

Norfund TCFD Report

2024

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1 Introduction

Norfund, the Norwegian Investment Fund for Developing Countries, is set up to promote sustainable development and reduce poverty through investments in private sector growth in developing countries. Our mission is to create jobs, improve living conditions and support the transition to Net Zero. Norfund focuses on sectors such as renewable energy, financial institutions, agriculture and manufacturing, striving to stimulate economic growth and positive social impact in geographies where our investments can have the highest impact.

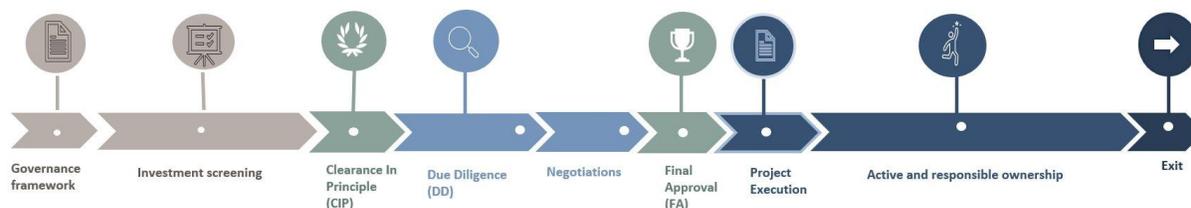
This report describes Norfund’s approach measuring, managing and mitigating climate-related risks and opportunities. While TCFD has transitioned into the IFRS (International Financial Reporting Standards), Norfund still finds the structure of the TCFD reporting to be a useful tool and we are committed to continuously improve our approach to climate risks and opportunities, and how it affects Norfund and our portfolio companies.

2 Governance

As outlined in our Policy for Environmental and Social Sustainability, Norfund is committed to contribute to a ‘just transition’ and to align the portfolio with the Paris Agreement’s net zero goal by 2050. The target is to contribute to real-economy decarbonization by increasing climate finance, aligning all new, financing with the Paris Agreement over time, and assisting the investees in the transition towards a low-carbon economy. Progress towards these objectives is regularly reported to the board of directors. Climate risk is also discussed in the “Risk and Audit Committee”, a sub-committee of the board of directors designed e.g., to oversee risk management in Norfund.

At management level, Norfund’s Net Zero strategy informs strategic investment planning and is embedded within portfolio management processes. Climate-related risks and opportunities are assessed as part of the investment process, as described in Norfund’s Guidance Note on Climate Risk Assessment for New Investments. This approach is operationalized by a climate tool, that is applied to each prospective investment. The responsibility for these assessments lies with the investment teams and ultimately with the head of each investment department.

An assessment of a company’s climate risk and Paris Alignment status is assessed at each investment decision gate, both at the clearance in principle stage, and at final approval.



3 Strategy

Norfund recognizes that climate change poses significant risks and opportunities that can impact both the resilience of our investments and the economic development of the countries in which we operate. We categorize climate-related risks into two main types: physical risks and transition risks. Physical risks include both acute impacts, such as extreme weather events, and chronic impacts like long-term shifts in climate patterns. Transition risks arise from the shift towards a lower-carbon economy, including regulatory changes, market shifts, and technological advancements. As a result, climate risks in our investment markets are specifically outlined in Norfund’s risk appetite statement¹. Norfund seeks to minimize these risks by designing and implementing appropriate systems and processes, regular training, contractual requirements, internal control and compliance.

At the same time, we recognize the opportunities presented by the transition to a sustainable economy. These include investments in renewable energy, sustainable agriculture, and innovative technologies that support this shift. To contribute meaningfully, Norfund has committed to aligning its portfolio with the Paris Agreement’s net-zero target by 2050.

Norfund’s climate work is thus comprised of two overarching elements, managing and mitigating risks that we are exposed to via our investees, and supporting the transition to a low-carbon economy through our net-zero strategy.



3.1 Scenario Analysis

Climate scenario data informs the investment process by identifying potential physical and transition climate risks to the investee, and material risks are addressed during due diligence.

Climate risk in our portfolio is driven by two main factors: the *physical location* of our investments and the *characteristics of the sectors* we are exposed to.

¹ norfund.no

- Geography:** Norfund targets countries where capital is scarce, and investments have high impact potential. One of Norfund’s strategic KPIs is investing at least 33% of our portfolio in the Least Developed Countries (LDCs). As a result, Norfund is exposed to countries highly vulnerable to the impact of climate change.
- Sectors:** Norfund is heavily invested in sectors that are exposed to physical risks. Key physical climate risks include damage to infrastructure and supply chain disruptions due to weather-related events, and reduced crop yields or productivity due to chronic or acute weather changes. We are less invested in sectors that are, all else equal, more exposed to transition risk due to our [Fossil Fuel Standard](#) and our strategy. The majority of transition risks lie in our investments in various manufacturing sectors.

3.2 Physical Risks

Most of Norfund’s investments are in Sub-Saharan Africa and Asia, regions which are likely to feel the effects of climate change in both analyzed scenarios. This risk is subsequently heightened or mitigated depending on the sectors of our investments, and how exposed operations are to the most material climate hazards.

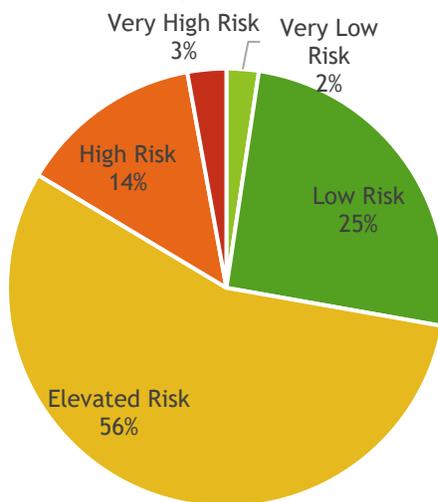
Norfund makes use of the EIB Climate Risk Country scores to assess a country’s exposure to physical risks. This database considers a country’s exposure to acute and chronic climate hazards, as well as an adaptation capability component, which is a country’s ability and willingness to respond to climate risk. The map below shows the physical risk scores of countries that are part of Norfund’s core strategy and the percentage of committed amount in each region.



Most investments are in Sub-Saharan Africa, where drought, flooding and temperature rise have been identified as the most elevated risks. Chronic temperature rise and extreme heat will likely have a financial impact on several of our investees, ranging from reduced yields in production to employee health and safety concerns.

Breaking down the risk categorization reveals that approximately 70% of investment volume face elevated to very high exposure to chronic and acute physical risks based on geographical exposure.

% Investment Exposed to Physical Risks



3.2.1 Climate change adaptation & risk mitigation

Acknowledging the risks that climate change pose to our investees, climate change adaptation and resilience is an integrated part of Norfund’s strategy. By integrating climate risk assessments in the screening and DD stage, Norfund aims to identify these risks, and support companies to implement relevant adaptation measures through various engagement processes. Several companies are already experiencing the effects of climate change, and are working together with Norfund to implement suitable adaptation measures.



Case Example – Investment in ANB

ANB is a South African citrus and tropical fruits agribusiness, with vertically integrated operations spanning IP management, primary production, packaging, branding and marketing. Prior to Norfund’s investments, ANB experienced increasing loss of crops due to heavy hailstorms and stronger sun – resulting in increased insurance cost from 3 mill rands to 36 mill rands over a period of 6 years.

Norfund’s investment finances nettings to protect crops from adverse weather, including hail, strong winds, heat and sun. This directly contributes to increasing the climate adaptation and resilience of the company, while also reducing waste and water demand.

3.3 Transition Risks

Transition risks are assessed in pre-screening, during the DD process and as part of our annual TCFD reporting. Norfund’s transition risk assessment covers both a sector’s exposure to transition risks in a low-carbon scenario, as well as using a more business as usual approach by assessing country progress towards NDCs.² In practice, external resources such as Climate Action Tracker³ that track government climate action show that most of the countries that we invest in display insufficient or worse climate action in terms of reaching NDCs.

The sector exposure analysis builds on datasets created by UNEPFI, which categorizes transition risk exposure into the categories of where in the value chain the risk is likely to materialize. The categories are in terms of Direct Emission Cost, Indirect Emission Cost, Low-Carbon Capex and risks to Revenue. Overall, due partly to Norfund’s focus on renewable energy investments, as well as a general lack of NDC progress in the countries in which we invest, the overall transition risk is low. For investees that export to international markets with strict climate regulation, supply chain transition risks are elevated.

The below table shows the share of Norfund commitments per categorization of transition risks. Looking at overall transition risks, 82% of capital is invested in sectors with very low or low transition risk.

	Very Low	Low	Medium	High	Very High
Direct Emissions Cost	82%	1%	10%	7%	0%
Indirect Emissions Cost	6%	75%	19%	1%	0%
Low-Carbon CapEx	6%	75%	13%	6%	0%
Revenue	0%	1%	65%	0%	0%
Overall Sector Transition Risk	34%	48%	11%	7%	0%

Transition Risk Exposure Types

Direct Emissions Costs – Carbon prices or taxes applied to a company’s scope 1 emissions, i.e. costs tied to emissions from sources that the company owns or controls.

Indirect Emission Costs - Increased supplier prices due to carbon pricing on their operations, i.e. costs tied to emissions produced by entities in the value chain.

Low-Carbon CapEX - Companies face low-carbon capex exposure risk when they are likely to require significant capital investment in low-emission technologies or infrastructure to comply with emerging climate regulations

Revenue - Companies face revenue risk exposure when their current products or services are likely to experience declining demand or pricing power as markets shift toward low-carbon alternatives or as climate regulations tighten

² A Nationally Determined Contribution (NDC) is a country's climate action plan under the Paris Agreement. It outlines how a country plans to reduce its greenhouse gas emissions and adapt to climate change, contributing to the global goal of limiting temperature rise to 1.5°C

³ <https://climateactiontracker.org/>

The investments with the highest risks are in sectors that would typically be exposed to direct emissions costs (by having high scope 1 & 2 emissions). Through our Scalable Enterprises team, Norfund invests in manufacturing companies such as cement, steel and plastics. In each of these cases, climate risks and Paris Alignment is assessed, and where applicable, assessed against sector-specific low-carbon transition pathways.

Norfund's focus on emerging markets also presents several opportunities regarding a low-carbon transition. One such case in Norfund's investment in CBI, a Ghana-based cement manufacturer. CBI is the first company in Ghana to introduce calcined clay technology into cement production, reducing the need for imported clinker, and significantly reducing emission intensity of production. The current intensity, and estimated intensity is aligned with international 1.5-degree benchmarks for cement and thus assessed as a Paris-aligned cement manufacturer.

3.4 Engagement

Engaging with investee companies is a key tool for Norfund to manage climate-related risks and opportunities, and for reaching our Net-Zero target. Norfund works closely with our investees to build capacity on several topics, including climate. This ranges from supporting relevant adaptation measures, developing climate risk & impact management policies to reducing transition risk and reducing emission intensities of production, dependent on findings from the DD phase.

Norfund's engagement practices vary depending on context. When climate risks are high and a company shows low maturity on climate issues, climate-related requirements may be included in climate-related action plans. These can include conducting GHG inventories and comprehensive climate risk assessments, which then serve as the basis for developing further climate strategies.

To support the sustainable growth of investees, Norfund provides grant funding to help build capacity on topics such as climate. In 2024, Norfund allocated 17.3 MNOK in business support across 59 projects. Of these, 8 were climate-related, resulting in 27 assessments and training for 298 staff members.

Each year, Norfund collects data from companies on development effects, emissions, and climate progress. In some cases, we also provide technical support on GHG accounting, climate risk frameworks, and reporting to help companies advance their decarbonization efforts.

The combined efforts of the above approaches have led to a 34% increase in the amount of reporting companies in the portfolio from 2023 to 2024.

4 Risk management

Climate risk is included in [Norfund's risk appetite statement](#). Climate risk is further integrated into Norfund's overall enterprise risk framework and risk catalogue with designated risk owners, which is reviewed bi-annually.

At the investment level, Norfund includes climate risk and opportunities identification, assessment, and management into the investment process. The approach is described in Norfund's Investment Manual and supplemented by a separate practical guidance note on climate risk assessments. An internally developed Climate Tool supports investment teams in assessing risks and opportunities in the initial phase of the investment process and during due diligence. Norfund sees climate risk not as a new stand-alone risk category, but as a supplementing factor for the categories already covered in our risk assessment.

The financial impacts of climate risk on an investment are driven by (1) the climate-related risks to which the investee is exposed, and (2) its planned response to manage those risks. We have therefore defined two lenses through which the climate risk associated with an investment can be assessed:

1. Assessing the investee's underlying climate risk exposure
2. Assessing the investee's capabilities in managing its climate risk exposure

Each investment should be assessed through both lenses before a potential commitment. The time spent on each lens will vary by investment department and the specific case at hand. The result of the assessment is part of the investment documentation upon which the management team or Investment Committee make investment decisions.

5 Metrics and targets

Norfund's Net Zero strategy is rooted in our overarching mandate, stakeholder expectations, and effective risk management. Central to this strategy are our metrics and targets, which are categorized into several distinct areas. The targets are summarized below:

Focus area	Approach	Metric	2023	Ambitions	
				2024-2026	2027-2030
1 Investing heavily in climate finance	Step-up annual investments in climate finance ¹⁾ and seek to invest in climate projects across all investment areas.	Climate finance (% of new investments in strategy period) <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Total</div> <div style="border: 1px dashed black; padding: 2px;"> <div style="display: flex; justify-content: space-between;"> 54% 6% </div> <div style="font-size: 8px; margin-top: 2px;">of which other than RE and CIM</div> </div> </div>		64% 8%	66% 12%
2 Transition current and future investments to low-carbon	Apply decarbonization measures for individual investments in portfolio, with a particular focus on hard-to-abate sectors that are key to development ("transition finance" ²⁾)	Transition finance (<i>cumulative # of investments in portfolio</i>) Emission reductions (for high emitters)	1 ⁵⁾ Limited tracking	4 Track	12 Track
3 Ensuring all new investments are Paris aligned over time	Apply Paris alignment methodology (agreed among the EDFIs) new investments, starting with direct investments, and work actively with investees in ownership phase.	Paris alignment (% of new investments)	No tracking	85%	100%
4 Limiting portfolio exposure to fossil fuels	Continue the low exposure to fossil fuels. No direct investments in fossil fuel value chain as stated in the updated fossil fuel standard.	Fossil fuel exposure (for indirect investments)	No tracking	Track	Track
5 Tracking absolute financed emissions	Estimate financed scope 1, 2 and 3 emissions using JIM ³⁾ while improving investees' own reporting.	Absolute financed emissions	No tracking	Track	Track
	Further explore intensity measures when absolute figures are in place.	Emissions intensity measure (TBD)	No tracking	Track	Track

Notes: 1) As defined in IDC/MD8's [Common Principles for Climate Mitigation Finance Tracking](#), and The MD8's [Joint Methodology for Tracking Climate Change Adaptation Finance](#); 2) As defined in [Transition Finance for Africa](#); 3) [Joint Impact Model](#); 4) Average over the period; 5) CBI, a Ghana-based cement manufacturer, committed in 2022

Appendix 1 – Description Norfund’s climate risks and opportunities

Investment Area	Sub-sector	Main risks		Main opportunities
		Physical	Transition	
Renewable energy	Renewable energy	<ul style="list-style-type: none"> • Risk of HSE events related to weather events, especially affecting outdoor workers (e.g., heatwaves) • Risk of damage to infrastructure and/or disruption in operations due to weather-related events (e.g., storms and floods) • Risk of disruptions in the value chain (e.g., grid outages, supply chain shortages) due to weather-related events • Risk of lower production/efficiency and/or higher O&M costs due to gradual changes in climate conditions (e.g., lower wind speeds) 	<ul style="list-style-type: none"> • Risk of stranded assets due to rapid cost-down and technology development in the sector 	<ul style="list-style-type: none"> • Increased demand for renewable energy and associated low-emission products (e.g. green hydrogen, large scale battery storage)
	Gas	<ul style="list-style-type: none"> • Similar to Renewable Energy 	<ul style="list-style-type: none"> • Risk of regulation that disfavor gas (e.g., carbon tax) • Risk of decreased market demand for fossil based energy • Reputation risk 	
	Transmission	<ul style="list-style-type: none"> • Similar to Renewable Energy 	<ul style="list-style-type: none"> • Risk of customer preference for off-grid solutions to limit reliance on centralized and vulnerable transmission system 	
Green infrastructure	Waste and water	<ul style="list-style-type: none"> • Similar to Renewable Energy for investments involving significant physical infrastructure. 	<ul style="list-style-type: none"> • Risks related to uncertain regulatory landscape • Stranded asset risk for less mature technologies with high cost-down potential 	<ul style="list-style-type: none"> • Increased demand for low carbon energy sources (e.g., W2E) • Increased demand for circular business models (e.g., recycling) • Increased need for water supply

Investment Area	Sub-sector	Main risks		Main opportunities
		Physical	Transition	
Scalable enterprises	Food and agriculture	<ul style="list-style-type: none"> • Risk of HSE events related to weather events, especially affecting outdoor workers (e.g., heatwaves) • Risk of reduced crop yields or crop failure due to extreme weather events (e.g., floods) • Risk of disruption in the value chain (e.g., supply chain shortages, road blockages etc.) • Risk of reduced yields or productivity due to chronic changes in climate patterns, e.g., temperature increase, droughts, imbalances in ecosystems, increases in pathogens and pests etc. 	<ul style="list-style-type: none"> • Risk of regulation e.g., land use and deforestation restrictions, GHG emissions pricing or taxes, trade policies restricting product exports/imports • Risk of changes in consumer preferences (e.g. red meat), purchaser and/or investor restrictions or sustainability requirements (e.g. NDPE1 or net zero targets) • Risk of new, green technologies out-competing traditional agricultural methods, e.g. lab-grown meat, regenerative agriculture 	<ul style="list-style-type: none"> • Nearly all transition risks can be turned into opportunities, e.g., focusing on sustainable agricultural practices and products
	Manufacturing	<ul style="list-style-type: none"> • Risk of damage to physical infrastructure (e.g., production site) and/or disruption in operations due to weather-related events • Risk of supply chain disruptions to key operational inputs e.g. water or electricity access • Risk of HSE events related to weather events 	<ul style="list-style-type: none"> • Risk of regulation, e.g., GHG emissions pricing or taxes, product bans, trade policies restricting product exports/imports etc. • Risk of changes in consumer preferences toward green products, purchaser and/or investor restrictions or sustainability requirements (e.g. net zero targets) • Risk in fluctuations in market prices of relevant inputs (e.g. oil, gas, electricity) • Risk of new, green technologies out-competing traditional manufacturing methods, e.g. zero-emission cement, carbon capture and storage, increased circularity • Risk of reputational backlash from emission-intense manufacturing industry 	<ul style="list-style-type: none"> • Nearly all transition risks can be turned into opportunities, e.g., focusing on sustainable manufacturing practices and products

Investment Area	Sub-sector	Main risks		Main opportunities
		Physical	Transition	
Financial inclusion	Commercial banks and insurance	<ul style="list-style-type: none"> • Risk on balance sheet from underlying assets, especially involving agriculture or physical infrastructure 	<ul style="list-style-type: none"> • Risk on balance sheet from underlying assets, especially involving high emission sectors, e.g., O&G or industry 	<ul style="list-style-type: none"> • Potential higher returns and reduced risk from capital allocation towards green technology and sustainable practices • Potential reputational and regulatory benefits, and market opportunities, from green bonds
	Microfinance	<ul style="list-style-type: none"> • Similar to commercial banks, but likely more exposed due to targeting the poor who are more vulnerable to physical climate risks 	<ul style="list-style-type: none"> • Limited transition risk 	<ul style="list-style-type: none"> • Potential market opportunity from lending to businesses providing climate solutions and sustainable practices
Funds		<ul style="list-style-type: none"> • Risk on balance sheet from underlying assets, and depending on the sectorial and geographical focus. Primary risk related to agriculture or physical infrastructure 	<ul style="list-style-type: none"> • Risk on balance sheet from underlying assets, and depending on the sectorial and geographical focus. Primary risk related to higher-emitting sectors 	<ul style="list-style-type: none"> • Potential higher returns and reduced risk from investing in green technology and sustainable practices