment to fund section (pg.6) are also relevant here.

Indirect investors should also continuously monitor the climate governance of their external managers. Tools to do so are shared in External manager engagement (pg.8).

INVESTMENT

While one step removed from the underlying portfolio companies and assets, indirect investors should seek to understand their exposure to transition and physical risks by:

- measuring the greenhouse gas (GHG) emissions associated with their investments;
- undertaking climate risk assessments and conducting scenario analyses; and
- using the assessments conducted by their external managers.

These can form the basis of subsequent engagement with, and monitoring of, their managers.

Key resources

- iCI and ERM's Greenhouse Gas Accounting And Reporting For The Private Equity Sector guide explains how to calculate financed GHG emissions for LPs (pgs.59-67).
- TCFD for private equity GPs (pgs.19-26) and TCFD for real assets investors (pgs.21-27) provide guidance on how to manage climate risk throughout the investment process of a direct investor, which indirect investors can use to evaluate their underlying managers.
- The Changing Climate for Private Equity includes leading practices (pgs.31-35) and recommendations for LPs (pg.45) related to climate risk assessment and investment management.
- UNEP FI's Changing course TCFD pilot project demonstrates how to conduct scenario-based physical and transition risk assessments in real estate portfolios, including the methodology used and the analysis undertaken.

EXTERNAL MANAGER ENGAGEMENT

After making a commitment, indirect investors should engage with their managers on how they monitor the governance, management and disclosure of physical and transition risks at the portfolio and portfolio company levels. They should also engage with any managers not fulfilling the climate change-related commitments agreed upon pre-investment.

Key resources

- The PRI Reporting Framework requires all signatories to publicly report on their climate-related processes and activities annually in line with the TCFD recommendations. Indirect investors can use the public Transparency Report responses published in the Data Portal to engage with their managers.
- The GRESB real estate assessment and infrastructure fund and asset assessments score investors and their holdings on their ESG performance, taking into consideration climate-related information based on the TCFD recommendations.
- The ESG Data Convergence Project aims to improve the consistency and comparability of company ESG data reported by private equity managers to their clients. It includes four climate-related metrics: Scope 1, 2 and 3 GHG emissions and renewable energy use.
- Sustainable real estate investment: Implementing the Paris Climate agreement - an action framework provides guidance for indirect real estate investors on monitoring, reporting and benchmarking external managers (pgs.28-30).
- Indirect investors may also use the external manager engagement resources and tools cited in the Pre-commitment to fund section (pg.8) to monitor them during their fund ownership.

INVESTOR DISCLOSURE

Throughout the ownership period, indirect investors should seek appropriate climate disclosures from their external managers and, in turn, disclose this information to their clients or beneficiaries as appropriate.

These should include disclosing their climate commitments, objectives and targets, the GHG emissions associated with their investments, and how they assess and manage their portfolios' climate risks and opportunities. Much of this information will be obtained and assessed through due diligence, engagement and other aspects of the investment process described in this guide.

Key resources

- Private equity sector science-based target guidance includes a section on how to track targets and disclose progress (section 8, pg.61).
- Greenhouse Gas Accounting and Reporting for the private equity sector explains how indirect investors should report on their GHG emissions, including which metrics to use (pgs.71-79).

III. FUND LIQUIDATION

Governance	Investment	External manager engagement	Investor disclosure
Fund liquidisation			
NA	NA	NA	▪ Carbon emissions ▪ Assessment of disclosures

At the end of the fund's life, indirect investors should focus on assessing and disclosing the climate performance of their allocation, by calculating a carbon emissions profile, for example, and evaluating their engagement outcomes and impacts. At the time of writing, there is no publicly available guidance focusing on climate change incorporation at the fund liquidation stage.

SECTION B: DIRECT INVESTORS

This section targets investors that are directly involved in the sourcing, selection, and operation of portfolio companies.

Figure 3: ICAPs expectations ladder mapped to the direct investment process

Governance

Investment

Corporate engagement

Investor disclosure

	Governance	Investment	Corporate engagement	Investor disclosure
Pre-acquisition	▪ Policy ▪ Accountability ▪ Planning and evaluation ▪ Skills assessment	▪ Strategy ▪ Risk management ▪ Asset allocation ▪ Additional target setting	▪ Engagement	▪ Commitments, objectives and targets ▪ TCFD alignment
Asset ownership	▪ Accountability ▪ Board reporting ▪ Skills assessment	▪ Risk management	▪ Engagement	▪ Commitments, objectives and targets ▪ Carbon emissions ▪ Portfolio assessment ▪ TCFD alignment
Exit	N/A	▪ Strategy	N/A	▪ Carbon emissions ▪ Assessment of disclosures

I. PRE-ACQUISITION

Governance	Investment	Corporate engagement	Investor disclosure
Pre-acquisition			
▪ Policy ▪ Accountability ▪ Planning and evaluation ▪ Skills assessment	▪ Strategy ▪ Risk management ▪ Asset allocation ▪ Additional target setting	▪ Engagement	▪ Commitments, objectives and targets ▪ TCFD alignment

GOVERNANCE

To effectively and systematically incorporate climate change into their investment process, direct investors must ensure they have robust internal governance structures in place. This includes:

- ensuring that climate change is central to their organisation's strategic plan;
- defining roles and responsibilities for overseeing and implementing their commitments on climate change;
- providing adequate resources to ensure they can effectively implement their climate change policies and plans;
- developing a plan for delivering on their climate-related objectives and managing their portfolio risks and opportunities; and
- providing training to staff on climate risks and opportunities and the implications for investment portfolios.

Direct investors should also seek to assess governance structures in their potential investments during due diligence to inform their investment decisions.

Key resources

- The PRI's TCFD for private equity GPs (pgs.16-18) and TCFD for real assets investors (pgs.14-16) provide guidance on meeting the TCFD's governance-related recommendations.
- Private equity sector science-based target guidance looks at how private equity managers can integrate climate change across their operations and portfolios, including creating climate-related investment principles, governance structures and impact measurement tools (pgs.65-66), applicable to direct private equity investors.
- The ERM-Ceres guide, The changing climate for private equity, shares leading practices (pgs.27-30) and provides recommendations for GPs (pg.46) related to climate governance.
- How to Set Up Effective Climate Governance on Corporate Boards sets out eight climate governance principles and accompanying questions that direct investors can use to assess their own and their investments' climate governance (pgs.11-17).
- Building Resilience to a Changing Climate: Investor Expectations of Companies on Physical Climate Risks and Opportunities lays out minimum expectations around climate governance that direct investors should have for potential investments (pgs.11,12).

INVESTMENT

As direct investors are positioned to incorporate climate change considerations in their deal origination, due diligence and execution, they should focus on the following before making an investment:

- estimating portfolio emissions and setting their own reduction targets;
- establishing a formal policy for integrating climate change into their investment analysis and decision making;
- increasing investments in:
  - appropriate clean energy and low-carbon opportunities;
  - 1.5°-aligned companies; and
- conducting scenario analysis and climate due diligence to inform investment decisions.

Key resources

Strategy:

- The climate change-related questions that direct investors may be asked by prospective clients during the due diligence process can indicate what elements they expect to see in a climate strategy. Resources that address these include the PRI's Responsible Investment DDQ for private equity LPs (pg.6), ILPA's ESG assessment framework climate supplement (pg.7) and the PRI and IIGCC's A guide on climate change for private equity investors (pgs.11-17).
- TCFD for private equity GPs (pg.19) and TCFD for real assets investors (pgs.17-20) explain how investors can meet the TCFD's strategy-related recommendations.
- How to invest in the low-carbon economy outlines what investors should consider when investing in clean energy across unlisted asset classes (pgs.13-15). It also highlights how they can reduce exposure to thermal coal-related assets more broadly (pg.29).
- The proposed NZIF private equity framework sets out the considerations that investors can use in developing their climate strategy (pg.13, section A).
- Sustainable real estate investment: Implementing the Paris Climate agreement - an action framework includes guidance for direct real estate investors on developing (pgs.34-37) and executing (pgs.38-43) an ESG and climate investment strategy.
- The NZIF provides guidance for direct investors integrating net-zero commitments and targets within their investment strategy (pg.9), specific guidance on how real estate investors can assess the net-zero alignment of their portfolios (pgs.20-21) and broader climate strategy expectations that investment managers should adhere to (pg.24).

> **EXAMPLE**
>
> **New Forests – integrating climate scenario analysis in strategic asset planning**
>
> Forestry investment manager New Forests integrates scenario analysis within its proprietary strategic asset planning framework. It takes users through a step-by-step process, beginning with establishing a risk and impact appetite and then setting a risk tolerance and impact targets appropriate to the investment mandate. It then conducts manual scenario analysis on the inputs these steps generate. See TCFD for real assets investors (pgs.19-20).

Risk management:

- The proposed NZIF private equity framework sets out what investors can do as part of pre-acquisition climate risk assessment and due diligence (pg.13).
- The changing climate for private equity shares leading practices (pgs.31-35) and provides recommendations for direct investors (pg.46) related to climate risk assessment and investment management.
- TCFD for private equity GPs (pgs.19-23) and TCFD for real assets investors (pgs.21-25) outline what investors can do to address the TCFD's risk management-related recommendations.
- The Investor Leadership Network's (ILN) Climate Change Physical Risk Toolkit includes a step-by-step scoping methodology to identify physical climate risks and opportunities (pgs.14-33) applicable to private equity, real estate and infrastructure. The guidance can be used to evaluate potential investments during origination and initial due diligence.
- UNEP FI's Changing course TCFD pilot project provides a methodology for conducting scenario-based physical and transition risk assessments for real estate assets and portfolios (pgs.15-21) and includes case studies to demonstrate its implementation (pgs.35-56).
- The ClimateWise Physical Risk Framework provides a methodology to help real estate investors understand and quantify physical risks as part of a pre-acquisition climate risk assessment (pgs.22-33).
- The ClimateWise Transition Risk Framework provides an approach to assessing the potential financial impact from the low-carbon transition at the asset level (pgs.5-16). Although it is focused on infrastructure, it can be adapted to be applicable more broadly.
- The Coalition for Climate Resilient Investment (CCRI)'s Risk and Resilience – Addressing physical climate risks in infrastructure investment paper presents a methodology to assess asset-level physical climate risks and guidance to integrate this into investment decision making for infrastructure assets (pgs.34-39). This can be applied when evaluating investment opportunities, and over an asset's lifecycle when seeking refinancing or sale opportunities.

- The ILN's Climate change mitigation guide helps investors to assess companies' scenario analyses, including questions to ask and criteria to distinguish between mature and partially developed scenarios (pgs.12-16). It also presents sector-specific emissions pathways referencing a 1.5°C scenario (pg.20).

Asset allocation and additional target setting:

- TCFD for private equity GPs (pgs.27-30) and TCFD for real assets investors (pgs.28-31) provide guidance on how to identify and select relevant climate metrics, and how to set climate targets aligned with the TCFD recommendations.
- The iCI and ERM's Greenhouse Gas Accounting and Reporting guidance puts forward a methodology for accounting for scope 1, 2 and 3 emissions (pgs.29-56) that direct investors can apply to their own operations to support target setting and alignment with the goals of the Paris Agreement. Measuring financed emissions is also addressed (pgs.59-67).
- Private equity sector-science based target guidance explains how to set operational and investment portfolio alignment targets required to reach well-below 2°C / 1.5°C climate scenarios, including:
  - setting science-based targets (SBTs) for Scope 1, 2, and 3 emissions (pgs.33-40);
  - specific guidance for real estate investors (pgs.40-41) and other direct investors (pgs.41-51);
  - how to treat acquisitions of companies with pre-existing SBTs; and
  - how to project SBT coverage for potential acquisitions with no prior targets (pgs.48-49).
- The changing climate for private equity covers market practices around setting climate goals (pgs.36-39).
- The NZIF recommends net-zero objectives for asset managers (pg.24). The real estate section (pgs.20-21) includes specific actions required to assess whether assets are aligned towards net zero, while the targets and objectives section (pgs.10-11) is also applicable to real estate investors.
- The Global GHG Accounting and Reporting Standard for the Financial Industry includes a detailed methodology and guidance to measure GHG emissions for commercial real estate assets (pgs.78-82).
- Changing course: real estate - TCFD pilot project puts forward a methodology to assess how aligned potential assets are with global targets (pgs.17-18).
- The World Green Building Councils' Net Zero Carbon Buildings Commitment includes commitments for taking action towards decarbonising the built environment (pg.15).
- Investors can use the Oxford Principles for Net-Zero Aligned Carbon Offsetting to assess the credibility and accountability of potential investees' net-zero plans (pgs.5-12).
- The Alignment Cookbook addresses how alignment assessments can be used for portfolio target-setting, which can guide additional investments in 1.5°C-aligned companies (pgs.25-29). It includes a high-level review of temperature alignment methods (pgs.32,33) and two methodologies that are suitable for infrastructure and private equity (pgs.147,148; 155,156).

CORPORATE ENGAGEMENT

Throughout due diligence, direct investors can identify opportunities to engage with potential companies/assets. They can also set expectations of their investments' climate performance and monitoring in their deal documentation and business planning.

This engagement should seek to encourage better governance, management and disclosure of GHG emissions and physical climate risks, while it can ultimately also inform the investment decision.

Key resources

- The PRI and IIGCC's Guide on climate change for private equity investors includes due diligence questions that direct investors can ask potential investee companies to identify opportunities for engagement (pgs.17-20).
- The changing climate for private equity recommends that direct investors engage potential investments in their effort to transition to low-carbon models, set emissions targets, and progressively align with a net-zero pathway (pg.46).
- Sustainable real estate investment: Implementing the Paris Climate agreement – action framework details what investors can do to identify environmental improvement opportunities and engage sellers to share information about an asset's sustainability characteristics (pg.39).
- Building Resilience to a Changing Climate: Investor Expectations of Companies on Physical Risks and Opportunities sets out the IIGCC's expectations around physical climate risks and opportunities that investors can use to engage potential investments (pgs.11-17), including a set of minimum expectations. It also presents questions that investors can ask companies when engaging (pgs.18-19).
- The Chancery Lane Project presents model climate clauses that investors can add to their contracts, including a series of climate-aligned practical steps organisations can require their counterparties to take, to transition to net zero.

The corporate engagement resources applicable to Portfolio Company / Asset Ownership (pg.17) can also guide engagement with potential investments before acquisition.

INVESTOR DISCLOSURE

Direct investors should disclose which climate-related policies and practices they implement pre-acquisition to clients. This includes publishing climate change portfolio targets, objectives and commitments, and reporting information in line with TCFD recommendations.

Signatories to the different climate initiatives (e.g., NZAOA, PAII) may have additional climate reporting and disclosure requirements as part of the commitments they have made. See the relevant initiative websites to learn more.

Key resources

Commitments, objectives and targets:

- The changing climate for private equity covers market practices around disclosing objectives (pgs.37-38).
- Private equity sector-science based target guidance includes a section on how to communicate SBTs (section 7, pg.58).
- The Climate change mitigation guide includes considerations for disclosure when implementing climate scenario analysis (pg.12).
- The World Green Building Council's Net Zero Carbon Buildings Commitment includes disclosure requirements focused on asset and portfolio energy demand and carbon emissions and whole-life carbon emissions for new developments and major renovations (pg.16).
- How to invest in the low-carbon economy addresses disclosures related to the methodology, assumptions, and processes investors can use to evaluate potential investments in unlisted low-carbon opportunities (pg.22).

TCFD alignment:

- Technical guide: TCFD for private equity general partners
- Technical guide: TCFD for real assets investors
- The NZIF outlines the TCFD-aligned information that it expects investment managers to disclose annually (pg.23).

II. PORTFOLIO COMPANY / ASSET OWNERSHIP

Governance	Investment	Corporate engagement	Investor disclosure
Asset ownership			
▪ Accountability ▪ Board reporting ▪ Skills assessment	▪ Risk management	▪ Engagement	▪ Commitments, objectives and targets ▪ Carbon emissions ▪ Portfolio assessment ▪ TCFD alignment

GOVERNANCE

Throughout ownership, direct investors should maintain adequate oversight and accountability of climate-related risks and opportunities, and regularly report on those to the board and senior management.

Direct investors can provide training on climate risks and opportunities to their investees and should formally assess whether their portfolio company boards and senior management have sufficient knowledge and capabilities to oversee and manage climate change-related risks and opportunities.

The resources shared in the Pre-acquisition section (pg.13) are also relevant here.

INVESTMENT

Once an asset is part of a portfolio, direct investors will need to monitor its climate performance – including its carbon emissions – and revise their scenario analyses to identify areas for improvement and ensure strategic objectives and climate targets are being met.

Key resources

Alignment target and additional target setting:

- Greenhouse Gas Accounting and Reporting provides scope 1, 2 and 3 methodology (pgs.29-56), and financed emissions (pgs.59-67) guidance that direct investors can use throughout ownership to set climate targets for portfolio companies, and to monitor performance against these targets.
- TCFD for private equity GPs includes guidance on measuring portfolio company carbon footprints (pgs.28-29), and addresses how GPs can support portfolio companies to achieve identified alignment targets (pg.30).
- The Private equity sector-science based target guidance explains how investors can set operational and investment portfolio alignment targets, with reductions required for well-below 2°C/1.5°C climate scenarios (pgs.33-40). It covers specific guidance for direct investors (pgs.41-51) and how existing positions should be factored into target setting (pg.48).
- The Climate change mitigation guide includes sector emissions pathways that investors can use to compare their portfolio companies' alignment with the 1.5°C scenario when monitoring their progress towards these (pgs.21-29).
- The Alignment Cookbook addresses how investors can use alignment assessments to monitor whether companies are adhering to their agreed trajectories (pgs.25-29).
- The changing climate for private equity provides recommendations for GPs to improve their climate practices, including goal setting, that they can use to track their progress (pgs.26,46).

- The Carbon Risk Real Estate Monitor (CRREM) Risk Assessment Tool enables European commercial real estate investors to monitor their portfolios' carbon reduction performance in line with 1.5°C / 2°C scenarios. CRREM has produced guidance on how the tool could be used outside the EU.
- Changing course: Real estate - TCFD pilot project explains how monitoring a property's warming potential can be used to understand portfolio alignment (pgs.17, 24-27).
- The Global GHG Accounting and Reporting Standard for the Financial Industry provides a methodology to measure GHG emissions for commercial real estate assets that can be used to track annual absolute emissions against targets (pgs.79-82).
- The Sustainable real estate investment: Implementing the Paris Climate agreement – action framework provides climate performance monitoring guidance for direct investors (pgs.48-50).
- The NZIF includes actions that real estate investors need to take to assess the alignment of existing assets with net-zero pathways (pgs.20-21).

Risk management:

- TCFD for private equity GPs (pgs.19-24) and TCFD for real assets investors (pgs.21-23,25) outline what investors can do to address the TCFD's risk management-related recommendations throughout ownership.

The climate risk assessment and scenario analysis guides highlighted in the Pre-acquisition stage (pg.13) can also be applied throughout ownership to monitor the climate risks and opportunities of assets.

EXAMPLE

KKR – Using ESG and climate management to monitor investments

US private equity manager KKR explains its ESG and climate management process, which includes steps to document and track, engage, monitor and manage its investments on relevant issues, in a case study highlighted by The changing climate for private equity (pg.35).

Investa – monitoring real estate portfolio alignment

Real estate investor Investa details how it has monitored the alignment of its real estate portfolio to its 2040 net-zero carbon emissions reduction target in Changing course: Real estate - TCFD pilot project (pgs.44-45), including mapping the (linear) reductions required to meet the target emissions level by 2033 under the 3°C, 2°C and 1.5°C scenarios for the whole portfolio.

EXAMPLE

PAI Partners – using the SASB framework in due diligence

PAI Partners' ESG team uses the SASB climate risk technical bulletin framework to conduct a preliminary risk analysis during its due diligence. This framework provides a birds-eye sector-based analysis of physical and transition risks that allows PAI Partners to delve into particular physical risks if needed. See TCFD for private equity GPs, (pg.21).

Nuveen – developing a climate risk framework

US-based investment manager Nuveen, in collaboration with its farmland manager, Westchester, and timberland manager, GreenWood Resources, is developing a data-driven climate risk management framework. It will integrate climate science and transition scenarios into the firms' investment processes and includes physical risk modelling, transition opportunity analysis and carbon portfolio optimisation. See TCFD for real assets investors, (pg.31).

CORPORATE ENGAGEMENT

During ownership, direct investors should seek to engage directly with their holdings to encourage better governance, management and disclosure of GHG emissions and physical climate risks. The climate risks and opportunities that they will identify through their risk assessment and scenario analysis, covered in the Investment section (pg.17), should inform their engagement actions.

Key resources

- The proposed NZIF private equity framework sets out how GPs can support and engage their investee companies on achieving better governance, management and disclosure of emissions (pgs.13-14, section C).
- TCFD for private equity GPs outlines what direct investors can do when engaging portfolio companies after acquisition (pgs.25-26).
- The Private equity sector-science based target guidance explains when a direct investor should engage portfolio companies to set SBTs or public GHG emissions reduction targets (pgs.43-44). It also addresses how to develop an engagement strategy to achieve 1.5°C-alignment of portfolio companies (pgs.66-67).
- Greenhouse Gas Accounting and Reporting highlights questions around climate materiality (pg.83) that can be used to prioritise engagement on decarbonisation efforts. The guide also addresses engaging with portfolio companies around data collection (pg.49).
- The changing climate for private equity addresses engagement with high-emitting companies (pg.34) and interacting with companies to gather more accurate and relevant data (pgs.32-33) that can be used to set emissions targets, and progressively align with a net-zero pathway (pg.46).
- A guide on climate change for private equity investors includes questions that investors can use to identify engagement opportunities with portfolio companies.
- Sustainable real estate investment: Implementing the Paris Climate agreement – action framework explains what investors can do as part of active property management to deliver continuous climate performance (pgs.40-43).
- The NZIF (pgs.20-21) and the Net Zero Carbon Buildings Commitments (pg.12) include specific items on which to engage real estate investments and tenants.
- TCFD for real assets investors highlights what direct investors can do to support the asset-level implementation of climate action plans (pg.26).
- The Global GHG Accounting and Reporting Standard for the Financial Industry includes reporting requirements and regulations for real estate investors that commit to using it (pgs.98-103). Direct investors can use these to guide their engagements with holdings.
- The ILN's Climate change mitigation guide provides questions that investors can use to assess how their holdings manage risks and opportunities in relation to a 1.5°C scenario (pgs.15-16) and sector-specific operational levers for decarbonisation (pgs.21-30). Investors can use these to inform their engagement asks.
- Investors can use The Oxford Principles for Net-Zero Aligned Carbon Offsetting to engage their holdings to improve the credibility and accountability of their net-zero plans (pgs.5-12).
- Building Resilience to a Changing Climate: Investor Expectations of Companies on Physical Risks and Opportunities provides a set of (minimum) expectations (pgs.11-17) and questions (pgs.18,19) around physical climate risks and opportunities that investors can use to frame their engagements with holdings.
- How to invest in the low-carbon economy encourages investors to engage with companies that have thermal coal exposure (pg.30).
- Investors can consult the SASB Materiality Finder to identify climate change issues that are likely to affect the financial condition or operating performance of companies within a given industry. Investors can use this information to identify potential engagement opportunities.
- Climate change and the just transition: A guide for investor action, produced by the PRI in collaboration with the Grantham Research Institute and Harvard Kennedy School, addresses how corporate engagement can be used to advance the just transition (pgs.18-21).
- The GRESB real estate assessment and infrastructure fund and asset assessments score investors and their holdings on their ESG performance, taking into consideration climate-related information based on the TCFD recommendations. Direct investors can use these assessments and scores to engage with their holdings.
- There are many sustainability certifications and standards for real estate and infrastructure projects that can help investors evaluate the sustainability attributes of assets. The Sustainable Infrastructure Tool Navigator provides a list of rating systems for infrastructure projects.

INVESTOR DISCLOSURE

Direct investors should disclose information related to their climate change practices and engagement to demonstrate transparency and accountability to investors and stakeholders. They should focus on reporting their:

- progress against portfolio objectives and climate change targets;
- carbon emissions figures, and the methodology and data used to produce these;
- assessments of risks and opportunities resulting from considering climate change in analyses;
- information in line with the TCFD recommendations; and
- assessment of disclosures against guidance from other relevant reporting frameworks.

Key resources

Commitments objectives and targets:

- The changing climate for private equity addresses disclosure and goal setting (pgs.36-38).
- Private equity sector-science based target guidance addresses annual disclosure criteria (pgs.30,31) and how to track targets and disclose progress throughout ownership for private equity (pg.61) and for real estate (pg.62). More general climate disclosure recommendations are also included (pgs.63,64).
- The Alignment Cookbook addresses reporting on portfolio alignment (pgs.12-15).
- The Climate Disclosure Standards Board Framework includes environmental and social information, including environmental strategies and targets (pgs.22,23), that direct investors can use when publishing their organisational climate change objectives and targets.
- The Net Zero Carbon Buildings Commitments include disclosure recommendations (pg.16).

Carbon emissions:

- Greenhouse Gas Accounting and Reporting addresses reporting emissions for regulatory purposes and stakeholder requests (pgs.71-76).
- The ESG Data Convergence Project presents a standardised ESG reporting template for direct investors to report to their clients, including four climate change metrics.
- The Global GHG Accounting and Reporting Standard for the Financial Industry addresses ongoing GHG emission disclosure requirements, relevant for commercial real estate assets being monitored using its emissions methodology (pgs.98-104).
- The Oxford Principles for Net-Zero Aligned Carbon Offsetting address making disclosures to increase the credibility and accountability of investors' net-zero plans (pg.6).
- How to invest in the low-carbon economy addresses disclosing low-carbon metrics (pg.8).

Portfolio assessment:

- Sustainable real estate investment: Implementing the Paris Climate agreement – action framework provides guidance for defining climate risk-related expectations in asset owner and stakeholder reporting (pgs.49,50).
- The Climate Change Physical Risk Toolkit includes guidance that addresses good practice when disclosing how physical risks are considered and assessed throughout ownership (pgs.34-36).

TCFD alignment:

- Technical guide: TCFD for private equity general partners
- Technical guide: TCFD for real assets investors
- The NZIF outlines the TCFD-aligned information that it expects investment managers to disclose annually (pg.23).

III. EXIT

Governance	Investment	Corporate engagement	Investor disclosure
Exit			
N/A	▪ Strategy	N/A	▪ Carbon emissions ▪ Assessment of disclosures

At the point of exit, direct investors should focus on assessing and disclosing the climate performance of an asset. There is currently limited guidance focusing on the incorporation of climate change specifically at the exit stage. Resources which touch on climate, and ESG incorporation more broadly, in private markets include:

- TCFD for private equity GPs (pg.26) and TCFD for real assets investors (pg.27) address market practices around climate change at the point of sale.
- The proposed NZIF private equity framework includes exit criteria that direct investors can aim to achieve as part of their net-zero commitment (pg.14).
- The ILPA ESG assessment framework outlines broader ESG considerations that can be incorporated into the exit planning process (pg.4).
- A guide on climate change for private equity investors looks at what direct investors can do to ensure climate change is factored into their exit strategy and vendor due diligence (pgs.15,16).
- The PRI Reporting Framework includes ESG information that can be shared in the sale process, which is indicative of good practice (private equity (pgs.41,42), real estate (pgs.53,54), and infrastructure (pg.49)).

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The Principles for Responsible Investment (PRI)

The PRI works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance (ESG) issues and to support signatories in integrating these issues into investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole.

The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice. The Principles were developed by investors, for investors. In implementing them, signatories contribute to developing a more sustainable global financial system.

More information: www.unpri.org

PRI Principles for Responsible Investment

The PRI is an investor initiative in partnership with UNEP Finance Initiative and the UN Global Compact.

United Nations Environment Programme Finance Initiative (UNEP FI)

UNEP FI is a unique partnership between the United Nations Environment Programme (UNEP) and the global financial sector. UNEP FI works closely with over 200 financial institutions that are signatories to the UNEP FI Statement on Sustainable Development, and a range of partner organisations, to develop and promote linkages between sustainability and financial performance. Through peer-to-peer networks, research and training, UNEP FI carries out its mission to identify, promote, and realise the adoption of best environmental and sustainability practice at all levels of financial institution operations.

More information: www.unepfi.org

UN environment programme | finance initiative

United Nations Global Compact

The United Nations Global Compact is a call to companies everywhere to align their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption, and to take action in support of UN goals and issues embodied in the Sustainable Development Goals. The UN Global Compact is a leadership platform for the development, implementation and disclosure of responsible corporate practices. Launched in 2000, it is the largest corporate sustainability initiative in the world, with more than 8,800 companies and 4,000 non-business signatories based in over 160 countries, and more than 80 Local Networks.

More information: www.unglobalcompact.org

United Nations Global Compact