European Bank
for Reconstruction and Development

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

REPORT 2022

Contents

Acronyms

Abbreviation/acronym	Description
BAAC	Budget and Administrative Affairs Committee
CBAM	Carbon Border Adjustment Mechanism
CCG	Corporate climate governance
CO2e	Carbon dioxide equivalent
CRB	Climate resilience bond
CRO	Chief Risk Officer
CSD	Climate Strategy and Delivery department
CSG	Client Services Group
DNZ	Divergent Net Zero (scenario)
EAD	Exposure at default
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
EIB	European Investment Bank
ESB	Environmental sustainability bond
EU	European Union
FOPC	Financial and Operations Policies Committee
GET	Green Economy Transition
GHG	Greenhouse gas
GRI	Global Reporting Initiative
GTB	Green transition bond
ISSB	International Sustainability Standards Board
KPI	Key performance indicator
LGD	Loss given default
MDB	Multilateral development bank
NGFS	Network for Greening the Financial System
NPL	Non-performing loan
PCAF	Partnership for Carbon Accounting Financials
PD	Probability of default
PFI	Partner financial institution
PRI	Principles for Responsible Investment
SCF	Strategic and Capital Framework
SLB	Sustainability-linked bond
SRI	Socially responsible investment
SRICP	Sudden Rise in Carbon Price (scenario)
TCFD	Task Force on Climate-related Financial Disclosures
TNFD	Task Force on Nature-related Financial Disclosures

Foreword

The year 2022 delivered a stark reminder of the devastating impact of climate change on our planet.

In the European Bank for Reconstruction and Development's (EBRD) regions alone, heatwaves in Central Asia, flooding across the Western Balkans, wildfires in the eastern Mediterranean and droughts in North Africa underscored the urgent need for further climate action.

Added to that, just when the world was looking to build a greener, more sustainable future for economies tentatively emerging from the ravages of the Covid-19 pandemic, Russia's full-scale invasion of Ukraine triggered an energy crisis with global implications.

The EBRD ramped up its investment significantly in response to the war on Ukraine, increasing its finance by 25 per cent to a record €13 billion, while at the same time retaining its triple-A rating with a stable outlook from all three major credit-rating agencies.

As the war caused energy prices to spiral and sharply curtailed supply, the EBRD took steps to ensure that its goals of energy security and its green agenda were even more closely aligned.

The Bank maintained the robust momentum of its climate finance, with half of its investments again dedicated to green projects in 2022, in line with its objective to support the low-carbon transition by ensuring that at least half of its annual investments are green by 2025.

Importantly, the Bank met its pledge to align its activities with the climate goals of the Paris Agreement. From 1 January 2023, all of the Bank's new business operations have been subject to assessment and determination as to Paris alignment.

Also in 2022, the EBRD moved to a new Headquarters building in London's financial district of Canary Wharf, establishing its base in one of the UK's most environmentally advanced offices, in keeping with its credentials as a major force in sustainable development.

As a leader in the delivery of climate finance, the EBRD acknowledges the imperative of integrating climate considerations into its investment decisions, along with the transparent reporting of climate-related risks.

In this fourth report under the guidelines issued by the Task Force on Climate-related Financial Disclosures (TCFD), the EBRD outlines its continued progress on identifying, assessing and managing the climate-related risks in its operations and sets out its aspirations for future work.

Of particular significance in 2022 was the inclusion of climate-risk stress tests for a large majority of clients operating in high-transition-risk industries, with the aim of improving the quality of the Bank's risk assessments using a quantitative model.

The Bank also launched a process to calculate financed emissions, with a view to capturing the carbon footprint of its investments and loans and supporting its clients on their road to a low-carbon future.

It further began a process to examine the role of nature-related risks in the Bank's activities ahead of deciding how best to integrate this assessment into its overall processes and reporting architecture.

The EBRD remains fully committed to refining its approaches to assessing, managing and mitigating climate-related risks, in line with TCFD recommendations and in light of lessons learned and evolving best practices.

Annemarie Straathof
Vice President, Risk and Compliance, and Chief Risk Officer
European Bank for Reconstruction and Development

Executive summary

The EBRD plays a leading role in promoting the low-carbon transition and climate resilience of more than 30 economies across its regions.

A major provider of climate finance, the Bank is fully committed to integrating climate-related financial risks – and opportunities – into all of its operations.

Since 2020, the EBRD has been publishing standalone reports on the financial and economic implications of climate change in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), established in 2016 to encourage better understanding and disclosure of climate risks.

In this fourth report following TCFD guidelines, the EBRD describes its continued progress on identifying, assessing and managing climate-related risks in the Bank's operations, highlighting enhancements and developments in a process that is constantly evolving.

Key developments since the last report:

- The Bank fulfilled its pledge to align its activities with the mitigation and adaptation goals of the Paris Agreement on climate change. Since the start of 2023, all new EBRD investments and activities have been subject to Paris alignment assessment and confirmation.
- The EBRD completed a carbon-transition stress test of its top 78 corporate and sub-sovereign clients in potentially high-risk sectors, with an improved process that made the stress testing and analysis more robust and systematic.
- The EBRD embarked on a process to calculate "financed emissions" and assess the carbon footprint of its investments.
- The Bank also refined its methodologies and procedures for assessing and managing climate-related risks and opportunities, expanding its climate-related financial risk-screening approach to include sovereign and sovereign-guaranteed loans and equity investments, while also introducing a systematic screening methodology for partner financial institutions (PFIs).
- The EBRD was the first multilateral development bank (MDB) to run a pilot on nature-related risks, reviewing 200 projects in a step that could potentially lead to the integration of nature-related risks into the overall TCFD process.

Planned enhancements:

- Over time, the EBRD aims to integrate climate risk data more systematically into the internal credit ratings the Bank assigns to all of its clients.
- The Bank is considering reporting its climate-related financial disclosures in line with the standards of the International Sustainability Standards Board (ISSB) from 2025.
- The EBRD will continue to develop its transition planning model, collaborating with partner institutions as they work to integrate climate change into their business practices and to align their financial flows with the Paris Agreement.
- The Bank plans to enhance its reputational risk assessment methodology to ensure climate-related reputational risk is specifically covered and, over time, establish a level of appetite for such risk while continuing to encourage activities aimed at achieving climate goals.

In addition to its own internal actions, the Bank also promoted the wider adoption of climate-related financial disclosure, remaining an active observer of the Network for Greening the Financial System (NGFS) and participating in the United Nations Environment Programme Finance Initiative Climate Risk and TCFD programme.

The Bank also continues to lead and participate in an MDB working-level group on the discussion and exchange of experience in implementing TCFD- and climate risk-related processes to promote the adoption of best practices on climate issues.

It has also established the Climate Corporate Governance Hub and Facility[1] to support financial institutions and corporate clients in improving their internal governance, to enhance the identification and management of climate considerations in their investment decisions and strategies.

The integration of climate-related financial risks into the EBRD's decision-making is crucial to the Bank's financial resilience. It is also critical to the financial stability of the Bank's clients and the resilience of the economies where the EBRD works, to support low-carbon transition and increased resilience in the face of growing climate challenges.

The EBRD remains fully committed to refining its approaches to assessing and disclosing the climate-related risks associated with its activities, in line with TCFD recommendations and in light of lessons learned and evolving best practices.

[1] For details, please see: https://www.ebrd.com/ccg-facility.

1. Introduction

This fourth report provides details on the Bank's assessment of its financial exposure to climate risks based on two primary categories of climate-related risk highlighted by the TCFD:

1. **Carbon transition risks** that arise from the process of adjustment towards a low-carbon economy as governments, consumers and businesses act to reduce greenhouse gas (GHG) emissions, with the Bank assessing the potential financial effects of emission costs on clients.
2. **Physical climate risks** that arise from changes in the Earth-atmosphere energy balance, leading to more frequent and more intense acute climate hazards (such as storms, droughts and floods) and shifting long-term climatic patterns (for example, average precipitation, average temperature and sea-level rise). The Bank assesses the potential impact of 10 climate hazards on the financial performance of clients.

The EBRD utilises the TCFD framework to group climate-related disclosures into four pillars: **governance, strategy, risk management** and **metrics and targets**.

The following four sections of the report outline in detail the Bank's progress on disclosure in line with these four pillars.

Table 1. **Overview of EBRD actions based on TCFD recommendations**

TCFD recommendation	EBRD TCFD report 2022	Report section	Status[2]
Governance			
a. Describe the **board's oversight** of climate-related risks and opportunities.	The EBRD Board has overall responsibility for climate-related matters, has clearly defined roles and responsibilities and is updated regularly.	2.1	●
b. Describe **management's role** in assessing and managing climate-related risks and opportunities.	Accountability and coordination on climate-related matters are split between different management committees, and climate-related risks are integrated into the three lines of defence.	2.2	●

[2] Status is based on own judgement of emerging TCFD aligned good industry practices.

● In line ● In progress

Table 1. **Overview of EBRD actions based on TCFD recommendations** (continuation)

TCFD recommendation	EBRD TCFD report 2022	Report section	Status[2]
Strategy			
a. Describe the **climate-related risks and opportunities** the organisation has identified over the short, medium and long term.	**Risk management:** The EBRD has identified and analysed climate-related risks and financial impacts in the economies where it operates over different time horizons. EBRD Banking sectors in energy and manufacturing are primarily exposed to GHG pricing policies, disruptive technologies and supply-chain disruptions in the medium and long term. Countries in eastern Europe, the Caucasus and Central Asia are most exposed to carbon transition risk due to high fossil-fuel dependence, while south-eastern Europe is expected to experience more intense droughts and wildfires. **Opportunities:** Climate change features prominently in the EBRD's strategic opportunities, in financing climate-informed investments in the short and medium term. The overall long-term objective is to support the low-carbon and climate-resilient transition of the Bank's clients and investee economies.	4.2- 4.3 3.2, 3.4	●
b. Describe **the impact of climate-related risks and opportunities** on the organisation's businesses, strategy and financial planning.	The Bank's Paris-aligned "use-of-proceeds" approach to financing the low-carbon transition is likely to result in fewer financed emissions and lower client exposure to transition risk over time. However, the EBRD's support for the low-carbon transition for high-emitting sectors may result in temporary growth in exposure to some high-emitting clients as part of their decarbonisation, for example, through the addition of renewable sources of energy by such clients. As part of the Bank's Paris-aligned "transition planning approach" focused on transactions with PFIs, the EBRD will provide guidance on internal risk management processes and promote the disclosure of climate-related financial information. The mainstreaming of the Green Economy Transition (GET) initiative throughout the Bank has allowed the EBRD to significantly boost its share of climate finance.	3.2, 4.1- 4.3	●
c. Describe the **resilience** of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	The EBRD completed a carbon-transition stress test of its top 78 corporate and sub-sovereign clients in potentially high-risk sectors, with an improved process that made the stress testing and analysis more robust and systematic. As part of its screening process, it also undertakes scenario analysis of certain deals to assess their financial resilience.	5.3	●
TCFD recommendation	**EBRD TCFD report 2022**	**Report section**	**Status[2]**
Risk management			
a. Describe the organisation's processes for **identifying and assessing** climate-related risks.	The Bank also refined its methodologies and procedures for assessing and managing climate-related risks and opportunities, expanding its climate-related financial risk-screening approach to include sovereign and sovereign-guaranteed loans and equity investments, while also introducing a systematic screening methodology for PFIs.	4.1 - 4.6	●
b. Describe the organisation's **processes** for **managing** climate-related risks.	The climate risk assessment process is further complemented by the EBRD's other green and climate-focused initiatives, as well as the tracking and updating of sectors perceived to have the highest transition risk exposure (coal and oil and gas). The EBRD has a strong capital base and takes on significant credit and market risk in pursuit of its development mandate, including climate-related risks (for example, to support clients' low-carbon transition).	4.1, 4.4, 4.5	●
c. Describe **how processes** for identifying, assessing and managing climate-related risks **are integrated** into the organisation's overall **risk management**.	The EBRD identifies and manages climate-related risks through its existing risk management framework, which specifically includes climate risk. The EBRD considers climate risk to be a cross-cutting risk that affects credit risk, in particular, but also other risk categories, such as reputational and operational risk.	4.1	●

[2] Status is based on own judgement of emerging TCFD aligned good industry practices.

● In line ● In progress

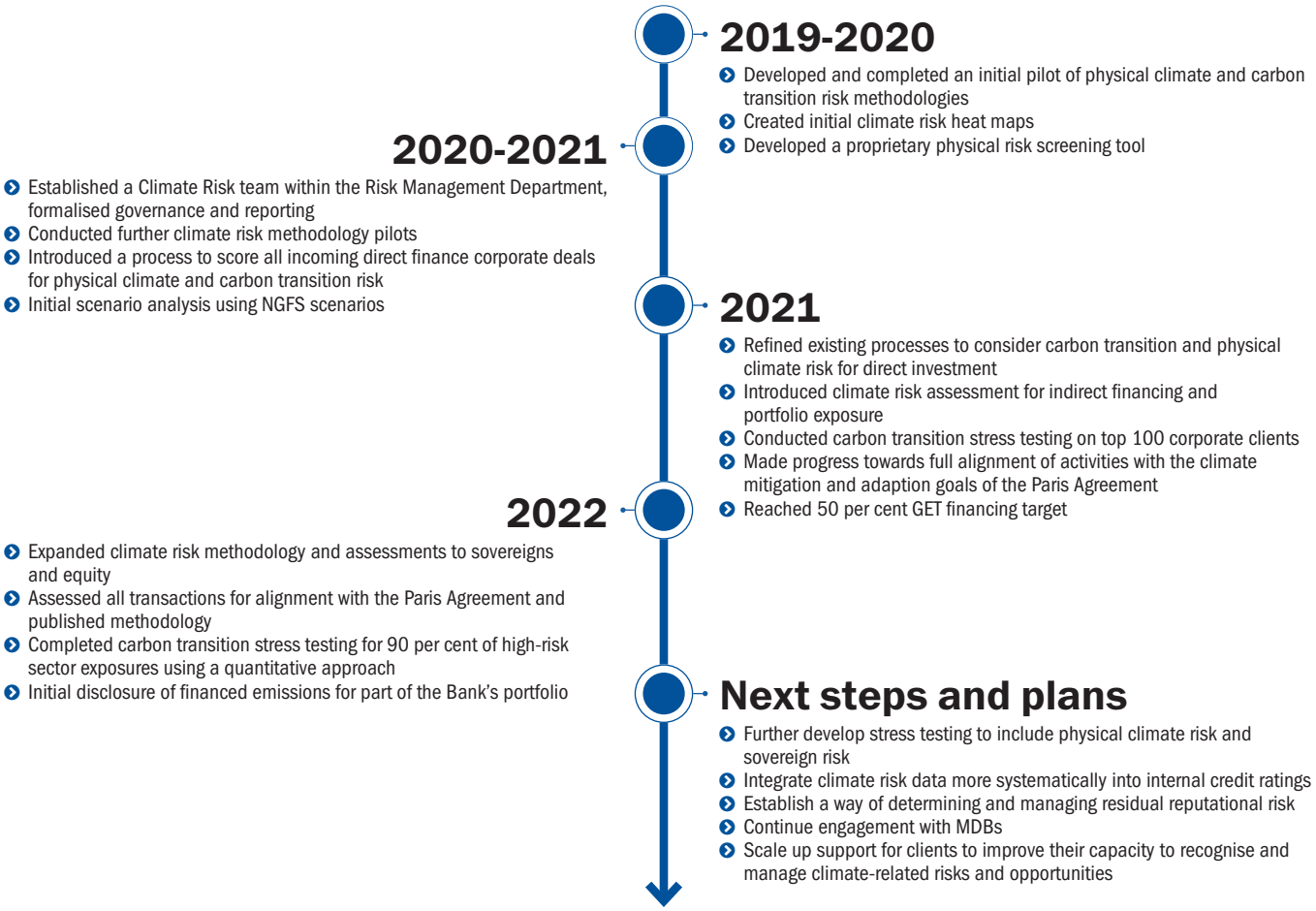
Table 1. **Overview of EBRD actions based on TCFD recommendations** (continuation)

TCFD recommendation	EBRD TCFD report 2022	Report section	Status[2]
Metrics and targets			
a. Disclose the **metrics** used by the organisation to assess climate-related risks and opportunities, in line with its strategy and risk management process.	The EBRD's projects and portfolio metrics include, among other things: climate finance attribution; the scoring of carbon transition and physical climate risk in new financing and at portfolio level; and participation in and tracking of exposure to highly emitting and/or fossil fuel-related assets.	5.1	●
b. Disclose **Scope 1, Scope 2 and, if appropriate, Scope 3** GHG emissions and the related risks.	The EBRD adopted a new spending-based methodology to calculate and report on the carbon footprint of its own operations for 2022. This provides a more complete assessment of emissions associated with purchased goods and services. In addition, the Bank is disclosing some elements of its financed emissions.	5.1	●
c. Describe the **targets** used by the organisation to manage climate-related risks and opportunities and performance against targets.	The EBRD's key climate-related targets include: (i) the continued Paris alignment of Bank investments (effective 2023), (ii) GET targets, including at least 50 per cent of the Bank's Annual Bank Investment to be green, (iii) achieving net GHG emission reductions of 25-40 million tonnes over 2021-25 through its projects (cumulative, ex ante), and (iv) the carbon neutrality of its internal emissions. In line with Bank's approach to the Paris Agreement alignment of its internal activities, the EBRD is currently working to set targets for reducing emissions from its own operations and reviewing its approach to carbon credits.	5.2	●

[2] Status is based on own judgement of emerging TCFD aligned good industry practices.

● In line ● In progress

Figure 1. **The EBRD's TCFD journey**



2. Governance

2.1. Board oversight of climate-related risks and opportunities

The EBRD is owned by 71 countries, the European Union (EU) and the European Investment Bank (EIB). The **Board of Governors**, which represents the Bank's members, delegates the exercise of much of its authority to the **Board of Directors**, while retaining overall authority.

The **Board of Directors** comprises 23 Directors and is chaired by the President of the Bank. It approves the EBRD's high-level policies, as well as its country, sectoral and thematic strategies, and has ultimate responsibility for the oversight of the EBRD's climate-related matters. Documentation for projects submitted to the Board of Directors for approval includes relevant information on financial risks associated with climate change.

2.1.1. Board committees

The Board of Directors has established three committees to assist with its work:

- The **Audit and Risk Committee** oversees all risk-related issues and reporting, including climate risk and the Bank's TCFD disclosures. The Audit and Risk Committee receives quarterly reports on the evolving risk profile of the Bank and conducts annual reviews of the risk management function. Quarterly reports cover the Bank's performance against its institutional objectives, including the Bank's exposure to and management of climate-related risks.
- The **Financial and Operations Policies Committee (FOPC)** is responsible for reviewing and exercising oversight of the EBRD's financial and operating policies, including those relating to climate issues. In 2022, the FOPC reviewed several individual projects with exposure to fossil fuels.
- The **Budget and Administrative Affairs Committee (BAAC)** assists the Board of Directors in fulfilling its responsibilities in relation to the approval and oversight of the Bank's budgetary, staff and administrative resources.

2.2. Management's role and management committees

The **President** is elected by the Board of Governors and is the legal representative and chief of staff of the Bank. Under the guidance of the Board of Directors, the President conducts the day-to-day business of the EBRD. Management's prioritisation and delivery of business activities are guided by the Bank's strategies and policies.

Listed in Table 2 are the committees that directly advised the President or a member of the Bank's Executive Committee on the management of climate-related risks and opportunities in 2022.

Table 2. **EBRD management committees relevant to climate-related risks and opportunities**

Management committee	Chair	Purpose	Meeting frequency
Executive Committee	President	Advises the President on all aspects of Bank-wide strategic significance, including issues related to climate risks and financially sound climate-related business opportunities (for example, the GET strategy)	Fortnightly
Operations Committee	First Vice President and Head of Client Services Group	Considers matters related to the Bank's projects, including climate risks and opportunities on an individual project basis	Weekly
Strategy and Policy Committee	Vice President, Policy and Partnerships	Considers matters that fall within the overall responsibility of the Vice President, Policy and Partnerships and certain matters within the responsibility of the Chief Economist; focuses primarily on transition, strategy and policy work, country, industry, sector and thematic strategies and policy-related research, including climate-related matters	Fortnightly
Risk Committee	Vice President, Risk and Compliance and Chief Risk Officer	Responsible for matters related to Bank-wide risks, including credit and operational risk, with associated follow-up actions; oversees risk aspects of the EBRD's portfolios, approves risk policies and risk reports and considers new products; reviews the Bank's climate risk principles, approves the TCFD report and other pertinent climate risk issues throughout the year	Fortnightly

2.2.1. "Three lines of defence" model for managing climate-related risks

Climate-related risks are managed the same way as other risks. In its day-to-day operations, the EBRD manages risks, including climate-related risks, using its "three lines of defence" model (see Figure 2). Each line of defence is independent, allowing the model to provide greater objectivity of assessment, review and oversight of investment decisions and risk management. It encompasses:

- First line of defence: The shared responsibility of all staff members, particularly the **Client Services Group (CSG)**, to identify, assess and manage climate-related risks and opportunities.
- Second line of defence: Independent, empowered and appropriately resourced functions led by **Risk Management** and the **Environment and Sustainability Department (ESD)**, with control of and responsibility for matters falling within their respective areas of competence. This includes final accountability for the determination of climate-related risks.
- Third line of defence: **The Internal Audit Department**, which independently assesses the effectiveness of the processes within the first and second lines of defence.

2.2.2. Coordinating the management of climate-related risks

The Bank's organisational arrangements are designed to facilitate the coordinated management of climate-related risks.

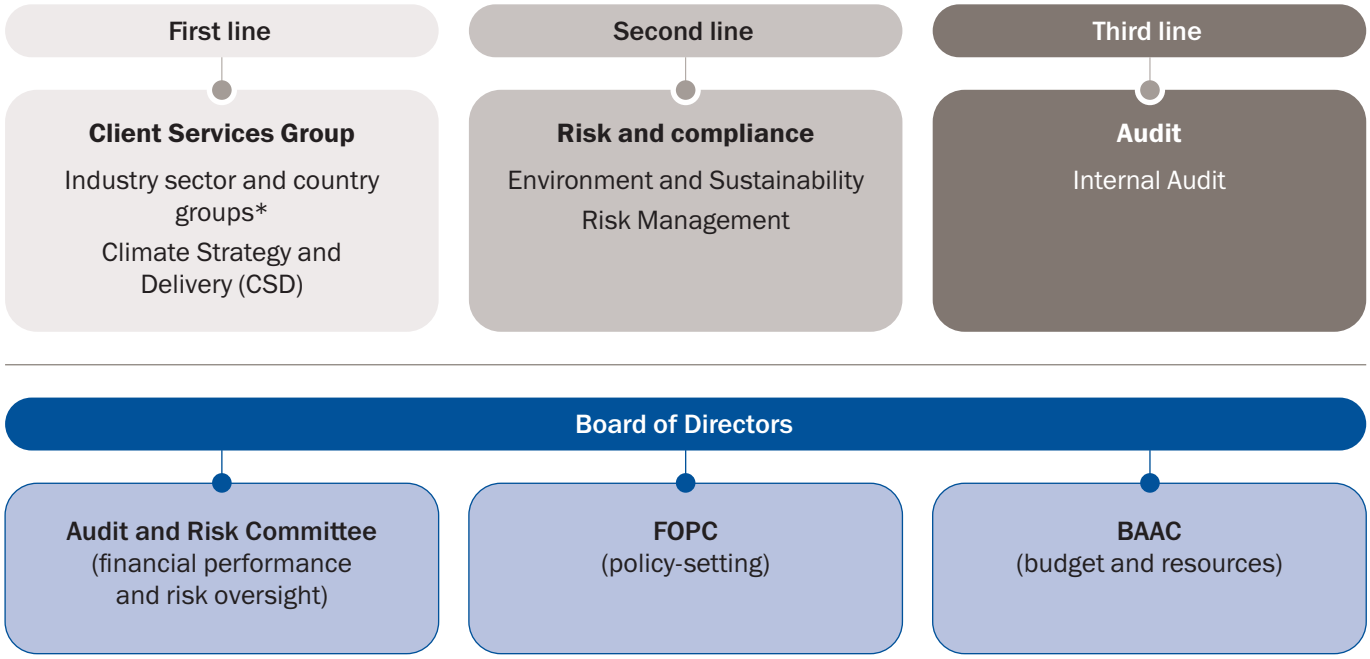
First line of defence

Within the **first line of defence**, the **Climate Strategy and Delivery (CSD)** team provides operational and centralised support for all frontline activities involving green strategy and policy engagement. CSD works across Banking-sector groups to support project origination, integrate mitigation measures into project designs, provide technical assistance and foster policy dialogue with respect to climate-related business operations under the Bank's GET approach. CSD is also responsible for proposing the alignment of individual projects with the Bank's climate objectives and the economic assessment of projects with significant GHG emissions. In addition, it analyses, researches and proposes data inputs and approaches to the Bank's climate risk methodologies.

Second line of defence

Within the second line of defence, the **Vice President, Risk and Compliance, and Chief Risk Officer (CRO)** has overall accountability for the formulation, communication

Figure 2. **"Three lines of defence" model**



*The EBRD's Banking sector groups include Financial Institutions, the Sustainable Infrastructure Group (SIG) and Industry, Commerce and Agribusiness (ICA).

Figure 3. **Management coordination of Paris alignment and climate risk management in the second line of defence**

and implementation of the EBRD's risk management strategy and polices, including for climate risk. This includes accountability for the final determination of Paris alignment and for clients' level of climate risk (see Figure 3). The Vice President, CRO reports to the President, is a member of several management committees, including the Executive Committee, and engages directly with the Board of Directors.

Risk Management established a dedicated Climate Risk team in 2021 to manage the systematic integration of climate risk across the Bank. It acts as the coordinating function for the EBRD's financial assessment of climate risks. This includes developing climate risk methodologies, testing their application, recalibrating them and overseeing their implementation across the Bank's projects. In addition, the Climate Risk team drives and controls the requisite data collection and analysis and establishes new procedures for project screening. The Head of the Climate Risk team reports to the Managing Director, Risk Management.

Among other things, ESD is accountable for:

- **Paris alignment determination** and the final validation of project alignment with the goals of the Paris Agreement for both climate change mitigation and adaptation
- **GET finance attribution confirmation** – final verification of green (GET) finance attribution, based on the contribution a project makes to climate action and other environmental benefits
- **environmental and social impacts** – assessment and risk management of the broader environmental and social impacts of all investment projects, including the development of a monitoring and review process for these impacts
- **physical climate risk assessments** – validation and final verification of physical climate risk assessments for counterparties
- **reputational risk** – development of a framework for systematically assessing residual climate-related reputational risk associated with investment projects, going beyond the climate-related assessment listed above.

Risk Management is responsible for:

- **ownership of climate risk methodologies and key data inputs** – the independent design of climate risk methodologies, reviewing, challenging and approving data inputs, and scoring, reviewing and overseeing the assessment process
- **climate risk analysis** – independent challenge, review and overall confirmation of the acceptability of EBRD clients' climate-related financial risk
- **portfolio-wide reviews and stress testing** – assessing and proposing ways to manage climate risks arising from correlations and concentrations in the banking portfolio, along with climate scenario analyses and stress-testing exercises.

The Bank formed a **Climate Risk Group** in 2019 as an important cross-bank coordination group for the dissemination of information and the fostering of debate on climate-related financial risks. The group comprises senior representatives from key internal functions, including the Client Services Group, ESD, Finance and the Office of the General Counsel. The group meets periodically, typically quarterly, and is chaired by the **Managing Director, Risk Management**.

Third line of defence

Within the third line of defence, the **Internal Audit Department** independently assesses the effectiveness of the processes within the first and second lines of defence.

2.2.3. Climate-related remuneration and rewards policy

Board

The remuneration of EBRD Board Directors, as representatives of the Bank's shareholder governments and organisations, is fixed annually and not linked to the fulfilment of specific organisational objectives or to corporate climate-related performance.

Management and staff

The Bank's target of dedicating more than 50 per cent of its annual investments to green finance by 2025 forms part of the departmental scorecard that determines total compensation for core staff. To incentivise EBRD staff to achieve the Bank's annual objectives, including climate-related objectives, all Banking-related teams, as well as CSD, have specific objectives when it comes to fulfilling the Bank's GET finance target, which forms an integral part of their remuneration scorecard requirements.

Furthermore, senior Risk Management leaders have specific objectives when it comes to delivering TCFD reporting and redesigning processes to assess climate risk in a systematic way, and this forms part of their remuneration. This requirement cascades down through the Risk Management Department to ensure climate risk is at the forefront of considerations when critically assessing projects.

3. Strategy

3.1. Overview of the EBRD's climate-related strategies

The promotion of environmental sustainability has been at the core of the EBRD's mission since its creation in 1991, with a mandate from its founders to promote, in the full range of its activities, "environmentally sound and sustainable development".[3]

The Bank's strategies relevant to climate considerations include:

1. The **Strategic and Capital Framework (SCF)**, the EBRD's primary planning instrument, approved every five years by the Board of Governors. At the EBRD's 2020 Annual Meeting, the EBRD's shareholders unanimously approved the SCF 2021-25, which includes **supporting the transition to a green, low-carbon economy** as one of its three strategic themes.
2. The GET approach, launched in 2015 and re-approved in 2020 for the 2021-25 period, sets out the EBRD's climate and environmental objectives. **Key targets are for green finance to account for more than 50 per cent of the Bank's annual business investment by 2025** and for the Bank to achieve expected net annual GHG emission reductions in the range of 25-40 million tonnes over the 2021-25 period.
3. At the EBRD's 2021 Annual Meeting, the EBRD Board of Governors resolved that **all EBRD activities should be fully aligned with the goals of the Paris Agreement by the end of 2022**, thus accelerating the Bank's support for ambitious low-carbon and climate-resilient pathways in the economies where it operates. From 1 January 2023, all new EBRD investments must be aligned with the goals of the Paris Agreement.
4. **Country strategies** cover individual economies in which the EBRD invests and are revised every five years according to country-specific timetables. They are designed to identify areas where the EBRD can assess, **manage and deliver on its climate-related objectives**, taking into account the economic context, the country risk profile, and the Bank's mandate and risk appetite. As of year end 2022, 35 out of 37 country strategies addressed climate risk and/or green economy transition in at least one of their strategic priorities. In 2023, the remaining two country strategies were updated to align with this approach.
5. **Sector strategies** are revised every five years. Of particular relevance is the Energy Sector Strategy 2019-23, which was clarified in 2021 to further limit the scope of the Bank's engagement in fossil fuels.[4] Other relevant, Board-approved strategies include: (i) the Agribusiness Sector Strategy 2019-23, approved in 2019;[5] (ii) the Transport Sector Strategy 2019-24, approved in 2019;[6] (iii) the Municipal and Environmental Infrastructure Sector Strategy, approved in 2019;[7] (iv) the Property and Tourism Sector Strategy 2020-24, approved in 2019;[8] and (v) the Financial Sector Strategy (2021-25) approved in 2021.[9]
6. The EBRD **engages with stakeholders to support policies** that are in line with its sustainability objectives. In 2022, the outcomes of these engagements included continuous investment in renewable energy projects, decarbonisation of the transport sector, further investments under the Green Cities programme and the launch of the Corporate Climate Governance Facility.[10]

The Bank is considering the development of a "transition plan" in order to communicate its climate strategy in line with emerging market practice.

[3] See EBRD (1990).
[4] See EBRD (2018).
[5] See EBRD (2019c).
[6] See EBRD (2019d).
[7] See EBRD (2019e).
[8] See EBRD (2019f).
[9] See EBRD (2021).
[10] For more details, see EBRD (2023a).

Box 1. **Focus on the EBRD's core climate-related strategies**

Green Economy Transition (GET) approach

The EBRD's GET initiative operationalises the financing of climate and environmentally sustainable activities through a systematic assessment of these climate-related opportunities by:

1. assessing projects in relation to the principles of international climate agreements, principally the Paris Agreement
2. enhancing policy engagement for the development of long-term, low-carbon strategies and the greening of financial systems
3. scaling up investments across a set of priority environmental, climate mitigation and resilience themes, including greening the financial sector, energy efficiency, natural capital, energy systems, industrial decarbonisation, cities and infrastructure, sustainable food systems, green buildings and sustainable connectivity.

The GET approach uses the full range of the EBRD's financial instruments. The Bank also works closely with donors such as Climate Investment Funds, the European Union, the Global Environment Facility and the Green Climate Fund. In addition, the Bank has developed a range of dedicated programmes to promote green investments.[11]

Alignment with the Paris Agreement

The EBRD's approach to aligning its own activities with the Paris Agreement is integral to its support for climate action. Since 1 January 2023, all new Bank investments have been subject to assessment and confirmation of Paris alignment.

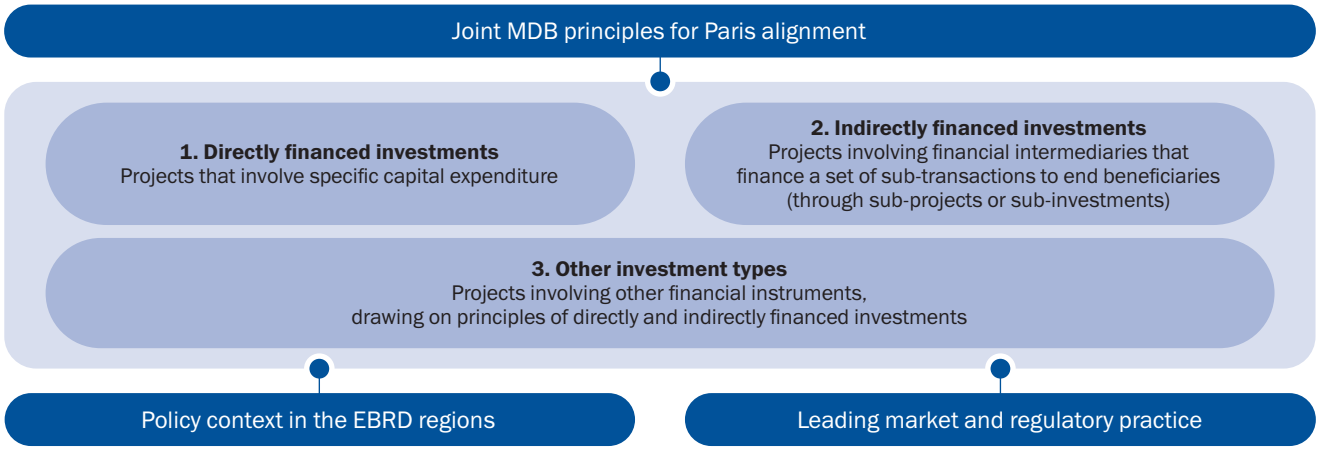
The Paris alignment of the EBRD's financial flows is anchored in Article 2.1(c) of the Paris Agreement to make "finance flows consistent with a pathway towards low GHG emissions and climate-resilient development".[12] Alignment of finance, therefore, relates to both the mitigation and adaptation goals of the Paris Agreement. In putting into practice its Paris alignment commitment, the EBRD is guided by the goal of keeping global warming within 1.5°C of pre-industrial levels.

The EBRD's Paris alignment methodology sets out how the Bank determines whether an investment or technical cooperation activity is "aligned" or "not aligned" with the mitigation and adaptation goals of the Paris Agreement. This relates to the first and second building blocks of the MDBs' joint framework for alignment with the objectives of the Paris Agreement.[13]

The Bank's methodology consists of three parts to ensure a clear approach to alignment determination for all project types, covering the full suite of financial instruments the Bank may use: (1) directly financed investments; (2) indirectly financed investments; and (3) other investment types, including equity and funds.[14] The methodology is also supported by sector-specific guidance on energy (fossil-fuel projects and district energy), buildings, transport (including roads and aviation), waste and agribusiness.

In developing its approach, the Bank consulted widely over the course of 2021 and 2022, including through two public consultations, receiving feedback on all aspects of the methodology.

Figure 4. **The EBRD's Paris alignment methodological framework**



Although the determination of the Paris alignment of projects does not necessarily imply that the transactions have low climate-related financial risk, the Paris alignment approach is likely to contribute to a lower level of climate-related financial risk as a result of its higher-level focus on low GHG emissions and climate-resilient projects.

[11] For more details on the Bank's GET approach, see https://www.ebrd.com/what-we-do/get.html.
[12] See UNFCCC (2016).
[13] See ADB, AfDB, AIIB, CEB, EBRD, EIB, IADB, IsDB, NDB and World Bank Group (2018).
[14] For more details on the Bank's Paris alignment approach, see https://www.ebrd.com/ebrd-activities-paris-alignment.

3.2. Strategic priorities in the short, medium and long term

Table 3 summarises the EBRD's climate-related strategies and commitments, with specific objectives over various time horizons. As detailed in section 4.2, these time horizons are defined as short term (less than one year), medium term (one to seven years) and long term (more than seven years). While some climate commitments are immediate priorities, with specific near-term targets, other strategic priorities are continuous in their implementation over time.

Table 3. **Strategic priorities over different time horizons**

Strategy/commitment	Objective	Time horizon	Potential impact	Potential impact
Paris alignment	From 1 January 2023, all new EBRD investments and activities require alignment with the goals of the Paris Agreement.	S	Temporary increase in balance-sheet volumes from some high-emitting clients as the EBRD finances their transition to low-carbon alternatives. Reduced emissions and expenditures from the Bank's own consumption of electricity, gas, water, travel and procurement.	Key priority
GET finance	Green finance to account for more than 50 per cent of the Bank's annual investment by 2025. In 2022, this figure was 50 per cent. Achieve net annual aggregate GHG emission reductions of at least 25 million tonnes by the end of the five-year period (2021-25).	M	Shift in balance-sheet focus to lower-emitting sectors over time and support for transition projects and activities following low-carbon strategies and initiatives.	Key priority
Climate-related finance mobilisation	Double the mobilisation of private-sector climate-related finance by 2025 to support the Bank's investee economies in their low-carbon transition.		Increased private-sector climate finance mobilisation.	
Climate risk culture	Increased awareness and learning to fully embed a climate risk culture across the Bank. In 2022, training on climate risk and Paris Alignment processes was carried out across the Bank. Complement existing project-focused assessments of climate risk with counterparty-focused risk assessment, in line with the overall risk process. Widespread ownership of climate risk responsibility.	M	Increased focus on training and climate-smart development. More effective climate impact of the EBRD's loans and investments on clients. Better structured and well-managed climate risk in investments.	Continuous
Country strategies	Inclusion of climate risk and opportunity considerations. Encourage and finance low-carbon transition in economies where the Bank operates.	M	Reduction in the climate impact and improvement in the climate resilience of the Bank's clients. More resilient balance sheets and client selection with the ability to sustain carbon transition risk and mitigate expected material physical climate hazards. In addition, the EBRD's policy engagement helps mitigate the risk at country level.	Continuous
Green investment initiatives	Maintain a leading role in green investment initiatives, declarations and commitments (including Paris alignment, TCFD, carbon neutrality, the Green Bond Principles, Global Reporting Initiative (GRI), Principles for Responsible Investment (PRI) and others).	S to M	Driver of market change, greening the financial system and acceleration of transition to low-carbon and climate-resilient economies.	Continuous
Support transformation via corporate climate governance (CCG)	Support the transition and decarbonisation activities of clients through CCG support. Transform partner banks to engage in climate risk management.	L	Gradual transformation of the corporate sector to identify, manage and assess climate-related risks. Partner banks allocate capital in a climate-informed way, resulting in lower climate-related financial and economic impacts.	Continuous

3.3. Climate-related opportunities pursued by the Bank

Climate change and the global response to it may, in addition to posing risks, present opportunities for some firms under certain conditions. The TCFD recommends the assessment and, where appropriate, disclosure of financially sound climate-related opportunities, together with the climate-related risks identified over different time horizons.

The Bank identifies and delivers opportunities over different time horizons as an important aspect of the EBRD's overall climate change-related operations, as detailed in its GET approach.

The EBRD explores two types of climate-related opportunity:

1. **Project-level opportunities** to finance the transition to a low-carbon and climate-resilient economy, allowing firms to respond to growing demand for low-carbon technology and climate-adapted products and services, giving them a comparative advantage over competitors
1. **Client-level opportunities** to support improvements in the way that businesses, financial institutions and other market participants use climate-related information in internal business processes and decision making, such as risk management, capital allocation and business strategy. These can help EBRD clients to adjust their business models and wider market behaviour to internalise climate change objectives and improve their long-term financial performance in a changing climate.

The mainstreaming of the EBRD's green finance initiative throughout the Bank's business, strategy and financial planning has allowed the Bank to significantly increase its share of climate financing opportunities. From its Sustainable Energy Initiative (2006) to the GET approach (2016), the EBRD has approved almost €50 billion in green finance commitments, with investments spread over the numerous economies and sectors in which the Bank invests.

The GET approach has been effective in delivering climate-related opportunities, from small-scale energy-efficiency investments in small and medium-sized enterprises, financed through local financial intermediaries, to large-scale renewable energy projects. These investments play a particularly important role in supporting the development of the EBRD regions, which include some of the least energy-efficient economies in the world and, at the same time, some of the best potential locations for solar and wind energy.

Building on previously successful pilot client engagements, since early 2022, a dedicated **Corporate Climate Governance Facility** has helped financial and non-financial clients to strengthen their disclosure practices, manage their climate risk and unlock access to climate finance. CCG recognises the need to assess climate-related risks and opportunities as part of business and financial planning. The support includes aspects such as improving companies' climate governance and the disclosure of climate-related risks and opportunities; developing and adopting CCG action plans and low-carbon pathways; and building capacity for climate risk assessments and scenario analyses. This effort will focus on improving EBRD clients' internal climate risk management and climate strategies to enhance their overall financial stability over time.

Specific initiatives pertaining to climate-related opportunities

The EBRD *Sustainability Report 2022* details various initiatives in which the Bank engages to promote green transition and investment, a few of which are highlighted below.[15]

EBRD Green Cities

The EBRD Green Cities programme provides an investment framework of more than €5 billion in Bank and donor support for cities in the EBRD regions, in the form of targeted investment, policy actions and capacity building to address cities' transition to green, low-carbon and resilient futures.

The programme, launched in 2016, consists of three central components: (i) the delivery of strategy and policy support through Green City Action Plans; (ii) the facilitation and stimulation of Green Cities infrastructure investments; and (iii) capacity building, technical assistance and knowledge sharing for city administrators and local stakeholders.

[15] See EBRD (2023a).

Green Economy Financing Facilities

The EBRD's Green Economy Financing Facilities (GEFFs) support businesses and homeowners wishing to invest in green technologies. They operate through more than 180 local financial institutions in 28 countries, supported by more than €6 billion of EBRD finance. This has enabled more than 130,000 clients to collectively avoid over 9 million tonnes of CO_2e emissions per year.

Capital market development

EBRD issuance of climate-related bonds

The EBRD strives for a high standard of sustainable development in all of its operations, as reflected in its mandate, its Environmental and Social Policy, its Sustainability Statement and its commitment to aligning all of its financial flows with the Paris Agreement. Hence, all of its bonds may be considered socially responsible investments (SRIs). In response to demand from SRI-focused investors, in 2010, the Bank began issuing green bonds, aligned with the Green Bond Principles. The EBRD has been a member of the Green Bond Principles since its inception in 2014.

The EBRD issues three different types of green bond: environmental sustainability bonds (ESBs), climate resilience bonds (CRBs) and green transition bonds (GTBs). All Bank green bonds are underpinned by projects that have been scrutinised by ESD for alignment with the framework established for each green bond programme.

New, eligible projects are required to comply with the strict selection criteria of the relevant framework and must also meet specific hurdles under the GET approach. The EBRD's green bonds can take the form of Eurobonds, global bonds and domestic issues in selected markets, similar to the Bank's general debt issuance.

Further information relating to climate-related opportunities and targets can be found in section 5 on metrics and targets.

Nature-related risks

Examining the role of nature-related risks in the TCFD process

Given the interrelation between nature-related and climate-related risks, the EBRD is assessing the viability of integrating nature-related risks into its existing sustainability risk assessment processes, in line with the framework of the Taskforce on Nature-related Financial Disclosures (TNFD).

The TNFD was established in 2021 by a group of financial institutions, companies, governments and consortia worldwide in response to the growing need to factor nature into financial and business decisions, and it set out a two-year programme for designing its framework.

The EBRD recognises that nature-related risks are in some areas intertwined with climate-related risks, particularly in relation to physical risk assessment. Physical climate changes are an accelerator of nature loss, and nature loss may also increase exposure to those risks. In turn, there are strong synergies and cost efficiencies in mitigating climate and some nature impacts in tandem.

Ahead of the publication of the TNFD's final recommendations, scheduled for September 2023, the Bank became the first MDB to run a pilot on nature-related risks, reviewing 200 projects over the course of 2022, in line with the broad outlines of the TNFD.

As part of the pilot, using expert judgement, the Bank classified sectors that were nature sensitive. The pilot revealed the sectors in the EBRD's sample portfolio with sensitivity to nature-related risk to be power utilities, renewables, agribusiness, textiles, forestry, and highways and rail. These sectors exhibited both high nature-related dependency[16] and high nature-related impacts,[17] owing to both typical economic activities and geographical context. This was a first step in identifying the physical, transition and systemic risks posed to individual counterparties and the EBRD itself.

There are significant challenges to the integration of nature-related risks, including data quality that meets the assurance criteria of a regulated third party. The focus on counterparties is not straightforward, given the location specificity involved. The potential impact of climate change mitigation on nature itself and the need for practical, simple, comparable metrics need to be developed further. This type of assessment will require full supply chain transparency, buy-in and data collection among Bank clients.

Nonetheless, the Bank will continue to examine the role of nature-related risks in the Bank's activities, providing key inputs and helping shape the evolving requirements.

[16] Defined by the TNFD as aspects of ecosystem services on which organisations or other actors rely to function.

[17] Defined by the TNFD as a change in the state of nature, which may result in changes to the capacity of nature to provide value to business and society and/or instrumental, relational and intrinsic value.

4. Risk management

4.1. Integration of climate risk management into the existing risk management processes and frameworks

The EBRD systematically assesses the risks associated with each investment it makes, both at the initial investment review stage and throughout the life of the investment. An investment typically faces a range of risks, which are identified, prioritised and mitigated in line with the Bank's risk appetite. The residual risk (after mitigation measures) is then quantified through two complementary metrics: (i) probability of default (PD) and (ii) loss given default (LGD). Taken together, these metrics enable the Bank to quantify the risk and expected loss on each project. The current risk assessment process covers all risks, including climate-related risks, so they are already included in the Bank's standard risk assessment, though not yet included explicitly in PD and LGD estimates. While this process quantifies the overall risk, it does not separately quantify individual risk components.

The EBRD assumes significant credit and market risk in pursuit of its development mandate, including climate-related risks. However, the Bank still makes considerable effort to manage those risks, both at individual transaction and portfolio level.

At **individual transaction level**, climate-related risks in debt investments are normally mitigated by a combination of:

- **a conservative capital structure**, with sufficient equity or quasi-equity to absorb much of the physical and transition climate change-related financial impacts
- **tenors** that take into account the expected useful lifetime of the underlying asset(s), including potential obsolescence due to technological or regulatory change associated with transition
- **collateral or guarantees** that could offer an alternative repayment route should cash flows generated by the project be insufficient to repay the debt
- financial and operational **covenants**, as well as associated reporting obligations, including environmental and social action plans and climate risk mitigation or adaptation action plans where required
- **key contracts** to facilitate lender-led restructuring where cash flows are insufficient to repay scheduled borrowings.

In addition, the EBRD manages exposure to individual transactions and clients by mobilising private-sector co-financiers to share in the financing. The Bank also relies on its network of Resident Offices to provide local oversight on transactions in those economies where the Bank invests.

Risk Management reviews all exposures within the Banking portfolio on at least an annual basis. The main objective of these reviews is to ascertain whether there have been changes to the risk profile and whether closer engagement with the client is required to support the project and protect the related repayment stream. Risk Management reports to Senior Management and the Board of Directors on the full portfolio on a quarterly basis.

At the **portfolio level**, the Bank also mitigates and manages climate-related risks by:

- abstaining from directly financing **industry sectors that are particularly vulnerable to carbon transition risk**, such as coal mining, coal-fired electricity generation, upstream oil exploration and upstream oil development projects
- adopting **portfolio limits**, including country and industry sector-specific limits, to reduce the impact of adverse external events on its capital
- conducting regular stress testing exercises to identify emerging risks and to enable appropriate risk-mitigating actions.

In 2022, the Bank assessed the carbon transition risk of its corporate debt portfolio as at year end 2021.[18] The value of the portfolio examined was €17.1 billion, or approximately 85 per cent of the Bank's corporate debt portfolio as at December 2021. Of those investments that screened as potentially high carbon transition risk, the Bank determined the risk to be acceptable, with no

[18] Excluding clients with a remaining tenor of less than one year, outstanding debt of less than €10 million or those already in corporate recovery.

additional climate-specific monitoring, for 61 per cent (€10.4 billion) of existing clients. For a further 35 per cent (€6.0 billion), the risk was deemed acceptable based on clients' proposed actions (for example, company decarbonisation plans), which have now been integrated into the EBRD's annual risk monitoring. The remaining 4 per cent (€0.7 billion) of clients were determined to have high and unmitigated transition risk. This last group is subject to quarterly monitoring and reporting to the Bank's Risk Committee on the evolution of this risk.

The EBRD also conducts an annual review of progress on green transition in all of the economies where it invests. The indicators and associated assessment of the remaining gaps then inform country and industry sector strategies, as well as planned Bank-wide stress tests and ad hoc sub-portfolio stress tests pursued in the course of regular risk management activities and as part of the annual business and financial planning cycle. The Bank recognises that any resulting risk mitigation is constrained by the geographical limitations of the EBRD's operations.

Integration of climate risk into the Bank's risk management framework

The EBRD identifies and manages climate-related risks through its existing risk management framework, underpinned by its independent "second line of defence" control, as mentioned in section 2.2. The core elements of the Bank's risk management framework include processes for assessing and managing credit risk, market risk, liquidity risk and operational risk, as detailed in the EBRD's *Financial Report 2022*.[19]

The Bank considers climate risk to be a cross-cutting risk that impacts financial risk, in particular, but also other risk categories, including reputational and operational risk. In its own financing operations, the EBRD is focused on building internal capacity for integrating climate risk across the different risk types into the overall risk management framework through ongoing staff engagement, training and support for climate-informed decision-making. The links between these types of risk and climate risk are summarised in Table 4.

Table 4. **Impact of climate risk on the EBRD's existing risk management framework**

Risk type	Time Horizons	Impact from climate risk	Response
Credit risk Potential loss to a portfolio that could result from either the default of a counterparty or the deterioration of its creditworthiness.	S M L	• Client or project assets could become stranded in the event of a disorderly transition. • Client financial performance could deteriorate as a result of changing demand for its products/services. • Client operations could be impacted by damages resulting from physical climate events or changing long-term weather patterns.	• The EBRD identifies, assesses and manages climate-related risks in the process of due diligence, preparation and structuring of individual transactions. • It then considers how to mitigate climate risk through climate-resilient investments or structures. • Risk Management is involved as part of standard due diligence in reviewing and challenging where appropriate. • The Bank systematically screens the climate risks faced by its clients. • Exposure limits are defined and reviewed by Treasury Credit Risk Management, based on the counterparty's probability of default.
Market risk[20] Potential loss resulting from adverse market movements, primarily driven by: (i) interest-rate risk (ii) foreign-exchange risk (iii) equity risk (iv) commodity price risk.	S M	• Sudden fluctuations in the demand for and supply of financial instruments or changes in rates and/or commodity indices as a result of physical climate events or disruptive transition.	• The Bank seeks to maintain very low residual market risk on the majority of its banking transactions, as well as its Treasury assets and liabilities. This is achieved by, among other things, hedging foreign-exchange and interest-rate risk. The limits on the maximum amount of market risk accepted in this context are set out in the Bank's Treasury Authority and Liquidity Policy. In the event of climate-related market volatility, the Bank can either further hedge its Treasury exposure or carry the increased risk temporarily, thanks to the moderate base level. • The Treasury portfolio is monitored using a value-at-risk model. Risk-factor scenarios are calibrated to recent market-data time series and any implicit climate risks affecting market observables are taken into account. • The Bank's equity portfolio is subject to equity and foreign-exchange risk. The methodology used is independent of that for climate risk, but any risks affecting equity index observables (including climate-related risks) are taken into account.

[19] See EBRD (2023c).
[20] While there are other market risks (such as currency and commodity prices), the above are relevant to all transactions.

Table 4. **Impact of climate risk on the EBRD's existing risk management framework** (continued)

Risk type	Time Horizons	Impact from climate risk	Response
Operational risk All aspects of risk-related exposure other than those falling within the scope of credit, market and liquidity risk, including risk of loss (financially and/or to the Bank's reputation) resulting from inadequate or failed internal processes, people and systems or from external events.	M L	• Bank operations may be disrupted by physical climate events.	• The assessment of risks under this framework considers external events and changes to the Bank's operational risk profile arising from climate change, including the impact on its facilities, infrastructure, vendors and business supply chains. For example, extreme weather may force office closures, disrupt resource distribution or damage crucial resources, such as communication and data centres. • The Bank maintains a framework for the continuous identification, monitoring and control of its exposure to operational risks, as well as backup facilities for such eventualities.
Reputational risk Risks associated with the perception of various stakeholders, including debt and equity investors, customers and external groups of the Bank's commitment to and reliability on achieving its stated goals.	S M	• Bank operations may be impacted by reputational risk based on conformity with the climate-related pledges the EBRD has made.	• The Bank assesses transactions that have the potential to create reputational risk, including those related to climate change. Transactions are reviewed for consistency with the Bank's goal of Paris alignment and climate risk management practices. • Fossil-fuel transactions, in particular, are reviewed against the Bank's internal approach to fossil fuels, the Energy Sector Strategy exclusions, their alignment with the goals of the Paris Agreement[21] and for the risk that financing assets may become stranded, to assess potential reputational risk.
Liquidity risk Risk associated with the Bank's ability to maintain a prudent level of liquidity.	S M	• Acute physical climate events or natural disasters may result in reduced cash inflow from counterparties and lower liquidity of treasury assets (including bonds) in certain sectors. • Disrupted access to wholesale funding markets resulting from the Bank's activities creating a barrier to finance from institutional investors.	• The Bank's treasury portfolio is diversified, comprising mainly short-term instruments issued by highly rated financial institutions. • The Bank actively manages its liquidity position on a daily basis and has prudent liquidity management policies in place, requiring compliance at all times with specified short- and medium-term liquidity coverage limits. • The Bank implemented climate risk screening and adopted the Paris alignment methodology.

The Bank's approach to climate-related risk is detailed in its internal climate risk methodologies and procedures. In 2022, the Bank refined and expanded its methodologies and procedures for assessing and managing climate-related risks and opportunities, building on lessons learned since the implementation of the systematic scoring system for the physical and carbon transition risk of direct corporate debt projects since the first half of 2021. It made further refinements in 2023.

In 2022, the Bank included climate-related financial risk in the EBRD's Risk Appetite Statement.[23] The statement highlights the Bank's ambition to manage exposure to high-emission industries, encourage transition to a low-carbon economy and strengthen the climate resilience of its clients and the economies in which it invests. The EBRD updates this statement annually and the Audit Committee reviews the Bank's risk appetite periodically.

Box 2. **Note on materiality**

Materiality is an important concept in climate-related financial disclosure, requiring detailed deliberation to determine which effects, positive and negative, could influence investment decisions. The Bank has been monitoring regulatory and market developments in this space, including the concepts of "double" materiality and "single" or "financial" materiality.

Unlike the financial materiality assessment supporting other financial disclosures, the EBRD acknowledges the evolving nature of climate-related financial disclosure and uses longer time horizons with a larger number of assumptions to determine material climate-related risks to the Bank. Disclosures in this report include information and metrics that the EBRD deems relevant and/or material to the Bank's strategy, its shareholders and external stakeholders.

Climate-related risks flagged as potentially having higher carbon transition and/or physical climate risk through the screening process (outlined in section 4.4) are prioritised for further analysis.

These methodologies, assessment approaches and related data sources continue to be developed and are likely to change over time, meaning that the statements and disclosures made in this report may evolve in accordance with market practices.

[21] Lower-emission substitutions, for example.
[22] See https://www.ebrd.com/corporate-strategy/ebrd-risk-appetite-statement.pdf.

4.2. Climate risk time-horizon considerations

Time horizons are an important factor in understanding and managing climate risk. For carbon transition risk, the timing of regulatory action to lower emissions is a useful component of assessment. For physical climate risks, in addition to the climate change-induced higher frequency of such events, the occurrence of an acute event is more likely over a longer period and, therefore, entails more financial risk. To support the long-term stability of the Bank and the achievement of its development goals, climate strategies and risk management approaches must incorporate all relevant time horizons as part of financial decisions.

The EBRD incorporates time-horizon considerations into climate risk assessment by splitting the Bank's portfolio into remaining tenor, in line with other financial risks and industry practice. These time horizons are listed in Table 5, which also provides the percentage of the Bank's investment portfolio in each (by remaining tenor).

Table 5. **Debt and equity exposure by time horizon**

Category	Time horizon	Share of the Bank's portfolio
Short-term debt	Less than 1 year	4%
Medium-term debt	1 to 7 years	39%
Long-term debt	More than 7 years	45%
Equity	n/a	12%

With the exception of reputational and acute physical risk, the Bank considers most climate-related risks linked to **short-term debt** less likely to be financially material because of their limited lifespan.

For **medium-term debt**, the longest, seven-year tenor is the typical timeframe for which organisations set intermediate climate objectives.[23] The majority of the medium-term exposure (63 per cent, or €13 billion) is in non-EU investee economies, where the low-carbon transition is generally expected to occur over a longer time frame, reducing the carbon transition risk, although the Bank recognises that a delayed transition is also likely to be more economically disruptive. Regarding the Bank's medium-term debt exposure to physical climate risk, 9 per cent of the Bank's assessed portfolio[24] (€1.8 billion) screened as potentially exposed to acute risk, with the main hazard being extreme heat.

The exposure to chronic risk appears relatively limited (approximately 3 per cent of the Bank's assessed portfolio, or €0.6 billion). Since 2022, the Bank is actively monitoring investments in high-climate-risk sectors, with further analysis carried out to determine the materiality of the risk and to engage clients on their transition, mitigation and adaptation plans.

More than half (51 per cent, or €12 billion) of the Bank's **long-term exposure** is sovereign guaranteed, limiting in part the EBRD's financial risk exposure. The Bank's principal long-term impact from physical climate change is to acute risks (24 per cent of the assessed portfolio, or €4.6 billion), with 11 per cent (€2.1 billion) of the assessed portfolio screened as potentially exposed to flood risk.

The majority of the assessed **equity portfolio** (92 per cent, or €3 billion as at December 2022) was in sectors considered low or moderate risk for carbon transition. Banks are the largest sector within this portfolio, accounting for 30 per cent (€1.0 billion). This sector is generally considered less exposed to climate risk due to financial asset diversification.

The EBRD's approach to identifying climate risk includes the tenor (or remaining tenor) of EBRD financing, to incorporate the different climate-related financial risk profiles of different time horizons in the Bank's overall assessment of transactions. In addition, the EBRD expects other climate-related Bank initiatives to help lower its exposure to climate risks over time.

4.3. Financial and economic impacts of climate change on EBRD Banking sectors and regions

The TCFD implementation guidance published in late 2021 recommends identifying the links between climate risk and other types of financial risk in its "supplemental guidance for the financial sector".[25] Characterising climate risks in the context of other financial risks (such as credit risk, market risk or reputational risk) helps to integrate the financial risks of climate change into a bank's existing risk management processes. The EBRD designed its methodologies for identifying, assessing

[23] Average remaining tenor in this segment is 3.6 years.
[24] As at December 2022, the portfolio assessment pilot for physical climate risk covered 83 per cent of the direct corporate debt portfolio, corresponding to €19.4 billion of the Banking book.
[25] See TCFD (2021).

and managing climate-related financial risks, as detailed in sections 4.4 and 4.5, to focus on the impacts of these risks in terms of client revenues, costs and asset values.

The Bank will continue to refine its methodologies by further integrating the financial and economic impacts associated with climate change into all relevant financial risk considerations for investment decisions. Refinements will focus on improving assessments based on time horizons for the manifestation of different risks at firm level and the macroeconomic impacts of those risks. Translating both physical climate and carbon transition risks into quantified financial risk will improve the assessment of climate risk for materiality and, where material, help to better evaluate the options for managing climate risks. Figure 5 provides an illustrative example of the interconnection of aspects of climate risk with relevant time horizons, as well as ways in which climate change can have a financial impact on companies, the macro economy and the EBRD's Banking sectors. Figure 6 provides a high-level overview of the main physical and carbon transition risks to which the Bank's regions and, by extension, the EBRD are financially exposed. The climate risks presented in this figure provide an overview of broad climate considerations for the Bank's strategy and engagement in these regions. However, on an individual basis, the Bank reviews clients by assessing their business models, as well as their core locations for carbon transition and physical climate risk. This approach is further detailed in sections 4.4 and 4.5.

Figure 5. **Climate risk drivers, time-horizon considerations and financial and economic impacts**

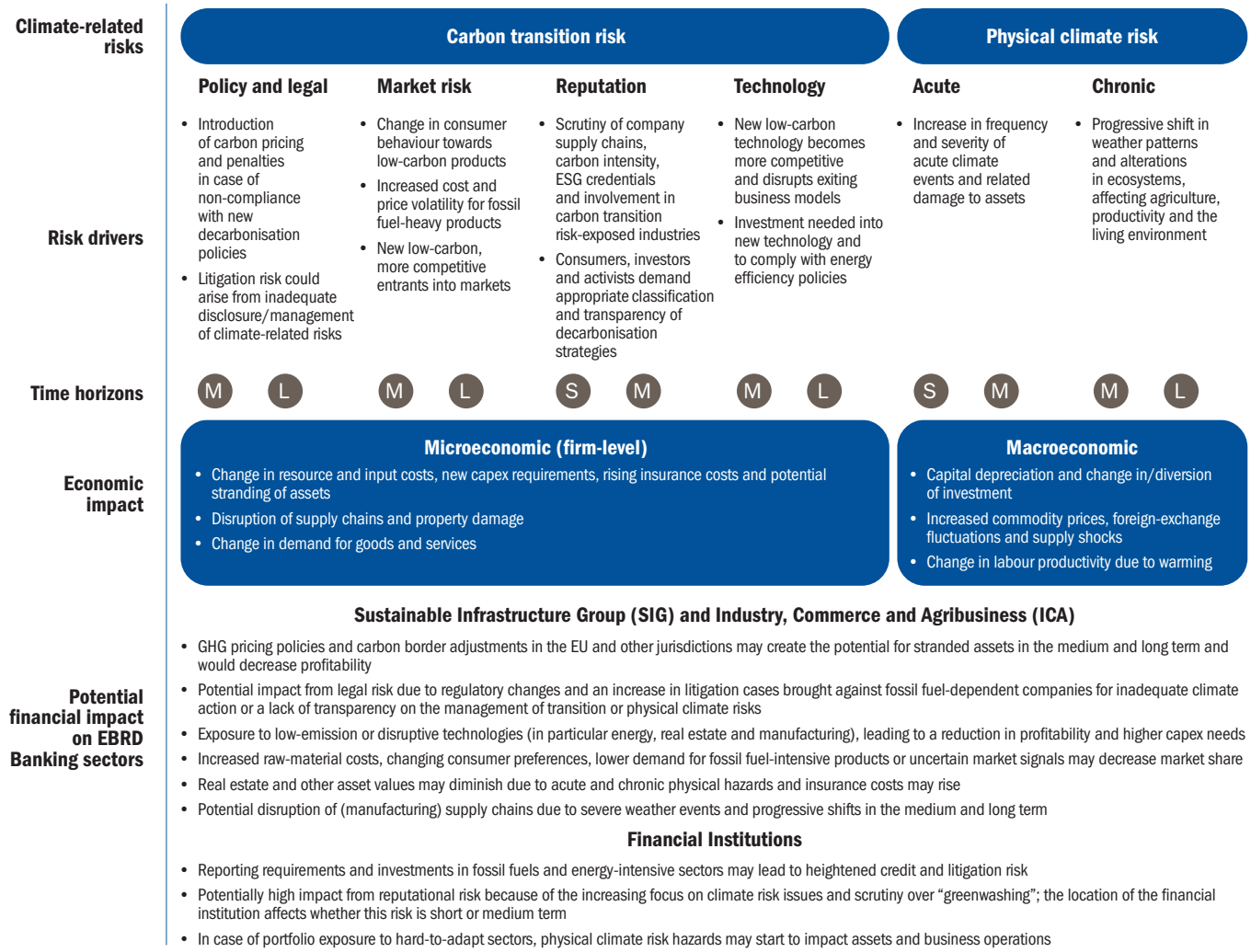


Figure 6. **Overview of climate risks in the EBRD regions**

Central Asia

- Very high emissions intensity and fossil-fuel dependence
- Weakest decarbonisation outlook, resulting in greater economic disruption from the low-carbon transition
- Experiencing significant water stress and drought, mountainous areas are susceptible to landslides
- Increased financial impacts of physical hazards are expected in the medium and long term

Central Europe and the Baltic states

- Less carbon intensive, prepared for EU regulation, including gradual, orderly and less economically disruptive low-carbon transition
- Strong productive capability relevant to the green economy
- Medium and long term, the region will face more, longer-lasting droughts
- Greater risk of flooding and erosion, particularly throughout the Danube River basin

Eastern Europe and the Caucasus

- Higher carbon intensity and weaker decarbonisation and productive green capacity outlook in the short term
- Lower potential for a regional response to the carbon transition – increased economic disruption
- Experiencing extreme weather (drought, wildfires, flooding), the severity and frequency of which will increase in the medium and long term
- Experiencing aridity due to decreased precipitation, high temperatures and reduced river run-off, posing risks to agricultural production

South-eastern Europe

- Slightly more carbon-intensive and fossil-fuel dependent
- Weaker on decarbonisation policies and productive green capacity
- Regulatory alignment with European Union (EU) Carbon Border Adjustment Mechanism (CBAM) likely to create economic disruption from low-carbon transition
- In the medium and long term, more intense drought, flooding and wildfires

Southern and eastern Mediterranean

- Less carbon intensive, but potential to respond to decarbonisation or to generate climate opportunities
- Exposure to EU CBAM through export-oriented economies
- Some dependence on other highly fossil fuel-reliant countries
- Already highly water stressed, with periods of extreme heat and drought, as well as wildfires
- Over time, water stress will increase in the entire region

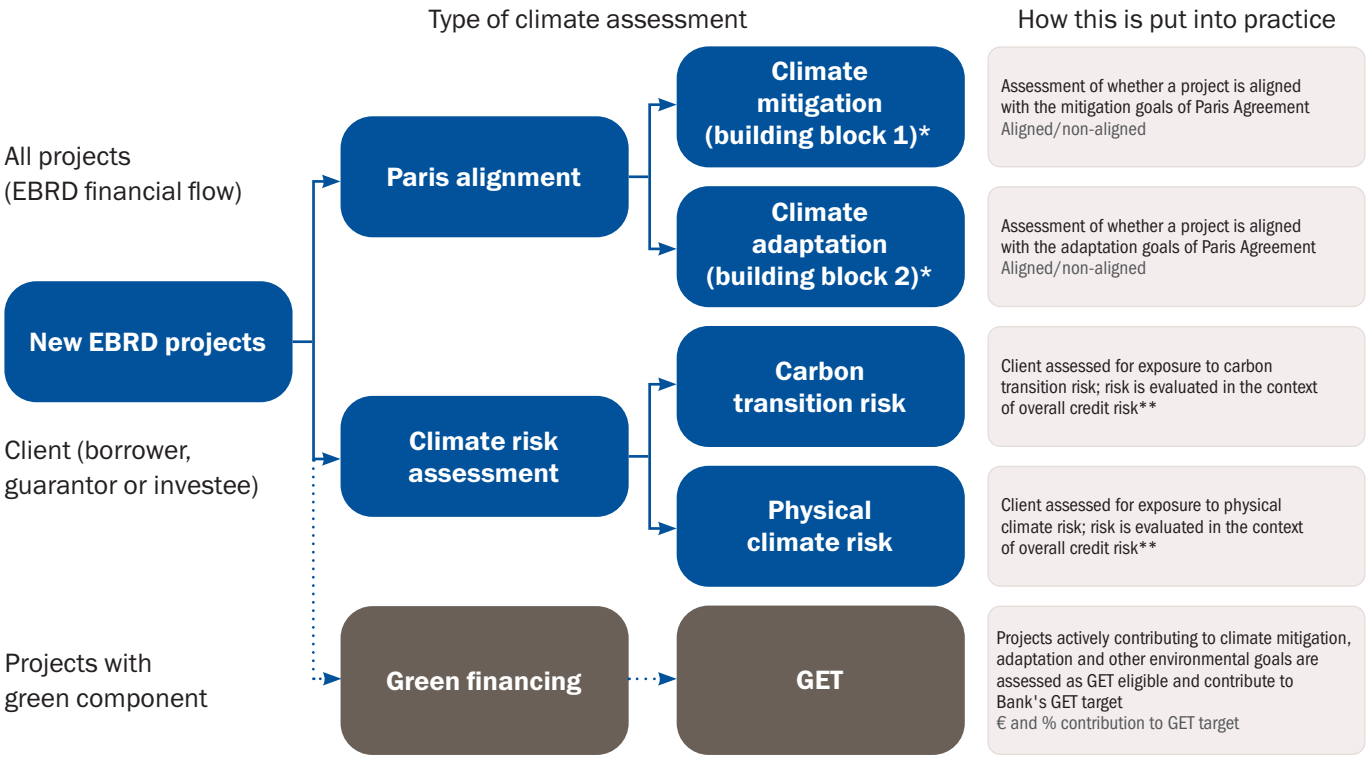
Türkiye

- Exposure to EU CBAM through export-oriented economies
- Emerging decarbonisation policies and emissions costs
- Dependence on high emissions industry
- Water stress projected to increase as well as extreme heat and drought

4.4. Assessment of climate-related credit risks in direct finance projects

The EBRD identifies, assesses and manages climate-related risks in the process of conducting due diligence and structuring individual transactions. The first line of defence proposes measures to mitigate climate risk, including GHG emission reduction plans and/or climate adaption plans. Climate risks and mitigating factors are then assessed and challenged by Risk Management and ESD. This is complemented by the assessment of other climate-related aspects of individual projects, as illustrated in Figure 7.

Figure 7. **Green assessments for EBRD investment projects**



* The joint MDB approach to alignment with the objectives of the Paris Agreement was presented at the COP24 climate conference in 2018.[26] The approach has six "building blocks" (BBs) for Paris alignment: (BB1) alignment with mitigation goals; (BB2) adaptation and climate-resilient operations; (BB3) accelerated contribution to the transition through climate finance (in the EBRD's case, GET finance); (BB4) strategy, engagement and policy development; (BB5) reporting; and (BB6) alignment of internal activities (for example, administration, procurement and treasury). Therefore, Paris alignment has a project-screening element (BB1 and BB2), a climate finance and policy element (BB3 and BB4) and a corporate element (BB5 and BB6).

** No impact on internal credit rating at this stage.

The scope of the assessment in this figure is ex ante; the Bank also assesses the impact of its investments post-signing. Sustainable finance considerations are incorporated into the Bank's institutional policy and strategy development and reflected in the assessments shown (for example, the Bank's Strategic and Capital Framework and its country and sector strategies). This approach ensures that all projects are Paris aligned and comply with Bank policies.

[26] See ADB, AfDB, AIIB, CEB, EBRD, EIB, IADB, IsDB, NDB and World Bank Group (2018).

While the EBRD has a long history of considering and assessing climate risks at project level, these risks are now reviewed as part of a cross-cutting risk assessment process for clients. The Bank strives to ensure that climate risk is assessed systematically across its portfolio using a standardised approach.

In 2022, the EBRD expanded its climate-related financial risk screening approach to include sovereign and sovereign-guaranteed loans. The Bank considers sovereign entities to have lower risk because of their diversified revenue streams and their legal rights to raise revenue and reduce expenditure. The potential climate-related financial risk of sovereign entities will be managed through an annual review and assessment of countries that are considered to be more exposed to either carbon transition or physical climate risks, and where the country's internal PD rating or the EBRD's exposure are above set thresholds. The outcomes of this assessment may be included in bank-wide stress tests, the Bank's climate-related policy dialogue with a particular government, or in the development of EBRD country strategies.

Carbon transition risk assessment

To facilitate the transaction-level assessment of climate-related risks, the Bank developed an internal screening approach to better analyse its exposure to carbon transition risk, resulting in a carbon transition risk screening score. These scores comprise: (i) an industry-specific assessment of carbon transition risk based on a heat-mapping approach, largely based on classifications by Moody's Investor Service and adjusted by the Bank's specialists; (ii) the EBRD's internal assessment of a country's preparedness for transition and the impact of climate risk policy and regulatory changes; (iii) the tenor of the exposure; and (iv) specific modifiers.[27]

The Bank's carbon transition screening scores form a numerical heat map of new transactions, which is used to flag any potential high-risk exposures that require further assessment through qualitative and quantitative assessment during due diligence. The carbon transition scores are also used to identify the transition risk exposure of the Bank's existing portfolio. Section 5.1.2 provides details of the Bank's current and historical exposure to carbon transition risk using these scores.

Physical climate risk assessment

The Bank developed a proprietary physical climate risk screening tool to identify exposure to physical climate risk. The physical climate screening score is based on: (i) a client's industry sector sensitivity to 10 physical climate hazards, (ii) the likelihood of those hazards occurring based on an analysis of the client's core location coordinates, (iii) a tenor adjustment and (iv) a verification step.[28] The likelihood of these physical hazards occurring is based on a range of data, listed in Table 6. These data sources were chosen after a detailed review of the publicly available physical climate risk data.

Table 6. **Physical climate hazards and data sources**

Category	Chronic or acute	Physical climate hazard	Data source
Temperature-related	Chronic	Increasing mean temperatures	Swiss Re – CatNet
	Acute	Extreme heat event	World Bank – Climate Change Knowledge Portal (CCKP)
		Wildfires	Swiss Re – CatNet
Wind-related	Acute	Extreme wind event	Swiss Re – CatNet
Water-related	Chronic	Increasing water stress	World Resources Institute – Aqueduct
		Sea-level rise	Climate Central – Coastal Risk Screening Tool
	Acute	Drought	World Bank – CCKP
		Flood	Swiss Re – CatNet
Solid mass-related	Chronic	Erosion	Swiss Re – CatNet
	Acute	Extreme mass movement	Swiss Re – CatNet GeoNode

[27] Industry-sector risk classifications are derived from the industry sectors classified by Moody's Investors Service (2020; 2021) as having very high, high or moderate risk for carbon regulation. Country carbon transition assessment scores are based on HSBC (2019).

[28] At this stage, counterparties with numerous operational locations are typically deemed to be diversified in relation to the financial impacts of physical climate risk. The Bank's physical climate client risk screening is similar to the process it uses to assess a project's alignment with the climate resilience goals of the Paris Agreement. The Bank plans to continue reviewing this approach, which may evolve.

Bank counterparties screened as potentially high risk are subject to further assessment of the potential financial impacts of physical climate risk. Here, the Bank's specialists assess potential impact and develop climate resilience plans, as needed.

The Bank is looking to establish a process for assessing its existing portfolio using the same tool. Section 5 provides a high-level internal expert view of the vulnerability of the Bank's industry sectors to physical risks. Ultimately, however, this assessment is location specific and carried out for each transaction based on core client locations. Due to gaps in location data and the significant resourcing required, this physical climate risk assessment of the portfolio is being done gradually.

Both the carbon transition and physical climate risk methodologies require further refinement and adjustment and will evolve based on operational use and best practices for the assessment of climate-related financial risks. Today, they act as a scalable and informative initial screening tool for focusing the Bank's resources on the assessment of clients with more likely material transition and/or physical risks.

4.5. Assessment of climate-related credit risks in direct finance projects

In 2022, the Bank introduced a systematic screening methodology for PFIs, which includes an assessment of their gross loan portfolio sector concentrations, as well as internal climate risk management practices. By the end of the year, the Bank had screened 86 per cent (or €9.4 billion) of the in-scope financial institution clients in its portfolio.[29] Approximately 6 percent of PFIs required further assessment of carbon transition risk, while a similar portion required further assessment for physical climate risk. This process allowed the EBRD to prioritise engagement with PFI clients on climate-related financial risk management at an institutional level for those deemed to have the highest potential climate-related financial risk.

At the start of 2023, assessments of climate risk at the institutional level were incorporated into all new EBRD transactions with PFIs.

The Bank screens and assesses both the carbon transition and physical climate risks of PFIs in parallel to its PFI client credit review process. This assessment is based on a climate risk questionnaire aimed at better understanding partner institutions' internal climate risk management, as well as their exposure to climate risk through their loan portfolios. This carbon transition and physical climate risk screening process also takes into account PFIs' primary country of operation and the EBRD's longest financial exposure. The institutional-level assessment also allows the EBRD to monitor and manage PFI clients' financial exposure to climate risks over time and to prioritise PFIs for EBRD assistance with climate risk management.

4.6. The EBRD's reporting commitments

The regulatory landscape is evolving rapidly. Although the EBRD, as an international financial institution, has special status as an unregulated organisation, the Bank strives to follow the most advanced climate-related risk management guidance and regulation. The Bank closely observes emerging international standards and regulatory developments, particularly in the EU and on an international level through the International Sustainability Standards Board as part of the International Financial Reporting Standards (IFRS) Foundation. A growing number of jurisdictions have laid the foundations for requiring climate-related disclosure and stress testing for large organisations.[30] The Bank is an observer of the NGFS, a group of 127 central banks and financial supervisors that aims to accelerate the scaling up of green finance globally and to develop recommendations for central banks' role for addressing climate change. The Bank is monitoring the outcomes, feedback and lessons learned and aligning its internal climate risk stress-testing exercises and disclosure where possible (see section 5.3).

In addition, the Bank engages in policy dialogue with the authorities in economies where it invests to promote the stability of the regulatory environment, the progressive adoption of solutions and the provision of support aimed at climate risk mitigation and adaptation.

[29] In-scope financial institution clients comprise banks, leasing and microfinance organisations financed by the EBRD – corresponding to 90 per cent of the EBRD's Financial Institutions portfolio.

[30] Such as the European Central Bank stress test for 2022 and the Bank of England Biennial Exploration Scenario in 2021.

5. Metrics and targets

In line with the recommendations of the TCFD, the EBRD is developing clear and consistent metrics and targets that enable the Bank and outside stakeholders to measure and track the risks and opportunities presented by climate change and the associated implications for the Bank's financial performance.

It reports on findings related to its own operations and investment portfolio, and provides additional data, including on activities such as capital market transactions.

5.1. Metrics overview

Table 7. **Overview of metrics in this report**

5.1 Metrics		
Section	**Subsections**	**Pages**
Metrics related to Bank's carbon footprint	• GHG emissions of own operations • Financed emissions	27-30
Investment portfolio metrics	• Portfolio heat-map and exposure to carbon-related assets • Deep dive carbon transition and physical climate risk assessment of portfolio • EBRD's fossil-fuel exposure	30-36
Additional metrics	• Physical climate risk to EBRD offices • Green project reporting • Capital market transactions	37-39

5.1.1. Metrics related to the Bank's internal operations

The Bank calculates and reports on the carbon footprint and GHG emissions-intensity ratio of its own operations. These disclosures are included in the Bank's *Global Reporting Initiative Report – Sustainability Disclosures*, which also includes the energy consumption, waste and biodiversity impacts of the Bank's activities.[31]

The Bank's Scope 1 emissions are related to on-site heating, cooling and fuel use in EBRD-owned vehicles. Scope 2 emissions relate to purchased electricity. As a financial institution, the majority of the EBRD's emissions are Scope 3 financed emissions, which are the Scope 1 and Scope 2 GHG emissions of the Bank's clients.[32] The Scope 3 emissions figures presented in Table 8 currently do not include financed emissions. Bank's preliminary calculation of financed emissions for a part of its portfolio is disclosed separately in the subsequent section.

In terms of emissions from its internal operations, in 2022, the Bank adopted a new spend-based methodology aligned with the Greenhouse Gas Protocol, working with an independent carbon accounting partner that provides a more complete assessment of its internal emissions, especially those associated with purchased good and services.

Table 8 provides a summary of the Bank's carbon emissions in $ktCO_2e$. In 2022, the EBRD reset its carbon footprint data, starting with internal operations emissions, reporting 55 $ktCO_2e$ based on the updated methodology:

- Scope 1 emissions came in lower than in previous years due to the updated methodology, based on spent data and the EBRD's new London Headquarters' lower combustion levels.
- Scope 2 emissions reflected a return to office-based working closer to pre-pandemic levels.
- Scope 3 emissions included one-off emissions totalling around 22,600 tonnes of CO_2e associated with the fit-out of the EBRD's new Headquarters building, one of the UK's most environmentally advanced offices.

[31] See EBRD (2023b).
[32] Financed emissions are clients' scope 1 and 2 emissions, allocated proportionally to a financial institution based on use of proceeds or for general financing, the proportion of the financing provided versus the overall debt and equity financing of the client.

Table 8. **Selected EBRD sustainability indicators**

Type	2019	2020	2021	2022[1]
Scope 1 (tCO_2e)	1,610	1,595	1,694	810
Scope 2 (tCO_2e)	4,632	3,852	3,479	3,721
Scope 3 (tCO_2e)[2]	15,275	8,148	7,610	50,638[3]
Electricity (MWh)[4]	15,300	14,500	13,100	8,969
Gas (MWh)	4,500	4,500	4,300	2,453
Travel (million km)	46.1	7.3	3.7	23.9
Printer paper consumption[3] (tonnes)	32.0	6.5	1.9	4.8
Water consumption[3] (thousand m³)	48.6	35.6	27	26.9

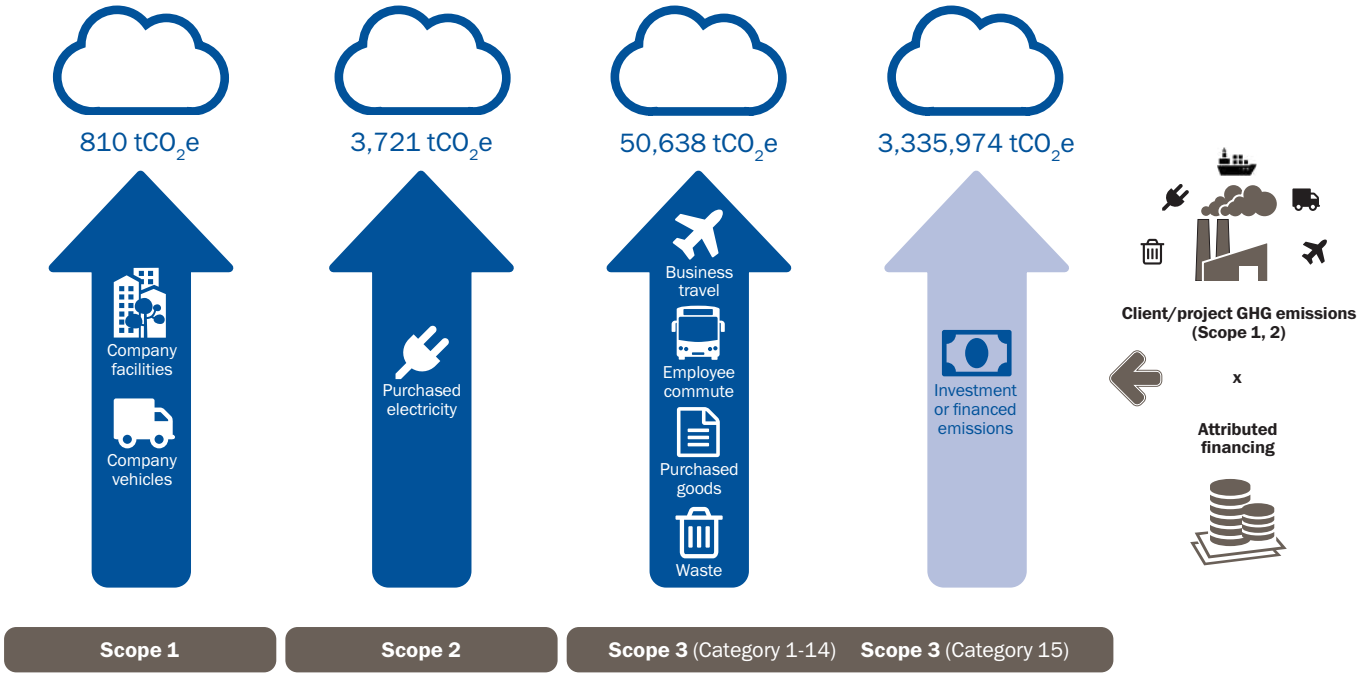
[1] In 2022, the EBRD reset its carbon footprint data base, adopting a methodology aligned with the Greenhouse Gas Protocol, working with an independent carbon accounting partner that provides a more complete assessment of its internal emissions, especially those associated with purchased good and services.

[2] Scope 3 emissions figures represent emissions from business travel and estimates of employee commute, waste and purchased goods and services. They do not include the Bank's financed emissions (that is, Greenhouse Gas Protocol, Scope 3, category 15).

[3] Approximately 22,600 tonnes of Scope 3 emissions were associated with the fit-out of the EBRD's new Headquarters building.

[4] EBRD Headquarters only.

Figure 8. **EBRD GHG emission breakdown by scope (TCFD, 2022)**



Pilot financed emissions (Scope 3, Category 15) calculated for stress-test clients, 2022

As a financial institution, the majority of the EBRD's GHG emissions result from projects the Bank finances. These are referred to as "financed emissions" and categorised as Scope 3 (category 15) by the Greenhouse Gas Protocol for reporting purposes. This report includes, on a pilot basis, the disclosure of financed emissions – covering clients' Scope 1 and 2 emissions – for the same sample of the largest 78 high-emitting clients included in the 2022 carbon transition-risk stress test (section 5.3). Outstanding exposure to these clients corresponds to 24 per cent of the EBRD's corporate debt exposure[33] in the most emissions-intensive industries.

In 2022, the EBRD's outstanding portfolio from the 78 stress-tested corporate clients resulted in an estimated 3.34 $MtCO_2$ of absolute Scope 1 and Scope 2 CO_2 financed emissions. To put this number in context, it is important to recognise that the Bank supports its clients in delivering on the green economy transition, in turn reducing their environmental impact from activities that directly or indirectly involve fossil fuels.

Calculation and attribution factor

The EBRD follows the Partnership for Carbon Accounting Financials (PCAF) standard for calculating financed emissions, where possible. Most of the financing within the sample would be classified as "project finance" under the PCAF. Due to a lack of reliable and consistent project-specific emissions and revenue data, and the absence of primary physical or economic activity data at project level to estimate them, the "business loans and unlisted equity" asset class was chosen as a proxy method.[34] Financed emissions are, therefore, calculated in accordance with the following formula.[35] This is likely to result in an overestimation of emissions, as most of the EBRD's financing is "use-of-proceeds based", much of which supports the low-carbon transition efforts of its clients:

$$Financed\ emissions = \sum_{c} \frac{Outstanding\ amount_c}{Total\ equity + debt_c} \times Company\ emissions_c$$

The results are shown in Table 9, split by main industry group.

Emission estimation and data limitations

The data presented are the EBRD's first estimation of financed emissions. Because of the limitations of these estimates, the Bank will continue to focus on the following areas:

The absence of verifiable and reliable GHG emissions data for the majority of sample clients meant that a considerable number of proxies and assumptions were used. The PCAF assigns data-quality scores to provide an overview of the margin of error in financed emission calculations (with 1 being the best score). The weighted average PCAF data quality score for the sample is 3.4. Reported (unverified) GHG emission data were only available for 17 per cent of sample clients (data quality score 2). For the remaining clients, emissions were estimated by multiplying economic emission intensity factors (emission intensity per unit of revenue) provided

Table 9. **Scope 1 and 2 financed emissions from high-emitting client sample**

Sector	Absolute financed emissions (Scope 1 and 2) ($MtCO_2e$)	Outstanding exposure (€ million)
Oil and gas	0.28	694
Metals and mining	0.49	738
Automobile	0.05	740
Chemicals and fertiliser	0.28	448
Agriculture	0.09	402
Power and energy	2.11	679
Transport[36]	0.04	266
	Total: 3.34	**Total: 3,967**

[33] The sample excludes financial institutions and sovereign clients.
[34] For simplicity, all sample clients were assumed to be private entities.
[35] PCAF (2022) notes that "company emissions" are either reported emissions by the company or estimated emissions using vendor data.
[36] Includes rail companies and airlines.

by a data vendor by client revenues (data quality score 4). The main drawback of these economic emission intensity factors is that there is no country sensitivity; the factors are based solely on average industry data. Economic emission intensity factors can also vary by vendor, which can have an impact on the comparability of future reporting.

Client financial data used in calculations, particularly for revenue, are subject to fluctuation, limiting comparability between years. Wherever possible, client financial data were collected for 2022, however, particularly for some unlisted clients, financial data used in the calculations may be from 2021 or 2020.

Data limitations disclaimer and next steps

The information provided herein does not accurately represent the overall level of financed emissions attributed to the Bank. This discrepancy arises from the selection of clients, which predominantly represents the higher-emitting sectors of the Bank's portfolio. As a result, the remaining portfolio is expected to exhibit substantially lower financed emissions.

Furthermore, it is essential to note that the EBRD's investments going forward are all Paris aligned. The client selection above includes legacy investments that the Bank would no longer finance. In addition, the reliance on client information, due to the lack of emissions data specific to individual projects, may lead to an overstatement of financed emissions. The EBRD's primary focus is on reducing carbon emissions through its investments, as evidenced by its significant GET financing share.

The Bank is committed to collecting more granular, project-specific information following the PCAF approach. This effort aims to ensure a more accurate reflection of its financed emissions, with the ultimate goal of eventually covering its entire portfolio. The EBRD is conscious that this field is developing rapidly as GHG emissions guidance evolves. The Bank will continue to report transparently on any adjustments made to refine its emissions disclosures in future years.

Ultimately, this information is provided in the spirit of increasing disclosure, promoting transparency, spurring industry participants to provide more disclosures of their financed emissions and driving transparency of disclosure overall.

5.1.2. Investment portfolio metrics

Climate-related risks have the potential to affect many EBRD clients. Given the pace of change, the Bank is continuously refining the way it identifies, assesses and quantifies risks in its projects and portfolio, screening each financial exposure for individual carbon transition and physical climate risk.

The Bank has also begun to examine its portfolio for exposure to climate risk by:

(1) using climate risk heat mapping to identify Banking portfolio financial exposure by industry sector and carbon-related asset, as well as the share of GET finance in each

(2) assessing the carbon transition and physical climate risk of parts of the Banking portfolio based on internal climate-risk screening methodologies.

Portfolio heatmap and exposure to carbon-related assets

The EBRD provides information on the broad industry exposure of its Banking portfolio, the GET share of each of these broad industry classifications, and a weighted average classification of transition risk and physical risk for each. Physical climate risk classifications are based on an aggregation of the industry's sensitivity to 10 hazards, providing an approximation of potential physical risk. Transaction-specific portfolio assessments of carbon transition and physical climate risks using the Bank's screening methodology are outlined in the following deep-dive sections. Over time, the heatmap in Table 10 will evolve to reflect transaction-specific risk classifications.

The broad industry classification of transition risk listed in Table 10 also reflects the EBRD's assessment of sensitivity to the low-carbon transition within the current regulatory environment. At the end of 2022, 55 per cent (€29.4 billion) of the EBRD's well-diversified Banking portfolio was broadly classified as moderate or low risk based on these assumptions, with a further 31 per cent (€16.6 billion) exposed to the financial sector, which, although not broadly classified, is generally less exposed due to diversification. This corresponds to 86 per cent of total EBRD portfolio exposure, or €46.0 billion. It is reasonable to assume that a rapid regulatory acceleration towards emissions reduction, technological breakthroughs and/or consumer preference changes may have substantial impacts on industry transition risk profiles. However, the portfolio review

Table 10. **EBRD banking portfolio based on high-level counterparty industry-sector classification**

EBRD debt and guarantee portfolio at year end										
	2021				2022				Classification	
Counterparty after risk transfer, industry sector	Total debt portfolio (€ million)	Percentage of portfolio	Share classified as GET	GET-related portfolio (€ million)	Total debt portfolio (€ million)	Percentage of portfolio	Share classified as GET	GET-related portfolio (€ million)	Carbon transition risk	Physical climate risk
Independent power producers and energy traders	769	2%	43%	328	685	1%	37%	256	Very high	High
Coal and consumable fuels	21	0%	0%	-	16	0%	0%	-	Very high	Moderate
Oil and gas	1,234	2%	26%	321	968	2%	25%	239	Very high	Moderate
Chemicals (incl. fertilisers)	796	2%	70%	560	715	1%	69%	492	High	Moderate
Automotive (incl. parts and equipment)	743	1%	38%	284	843	2%	50%	424	High	Moderate
Utilities	1,907	4%	55%	1,054	1,887	4%	66%	1,239	High	Moderate
Metals and mining, forestry, paper products	1,279	3%	27%	340	1,380	3%	22%	309	High	High
Construction materials, containers and packaging	330	1%	14%	45	261	0%	14%	36	High	Moderate
Transport and logistics	2,114	4%	17%	357	2,022	4%	24%	492	Moderate	Moderate
Real-estate investment trusts/ other real estate	1,000	2%	72%	723	1,129	2%	78%	876	Moderate	Moderate
Industry and machinery	602	1%	20%	119	696	1%	36%	248	Moderate	Moderate
Consumer goods, food and beverage	1,875	4%	15%	273	1,826	3%	13%	239	Moderate	Moderate
Healthcare	980	2%	24%	238	984	2%	28%	278	Low	Moderate
Retail and tourism	1,279	3%	28%	357	1,221	2%	36%	442	Low	Moderate
Technology and telecommunications	842	2%	38%	321	968	2%	37%	361	Low	Moderate
Renewable electricity	2,832	6%	77%	2,183	3,093	6%	79%	2,428	Low	Low
Sovereign states and municipalities	16,396	33%	53%	8,758	17,616	33%	51%	8,970	Low	Low
Financial institutions and funds	14,679	29%	29%	4,287	16,582	31%	35%	5,850	No classification*	No classification*
Other	545	1%	30%	163	576	1%	58%	333	N/A**	N/A**
Total Banking portfolio	50,222	100%	41%	20,712	53,469	100%	44%	23,513		

carried out in 2022 and the transition risk assessment of new financing give confidence that the transition risk exposure of the portfolio is acceptable.

Thirteen per cent (€7.0 billion) of the Bank's exposure is to industries broadly classified as high or very high transition risk. While approximately consistent with 2021, the increased share of GET financing to these clients of €63 million, or a 2 per cent increase in the GET share of financing to these sectors, demonstrates the EBRD's engagement in fostering low-carbon transition. The Bank's exposure to high-transition-risk industries is not likely to decrease in future due to the EBRD's commitment to supporting decarbonisation and transition for these clients. However, over time, the Bank's support is likely to lower the risk profile of clients that fall into these categories.

NB: Table includes EBRD Banking portfolio investments based on the industry sector of Bank counterparties, which may differ from the industry sector of Bank-financed projects. The version in this year's report includes Bank equity assets, so some numbers may differ from the previous report. In addition, the coal and consumable fuels category includes only clients classified as such and not the indirect coal figures from the 2021 TCFD report. Indicative exposure classifications of carbon transition and physical climate risk are included for high-level heat-mapping purposes only. Physical climate risk classifications are based on a high-level aggregation of the industry's sensitivity to 10 physical climate hazards without taking into account the physical locations of those exposures, although the Bank's internal physical climate risk methodology is based on counterparty core locations.

^ Total value of the Bank's outstanding commitments, including undrawn commitments.

* Climate risk assessment for financial institutions follows a different process and is, therefore, not classified broadly for carbon transition and physical climate risk, but rather based on a function of internal risk management processes, gross loan portfolios, country of operation and remaining EBRD financing tenor (see section 4.4 on risk management for financial institution transactions).

** The broad "other" category does not include sector-specific carbon transition or physical climate risk classification.

The Bank's transition support is evident in the continued increase in the GET share of its investments. In 2022, the GET share of the overall portfolio grew to 44 per cent from 41 per cent in 2021, while the GET share for newly signed deals was 50 per cent.

The legacy fossil-fuel exposure of the Bank, such as exposure to coal, continues to fall as these loans mature. In addition, the EBRD's exposure to the oil and gas sector declined by more than €266 million over the course of 2022, while the Bank maintained approximately the same share of GET financing to the sector in a clear demonstration of the EBRD's support for its clients' low-emission investments.

Other significant increases in GET share, indicating investment in the low-carbon transition, are evident in the automotive, utilities, and industry and machinery sectors. The Bank also continues to expand its direct investments with clients exclusively active in the renewable energy sector. These grew to €3.1 billion by year end 2022, an increase of more than 9 per cent.

The sharp 36 per cent increase in GET financing to the financial sector between 2021 and 2022, rising from €4.3 billion to €5.9 billion by year end, provides further evidence of the EBRD's support for the low-carbon transition.

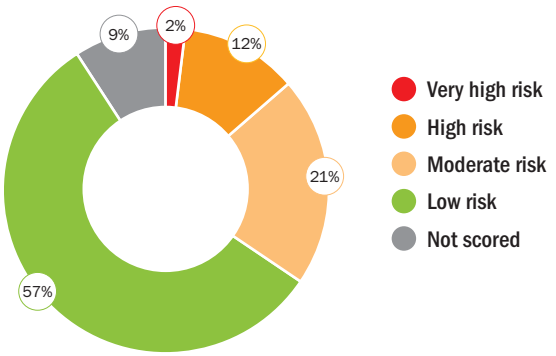
Deep dive 1: Bank expands assessment of carbon transition risk in the banking portfolio

In 2022, the Bank significantly increased its assessment of exposure to carbon transition risk in the existing Banking portfolio. In this process, it uses an internal methodology that takes into account three elements: industry sector exposure to carbon transition, as outlined in Table 10, country transition risk and loan tenor.

Contrary to 2021, where only direct corporate debt was included in the portfolio assessment pilot, this year's screening covers 92 per cent, or €48.4 billion, of the Banking book by adding direct sovereign and sovereign-guaranteed financing, direct equity and financial institution clients.

Figure 9 shows the percentage of clients whose main operations were in very high, high, moderate and low carbon transition risk sectors within this sample as at December 2022.

Figure 9. **High-level carbon transition risk classification of the EBRD banking portfolio, end 2022**



As outlined in Figure 9, 14 per cent (€7.3 billion) of the counterparties assessed were screened as having potentially high or very high carbon transition risk, while 86 per cent (€46.2 billion) were screened as having moderate or low risk. The vast majority of clients deemed to have high or very high carbon transition risk involved direct corporate debt (93 per cent or €6.8 billion). The key high-risk sectors were electric utilities and independent power producers and energy traders (together accounting for 30 per cent or €2.2 billion), metals and mining (13 per cent or €0.9 billion), and oil and gas storage and transportation (8 per cent or €0.6 billion).

Türkiye, Kazakhstan and Poland had the most EBRD clients in high- and very high-risk sectors (accounting for 15, 12 and 6 percent of the assessed portfolio, respectively), although this is also a function of the EBRD's generally larger portfolio exposure to these economies. With the exception of Poland, these economies also currently have less aggressive decarbonisation targets and timeframes and a greater reliance on fossil fuels, which combine to increase the economic costs and challenges and decrease the speed of transition.

Overall, counterparties in high-risk sectors, excluding equity, had an average tenor of 5.5 years as of end 2022. Counterparties screened as having potentially high carbon transition risk will be subject to further assessment over the course of 2023. As part of this analysis, the Bank will assess these counterparties' GHG emissions to understand their potential financial impact. This analysis will be complemented by a review of their decarbonisation plans and climate risk management strategies.

Sovereign and sub-sovereign government entities are considered to have lower climate-related financial risk than other sectors due to their diversified revenue base and ability to raise revenue through policy. However, the EBRD also acknowledges that those countries that delay their transition are likely to experience more economically destructive transitions. Although climate risks can become concentrated in the financial sector, financial institutions' own portfolio diversification, regulated sector concentration limits, and strong capital and liquidity buffers can mitigate their exposure to climate risk. The Bank acknowledges that individual financial institutions may have higher exposure. It therefore carries out individual assessments of each of its partner financial institutions to assess the materiality of climate risk at firm level and takes appropriate steps to manage any material risks.

Deep dive 2: Assessment of physical climate risk in the banking portfolio

Through its ongoing assessment of new client engagements, combined with a review of its most significant client exposures, the Bank has screened 83 per cent (or €19.4 billion) of its direct debt exposure. The Bank screens clients using its internal physical climate risk screening tool, which identifies the physical hazards to which each client may be exposed. The screening results are summarised in Table 11.

Of the counterparties assessed, 26 per cent (€5.0 billion) screened as potentially high or very high for physical climate risk, while 74 per cent (€14.4 billion) screened as moderate, low or very low risk. Diversification of location was a leading factor in placing counterparties in the very-low-risk category. The top three physical climate risks (by frequency of occurrence) were: i) flooding, ii) extreme heat events and iii) increased water stress, as illustrated in Figure 10.

The sectors with the highest physical climate risk were renewable energy, municipal water utilities and healthcare facilities. Among these, renewable energy had the greatest number of clients assessed as having potentially high or very high risk. However, this reflected the high volume of Bank projects in this sector.

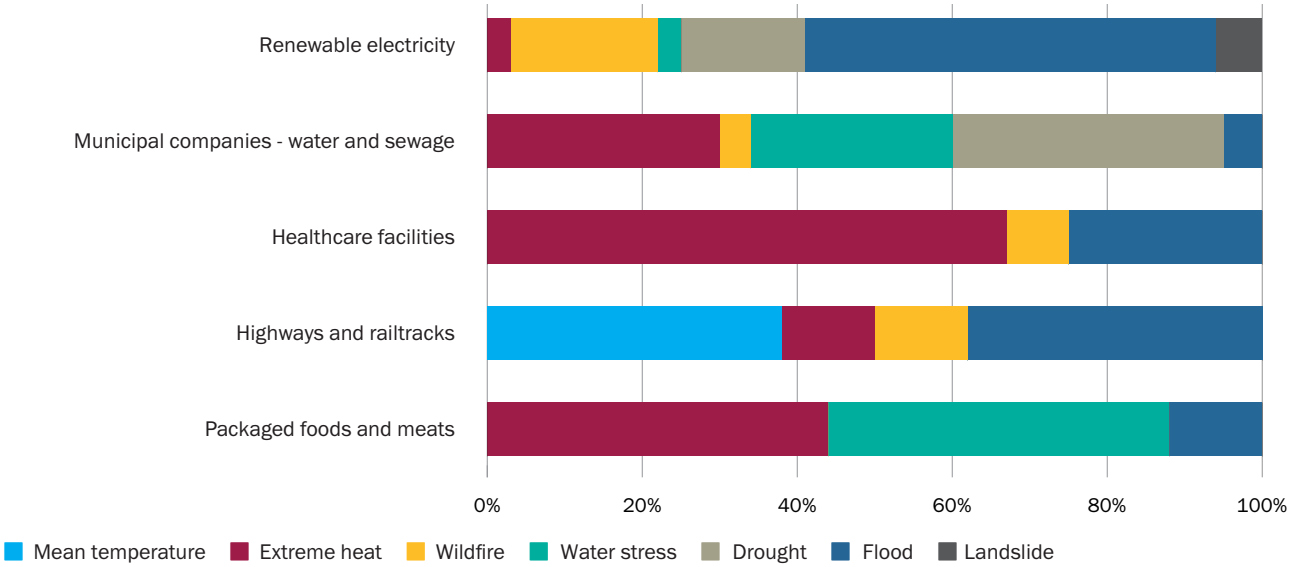
The specific hazards that triggered the high or very high physical climate risk score in these sectors are summarised in Figure 11. While the breakdown of hazards reflects those seen in the portfolio overall in Figure 10, it illustrates the degree of variation between sectors, reflecting the specific sensitivities of underlying activities to specific climate hazards.

Table 11. **Distribution of physical climate risk scores for assessed EBRD debt portfolio counterparties**

Physical climate risk score	% of total	Physical climate risk level
1	47.4%	Very low
2	12.6%	Low
3	13.8%	Moderate
4	11.5%	High
5	14.6%	Very high

Figure 10. **Hazards' relative frequency in high/very high physical climate risk-screening scores**

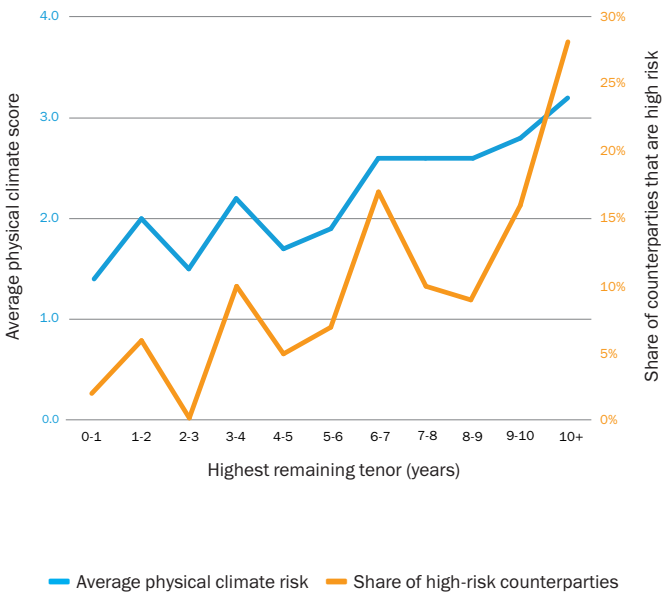
Figure 11. **Overview of hazards identified in industry screening as high physical climate risk, per cent**



The top five economies in the Bank's operating regions where high-physical-climate-risk clients are located are Türkiye, Kazakhstan, Poland, Romania and Ukraine. This reflects overall portfolio concentration. In 2022, the Bank financed €2.2 billion of projects to support climate change mitigation and adaptation goals in these countries.

The Bank's approach to assessing physical climate risk includes a specific weighting for the tenor of direct finance projects to reflect the increase in exposure to climate risks over time as the impact of higher global temperatures worsens the effects of climate change. This is reflected in the distribution of scores shown in Figure 12 and the high frequency of high-risk counterparties at tenors of more than 10 years.

Figure 12. **Average physical climate risk scores by highest remaining tenor**



The EBRD's Senior Management and Board receive quarterly reports on climate risk. This is to ensure that there is full transparency on the Bank's overall exposure to climate risk, as well as awareness of its risk management responses to any material climate risks identified.

Due to the limited availability of location-specific data for the pilot review of physical climate risks in the portfolio, the EBRD will review this approach and test its accuracy for screening physical climate risks as new transactions with these clients arise. In particular, those clients screened as potentially high or very high risk have been flagged and will be subject to increased scrutiny during due diligence on proposed new financing. Moreover, the Bank will continue to assess the consistency of findings from the screening of new transactions with portfolio results in order to test and refine the physical climate risk methodology and assess whether adjustments are required to manage portfolio exposure.

The EBRD's fossil-fuel portfolio exposure (oil, gas and coal) as of year end 2022

Decarbonisation requires a transition away from fossil fuels. In line with the EBRD's Environmental and Social Policy (2019)[37] and Energy Sector Strategy 2019-23,[38] the EBRD will not knowingly finance, directly, or indirectly through financial intermediaries, projects where EBRD proceeds are used for activities relating to thermal coal mining or coal-fired electricity generation capacity. New financing to clients active in the above sectors for their non-coal investments is to support their transition to a low-carbon pathway and is ring-fenced from their coal activities. The EBRD also no longer invests in upstream oil and gas projects, but supports clients with activities in these fields, as well as mid- and downstream projects, where the financing significantly contributes to their decarbonisation and the goals of the Paris Agreement.

In contrast to previous years' reports, portfolio exposure to coal and to oil and gas has been combined for simplicity and because of significant overlap between clients.[39] This disclosure covers exposure to clients that operate directly in the coal, oil, gas and energy generation sectors, which generate more than 20 per cent of their revenue from fossil fuel-related activities. It spans the extraction, transportation, processing, storage and distribution subsectors, as well as coal, oil and gas-fuelled electricity and heat generation.[40] It includes both: i) exposures where proceeds are used for these activities and ii) exposures where the Bank's financing is to a company that operates in one of these sub-sectors, but Bank proceeds are not used for those business lines.

As of December 2022, the Bank's total exposure to fossil-fuel sectors and fossil fuel-based energy generation was €5.8 billion. This was an increase from 2021, mainly due to €775 million of emergency response loans to support energy security as a result of the war on Ukraine. The Bank's fossil-fuel exposure amounts to 11 per cent of the banking portfolio, with client exposure divided between 44 per cent sovereign, 26 per cent state-owned and municipal companies, and 30 per cent private sector. Geographically, the largest exposures are to projects in Kazakhstan, Ukraine and Uzbekistan, as well as a regional gas pipeline project. The Bank further classified its fossil-fuel exposure (including energy generation) per Table 12.

Table 12. **Fossil-fuel exposure breakdown, December 2022 (€)**

	Legacy	Low-carbon pathway support	Emergency response	Total	%
Fossil fuels vertically integrated	69,077,046	155,602,958	902,397,860	1,127,077,864	19%
Fossil-fuel extraction	579,170,064	163,911,394	–	743,081,458	13%
Fossil-fuel storage and transportation	672,696,430	130,118,480	–	802,814,909	14%
Fossil-fuel processing and distribution	365,621,200	55,199,697	375,000,000	795,820,898	14%
Electricity and heat generation	684,184,376	1,504,575,358	131,600,000	2,320,359,734	40%
Total	**2,370,749,115**	**2,009,407,887**	**1,408,997,860**	**5,789,154,862**	**100%**
	41%	35%	24%	100%	

[37] See EBRD (2019a).
[38] See EBRD (2018).

[39] Eighteen per cent of fossil fuel-related portfolio exposure as of end 2022 was connected to companies with significant revenue (more than 20 per cent) from coal-related activities. However, more than half of coal-related exposure (63 per cent) can also be attributed to oil and gas, thanks to multiple company activities.

[40] The fossil-fuel portfolio exposures outlined here include direct exposure to the industry, as well as exposure to other sectors, such as utilities, municipal heating, electric power producers, marine ports, and so on, where the client or the Bank's financing is substantially exposed to the fossil-fuel industry. These figures also include equity positions and debt guaranteed by a sovereign state, so may not align with portfolio fossil-fuel exposures outlined in the portfolio project heatmap.

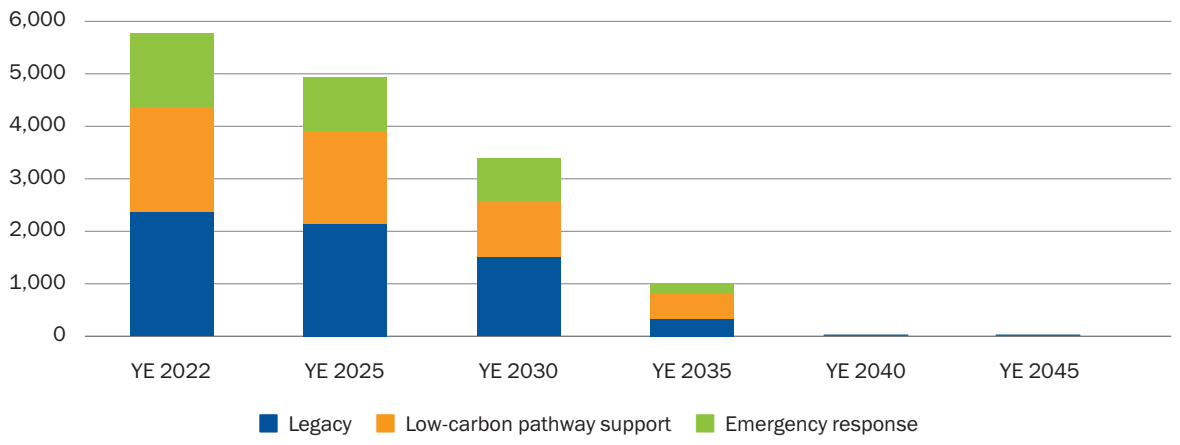
- **Legacy exposure:** Exposure where the use of EBRD proceeds does not contribute to a reduction in the GHG emissions of the counterparty or to its progression to a low-carbon pathway. This type of financing was signed prior to the introduction of the Bank's climate risk assessments, Paris alignment approach, the Fossil Fuel Approach update in 2021 and the exclusion of direct coal financing. As of end 2022, 63 per cent of the legacy exposure was concentrated in seven projects: three gas pipelines (36 per cent), two combined-cycle gas turbine power plants (15 per cent), one fossil-fuel processing company (8 per cent) and a vertically integrated electricity company (5 per cent). Sovereign/sovereign-guaranteed transactions accounted for 47 per cent of legacy transactions, and state-owned companies a further 12 per cent. Within legacy exposure, projects supporting direct coal mining or coal-fired power generation made up 3 per cent as of year end 2022 and are expected to mature by year end 2029.
- **Low-carbon pathway support:** Exposure where the client has fossil fuel-related activities, but EBRD financing specifically supports the client in executing its low-carbon pathway strategy and facilitating a switch to lower-carbon alternatives that result in GHG emission reductions. This includes financing energy efficiency improvements, renewables or infrastructure upgrades to facilitate the transition to a low-carbon economy (for example, petrol-station investments in charging stations for electric vehicles). Many of these clients have decarbonisation plans in place, such as coal exit strategies. In some cases, the EBRD facilitates policy dialogue to further support the rollout of renewables or the enhancement of energy-efficiency strategies.
- **Emergency response:** Exposure where the Bank's financing was part of an emergency response. These are shorter-term loans in response to an acute situation, such as Covid-19 or threats to energy security (for example, as a result of the war on Ukraine).

Figure 13 shows the expected reduction in the EBRD's fossil-fuel exposure, assuming linear amortisation to maturity. The last exposure is expected to mature by 2049.

The volume of legacy exposure is set to decline rapidly in the coming years due to the Bank's climate change mitigation priority, as can be seen from Figure 13. Of the fossil fuel exposure at year end 2022, 15 per cent will be repaid by the end of 2025 and 82 per cent will be repaid by 2035. The post-2035 legacy exposure comprises a gas pipeline, a gas storage project, an offshore upstream gas development, procurement of workover rigs and energy-efficiency investments to an upstream gas company, and construction of a combined cycle gas turbine plant. Most of these exposures are sovereign owned or guaranteed and, therefore, classified as having relatively lower financial risk to the Bank.

Conversely, the exposure in the low-carbon pathway support category is likely to rise as the Bank seeks to support oil and gas clients with investments that reduce their fossil-fuel dependence and GHG emissions, accelerate their transition to low-carbon alternatives and help them develop clear strategies to meet the net-zero target. Any new transactions with such clients require strong decarbonisation commitments and credible low-emission pathways. Many of these projects would also be subject to an economic assessment and a stranded asset assessment to determine their viability in higher carbon-price scenarios. The Bank will also assess the reputational impact of involvement with these clients.

Figure 13. **Reduction in fossil-fuel exposure by expected maturity (€ million in portfolio assets)**



5.1.2. Additional metrics

Physical climate risks to EBRD offices

The EBRD's assessment of physical climate risk in its own operations is measured against the likelihood of 10 climate change hazards. In 2022, it screened its new Canary Wharf Headquarters, as well as its two largest Resident Offices, Cairo and Istanbul. The three offices together account for more than 70 per cent of EBRD staff.

While the three offices are exposed to potentially high physical climate risk, the risks in each of the cases were deemed acceptable. The UK Environment Agency considers flooding at Canary Wharf to be extremely unlikely this century. For the Istanbul Resident Office, increased water stress is not considered a material risk and the building's construction specifications and state-of-the art mechanical systems, including a high-quality air-conditioning system, suggest that extreme heat is unlikely to pose a material risk to EBRD operations on this site. The same is true for the Cairo Resident Office, which also screened for extreme heat. However, exposure to this risk has been mitigated, as the Class A office space was constructed in 2011 with a high-quality air-conditioning system in a newly developed area of the city.

Green project reporting

Under its GET 2.1 approach, the Bank introduced an enhanced set of indicators that have been tracked and reported for green projects since 2021. Various key indicators are presented in Table 13 and grouped as follows:

- **Compositional indicators** relate to four specific Bank strategic parameters: private share of GET finance, level of climate finance, level of adaptation finance, and GET mobilisation.

  The EBRD tracks and reports on climate finance in line with joint MDB climate finance tracking methodology. The Bank tracks climate change mitigation[41] and climate change adaptation[42] projects and other environmental activities.

- **Performance indicators** reflect key inputs and outcomes of GET projects, such as GHG reduction, as well as private-sector climate change mobilisation.

  The EBRD reports on private-sector climate change mobilisation in accordance with the joint MDB approach on climate co-finance and the MDB approach to private-sector mobilisation.

- **Process indicators** monitor progress on the implementation of specific GET 2.1 processes and organisational arrangements.

  The EBRD has been undertaking Paris alignment assessments[43] of directly financed projects since June 2021. All new investments since January 2023 have been Paris aligned.

Details of the full list of impact indicators reported by the Bank for 2022 are presented in the EBRD's *Sustainability Report*.[44]

Table 13. **Green projects indicators**

Compositional indicators	2021	2022
GET finance commitments (€ million)	5,366	6,360
GET finance private-sector share (%)	63%	75%
Climate finance (EBRD resources) (€ million)	5,153	6,081
- Adaptation finance (€ million)	256	246
- Mitigation finance (€ million)	4,913	5,943
Estimated GET annual mobilisation investment (€ million)	654	1,071
Performance indicators	**2021**	**2022**
CO_2e emissions reduced (kt/y)	6,994	11,141
Total private-sector climate-change mobilisation (€ in million)	11,840	9,542
- Direct private-sector climate-change mobilisation (€ million)	385	379
- Indirect private-sector climate-change mobilisation (€ million)	11,455	9,163
Process indicators	**2021**	**2022**
Paris alignment assessment (no. of projects assessed)	63	170

[41] Climate change mitigation involves activities that are compatible with low-emission pathways that reduce, avoid, limit or sequester GHG emissions to mitigate climate change.
[42] Climate change adaptation involves activities to reduce the risks or vulnerabilities posed by climate change and to increase climate resilience.
[43] For more details about the Bank's Paris alignment approach, see: https://www.ebrd.com/ebrd-activities-paris-alignment.
[44] See EBRD (2023a).

Capital market finance and participation metrics

EBRD issuance of labelled bonds

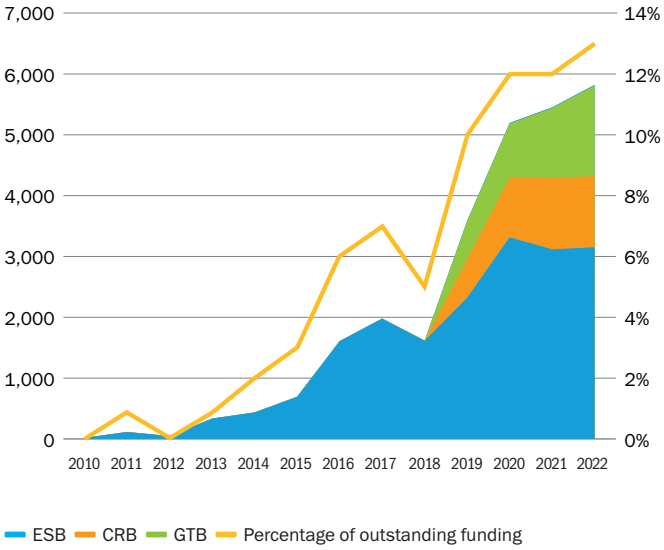
The Bank has issued **environmental sustainability bonds** (ESBs) since 2010. These are bonds issued against a portfolio of the EBRD's green, climate-relevant and sustainable resource projects, such as renewable energy, energy efficiency, water and waste management, and sustainable transportation.

The Bank first issued **climate resilience bonds** (CRBs) in 2019, designed to align with both the Green Bond Principles and the Climate Bonds Initiative's Climate Resilience Principles, published in September 2019. CRBs provide an opportunity to finance projects aimed at building climate resilience by addressing physical climate change vulnerabilities and risks identified in public- and private-sector projects in the economies where the EBRD operates. Some key sectors for CRB issuance are infrastructure, business and commercial operations, as well as agriculture and ecological services.

The Bank started issuing **green transition bonds** (GTBs) in 2019 to focus on key economic sectors that are highly dependent on the use of fossil fuels, to enable their transition to low-carbon and resource-efficient operations. In assessing these investments, it is vitally important to go beyond the typical green bond's primary focus on projects' environmental sustainability goals and to contextualise the investments within the overarching mandate, strategies and policies of the borrower. Projects financed through GTBs must also incorporate the broader context of better climate governance and the low-carbon transition of the borrower. This structure ensures that financing is redirected from carbon-intensive assets and/or processes to activities that enable a country to fulfil its climate commitments and objectives. Projects under the GTB framework concentrate on manufacturing, food production and the construction and renovation of buildings.

In light of the growing importance that the SRI-focused investor community is placing on the impact of projects underlying green bond issuance, the EBRD has continued to develop its annual impact reporting for all three green bond programmes, referencing the best-practice and impact metrics of the Green Bond Principles Handbook: *Harmonised Framework for Impact Reporting*.[45] Figure 14 provides an overview of the evolution of the Bank's issuance of climate- and sustainability-related bonds.[46]

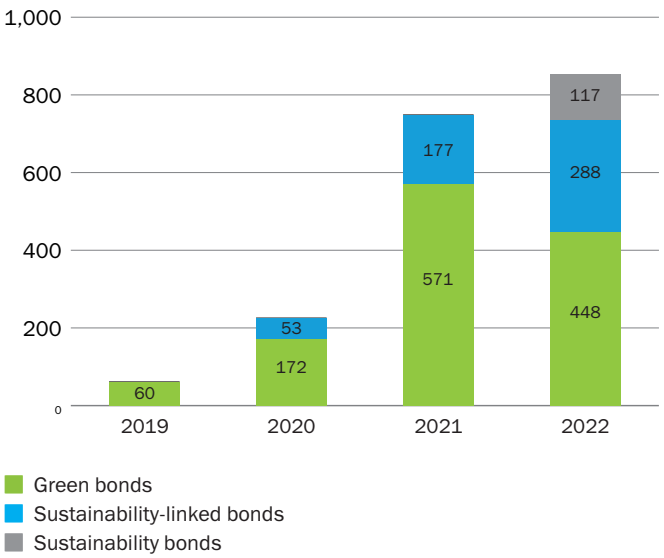
Figure 14. **EBRD issuance of green bonds**



EBRD participation in labelled bonds

In 2022, the EBRD invested in 24 green, sustainability and sustainability-linked bonds for a total of €852 million. This corresponded to an increase of 14 per cent in such investments year on year (see Figure 15). Throughout 2022, the EBRD continued to play an important role as an anchor investor, supporting its clients in raising more than €3.9 billion, especially first-time issuers, preparing them for future and repeat issuance.

Figure 15. **Evolution of EBRD investments in green, sustainability and sustainability-linked bonds, 2019-22 (€ million)**



[45] See ICMA (2021) and EBRD (n.d.).
[46] For more details, see EBRD (2023a).

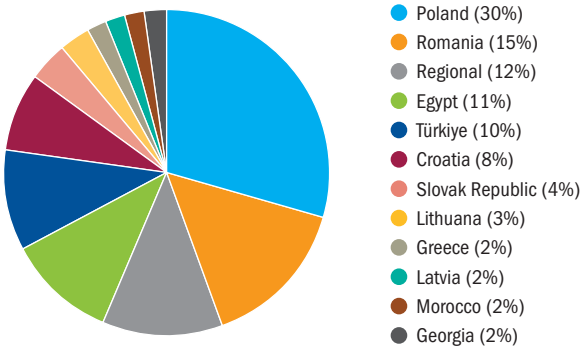
Figures 16 and 17 illustrate the key countries and sectors for EBRD investments in green, sustainability and sustainability-linked bonds. There has been a slight shift away from "use-of-proceeds" instruments, such as green bonds, towards sustainability-linked instruments with coupons linked to the achievement of key performance indicators (KPIs).

However, sustainability-linked loans and bonds have recently attracted attention from regulators worldwide for a number of reasons. Market concerns include a lack of ambition in sustainability targets and issuers taking short cuts to achieve KPIs, thus avoiding step-ups in the coupon. There is also a view that the step-ups in coupon in the event of non-compliance with KPIs need to be more substantial to ensure compliance. These concerns highlight the need for greater monitoring of the instruments, as well as more critical appraisal of the KPIs and enforcement mechanisms upon issue by second-party opinion providers. Investors such as the EBRD with strong environmental credentials have a critical role to play in ensuring the integrity of these instruments for this market to grow and deliver meaningful sustainability outcomes.

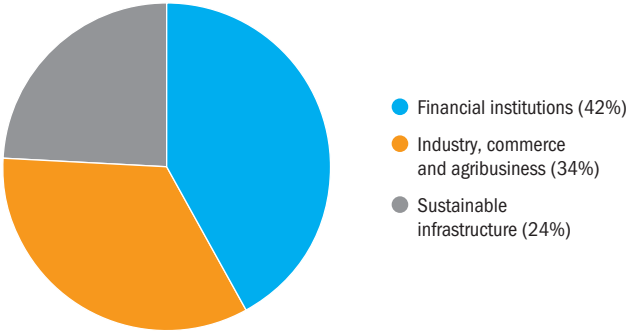
Financial institutions made up a plurality of the EBRD's sustainable investments, at 42 per cent, followed by industry, commerce and agriculture, at 34 per cent, and sustainable infrastructure, at 24 per cent. Observed trends included: i) growing demand, ii) growing sector diversification and iii) credit enhancement facilities pegged to various offerings. While issuance was diversified across the EBRD regions in 2022, economies with larger and more developed capital markets featured more prominently. Another positive trend was that 39 per cent of the issues were denominated in local currency, suggesting growth in demand for such instruments from the domestic investor base.

Figures 16 and 17. **EBRD green, sustainability and sustainability-linked bond investment characteristics, 2022**

EBRD green bond and SLB investments by 2022, by country



EBRD green bond and SLB investments by 2022, by sector



5.2. Target overview

5.2.1. Target: Paris alignment

The EBRD's approach to aligning its investments and internal activities with the Paris Agreement is integral to its support of climate action. From 1 January 2023,

Table 14. **Target overview**

5.2 Targets			
Section	**Target and timeline**	**Progress**	**Pages**
Paris alignment	• Alignment of Bank activities with the Paris Agreement • Timeframe: from 1 January 2023	Achieved and ongoing	39
GET	• Green finance to account for more than 50 per cent of Bank annual business investment • Timeframe: 2021-25	Target reached for 2021 and 2022	40
Emissions reduced through financing	• GHG emissions reduction of 25-40 million tonnes over 2021-25 (cumulative ex ante estimates) • Timeframe: ongoing	Expected CO_2e emissions reduction for 2021-22 reached at 18 $MtCO_2e$	40
Carbon neutral in internal operations	• Operating GHG emissions offset since 2017 • Remain carbon neutral in future • Timeframe: ongoing	Operating GHG emissions offset since 2017	41

all new EBRD investments and activities have been aligned with the mitigation and adaptation goals of the Paris Agreement.

5.2.2. Target: Green Economy Transition (GET)

The GET approach for 2016-20 (GET 1.0) aimed to increase the Bank's green financing to 40 per cent of total financing. The Bank managed to remain at or above the target GET ratio for each year between 2016 and 2019. The highest GET share of 46 per cent of total EBRD annual financing was recorded in 2019, but this dipped to 29 per cent in 2020 due to the Covid-19 pandemic and the need to provide short-term liquidity to clients during this period. This resulted in an average GET ratio over these four years of 40 percent, reflecting an overall strong performance of the Bank in line with GET 1.0 set targets.

In 2020, the Board of Directors approved the new GET approach for 2021-25 (GET 2.1) as part of the SCF 2021-25.[47] The new approach aims to scale up the Bank's contribution to addressing the climate and environmental crisis. Under the new GET approach, the EBRD will increase green finance to more than 50 per cent of its annual business volume by 2025.

In 2022, the EBRD invested €6.4 billon in green finance, corresponding to a GET share of 50 per cent of the Bank's annual business volume. It spanned climate mitigation, climate adaptation and other environmental activities. The Bank's 2022 GET results are further detailed in the EBRD's 2022 *Sustainability Report*.

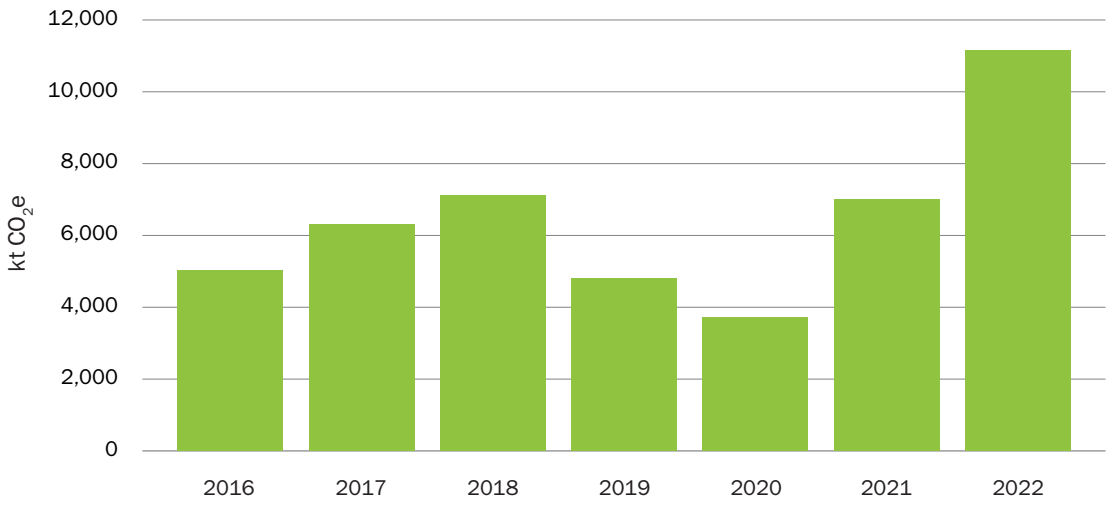
5.2.3. Emission reductions through financing

The Bank seeks to achieve net GHG emission reductions of 25-40 million tonnes through the projects it finances between 2021 and 2025, based on cumulative ex ante estimates. GET projects approved in 2022 are estimated to reduce approximately 11 million tonnes of CO_2e emissions. The Bank's estimated emission reductions in recent years are presented in Figure 18.

Table 15. **EBRD annual GET finance commitments, 2016-22**

GET							
	2016	2017	2018	2019	2020	2021	2022
GET finance commitments (€ million)	2,942	4,054	3,344	4,618	3,192	5,366	6,360
GET share of Annual Bank Investment (%)	34%	43%	36%	46%	29%	51%	50%

Figure 18. **Annual expected CO_2e emission reductions (kt/year) through projects financed, 2016-22**



[47] See EBRD (2020a) and EBRD (2020b).

5.2.4. Target: EBRD internal operations – carbon-neutral GHG emissions

The Bank aims to be carbon neutral in its internal operations. To this end, it has introduced a number of measures in recent years to decrease its internal operating GHG emissions. These include LED lighting, upgraded heating and cooling systems, purchasing electricity from renewable sources and encouraging low-carbon business travel. Since 2017, the EBRD has offset its operational carbon footprint by purchasing Gold Standard carbon credits, but is aware that a more robust approach is needed.

In line with Bank's approach to the Paris Agreement alignment of its internal activities, it is working on setting targets for reducing emissions from own operations and reviewing its approach to carbon credits. These targets and approach to carbon credits will be agreed by Bank Management before the end of 2023.

5.3. Carbon transition risk stress test

5.3.1. Bottom-up carbon transition-risk stress test

Introduction and approach

The main objective of the 2022 climate-risk stress test was to improve the quality of risk assessments and deploy a quantitative model with the support of a vendor.[48] In 2021, the EBRD carried out a pilot carbon transition-risk stress test in a mainly qualitative attempt to estimate the magnitude of potential credit losses.

In 2022, the scope of the stress test comprised a large majority of all potentially high-transition-risk exposures to corporates and sub-sovereign clients based on internal industry-sector classification. This sample comprised 78 Bank clients, in asset terms covering 90 per cent of the total number of clients classified as operating in high-transition-risk industries.[49] There was no physical climate-risk stress test.

The Bank used three NGFS scenarios (outlined in Table 16) with a long-term and a short-term view: **the long-term NGFS Divergent Net Zero (DNZ)** scenario and a **short-term Sudden Rise in Carbon Price (SRICP)** scenario based on the NGFS Net Zero 2050 scenario. The latter assuming a more aggressive and rapid implementation of policy measures, with the **Current Policies** scenario serving as a baseline.[50] The SRICP scenario is a new addition this year and is in the spirit of the recent stress test exercises conducted by the European Central Bank (ECB).[51] It captures the potential tail risk of a highly improbable but potential event involving a sudden, dramatic rise in the cost of emissions and addresses financial-sector concerns about near-term threats.

Both the DNZ and SRICP scenarios were tested **under static and dynamic balance sheet assumptions**.

[48] S&P Climate RiskGauge.
[49] Total population excludes project finance, equity funds and undisbursed, fully repaid and non-performing loans. Equity in the stress-test sample accounts for only 6 per cent.
[50] See NGFS (2022).
[51] See ECB (2022).

Table 16. **NGFS scenarios used in stress testing**

Scenario/sensitivity	Description
Current Policies	The Current Policies scenario assumes that only currently implemented policies are preserved, leading to high physical risks. The scenario falls within the Hot House World category, leading to high physical risk due to insufficient action to halt global warming.
Divergent Net Zero	The Divergent Net Zero scenario reaches net zero around 2050, but higher costs due to divergent policies introduced across sectors lead to a quicker phase-out of oil use. Among the disorderly scenarios, the Divergent Net Zero scenario assumes the largest increase in carbon tax. The impact is assessed longer term, focussing on the period to 2050 under a constant and dynamic balance sheet.
Sudden Rise in Carbon Price (based on the NGFS Net Zero 2050 scenario)	The Sudden Rise in Carbon Price scenario is a customised scenario based on NGFS Net Zero 2050. It assumes the implementation of aggressive policy measures, as it suddenly becomes clear that a much more rapid change is necessary. To explore this scenario, the increase in carbon tax to 2050 under the Net Zero 2050 scenario is front-loaded to 2030. The impact is assessed short term, focussing on the period to 2030 under a constant and dynamic balance sheet.

Stress test results

The non-performing loan (NPL) ratio of the population in scope ranged from 13 per cent to 31 per cent under the static balance sheet scenario, indicating that a substantial proportion of the Bank's current exposure to high-risk-sector clients is vulnerable to carbon transition risk. Accounting for the repayment profile using the dynamic balance sheet scenario, NPLs and associated losses are considerably lower, as a large portion of repayments take place before the projected point of default.

Under the SRICP scenario, the NPL ratio of the population in scope remains substantial, at 18 per cent, even under the dynamic balance sheet approach, reflecting earlier defaults while loan balances are still high. While the SRICP scenario is a highly remote short-term scenario that assumes the extremely aggressive and rapid implementation of policy measures, it highlights the importance of early action and transition readiness.

Sectoral dynamics

- The industry sectors accounting for the majority of exposures projected to default are **oil and gas, steel, and agricultural chemicals**.
- Oil and gas are impacted by the expectation of shrinking demand for fossil fuels and low/limited business-model adaptability.
- While steel is integral to the energy transition, clients struggle with high current emissions and low expected emission reductions, resulting in a material emissions cost increase.
- Likewise, agricultural chemicals are expected to remain emissions heavy and, therefore, exposed to a steep increase in carbon costs.
- Clients are generally more vulnerable to the SRICP scenario, as less revenue can be accumulated in a shorter timeframe to absorb carbon costs.
- Clients in the **diversified metals, automobile and agricultural sectors (excluding cattle farming)** appear to be less exposed.
- Diversified metals clients generally have relatively low GHG emissions currently compared with steel, while business growth is expected to remain high, as the energy transition will require a substantial amount of certain metals.
- Both automobile and agricultural products clients are currently classed as lower-carbon emitters and are expected to be able to further reduce emissions. In addition, the agricultural products sector receives significant government support in many jurisdictions.

5.3.2. Overall stress test conclusions

The EBRD estimates its financial exposure to carbon transition risk to be moderate to low based on the standard NGFS scenarios, as the Bank's capital levels are capable of absorbing scenario NPLs. However, it is not possible to fully capture the EBRD's vulnerability to climate risk at this stage. More importantly, the stress test helped to highlight the importance of early action and Bank's role in supporting clients in their transition to a low-carbon economy.

In 2022, improvements to the robustness of climate stress test exercises were made by introducing a quantitative model, however these remained preliminary results that still required a level of expert judgement.

Furthermore, the stress test was subject to the following limitations:

- The test was for carbon transition scenarios only and did not take into account physical climate risk scenarios, given a lack of available geolocation data and robust methodologies.
- The focus remains on corporates and a number of sub-sovereign clients and has not yet been expanded to sovereign and financial institution clients.
- Some of the required input data were not available for all clients, in particular, reliable GHG emissions data, which had to be estimated based on sectoral averages, providing less accuracy.
- Climate stress-test pilots are currently conducted on a standalone basis, separate to other Bank stress tests. There is a high degree of simplification of assumptions, given the uncertainty involved and lack of standardised data and methodologies.

The Bank will make efforts to expand the scope of the stress testing to a larger client sample, as well as to assess physical climate risk. The collection of clients' disclosure of GHG emissions and geolocation data will be vital to improving the precision of stress-test results. Further thought needs to be given to defining the scope and objectives of future climate stress-test exercises, taking into account trade-offs between top-down and bottom-up exercises. In addition, considerations of

resilience versus efficacy, and integration into general Bank-wide stress tests will need to be made. The EBRD remains committed to developing its stress-testing capabilities and following the latest best-practice guidance from the NGFS, as well as regulators such as the European Central Bank and the European Banking Authority.

Incorporating climate risk into risk management metrics

The Bank assigns internal credit ratings to all of its clients. These ratings reflect the financial strength of the client and, where relevant, incorporate considerations of the projected financial impact of climate change. Sovereign ratings take into account external agency ratings, which also increasingly reflect the impact of climate change.

The climate risk methodologies the Bank currently uses do not have direct implications for the EBRD's standard risk management metrics, particularly its PD and LGD ratings and capital ratios, as these already incorporate some climate-related factors into their underlying analysis. While the EBRD is not yet in a position to establish a link between its climate risk scores and PD and LGD ratings, it is working to collect these data over time and eventually plans to incorporate them more clearly into its internal credit ratings. The Bank is also working to ensure its climate risk data are appropriately stored, so they can be analysed once a significant amount of data are available.

Assessing climate risk remains challenging due to its inherent uncertainty, as well as the lack and unreliability of historical data for forward-looking climate projections. Consequently, there are gaps and inconsistencies in the EBRD's methodology that need to be remedied. The Bank is taking a balanced approach by developing transparent methodologies and conducting pilot tests based on the latest information available. It is also disclosing climate risk information based on the data and tools currently available.

At the same time, the Bank keeps abreast of new developments by engaging with credit-rating agencies, data providers, commercial banks, other MDBs and international efforts on climate-related risks. Through these processes, the Bank continues to improve its assessments and the quality of its climate risk data, with the view that, over time, the data quality, indicators and methods of analysis will improve, so that these methodologies can become more consistent and more fully integrated into the EBRD's risk management processes.

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Due to rounding, the numbers shown in some charts in this report may not add up to 100 per cent.

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