

TECHNICAL GUIDE:

TCFD FOR PRIVATE EQUITY GENERAL PARTNERS

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.

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ADVISORY COMMITTEE

The PRI and INDEFI thank the PRI Private Equity Advisory Committee (2019) for their oversight of this project since inception:

- AP2, Anders Strömblad (Chair)
- Ardian, Candice Brenet and April Tissier
- Bridgepoint, James Holley
- CPPIB, Tammy Bodnar
- Hamilton Lane, Ana Lei Ortiz
- Harvard Management Company, Inc., Michael Cappucci
- LACERA, Scott Zdrzil
- Neuberger Berman, Jennifer Signori
- New Mountain Capital, Ignacio Sarria
- Pantheon, Jie Gong
- PSP Investments, Stéphane Villemain
- Robeco, Silva Deželan

PROJECT CONTRIBUTORS

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- Ambienta, Stefano Bacci (GP)
- AP6, Anna Foller (LP)
- APG, Lucian Peppelenbos (LP)
- Ardian, Tamara Krzisch (GP)
- Ardian, April Tissier (GP)
- Carbon Delta, Bruno Rauis (Expert)
- Carlyle Group, Colin Etnire (GP)
- Carlyle Group, Jackie Roberts (GP)
- CVC Capital Partners, Chloe Sanders (GP)
- EQT GP, Thérèse Lennehag
- Eurazeo, Noëlla de Bermingham (GP)
- IK Investment Partners, Alina Benyaminova (GP)
- IK Investment Partners, Mikaela Murekian (GP)
- KKR, Elizabeth Seeger (GP)
- LGT Capital Partners, Keimpe Keuning (GP)
- Neuberger Berman, Jennifer Signori (GP)
- Oregon, Anna Totdahl (LP)
- PAI Partners, Thomas Carlier (GP)

- PAI Partners, Cornelia Gomez (GP)
- PGGM, Jelena Stamenkova van Rump (LP)
- PGGM, Han Van Der Hoorn (LP)
- PSP, Stéphane Villemain (LP)
- Robeco, Silva Dezelan (LP)
- SWEN, Isabelle Combarel (GP)
- TPG, K. Hourdajian (GP)
- TPG, Alison Larkins (GP)
- TPG, Elizabeth Lowery (GP)

DEVELOPMENT OF THIS GUIDANCE

The PRI and INDEFI have co-authored this guidance based on interviews with more than 20 LPs, GPs and Service Providers, desk-based research and input from the PRI Private Equity Working Group.

It includes selected examples of current practices, covering a range of geographies and GP sizes, and which highlight the practices of GPs who are at different stages of developing a strategy to address climate-related risk.

This guide has been developed primarily for private equity GPs investing through direct buyout or growth capital transactions. Nonetheless, investors in other non-listed asset classes (e.g. mezzanine, co-investments, venture capital, minority buy-outs, turnarounds, etc.) can make use of some elements of this report to integrate climate-related risk into their own investment strategies.

GPs are encouraged to use the examples presented here as a reference, and to adapt them to their own organisational structures and investment styles. The guide will be a useful resource to facilitate GP-company engagement on climate change using the TCFD framework.

LPs can also use this guide to understand how the actions set out in the TCFD framework are being implemented by GPs, which will in turn facilitate more informed discussions with their GPs and support their own TCFD implementation. PRI signatories can use this resource to help them implement actions that are consistent with the TCFD-aligned climate change indicators in the PRI Reporting Framework.

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EXECUTIVE SUMMARY

The aim of this guidance is to establish the range of actions that private equity general partners (GPs) can take to address the four-pillar framework of the recommendations proposed by the Task Force on Climate-related Financial Disclosures (TCFD). While there is also some discussion and a mapping to the PRI Reporting Framework, the guide does not focus on how to report on these issues so much as on the actions that are needed to adequately address each aspect of the TCFD framework.

IMPLEMENTING THE TCFD RECOMMENDATIONS

The guide sets out a three-phase action plan for GPs (Figure 1) to implement the TCFD recommendations, taking into consideration a typical GP's structure and investment cycles. These processes and actions may need to be built up over time, depending on the stage the fund is at on its TCFD implementation journey.

WHAT ARE THE KEY DRIVERS?

Climate change is increasingly material for private equity investors. Portfolio companies face impacts from the physical effects of climate change, and from regulatory actions designed to reduce emissions. Crucially, their limited partner (LP) investors are increasingly expecting their GPs to take a systematic approach to address climate risk and communicate it effectively.

WHAT ARE THE KEY BARRIERS?

In the series of interviews undertaken to inform this report, GPs cited a number of key barriers to adequately assessing and reporting on climate-related risk. This guide seeks to address these challenges which include:

- A lack of climate-related knowledge within investment teams
- Constrained resources and capacity limitations
- Difficulty in obtaining climate-related data and identifying metrics
- The scale of addressing climate change for an entire portfolio

WHAT ARE THE PRIORITY ACTIONS FOR GPS?

The guide addresses each pillar of the TCFD in turn and outlines a series of priorities in each specific pillar, as shown in Figure 1.

GOVERNANCE

1. **Raise climate awareness throughout the organisation**
 - Conduct training for partners, investment directors and analysts
 - Participate in cross industry workshops on climate integration
2. **Develop a governance system to manage climate-related risks**
 - Define climate assessment and management responsibilities at the board and management level

STRATEGY

3. **Develop a simplified implementation plan**
 - Identify macro-level risks and opportunities through sector and scenario analysis
 - Define an implementation plan

RISK MANAGEMENT

4. **Conduct materiality analysis on current portfolio holdings to identify climate risk exposure and define key climate performance indicators for each portfolio holding**
 - Introduce climate risk as a factor in pre-acquisition due diligence
 - Identify portfolio holdings with the highest exposure and conduct in-depth
5. **Fully integrate climate risk into investment processes**

Support holdings with the tools and guidance to address climate risk

 - Integrate climate risks that may affect valuations based on material climate indicators following different scenarios
 - When material risks are identified, define climate targets at a portfolio level.
6. **Conduct an annual review of portfolio holdings to assess progress towards climate objectives**
 - pre-acquisition and after climate due diligence, engage with least resilient companies.

The guide also highlights practical resources that are available to support GPs in assessing the materiality of climate risk within a portfolio and how to conduct scenario analysis for holding companies, as well as best-practice examples of how this has been implemented.

Figure 1 provides a visual outline of the objectives, practical steps and deliverables in relation to the four pillars of the TCFD, mapped to the PRI Reporting Framework. The objectives listed form the basis of the structure of the guide.

Figure 1: A three-phase action – the priority actions for GPs . Sources: PRI, TCFD, INDEFI

	TCFD pillars	Objectives	Practical steps	Deliverables	PRI reporting
Phase 01	Governance	Raise climate awareness throughout the organisation	<ul style="list-style-type: none"> Conduct training for partners, investment directors and analysts Participate in cross-industry workshops on climate integration 	<ul style="list-style-type: none"> Training workshops Guidebooks 	-
	Governance	Define a climate-dedicated governance	<ul style="list-style-type: none"> Define climate oversight responsibilities at board and executive level Define climate assessment and management responsibilities at board and management level 	<ul style="list-style-type: none"> ESG/ Climate chart highlighting the flow of information and responsibilities 	SG 07.5 CC SG 07.6 CC SG 07.7 CC SG 13.5 CC
	Strategy	Develop a simplified implementation plan	<ul style="list-style-type: none"> Identify macro-level risks and opportunities through sector and scenario analyses Define an implementation plan 	<ul style="list-style-type: none"> Materiality matrix Simplified implementation plans 	SG 01.6 CC SG 01.7 CC SG 01.9 CC
Phase 02	Strategy Risk management	Conduct materiality analysis on current portfolio holdings to identify climate risk exposure	<ul style="list-style-type: none"> Introduce climate component within pre-acquisition due diligence Identify portfolio holdings with the highest exposure and conduct in-depth climate analysis 	<ul style="list-style-type: none"> Portfolio-level materiality matrix Company-level climate reports on main KPIs Portfolio-level climate reports Company-level action plans 	SG 14.3 SG 14.8 CC SG 14.9 CC
		Define key climate performance indicators for each portfolio holding	<ul style="list-style-type: none"> For the companies most exposed to climate-related risks, engage with management to define an action plan to strengthen climate resilience 		
Phase 03	Risk management	Fully integrate climate considerations within the investment process	<ul style="list-style-type: none"> Integrate climate considerations that affect valuation based on material climate indicators following different scenarios When material risks are identified, define climate targets at portfolio level (e.g. risk exposure, resilience, carbon footprint, 2°C alignment) 	<ul style="list-style-type: none"> Climate valuation models Company climate report models Portfolio-level climate reports on metrics and targets 	SG 13.1 SG 13.4 CC SG 13.6 CC SG 13.7 CC SG 13.8 CC SG 14.3
	Metrics and targets	Support holdings with tools and recommendations to address climate risks			
	Risk management Metrics and targets	Conduct yearly reviews of portfolio holdings to assess progress towards climate objectives	<ul style="list-style-type: none"> Pre-acquisition and after climate due diligence, integrate climate covenants for the least resilient companies 	<ul style="list-style-type: none"> Annual climate reports Climate vendor due diligence 	-

FOREWORD

Horizon scanning, to identify risks and emerging trends that could impact the bottom line, is a key challenge for investors. Private equity GPs are no different. In buying, selling and investing in companies, they need to have insights across a wide range of issues. One new risk factor that is looming ever larger are risks associated with the changing climate and the energy transition. The physical impacts of climate change can no longer be ignored, and concerns about those impacts and the far-reaching measures that will be needed to avoid a dangerous level of warming are rising up the agenda of both asset owners and financial regulators.

GPs are, in the view of the PRI, well placed to play a positive role in helping LPs and asset owners respond to these challenges. This is because they:

- Can help institutional investors **access new market opportunities**, enabling them to diversify risk and better position themselves for the low-carbon transition.
- Have relatively **long time horizons**. These may be in excess of 10 years – well within the time period during which climate transition risk may crystallise – once the timeframe of the buyer to whom the GP might sell a portfolio company has been factored in.¹
- Often have **direct control** over the companies they invest in (in contrast to public equities investors). GPs can therefore influence strategy and have access to information about the company and its operating costs.

An important question for GPs is, in a world that is successful in meeting the goals of the Paris Agreement, how should they assess the profitability of the companies in which they invest? As a member of the TCFD, I would point out that a key objective of the Taskforce's recommendations was to promote a systematic approach for translating information about climate risks and opportunities into financial metrics.



Martin Skanke
Chair, PRI and member of the Task Force
on Climate-related Financial Disclosures

The value add of the recommendations is, therefore, that they provide a comprehensive yet flexible framework which investors can use to assess the resilience of their investment strategies to climate-related risk and opportunities. They also offer a means through which GPs can structure their engagement with companies.

This guide, which is part of the PRI's wider work relating to the TCFD, seeks to offer practical guidance on how GPs can implement the Taskforce's recommendations. In doing so, it aims to support private equity LPs and GPs in their horizon scanning and due consideration of the risks and new market opportunities arising from climate change.

¹ PRI (2019) [Inevitable Policy Response](#)

FOREWORD

Once a long-term theoretical threat, climate change is now a pressing and current issue for many businesses. The litany of climate disasters in 2019 and early 2020 is a powerful reminder of how important this threat has become for every citizen, but also for businesses. When PG&E went bankrupt due to the Californian fires and later cut the power to thousands of homes and companies for several days, and when BASF could not deliver its products to its clients and slowed the entire chemical industry in Continental Europe due to a severe drought in Germany, one can easily understand that all companies will have to face the consequences of climate change, and sooner than expected.

As any investment professionals, private equity investors need to consider these risks when investing and monitoring companies. Not only because they are requested to do so by their LPs, but because it has a material impact on their portfolio companies and, ultimately, on their financial performance.

The TCFD made a precious contribution to the understanding of these risks for companies and investors by defining physical and transition risks and by promoting the adoption of a long-term view through scenario analysis. Despite the efforts of the task force, interviews conducted for development of this publication indicated that many GPs lacked guidance on how to implement the TCFD recommendations and address climate risks. This guide is a response for GPs who seek to address climate risks in a sensible manner, adapted to the specificities of the private equity asset class. It is centred on private equity, but many of its analyses and recommendations can also apply to other private asset classes.

We hope that this guide will be a useful tool for private equity investors, not only to answer the various requests they receive (PRI reporting, LPs, regulators, etc.) but also to improve their risk-return profile and make a meaningful contribution to the fight against climate change and the adaptation to its inevitable consequences.



Emmanuel Parmentier
Partner, INDEFI

BACKGROUND

This section outlines some background to the TCFD and its recommendations.

- The TCFD was charged with making recommendations for consistent disclosure of climate-related financial risk
- Its recommendations are grouped into four pillars – governance, strategy, risk management and metrics and targets.
- It provides useful definitions that frame key issues for investors in assessing climate risk

THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)

The TCFD was established in 2015 by the Financial Stability Board, a body established by the G20, to develop a set of voluntary, consistent disclosure recommendations for use by companies in providing information about their climate-related financial risks. This information is designed to focus on the aspects of climate change that are material for financial stakeholders.

The TCFD does not impose specific methodologies on how to address climate risk. An investor's climate policies and practices cannot therefore be said to be 'compliant' or 'in line' with TCFD recommendations. Rather, an investor can report on its progress in implementing a climate-related policy in line with the TCFD's recommended disclosure. The TCFD recommendations are articulated around four pillars: governance, strategy, risk management, and metrics and targets.

Figure 2: Core elements of recommended climate-related financial disclosures. Sources: TCFD – Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, INDEFI analyses



Governance

The organisation's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning

Risk management

The processes used by the organisation to identify, assess, and manage climate-related risks

Metrics and targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

The TCFD and its four pillars provide a clear, simplified structure on how to address climate change. There is no one-size-fits-all approach to managing climate issues; while the TCFD's recommendations provide a holistic framework for an integrated approach to climate change, private equity GPs can follow an incremental approach towards adopting them.

It is important to remember that the TCFD's objective is to provide a systematic framework that enables investors to address climate-related risks and opportunities in their investment processes. The intention is not simply to give guidance on how to report on an institution's climate-related activity but to provide a segmentation of the types of actions financial institutions can take to adequately address climate-related financial risk: governance, strategy, risk management, and metrics and targets.

BOX 1: KEY DEFINITIONS AND CONCEPTS HIGHLIGHTED BY THE TCFD

The TCFD can be a useful tool to build familiarity with some key climate-related concepts, such as the typology of risks and metrics for assessing climate exposure. If the definitions provided by the TCFD are used and adapted to private equity investors' own needs, TCFD guidelines can support a better understanding of key climate-related topics.

The key definitions are:

- **Physical risks resulting from climate change:**
 - *Acute risks:* event-driven exposures, including the increased severity of extreme weather events (cyclones, hurricanes, floods, etc.); and
 - *Chronic risks:* longer-term shifts in climate patterns (e.g. sustained higher temperatures) that may cause sea-level rise or chronic heat waves, for example.
- **Transition risks resulting to the transition to a lower-carbon economy:**
 - *Policy and legal risks:* the evolution of regulations and potential litigation or legal risk;
 - *Technology risks:* technological improvements or innovations that support the transition to a lower-carbon, energy-efficient economic system;
 - *Market risks:* the effects of climate change on supply and demand; and
 - *Reputation risks:* changing customer or community perceptions related to climate considerations.

The key concepts include:

- **Materiality analysis:** assessing the exposure of a portfolio of companies to climate-related risks in order to focus on companies facing the highest risks;
- **Scenario analysis:** evaluation of a firm's economic resilience under different climate-constrained circumstances. Scenario analysis can be used to assess whether and how a company will be affected by physical and transition risks, depending on climate trajectories.
- **Carbon footprint:** measuring the carbon emissions of an organisation related to its activities.
- **2°C alignment:** aligning investments with international climate goals and the aim of the Paris Agreement to hold warming to below 2°C above pre-industrial levels.

DRIVERS

This section outlines some key drivers as to why Private Equity LPs and GPs might want to adapt the TCFD's recommendation including:

- Private equity investors face material risks from the physical effects of climate as well as from the transition to a low-carbon economy
- Regulatory changes which increase the requirement to report on climate related issues
- There is growing demand from LPs for private equity fund managers to report on how they are addressing climate change

MATERIALITY

Climate change impacts can materialise in several ways for private equity investors. For example, the increasing frequency and severity of extreme weather events has left companies increasingly exposed to the physical impacts of climate change. Transition risks, particularly through changing market regulation and policy, are having and will continue to have a material impact on private equity portfolio companies. Investors must assess their exposure to both physical and transition risks, and how to embed this assessment into their investment processes.

The methods and approaches of private equity investors to address climate-related risk may differ significantly from those used in public markets.

BOX 2: HOW CLIMATE CHANGE CAN AFFECT CORPORATE FINANCIAL PERFORMANCE

Climate change can have a range of impacts on companies' operations, supply chains and markets. There is a growing number of examples of the role of climate change in recent companies' bankruptcies or financial distress.

- **PG&E and the 'Camp Fire' in California.** California's wildfires in 2018 triggered the first major climate change-related bankruptcy. Local utility PG&E faced billions in dollars of liabilities following investigators linking its equipment to a large number of wildfires in the state, including the Camp Fire, which killed 85 people. This led it to seek bankruptcy protection in January 2019.
- **The level of the Rhine and the German chemical industry:** Drought in Europe in summer 2018 caused the level of the Rhine to drop below levels needed for the movement of river traffic. Consequently, many European businesses were unable to source raw materials, ship their products, and/or faced significant cost increases due to the disruption of their supply chains. This led to particular production and distribution issues for many German chemical companies. BASF reportedly lost €250m due to supply disruption.

REGULATORY

BOX 3: DIRECTORS' DUTIES AND CLIMATE-RELATED RISK

GPs typically appoint investment professionals from their firm as directors of portfolio companies, particularly if their investment strategy is to take controlling positions in investee companies. The PRI has worked with law firm Debevoise & Plimpton to produce guidance on the legal duties of directors* who sit on private equity-backed company boards regarding ESG risks and opportunities faced by those companies.² The PRI guidance on this topic covers the broad management of ESG factors. A more comprehensive analysis of directors' duties (for Australia, Canada, South Africa and the United Kingdom) in the specific context of climate risk has been produced by the Commonwealth Climate and Law Initiative and is available on its website.³

CLIENT DEMAND

As LP concerns about the impacts of climate change intensify, LPs are increasingly encouraging GPs to take a systematic approach to addressing climate-related risk in their portfolios and investment strategies. According to the interviews conducted to prepare this guide, LPs would like to see GPs take an approach to assessing climate-related risk that is practical and aligned with the GP's investment strategy.

LPs are increasingly asking about climate action in their due diligence and manager evaluations. However, the main challenge for LPs is that they lack formal methods to assess GPs' approaches to climate change. GPs would prefer a harmonised approach from LPs, with consensus on the datapoints needed to support assessment of a GP's approach to climate change.

Figure 3: In brief: LPs expectations on climate. Sources: INDEFI analyses

What LPs expect	What LPs do not expect
Knowledge and awareness	Complex methodologies
Transparent processes	Metrics without meaning
Clear strategic climate thinking	Dramatic shifts in investment strategy
Concrete action plans	Greenwashing

² PRI (2019) [Guidance for private equity signatories: directors' duties and ESG](#) and Debevoise & Plimpton (2019) [The duty of UK company directors to consider relevant ESG factors](#)

³ ccli.ouce.ox.ac.uk

EXAMPLE 1: SWEN CAPITAL PARTNERS EXPECTATIONS AND ENGAGEMENT ON CLIMATE

SWEN Capital Partners has developed a systematic climate allocation engagement. For each new investment product, it commits to allocate a pre-defined portion – at least 15% – of the product to assets that have a positive impact on climate. This measure represents an efficient and reachable target for GPs.

In 2017, SWEN Capital Partners introduced a “climate meeting clause” for every new deal. This clause is non-negotiable and requires GPs or portfolio companies to hold a meeting with SWEN Capital Partners within 18 months of the subscription to talk about climate change and how it is integrated into the day-to-day activity of the investee. This meeting does not involve an in-depth and complex analysis of climate practices, but rather aims to begin a dialogue about climate. As this clause is discussed before investing in a company or a GP, this also results in developing climate awareness as early as the pre-investment phase.

SWEN Capital Partners requests that its GPs report on CO₂ emissions at the portfolio level. However, these requests are, at present, rarely met with usable and homogeneous data. To compensate for this resource-intensive exercise, SWEN Capital Partner currently uses CO₂ models to estimate emissions levels, which it uses to engage with GPs when material.

“There needs to be a good balance in terms of data which should be requested from GPs by LPs. At present, LPs’ questionnaires all vary, and it takes a lot of time to answer them. LPs should agree on a more generic approach on climate change in order to facilitate the GPs’ work. They should simply begin by asking GPs whether they are climate-sensitive and if they take climate-related actions.”

GP

BARRIERS

This section is based on interviews with GPs and analysis of reporting to the PRI. This has highlighted barriers to implementing the TFCF’s recommendations including a lack of capacity, data issues and the scale of the problem.

Table 1: What GPs consider to be their main hurdles to TCFD implementation. Sources: Interviews conducted by INDEFI.

This table highlights a selection of quotes collected during the interviews with GPs.

<p>Lack of climate-related knowledge on the investment team</p>	<p>“One of the main challenges is the lack of climate-related knowledge among investment teams. Climate risks and climate change are very well known by ESG team members, but we did not manage to onboard the rest of our organisation on this topic yet. This results in investment teams not being climate sensitive, and not considering climate issues in their investment analyses.”</p> <p>GP</p>
<p>The scale of the climate change issue</p>	<p>“Climate risks have so many ways to materialise, and their impacts also vary a lot. There is no generic way to deal with climate change, there are so many issues that need to be tackled together that it is difficult to figure out where we should start.”</p> <p>GP</p>
<p>Constrained resources</p>	<p>“The difficulty is always the same. Being a small or mid-sized player, there is a trade-off to be made between the investment activity and defending broader causes. It is a matter of resource allocation and bottom-line profitability.”</p> <p>GP</p>
<p>Data collection</p>	<p>“Measuring the carbon footprint of all of a GP’s portfolio companies is nearly impossible. Private equity is a sector in which data is not published, and the transparency effort is not developed enough for now. GPs must therefore make an effort to ask for climate-related data of each of their portfolio companies, if there are some, and this is very time consuming.”</p> <p>GP</p>

IMPLEMENTING THE TCFD RECOMMENDATION

This section outlines a three-phase action plan to help GPs implement the TCFD's recommendations. It outlines objectives, practical steps, deliverables and connections with the PRI reporting framework. It addresses the TCFD's four pillars, and offers guidance on training, collaboration, integration with investment processes, scenario analysis and exit.

A three-phase action plan

	TCFD pillars	Objectives	Practical steps	Deliverables	PRI reporting
Phase 01	Governance	Raise climate awareness throughout the organisation	<ul style="list-style-type: none"> Conduct training for partners, investment directors and analysts Participate in cross-industry workshops on climate integration 	<ul style="list-style-type: none"> Training workshops Guidebooks 	-
	Governance	Define a climate-dedicated governance	<ul style="list-style-type: none"> Define climate oversight responsibilities at board and executive level Define climate assessment and management responsibilities at board and management level 	<ul style="list-style-type: none"> ESG/ Climate chart highlighting the flow of information and responsibilities 	SG 07.5 CC SG 07.6 CC SG 07.7 CC SG 13.5 CC
	Strategy	Develop a simplified implementation plan	<ul style="list-style-type: none"> Identify macro-level risks and opportunities through sector and scenario analyses Define an implementation plan 	<ul style="list-style-type: none"> Materiality matrix Simplified implementation plans 	SG 01.6 CC SG 01.7 CC SG 01.9 CC
Phase 02	Strategy Risk management	Conduct materiality analysis on current portfolio holdings to identify climate risk exposure	<ul style="list-style-type: none"> Introduce climate component within pre-acquisition due diligence Identify portfolio holdings with the highest exposure and conduct in-depth climate analysis 	<ul style="list-style-type: none"> Portfolio-level materiality matrix Company-level climate reports on main KPIs 	SG 14.3 SG 14.8 CC SG 14.9 CC
		Define key climate performance indicators for each portfolio holding	<ul style="list-style-type: none"> For the companies most exposed to climate-related risks, engage with management to define an action plan to strengthen climate resilience 	<ul style="list-style-type: none"> Portfolio-level climate reports Company-level action plans 	
Phase 03	Risk management Metrics and targets	Fully integrate climate considerations within the investment process	<ul style="list-style-type: none"> Integrate climate considerations that affect valuation based on material climate indicators following different scenarios 	<ul style="list-style-type: none"> Climate valuation models Company climate report models 	SG 13.1 SG 13.4 CC SG 13.6 CC SG 13.7 CC SG 13.8 CC SG 14.3
		Support holdings with tools and recommendations to address climate risks	<ul style="list-style-type: none"> When material risks are identified, define climate targets at portfolio level (e.g. risk exposure, resilience, carbon footprint, 2°C alignment) 	<ul style="list-style-type: none"> Portfolio-level climate reports on metrics and targets 	
	Risk management Metrics and targets	Conduct yearly reviews of portfolio holdings to assess progress towards climate objectives	<ul style="list-style-type: none"> Pre-acquisition and after climate due diligence, integrate climate covenants for the least resilient companies 	<ul style="list-style-type: none"> Annual climate reports Climate vendor due diligence 	-

PILLAR 1: GOVERNANCE

The first pillar of the TCFD's recommended disclosure relates to an organisation's governance of climate-related risks and opportunities. As such, **organisations should disclose the roles of governing and managing bodies** (e.g. by defining climate-related responsibilities, describing the role and meeting frequency of climate-related committees, and monitoring the progress of the climate strategy).

In order to support the implementation of the TCFD recommendations in the investment process, **GPs should assess whether they have the relevant governance and strategic measures in place at the firm level**. The PRI Guide for General Partners⁴ sets out possible actions that a GP can take to ensure an appropriate organisational structure and culture to support ESG integration more broadly – this same structure can be used for climate strategy.

Most GPs and LPs interviewed suggested that climate change should be considered as part of this overall ESG strategy rather than through developing standalone climate-related processes.

“We already have a deep focus on ESG throughout our investment process, and we decided to gradually integrate climate into it. For instance, we have integrated climate change-related questions into the annual ESG questionnaire that we send to our portfolio companies.”

GP

Prior to defining a governing structure, it is essential to ensure formal commitment from the top to guarantee sustained institutional dedication and resources.

“If GPs aim to engage on climate change, they should first define their climate-related governance. If GPs' management teams are not onboarded on climate considerations, then nobody will make relevant decisions and introduce climate considerations throughout the investment process.”

LP

Reference to the three-phase action plan

Raise climate awareness throughout the organisation	<ul style="list-style-type: none">■ Conduct training for partners, investment directors and analysts■ Participate in cross-industry workshops on climate integration
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The first step towards addressing climate change often consists of raising climate awareness and developing resources and knowledge within teams internally.

⁴ PRI (2014) [Integrating ESG In Private Equity, A Guide For General Partners](#).

TRAINING

This could consist of training for the investment committee, either theoretically or through concrete examples, particularly by presenting climate due diligence exercises or examples of climate risks materialising and impacting financial performance. Some GPs have developed training programmes for investment teams that have proved to be efficient and well received. The objective is for investment teams to gradually integrate these aspects into their analysis, thereby strengthening their own climate knowledge and gaining autonomy during the climate risk assessment phase of their investment processes.

EXAMPLE 2: TRAINING PROGRAMMES AT IK INVESTMENT PARTNERS

In 2018, IK Investment Partners conducted a large training programme for its investment staff and partners. The aim of the training, undertaken with the help of an external expert, took the form of a workshop to identify key climate change scenarios and to understand how they could affect both the pre- and post-investment stages of IK's activity. The programme led to numerous improvements in how it considers climate issues.

“In the end, we figured out that we were very good at considering some ESG topics, but we needed to make progress in understanding the impact climate can have on our investment programmes. The feedback was really positive, and our investment staff now consider climate change more systematically.”

COLLABORATION

GPs can demonstrate leadership by engaging with the private equity industry and with collaborative initiatives such as the Investor Agenda, the Initiative Climat International (see Box 4) and the PRI to share best practices and to help raise climate awareness within the private equity community. Collaborative initiatives can be a source of tools and support for GPs as they develop their climate strategies.

Reference to the three-phase action plan

Define a climate-dedicated governance

- Define climate oversight responsibilities at board and executive level
- Define climate assessment and management responsibilities at board and management level

BOX 4: INITIATIVE CLIMAT INTERNATIONAL

The Initiative Climat International (iC International)⁵ was launched in November 2015 as the iC20 by a group of French private equity firms. They decided to join forces to contribute to the COP21 objective of limiting global warming to well below 2°C.

In joining iC International, PE investors recognise the potentially adverse effects of climate change on private equity investments, and commit to collaborate with peers, specifically by implementing and refining tried-and-tested methodologies to analyse and mitigate carbon emissions and exposure to climate-related financial risks in their portfolios.

The first step they have taken is to engage the wider private equity industry to better understand and manage carbon emissions. The next step will be to work towards forward-looking analysis of climate-related financial risk, in line with the recommendations of the TCFD.

The iC International is hosted on the PRI online Collaboration Platform and is open to all private equity firms.

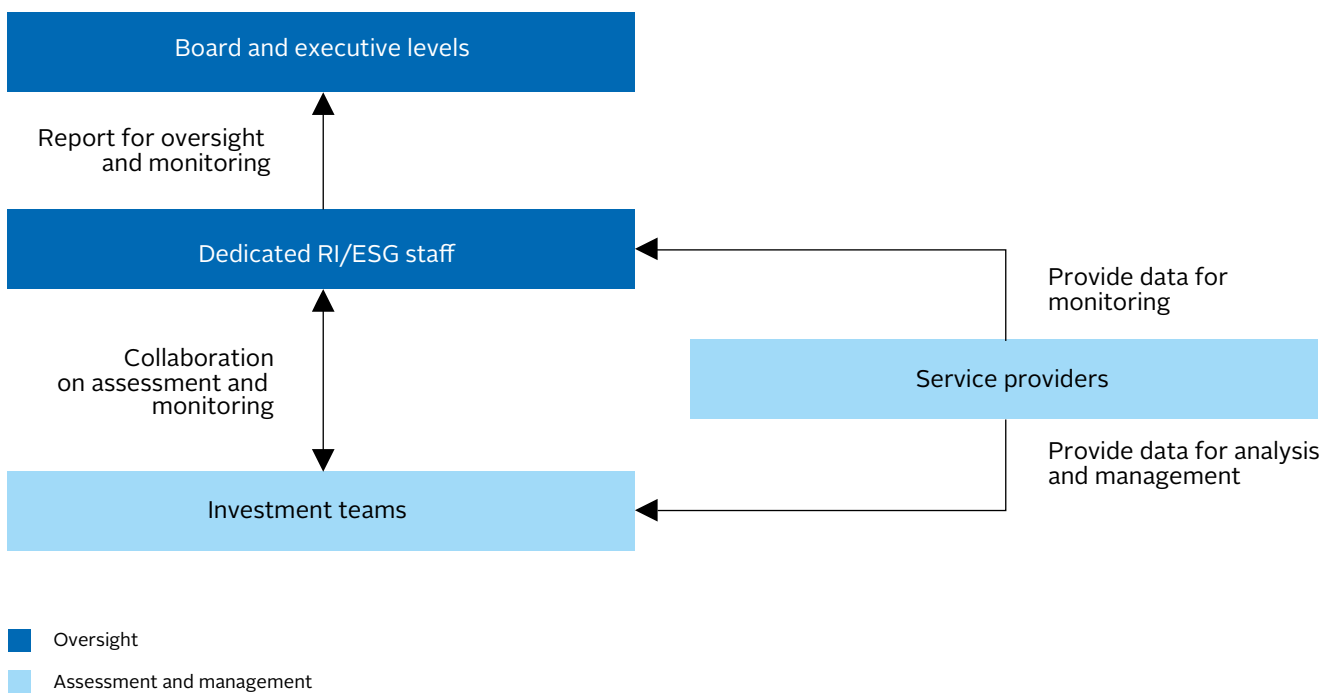
⁵ See [Join the Initiative Climat International](#) on the PRI Collaboration Platform

The TCFD recommends that the board of a company or an investor should have oversight of climate-related risks and opportunities. This recommendation has been applied by the GPs interviewed for this guide: oversight of climate strategy is typically allocated to the board and executive levels of the GPs, and climate risk assessment and management is typically allocated to investment analysts, portfolio managers and/or external experts. Some GPs have assigned

climate risk assessment and management to dedicated staff working as an interface between senior management and operations, depending on the resources available.

An annual report could then be presented to the GP's partners to inform them on climate-related risks across investment activities.

Figure 4: Example of an organisation's governance around climate-related risks and opportunities.
Source: INDEFI analyses



With the aim of improving climate governance, some GPs have created dedicated ESG committees charged with defining a responsible investment strategy, including climate change, which in turn is overseen by the GP's top management.

PILLAR 2: STRATEGY

The second pillar of the TCFD's recommended disclosures relates to the way an organisation's strategy may be impacted by climate-related issues. This includes a description of what the organisation considers to be relevant climate-related risks and how these can have a material impact on its activity, for example through a significant impact on financial performance.

The TCFD provides supplemental guidance for asset managers regarding its Strategy pillar. It recommends that disclosing companies and investors:

- Describe how climate-related risks and opportunities are factored into relevant products or investment strategies; and
- Describe how each product or investment strategy might be affected by transition risks.

For asset managers, there is some overlap between the TCFD's Strategy and Risk Management pillars. The Strategy pillar focuses on **what** processes are used by asset managers, and calls for reporting on the impacts of climate risk on investment strategies and products. The Risk Management pillar focuses on **how** these processes are applied (i.e. the methodologies used).

Although the timescale at which identified climate risks could materialise may be beyond the holding period of a typical investment, GPs can encourage portfolio companies to develop long-term, climate-sensitive strategies – and companies that are forward-thinking and futureproofing should be more attractive to future investors.

Strategically, climate risks and opportunities are often analysed in terms of asset allocation, time horizons and geographic and sector exposure. There is no one-size-fits-all approach to climate risks and opportunities during GPs' investment processes. Some of the GPs interviewed have developed frameworks for climate risk assessment throughout the investment phase and conduct systematic materiality analyses in order to adjust their climate strategy to a particular investment.

Reference to the three-phase action plan

- | | |
|--|--|
| Develop a simplified implementation plan | <ul style="list-style-type: none"> ■ Identify macro-level risks and opportunities through sector and scenario analyses ■ Define an implementation plan |
|--|--|

Developing a simple implementation plan might involve five steps, as outlined below.

Figure 5: Steps to follow to develop a climate strategy.
Source: INDEFI analyses.

1	Identify how climate risks and opportunities can affect portfolio holdings
2	Identify portfolio holdings most exposed to climate change (materiality analysis)
3	Conduct in-depth analysis when material
4	Implement tailored action plans to build climate resilience
5	Ensure continued sustainability through vendor due diligence

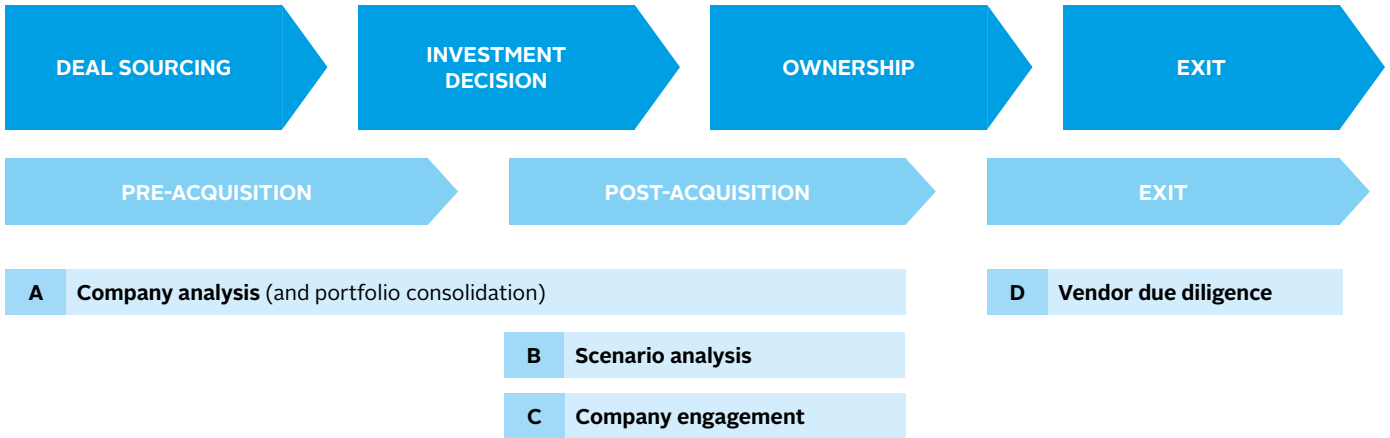
PILLAR 3: RISK MANAGEMENT

The third pillar of the TCFD focuses on the processes used by an organisation to identify, assess and manage climate-related risks.

The TCFD provides the following supplemental guidance for asset managers regarding the Risk Management pillar. It suggests that they:

- Describe, when relevant, engagement activity with portfolio companies related to disclosure and practices on climate-related risks, in order to improve data availability and the asset management's ability to assess climate-related risks;
 - Describe the processes to identify and assess material climate-related risks for each product or investment strategy; and
 - Describe the processes to manage material climate-related risks for each product or investment strategy.
- For private equity investors, this pillar can be addressed by disclosing climate-related practices throughout the investment process. The next section sets out these practices at the various stages of a private equity investment.

Figure 6: Implementation of climate risk management throughout the investment process. Source: INDEFI analyses.



A. COMPANY ANALYSIS AND PORTFOLIO CONSTRUCTION

Reference to the three-phase action plan	
Conduct materiality analysis on current portfolio holdings to identify climate risk exposure	<ul style="list-style-type: none"> Introduce climate component within pre-acquisition due diligence Identify portfolio holdings with the highest exposure and conduct in-depth climate analysis
Define key climate performance indicators for each portfolio holding	<ul style="list-style-type: none"> For the companies most exposed to climate-related risks, engage with management to define an action plan to strengthen climate resilience

The analysis of a company's exposure to climate risks and opportunities can be conducted during a climate due diligence prior to acquisition or at any point during the holding period. The depth of the climate due diligence will depend on the materiality of climate-related issues for each investment opportunity.

This section summarises the different steps and methodologies that are available to private equity investors to conduct climate analyses at the company level as well as their consolidation in a portfolio-level analysis.

Materiality analysis of current holdings

Climate due diligence starts with a materiality assessment of climate related risks. This allows GPs to segment and prioritise action on climate issues.

In practice, materiality assessment consists of asking if climate change can reasonably be expected to significantly impact a portfolio company's operations, supply chains or markets. For instance, an agribusiness will face a more material level of climate risk than a media company.

The factors typically analysed are the sector, size, location and regulatory environment of each portfolio company. GPs should consider the location of a portfolio company's operations, marketplace and supply chain. By focusing on this data, GPs can define potentially severe risks and have a clear vision on where to start taking climate-related action.

In conducting the materiality exercise, GPs can turn to external consultants to develop a tailor-made materiality matrix that fits with their investment philosophy, or they can make use of publicly available sources such as the Sustainability Accounting Standards Board (SASB) Materiality Map, CDC Group's ESG Toolkit or materials produced by iC International.

Table 2: Examples of sources for materiality matrixes. Source: INDEFI analyses

Name	Description	Website
SASB Materiality Map	SASB's Materiality Map identifies 26 sustainability-related business issues and their associated accounting metrics.	https://materiality.sasb.org/
CDC Group's ESG Toolkit	CDC Group's ESG Toolkit offers practical guidance for responsible investors in emerging markets with a particular focus on climate-related risks.	https://toolkit.cdcgroup.com/ See note on Assessing climate change risks under the E&S topic note on Climate Change
Initiative Climat International	A collaborative private equity initiative focused on raising understanding around climate related issues (See Box 4).	https://collaborate.unpri.org/group/761/stream See "Join the Initiative Climat International" on the PRI Collaboration Platform

Some GPs opt for a deeper focus on climate-related physical and transition risk analysis during the materiality assessment. The TCFD divides risks into transition and physical risks. In addition to these definitions, it provides asset management companies with concrete examples for each type of risk. Some GPs have decided to derive their analysis from these examples and adapt them to their own activities, and thus gain an understanding of the potential financial impact of climate risks.

EXAMPLE 3: PRELIMINARY CLIMATE RISK ANALYSIS AT THE DUE DILIGENCE PHASE AT PAI PARTNERS

At the due diligence phase, a preliminary risk analysis is carried out by PAI Partners' ESG team using the SASB climate risk technical bulletin framework. This framework provides a birds-eye sector-based analysis of physical and transition risks which allows PAI Partners to further deep-dive, if relevant, into particular physical risks. It does so by requesting the exact locations of operations and verifying with open source tools their exposure to physical risks such as typhoons or floods.

Identifying and mapping climate-related risks

Mapping exposure to physical risks

Physical risks resulting from climate change may relate to direct damage to assets or indirect impacts from supply chain disruption. Physical risks are considered, by interviewed GPs, as easier to assess and aggregate than transition risks. Indeed, portfolio companies can each be exposed to their own specific transition risks.

“We are at an early stage of the integration of climate change in our investment policies, so we decided to focus at first on physical risks related to climate. The goal for now is to develop some simplified tools and models that we can use for every company in our portfolio.”

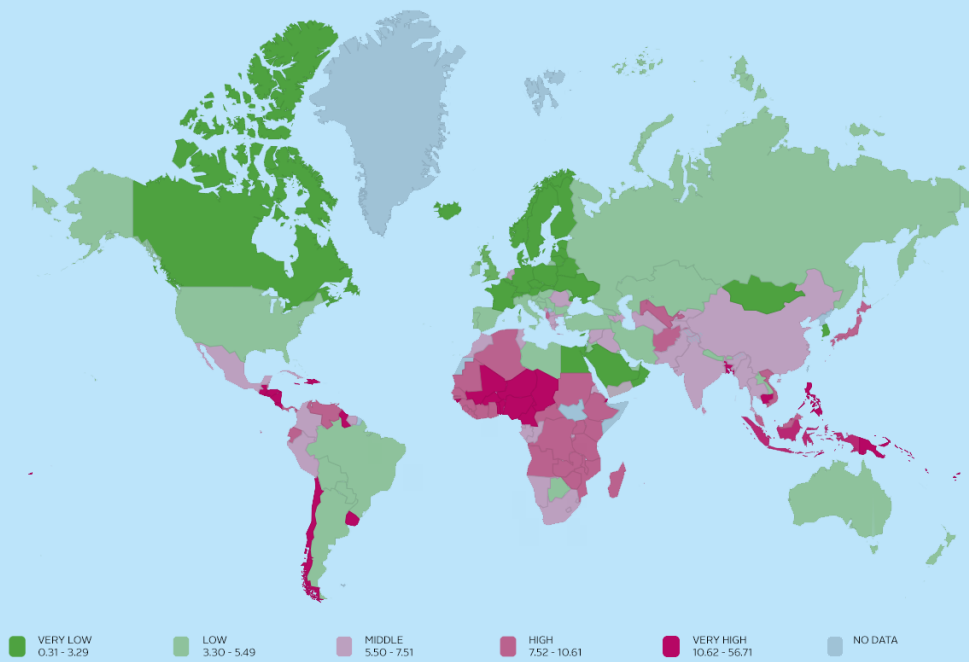
GP

BOX 5: PHYSICAL RISK ANALYSIS: A SIMPLIFIED APPROACH

Step 1: Analyse the physical risks at the company and site level with a focus on critical manufacturing sites in high risk locations (utilising sources such as WRI⁶ and ND-GAIN⁷)

Step 2: Aggregate the analysis at portfolio level

Example - Mapping of the portfolio companies according to sector and geography. Sources: WorldRiskIndex, developed by the United Nations University's Institute for Environment and Human Security (UNU-EHS)



⁶ WorldRiskIndex, developed by the United Nations University's Institute for Environment and Human Security (UNU-EHS), and available at <https://weltrisikobericht.de/english-2/>

⁷ ND-GAIN, developed by the University of Notre Dame, and available at <https://gain.nd.edu/our-work/country-index/>

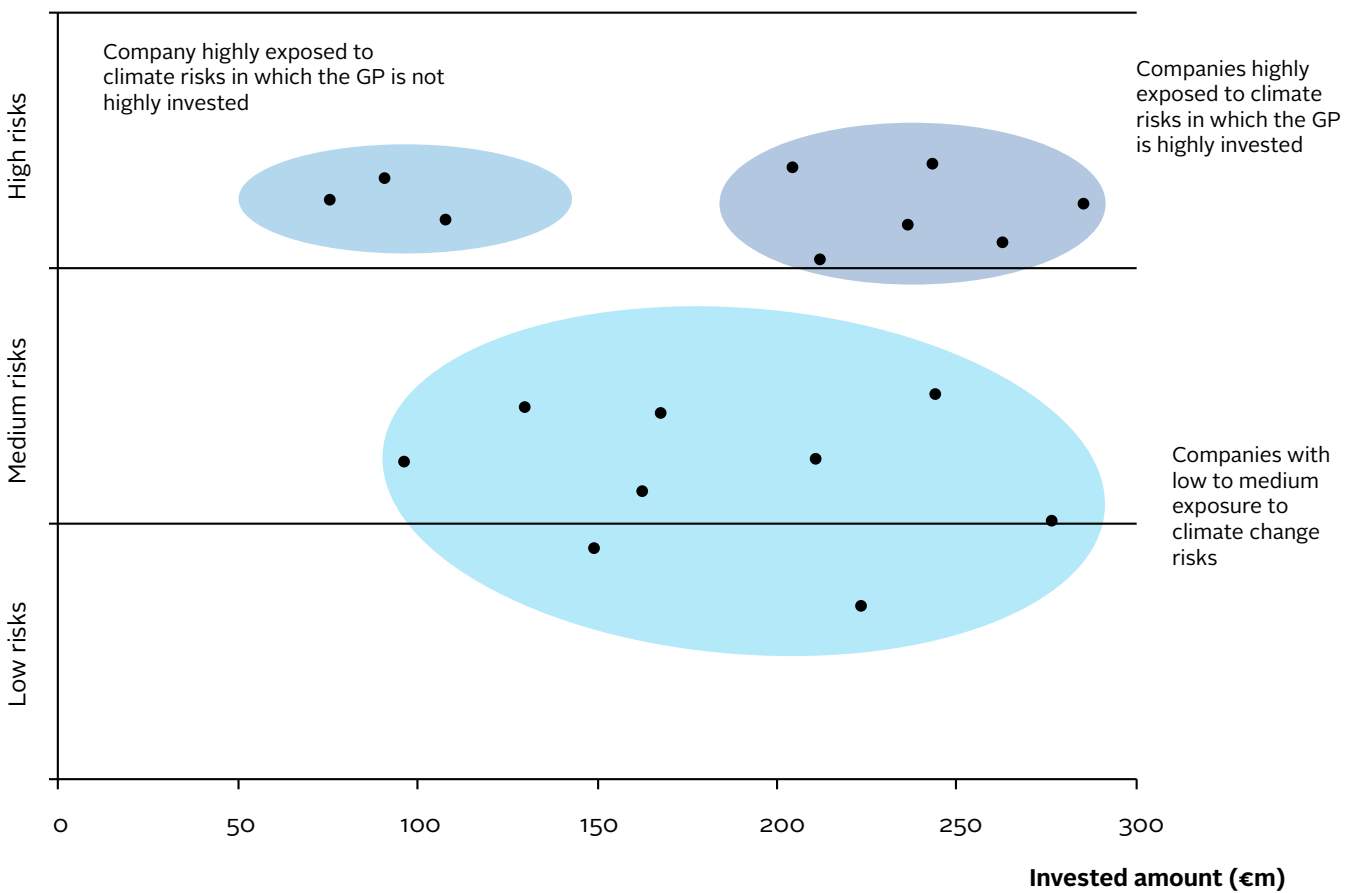
Mapping exposure to transition risks

Climate transition risks refer to the impacts the transition to a lower-carbon economy could have on a company's activities. The TCFD provides a useful segmentation of transition risks. For each sub-risk, a specific analysis can be carried out for each portfolio company. Each risk can be assessed according to its probability of occurrence and its impact on the company's business. The risks can then be aggregated, and portfolio companies can be benchmarked against each other.

It is also important to note that the transition to a low-carbon economy can generate opportunities for some companies, for example:

- Companies providing products or services that help the transition (renewable energy providers, manufacturers of energy efficient technologies) will benefit from increasing demand;
- Companies that address transition risks better than their competitors may gain market share and/or improve their pricing power; and
- Companies that manage these risks well could command a higher value by investors or access cheaper financing.

Figure 7: Example of aggregated matrix according to the level of climate risks and the invested amount at portfolio level.
Source: INDEFI analyses



B. SCENARIO ANALYSIS

The TCFD recommendations ascribe significant importance to climate scenarios. They are used to evaluate a firm's economic resilience under different climate circumstances. Scenario analysis is the process through which one analyses whether and how a company will be affected by physical and transition risks, depending on climate trajectories.

For GPs, ensuring that the companies in which they invest are resilient to different scenarios may be crucial. While few GPs have yet to develop or use sophisticated climate models, some have begun to tackle scenario analysis in a pragmatic way.

To assist GPs in developing their own scenario-based analyses, several public sources are available, including the PRI report *Implementing the TCFD recommendations: A guide for asset owners* (2018) and the Institutional Investors Group on Climate Change (IIGCC) report *Navigating climate scenario analysis: A guide for institutional investors*. An example of a scenario-based analysis of a company's risks and opportunities is presented in Figure 8.

Scenario analysis can be undertaken by following four steps. Investors should:

1. Define a **time horizon** and the relevant **scenarios** to be considered (using publicly available scenarios such as those produced by the International Energy Agency (IEA), International Renewable Energy Association (IRENA), Potsdam Institute for Climate Impact Research (PiK), The Inevitable Policy Response⁸);
2. Describe the **factors** (e.g. energy prices, access to resources) which are likely to impact the portfolio company's business (sales, operations, supply, etc.) on each identified physical and transition risk;
3. Develop a matrix to analyse the evolution of the **materiality** of each factor according to the selected scenarios; and
4. **Link** climate risks and opportunities to the company's **financial performance** by analysing the effect of the evolution of each factor on the company's sales, OPEX and CAPEX.

Figure 8: Example of a scenario-based risk and opportunity heat map for a specific company. Source: INDEFI analyses



This figure shows the conclusion of a scenario-based climate risk and opportunity project conducted by a GP and a portfolio company, with the help of INDEFI. A project team was created with the portfolio company managers in charge of corporate social responsibility and R&D/innovation. Brainstorming sessions were organised to identify the main climate-related trends that could affect the company under different IEA scenarios.

The next step in conducting the scenario analysis exercise was to define more precisely the impacts on sales, OPEX and CAPEX. This analysis was presented in an overall TCFD report from the company for the benefit of its shareholders.

The results of this scenario analysis can be used in several ways, including:

- As a tool to inform management and the GP of where material risks lie, leading to the development of action plans to mitigate risks for the business.
- At vendor due diligence, to disclose to potential investors how the management of the company perceives climate risks and is acting to mitigate them. It provides useful information to the potential investors and may facilitate an improved valuation of the company.

8 PRI, Vivid Economics, ETA (2019) [Inevitable Policy Response](#)

C. PORTFOLIO COMPANY ENGAGEMENT

Reference to the three-phase action plan	
Fully integrate climate considerations within the investment process	<ul style="list-style-type: none"> Integrate climate considerations that affect valuation based on material climate indicators following different scenarios
Support holdings with tools and recommendations to address climate risks	<ul style="list-style-type: none"> When material risks are identified, define climate targets at portfolio level (e.g. risk exposure, resilience, carbon footprint, 2°C alignment)

The post-acquisition phase of a climate strategy consists of translating climate risk assessment into relevant and concrete action plans and company engagement.

The action plans are specific to each investment, and there is no correct way to develop action plans. However, GPs have formalised processes to draw up efficient action plans for their portfolio companies and to provide them with knowledge, tools and support regarding climate risk.

To effectively engage portfolio companies, GPs collaborate with company management to understand what measures have already been taken and how an action plan could be most efficiently implemented.

“Every deal includes an ESG analysis, in which climate issues are integrated, for review by the investment committee when making the investment decision. In our portfolio companies, ESG topics are discussed with the board of directors at least once a year. In case of important materiality, a dedicated ESG committee is put in place, intervening at every board meeting.”

GP

The first step could be simply to initiate a discussion on climate risks and opportunities with portfolio company management, with basic scenario-based questions.

GPs can use the framework provided in the *PRI-IIGCC Guide on climate change for private equity investors* to frame this dialogue. Section 2 of the guide provides further explanation on the applicability of the framework.

Table 3: Questions for GPs to ask portfolio and potential investee companies. Source: A guide on climate change for private equity investors, IIGCC and PRI, 2016

Climate change impact awareness	What are the possible legal, financial and commercial impacts of climate change on your business?
Regulatory awareness	<ul style="list-style-type: none"> Which current and proposed laws and regulations relating to climate change are you aware of that might impact your business? How do you keep informed? Does, or should, the company have an officer or employee responsible for climate change or environmental measurement and reporting?
Carbon footprint	<ul style="list-style-type: none"> What is your business's direct and indirect carbon footprint? What objectives and targets have you set to support the company to reduce the level of carbon emissions it emits?
Market awareness	<ul style="list-style-type: none"> Are you aware of any action that your competitors are taking to mitigate or assess climate change impact? If so, how do your actions compare with the actions of your peers?
Cost/profitability forecasting	<ul style="list-style-type: none"> Have you evaluated the impact of rising climate-related costs on the business? Could increases in costs materially affect the profitability of the business? If so, what mitigation efforts have been considered?
Management of climate-related risks and opportunities	<ul style="list-style-type: none"> Having identified any climate-related risks, what steps are you taking to manage these? Have you established a climate risk mitigation policy and strategy? Do you consider opportunities created by and/or related to climate change? Which functions within your business are responsible for climate change or environmental measurement, management and reporting?

Once GPs have raised climate awareness with top management, they can consider developing tools and action plans with the company in order to assess and monitor climate risks. During this second phase, the role of GPs mainly consists in providing support and sharing knowledge about climate policies and the implementation of appropriate tools, and acting as a co-developer of portfolio companies' climate change strategies.

The definition and monitoring of material climate-related KPIs is addressed in more detail under Pillar 4.

EXIT STRATEGY: LONG-TERM THINKING

Climate is not yet widely considered at the point of the sale of companies by private equity firms. During the interviews conducted to prepare the guide, most respondents said that climate change risks were not included in sell-side due diligence reports except, from a regulatory point of view, in the case of some large companies that are subject to carbon taxes or cap-and-trade systems. They also said that they feared that disclosing too much regarding climate risks would potentially harm the valuation of the company.

However, on the buy-side, an increasing number of GPs agree that, when they invest in sensitive assets, they would like to know more how a company might respond to various climate scenarios.

It is therefore likely that, in coming years, vendor climate due diligence could be produced more frequently. A simplified way to conduct such due diligence when selling a company would be to align the report to the TCFD structure, in order to make sure that all important climate topics are considered. The aim of this vendor climate due diligence would be to provide potential new investors with a forward-looking report on the company to be exited, including scenario planning and action plans, when considered necessary.

PILLAR 4: METRICS AND TARGETS

The fourth pillar of the TCFD's recommended disclosure refers to the metrics and targets used by organisations to assess and manage material climate-related risks and opportunities.

The TCFD provides the following supplemental guidance for asset managers regarding the metrics and targets pillar. It suggests they:

- Describe metrics used to assess climate-related risks and opportunities for each product or investment strategy, and their potential evolution over time;
- When relevant, provide metrics considered in investment decisions and monitoring;
- When data is available, provide the weighted average carbon intensity; and
- Describe the methodologies used for carbon footprinting.
- This section aims to help private equity investors develop a pragmatic strategy regarding metrics and highlight the appropriate tools to identify the appropriate climate-related KPIs.

KEY PERFORMANCE INDICATORS

It is important to monitor environmental KPIs, including climate indicators, at the fund level. Most of the time, the identification of relevant KPIs is undertaken during the pre-investment phase, when the GP assesses risks and mitigation. GPs do not need to define complex KPIs; for example, LPs have limited interest in consolidated carbon footprints. Rather, LPs prefer to understand the climate-related action plans implemented by GPs with their portfolio companies. In order to avoid biased reports, GPs could focus on developing simplified and accessible reporting tools. Examples of action plans and active engagement with company management are seen as more concrete proof of climate risk consideration than aggregated metrics.

As a first approach, GPs can make use of public sources such as SASB's Materiality Map. For each sector, a set of material issues are identified, with their respective KPIs.

With regards to climate-related metrics, it is important to note that carbon emissions are not the sole metric that can prove material to a company. For example, high water consumption can be a physical risk factor should a company have operations in water-stressed areas. Therefore, it might be more material for this company to analyse its water usage and develop an action plan to reduce it to increase its climate resilience.

“Twenty-five per cent of our GPs currently calculate the carbon footprint of their portfolio. However, carbon emissions are not material for all kinds of companies. GPs who mainly invest in service companies will not be able to provide detailed information about carbon footprints, due to the nature of their portfolio, and they probably have different issues to focus on.”

LP

CARBON FOOTPRINTING

If measuring carbon footprints is considered relevant for some portfolio companies, the second step the GP takes could be to request that these companies report on them.

This may only be achievable for larger portfolio companies or if the GP provides smaller companies with third-party carbon audits.

Figure 9: Calculating a carbon footprint. Source: A guide on climate change for private equity investors, IIGCC and PRI, 2016

CALCULATING A CARBON FOOTPRINT

When calculating a carbon footprint, it is important to recognise the different scope categories for emissions, as defined by international carbon reporting standards:

- **Scope 1:** All direct greenhouse gas (GHG) emissions which are emissions from sources that are owned or controlled by the company e.g. burning diesel in on-site generators.
- **Scope 2:** Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity. For example, emissions generated from the consumption of purchased electricity, heat or steam.
- **Scope 3:** Other indirect emissions, for example: generated from the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

For further information on carbon footprints:

- [The GHG Protocol Corporate Standard](#) – Provides standards and guidance for companies and other organisations preparing a GHG emissions inventory.
- [IIGCC Carbon Compass: Investor Guide to Carbon Footprinting](#) – Designed to help connect carbon footprint analysis with investment objectives such as minimising risk and meeting climate targets.
- [CDP](#) – A disclosure framework on the risks and opportunities of climate change that is applicable to private equity. CDP provides free guidance documents and support to reporting companies.

Alternatively, a growing number of private equity investors, including both GPs and LPs, have begun using carbon estimation models designed by specialised rating agencies. Indeed, investors are often faced with difficulties in accessing data or invest in companies which do not monitor detailed environmental metrics (e.g. energy consumption). These carbon estimation models have varying levels of accuracy, depending on the quality of the inputs. Indeed, rough estimates can be made with readily available metrics such as the sector, the number of employees and the country of operation. More sophisticated models can have greater accuracy, but require more sophisticated data (e.g. energy consumption, supply chain information, or regarding the life-cycle of its end products).

Once carbon footprints are calculated for individual portfolio companies, they can be used in several ways by GPs. First, they can be consolidated at the portfolio level to allow reporting to their stakeholders (LPs, and regulatory bodies, particularly). This should preferably be calculated using the weighted average carbon intensity, as per the TCFD's recommendation.

Second, they can be used as a proxy for exposure to transition risks, thereby potentially influencing the investment decision. The most common use of carbon emissions data is to identify the companies for which dedicated climate action plans would be most relevant. Finally, carbon footprinting can be used to evaluate how a given company is aligned or not with the 2°C scenario.

Figure 10: Calculating the weighted average carbon intensity. Source: TCFD – Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures.

CALCULATING THE WEIGHTED AVERAGE CARBON INTENSITY OF A PORTFOLIO

The TCFD provides guidance on how to calculate the weighted average carbon intensity of a manager’s portfolio.

Figure 10: Calculating the weighted average carbon intensity. Source: TCFD – Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures.

METRIC	SUPPORTING INFORMATION	
Weighted Average Carbon Intensity	Description	Portfolio’s exposure to carbon-intensive companies, expressed in tons CO ₂ e / \$M revenue. Metric recommended by the Task Force
	Formula	$\sum_n \left(\frac{\text{current value of investment}_i}{\text{current portfolio value}} * \frac{\text{issuer's Scope 1 and Scope 2 GHG emissions}_i}{\text{issuer's \$M revenue}_i} \right)$
	Methodology	Unlike the next three metrics, Scope 1 and Scope 2 GHG emissions are allocated based on portfolio weights (the current value of the investment relative to the current portfolio value), rather than the equity ownership approach (as described under methodology for Total Carbon Emissions). Gross values should be used.
	Key Points + / -	<ul style="list-style-type: none"> + Metric can be more easily applied across asset classes since it does not rely on equity ownership approach. + The calculation of this metric is fairly simple and easy to communicate to investors. + Metric allows for portfolio decomposition and attribution analysis. - Metric is sensitive to outliers. - Using revenue (instead of physical or other metrics) to normalize the data tends to favour companies with higher pricing levels relative to their peers.

2 DEGREE ALIGNMENT

A company is said to be aligned with a 2° scenario when it has drawn up a credible long-term plan to reduce its carbon footprint to the extent that is compatible with the Paris Agreement's goal of keeping global warming to below 2°C.

Many GPs and LPs interviewed stated that it is too early to request GPs to try to align portfolios with a 2°C scenario. However, some GPs already use sophisticated scenarios to define their climate objectives, such as price or energy mix outlooks or sophisticated forecasts conducted by consultants.

A simpler approach consists of designing targets as percentages of the portfolio (in value or in number of companies) on the most relevant metrics assessed by the GP itself. For instance, GPs could consider developing targets on a three- or five-year regarding the percentage of deals during which a materiality assessment on investment opportunities has been conducted, or on the number of portfolio companies reporting on their carbon footprint.

Once these targets are fixed, the main objective of GPs will consist in supporting portfolio companies in the implementation of concrete actions to achieve the identified targets.

This support can consist of company-by-company discussions, or in more general training on data collection and metrics measures.

The second step towards detailed climate-related target definition consists in defining targets for concrete metrics adapted to each portfolio company once reporting is established. GPs could, for instance, define targets such as reductions in CO₂ emissions, etc.

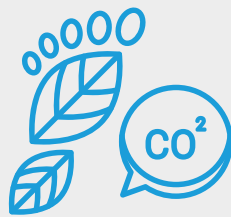
EXAMPLE: CLIMATE ACTION PLAN AT ARDIAN

Ardian recently assessed the exposure of its Expansion portfolio to climate-related physical and transition risks, based on the TCFD's disclosure recommendations. Scope 1 and 2 carbon emissions were also estimated by an external consultant and compared to sectoral benchmarks. Finally, potential carbon footprint reduction actions were identified, along with targets to be aligned with a 2°C scenario.

Ardian defined a preliminary action plan to mitigate climate-related risks, capitalise on opportunities and reduce carbon footprint. Action plans were presented to both investment teams and management of companies.



Climate-related risks analysis



Carbon footprint



Climate-risks mitigation and carbon reduction action plans

CONCLUDING REMARKS

Research and action on integrating climate-related issues into investment decision is rapidly developing. Between the launch of the project and the completion of this guide, the landscape has continued to evolve. Each month brings new announcements on climate change by regulators, asset owners, asset managers, banks and the corporate sector. Civil society is also increasing the pressure to accelerate the energy and ecological transition through, for example, the Fridays for the Future campaign and the Extinction Rebellion protests.

There is little doubt that the pressure on investors and companies to act will intensify in the coming years as the impacts from climate change become increasingly apparent to citizens and businesses .

We therefore hope that this guide sets out the practical steps that private equity GPs can take to implement the TCFD recommendations, ultimately leading to a better understanding of, and improved mitigation against, climate-related risk.

CREDITS

PRI PROJECT TEAM:

- Natasha Buckley, Senior Specialist, Investment Practices (ex-PRI)
- Toby Belsom, Director, Investment Practices
- Edward Baker, Senior Specialist, Climate and Energy Transition
- Jack Balsdon, Climate Policy Analyst

INDEFI PROJECT TEAM:

- Emmanuel Parmentier, Partner
- Valentin Allard, Senior Consultant

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



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



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

