Mizuho Financial Group

TCFD Report

2023 | Climate-related Report

MIZUHO

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Date of issue: June 2023 (English version has been released in July 2023)

Highlights of TCFD Report - Climate-related Report - 2023

Revisions of the Net Zero Transition Plan

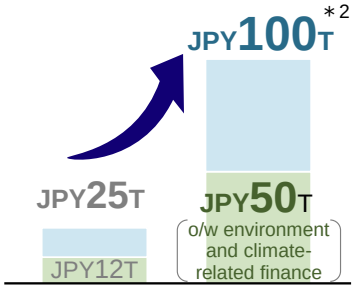
- Identified key focus sectors for the net zero transition and relevant next-generation tech related key actions
- Reinforced measures on the structural transformation of economy and industry, and commercialization of technology
- Added progress on the status of clients' responses to the transition risks as a metric
- Enhanced engagement and strengthened human resource development to drive the engagement forward

Governance

- Newly established Group CSuO*1 (Sep. 2022)
- Revised executive compensation system

Evaluation criteria on sustainability / climate change

Increased targets of sustainable finance



Engagement

Engagement to support clients' SX*3
approx.1,700 clients

Engagements in accordance with the ES Policy*4
approx. 1,100 clients

Clients in sectors with high transition risk: Steady progress in responses to transition risk

Natural Capital

Identified important natural capitals by analyzing loan portfolio

Water, biodiversity (habitats and species)

Revisions of ES Policy*4

Coal Mining (Thermal Coal)

Expanded list of prohibited financing and investment

Oil and Gas

Enhanced environmental and social risk assessment of oil and gas mining business

Strengthened climate risk management structure

- Newly established Sustainability Risk Management Office
- Materiality assessments of climate risks

Sophistication of scenario analysis

Wider sectoral coverage of transition risk analysis

Power utilities, Coal, Oil & Gas, Steel, Automotive + **Maritime Transportation, Aviation**

Wider coverage of physical risk analysis

Japan, Own assets, SMEs + **Global, Large firms**

Cyclones, temperature fluctuations + **Wildfires, droughts**

Reduction of our own GHG emissions

Scope 2 in Japan: Switched around 70% of electricity consumptions to renewable energy sources

Wider scope of financed emissions measurement

Corporate finance, Project finance + **Investment on own account**

19 sectors in accordance with TCFD + **Other sectors**

Medium-term sector-level targets for financed emissions

Sectors			Results (FY21)	Target (FY30)
Electric Power			353 kgCO_2e/MWh	138～232 kgCO_2e/MWh
Oil and Gas	Clients' Scope	1,2	6.5 gCO_2e/MJ	4.2 gCO_2e/MJ
	〃	3	43.2 MtCO_2e	Absolute emissions (MtCO_2e) -12 to - 29% *5
Coal Mining (Thermal Coal)			1.7 MtCO_2e	OECD countries: FY30 Non-OECD countries: FY40 Zero

(The highlights here focus on areas of improvement from last year's TCFD Report)

*1. CSuO: Chief Sustainability Officer

*2. Total accumulated amount from FY2019 to FY2030

*3. Sustainability Transformation

*4. Environmental and Social Management Policy for Financing and Investment Activity

*5. Reduction rate from a FY2019 baseline

1. Message from the Group CEO

In our new medium-term business plan announced in May this year, Mizuho set forth "*personal well-being*" and "*achievement of sustainable society and economy*" as our vision for the future. To achieve this vision, we set out five areas of focus by back-casting from our vision for the future in 10 years' time. Among them, "*Sustainability and innovation*", is especially a key challenge that spans across the world.

Addressing the climate change is one of the most important issues in this area. We make efforts in linking private and public sectors and academia, in transforming industrial and social structures, in establishing next-generation technologies and in deploying finance required to achieve these for a decarbonized society.

Our clients in private sectors have been taking on bold challenges of technological innovation and business transformation that will lead to decarbonization over the medium to long term. We are committed to support our clients from formulating strategy to providing finance as they navigate through their challenges, such as promoting carbon neutral energy, electrification as especially in the mobility sector and conversion of materials or fuel used for manufacturing.

A huge responses have been received to our "Transition Equity Investment Facility", which provides risk money to seed or early-stage businesses or technologies and supports clients' transitions. The total number of consultations we have received so far amounts to 190 and we invested in the 3 projects to date including one in the carbon capture and utilization (CCU) and another in the bio-manufacturing.

Furthermore, to strengthen the money flow to realize a sustainable society, we substantially raised our sustainable finance target to JPY 100 trillion by FY2030, of which JPY 50 trillion is earmarked for environment and climate-related finance. Mizuho will provide financings required for transitions to clients, who endeavor to tackle the decarbonization together.

Through these efforts, we will promote the transition of the real economy and enhance the corporate value of both our clients and us. Conversely, delayed or inadequate responses on our clients to address challenges in business environment would result in a decline in their corporate value and an increase in our own risk. For this reason, we envision a range of scenarios and strengthen our capabilities to identify or manage risk appropriately from a medium and long-term perspective.

Recognizing these initiatives, Mizuho continues to promote a more integrated approach to address climate change, we have revised our Net Zero Transition Plan in April this year putting more emphasis on three areas — contributions to transition in the real economy, capturing business opportunities, and appropriate risk identification and management.

In addressing climate change, it is important that all stakeholders work together toward the shared goal. We, Mizuho, not only prioritize engagement with our clients, but leverage our knowledge of industries and environmental technologies to collaborate with governments and industry organizations and various initiatives. Through such activity we will communicate our opinions, participate more actively in international rule-makings. In particular, we will be active in constructing value chains for hydrogen and other next-generation energy, which is vital to achieve a non-carbon society, and reinvigorating the carbon credit market.

Our corporate philosophy is: “Operating responsibly and transparently with foresight, Mizuho is deeply committed to serving client needs, enabling our people to flourish, and helping to improve society and the communities where we do business.” And our newly formulated purpose is “Proactively innovate together with our clients for a prosperous and sustainable future.” Under this philosophy and purpose, we will continue to mobilize our Group’s collective strengths and to work alongside our clients toward our unwavering goal of pursuing the 1.5°C target of the Paris Agreement and achieving net zero by 2050.

Masahiro Kihara
President & Group CEO
Mizuho Financial Group, Inc.

2. Introduction

1. Status of Mizuho's Actions in line with the TCFD Recommendations (Executive Summary)

At Mizuho, given our awareness that climate change is one of the most crucial global issues with potential to impact the stability of financial markets, we position addressing climate change as a key part of our corporate strategy and have been enhancing our initiatives in this area.

(Underlined indicate enhancement since our previous disclosure in June 2022 in Japanese / July 2022 in English.)

Governance	Disclose the organization's governance around climate-related risks and opportunities	
● Mizuho's stance on addressing climate change, our aims and actions, and our medium and long-term strategies and initiatives are set out in the three documents — the "Environmental Policy", the "Mizuho's Approach to Achieving Net Zero by 2050", and the "Net Zero Transition Plan (2023 Revision)" — and have been approved by the Board of Directors.		pp.20-24
● A supervisory and business execution governance framework has been established, centered on the Board of Directors. [Supervisory] The Board of Directors and the Risk Committee conduct oversight on reported and deliberated matters first discussed by business execution line. [Business execution] The Sustainability Promotion Committee, the Risk Management Committee, the Executive Management Committee, and other committees regularly have deliberation and discussion, to be reported to the Board of Directors. The Group Chief Sustainability Officer (CSuO) (established in FY2022) and Group Chief Risk Officer (CRO) lead initiatives in their respective areas under the Group CEO's supervision.		pp.13-16
● The Climate Change Response Taskforce and five working groups have been established to enhance our promotion structure with regard to climate change topics being addressed jointly by multiple departments within the Group.		p.17
● Sustainability-related indicators have been adopted for evaluating executive compensation, such as sustainable finance amount, climate change initiatives, and assessments by ESG rating agencies.		pp.18-19
Strategy	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material	
● The Net Zero Transition Plan has been revised (established in 2022, revised in April 2023) to promote the Group's climate change responses in a more integrated manner, from the perspectives of facilitating transitions in the real economy, capturing business opportunities, and enhancing risk management.		pp.22-24
● Identification of priorities in the Transition Plan: − [Materiality] "Environment and society" has been identified as one of the material issues. − [Top risks / scenario analyses] "*Worsening impact of climate change*" was designated as one of the top risks for FY2023. Through scenario analyses, we recognized the importance of client responses to transition risks and client engagement. − [Key sectors / next-generation technologies] The key sectors that Mizuho will focus on and engage with, and next-generation technologies related to decarbonization in each sector were identified from the perspective of the transition to net zero emissions,.		pp.25-26
● Recognition of opportunities and initiatives to capture opportunities: − We recognize transformations in industrial and business structures toward the transition to a non-carbon society and investments and their social implementation in practical applications of new technologies as our business opportunities. − We selected "sustainability and innovation" as one of our five areas of focus in the new medium-term business plan (FY2023 through FY2025). − Based on our sustainable business strategy, we actively support clients' transitions to a decarbonized society and their measures to address climate change. ・ Financing for a decarbonized society: We raised our sustainable finance target over the FY2019 to FY2030 period to JPY 100 trillion, of which JPY 50 trillion is earmarked for environment and climate-related finance.		pp.27-34

- Establishment of foundations and scaling up the initiatives for decarbonization: We have set up the Transition Equity Investment Facility and expanded the target scope for economic and industrial structural transformations and practical applications of technologies. We disseminate initiatives to SMEs in Japan and to Asia through strategic collaborations with external partners.
- Capability building: We have strengthened our sustainability transformation talents and enhanced sustainability-related expertise related to environment technologies (targets set for FY2025).

● Sector-specific initiatives: pp.35-44

- We set mid-term GHG emission reduction targets, monitor results and performances, and pursue engagement with clients for each key sector, such as Electric Power and Oil & Gas, based on their positioning for decarbonization and on Mizuho's opportunities and risks.

● Risk recognition: pp.47-50

- We define climate-related risk as "the risk of tangible and intangible losses as a result of transition risks[1] and physical risks[2] from climate change manifesting or amplifying other risks".
- We ascertain the entirety of risks associated with climate change by identifying the risks manifested or amplified by transition risks and physical risks and assessing their importance in each risk category (qualitative evaluations). We recognize credit risk (deterioration of client business performance) and market risk (decline in the value of equity holdings) to be of particularly high consequence.
- Transition risks: Envisioned transition risks include credit risk related to financing and investments in clients who are impacted by more stringent carbon taxes, fuel efficiency regulations, or other policies or by delays in shifting to low-carbon and other environmental technologies; and reputational risk associated with financing fossil fuel projects.
- Physical risks: Envisioned physical risks include operational risk associated with damage or deterioration of the Group's assets due to temperature increases or increased severity of natural disasters; and credit risk associated with reduced client revenue due to business stagnation or labor force reductions.

● Scenario analyses: pp.51-55

- Transition risk

Scenarios	Network of Central Banks and Supervisors for Greening the Financial System (NGFS)[3] Current Policies, Below 2°C, Delayed Transition, and Net Zero 2050 (1.5°C) scenarios
Analysis method	We specify parameters for evaluating the impact of risks and opportunities faced by clients in the sector being analyzed. We then analyze the increases in Mizuho's credit costs caused by transition risks by formulating an outlook for the impact on clients' financial results, based on how the parameters change under the scenario.
Targeted sectors	Electric utilities, oil and gas, coal, steel, automobile, maritime transportation, and aviation sectors (worldwide)
Period	2050
Increase in credit costs	Cumulative increase in credit costs through 2050 (Difference from Current Policies scenario) Below 2°C: JPY 360 billion Delayed Transition: JPY 1.17 trillion Net Zero 2050: JPY 1.65 trillion
Implications	• While credit costs will increase over time in all scenarios and may have a commensurate financial impact on Mizuho in the medium to long term, the impact on Mizuho's short-term financial soundness will be limited. • The analysis affirms the importance of early transition by clients and the orderly transition by society as a whole.
Future actions	• We will pursue in-depth engagement with clients to encourage early business structural transformations. • We will assist governments in developing and implementing policies for orderly transitions in each country.

[1] Transition risks: Risks stemming from widespread policy, reputational, technological, and market changes which occur as the result of transitioning to a decarbonized economy.
[2] Physical risks: Risks such as the loss or damage of assets as a direct result of temperature increase itself, as well as reduced client revenue due to business stagnation or labor force reductions and other impacts as an indirect result of climate change.
[3] A network of central banks and financial regulators addressing issues such as climate change risk.

pp.56-58

- Physical risks

Types of risk	Acute risks	Chronic risks
Scenarios	NGFS Current Policies and Net Zero 2050 scenarios	NGFS Current Policies and Net Zero 2050 scenarios
Analysis method	Damage to assets and business stagnation associated with changes in natural disasters caused by temperature increases *Direct impacts* • Amount of damages from damage of Group assets • Credit costs from damage of real estate collateral *Indirect impacts* • Credit costs from reduced revenue associated with client business stagnation	Asset deterioration and impact on labor force reductions associated with temperature increases *Direct impacts* • Amount of damages from deterioration of Group assets • Credit costs from deterioration of real estate collateral *Indirect impacts* • Credit costs from reduced revenue associated with client labor force reductions
Analysis scope	Areas: Domestic, Overseas Targets: Mizuho Group and credit clients (Small and Medium Enterprises, large corporations)	Areas: Domestic, Overseas Targets: Mizuho Group and credit clients (Small and Medium Enterprises, large corporations)
Increase in damage costs / credit costs	Maximum increase if a stress event materializes (Current Policies, 2100, single year) Cyclones and floods: Approx. JPY 90 billion Wildfires: Approx. JPY 30 billion Droughts: Approx. JPY 1.5 billion	Maximum increase if a stress event materializes (Current Policies, 2100, single year) Temperature fluctuations (as a factor in labor force reductions, increased air conditioning usage): Approx. JPY 40 billion
Implications	Although the likelihood of the above disasters occurring simultaneously is low, the analysis confirmed the possibility of additional losses of approximately JPY 90 billion in a single year if the largest stress event (cyclones and floods) materializes	
Future actions	We have recognized the importance of controlling operational risk by improving the Group's asset portfolio	

Risk management

Disclose how the organization identifies, assesses, and manages climate-related risks

- Identification of climate-related risk and its integration into our risk appetite framework and comprehensive risk management. pp.59-60
  - We identify transition risks and physical risks arising from climate change and integrate them into our risk appetite framework and our comprehensive risk management framework for managing credit, operational, and other types of risk.
  - We have established the Basic Policy for Climate-related Risk Management in the interest of establishing an effective management system based on the characteristics of climate-related risks.
- Top risk management: As part of our management of top risks, which are risks designated by top management as having major potential impact on Mizuho, we designated the *Worsening impact of climate change* as a top risk. We examine additional risk control measures for risks designated as top risks and report on the status of their implementation to the Board of Directors and other committees. p.61
- Risk control in carbon-related sectors pp.62-65
  - We have established a risk control structure to assess risk in carbon-related sectors (electric utilities, oil and gas, coal, steel, and cement sectors) along two axes - the client's sector and the status of the client's transition risk responses - in order to identify and monitor high-risk areas.
  - We control risk in high-risk areas under the following exposure control policy.
    - We pursue greater engagement with clients to support them in formulating effective strategies for transition risks, in disclosing their progress, and in embarking at an early stage on business structural transformations in order to move into a lower risk sector.
    - In order to facilitate a client's business structural transformations, we provide necessary transition support after verifying that the client has set valid targets and has planned an appropriate transition strategy in line with international standards. (In FY2022, we established criteria and a process to confirm transition strategies.)
    - We carefully consider whether to continue business with a client in the event that the client is not willing to address transition risks and has not formulated a transition strategy even one year after our initial engagement.
    - In the ways described above, we reduce our exposure over the medium to long term.

- Environmental and Social Management Policy for Financing and Investment Activity (ES Policy) pp.66-68
  - We have established and implement the financing and investment policy that specifies businesses and sectors with a particularly high likelihood of leading to adverse impacts on the environment and society (such as transition risk sectors, coal-fired power generation, coal mining (thermal coal), and oil and gas).
  - The business execution and supervisory lines periodically review changes in the external business landscape and the outcomes of the policy's implementation and revise the policy and improve its implementation as necessary.
  - Major changes made in March 2023
    - Coal mining (thermal coal) sector: Prohibited financing and investment used for infrastructure linked with thermal coal mining.
    - Oil and gas sector: Added a due diligence item for oil and gas extraction (are there sufficient GHG reduction measures in place?) and clarified the due diligence items for oil sands and shale oil and gas extraction.

Metrics and targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material

pp.69-77

Major monitoring metrics	Targets	Recent results
Scope 1 and 2 emissions[4]	Carbon neutral by FY2030 (maintaining carbon neutrality thereafter)	FY2021: 150,987 tCO_2e
Scope 3 (emissions from financing and investment)	Net zero by 2050	(Targets and results disclosed by sector)
- Electric power	FY2030: 138 to 232 $kgCO_2e/MWh$	FY2021: 353 $kgCO_2e/MWh$
- Oil and gas	FY2030 Scope 1 and 2: 4.2 gCO_2e/MJ Scope 3: –12 to –29% (compared to FY2019 levels)	FY2021 Scope 1 and 2: 6.5 gCO_2e/MJ Scope 3: 43.2 $MtCO_2e$ (–29% (compared to FY2019 levels))
- Coal mining (thermal coal)	OECD countries: Zero by FY2030 Non-OECD countries: Zero by FY2040	FY2021: 1.7 $MtCO_2e$
Sustainable finance / environment and climate-related finance amount	Total for FY2019 to FY2030: JPY 100 trillion (JPY 50 trillion of this amount is earmarked for environment and climate-related finance)	Total for FY2019 to FY2022: JPY 21.2 trillion (JPY 8.1 trillion of this amount on environment and climate-related finance)
Outstanding credit balance of coal-fired power generation plants based on the ES Policy	Reduce the outstanding credit balance to 50% of the FY2019 balance by FY2030, and achieve an outstanding credit balance of zero by FY2040	March 31, 2023: JPY 235.5 billion (down 21.4% from March 31, 2020)
Exposure to high-risk areas in transition risk sectors	Reduce over the medium to long term	March 31, 2023: JPY 1.6 trillion
Status of client transition risk responses	—	March 31, 2023: Steady progress in the targeted sectors
SX talents KPIs - Sustainability management experts - Environment and energy sector consultants	FY2025 - 1,600 experts - 150 consultants	March 31, 2023: - Approx. 1,300 experts - Approx. 130 consultants

Data for disclosure aside from monitoring metrics:

- Sector-by-sector credit exposure in line with the TCFD Recommendations p.64
- GHG emissions from financing and investment ("Financed Emissions") based on the PCAF methodology pp.72-76
  - Expanded assets and sectors to be measured (proprietary investments and other sectors aside from sectors included in the TCFD Recommendations)

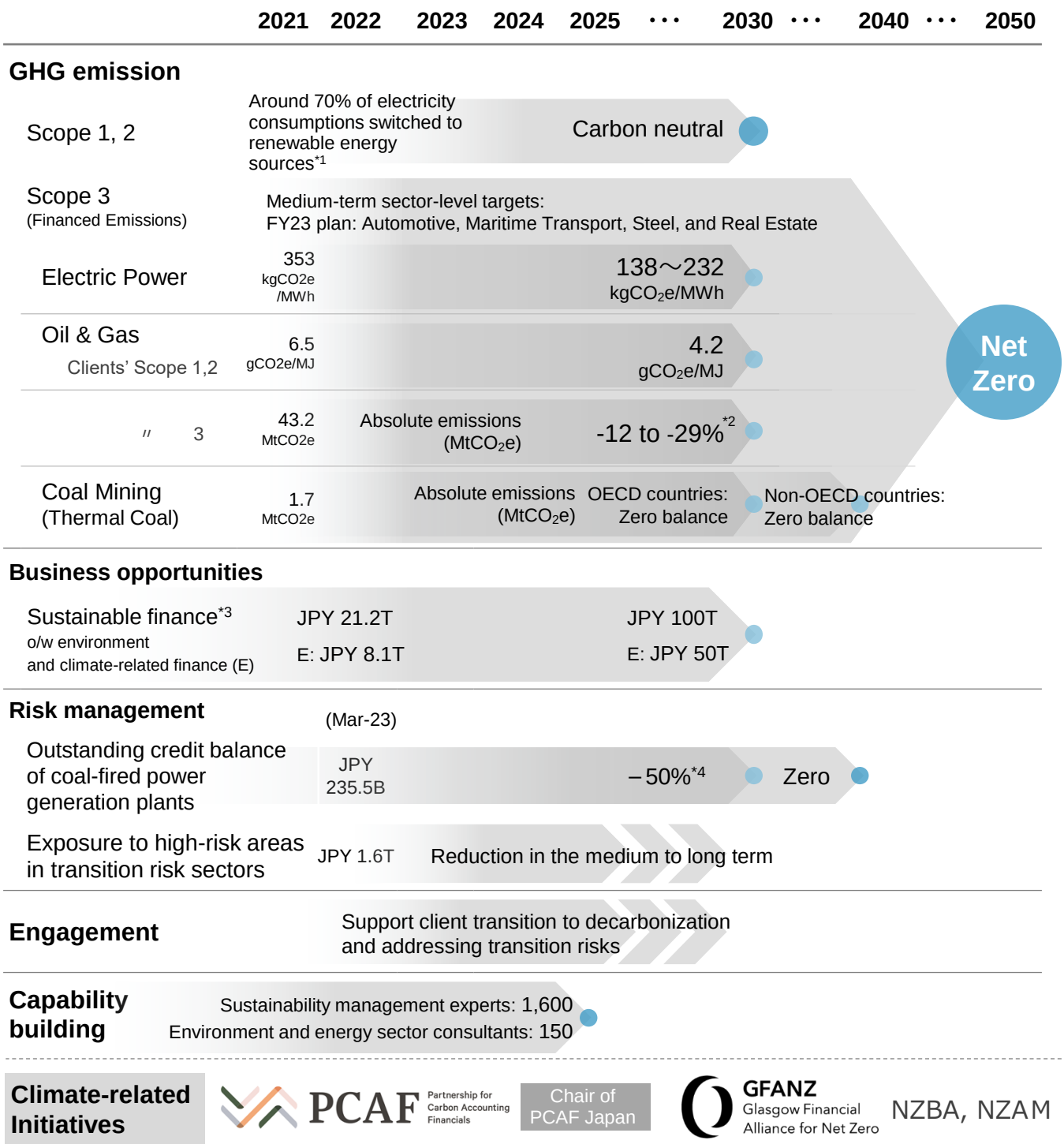
[4] Targets of analysis / scope of data collection: Seven group companies (Mizuho Financial Group, Mizuho Bank, Mizuho Trust & Banking, Mizuho Securities, Mizuho Research & Technologies, Asset Management One, and Mizuho Americas), with adjusted emission factors / market based

2. Status of progress under the FY2022 Action Plan (key progress)

Our progress under the FY2022 Action Plan is as summarized below.

Thematic areas	FY2022 Action Plan	Key progress	Pages
Governance	• Bolster and accelerate initiatives on the business execution line toward the implementation of the Net Zero Transition Plan and report progress to the supervisory line • Construct an internal system based on developments in disclosure rules and regulations	• Regularly reported and discussed at both business execution and supervisory lines, including the Sustainability Promotion Committee, Executive Management Committee, Risk Committee, and Board of Directors. Following the establishment of the CSuO position, strengthened Group-wide climate-related structures • Revised the Net Zero Transition Plan • Responded to disclosure rules and regulations development following the establishment of internal systems such as the Climate Change Response Taskforce	p.13 pp.22-24 p.17
Strategy	• Further improve capacity to provide financial and non-financial solutions to clients based on engagement as a starting point • Initiatives to quantify financial impacts (risks and opportunities) associated with climate change • Expand industries covered in scenario analyses • Conduct scenario analysis based on internal and external industrial expertise and on client's transition plans	• Endeavored to improve the capacity of relationship managers and headquarters departments by consolidating knowledge and needs under the new sustainability promotion structure and enhanced solutions to supply chain companies • On the opportunity side of financial impacts, began work on quantifying market sizes and analyzing the revenue impact of sustainable finance; on the risk side, analyzed scenarios to determine the impact on credit costs and other costs • Enhanced scenario analyses: [Transition Risks] Added maritime transportation and aviation; [Physical Risks] Added large corporations and overseas areas; Added wildfires, droughts, and increased air conditioning usage due to temperature fluctuations • Continued studies of scenario analyses based on client transition strategies	pp.27-34 pp.27, 51-58 pp.51-58 p.55
Risk management	• Establish effective risk management systems based on developments among regulatory authorities • Trial initiatives to improve risk identification processes and to determine and quantify risks • Improve risk control policies and exposure plans for carbon-related sectors • Clarify and improve conditions on providing business restructuring support • Revise financing and investment policies to properly reflect environmental and social conditions	• Enhancement of climate-related risk management systems: Set up a new Sustainability Risk Management Office and established the Basic Policy for Climate-related Risk Management • Improvements to climate-related risk management: – Conducted materiality assessments (qualitative evaluations) for each risk category – Designated *Worsening impact of climate change* as a top risk for top risk management; reported on changes in the external landscape and the status of risk controls in carbon-related sectors to the Risk Management Committee and other committees quarterly – Improvements to risk controls in carbon-related sectors: Adopted a framework for verifying the credibility and transparency of transition strategies and began verifying capital adequacy using future risk simulations that account for the impact of climate change • Revisions of the Environmental and Social Management Policy for Financing and Investment Activity: Strengthened policies on the coal mining (thermal coal) and the oil and gas sectors.	p.59 pp.47-50 pp.60-61 pp.62-65 pp.66-68
Metrics and targets	• Phase in medium-term sector-level targets for Scope 3 (financed emissions) • Incorporate targets in specific plans and initiatives to achieve targets • Implement measures to reduce our own GHG emissions, such as switching electricity to renewable energy	• Scope 3: Set new medium-term targets for the oil and gas and the coal mining (thermal coal) sectors; organized and advanced initiatives to reach targets, based on an analysis of actual results and the status of initiatives in the electric power sector and other sectors that already have set targets • Scope 1 and 2: Promoted measures to reduce GHG emissions, such as shifting 70% of electricity used in Japan to renewable energies; installed systems to measure consolidated GHG emissions data	pp.35-42 p.70

3. Roadmap to Net Zero by 2050

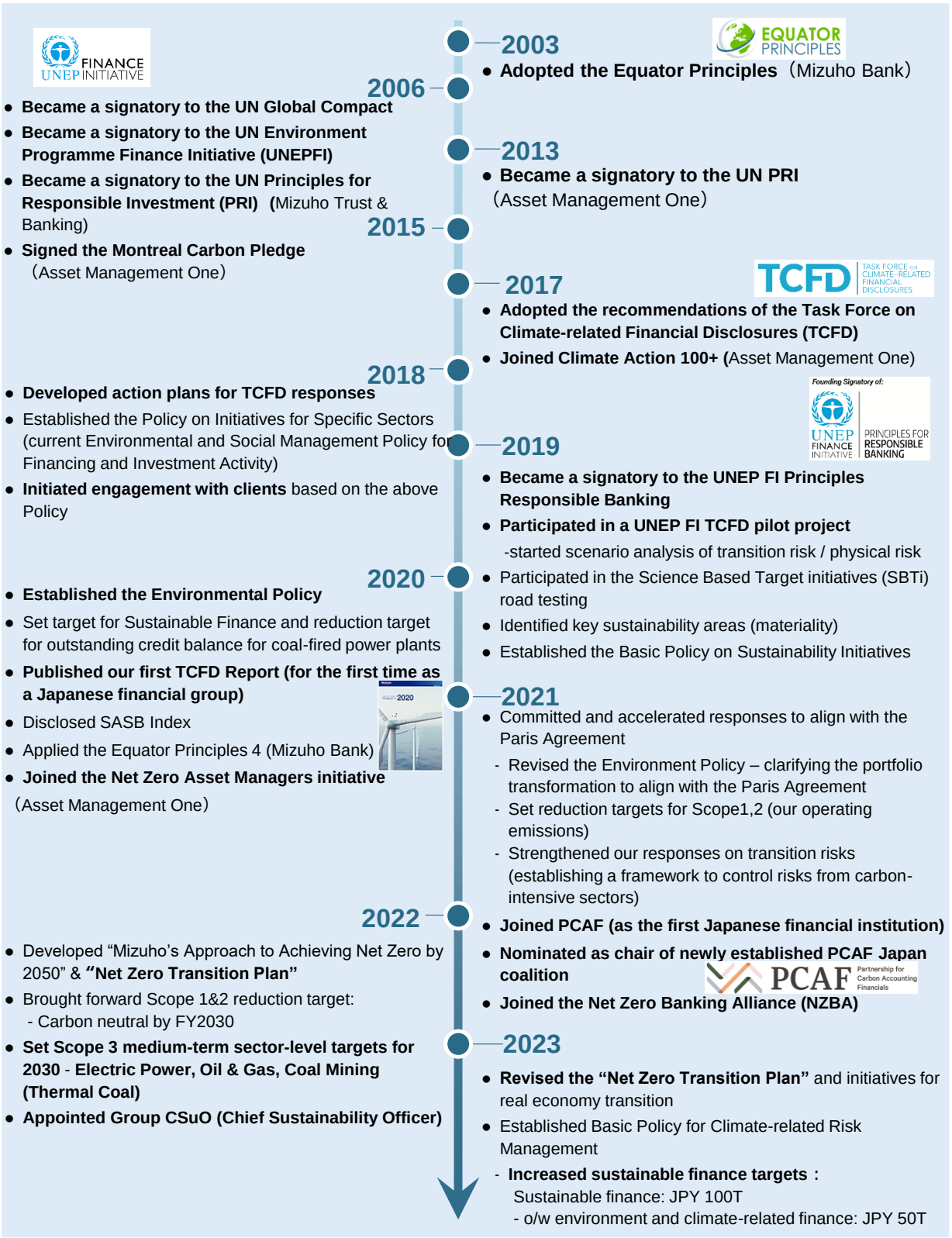


*1: Scope 2 in Japan *2: from a FY2019 baseline *3: cumulative financing volume since FY19 *4: compared with Mar-20

4. Mizuho's journey so far

Over the last 20 years, Mizuho participated in a number of initiatives related to the environment and climate change, and we are working on improving our climate-related initiatives, including reducing greenhouse gas (GHG) emissions from financing and investment.

Figure 1: Mizuho's journey so far



3. Governance

1. Governance structure for climate-related initiatives

As our climate-related initiatives are closely connected with sustainability promotion, risk management, and other areas, climate-related initiatives are discussed at the business execution line, which includes the Sustainability Promotion Committee, Risk Management Committee, and Executive Management Committee. Reports based on discussions at the business execution line are made to the Board of Directors and supervision is performed by the Board of Directors and the Risk Committee in accordance with the structure for promoting and managing each initiative.

Figure 2: Climate-related governance structure

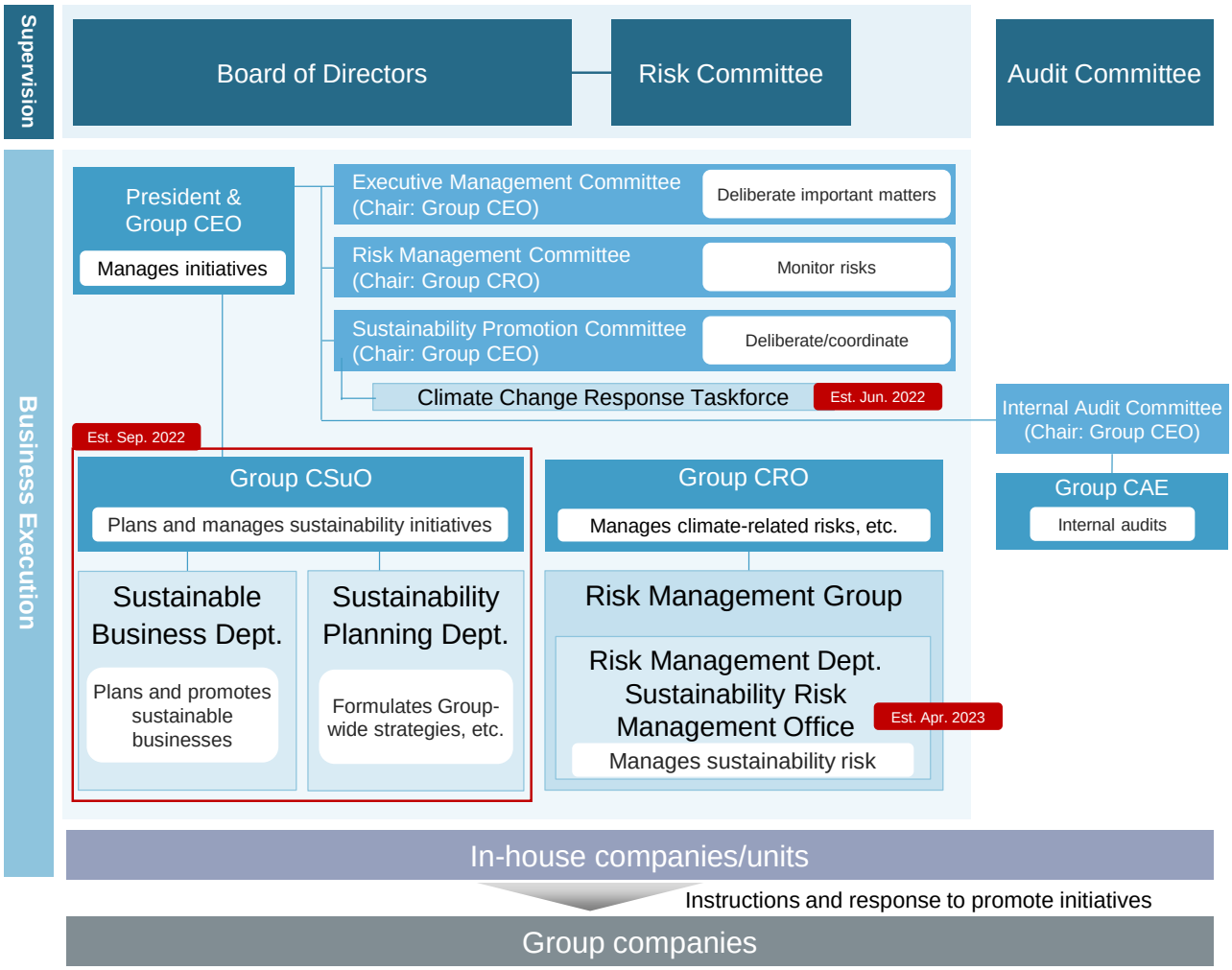


Table 1: Committees in supervisory and business execution line and roles related to climate change

	Committee	Structure[5]	Roles in relation to climate change	Main reports and matters to be determined
Supervisory line	**Board of Directors**	Chair: Outside director 6 outside directors 2 internal non-executive directors 4 directors who concurrently serve as executive officers	• Based on the Environmental Policy, receives periodic reports on the Group's environmental initiatives (including on the status of responses to the TCFD) from the business execution line, and provides supervision. • Establishment, amendment, and abolition of important policies such as the Environmental Policy, and resolutions on basic matters like business plans.	• Resolutions on the policies and plans listed below: − Sustainability promotion framework − Net Zero Transition Plan − Basic Policy for Climate-related Risk Management − Medium-term targets for GHG emissions reductions • Status of correspondence with the TCFD Recommendations • Status of the management of climate-related risks (risk controls in carbon-related sectors, materiality assessments) • Reviews of management systems for responsible financing and investment and the management status
	Risk Committee	Chair: Internal non-executive director 1 internal non-executive director who serves as Chair 1 outside director 2 standing external experts	・As the advisory body to the Board of Directors, decides and oversees matters relating to risk governance, and makes recommendations to the Board of Directors regarding the oversight of matters including the status of risk management.	• Makes recommendations to the Board of Directors regarding the items to be resolved or reported given above
	Compensation Committee	Chair: Outside director Outside directors make up all 3 committee member positions, including the Chair	・Determines the basic policy for corporate officer compensation and the corporate officer compensation system	・Further improvements of transparency of the basis for determining variable compensation, including specifying the components for determining remuneration with respect to sustainability
	Audit Committee	Chair: Outside director 3 outside directors including the Chair 1 internal non-executive director	・Audit of the status of business execution line's initiatives	・Reports the results of monitoring the status of sustainability-related initiatives of each company / unit based on audit plans

[5] Structure as of April 2023.

	Committee	Structure[6]	Roles in relation to climate change	Main reports and matters to be determined
Business execution line	**Executive Management Committee**	Chair: Group CEO (President & Group CEO)	・Deliberates on policies, plans as well as on setting of metrics and targets relevant to the Environmental Policy, the Transition Plan and other policies ・Regularly reports to the Board of Directors on the status of environmental initiatives	・Deliberation on the policies and plans listed below: －Sustainability promotion structure －Net Zero Transition Plan －Basic Policy for Climate-related Risk Management －Medium-term targets for GHG emissions reductions ・Status of correspondence with the TCFD Recommendations ・Status of the management of climate-related risks (risk controls in carbon-related sectors, materiality assessments) ・Reviews of management systems for responsible financing and investment and the management status
	Risk Management Committee	Chair: Group CRO	・Monitors the status of initiatives addressing climate-related risks	・Monitoring the status of climate-related risk initiatives based on the risk appetite framework and comprehensive risk management framework ・Monitoring the status of risk controls for the top risk (*Worsening impact of climate change*) ・Deliberations and reports on climate-related risk management - Establishment of Basic Policy - Risk control policies in carbon-related sectors - Risk management status and implementation status of management systems ・Status of correspondence with the TCFD Recommendations ・Reviews of management systems for responsible financing and investment
	Sustainability Promotion Committee	Chair: Group CEO (President & Group CEO) External experts (meeting as frequently as needed)	・Deliberates on and coordinates climate-related matters	・Strengthen systems that promote climate change responses ・Directions to improve the Net Zero Transition Plan - Identify key sectors and technologies for net zero transition ・Set reduction targets for financed emissions (oil and gas and coal mining (thermal coal) sectors) and initiatives toward target achievement ・Sustainable business growth strategies and approach to support transition of carbon-related sectors ・Raise targets for sustainable finance / environment and climate-related finance ・Boost initiatives for climate-related risk management - Risk control policies in carbon-related sectors - Revisions of the ES Policy, etc.

[6] Structure as of April 2023.

(1) Status of discussions at supervisory line

At the Board of Directors and Risk Committee, constructive discussions are held with outside directors and committee members who have experience and expertise in the fields of sustainability and climate change.

Discussions related to climate change at supervisory line (feedbacks and opinions from outside directors and Risk Committee members)

- Steady progress is being made in shoring up the promotion framework for sustainability and climate change responses. It remains necessary to maintain external disclosures and solid communications with stakeholders.
- It is inevitable that industrial structures will be transformed in the process towards carbon neutral. It's vital to consider and design the ideal economy and society structure in the medium and long term as the Mizuho's vision and how to incorporate that vision into business strategies. Furthermore, we must deliver our messages and opinions to the stakeholders and be involved in and contribute to rule-making processes.
- Regarding the increase in the sustainable finance target from JPY 25 trillion to JPY 100 trillion, it is imperative in order to reach this target to construct a solid foundation for business expansion, including risk examination of the transactions and capacity building.
- Climate change scenario analyses must account for the possibility that risks materialize earlier than generally expected due to discontinuous changes caused by policy changes or other factors.
- Evaluations of the status of transition risk measures by clients must be continually upgraded — which includes reviewing and revising our frameworks — given that the required levels for risk measures are always rising over time.

(2) Invitation of outside experts

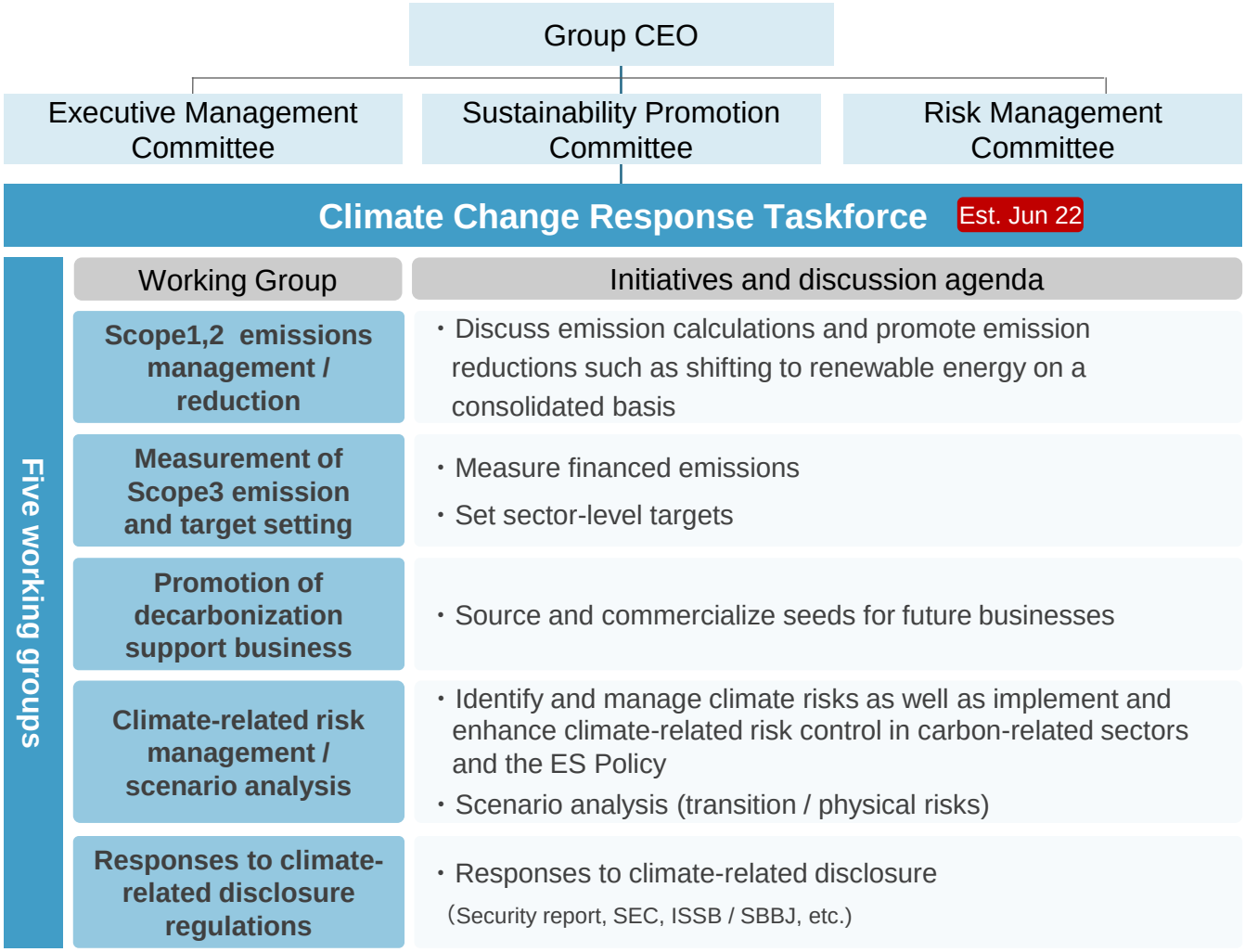
As mentioned above, outside experts are invited to the Risk Committee and Sustainability Promotion Committee to provide recommendations to and exchange opinions with directors and executive officers based on their expertise in the areas of sustainability and climate change.

Risk Committee	Rintaro Tamaki (standing committee member)	President, Japan Center for International Finance
	Hiroshi Naka (standing committee member)	Professor, Institute for Future Initiatives, the University of Tokyo
Sustainability Promotion Committee	Masako Konishi (member for the 1st committee meeting of the year	Expert Director for Conservation and Energy, WWF Japan

2. Promotion framework for climate-related initiatives (business execution line)

Mizuho set up the Climate Change Response Taskforce to integrate all initiatives and five working groups, each of which works on a specific climate-related topic with multiple departments collaborating together to improve and accelerate our initiatives in the interest of further enhancing our efforts on climate change. The progress is reported at meetings of the Sustainability Promotion Committee, which management executives including the Group CEO attend. Necessary decisions are made at the Committee meetings.

Figure 3: Promotion framework for climate-related initiatives

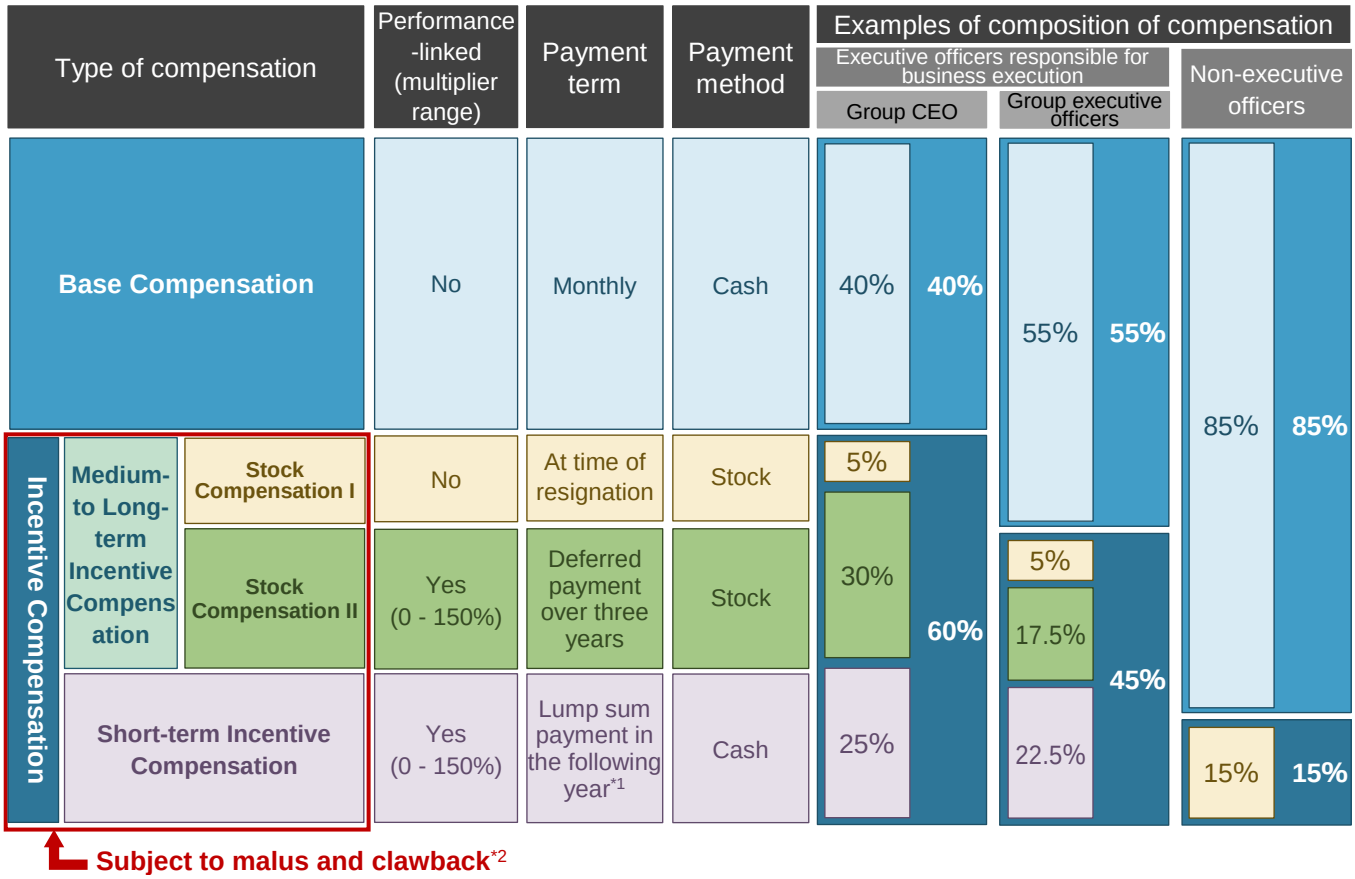


3. Compensation for executive officers

The Mizuho Group revised its compensation system for executive officers from FY2023 based on the Group's new Purpose and new medium-term business plan.

The system adopts a framework that reflects the sustainable growth and development of the Group and our stakeholders, including clients, the economy and society, and employees, in compensation for executive officers. Sustainability-related evaluation indicators have been adopted — such as sustainable finance amount, climate-related initiatives, and assessments by ESG rating agencies — as determining factors for Medium to Long-term Incentive (Stock Compensation II).

Compensation system for FY2023



*1. Deferred payments will be paid over three years from the following fiscal year if compensation exceeds a certain level.

*2. A system is adopted which enables malus (forfeiture of compensation remaining unpaid) and clawback (request for return of compensation) by resolution of the Compensation Committee depending on the performance of the Group or the individual.

(Summaries of each compensation)

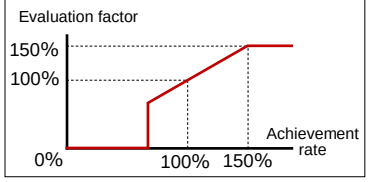
Base Compensation	Paid monthly in cash in accordance with the roles and responsibilities
Stock Compensation I	Paid in accordance with the roles and responsibilities as an incentive to increase corporate value over the medium to long term
Stock Compensation II	Paid in accordance with the target achievement rate with regard to the Group's key financial indicators and assessment in relation to stakeholders, as an incentive to increase corporate value over the medium to long term
Short-term Incentive Compensation	Paid in accordance with the target achievement rate with regard to the Group's key financial indicators and with assessment of the individual performance, as an incentive corresponding to performance over the past fiscal year toward increasing corporate value

Medium to Long-term Incentive Compensation (Stock Compensation II)

Base amount × Evaluation of medium to long-term performance indicators*1

Evaluation axes	Performance indicators	Weight
Mizuho Financial Group financial indicators	Consolidated ROE*2	25%
	Consolidated Net Business Profits*3	25%
	TSR*4	10%
Clients	Customer satisfaction*5 Sustainable finance amount*5 Assessments by ESG rating agencies*6 Climate-related initiatives*5 Engagement score*7 Inclusion score*7	10%
Economy and society		10%
Employees		20%

Relationship between achievement rate and evaluation factor
(Example for the Consolidated ROE)



Sustainability-related initiatives are reflected in evaluations

*1. The Compensation Committee makes the final decision (up to 150%) based on target achievement rates for performance indicators considering the business environment and the existence of events that should be reflected individually
*2. Excludes Net Unrealized Gains (Losses) on Other Securities
*3. Consolidated Net Business Profits + Net Gains (Losses) related to ETFs and others
*4. TSR: Total Shareholder Return
*5. Evaluated on the target achievement rates on related internal indicators
*6. Evaluated by comparison with results of previous years and peers that have been assessed by four major ESG rating agencies (S&P Global, Sustainalytics, MSCI, and FTSE)
*7. Evaluated on the target achievement rate for the positive response rate for four Staff Survey questions related to engagement and inclusion

Short-term Incentive Compensation

Base amount × Evaluation of short-term performance indicators*1 × Individual evaluation*1

Evaluation axis	Performance indicators	Weight
Mizuho Financial Group financial indicators	Profit Attributable to Owners of Parent*2	50%
	Gross Profits RORA*3	50%

*1. The Compensation Committee makes the final decision on Short-Term Incentive Compensation based on target achievement rates for performance indicators as well as on the business landscape and the existence of events that should be reflected individually. The Short-Term Incentive Compensation can vary between 0 and 140% for the Group CEO.
*2. Net Income for the period Attributable to Shareholders of the Parent Company
*3. RORA: Return on Risk-weighted Assets

Individual evaluation*1

Main evaluation perspectives

- Demonstrates leadership in improving the Group's corporate culture and disseminating the Group's purpose and code of conduct
- Succession initiatives for the Group CEO and management team

*1. The Compensation Committee makes the decision based on the evaluation perspectives. The compensation can vary between 0 and 110% for the Group CEO

Note: The evaluation factor for the short-term performance indicators and individual evaluation is capped at 150%

4. Strategy

1. Our approach and plans toward climate change

Mizuho clarifies in the Environmental Policy our awareness of environmental issues, our specific actions, and “our stance on addressing climate change” to achieve a decarbonized society, all of which form the basis of our environmental initiatives.

In addition, we have developed "Mizuho's Approach to Achieving Net Zero by 2050" and "Net Zero Transition Plan" to clarify medium to long term strategies and initiatives, which outline the actions we take to achieve a decarbonized society by 2050 by pursuing efforts to limit the temperature increase within 1.5°C so as to put the above policy and stance into practice.

Based on these policies and plans, we will actively promote climate-related initiatives and information disclosure in line with international standards.

Environmental Policy (extract)

■ Efforts to address climate change:

We recognize climate change as one of the most crucial global issues with the potential to impact the stability of financial markets, representing a threat to the environment, society, people's lifestyles and businesses.

At the same time, we believe there are new business opportunities arising from the need to transition to a low–carbon society, such as the field of renewable energy and other businesses and innovations which contribute to mitigating and adapting to the impact of climate change.

Mizuho supports the Paris Agreement's objective to “strengthen the global response to the threat of climate change”.

In light of this, we have included responding to climate change as a key pillar of our business strategy and will take the following actions in order to proactively fulfill our role in the effort to achieve a low–carbon society (achieve net zero greenhouse gas emissions) and to develop a climate change resilient society by 2050.

- We are directing finance flows towards achievement of the Paris Agreement targets to limit in the global average temperature rise, and we are undertaking phased transformation to a finance portfolio aligned with said targets.
- We will engage in proactive, constructive dialogue in response to our clients' individual concerns and needs, and in support of their efforts to introduce climate change countermeasures and transition to a low–carbon society in both the medium and long term.
- We will proactively develop and offer financial products and services designed to support clients' efforts to introduce climate change countermeasures and transition to a low–carbon society.
- We understand the importance of climate–related financial disclosures and we utilize the framework under the Recommendations of the TCFD in order to leverage growth opportunities and strengthen risk management as well as disclose information in a transparent manner regarding our progress.

Mizuho' s Approach to Achieving Net Zero by 2050 (developed in April 2022)

【Mizuho's goal】

Climate change is one of the most important global issues, and it cannot be addressed unless all countries and all stakeholders make efforts to reach the same targets. It is necessary that responses to climate change be based on the best available science, including the expertise of the Intergovernmental Panel on Climate Change (IPCC[7]).

Mizuho recognizes that the impact of climate change would be much less if the global temperature were to increase by 1.5°C instead of 2°C. We believe that the next ten years will be crucial in terms of limiting the rise in temperature to the 1.5°C target. This is why we are pursuing efforts to limit the temperature increase to this amount. As part of such efforts, Mizuho is aiming to become carbon neutral for Scope 1 and 2 greenhouse gas (GHG) emissions by FY2030, and to reduce Scope 3 GHG emissions produced via our finance portfolio to net zero by 2050.

We recognize that abrupt, disorderly changes can have severe economic and societal impacts. Accordingly, at Mizuho, we are aiming for an orderly, just transition.

【Mizuho's steps to achieving net–zero emissions】

At Mizuho, we recognize the importance of the role financial institutions play in achieving a net–zero real economy. Financial institutions should support clients' climate change countermeasures and the transition to a low–carbon society. This support should be grounded in an understanding that the transition process will differ by location and industry type. In order for us to fulfil our role as a financial institution, Mizuho conducts engagement with clients and requests that they share their transition strategies. Through this client engagement, we confirm the status of our clients' transition strategies and provide clients with support that facilitates the execution of said strategies. If a client shows no progress towards strategy execution despite multiple efforts to engage them to do so, we carefully consider whether or not to continue our business with them.

The road to net zero will vary by business location and industry type. Strong national leadership with effective policies and the establishment of next–generation technology are essential in speeding up the transition towards net–zero emissions. At present, there is a gap between, on the one hand, current commitments, government policy, and technology, and on the other hand, the road to limiting the global temperature increase to 1.5°C. At Mizuho, we believe we must work together with stakeholders to bridge this gap. Mizuho supports government policy aimed at an orderly transition in the jurisdictions where we operate. We do this through our business activities across regions and economies, industry groups, and initiatives. We also proactively support the development and application of innovative, clean, next–generation technology.

Further, Mizuho is continually enhancing our climate risk management for the purpose of stabilizing financial markets. In these ways, we are contributing to the achievement of a low–carbon society and the development of a climate change–resilient society by 2050.

[7] Intergovernmental Panel on Climate Change

Net Zero Transition Plan (revised in April 2023)

The Net Zero Transition Plan formulated in 2022 has been revised in order to promote a more integrated responses to climate issues across the Group, from the perspectives of facilitating transition in the real economy, capturing business opportunities, and enhancing risk management. The plan was formulated in reference to the transition plan frameworks from TCFD, GFANZ, and other organizations and was adopted by the Board of Directors of the Mizuho Financial Group.

Figure 4: Mizuho's Net Zero Transition Plan (overview)

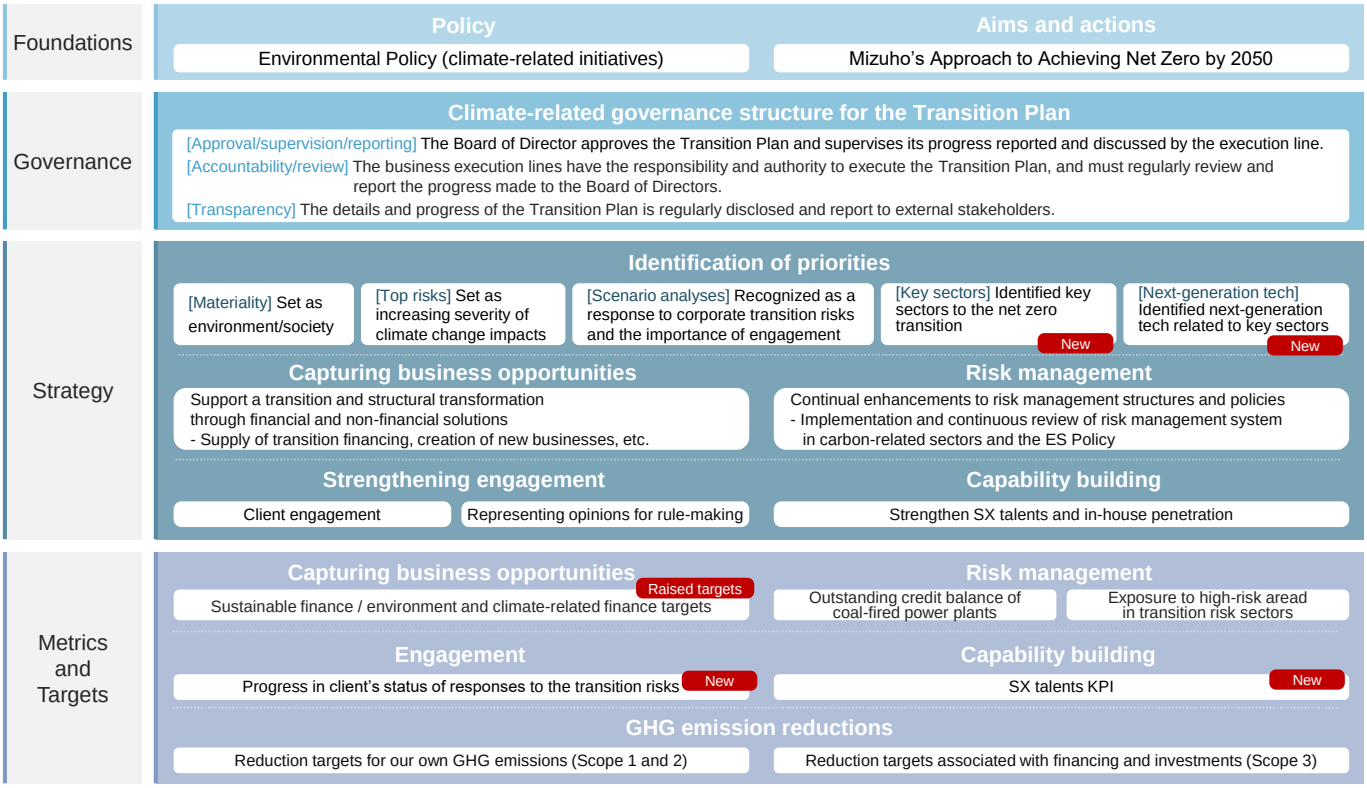


Table 2: Description of each component in the Net Zero Transition Plan

	Component	Description	Page
Foundations	Policy	This component clarifies the issue awareness and concrete actions that form the basis of environmental initiatives, including climate change actions, in the Environmental Policy, and defines our stance on climate change toward achieving a low-carbon society.	p.20
	Aims and Actions	In order to make actual progress on the stance outlined above, this component clarifies our aims and actions to achieve a low-carbon society by 2050 and to pursue efforts to limit worldwide temperature increase to 1.5°C as described in Mizuho's Approach to Achieving Net Zero by 2050.	p.21
Governance	Climate-related governance structure for the Transition Plan	Approval, supervision, and reporting: The Board of Directors approved the revised Net Zero Transition Plan (formulated in April 2022 and revised in April 2023). Regarding the Transition Plan's progress, the Board of Directors supervises information reported to it after discussions by the business execution line.	pp.13-16
		Accountability and review: The business execution line is accountable and responsible for the execution of the Transition Plan, conducts periodic reviews of the plan's execution status, and reports the review findings to the Board of Directors.	pp.13-16
		Transparency: The Transition Plan and the status of related initiatives are regularly disclosed and reported to external stakeholders.	-

	Component	Description	Page
Strategy	Identification of priorities	Materiality: This component identifies *environment and society* as one materiality — a priority issue over the medium to long term for sustainable growth and development of Mizuho and its stakeholders, including clients, employees, and the economy and society.	p.25
		Top risks: The component notes that *Worsening impact of climate change* has been set as one of the 11 top risks for FY2023.	pp.25,61
		Scenario Analyses: The component recognizes the importance of the engagement and corporate clients' responses to transition risks, based on considerations of the results of past scenario analyses.	pp.25, 51-58
		Key sectors: Based on emission volume (impact on the real economy), Mizuho's opportunities and risks associated with decarbonization and the characteristics of Mizuho's portfolio and client base, the component identifies key sectors to focus on from a decarbonization perspective. - Electric power, energy, steel, chemicals, automotive, maritime transportation, aviation, and real estate sectors	p.26
		Next-generation technologies: The component identifies next-generation technologies associated with decarbonization in the key sectors given above. - Hydrogen, offshore wind farms, CCS,[8] and biomass (SAF[9])	p.26
	Capturing business opportunities	This component sets out our aim to support client decarbonization transitions and structural transformations through the provision of financial and non-financial solutions. - Co-creation toward industrial and business structural transformations and applications of technologies - International cooperation and dissemination within Japan to scale up decarbonization - Provision of transition finance through public-private partnerships	pp.27-34
	Risk management	Continuous improvements to risk management systems and policies - Improvements to risk controls in carbon-related sectors through quantitative identification and evaluations of climate-related risks - Operation of and continuous revisions of the ES Policy	pp.59-65 pp.66-68
	Strengthening engagement	This component describes initiatives to strengthen client engagement to support facilitate transitions by confirming the status of client responses to transition risks and ensuring clients and Mizuho to have shared recognition of the business landscape and the challenges they face.	pp.31,65
		The component also describes initiatives to strengthen Mizuho's communications of its messages and opinions and its participation in international rule-making through study groups and societies organized by government agencies and research institutes.	p.33
	Capability building	This component describes initiatives to enhance human resources in relation to sustainability transformation and strengthen two-way communications with employees toward making active use of employee ideas.	p.34

[8] CCS: Carbon dioxide Capture and Storage
[9] SAF: Sustainable Aviation Fuel

	Component	Description	Page
Metrics and Targets	(Position of metrics and targets)	This component sets the following metrics and targets to measure the progress of initiatives described in the Strategy section above and the contribution to transition of the real economy as a result of the initiatives.	pp.69-76
	Capturing business opportunities	• Targets for sustainable finance and environment and climate-related finance	
	Risk management	• Targets to reduce the outstanding credit balance of coal-fired power generations plants • Exposure to high-risk areas in transition risk sectors	
	Engagement	• Status of client responses to transition risks	
	Capability building	• Sustainability transformation talents KPIs	
	GHG emission reductions	• Targets to reduce our own emissions (Scope 1 and 2) • Targets to reduce emissions from financing and investment (Scope 3)	

2. Identification of priorities in the Transition Plan

(1) Materiality

Mizuho identifies materiality (priority issues over the medium to long term for the sustainable growth and development of Mizuho and its stakeholders, including clients, employees, and the economy and society) based on expectations from society[10] and the importance[11] for the Group. One of the materiality is *the environment and society*.

Mizuho's materiality

Declining birthrate and aging population, plus good health and lengthening lifespans	In an age of longer lifespans, provide safe, stable, and convenient services tailored to each individual's needs
Industry development & innovation	Support industry and business development, and create new value on a global basis
Sound economic growth	Contribute to economic development by utilizing financial infrastructure functions to respond to change in the Japanese and global business environment
Environment & society	Cooperate with customers to realize sustainable social development, including environmental conservation
Personnel	Based on a corporate culture where employees can act independently, develop a diverse workforce that grows together with customers and society
Governance	Implement strong corporate governance and stable operational management to benefit customers and society

(2) Outline of top risks and scenario analyses

Mizuho has implemented a Top Risk Management System to designate risks with major potential impact on the Group. Management determines Mizuho's top risks by reviewing risk events that may harm our corporate value in light of our particular vulnerabilities, the external business landscape, and other factors. Eleven risk events were designated as top risks for FY2023, one of which is *Worsening impact of climate change*.
We have also conducted scenario analyses since FY2019 in order to ascertain the future impact of climate change on our Group portfolios. From the scenario analyses conducted so far, we have confirmed that transition risks have a greater impact on the Group's finances than physical risks. We have also identified that it is important for companies to transition quickly and smoothly (orderly transitions) and further deepen client engagement to achieve orderly transitions.

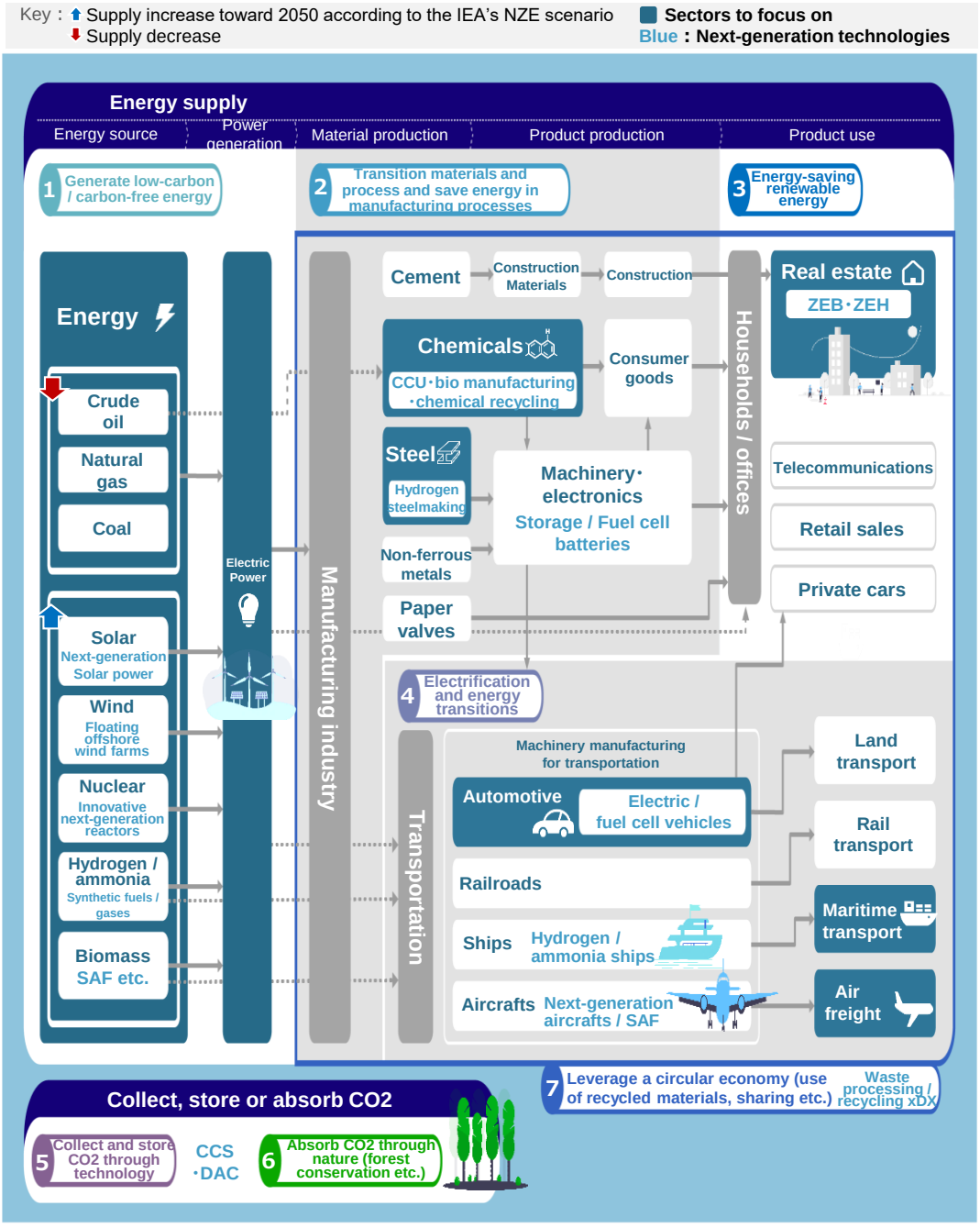
[10] Expectations stakeholders have concerning Mizuho's impact on society.
[11] Based on the impact on corporate value over the medium to long term and the affinity with Mizuho's strategies and business areas.

(3) Key sectors / Next-generation technologies

Mizuho has identified key sectors to be focused on in facilitating net zero transitions and their associated next-generation technologies. We have been enhancing initiatives on industrial and business structural transformations and practical applications of new technologies.

Mizuho recognizes that to shift from economic and social structures dependent on fossil fuels, it is imperative to engage in cross-sectoral efforts, not only on the energy supply side but also on the energy consumption side. Working from this understanding, we have organized seven drivers to achieve a low-carbon society. Furthermore, we have identified key sectors to focus on from a decarbonization perspective, based on emissions volume (impact on the real economy), opportunities, and risks as well as on the characteristics of Mizuho's portfolios and client base. We promote initiatives in these sectors along with their associated next-generation technologies.

Figure 5: Map of key sectors and their associated next-generation technologies in facilitating net zero transitions



3. Recognition of opportunities and efforts to capture opportunities

(1) Recognition of opportunities associated with responses to climate change

To achieve a decarbonized society, social implementation of existing advanced technologies, such as renewable energy, is necessary, along with technological innovation and practical applications as well as building new supply chains. This will require green transformation (GX) investments of USD 4 trillion per year globally until 2030 and JPY 150 trillion over the next 10 years in Japan.

Mizuho sees opportunities in the investments in industrial and business structural transformations and practical applications and social implementation of new technology toward the transition to a low-carbon society. With client engagement as a starting point, we proactively support clients' transitions to a low-carbon society and their responses to climate change.

Figure 6: Estimated investment volume for decarbonization in Japan

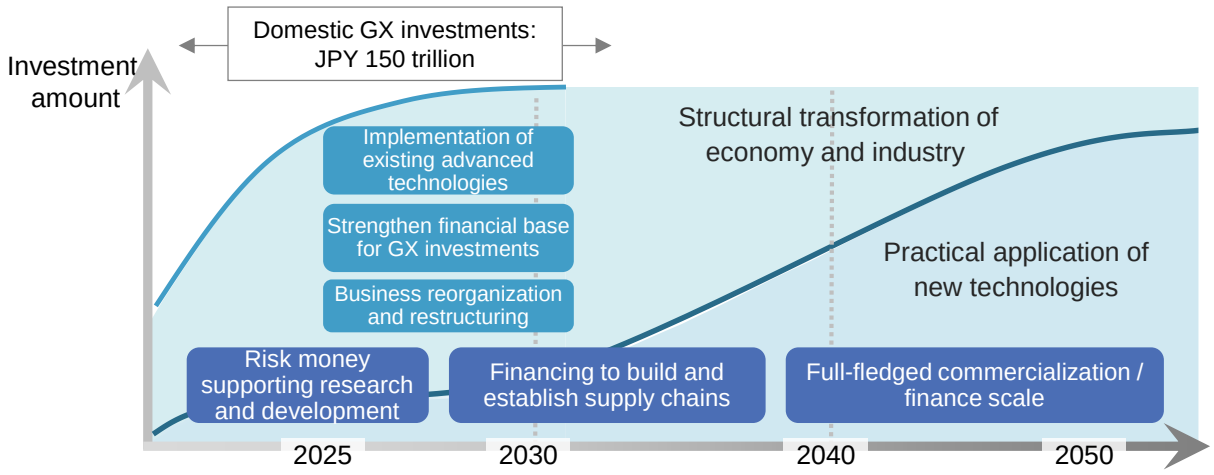


Table 3: Estimated public-private partnership investment amounts in Japan

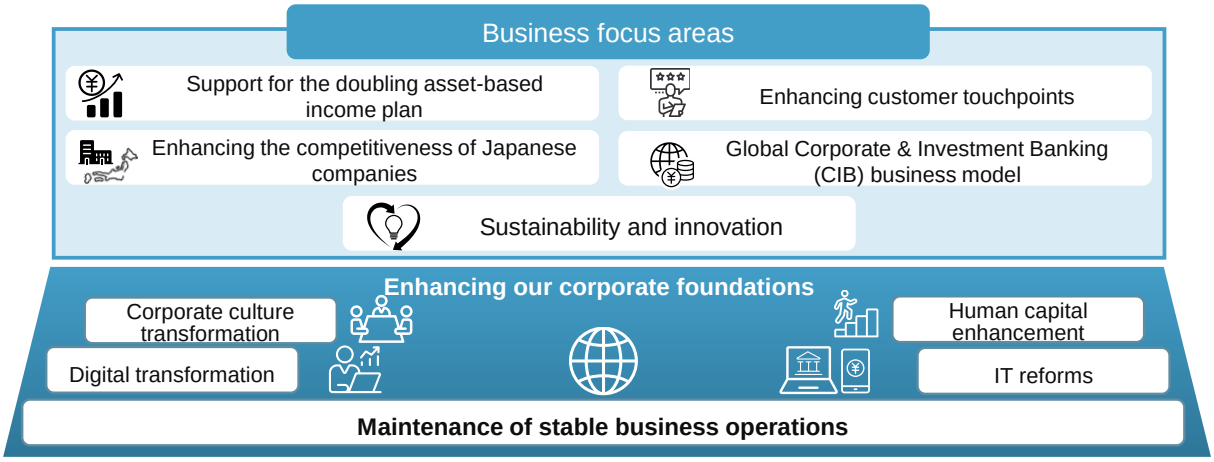
Industry	Examples of public-private partnership investments	Investment volume (in JPY)
Hydrogen and ammonia	Investments in hydrogen and ammonia infrastructure development	7 trillion ～
Battery	Investments in battery and materials manufacturing plants and R&D expenses	7 trillion～
Steel	Investments in conversion to electric furnaces, hydrogen-reduction steelmaking, energy conversions and reductions, and R&D expenses	3 trillion～
Chemical, cement, and pulp	Investments in chemical recycling, CO_2 recovery cement manufacturing, bio-refinery conversion, fuel conversion, and energy-efficient equipment	5 trillion～
Automobile manufacturing	Investments in popularizing electric vehicles, R&D, and associated infrastructure	34 trillion～
Resource recycling	Investments to accelerate resource recycling	2 trillion～
Housing and buildings	Investments needed for housing and buildings to meet ZEH/ZEB energy efficiency levels	14 trillion～
Digital investments for decarbonization purposes	Disseminate semiconductors and data centers with high energy efficiencies	12 trillion～
Aviation	Investments in next-generation aircraft as well as in SAF manufacturing technologies, pilot projects, and manufacturing facilities	5 trillion～
Maritime	Zero-emission vessels and construction of production infrastructure	3 trillion～
Biomanufacturing	Expenses for transformations to bioprocesses and R&D	3 trillion～
Electric power	Renewable energy (solar, wind, geothermal, hydro, bio) and next-generation power network	31 trillion～
CCS	Development of advanced value chains	4 trillion～

Source: reference materials from "Basic Policy for the Realization of GX" by METI

(2) Mizuho's new medium-term business plan

Mizuho formulated a new medium-term business plan that beginning from FY2023. The plan sets forth our vision for the future — *personal well-being* and *a sustainable society and economy* to support it. To achieve this vision, the plan defines strategies to be focused on by back-casting from the vision of the world we aim to attain in 10 years' time. The three years covered by the new medium-term business plan are defined as "three years of connecting the initiatives being carried out across Mizuho and creating new solutions to the challenges facing our clients and society as a whole". During this period, *sustainability and innovation* is set as one of the Group's key areas of focus where we will contribute to the vitality of Japan and sustainable growth of the world and work with clients and society to build the foundation for future prosperity with sustainability as the core.

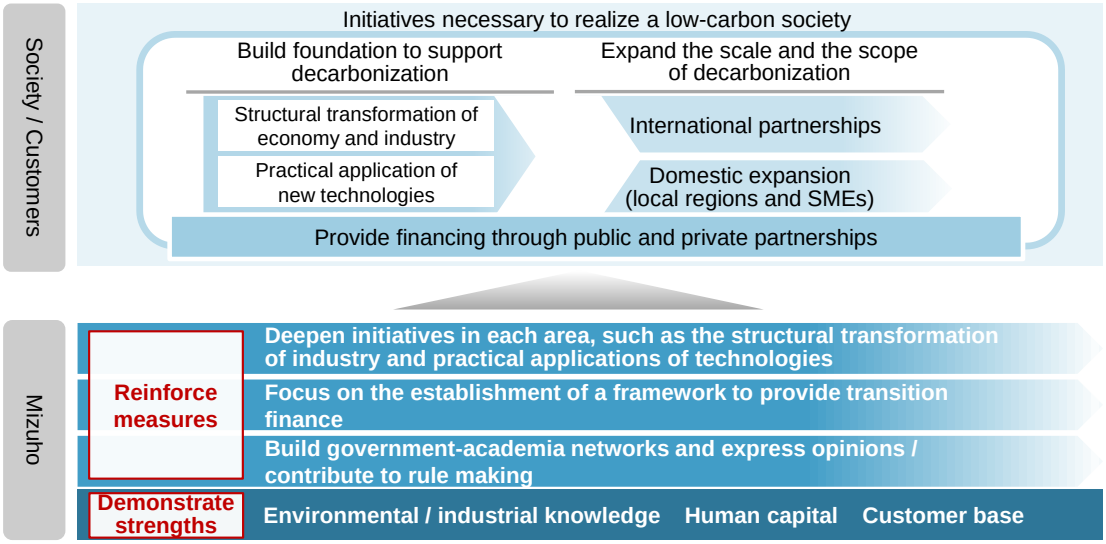
Figure 7: Basic policies in the new medium-term business plan



(3) Outline of Mizuho's business strategies to achieve a low-carbon society

To capture business opportunities associated with the transition to a decarbonized society, Mizuho is working with clients to co-create industrial and business structural transformations and practical applications of technologies and then transferring these initiatives to SMEs in Japan and to Asian countries. We are providing the necessary transition financing through public-private partnerships and further bolstering our personnel and expertise, which are our core strengths.

Figure 8: Outline of Mizuho's sustainable business strategy



(4) Specific initiatives

i. Promotion of sustainable finance / environment and climate-related finance

Mizuho has been promoting to achieve the long-term targets we set in April 2020 for sustainable finance and environmental finance (JPY 25 trillion from FY2019 to FY2030, of which JPY 12 trillion is earmarked for environmental finance).

We made robust progress, arranged JPY 21.2 trillion in sustainable finance (of which JPY 8.1 trillion was environmental finance) between FY2019 and FY2022. In April 2023, we raised the sustainable finance target to the ambitious level of JPY 100 trillion — of which JPY 50 trillion is earmarked for environment and climate-related finance — in order to create further money flow, which is a key to achieve a decarbonized society.

Mizuho is working aggressively to achieve our sustainable finance target by proactively providing green and transition financing and risk money for practical applications of technologies to clients who are taking on the challenge of decarbonization with us.

Figure 9: Sustainable finance targets and results

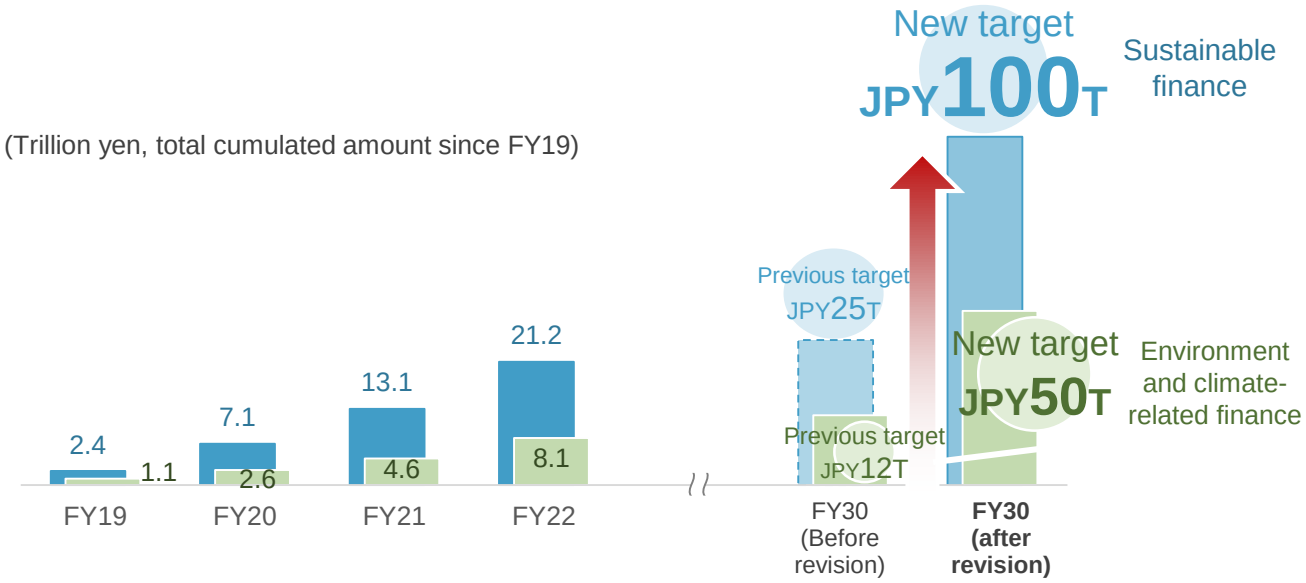


Table 4: Sustainable finance performance by type of financing

Type		Classification	Major applicable finance	Applicable business	FY19-22 Results (in JPY trillions)
Sustainable finance	Environment and climate-related finance *1	Green	Underwriting of green bonds*2	Underwriting	2.6
			Arrangement of green loans*2	Loans	1.3
			Arrangement of loans to eligible green projects and businesses*3 (project finance on renewable energy etc.)	Loans	1.4
		Transition	Arrangement of transition loans / transition-linked loans *2	Loans	0.7
			Underwriting of transition bonds / transition-linked bonds *2	Underwriting	
		Other Green	Arrangement of Mizuho Eco Finance	Loans	2.8
			Arrangement of Mizuho Sustainability Real Estate Non-recourse Loan	Loans	
			Arrangement of ABL for renewable energy	Loans	
			Investment in green project funds	Investment	
			Investment in green projects etc. (including mezzanine)	Investment	
			Investment in green bonds	Investment	
			Other financing and investment	financing and investment	
		Sustainability *4	Arrangement of sustainability loans / sustainability-linked loans*2	Loans	5.4
			Underwriting of sustainability bonds / sustainability-linked bonds*2	Underwriting	
		Others*3	Investment through funds for transition / co-creation of value	Investment	0.5
			Arrangement of Mizuho Sustainability Link Loan PRO / Arrangement of Mizuho Sustainability Link Private Placement Bond PRO	Loans	
			Arrangement of Mizuho Positive Impact Finance	Loans	
			Arrangement of Mizuho Positive Impact Finance PRO	Loans	
		Infrastructure Project Finance	Arrangement of project finance for public transportations and facilities	Loans	1.3
		Social Loans	Arrangement of social loans *2	Loans	1.6
		Social Bonds	Underwriting of social bonds *2	Underwriting	
		Others	SDGs promotion support loans / private placement bond	Loans	3.6
			Arrangement of sustainable supply chain finance	Loans	
			Arrangement of loans for innovation companies	Loans	
			Arrangement of loans for succession of business	Loans	
			Net increase in ESG / SDGs investment under management	Asset Management	
			Other financing and investment	financing and investment	
Total					21.2

*1. The name *environmental finance* was as changed to *environment and climate-related finance* in FY2023, and the corresponding types of financing were also changed. Finance performance figures for FY2019 to FY2022 are calculated based on the previous criteria.
*2. In compliance with principles and guidelines in and outside Japan.
*3. Covers eligible green projects under Mizuho's Green Bond Framework and other programs.
*4. Only financing that contributes to addressing climate change is counted as environment and climate-related finance.

ii. Building foundations to support decarbonization (structural transformations in the economy and industry and practical applications of new technologies)

Mizuho promotes initiatives toward structural transformations in the economy and industry and practical applications of new technologies. These initiatives begin with client engagement (purposeful and constructive dialogue with clients toward support for sustainability transformation) that focuses on the client's sustainable growth and increased corporate value over the medium to long term and on improving the competitiveness of businesses. We are also strengthening our client engagement from the perspectives of risk management and responsible financing and investment.
In FY2022, Mizuho engaged with approximately 1,700 clients (around 1,000 of which were climate-related), from the perspective of capturing business opportunities for Mizuho, and offered various solutions, ranging from consulting to finance, to support client initiatives. And as part of our risk management and responsible financing and investment efforts, we engaged with approximately 1,100 clients (see details on p. 67).

Figure 10: Overview of Mizuho's client engagement

Client engagement on sustainable transformation support (companies in Japan)

Approx. 1,700 companies in total
(Approx. 1,000 of which were climate-related)[*1]

Discussions and proposals on providing support to clients for the establishment and execution of effective sustainability-related risk management and strategies[*2]

Discussions related to business and financial strategies	Provision of advisory services	Construction and provision of finance solutions
Approx. 800 companies	**Approx. 400 companies**	**Approx. 500 companies**

*1. Preliminary figures for April 2022 to March 2023
*2. Discussions and proposals regarding the provision of support through both financial and non-financial solutions (Figures do not include simple information provision or discussions)

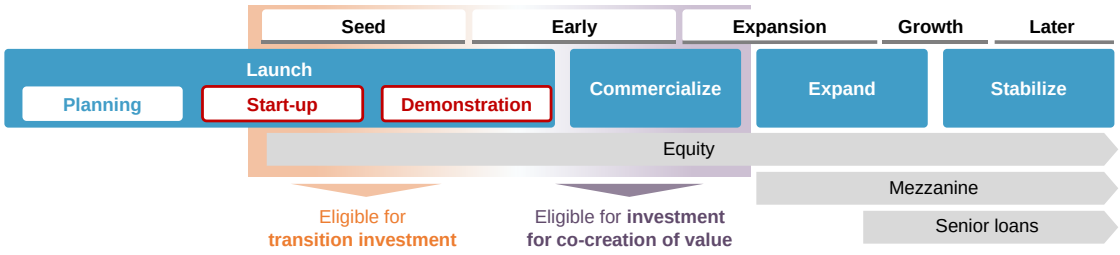
Engagement from the perspective of responsible financing and investment

Approx. 1,100 companies

- Confirm the status of initiatives by clients in the specific sectors to prevent or mitigate adverse impacts on the environment and society
- Share with clients in transition risk sectors recognition of medium and long-term issues pertaining to climate-related opportunities and risks, and confirm the status of their responses to transition risks

In April 2022, we launched the Transition Equity Investment Facility to invest in client-operated projects and companies in transition areas that are in the development or incubation stages, such as the seed and early stages. As of March 2023, we have invested in three projects.

Figure 11: Equity support in transition areas



Apr. 2022	Set up "Transition Equity Investment Facility" for decarbonization-related businesses at the "Seed" stage, with the intention to invest more than **JPY 50 billion** over 10 years. Received **about 190 projects** worldwide for consideration (as at Mar 31, 2023) **First Japanese megabank to support innovation for transition**
Dec. 2022	**1st investment project**: Invested JPY 300 million in Synplogen, a Kobe University start-up in the bio-manufacturing field
Feb. 2023	Set up an investment budget for value co-creation for projects in the "Commercialization" stage (Eligible projects are not limited to those in transition fields)
Mar. 2023	Redefined transition fields as those that contribute to improving sustainability of environment and society and expanded the eligibility scope for transition investment **2nd investment project**: Invested in a start-up, developing cross-reality (XR) for cars **3rd investment project**: Invested in an Australian start-up, developing CO_2 capture and utilization (CCU) technology

Furthermore, Mizuho is involved in providing support for technological development and technology applications, using our public-private networks and financial and research functions, in promising areas we believe are important to achieve a low-carbon society and will provide significant business opportunities in the future.

Hydrogen　A leading clean energy in the medium to long term

Hydrogen is an energy source for thermal power generation and for fuel cell vehicles and a raw material for synthetic fuels and gases. More importantly, it is a key energy source for driving business structural transformations in many sectors, from the perspectives of manufacturing, transport, storage, and usage. Mizuho is promoting development of hydrogen technologies.

- Feb. 2023: Mizuho Bank published a report, “For Japan to survive the global competition for hydrogen”[12].
- Mizuho Research & Technologies was contracted to carry out a number of researches on technological and market developments regarding power-to-gas, on the potential for manufacturing low-carbon hydrogen outside of Japan, on development of roadmaps for fuel cell vehicle technologies, and on a social benefit assessment and lifecycle evaluation of fuel cell vehicles etc.

Offshore wind farms　Key to accelerating the adoption of renewable energy in an island nation, Japan

Floating offshore wind farms that can be built regardless of the water depth are a technology gaining attention in Japan, an island nation with only few suitable onshore wind farm sites and surrounded by relatively shallow water. Floating offshore wind farms are expected to expand the future supply of renewable energy in Japan.

- May 2022: Mizuho Securities entered into a partnership agreement with Marubeni and the BP plc based in the UK for an offshore wind farm development.
- Jun. 2022: Mizuho Bank was appointed as the lead arranger of project finance for a floating offshore wind farm in France.

CCS　Essential to achieve carbon neutrality in the hard-to-abate sectors

Carbon dioxide capture and storage (CCS) technology is designed to capture GHGs emitted from power plants and factories. It is a means for businesses that cannot fully decarbonize their operations to achieve full decarbonization. There are also rising expectations for direct air capture (DAC) technology that, in the future, will be able to directly decompose carbon dioxide in the atmosphere.

- Jul. 2016: Mizuho Research & Technologies was involved in an eco-friendly CCS pilot program organized by the Ministry of the Environment in Japan along with Toshiba and 11 other entities.
- May 2022: Mizuho Financial Group joined the Global CCS Institute to gain more expertise of the CCS technology and industry.
- Oct. 2022: Mizuho Research & Technologies was selected by NEDO[13], along with JX Nippon Oil & Gas Exploration and J-POWER, to study business models for the manufacture of hydrogen by using biomass as a raw material and combining gasification and CCS technologies.
- Dec. 2022: Mizuho Bank took part in a panel discussion at the Japan CCS Forum for the expansion and commercialization of CCS, the role of finance, and other related topics.

Biomass　An alternative energy source to shift away from fossil fuels

Biomass is gaining more and more attention as an alternative energy source including SAF, which spurred debate across Japan.

[12] Published in Mizuho Industry Focus, Vol. 237 (in Japanese) https://www.mizuhobank.co.jp/corporate/bizinfo/industry/sangyou/pdf/mif_237.pdf
[13] NEDO: New Energy and Industrial Technology Development Organization

iii. Communicating our positions and opinions at rule-making bodies

Mizuho recognizes that strong leadership by governments, effective policies, and the establishment of next-generation technologies are all essential to achieve a decarbonized society. We also recognize that issues need to be resolved through collaboration with governments as well as industry associations and initiatives. Given this understanding, we are increasing our involvement in domestic and international rule-making by communicating our positions and opinions through working groups organized by government agencies and research institutes to discuss energy policy and to discuss the provision of transition financing. We are also active at international initiatives on decarbonization such as the GFANZ (NZBA / NZAM) and PCAF.

Furthermore, utilizing the Group's industrial and environmental expertise, we provide insight as reports on issues related to transitions in Japan, the diffusion of hydrogen, and other related topics.

Figure 12: Our participation and communications at rule-making bodies

Communicating positions and opinions on industrial policy

• Participate in discussions on energy policy

Organizer	Committee or group we participated in*1
METI	Study Group on the Introduction and Management of Renewable Energy Generation Facilities
METI	Working Group on Energy Structure Conversion, Committee on the Green Innovation Project, Industrial Structure Council
Organization for Cross-regional Coordination of Transmission Operators	Councilor
ANRE	Basic Policy Subcommittee on Electricity and Gas

Communicating positions and opinions on finance and engaging in rulemaking

• Participate in discussions on the financial side of decarbonization

Organizer(s)	Committee or group we participated in*1
Cabinet Office	The Public Private Partnership / Private Finance Initiative Promotion Committee
METI, FSA, MoE	Study Group on the Ideal Financing for a Green Transformation of Industry
FSA, METI, MoE	Study Group on Creating an Environment for Transition Financing
	Sub-Working Group on Financed Emissions for Promoting Public-Private Transition Finance

*1. Where Mizuho Financial Group or Mizuho Bank participated

Communicating positions and opinions at international initiatives

• Participate in international initiatives for decarbonization such as GFANZ (NZBA/NZAM) and PCAF, communicate our positions and opinions, and increase our involvement in rulemaking

Activities as the Chair of the PCAF Japan coalition

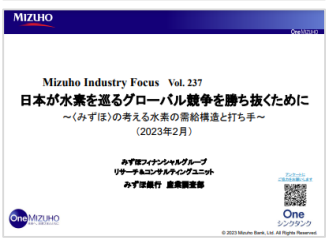
- After becoming the first Japanese financial institution to join PCAF in July 2021, Mizuho was appointed as the chair of the PCAF Japan coalition in November 2021
- After establishing and releasing the FY2022 work plan through discussions with participating institutions, we led activities to enhance and improve initiatives
- The PCAF Japan coalition organizes common issues regarding the measurement and disclosure of financed emissions and shares information and exchanges ideas and views with government agencies and PCAF Global

Communicating positions and opinions utilizing the Group's expertise on businesses and environment

• Publish timely reports on insights based on our specialized expertise

June 2022
Consideration of issues to be tackled regarding Japan's transition taken from comparisons with EU policies

February 2023
Consideration of stable hydrogen procurement and policies to ensure Japan succeeds in the international competition around hydrogen



iv. Scaling up decarbonization and expanding its base

We are actively developing decarbonization support measures for SMEs in Japan through collaborations with strategic external partners. Furthermore, we are promoting transition measures in Asia, in particular, through public-private partnerships and collaboration with global players.

Contributions to just transitions in Asia

Participation in the "Just Energy Transition Partnership (JETP)" in Vietnam

Mizuho is a participant in the GFANZ's Working Group that supports Vietnam JETP. JETP, led by the United Kingdom and European Union, works closely with various public and private stakeholders to assist capital mobilization to achieve just transitions in Vietnam.

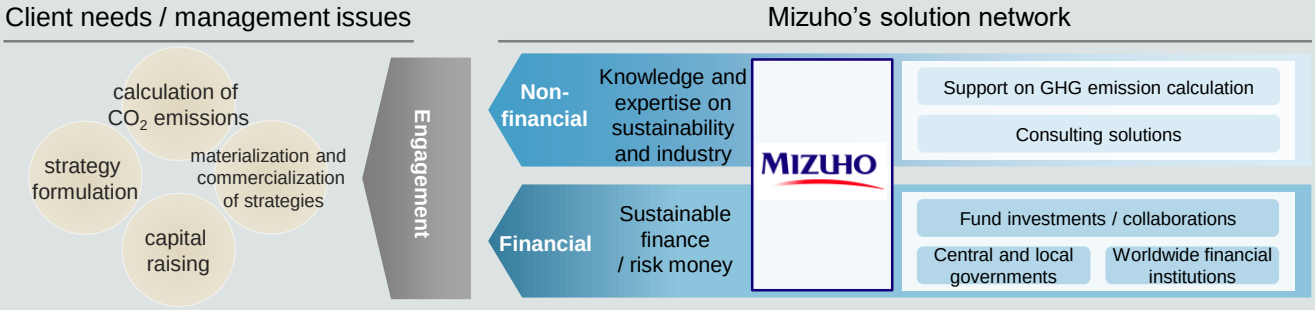
Launch of a comprehensive partnership with major global asset management firms

Building a strategic relationships with Decarbonization Partners

Mizuho entered into a strategic relationship with Decarbonization Partners, a private equity fund jointly established by BlackRock and Temasek that invests in decarbonization projects, to strengthen our support for creating new technologies and business models worldwide.

Active development of support measures for SMEs' decarbonization

Construct a solution network in collaboration with external partners and approach a broad range of companies from middle market firms and SMEs to large corporations



v. Talents (capability building)

Mizuho is working to further bolster our strengths in expertise in environment and technologies and in sustainability transformation talents. As part of this, we set new targets for capability building: namely, to reach 150 environment and energy sector consultants and 1,600 sustainability management experts by FY2025. And to improve the knowledge and skills of our relationship managers (RMs) who engage directly with clients, we hold study sessions on topics of intrinsic interest to clients, tailored to client segment characteristics, and encourage RMs to obtain qualifications.

Target	Initiatives to increase knowledge and enrich talents (results as of March 2023)
Company-wide	● Furnish each executive and employee with sufficient knowledge about sustainability, and raise their awareness based on the recognition of the importance of taking actions on their own - Sustainability training for all employees, Group CEO and CSuO messages, information sharing through intranets and internal forums, hold CSuO dialog sessions (meetings for exchanging ideas and opinions at the department / branch level), and events with outside lecturers
RMs in charge of SMEs	● Increase the number of RMs holding qualifications in support finance for SDGs promotion: approximately 2,000 (90% of all RMs) ● Sustainability management experts: approximately 1,300 ➞ FY2025 target: 1,600 Metrics and targets in the Transition Plan
RMs in charge of large corporations	● Study sessions for sales departments and branches: 14 since FY2021, average of 600 participants per session ● Increase knowledge by transferring industry and technology insights and sharing best practices
RMs outside of Japan	● Nominate RMs leading our sustainable business as Global ESG Champion: approximately 30 ● Drive businesses in each region and promote the transfer of initiatives through exchanges of information between regions and the head office and through organic collaborations
Bolster expert talents	● Environment and energy sector consultants: approximately 130 ➞ FY2025 target: 150 Metrics and targets in the Transition Plan

4. Sector-specific initiatives

(1) Initiatives in the Electric Power sector

The electric power sector is a major GHG emitting sector, accounting for approximately 43%[14] of all global GHG emissions and for approximately 14%[15] of Mizuho's financed emissions. Electric power is an essential utility for all industry and household activities. Demand for electric power is forecast to increase largely by 2050, in view of future efforts to promote electrification. Decarbonization in this sector is particularly crucial for that of society and industry as a whole.

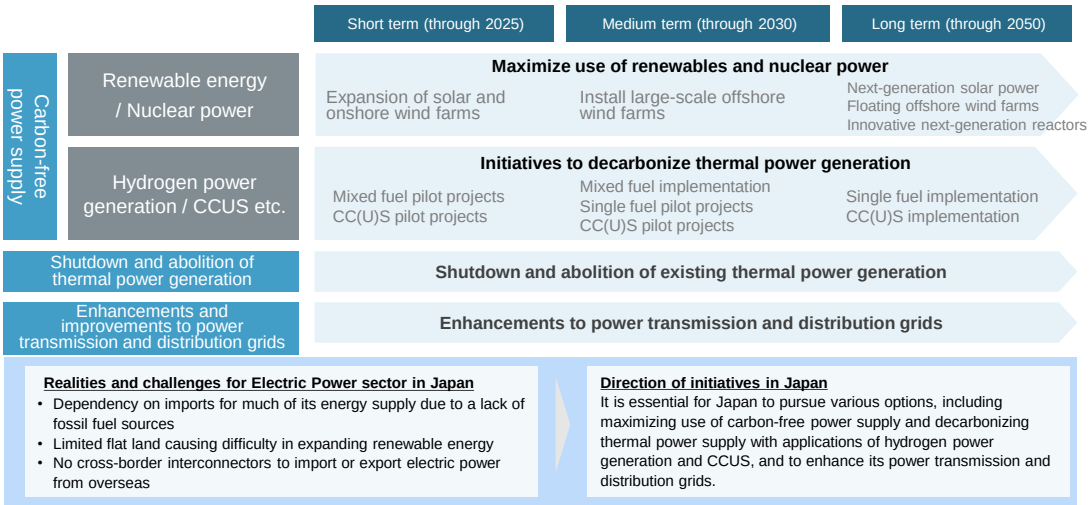
a. Outlook for the sector in 2030 / 2050

Mizuho is pursuing efforts to limit the global average temperature rise to 1.5°C and refers to the IEA's NZE scenario as one transition pathway to net zero by 2050 in the electric power sector.

Key points from the IEA's NZE scenario	- Global demand of electric power will rise dramatically by 2050 due to increased economic activities, the electrification of end-user applications, and expanded production of hydrogen by electrolysis (demand in 2050 will be about 2.7 times of that in 2020). - Renewable energy is the biggest contributor to the decarbonization of electric power. The global share of renewable energy will reach around 60% in 2030 and about 90% in 2050. The percentage of electric power generated from fossil fuel (including CCUS) will drop to 2% in 2050. - Coal-fired power generation plants without measures to reduce CO_2 emissions will be phased out by 2040. - The capacity of hydrogen and ammonia power generation facilities will increase to 189 GW in 2030 and to 573 GW in 2050.

There are, on the other hand, various pathways to decarbonization of the electric power sector, depending on the energy security situation and geographical and social factors in each country and region. Given the need to promote orderly transitions in line with the circumstances of each country and region, Mizuho also references the IEA's SDS and APS scenarios by country as well as each country's policies and roadmaps. Approximately half of Mizuho's portfolios in the electric power sector is related to the companies and projects in Japan, which means the support and cooperation with Japan's green transformation and energy policies is essential. Mizuho recognizes the issues that Japan faces in decarbonizing its electric power sector and supports initiatives to reach net zero by 2050 while communicating our positions and opinions with the government.

Figure 13: Overview of Japan's transition roadmap based on government policies[16]



[14] 2021 figures taken from the *IEA World Energy Outlook 2022*

[15] Percentage of all measurement results taken in 19 sectors based on the TCFD Recommendations (Results for FY2021 are the total of Scope 1, 2, and 3 emissions)

[16] Prepared by the Mizuho Financial Group with reference to the *Basic Policy for the Realization of GX* and the *Transition Roadmap for Power Sector* (Agency for Natural Resources and Energy)

b. Opportunities and risks for Mizuho

Mizuho, while managing risks associated with climate change in the electric power sector in an appropriate manner, ascertains the needs of clients in the transition to a decarbonized society and endeavors to support client transitions while capturing business opportunities for Mizuho.

Opportunities (anticipated client needs and time frame)	**Risk management**
■ **Investments in renewable energy and nuclear power generation (short, medium, and long term)** - Expand investments worldwide in these areas as the primary power generation sources on an ongoing basis for a low-carbon society - Expect to invest around JPY 20 trillion in Japan over the next 10 years in renewable energy ■ **Investments in next-generation technology (short, medium, and long term)** - Invest in next-generation renewable energy technologies (solar and wind power) - Invest in the decarbonization of thermal power generation ■ **Investments to enhance and improve power transmission and distribution grids (short, medium, and long term)** - Expect to invest around JPY 11 trillion in Japan over the next 10 years in next-generation grids (power grids and power adjustment capacity) for the maximum adoption of renewable energy	■ **Transition risk management** - Designate as *transition risk sectors* companies whose primary business is coal, oil, and gas thermal power generation, and identify and monitor exposures to high-risk areas within risk controls for carbon-related sectors ■ **Set and promote mid-term reduction targets for GHG emissions from financing and investment** ■ **Reduce environmental and social risks based on the ES Policy** - Set a target to reduce the outstanding credit balance of coal-fired power generation plants - Prohibit financing and investment for use in funding the new construction of coal-fired power generation plants or the expansion of existing ones ■ **Manage stranded asset risks** - Make decisions on the financing and investment of next-generation technologies based on the position of the project within the client's business and on the results of validation using the Group's internal industry and technology expertise

c. Setting and promoting medium-term reduction targets for financed emissions

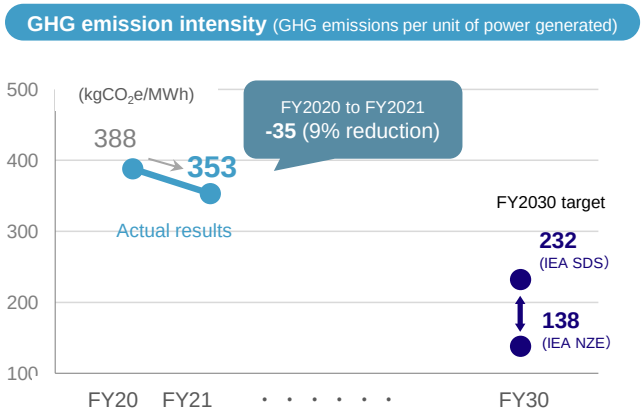
Mizuho set medium-term targets for the electric power sector in FY2022. The targets were established based on the NZBA's target-setting guidelines and were discussed at the Executive Management Committee and approved by the Board of Directors.

Table 5: Outline of medium-term reduction targets for financed emissions - Electric power sector (See Appendix p. 80 for details)

Targeted value chain	**Companies / projects whose primary business is power generation**
Metrics (Targeted emissions / production volume)	**GHG emission intensity** ($kgCO_2e/MWh$) — GHG emissions per unit of power generated $\left(\frac{\text{GHG emissions (Scope 1) from power generation business}}{\text{Annual volume of power generated}}\right)$
Targeted assets	Loans (Aggregate of corporate finance and project finance)[17]
Benchmark scenarios	(1) IEA NZE to (2) IEA SDS
Numerical targets	FY2030 GHG emission intensity: (1) **138 to** (2) **232 ($kgCO_2e/MWh$)** *Percentage decrease from FY2020 levels: (1) 65% to (2) 40%

[17] Total of loans by Mizuho Bank and Mizuho Trust & Banking

Figure 14: FY2021 results regarding the medium-term reduction targets for financed emissions - Electric Power sector



The measured emissions for FY2021 were 353 $kgCO_2e/MWh$, a 9% reduction from the previous year. Factors for the decline include lower GHG emission intensities at companies in the targeted portfolio and an increase in loans to companies and projects with low GHG emissions intensities, including renewable energy.

Reference: Change in financed emissions in the targeted portfolio for Electric Power sector-level targets (absolute emission results from FY2020 to FY2021) Scope 1: 50.8 to 45.3 $MtCO_2e$

d. Major initiatives in the Electric Power sector - Engagement

Through engagement, Mizuho confirms the status of client responses to transition risks and builds common understanding between Mizuho and the client about the client's business environment and challenges. In this way, we are working to contribute to promoting decarbonization initiatives.

■ Companies targeted for engagement

Companies operating electric power businesses (excluding those whose primary business is renewable energy, nuclear power, or power transmission and distribution) in Japan and overseas that had an outstanding credit balance with Mizuho as of July 2022.

■ Status of responses to transition risk

We have confirmed clients are making steady progress on their responses to transition risk in the electric power sector (see details on p.65)

- More that 80 percent of clients on an exposure amount basis fall into the category: Has set targets aligned with the Paris Agreement / is implementing specific initiatives based on those targets.
- Given that it takes considerable time to achieve the technological innovations and establish the power grids needed to adopt renewable energy at a mass scale, or to operate nuclear power plants, or to decarbonize thermal power generation by means of implementing next-generation technology, we confirm clients' steady progress on these initiatives and provide support as needed.

■ Main dialogue topics

➢ **Mizuho's expectations and requests for responses to transition risk**

- Formulate transition strategies
- Set quantitative targets and KPIs (medium and long term) to increase the effectiveness of transition strategies
- Take specific initiatives and disclose progress
- Measure and disclose GHG emissions
- Enhance disclosures by following the TCFD or an equivalent framework

➢ **Initiatives to reduce GHG emissions / intensities**

- Actual GHG emissions / intensities and factors contributing to their increase or decrease
- Details of how mid-term reduction targets are set and initiatives to achieve them
- Take specific initiatives and disclose progress
- Forecasts for GHG emission intensity in FY2030
- Challenges faced by transition initiatives and expectations for Mizuho

■ Engagement case study

Discussions with clients in the electric power sector in Japan on GHG reduction initiatives and challenges

- We had discussions with Japanese clients in the electric power sector regarding their upcoming capital investment plans and future energy mix to achieve net zero by 2050.
- Our dialogue also included each client's roadmaps, the status of target-setting, initiatives based on those targets, and the role they expect Mizuho to play in these areas.
- The engagements deepened shared understanding about the importance of pursuing decarbonization while ensuring stable supply of electric power, given the many uncertain aspects in the future such as power demand forecasts based on the promotion of electrification and further energy efficiencies. The discussions covered a broad range of perspectives, including alliance strategies on decarbonizing thermal power generation, investment strategies for renewable energy, and strategies to bolster power grids.

(2) Initiatives in the Oil and Gas sector

The oil and gas sector is a major GHG emitting sector, accounting for approximately 51%[18] of all global GHG emissions (30% from oil and 21% from gas) and approximately 19%[19] of Mizuho's financed emissions. Mizuho recognizes that to achieve net zero by 2050, a phased transition from oil and gas and a shift to decarbonized fuels is essential.

Additionally, the world has again been made aware of the importance of stable energy supplies, amid the recent energy crisis brought on by the Russia-Ukraine conflict. Mizuho prioritizes orderly transitions, believing in the importance of balancing long-term efforts toward decarbonization with stable energy supplies and with economical and stable energy prices.

a. Outlook for the sector in 2030 / 2050

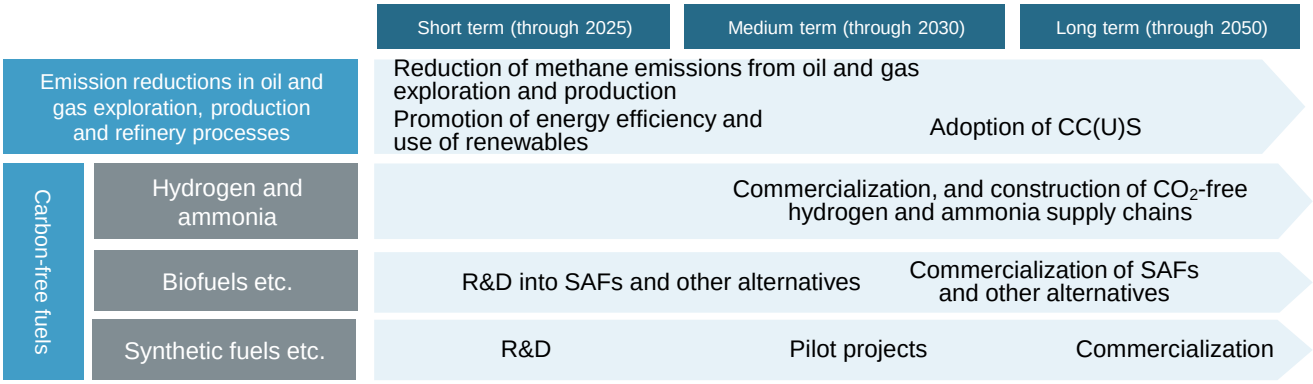
Mizuho is pursuing efforts to limit the global average temperature rise to 1.5°C and refers to the IEA's NZE scenario as one transition pathway to net zero by 2050 in the oil and gas sector.

Key points from the IEA's NZE scenario	- The transition away from oil and gas will accelerate from 2030 onward. The supply of oil and gas will decline 68% from 2030 to 2050, and the percentages of oil and gas will both fall to 8% of the total volume of energy supply. - Currently, around 40 million tons of CO_2 is collected annually. This will rise to about 7.6 billion tons of CO_2 in 2050, meaning around 2.0 billion tons of CO_2 will be removed from the atmosphere each year. - Methane emissions from the production of fossil fuels will decline about 75% over the next 10 years.

Since challenges to maintain energy security and geographical and social factors vary considerably by country and region, it is necessary to promote orderly transitions in line with the circumstances of each country and region. This is why Mizuho references the IEA's SDS and APS scenarios by country as well as each country's policies and roadmaps as transition paths for the oil and gas sector.

It is anticipated as global decarbonization progresses, the demand for oil and gas will decrease largely toward 2050 caused by the shift to renewable energy and other carbon-free energy sources in the electric power sector, the promotion of electrification in transportation and other areas, and the move toward biofuels, synthetic fuels, and other alternatives. Given these circumstances, Mizuho not only supports GHG emission reductions in our clients' oil and gas businesses but also supports initiatives aimed at decarbonization and business structural transformations, such as developing carbon-free fuels and diversifying businesses to provide renewable energy.

Figure 15: Overview of Japan's transition roadmap based on government policies[20]



[18] 2021 figure taken from *IEA World Energy Outlook 2022*

[19] Percentage of all measurement results taken in 19 sectors based on the TCFD Recommendations (Results for FY2021 are the total of Scope 1, 2, and 3 emissions)

[20] Prepared by the Mizuho Financial Group with reference to the *Basic Policy for the Realization of GX* and the *Transition Finance Roadmap for the Oil Sector* and the *Technical Roadmap for Transition Finance in the Gas Sector* (Ministry of Economy, Trade and Industry)

b. Opportunities and risks for Mizuho

Mizuho, while managing risks associated with climate change in the oil and gas sector in an appropriate manner, ascertains the needs of clients in the transition to a low-carbon society and endeavors to support client transitions while capturing business opportunities for Mizuho.

Opportunities (anticipated client needs)	Risk management
■ **Business strategies, management enhancement, and business diversification (short, medium, and long term)** - Support decarbonization measures by businesses and enhancement of management systems toward transition, and assist the formulation of financial and capital strategies - Strive for business diversification, such as supplying renewable energy ■ **Investments in carbon-free fuels / construction of supply chains (short, medium, and long term)** - Invest in R&D, pilot programs, and commercialization of carbon-free fuels such as hydrogen and ammonia - Finance the construction of supply chains for carbon-free fuels ■ **Reduction of the environmental impact of existing businesses (short and medium term)** - Financing for capital investments that reduce the environmental impact of existing businesses and aid energy transitions (such as investments for facility upgrades and to adopt CCUS or other decarbonization solutions) ■ **Business structural transformations (medium and long term)** - M&As associated with business structural transformations	■ **Transition risk management** - Designate as *transition risk sectors* companies whose primary business is oil and/or gas, recognizing that they have a high possibility of being exposed to transition risk; and identify and monitor exposure to high-risk areas within risk controls for carbon-related sectors ■ **Set and promote mid-term reduction targets for financed emissions** ■ **Reduce environmental and social risks based on the ES Policy** ■ **Manage stranded asset risks** - Make decisions on the financing and investment of next-generation technologies based on the position of the project within the client's business and on the results of validation using the Group's internal industry and technology expertise

c. Setting and promoting medium-term reduction targets for financed emissions

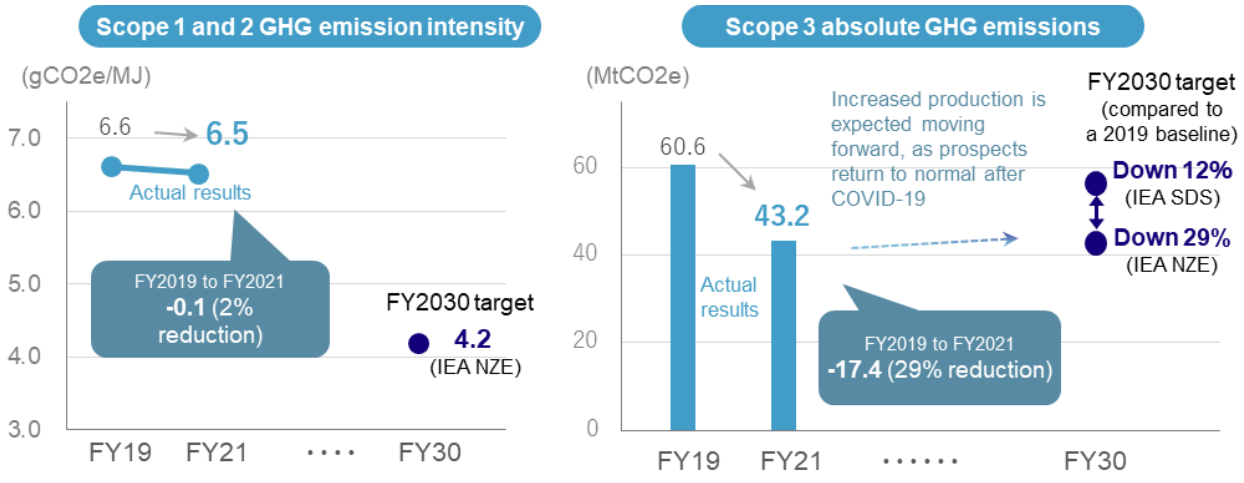
Mizuho set medium-term targets for the oil and gas sector in FY2022. The targets were established based on the NZBA's target-setting guidelines and were discussed at the Executive Management Committee and resolved by the Board of Directors.

Table 6: Outline of medium-term reduction targets for financed emissions - Oil and Gas sector (See Appendix p. 81 for details)

Targeted value chain		**Companies / projects whose primary business is upstream production (including integrated oil and gas companies)**
Targeted assets		Loans (Aggregate of corporate finance and project finance)[21]
Scope 1 and 2	**Metrics (Targeted emissions / production volume)**	**GHG emission intensity** (gCO_2e/MJ) - GHG emissions per unit of production $\frac{\text{Direct emissions from oil and gas production operations (Scope 1 and 2)}}{\text{Upstream oil and gas production volume}}$
	Benchmark scenario	IEA NZE
	Numerical target	FY2030: **4.2 gCO_2e/MJ**
Scope 3	**Metrics (Targeted emissions / production volume)**	**Absolute GHG emissions** ($MtCO_2e$) (Indirect emissions from oil and gas production operations (Scope3 Category 11))[22]
	Benchmark scenarios	(1) IEA NZE to (2) IEA SDS
	Numerical targets	FY2030 absolute GHG emissions: (1) **-12% to** (2) **-29%** (from FY2019 levels)

[21] Total of loans by Mizuho Bank and Mizuho Trust & Banking
[22] Emissions when sold products are used (burned)

Figure 16: FY2021 results regarding the medium-term reduction targets for financed emissions - Oil and Gas sector



FY2021 results were down about 2% from FY2019 levels

Absolute emissions were down 29% from FY2019 levels. The decline was largely accountable to production declines due to the COVID-19 pandemic and a reduction in Mizuho's loan share (attribution factor) as a percentage of corporate value (EVIC) associated with an increase in the market capitalization, primarily among large corporations, of companies in the targeted portfolio.

Reference: change in financed emissions in the targeted portfolio for Oil and Gas sectoral targets (absolute emissions from FY2020 to FY2021)
Scope 1: 7.5 to 4.4 $MtCO_2e$, Scope 2: 0.7 to 0.5 $MtCO_2e$, Scope 3: 60.6 to 43.2 $MtCO_2e$

d. Major initiatives in the Oil and Gas sector - Engagement

Through engagement, Mizuho confirms the status of client responses to transition risk and builds common understanding between Mizuho and the client about the client's business environment and challenges. In this way, we are working to contribute to promoting decarbonization initiatives.

■ Companies targeted for engagement

Companies operating oil and gas businesses in Japan and overseas that have an outstanding credit balance with Mizuho as of July 2022.

■ Status of responses to transition risk

We have confirmed clients are making steady progress on their responses to transition risk in the oil and gas sector (see details on p.65)

- More than 70 percent of clients on an exposure amount basis fall into the category: Has set targets aligned with the Paris Agreement / is implementing specific initiatives based on those targets.
- We confirm how clients are proceeding with initiatives such as commercializing carbon-free energy (such as hydrogen and ammonia), adopting CCUS into oil and gas businesses, and diversifying businesses by, for example, supplying renewable energy.

■ Main dialogue topics

➢ **Mizuho's expectations and requests for responses to transition risk**

- Formulate transition strategies
- Set quantitative targets and KPIs (medium and long term) to increase the effectiveness of transition strategies
- Take specific initiatives and disclose progress
- Measure and disclose GHG emissions
- Enhance disclosures by following the TCFD or an equivalent framework

➢ **Initiatives to reduce GHG emissions / intensities**

- Actual GHG emissions
- Details of how medium-term reduction targets are set
- Take specific initiatives and disclose progress
- Take initiatives to reduce Scope 1, 2 and 3 emissions and to transform business structures
- Challenges faced by transition initiatives and expectations for Mizuho

■ Engagement case study

Engagement roundtable with North American energy companies

- We held a roundtable meeting with the management of leading North American energy companies for ESG engagement (held for the second time after the first in FY2021).
- We had lively discussions about initiatives to achieve a decarbonized society from the standpoint of stable energy supplies, given the backdrop of energy price hikes caused by the Russia-Ukraine conflict
- Some of the comments included that the shift to renewable energy should be advanced over the medium to long term, while paying attention to the energy poverty in developing countries where coal demand is increasing due to increase in oil prices. Another comment was that the private sector should pursue committed GHG emission reduction efforts, while recognizing the risk of policy changes.

Far-ranging discussions with Japanese clients in the oil and gas sector about transition strategies

- Mizuho has ongoing discussions with clients in the oil and gas sector that are aiming for a transition while fulfilling their mission to achieve stable energy supplies.
- In addition to supporting business portfolio review, compliance with carbon pricing and other regulations, and formulating transition strategies, such as developing new technologies and creating new businesses, we offer a range of support in the form of arranging financing, such as green loans for the initiatives needed to implement strategies, developing new financing methods, and even reviewing equity assistance (provision of risk money).

■ Stricter evaluation criteria on projects that will use financing for new oil and gas exploration

Taking into account our medium-term reduction targets for financed emissions, we are strengthening our operational systems that verify and make financing decisions on projects that will use funds for new oil and gas exploration (the new procedures are scheduled to be in place in July 2023).

➢ **Primary check**

- Forecasts of Scope 1 and 2 GHG emission intensities and the presence of sufficient GHG emission reduction measures
- Forecasts of Scope 3 emissions (production volumes)

➢ **Secondary check**

- Consistency with government policies on stable energy supplies and decarbonization
- The transition strategy and progress on transition measures (such as transition plans for business structural transformations, including reductions in the overall share of the oil and gas business in the company, and the details of GHG emission reduction targets (inclusion of reduction targets for methane emissions)

(3) Initiatives in the Coal Mining (Thermal Coal) sector

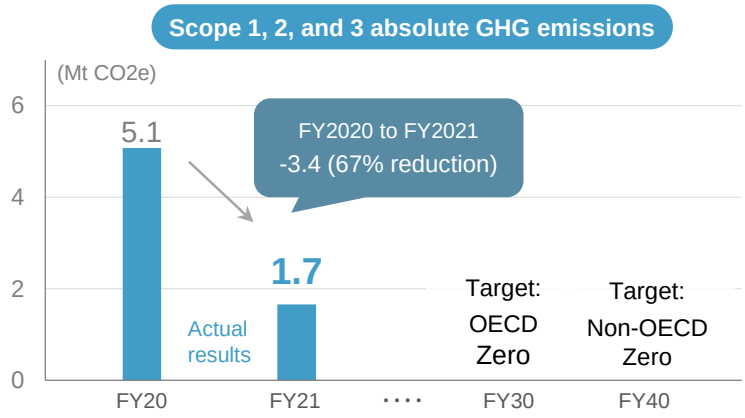
a. Setting and promoting medium-term reduction targets for financed emissions

Mizuho set medium-term targets for the coal mining (thermal coal) sector in FY2022. The targets were established based on the NZBA's target-setting guidelines and were discussed at the Executive Management Committee and resolved by the Board of Directors.

Table 7: Outline of medium-term reduction targets for financed emissions - Coal Mining (Thermal Coal) sector (See Appendix p. 82 for details)

Targeted value chain	**Companies / projects whose primary business is thermal coal mining**
Targeted assets	Loans (Aggregate of corporate finance and project finance)[23]
Metrics and targeted emissions	**Absolute GHG emissions ($MtCO_2e$)** Direct emissions from thermal coal mining businesses (Scope 1 and 2) and indirect emissions (Scope 3 Category 11[24])
Numerical targets	OECD countries **Zero by FY2030** Non-OECD countries **Zero by FY2040**

Figure 17: FY2021 results regarding the medium-term reduction targets for financed emissions - Coal Mining (Thermal Coal) sector



FY2021 results were down 67% year-on-year largely due to the decrease in loan balances in the targeted portfolio

Reference: Breakdown by Scope 1, 2, and 3

(MtCO2e)	FY2020	FY2021
Scope 1	0.4	0.2
Scope 2	0.009	0.003
Scope 3	4.7	1.4
Total	5.1	1.7

b. Initiatives to steadily reduce financing for coal mining (thermal coal)

Mizuho has established the following policies on coal mining (thermal coal) in the Environmental and Social Management Policy for Financing and Investment Activity. The outstanding balance of loans to companies / projects whose primary business is thermal coal mining declined from JPY 22.6 billion on March 31, 2022 to JPY 10.6 billion on March 31, 2023. We will steadily reduce this amount as we aim to achieve our medium-term target.

Policy on financing and investment for coal mining (thermal coal) (taken from the Environmental and Social Management Policy for Financing and Investment Activity)

- Prohibit financing and investment which will be used for development of new coal mine (thermal coal) and expansion of existing coal mine (thermal coal)
- Prohibit financing and investment to companies with no existing financing and investment transactions and whose primary business is coal mining (thermal coal).
- Prohibit financing and investment for infrastructure linked with coal mining (thermal coal) (operations to start on July 1, 2023)

[23] Total of loans made by Mizuho Bank and Mizuho Trust & Banking
[24] Emissions when sold products are used (burned)

(4) Approaches in other sectors

Mizuho supports our clients' efforts to transition to a decarbonized society by engaging with them based on the issues with and necessary technologies for decarbonization in each sector.

Decarbonization in manufacturing sectors (Steel / Chemicals)

Technology connected to shifts from fuels and materials derived from fossil fuels is essential to decarbonize the steel and chemical sectors. Most of these technologies are in the R&D phase. Mizuho is involved in broad discussions with clients about business strategies to decarbonize, based on our environment and industry expertise.

Technologies needed for decarbonization

Steel	Directly reduced iron (natural gas and hydrogen), using electric furnaces and making larger electric furnaces, CCUS, use of reduced iron and scraps
Chemicals	Heat source conversion (using hydrogen or ammonia), raw material conversion (bio-materials and bio-manufacturing), resource recycling (chemical and material recycling)

Steel — Engagement with clients in the Steel sector

- Mizuho designated the steel sector as a transition risk sector based on qualitative evaluations of risks and opportunities and started operations in FY2022.
- We engage in broad discussions with clients about business strategies to decarbonize, decarbonization challenges, and prospects for applications of next-generation technology.

Chemicals — Equity investments for the growth of bio-manufacturing

- We invested in Synpolgen as the first project under our new transition equity investment facility
- Contributions to the growth of bio-manufacturing[25] in Japan

Decarbonization in transportation sectors (automotive, maritime transportation, and aviation)

Mizuho provides financial and non-financial support for decarbonization in transportation sectors. Specifically, we support initiatives by clients to decarbonize or reduce the carbon component of their products and to shift to next-generation fuels in the automotive, maritime transportation, and aviation sectors.

Automotive — Green loans for zero emission mobility

- Mizuho Bank arranged the largest-ever green loan in Japan for Nissan Motor for R&D and investments in zero-emission vehicles.

Automotive — Sustainability-linked loan (first of its kind in the Chinese auto financing industry)

- Mizuho Bank arranged the first sustainability-linked syndicated loan in the Chinese automobile financing industry for Genius Auto Finance.

[25] Bio-manufacturing consists of technologies for creating innovative products by maximizing the capabilities of microorganisms to produce substances through genetic engineering techniques. Bio-manufacturing technologies are also expected to promote carbon recycling by using CO_2 directly as a raw material.

Maritime Transportation and Aviation — Environment and climate-related finance for maritime transportation and airline companies

- Mizuho Bank and Mizuho Securities provided transition loans, transition-linked loans, Mizuho Eco Finance, and other wide-ranging finance products to maritime transportation companies.
- Mizuho Bank arranged for Japan Airlines Japan's first transition-linked loans specifically for use in the airline industry.

Aviation — Support for SAF for governments and the private sector

- Mizuho provides support for governments and the private sector for the practical application of sustainable aviation fuel (SAF), which is vital to decarbonizing the aviation industry, through our supply chain expertise from upstream (biomass and other resources) to downstream (airline companies and aircraft equipment).
- Mizuho facilitates public-private partnerships and cross-industry initiatives.

Decarbonization in the Real Estate sector

Mizuho supports financing and investment in real estate with high energy-efficiency and low emissions as well as initiatives by property owners to decarbonize the real estate sector. We also promote initiatives that contribute to decarbonization in the real estate investment market considering broader base of property owners.

Mizuho Green Real Estate Non-Recourse Loans / Mizuho Sustainability Real Estate Non-Recourse Loans

- Mizuho Bank adopted an independent evaluation framework for the sustainability field for the first time for a major Japanese bank.
  - These products promote financing and investment by means of conducting assessments under the evaluation framework for real estate fund projects to provide information with lenders and investors to make decisions.
  - These products are intended to create an impact on the real estate fund market in excess of JPY 20 trillion in assets.

Launch of services for real estate investment trusts to purchase FIT non-fossil certificates

- Mizuho Trust & Banking supports initiatives to decarbonize the real estate investment market.
  - By purchasing non-fossil certificates, Mizuho Trust & Banking, as the trustee, can meet the needs of beneficiaries, who are the effective property owners, and tenants to adopt renewable energy.

Eco-friendly office building developments via private placement real estate fund schemes

- Mizuho Real Estate Management undertakes ESG investment model initiatives that balance economic and social perspectives.
  - Hybrid wooden structures that use local timber encourage both decarbonization and contribution to regional revitalization.

【Topic】Natural capital initiatives

Socio-economic activities rely on natural capital while benefiting from ecosystem services. At the same time, business activities negatively impact nature and the increasing severity of natural capital losses is a business risk for companies. The Kunming-Montreal Global Biodiversity Framework was adopted at the United Nations Biodiversity Conference (COP15) in December 2022. The framework clearly states that its goals are the disclosure of information by large corporations and multinational companies and the promotion of investment in biodiversity by private companies. Additionally, the Taskforce on Nature-related Financial Disclosures (TNFD) framework is scheduled to be finalized in September 2023, which may push forward considerations that will broaden legally mandated disclosures.

In this context, we believe that assessing the extent Mizuho's clients are dependent on natural capital through their business activities and how their business activities may negatively impact nature can help change the money flow in a nature positive[26] direction and contribute to the recovery of natural capital.

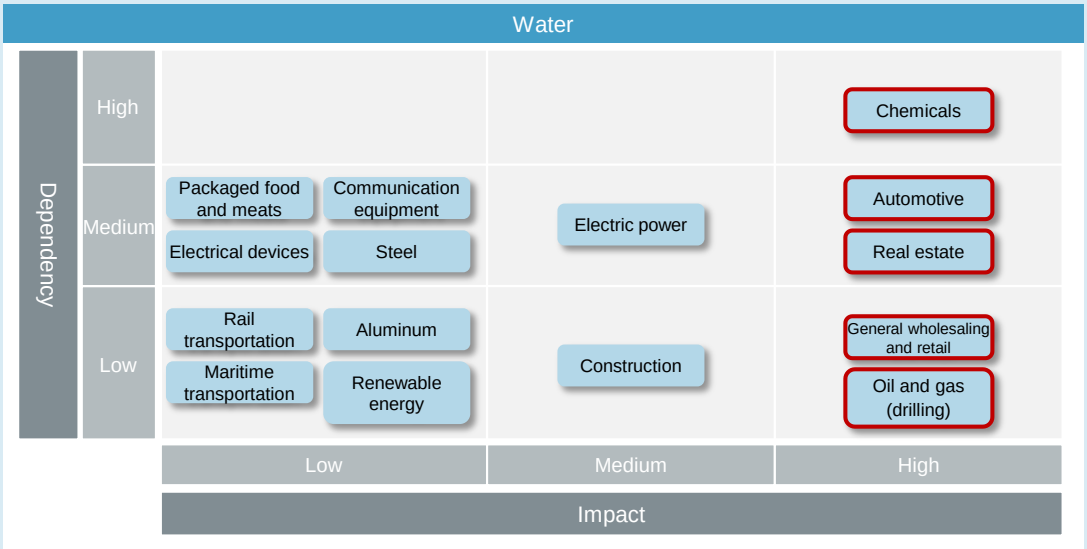
We began with an initial analysis using ENCORE[27] to ascertain the impacts and dependencies, as well as the opportunities and risks, in Mizuho's loan portfolio and to understand the key natural capital and sectors. We used ENCORE scores, weighted by the size of Mizuho's exposure, to categorize each sector's dependency and impact on natural capital into three classes: High, Medium, and Low. The results showed that the chemical, automotive, real estate, general wholesale and retail, and oil and gas (drilling) sectors have large dependencies and impacts on water and biodiversity (habitats and species).

Although this analysis did ascertain the key natural capital and sectors in our loan portfolio, we recognize that there is still room to update the TNFD framework and analytical tools and to improve our analysis to account for location, which is an important component in ascertaining nature-related risks.

Table 8: Results of our analysis on Mizuho's loan portfolio

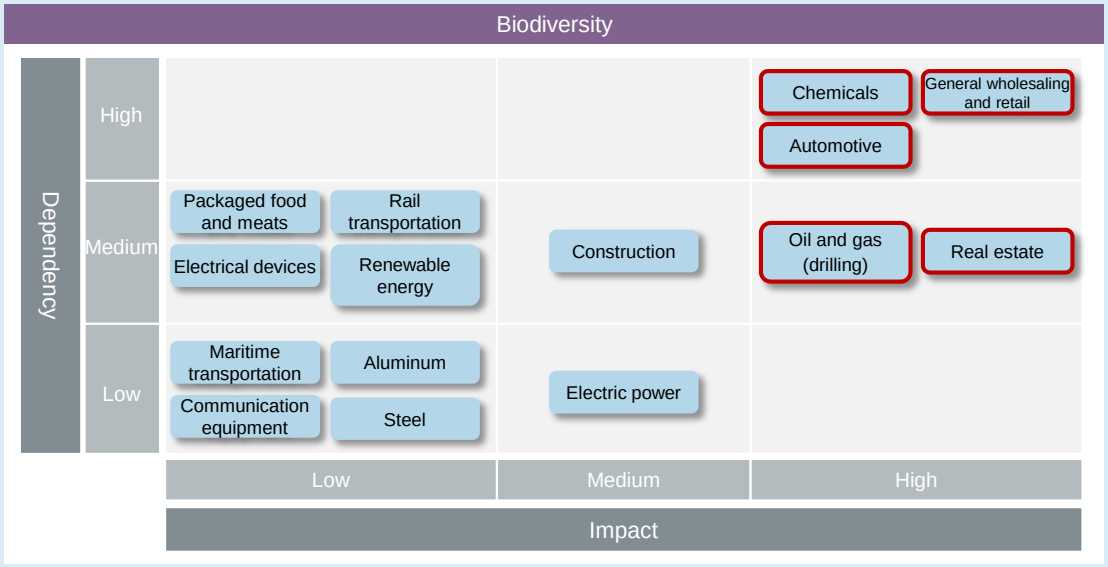
Key natural capital	**Water, biodiversity** (habitats and species)
Sectors in Mizuho's loan portfolio that have large dependencies and impacts on water and biodiversity	**Chemicals, automotive, real estate, general wholesale and retail, and oil and gas (mining) sectors**

Figure 18: Results of qualitative evaluations of sector-specific impacts and dependencies, weighted by Mizuho's loan portfolio (water / biodiversity)



[26] Nature positive in this context refers to halting the loss of nature and biodiversity by 2030 and put nature and biodiversity on a recovery track.

[27] ENCORE stands for Exploring Natural Capital Opportunities, Risks and Exposure. It is a tool to visualize the economic impacts of environmental changes and was jointly developed by the UNEP-FI, UNEP-WCMC, and Global Canopy.



Sectors with high dependency and impact on both water and biodiversity

Many business opportunities are expected in sectors with high dependencies and impacts, as presented in Figure 18, and in sectors with technologies that contribute to the transition to a nature positive economy. Mizuho is committed to supporting client transitions to a nature positive economy and to capturing business opportunities for Mizuho.

Table 9: Examples of Mizuho's support measures for clients transitioning to a nature positive economy

Support measure	Specific details of the support measures	Relevant natural capital and sector	
Japan's first blue bonds and blue sustainability loans	Mizuho provides financial solutions to be used for capital in environmentally sustainable fisheries / aquaculture projects	Water	Food
Support for initiatives through positive impact finance	Mizuho backs initiatives through positive impact finance that sets sustainable procurement rates (paper, palm oil, soybeans, coffee beans, beef) as KPIs	Biodiversity	Food
Support for initiatives that make visible and disclose natural capital-related risks and opportunities	Mizuho supports initiatives working to enhance sustainable procurement and traceability of raw materials by means of consulting using field-specific expertise and satellites	Biodiversity	Food
		Water	Chemicals

5. Recognition of risks posed by climate change

Mizuho assumes various risks posed by climate change (climate-related risks) in each risk category (Table 10). Recognition of these risks and the state of their management are regularly reported to the Executive Management Committee, the Board of Directors, and other committees.

In FY2022, we conducted qualitative evaluations on the materiality of climate-related risks in each risk category in order to understand the climate-related risks in an integrated manner. From these evaluations, we recognized the particular consequence of climate-related risks in the categories of credit risk (deterioration in client business performance) and market risk (decline in the value of stock holdings). We manage high-consequence risks both qualitatively and quantitatively as necessary and take appropriate responses.

Table 10: Recognition of climate-related risks

	Transition risks	Physical risks (acute)	Physical risks (chronic)
Credit risk	Deterioration in client business performance associated with business landscape changes in view of decarbonization [short / medium / long term]	Deterioration in client business performance associated with windstorms, floods, and other disasters [medium / long term] Decline in the value of collateral assets caused by windstorms, floods, and other disasters [medium / long term]	Deterioration in client business performance associated with business landscape changes caused by temperature increases [medium / long term]
Market risk	Decline in the value of stock holdings associated with business landscape changes or macroeconomic landscape changes in view of decarbonization [short / medium / long term] Decline in the value of stock holdings associated with macroeconomic landscape changes in view of decarbonization [short / medium / long term]	Decline in the value of stock holdings associated with business performance deterioration caused by windstorms, floods, and other disasters [medium / long term] Decline in the value of stock holdings associated with economic landscape changes caused by windstorms, floods, and other disasters [medium / long term]	Decline in the value of stock holdings associated with business landscape changes caused by temperature increases [medium / long term]
Liquidity risk	Increase in funding demands from clients associated with business landscape changes in view of decarbonization (increase in deposit outflow / fund raising) [short / medium / long term] Deterioration in the fund-raising landscape associated with changes in investor attitudes [short / medium / long term]	Increase in funding demands associated with windstorms, floods, and other disasters (increase in deposit outflow / fund raising) [medium / long term] Deterioration in the fund-raising landscape associated with windstorms, floods, and other disasters [medium / long term]	n/a
Operational risk	Stakeholders filing lawsuits and taking other legal action associated with insufficient compliance with government policies and regulations [short / medium / long term]	Abandonment of Mizuho assets and repair costs incurred as a result of damage from windstorms, floods, and other disasters [medium / long term] Business interruptions to Mizuho as a result of damage from windstorms, floods, and other disasters [medium / long term]	Inadequate measures to counter infectious diseases (malaria, dengue fever) caused by temperature increases [medium / long term]
Reputational risk	Criticism of Mizuho for inadequate, obsolescent, or non-performing climate change-related strategies [short / medium / long term]		

Materiality evaluation results: High Medium Low

Time base: Short term: 1 to 3 years, medium and long term: up to 2050

Figure 19: Process for evaluating the materiality of climate-related risks

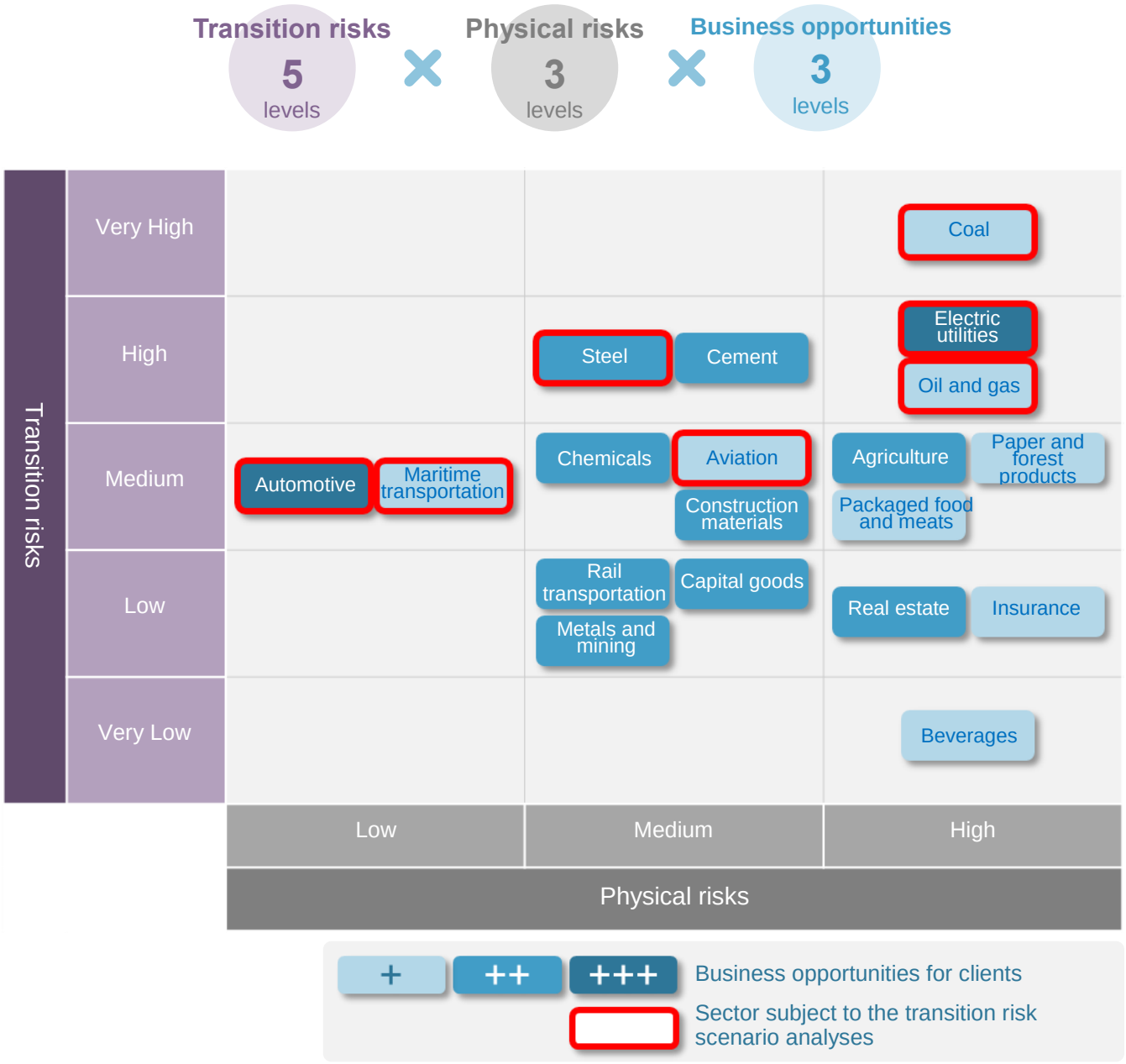
Table 11: Risk category definitions

Credit risk	● The risk of incurring losses due to a reduction in or complete elimination of the value of assets (including off-balance-sheet items) caused by the deterioration of the financial status (or a similar development) of a customer to whom credit has been extended.
Market risk	● The risk of incurring losses due to a change in the value of assets and liabilities held (including off-balance-sheet items) caused by changes in interest rates, securities prices and foreign-exchange rates, etc. ● Market risk includes the risk of incurring losses due to market disruptions, turmoil, or other disorder that prevent it from conducting transactions in the market or require it to pay significantly higher prices than normal to conduct transactions (market liquidity risk).
Liquidity risk	● The risk of being unable to secure the necessary funding, whether due to deteriorating financial conditions or similar reasons, and will therefore be unable to meet cash flow requirements; or the risk of incurring losses due to being compelled to pay interest rates significantly higher than normal rates in order to secure funding.
Operational risk	● The risk of the Mizuho Group suffering losses resulting from inadequate or failed internal processes, people, and systems or from external events. ● Operational risk includes the following kinds of risk: - Information technology risk, cybersecurity risk, operational risk, legal risk, human resources risk, tangible asset risk, and regulatory change risk
Reputational risk	● The risk of the Mizuho Group suffering tangible and intangible losses due to adverse effects on Mizuho's reputation or brand when all services provided by and activities conducted by the Group, officers, and employees are recognized as deviated from the expectations and requirements of stakeholders.

Our Group conducts qualitative evaluations of risks and opportunities by sector in order to identify climate-related risks. The evaluations target 19 sectors, in line with the recommended disclosures in the TCFD Recommendations.

Transition risks are evaluated on a five-level scale — Very High, High, Medium, Low, and Very Low — based on sector-specific evaluation criteria such as GHG emissions and carbon efficiencies. The evaluations are referenced when selecting sectors for scenario analyses. We also rate the extent of physical risks and client business opportunities on a three-level scale and work to raise awareness of climate-related risks (Figure 20).

Figure 20: Results of qualitative evaluations of sector-specific risks and opportunities



【Topic】Revisions to the recommended disclosures in the TCFD Recommendations

The supplemental guidance in the TCFD Recommendations specifies that the banking industry should disclose credit exposure to carbon-related assets. Following the November 2021 revisions to that guidance, the definition of such disclosures has expanded the recommended scope to the following 18 sectors.

Energy	Transportation	Materials and Buildings	Agriculture, Food, and Forest Products
• Oil and Gas • Coal • Electric Utilities	• Air Freight • Passenger Air Transportation • Maritime Transportation • Rail Transportation • Trucking Services • Automobiles and Components	• Metals and Mining • Chemicals • Construction Materials • Capital Goods • Real Estate Management and Development	• Beverages • Agriculture • Packaged Food and Meats • Paper and Forest Products

Our qualitative evaluations, described above, and our sector-specific exposures and financed emissions, described below, cover all the recommended sectors listed above (some of the recommended sectors have been split, combined, or added to).

6. Scenario analyses

Mizuho conducts scenario analyses for both transition risks and physical risks in order to understand the future impact of climate change on our Group's portfolio. The analyses use multiple scenarios, including the 1.5°C scenario, to increase the flexibility of plans and the resilience of strategies in anticipation of various future climate change-related outcomes.

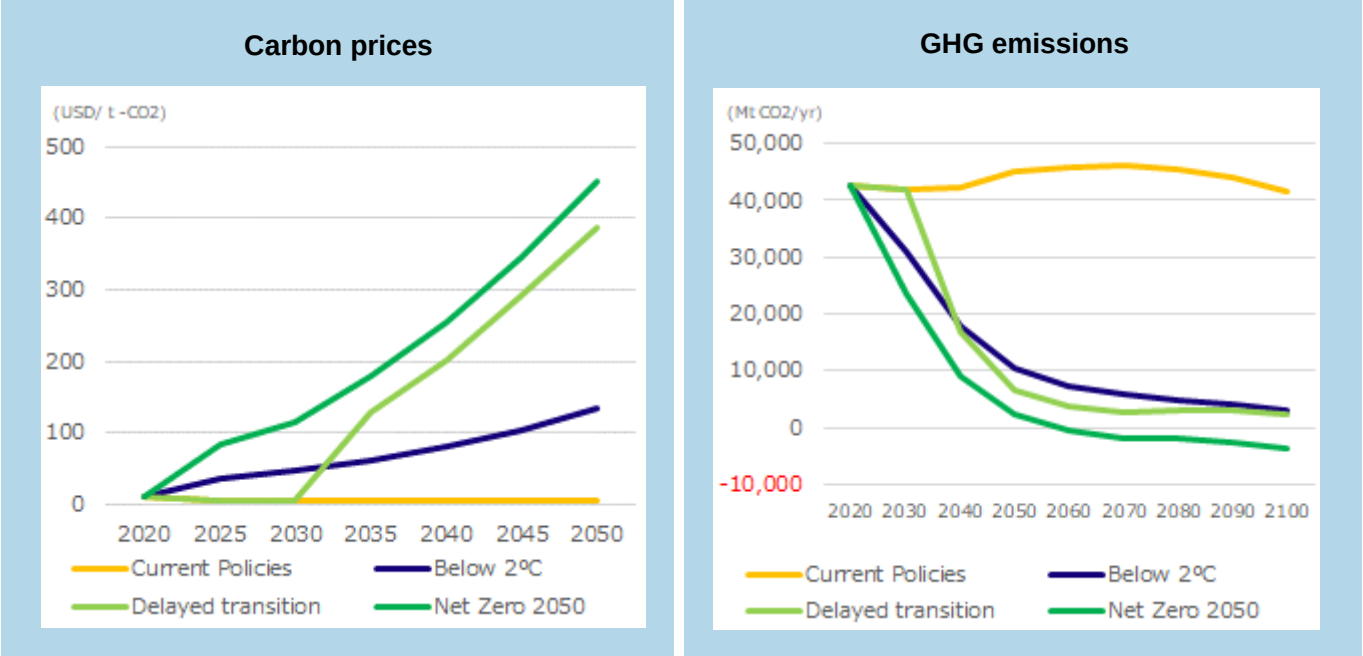
(1) Scenario assumptions and implications for Mizuho

Mizuho uses four of the six scenarios (Current Policies, Below 2°C, Delayed Transition, and Net Zero 2050) formulated by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) for its analyses. The table below summarizes the assumptions for each scenario and their implications for Mizuho.

Scenario		Current Policies	Below 2°C	Delayed Transition	Net Zero 2050
Scenario narrative		This scenario assumes that current policies are maintained.	This scenario assumes that climate-related policies gradually become more stringent and the rise in the average global temperature is limited to below 2°C. Policy responses proceed quickly and smoothly, but technological innovation is gradual.	This scenario assumes that annual emissions do not decline until 2030 and very tough policy responses are needed to keep the temperature increase below 2°C. Rapid progress is made in developing more stringent policy responses and in technological innovation.	This scenario assumes CO_2 emissions reach net zero around 2050 due to smooth and quick policy responses and rapid technological innovation.
Main assumptions	Temperature increase by 2100	+3.0°C	+1.8°C	+1.8°C	+1.5°C
	GHG emissions	Net zero not achieved even in 2100	Net zero not achieved even in 2100	Net zero not achieved even in 2100	Net zero achieved by the 2050s
	Carbon pricing	Levels nearly zero	Rise from the outset	Rise from 2030 on	Rise rapidly from the outset
	Business structural transformations	Almost none expected	Progress from the outset	Progress made from 2030 on	Rapid progress from the outset
Implications for Mizuho	Transition risks	Low	→	→	High
	Physical risks	High			Low
	Opportunities	Low	→	→	High
	Summary	The impact of physical risks will be substantial, as the severity of disasters increases along with rapid temperature increases. Although the impact of transition risks will be limited, because almost no business structural transformations are expected, associated demand for financing by clients will be low.	Although the impact of transition risks will be limited, demand for financing associated with next-generation technology and decarbonization measures may be relatively low because clients use their own funds.	Attention must be given to risk management, because the impact of transition risks may cause client business performance to deteriorate. There will be demand for financing from clients from 2030 onward for next-generation technology and decarbonization measures to keep temperature increases to below 1.8°C.	Compared to the other scenarios, the impact of physical risks will be limited, but attention must be given to risk management, because the impact of transition risks may cause client business performance to deteriorate. Demand for financing from clients will increase from current levels for next-generation technology and decarbonization measures to keep temperature increases to below 1.5°C.

Source (for the scenario narratives and assumptions): NGFS Scenarios (Phase III)

Figure 21: NGFS scenario parameters



Source: NGFS Scenarios (Phase III) (all figures on a global basis)

(2) Transition risk scenario analyses

The following flowchart outlines the process of transition risk scenario analyses.

Select sectors for analysis	Select sectors for analysis based on the results of qualitative evaluations and other studies
Select risks and opportunities	Select risks and opportunities for clients in each sector
Define parameters	Define parameters in order to quantitatively measure the impact of risks and opportunities
Analyze business performance impact	Create forecasts of clients' balance sheets / profit and loss statements through to 2050
Calculate credit costs	Extend the business performance impact results in each sector into subsector units by dividing sectors by region or other consideration, and then calculate the credit costs for the entire sector
Examine response policies	Verify the analysis results and examine response policies

a. Sectors covered in scenario analyses

Taking into account the results of our qualitative evaluations (Figure 20) and the status of our sector-specific portfolios (see p. 64 for our sector-specific credit exposure), the electric utilities, oil and gas, coal, and steel sectors were selected as the analysis targets from the sectors found to have Very High or High transition risks in our qualitative evaluations. We also added the automotive sector, which was found to have a large client business opportunity, from the sectors found to have Medium transition risks, and we included the transportation (maritime transportation and aviation) sector, as it is designated as a carbon-intensive sector by the NZBA (Table 12).

Table 12: Sectors covered in transition risk scenario analyses

	Previous report	This report (changes are underlined)
Sectors covered in the transition risk analyses	Electric utilities, oil and gas, coal, steel, and automotive sectors (worldwide)	Electric utilities, oil and gas, coal, steel, automotive, <u>maritime transportation</u>, and <u>aviation</u> sectors (worldwide)

b. Scenario analysis methodology

For our transition risk analyses, we selected critical risks and opportunities, pertaining to demand, prices, tighter regulations, and other factors, faced by clients in the sectors being analyzed, and we defined the parameters necessary to evaluate the risks and opportunities based on future projection data in the NGFS scenarios and publicly available data from clients. Using these data, we analyzed the increase in Mizuho's credit costs attributable to transition risks by formulating forecasts of the impacts on clients' financial results. See pp. 97 - 102 in the Appendix for the worldviews of the analyzed sectors in each scenario and an outline of the actual analyses.

c. Scenario analysis results

The table below summarizes the results of the scenario analyses.

	Below 2°C	Delayed Transition	Net Zero 2050
Cumulative increase in credit cost through 2050 (difference from Current Policies scenario)	JPY 360.0 billion	JPY 1.17 trillion	JPY 1.65 trillion

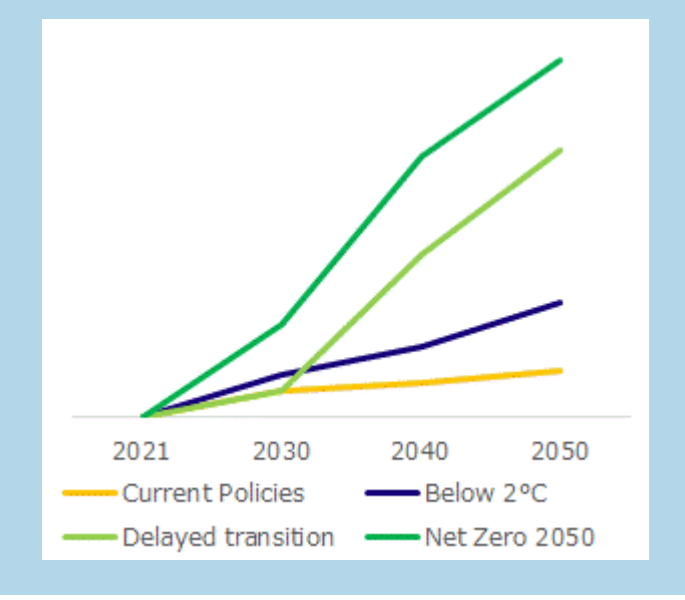
Note: Calculations assume the level of exposure on March 31, 2023 remains constant through 2050.
Note: The analyses used parameters from the *NGFS Scenarios (Phase III)*, and parameters not included in the NGFS scenarios were supplemented with conservative assumptions based on references from the IEA and other sources.

The results showed that credit costs will increase over time under all scenarios, and while Mizuho may experience some financial impact over the medium to long term, any impact on its short-term financial soundness is limited (Figure 22).

Under the Delayed Transition and Net Zero 2050 scenarios, credit costs increase sharply after 2030. A breakdown by sector shows that the main contributors to the increase in credit costs are the steel, oil and gas, and coal sectors. According to the NGFS and other parameters, these sectors increase credit costs because of the considerable investments required for their business structural transformations and because of their large carbon costs, as GHG emissions will still be present even in 2050. In all sectors, not just the steel, oil and gas, and coal sectors, credit costs may increase significantly in the phase when carbon prices shoot up while client measures to reduce GHG emissions are not fully implemented. From this, we confirmed the importance of promoting business structural transformations as early as possible, prior to the materialization of medium and long term risks, through in-depth engagement with clients.

In both the Below 2°C scenario, which assumes a quick and smooth response to climate change (an orderly transition), and the Delayed Transition scenario, which assumes an initial delayed response to climate change and a rapid transition from 2030 onward (a disorderly transition), the global average temperature increase is kept below 2°C. However, the credit costs are much smaller in the Below 2°C scenario, which confirms the importance of making an orderly transition.

Figure 22: Transitions in cumulative credit cost increases by scenario



d. Actions going forward

The results of this report's scenario analyses confirmed the importance of early business structural transformations by clients and an orderly transition by society as a whole. Consequently, Mizuho will work to strengthen the following measures.

(1) Promote early business structural transformations by clients through in-depth engagement (see pp. 37 and 41 for specific examples of client engagement)

(2) By voicing our positions and opinions at rulemaking bodies and through our activities at industry organizations / private sector initiatives, support the formulation and execution of orderly transition policies by governments (see p. 33 for specific examples of communicating our positions and opinions at rulemaking bodies)

Mizuho's scenario analyses quantitatively measure the financial impact of climate-related risks and verify the resilience of strategies. We recognize that scenario analyses are a tool that can be useful for risk management, strategy formulation, and other aspects of Mizuho's business management. At the same time, we always work to improve our analytic methodologies using our Group's industrial and environmental expertise and discussions with diverse stakeholders, as we believe it is necessary to conduct analyses grounded on scenarios that reflect client transition strategies and outlooks on the future of society and industry.

Mizuho provides necessary financings for transition to clients taking on the decarbonization challenge, while exercising effective control for climate-related risks through the initiatives referred above.

(3) Physical risk scenario analyses

For our scenario analyses of physical risks, we work with consulting firms and data vendors to improve the analyses as needed and publish the amount of impacts associated with climate change. As we have already confirmed the cumulative amount of impacts up to the year 2100 from the acute risks of cyclones and floods and the chronic risks of temperature fluctuations in the previous analyses, we focused further on impact when a stress event materialized and estimated the maximum increase amount in a single year in the analyses on this report. Improvements made to this report's analyses, including unifying to use NGFS scenarios for all analyses, were the addition of wildfires and droughts to the acute risks and increased air conditioning usage due to temperature fluctuations to the chronic risks as well as expanding the analysis scope to overseas companies and to large corporations.

The estimates from these analyses led to the recognition of three new points, described here.

1. If the stress event with the largest amount of damage materializes, an additional loss of approximately JPY 90 billion may be incurred, mainly from fluvial flooding caused by cyclone and flood damages.
2. Wildfires could cause additional losses of approximately JPY 30 billion, mainly in North America and Europe, and temperature changes could cause additional losses of approximately JPY 40 billion, primarily due to labor force reductions and increased air conditioning usage.
3. The impact of droughts on additional losses is limited to approximately JPY 1.5 billion, even in a stress event.

Table 13: Physical risk analysis assumptions and summary of results

	Previous analyses	This report's analysis (improvement areas are underlined)
Reported values	Cumulative amount of impacts associated with climate change up to the year 2100 (Damage to Group assets + credit costs)	**Maximum single-year increase if climate change-related stress events materialize up to the year 2100** (Damage to Group assets + credit costs)
Scenarios	[Acute risks] Net Zero 2050, Current Policies [Chronic risks] RCP 2.6, RCP 8.5 (IPCC)	**Net Zero 2050 and Current Policies (The same scenarios were used for acute risks and chronic risks)**
Acute risks	Cyclones and floods	Cyclones and floods, **wildfires, and droughts**
Chronic risks	Temperature fluctuations (Labor force reductions, increase in infectious diseases, etc.)	Temperature fluctuations (Labor force reductions, **increased air conditioning usage**, etc.)
Analysis scope	Areas: Domestic Targets: Mizuho Group and credit clients* *Small and medium enterprise (location of headquarters)	Areas: Domestic, **Overseas** Targets: Mizuho Group and credit clients* *Small and medium enterprise (location of headquarters), and **large corporations (location of major properties and headquarters)**
Analysis details	Direct impact: Damage to Group assets and credit costs associated with damage to mortgaged real estate Indirect impact: Credit costs associated with client revenue declines caused by business stagnation or labor force reductions	
Measurement results	Measurement results for the highest risk scenarios are given below (Acute risks: Current Policies, Chronic risks: RCP 8.5) Acute risks / Cyclones and floods / Approx. JPY 200 billion Chronic risks / Temperature fluctuations / Approx. JPY 4 billion	Measurement results for the highest risk scenarios are given below (Acute risks, Chronic risks: Current Policies) Acute risks / Cyclones and floods / Approx. JPY 90 billion (Direct impact Approx. JPY 69 billion) Acute risks / Wildfires / Approx. JPY 30 billion (Direct impact Approx. JPY 0 billion) Acute risks / Droughts / Approx. JPY 1.5 billion (Direct impact Approx. JPY 0.1 billion) Chronic risks / Temperature fluctuations / Approx. JPY 40 billion (Direct impact Approx. JPY 27 billion)

a. Scenario analysis methodology

In the scenarios for these analyses, we estimated the amount of additional increases if a sudden stress event materialized based the temperature increase pathways in the NGFS scenarios. For acute risks, we analyzed river flooding due to typhoons or torrential rains for cyclones and floods, naturally occurring fires caused by dry conditions for wildfires, and localized water shortages and water resource depletion for droughts. For chronic risks, our analyses targeted changes in labor forces, air conditioning use, and other factors due to temperature fluctuations. We used the rate of increase or decrease in the amount of damage for each risk event and in each location, estimated from typhoon path simulations and regression coefficients.

The analysis methodology estimated direct impacts as the damages and deterioration to Group assets and as the credit costs associated with damages and deterioration to mortgaged real estate. Indirect impacts were estimated as the credit costs associated with client revenue declines due to business stagnation or labor force reductions.

This analyses also estimated the impacts on large corporations with dispersed bases and overseas clients. Estimates use the percentage change of damages to the location of each major property for large corporations and overseas clients with identifiable major properties, while using that of damages to the location of the headquarters for all other clients.

Table 14: Physical risk analysis process

Climate change scenarios	Current Policies	Scenario in which current policies are maintained and temperatures continuously rise	+3.0℃
	Net Zero 2050	Temperature increase scenario in which CO_2 emissions reach net zero around 2050 due to smooth and quick policy responses and rapid technological innovation	+1.5℃
Estimate details	Acute risks	Cyclones and floods	Increase or decrease in the amount of damages due to changes in the probability of river flood stress events based on cyclone paths and intensities, precipitation, and other factors
		Wildfires	Increase or decrease in the amount of damages due to changes in the probability of wildfire stress events based on precipitation, historical disaster data, and other factors
		Droughts	Increase or decrease in the amount of damages due to changes in the probability of drought stress events based on the amount of available water resources, precipitation, and other factors
	Chronic risks	Temperature fluctuations	Increase or decrease in the amount of damages due to changes in the probability of stress events due labor force reductions or increased air conditioning usage based on maximum temperatures and other factors

	Direct impacts	Indirect impacts
Analysis methodologies	Damages and deterioration of assets due to disasters × Mizuho Group assets (buildings / equipment) and mortgaged real estate (buildings)	Negative impacts on corporate financials due to lower revenue associated with business stagnation, labor force reductions, etc. ▼ Decline in credit quality due to deterioration of financial positions

b. Scenario analysis results

The scenario analyses for this report found that the potential impact on the Group could be approximately JPY 90 billion in additional losses in a single year if a high-risk cyclone or flood materialized centered on Japan, where a large portion of the Group assets and clients are located. The analyses also confirmed the potential for losses from the disasters whose measurement targets and factors were updated this year could be approximately JPY 30 billion from wildfires, JPY 1.5 billion from droughts, and JPY 40 billion from temperature fluctuations.

Acute risks

Cyclones and floods: Although temperature rises will increase the frequency and intensity of typhoons, their paths will tend toward the Japan Sea, confirming that the impact from cyclones is limited. On the other hand, damages from river flooding will increase due to more frequent torrential rain and other rainstorms in Japan. These events will dramatically increase losses, especially those recorded as credit costs, due to damages to Group assets, damages to mortgaged real estate, and declines in client revenue because of business stagnation.

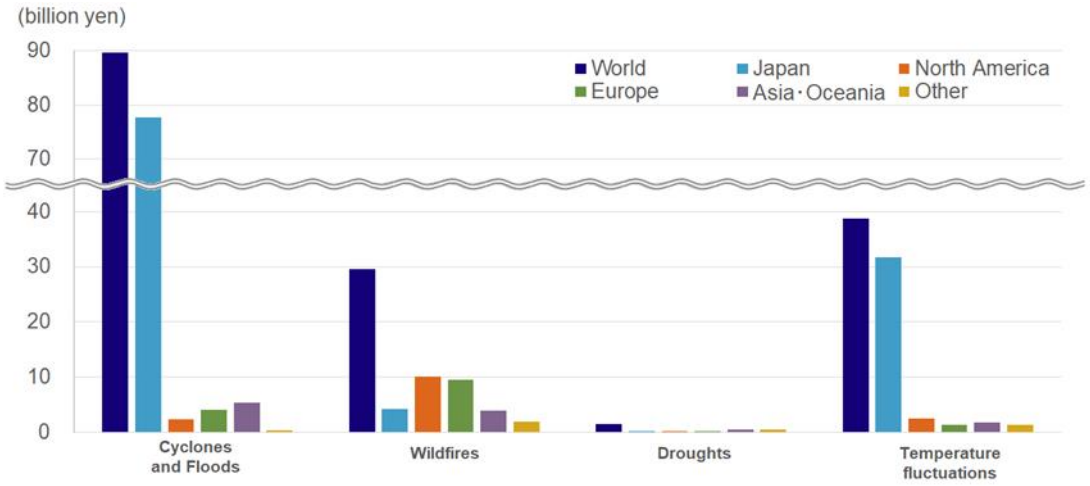
Wildfires: Record credit costs associated with declines in client revenue because of business stagnation, especially in areas of low humidity in North America and Europe. The impact on Group assets is limited, as they are concentrated in or near urban centers.

Droughts: Record credit costs associated with declines in client revenue because of business stagnation, especially in areas of Asia and the Middle East where water-resource infrastructure is not well developed. The overall impact, however, is limited.

Chronic risks

Temperature fluctuations: Losses will increase, especially those recorded as credit costs associated with declines in client revenue due to labor force reductions caused by decreases in working hours, as well as damages in the form of deteriorating HVAC (Heating, Ventilation, and Air Conditioning) facilities from increased air conditioning usage at Group assets, brought on by temperature increases.

Figure 23: Results of physical risk scenario analyses
Maximum amount of increase if a stress event materialized (Current Policies, 2100, single year)



c. Actions going forward

We expanded the scope of scenario analysis measurements in this year's estimates and confirmed the maximum single-year increases that we should provide for in the future. As for actions going forward, we will strive to measure the amount of impacts up to the year 2100, with the addition of the risk events estimated for the first time in this report. Furthermore, for Group assets where physical risks are high, we plan to control operational risk through improvements to our asset portfolio, and we plan to engage with clients to lower risks in cases where risk materialization is anticipated.

5. Risk management

Mizuho recognizes that risk control appropriate to the characteristics of operations and risks is one of the highest priority management issues. We work to maintain our risk management systems to ensure the soundness and stability of our management while increasing our corporate value. In this regard, we approach climate change as a global issue that threatens the environment, society, people's lifestyles, and business activities and that has the potential to impact the stability of financial markets. Accordingly, we are engaged in climate-related risk management as well.

In April 2023, Mizuho instituted the Basic Policy for Climate-related Risk Management, which is based on the basic approach detailed below, in the interest of establishing an effective management system based on the characteristics of climate-related risks. The Basic Policy for Climate-related Risk Management defines climate-related risks as "the risk of tangible and intangible losses due to transition risks and physical risks arising from climate change that cause or exacerbate other risks" and repositions climate-change risks within a series of risk management structures. The Basic Policy also specifies the details of the management system, such as the roles of each department and reporting lines to the Board of Directors and the Executive Management Committee (see pp. 13 – 19 in the Governance section).

- Mizuho works to continually improve the predictability of various changes related to climate change, pays close attention to the potential impact of climate change, and manages climate-related risks from both short term and medium to long term perspectives.
- In order to meet the high expectations and demands of a wide range of stakeholders, Mizuho practices effective risk management, based on the Mizuho Code of Conduct, our Environmental Policy, and our Basic Policy on Sustainability Initiatives.

Mizuho conducts materiality evaluations (qualitative evaluations) based on the impact and probability of climate-related risks in order to select critical risks for which management systems should be strengthened on a priority basis (see pp. 47 – 49 for the details of the materiality evaluations). We manage critical climate-related risks as given below both qualitatively and quantitatively as needed and take appropriate responses.

- Determine and manage quantitative impacts through scenario analyses (see pp. 51 – 58)
- Risk control in carbon-related sectors (see pp. 62 – 65)

1. Risk management framework for climate-related risks

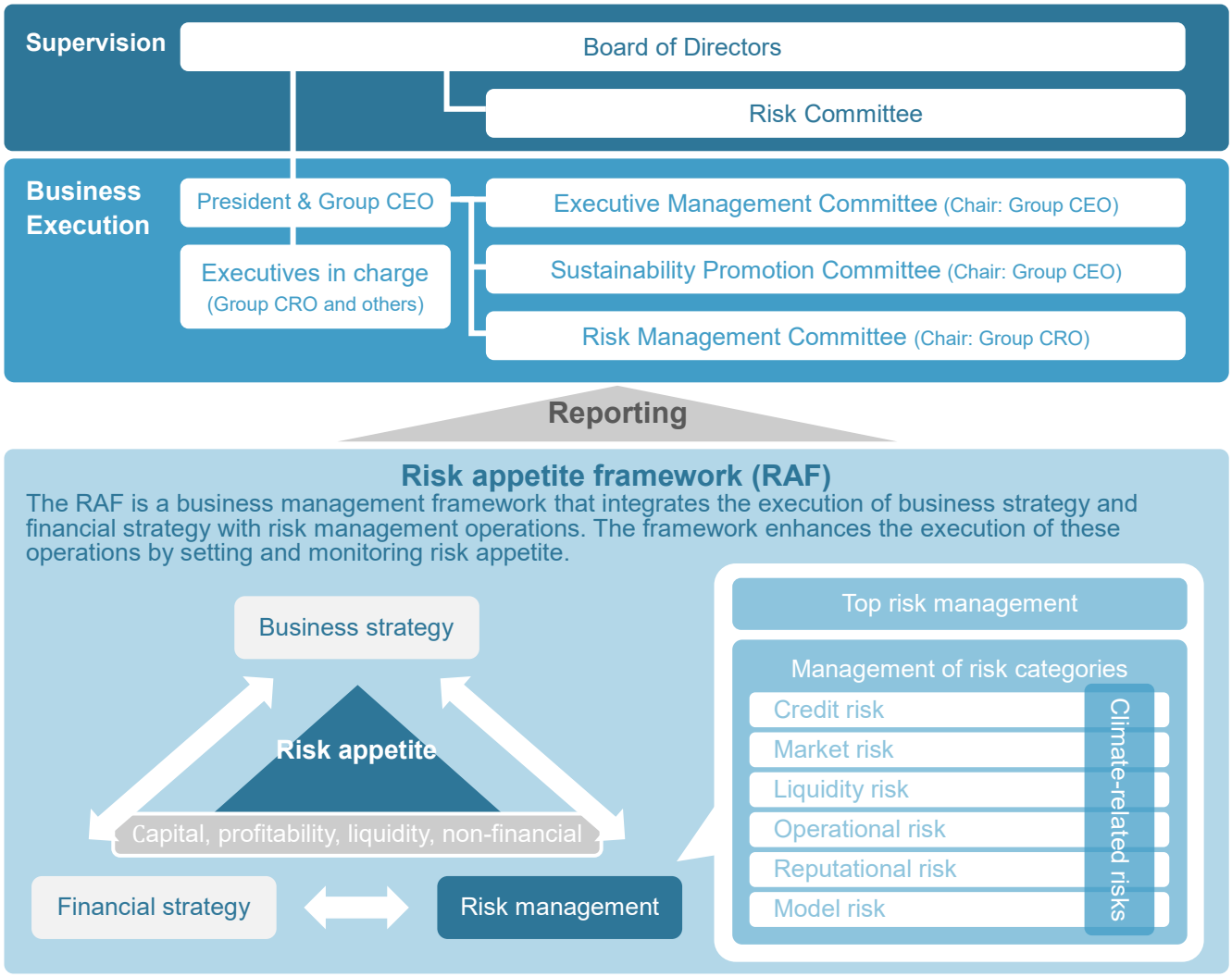
At Mizuho, we have introduced a risk appetite framework (RAF), in the interest of raising our corporate value by integrating the operations of our business and financial strategies and our risk management. Basic matters pertaining to the RAF and specific risk appetites are documented in risk appetite statements (RAS) that are approved by the Board of Directors. With the RAF, we simulate future risks taking into account the current underlying risk situations in carbon-related sectors and the impact of climate change. The simulations are used to estimate the degree of expected medium and long term climate change-related risks, which are then reported to the Executive Management Committee, the Board of Directors, and other committees.

We classify risk factors into risk categories such as credit risk and market risk, and we manage each risk category in accordance with their respective characteristics. We have also constructed a comprehensive risk management system to ascertain and evaluate overall risks and to keep risks within acceptable limits. (See pp. 47 – 50 about our recognition of climate-related risks).

Mizuho recognizes the transition risks and physical risks arising from climate change in our risk management framework, and we identify critical risks in the execution of our business plans. In this way, we control risks in line with the characteristics of each risk category and our business strategies (Figure 24).

In cases where the occurrence of climate-related risks may impact individual credit risk, the climate-related risks are reflected in quantitative evaluations in combination with other risk factors. Mizuho is committed to further improvements in our credit risk management based on climate-related risks.

Figure 24: Risks management framework for climate-related risks



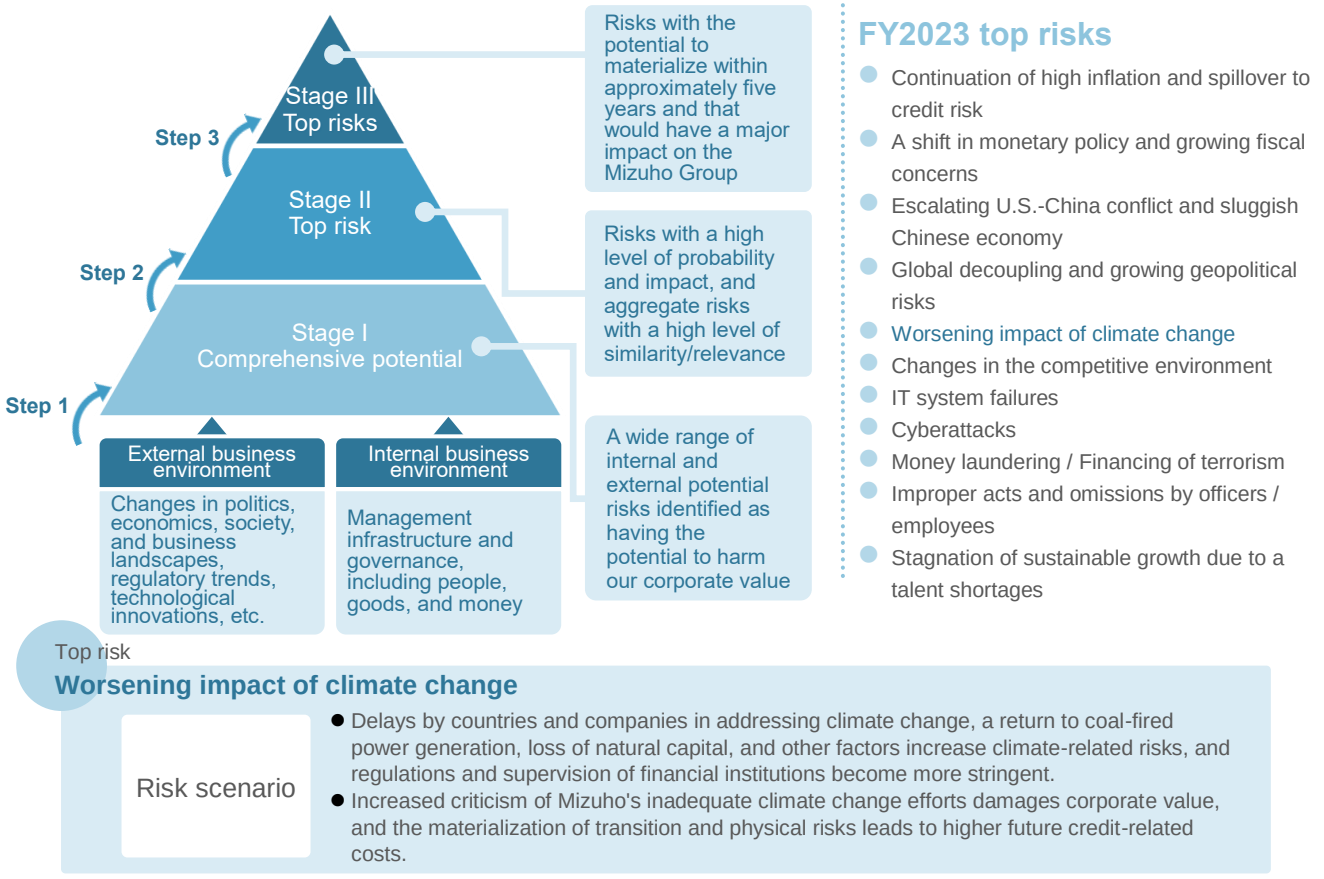
2. Top risks management

Mizuho has a top risk management system in place that designates as top risks those risks perceived to have a major impact on the Group.

The top risk designation process begins with collecting a broad range of risk that may harm our corporate value, based on changes in internal and external circumstances and in light of our company's particular vulnerabilities and business strategies. Critical risk events are then selected based on evaluations of the risks' transmission pathways, probabilities, and impacts. Finally, the top risks are designated after discussions by executive management with consideration of the difficulty of controlling the risks. For FY2023, 11 risk events were designated as top risks (Figure 25).

The sense of urgency toward climate change has become even stronger globally in recent years, and a range of stakeholders are expecting and demanding more action from financial institutions. Accordingly, we designated *Worsening impact of climate change* as an existential top risk that the Group must recognize and address.

Figure 25: Top risk designation process and FY2023 top risks



Mizuho responds to the designated top risks as follows.

- We examine additional and stronger risk control measures, both preventative and corrective.
- We incorporate the designated top risks into our risk appetite policies and business plans to bolster governance.
- At the Risk Committee, the Board of Directors, and other committees, reports are given on the validity of the top risk designations and the status of risk controls from multiple perspectives, including those of external experts and outside directors.

3. Risk control in carbon-related sectors

(1) Overview of the risk control framework for carbon-related sectors

Mizuho controls risks through engagement for the purposes described below in sectors found in qualitative evaluations to have high transition risks (carbon-related sectors). We evaluate the degree of risk for each client along two axes: the client's sector (vertical axis) and the status of the client's responses to transition risks (horizontal axis). From these evaluations, we provide appropriate support for the client's transition (Figure 26).

The state of risk control in carbon-related sectors is reported to the Risk Management Committee each quarter.

We make gradual improvements to our risk control frameworks for carbon-related sectors through quantitative identification of climate-related risks and revisions to evaluations of client responses to transition risks in light of external business landscape.

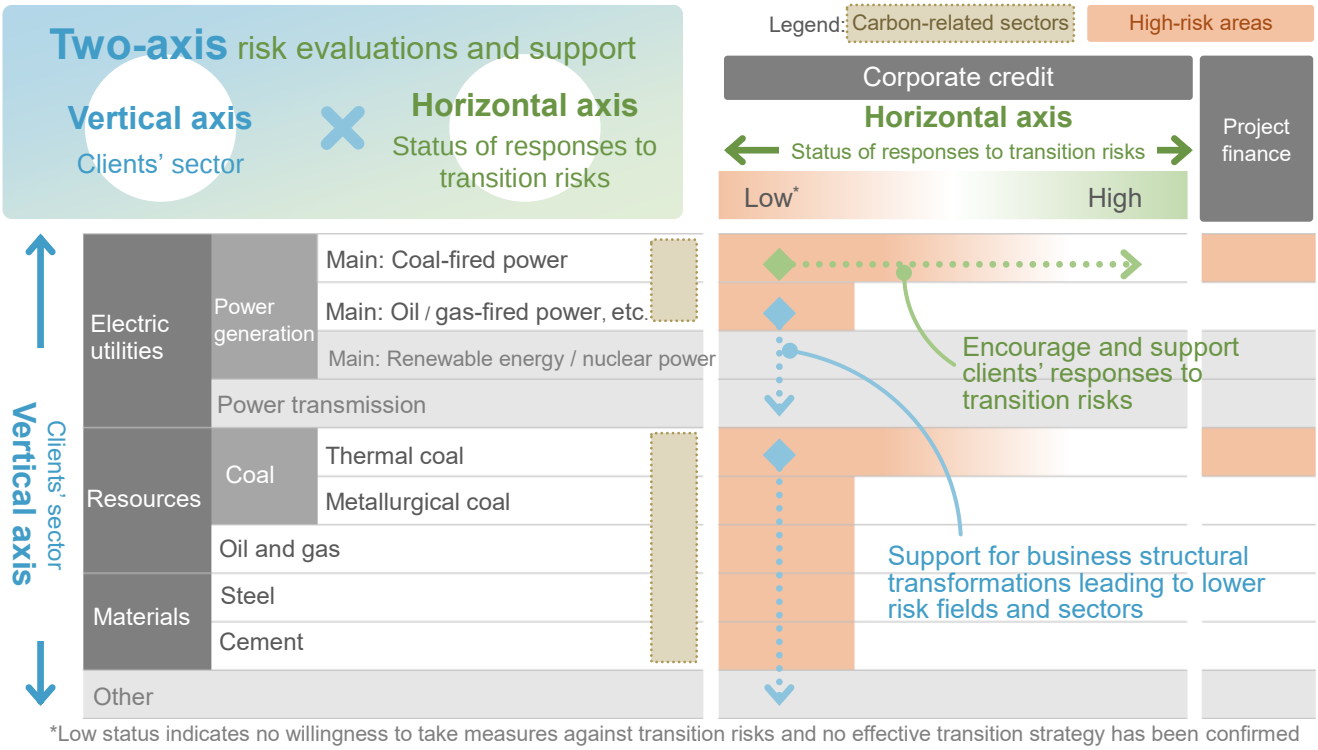
Purposes

- Support client transitions and control Mizuho's transition risk through engagement.
- Identify areas with high transition risks to help construct an appropriate Mizuho portfolio that accounts for climate-related risks.
- Supporting client transitions facilitates, the transition in the real economy, and gradually aligns Mizuho's portfolio with the Paris Agreement.

Two-axis risk evaluations and support

Axis	Client's sector (vertical axis)	Status of transition risk responses (horizontal axis)
Risk evaluation criteria	The company's business segment with the highest sales or energy mix	● Willingness to take measures against transition risk ● Development of the strategy, setting of quantitative targets ● Target level, tangibility of means to an end and progress, track record and objectivity
Transition support	Support for business structural transformations leading to lower risk areas and sectors	Encourage and support clients' responses to transition risks

Figure 26: Risk control framework for carbon-related sectors



*Low status indicates no willingness to take measures against transition risks and no effective transition strategy has been confirmed

(2) Exposure control in high-risk areas

For high-risk areas identified with our two-axis risk evaluations, we control risks on the basis of the following exposure control policy.

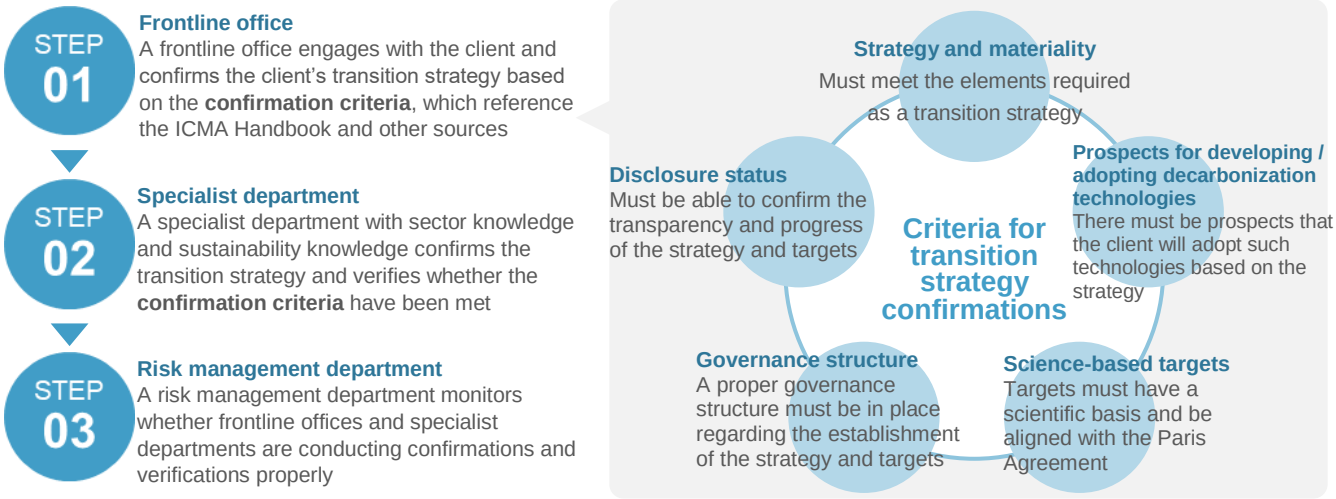
- We pursue greater engagement with clients to support them in formulating effective strategies for transition risks, in disclosing their progress, and in embarking at an early stage on business structural transformations in order to move into a lower risk sector.
- In order to facilitate a client's business structural transformations, we provide necessary transition support after verifying that the client has set valid targets and has planned an appropriate transition strategy in line with international standards Criteria for transition strategy confirmations (established in FY2022)
- We carefully consider whether to continue business with a client in the event that the client is not willing to address transition risks and has not formulated a transition strategy even one year after our initial engagement.
- In the ways described above, we reduce our exposure over the medium to long term.

Mizuho is gradually improving its risk control in carbon-related sectors. In FY2022, we improved our risk control policies for exposure in high-risk areas and established criteria for transition strategy confirmations. We will continue to clarify and refine our approaches to high-risk areas and their scope as well as the conditions on providing support for business structural transformations.

Criteria for transition strategy confirmations (established in FY2022)

- We have established a process and criteria to confirm the credibility and transparency of clients' transition strategies, following the Climate Transition Finance Handbook by the International Capital Market Association (ICMA) and other references (see Figure 27).
- If the client's transition strategy meets the confirmation criteria, we will actively provide financing for the client's business structural transformation even in high-risk areas.
- Although our exposure in high-risk areas may increase temporarily, by encouraging the client to establish and execute a transition strategy, we will manage transition risks effectively and lower transition risks over the medium to long term.

Figure 27: Process and criteria to confirm client transition strategies



(3) Exposure in high-risk areas

The following table summarizes our exposure in high-risk areas (electric utilities, oil and gas, coal, steel, and cement).

- JPY 1.6 trillion as of March 31, 2023 (unchanged from the JPY 1.6 trillion in exposure on March 31, 2022)
- We confirmed that of the JPY 1.6 trillion in exposure in high-risk areas as of March 31, 2023, JPY 700 billion meets the confirmation criteria for transition strategies

(4) Sector-specific exposure based on recommended disclosures under the TCFD Recommendations[28]

The following table summarizes the status of our credit exposure in the sectors that underwent the qualitative evaluations described earlier (Figure 20). Mizuho's risk controls are focused on those sectors recognized to have high transition risks (carbon-related sectors).

Table 15: Credit exposure by sector based on recommended disclosures under the TCFD Recommendations (criteria as of March 31, 2023)

Sector (colored text indicates carbon-related sectors)	Exposure (JPY trillions)	YoY change	Percentage of total	YoY change
Electric utilities	9.9	+0.9	3.7%	+0.0%
Power generation (coal-fired)	**1.7**	+0.0	**0.7%**	+0.0%
Power generation (oil, gas, and others)	**3.7**	+0.4	**1.4%**	+0.0%
Power generation (renewable energy / nuclear power)	3.1	+0.4	1.2%	+0.1%
Power transmission	1.3	+0.1	0.5%	+0.0%
Coal	**0.1**	-0.1	**0.0%**	-0.1%
Thermal coal	**0.0**	-0.1	**0.0%**	+0.0%
Metallurgical coal	**0.1**	+0.0	**0.0%**	+0.0%
Oil and gas	**8.5**	+0.3	**3.2%**	-0.2%
Subtotal for energy	18.5	+1.1	7.0%	-0.1%
Air passengers and cargo	1.2	+0.0	0.5%	+0.0%
Maritime transportation	2.0	+0.0	0.8%	+0.0%
Rail transportation	2.1	-0.1	0.8%	-0.1%
Automobiles	6.4	+0.2	2.4%	-0.1%
Subtotal for transportation	11.8	+0.2	4.4%	-0.4%
Metals and mining	2.0	+0.0	0.8%	+0.0%
Steel	**2.6**	+0.0	**1.0%**	-0.1%
Construction materials	0.4	+0.0	0.2%	+0.0%
Cement	**0.3**	+0.1	**0.1%**	+0.0%
Chemicals	7.0	+0.6	2.6%	+0.0%
Buildings and other capital goods	10.0	+0.3	3.8%	-0.2%
Real estate management and development	17.2	+1.4	6.5%	+0.0%
Subtotal for materials and buildings	39.6	+2.3	15.0%	-0.3%
Beverages	0.8	+0.0	0.3%	+0.0%
Agriculture	0.2	+0.0	0.1%	+0.0%
Packaged foods and meats	2.6	+0.0	1.0%	+0.0%
Paper and forest products	0.8	+0.0	0.3%	+0.0%
Subtotal for agriculture, food, and forest products	4.4	+0.1	1.7%	+0.0%
Insurance	1.4	+0.1	0.5%	+0.0%
Total for sectors listed above	75.7	+3.9	28.6%	-0.9%
Total for all sectors	264.5	+20.7	100.0%	+0.0%

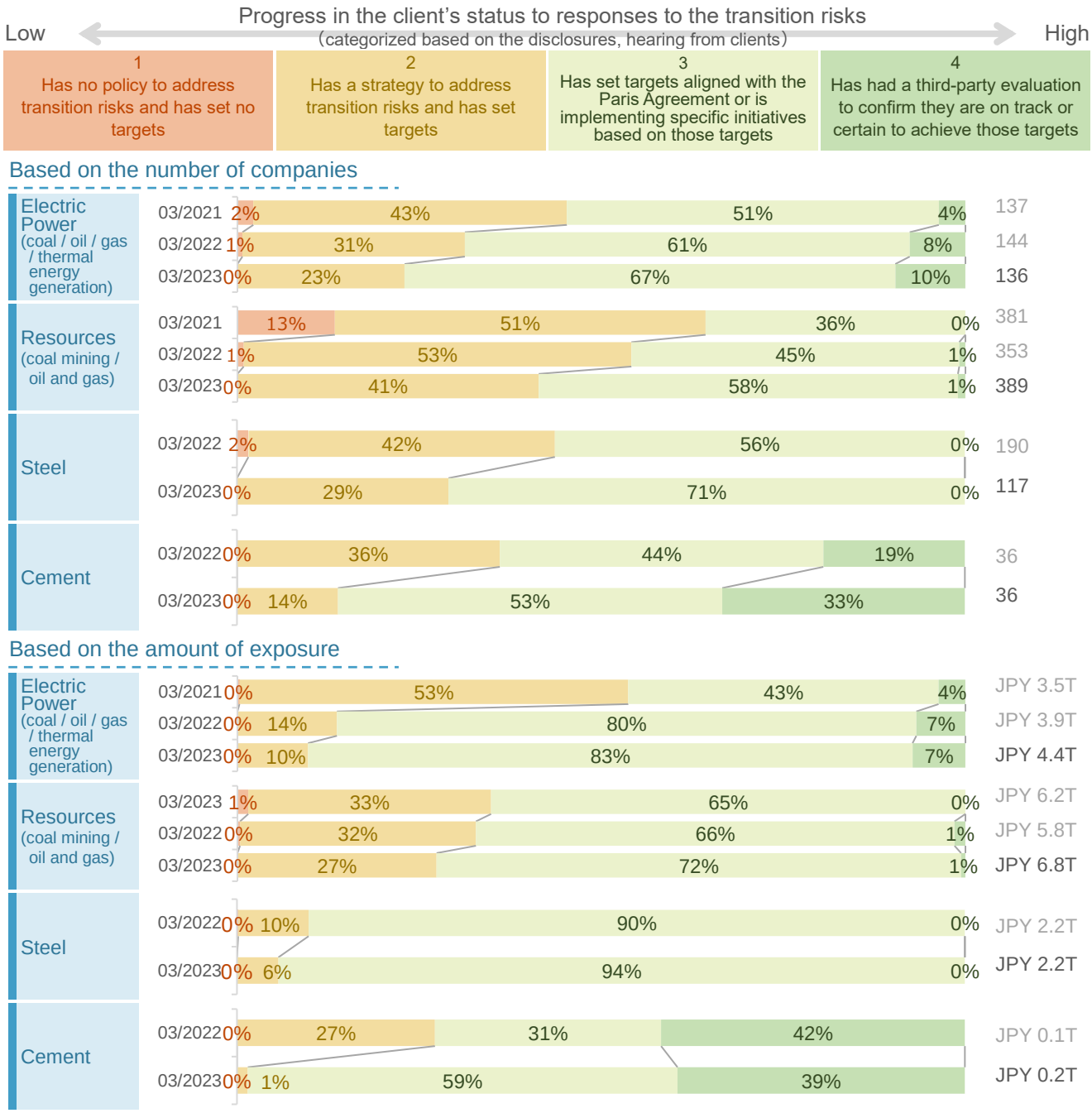
[28] We added the insurance sector, which was identified in our qualitative evaluations as facing high physical risks, to the 18 sectors recommended for disclosure in the TCFD Recommendations. Mizuho's sector classification method has been established based on the classifications in the *Industry Classification Table* formulated by the Bank of Japan. Figures represent the total exposure in the form of loans, foreign exchange, acceptances and guarantees, commitment lines, etc. (combined figures for Mizuho Bank and Mizuho Trust & Banking). Exposures denominated in foreign currencies are converted into Japanese yen at the exchange rate (TTM) at fiscal yearend and include changes due to exchange rate fluctuations (Reference: The USD/JPY TTM was 122.41 on March 31, 2022 and 133.54 on March 31, 2023).

(5) Client progress on transition risk responses

Mizuho confirms the status of client transition risk responses through engagement and supports transition responses in a phased manner. We saw steady progress by clients in all sectors on responding to transition risks compared to the previous year (Figure 28).

We will continue to practice engagement and provide financial and non-financial solutions to facilitate our clients' progress on decarbonization initiatives and on responding to transition risks. In this way, we will improve climate change resilience for both Mizuho and our clients. We also monitor progress on transition risk responses as a metric and work on improving transparent classification methodologies.

Figure 28: Client progress on transition risk responses[29]



[29] A company's classification 1 through 4 may change if, for example, through engagement we gain a deeper understanding of the client's progress on transition risk responses. Progress on transition risk responses was confirmed during the following periods: March 31, 2021: December 2020 through February 2021; March 31, 2022: December 2021 through February 2022; March 31, 2023: December 2022 through February 2023. Third-party certification includes organizations like Science Based Targets.

4. Financing and investment responses based on climate-related risks

(1) Overview of the Environmental and Social Management Policy for Financing and Investment Activity

Mizuho commits itself to environmentally-conscious action and to respecting internationally recognized human rights in Mizuho Code of Conduct, Environmental Policy, and Human Rights Policy (Figure 29). We have also established the Environmental and Social Management Policy for Financing and Investment Activity (ES Policy, Table 16) for the purpose of preventing and mitigating adverse impacts on the environment and society resulting from our financing and investment activity[30]. The ES Policy identifies businesses and sectors that have a high likelihood of contributing to adverse impacts on the environment and society (See Appendix 3 for details of the ES Policy.)

Figure 29: Position of the Environmental and Social Management Policy for Financing and Investment Activity

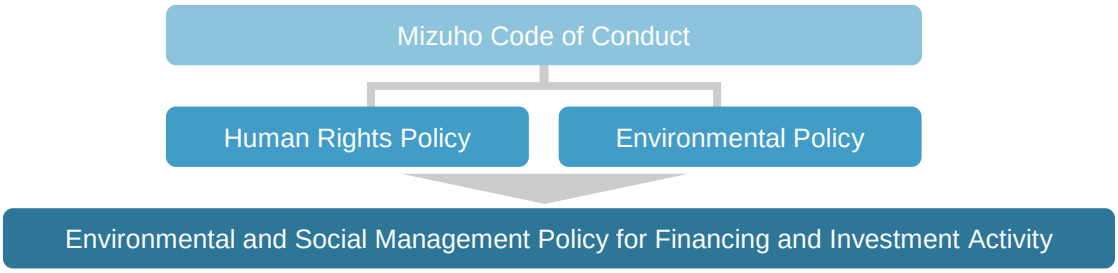


Table 16: Overview of our Environmental and Social Management Policy for Financing and Investment Activity

Environmental and Social Management Policy for Financing and Investment Activity					
To prevent or mitigate adverse impacts on the environment and society, Mizuho makes decisions on financing and investment transactions after performing due diligence on each core group company based on their business characteristics, which includes confirmation of the client's risk management status based on the *risks that Mizuho should recognize*.					
Cross-Sectors	Prohibited	● Projects which have adverse impacts on wetlands registered in the Ramsar Convention ● Projects which have adverse impacts on sites and properties registered on the UNESCO World Heritage List ● Projects which are in violation of the Washington Convention ● Projects which are causing forced labor, child labor, and human trafficking			
	Additional Due Diligence	● Projects which have adverse impacts on indigenous people's communities ● Projects involving land acquisition which will result in involuntary resettlement of residents ● Projects which is causing, contributing to or directly linked with human rights abuse in conflict areas			
Forced Labor, Child Labor, Human Trafficking		● Strengthen our human rights due diligence process with the aim of eliminating forced labor, child labor, and human trafficking from our business and value chain			
Transition Risk Sectors		● Target: Companies whose primary business[31] is in power generation (coal-fired, oil-fired, or gas-fired power generation), coal mining, oil, gas, steel, and cement ● Actively engage client to support the transition to a low-carbon society			
Specific Industrial Sectors		● Financing and investment transactions are decided after verifications based on sector-specific *risks that Mizuho should recognize*			
		Weapons	Coal-fired power generation	Coal mining (thermal coal)	Oil and gas
		Large-scale hydropower	Large plantations	Palm oil	Lumber and pulp

Underlined sectors have policies in place for initiatives on addressing climate change

[30] This includes financing and supporting clients' funding provided by Mizuho. Specifically, this includes lending, trust service, and underwriting services provided by our core group companies of Mizuho Bank, Mizuho Trust & Banking, Mizuho Securities, and Mizuho Americas and by subsidiaries of these four companies worldwide.

[31] The primary business is determined by the company's business segment with the highest sales or energy mix.

(2) Operations based on the Equator Principles

In addition to the Environmental and Social Management Policy for Financing and Investment Activity, we apply the Equator Principles to the financing of large-scale development or construction projects, and we work with the clients to identify, assess, and manage environmental and social risks and impacts. Mizuho Bank became the first financial institution in Asia to adopt the Equator Principles in 2003.

(3) Implementation of the Environmental and Social Management Policy for Financing and Investment Activity

Core Group companies implement the ES Policy in line with the characteristics of their particular businesses and have developed verification processes for the project screening stage and throughout transaction terms (Table 17). On the governance side, the Executive Management Committee and other committees regularly review the appropriateness and sufficiency of the ES Policy, in view of its implementation performance and changes in the external business landscape. The ES Policy is revised and its implementation improved in response to the reviews, and training and awareness about the ES Policy are provided to employees and executive officers.

Table 17: Implementation of the Environmental and Social Management Policy for Financing and Investment Activity

Verification process when screening a potential transaction	● We confirm whether the prospective client or project for financing or investment belongs to the businesses or sectors specified in the ES Policy. ● If the potential transaction does belong to one of the specified businesses or sectors, we will take the following actions in line with the ES Policy. - If the potential transaction is subject to the prohibition policy: We will not provide financing and investment. - If the potential transaction is subject to other policies: We will make transactional decisions after taking action based on the characteristics of the services being provided by core Group companies, such as confirming the client's progress on responses to prevent or mitigate adverse impacts based on *risks that Mizuho should recognize*. Examples of confirmation criteria • Has there been large-scale opposition to the project or harsh criticisms or comments from the public? • Does the project faithfully respect the rights of indigenous people and local communities? • Are efforts being made to reduce GHG emissions from the project? • Will the project have any significant adverse impacts on the surrounding natural environment or ecosystems? • Has the client developed or assessed strategies or policies that address environmental and social issues surrounding the project? • Has the client obtained all certifications required by Mizuho?
Verification process during the transaction term	● A frontline office engages in constructive dialog with the client at least once a year (See p. 31 for specific examples of client engagement, and see Appendix 3 for the confirmation standards used in the engagement process.) - For clients in specific industrial sectors, verify the status of the client's measures to prevent or mitigate negative impacts on the environment and society and report findings to the head office - For clients in transition risk sectors, develop a shared understanding of medium and long term issues with respect to climate change risks and opportunities and verify the client's progress on transition risk responses. ● We urge the client to take immediate remedial actions if any act that violates the ES Policy is discovered during the transaction term. ● Palm oil sector and lumber and pulp sector: If the client has not adequately addressed environmental or social issues, we engage in dialog with the client toward remedial actions and if the remedial actions are not sufficient, we will not provide new financing or investment.
Governance	● Our business execution and supervisory lines regularly review the appropriateness and sufficiency of the ES Policy, with consideration of its implementation performance and the external business landscape, and revise the ES Policy and take measures to improve its implementation. (See pp.13-19 for details on governance.)
Education and training	● We provide training via e-learning and other methods to executive officers and employees to ensure they can undertake effective risk management. ● We have established manuals on verification items and provide support for engagement by frontline offices.
Stakeholder communications	● Mizuho places importance on engagement with a wide array of stakeholders to ensure our initiatives are in alignment with the expectations and perspectives of stakeholders.

(4) Status of revisions to the Environmental and Social Management Policy for Financing and Investment Activity

Mizuho periodically revises the ES Policy, taking into account the expectations and perspectives of our stakeholders, and enhances our initiatives to prevent and mitigate adverse impacts on the environment and society, in the interest of responding to climate change, protecting biodiversity, and advancing respect for human rights.

In March 2023, we revised elements of the ES Policy on initiatives for the coal mining (thermal coal) sector and the oil and gas sector, from the perspective of enhancing responses to climate change (Table 18). (See Appendix 3 for details on the ES Policy.)

Table 18: Overview of the Environmental and Social Management Policy for Financing and Investment Activity and status of revisions (related to climate change)

Targeted sectors	Policy (underlined: revised in Mar. 2023)
Transition risk sector 2021 (Established) 2022 (Latest Update)	● We will engage in proactive, constructive dialogue to support our clients' transitions to a low-carbon society. ● We will check and evaluate client's transition risk response level at least annually, based on the criteria including, but not limited to willingness to take measures against transition risk, development of the strategy, setting of quantitative targets and target level, tangibility of means to an end and progress, track record and objectivity. ● If the client has not developed a transition strategy one year after the first engagement, we make decisions whether or not to continue our business with them based on careful consideration.
Coal-fired power generation 2018 (Established) 2022 (Latest Update)	● We will not provide financing and investment: - to companies with no existing financing and investment transactions and whose primary business is coal-fired power generation. - which will be used for new construction of coal-fired power generation plant and expansion of existing coal-fired power generation plant. ● We will continue to support development of innovative, clean, and also efficient technology that will contribute to the energy conversions that lead to a low-carbon society.
Coal mining (thermal coal) 2020 (Established) 2023 (Latest Update)	● We will not provide financing and investment: - to companies with no existing financing and investment transactions and whose primary business is thermal coal mining or infrastructure operations linked with thermal coal mining. - which will be used for development of new thermal coal mine, expansion of existing thermal coal mine, acquiring an interest in existing thermal coal mine, **development or new infrastructure linked with thermal coal mining and expansion of existing infrastructure linked with thermal coal mining**. However, we may consider financing on the projects that are critical to stable supply of energy of a country which sets a target to achieve net zero greenhouse gas emissions by 2050 after careful consideration.
Oil and gas 2020 (Established) 2023 (Latest Update)	● **We will assess if sufficient measures are taken by the client to reduce greenhouse gas emissions for new financing and investment which is used for oil and gas extraction.** ● We will carry out an appropriate environmental and social risk assessment based on operation-specific risks, for financing and investment which will be used for oil and gas extraction in the Arctic, oil sands extraction, shale oil and gas extraction (**Clarified due diligence items for oil sands and shale oil and gas extraction projects: impact on water resources, contamination of soils and water, impact on subsoil, etc.**)
Large plantations 2021 (Established) 2022 (Latest Update) Palm oil Lumber and pulp 2018 (Established) 2022 (Latest Update)	● We will require our clients to respect indigenous peoples' and local communities' right to FPIC and formulate a policy on the environment and human rights which includes NDPE. ● Palm oil sector: We will require our clients to acquire RSPO certification for every plantation farm. If a client is not to acquire RSPO certification, the client shall take measures equivalent to the certification and periodically deliver a status report. ● Lumber and pulp sector: We will require our clients to acquire FSC or PEFC certification for financing and investment which is used for logging in the countries excluding high-income OECD countries.

6. Metrics and targets

1. Overview of metrics and targets

Transition plan item	Monitored metrics	Targets	Recent results	Details
Net zero GHG emissions	Scope 1 and 2 emissions[32]	Carbon neutral by FY2030 (Carbon neutrality to be maintained thereafter)	FY2021: 150,987 tCO_2e	p.70, ESG Data Book[33]
	Scope 1 and 2 energy consumption		FY2021: 397,557 MWh	
	Scope 3 (business trips) emissions	n/a	FY2021: 831 tCO_2e	
	Scope 3 (financed emissions)	Net zero by 2050	(Targets and results disclosed by sector)	pp.35-42
	- Electric power sector	FY2030: 138 to 232 $kgCO_2e$/MWh	FY2021: 353 $kgCO_2e$/MWh	
	- Oil and gas sector	FY2030: Scope 1 and 2: 4.2 gCO_2e/MJ Scope 3: –12 to –29% (compared to 2019 levels)	FY2021: Scope 1 and 2: 6.5 gCO_2e/MJ Scope 3: 43.2 $MtCO_2e$ (–29% compared to 2019 levels)	
	- Coal mining (thermal coal) sector	Absolute emissions OECD economies: Zero by FY2030 Non-OECD economies: Zero by FY2040	FY2021: 1.7 $MtCO_2e$	
Strengthen low-carbon businesses	Sustainable finance / environment and climate-related finance	Total for FY2019 to FY2030: JPY 100 trillion (of which JPY 50 trillion is earmarked for environment and climate-related finance)	Total for FY2019 to FY2022: JPY 21.2 trillion (of which JPY 8.1 trillion went to environment and climate-related finance)	pp.29, 30
Enhance climate-related risk management	Outstanding credit balance of coal-fired power generation plants	Reduce the FY2019 amount by 50% by FY2030, and achieve an outstanding credit balance of zero by FY2040	March 31, 2023: JPY 235.5 billion (down 21.4% from March 31, 2020)	p.71
	Exposure to high-risk areas in transition risk sectors	Reduce over the medium to long term	March 31, 2023: JPY 1.6 trillion	p.63
Bolster engagement	Status of clients' transition risk responses	n/a	As of March 31, 2023 Steady progress being made in targeted sectors	p.65
Capability building	SX talents KPIs - Sustainability management experts - Environment and energy sector consultants	FY2025 - 1,600 - 150	As of March 2023 - approximately 1,300 - approximately 130	p.34

■ Other disclosure items aside from the monitored metrics:

- Sector-by-sector credit exposure in line with the TCFD Recommendations p.64
- Financed emissions based on PCAF methodology pp.72-76

[32] Target / scope of data collections: Seven group companies (Mizuho Financial Group, Mizuho Bank, Mizuho Trust & Banking, Mizuho Securities, Mizuho Research & Technologies, Asset Management One, and Mizuho Americas), adjusted emission coefficients / market base

[33] ESG Data Book: https://www.mizuho-fg.co.jp/csr/mizuhocsr/report/data/index.html

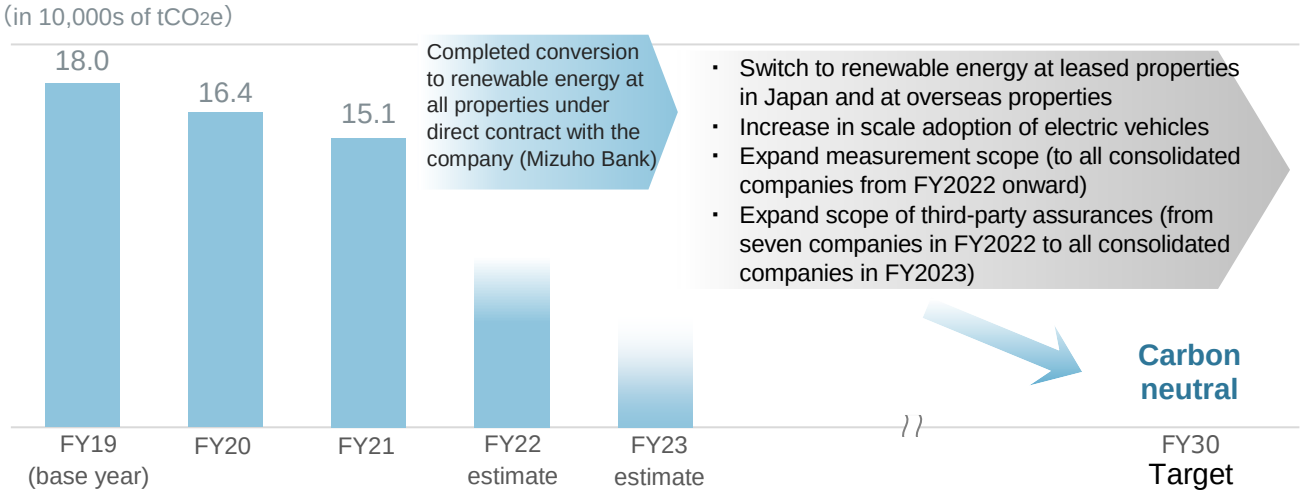
2. Detailed metrics and targets

(1) Scope1 and 2 (GHG emissions from our own business activities)

We have completed the conversion of approximately 70% of our domestic Scope 2 electricity consumption to renewable energy, which accounted for approximately 80% of our GHG emissions in FY2022, toward becoming carbon neutral by FY2030. In the coming years, we will work to switch to renewable energy at leased properties in Japan, which requires coordination with related parties, as well as continue to study the full-scale adoption of electric vehicles and the switchover to renewable energy at overseas locations.

To address future legally mandated disclosures, we expanded the scope for Scope 1 and 2 measurements, with our FY2022 results, from the previous seven Group companies* to domestic and overseas consolidated subsidiaries and affiliates, which is the same scope as our consolidated financial reports. In conjunction with this, we will phase in expanded third-party assurances, from all Mizuho Bank branches in Japan, the previous scope, to seven Group companies in FY2022 and to the full consolidated Group scope in FY2023.

Figure 30: Scope 1 and 2 GHG emission results and targets



*Target / scope of data collections: Seven group companies (Mizuho Financial Group, Mizuho Bank, Mizuho Trust & Banking, Mizuho Securities, Mizuho Research & Technologies, Asset Management One, and Mizuho Americas) — note that no credits are applied to offset.

Table 19: Initiatives to achieve Scope 1 and 2 carbon neutrality

	% of Scope 1 & 2 emissions (FY2019)	Initiatives until FY2022	Future initiatives
Scope 2 (electricity consumption in Japan)	Approx. 80%	**Around 70% of electricity consumptions switched to renewable energy sources** (based on electricity consumption) • Approx. 200 locations have switched to renewable energy - Completed switchover of Mizuho Bank's direct contracts, including large locations such as the head office and data centers • Decided to enter into corporate PPAs	➢ Promote switch to renewable energy at leased properties
Scope 2 (electricity consumption overseas)	Approx. 10%	**Promote switching to renewable energy at multiple locations** • Switched to renewable energy at some locations in Europe and Asia	➢ Expand promotion to switch to renewable energy in each location
Scope 1 (worldwide)	Approx. 10%	**Trial adoption of electric vehicle** • Introduced trial of electric vehicle in conjunction with adoption of renewable energy at the Mizuho Bank branch	➢ Examine increase in adoption of electric vehicles based on trial results

(2) Medium-term targets for Scope 3 (financed emissions)

Mizuho's long-term goal is to achieve net zero GHG emissions from financing and investment by 2050. To clarify a concrete pathway to this goal, we have been setting medium-term sector-level targets (FY2030 targets), beginning with high-priority sectors.

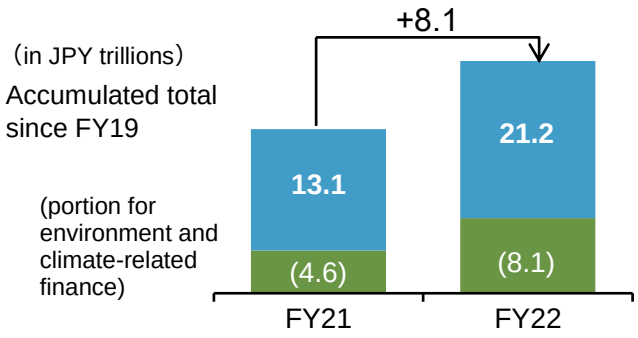
In FY2022, we set targets for the electric power, oil and gas, and coal mining (thermal coal) sectors. Details pertaining to the medium-term targets for each of these sectors can be found on pp. 35 – 42.

We will continue to set targets starting with the most critical sectors, based on the sectors defined by NZBA and in consideration of transition risk evaluations, financed emissions, and feasibility.

Sectors with targets set

- FY2022 (targets already set): Electric Power, Oil and Gas, and Coal Mining (Thermal Coal)
- FY2023 (target-setting planned): Automotive, Steel, Maritime Transportation, and Real Estate

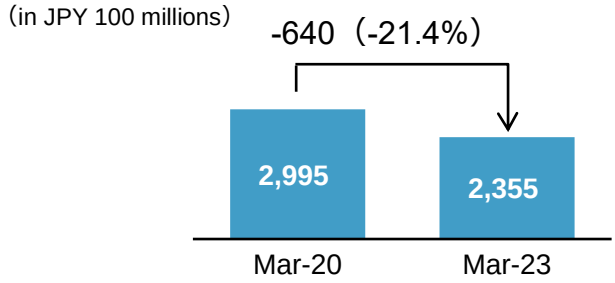
(3) Sustainable finance / environment and climate-related finance



Target:
Total for FY2019 to FY2030: JPY100 trillion (of which JPY 50 trillion is earmarked for environment and climate-related finance)

(See p. 30 for details of our sustainable finance performance)

(4) Target to reduce the outstanding credit balance of coal-fired power generation plants based on the Environmental and Social Management Policy for Financing and Investment Activity



Target:
Reduce by 50% by FY2030 from FY2019 levels
Achieve an outstanding credit balance of zero by FY2040

(5) Exposure to high-risk areas in transition risk sectors

See p. 63.

(6) Status of clients' responses to transition risks

See p. 65.

(7) Capability building (strengthen sustainability transformation talents)

See p. 34.

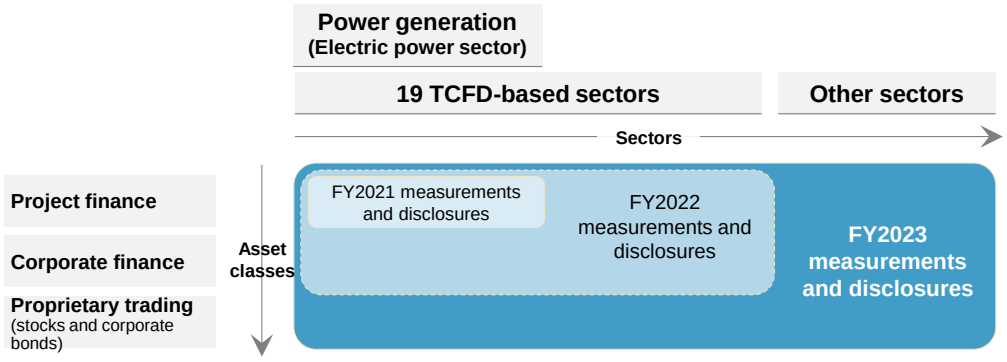
3. Measurement of financed emissions based on PCAF standards

Indirect GHG emissions from financing and investment (financed emissions) occupy the largest share of Scope 1, 2, and 3 emissions from financial institutions. Therefore, initiatives toward measuring, monitoring, and reducing these emissions are crucial. At the same time, obtaining usable and accurate data and developing a robust and efficient measurement process remain a challenge.

Mizuho became the first Japanese financial institution to join the PCAF in FY2021. Since joining, we have been working on the initiatives to improve our measurements and disclosures of financed emissions based on the PCAF standard.[34] In our previous TCFD Report 2022, we disclosed the results of financed emission measurements in 19 sectors, targeting corporate finance and project finance. For this report, we expanded the measured sectors and assets and measured our financed emissions in sectors other than the previous 19 TCFD-based sectors (Other sectors) and in our proprietary investments (stocks and corporate bonds).

It is important to note that the results of this year's measurements may change significantly in the future, due to expanded emissions disclosures by companies and improvements in emissions estimates.

Expanded scope of financed emission measurements



(1) Overview of measurements (New measurement scopes added since the previous report are underlined)

Targeted assets

(1) Loans (corporate finance and project finance)[35]
(2) Proprietary investments (stocks and corporate bonds)[36]
Correspond to "Business loans and unlisted equity", "Project finance", and "Listed equity and corporate bonds" from among the seven asset classes specified in the PCAF standards.

Targeted sectors

The following 19 sectors based on the recommended disclosures in the TCFD Recommendations + other sectors

Electric utilities	Coal	Oil and gas	Air passengers and freight	Maritime transportation	+	Other
Rail transportation	Automotive	Metals and mining	Steel	Construction materials		
Cement	Chemicals	Buildings and other capital goods	Real estate management & development	Beverages		
Agriculture	Packaged food and meats	Paper and forest products	Insurance			

The 19 sectors are the same sectors covered in the qualitative evaluations of sector-specific risks and opportunities (p. 50) and the exposure by sector based on the recommended disclosures in the TCFD Recommendations (p. 64). Aluminum, one of the sectors specified by the NZBA, is included in metals and mining. Other sectors include telecommunications, finance, retail, and services.

[34] *The Global GHG Accounting and Reporting Standard for the Financial Industry*, PCAF
[35] Combined figures for the loan balances of Mizuho Bank and Mizuho Trust & Banking. Available credit under committed lines of credit, securities, derivatives, and similar are not included. Loans to special purpose vehicles for securitization, trade finance, and sovereign loans are outside the scope of this measurement, as it is not possible to calculate attribution factors for these types of loans.
[36] Combined investment balance for Mizuho Bank and Mizuho Trust & Banking. Covers directly held portions of individual company bonds (publicly offered bonds and privately placed bonds) and stocks. Indirect holdings through fund investments and investments in sovereign bonds are excluded.

Basic formulas	Financed Emissions(FE) = (1) Attribution factor × (2) Company emissions (1) Attribution factor = $\sum$ Outstanding loans / investments from Mizuho to clients ÷ Client's corporate value (total equity + debt) (EVIC for listed companies) (2) Company emissions = Scope 1, 2, and 3 emissions disclosed by clients. Estimated values used when disclosures not available.
Target year	Base year: FY2021 - Mizuho's loan and investment balance: Total as of March 31, 2022 - Client financial data and emissions data: Principally, the most recent fiscal year data obtainable as of March 31, 2022.
Sources of emissions data	[Corporate finance and project finance (excluding finance for power generation projects), and proprietary investments] - We used data from the vendors, company disclosures, and hearings from clients (equivalent to a data quality score ("score" thereafter) 1 or 2). - When the sources above were not available, we estimated emissions using estimated data from the vendors (equivalent to scores 3 to 5 depending on the estimation methodology) or emission coefficients per unit of revenue taken from the PCAF database (identified and calculated by region and sector, equivalent to score 4). [Project finance for power generation projects] - We estimated emissions by multiplying the project's annual power generation volume by the emissions coefficient per unit of power generated taken from the IEA World Energy Outlook (calculated by region and sector) (equivalent to score 3).

Reference — PCAF data quality score approach

The PCAF classifies the quality of emissions data as shown in the table below. In calculating data quality scores for the sectors, we followed the PCAF standard's methodology and aggregated weighted averages by the lending amounts in the respective sector.

Certain ↑ Uncertain ↓

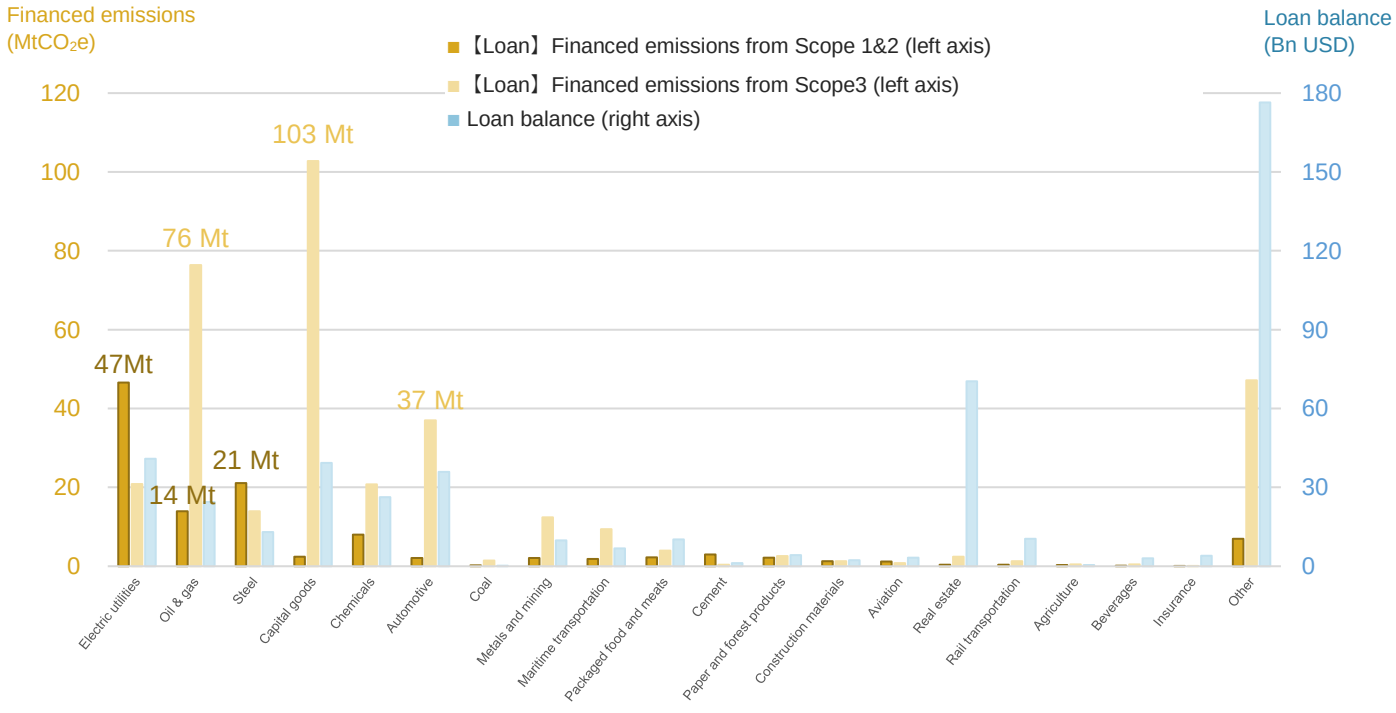
Data quality	Option		Overview
Score 1	Reported emissions		Emissions data from company disclosures (with third-party certification)
Score 2	Reported emissions		Emissions data from company disclosures (without third-party certification)
Score 2	Estimated emissions	Physical activity-based	Emissions data estimated from company energy consumption volume and emission factor
Score 3	Estimated emissions	Physical activity-based	Emissions data estimated from company production and emission factor
Score 4	Estimated emissions	Financial indicator-based	Emissions data estimated from company sales and emission factor
Score 5	Estimated emissions	Financial indicator-based	Emissions data estimated from financing and investment balance to the company and emission factor

Source: Prepared by Mizuho based on the PCAF standard (*The Global GHG Accounting & Reporting Standard for the Financial Industry*)

(2) Measurement results

	Power utilities*3	Oil & gas*4	Steel	Capital goods	Chemicals	Automotive	Coal	Metals and mining	Maritime transportation	Packaged food and meats	Cement	Paper and forest products	Construction materials	Aviation	Real estate	Rail transportation	Agriculture	Beverages	Insurance	19 sectors total	Other*5	Total
【Loan】Financed Emissions ($MtCO_2e$)																						
- Scope1,2	47	14	21	2	8	2	0.2	2	2	2	3	2	1	1	0.4	0.4	0.3	0.2	0.0	109	7	116
- Scope3	21	76	14	103	21	37	1	12	9	4	0.4	3	1	0.8	2	1	0.5	0.5	0.0	309	47	356
【Investment】Financed Emissions ($MtCO_2e$)																						
- Scope1,2	2	0.2	1	0.3	1	0.1	0.0	0.1	0.3	0.2	0.4	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	6	0.5	7
- Scope3	1	1	1	9	3	3	0.0	0.3	0.2	1	0.0	0.2	0.1	0.0	0.1	0.2	0.0	0.1	0.0	20	4	23
Data Quality Score (1 is most certain (values disclosed by company with third-party certification), and 5 is least certain (estimated values)																						
- Scope1,2	2.1	2.4	2.1	2.4	2.3	2.6	2.1	2.6	3.4	3.3	2.0	2.6	2.3	2.0	3.1	2.4	4.0	2.4	1.5	2.6	2.8	2.6
- Scope3	2.4	2.8	2.2	2.9	2.8	2.9	2.8	3.0	3.6	3.4	2.1	3.4	2.9	2.4	3.3	3.1	4.0	2.9	2.4	2.9	3.1	3.0
Financed emissions measurements — loan and investment balances (in billions of USD)																						
Loan balance	41	24	13	39	26	36	0.2	10	7	10	1	4	2	3	70	10	0.4	3	4	306	176	483
- Measurement coverage percentage*1	98%	79%	100%	99%	99%	99%	100%	96%	73%	97%	99%	97%	97%	91%	89%	100%	100%	100%	96%	94%	80%	88%
Investment balance	1	0.5	1	6	4	2	0.0	0.5	0.5	2	0.1	0.3	0.1	0.0	3	3	0.1	0.2	1	25	21	46
Number of measured companies / projects*2																						
Companies / projects	488	251	252	2,383	995	1,189	12	739	180	785	83	249	102	34	3,233	81	13	94	33	11,196	10,390	21,586

*1. Measurement coverage percentage: The percentage of financed emissions that we were able to measure from the targeted loan amounts in each sector. The remaining financed emissions could not be measured due to such factors as the data not having adequate usability or accuracy for calculation of the attribution factors or the emissions data not being obtainable either from disclosures or as an estimate.
*2. Companies / projects: Excludes clients and projects without a loan balance as of the base date and clients without measured financed emissions.
*3. Electric utilities sector: Includes not only power generation businesses but also all companies and projects engaged in power transmission businesses.
*4. Oil and gas sector: Includes not only upstream production businesses but also all midstream and downstream companies and projects.
*5. Other sectors: Represents the total for sectors that do not fall under the 19 sectors, such as telecommunications, finance, retail, and services.



(Measurement results as of June 2023)

(Considerations regarding the measurement results)

- We disclosed the results of our financed emissions measured in 19 sectors for the first time in our TCFD Report 2022. This report is our second disclosure; however, cautions must be exercised when comparing these results with last year's, as financed emission results may have increased due to broader scopes of emissions calculated and disclosed by clients (for example, moving from a non-consolidated to a consolidated basis or expanding Scope 3 measurement scopes).
- By definition, Scope 1, 2, and 3 measurements allow for the same emissions to be accounted for by multiple sectors and companies. For example, in the capital goods sector, around 70% of Scope 3 emissions for a major heavy industry manufacturer come from the usage emissions of the thermal power generation plants it manufactures and sells. These emissions, however, overlap with Scope 1 emissions in the power utility sector. When a financial institution is financing and investing in oil and gas exploration companies, heavy industry manufacturers, electric power companies, or manufacturing companies that use electricity, the overlap is counted multiple times as financed emissions without offsetting.
- We used emission factors from the IEA World Energy Outlook to estimate emissions from project finance for power generation, and we used emission factors per unit of revenue from the PCAF database to estimate emissions from corporate finance. However, as these emission factors are subject to change over the course of future refinements or elaborations, the measurement results may change significantly moving forward.
- We refined the data quality scores ("score" thereafter) this year, subdividing scores according to the third-party certification rate (0% to 100%) and applying more rigorous standards for scores between 3 and 5, which resulted in lower scores overall.
- Measurement methods may also change in the future due to changes and improvements on the PCAF standard's methodology, clarification of practical standards for measurements and target setting (definitions, measurement scopes, time frames, etc.), and similar factors. In the event of such changes, we will clearly state the changes when disclosing our measurement results.
- If major changes occur to the measurement results disclosed in this report, we will disclose the changes as necessary on the Mizuho Financial Group's website.

(3) Actions going forward

For this report, we have included loans (corporate and project finance) and proprietary investments in the target assets, and we have made the measurements of all sectors available for the first time. The following sections detail some of the issues that need to be addressed in order to improve and enhance our measurements.

a. Measurement scope

[Asset classes] The measurements for this report excluded the following asset classes because of a lack of data or an established methodology.

- Loans to asset liquidation SPVs in corporate / project finance, loans for trade finance, and sovereign loans
- Sovereign bond and fund investments classed as proprietary investments
- Capital market activities (underwriting)

[Sectors] For this report, in addition to the 19 sectors subject to the recommended disclosures (carbon-related assets) in the TCFD Recommendations, we aggregated the measurement results for other sectors that do not fall into the 19 sectors and disclosed the results for all sectors for the first time. On the other hand, we recognize, from the perspective of emissions data usability, that caution must be exercised regarding the accuracy of these results, because disclosed emissions are limited, particularly among client

companies in the “other” sector, and because estimated data had to be used for more than half of client companies in the targeted loan balance.
In recognition of these issues, we are examining ways to improve measurements, such as employing new methodologies and collecting additional data, while also accounting for our priorities in the purpose of measuring financed emissions, such as using the measurements for future Scope 3 target setting and monitoring.

b. Data quality improvements

For this report, we measured corporate finance by combining clients’ reported data (score 1 or 2) with estimates based on company revenue (score 4) and measured project finance for power generation projects by combining reported data with estimates based on power generation volume (score 3). There were more than a few discrepancies between the company/project reported data (score 1 or 2) and estimated data (score 4 or 5). Accurately assessing the actual situation will require using more precise data.
While accounting for our priorities in measuring financed emissions, we are pursuing further improvements in data quality by using more external data, communicating with vendors, and engaging with clients and related stakeholders in regard to emissions disclosures.

c. Development of efficient measurement processes

Relevant departments within our Group worked on the measurements for this report. These efforts, however, have proved to be labor intensive, because measurement standards, data, and other processes are still in the developing stage.
Through the PCAF Japan coalition activities, we are striving to resolve issues through further discussions with other financial institutions by sharing insights and experience gained from addressing practical issues and by developing frameworks for efficiently collecting accurate emissions data. We are also looking at developing internal systems to make efficient measurements by adopting technology and other means.

d. Client approaches to Scope 3 emissions

As it becomes increasingly important to measure emissions throughout value chains, many companies are working to expand and enhance their measurements of Scope 3 emissions (categories 1 to 15). Furthermore, the PCAF database does not currently include data (emission coefficients) for estimating downstream Scope 3 emissions in each sector; consequently, our financed emission measurements disclosed in this report are subject to significant changes in the future. Additionally, the definitions of Scope 1, 2, and 3 are such that multiple companies may double count the same emissions. In this regard, the PCAF standard states: “Double counting occurs between the different scopes of emissions from loans and investments when a financial institution invests in stakeholders that are in the same value chain. This form of double counting cannot be avoided but can be made more transparent by separately reporting the scope 1, 2, and 3 emissions of loans and investments.”[37]
Given these circumstances, we believe it will take more time until we are able to accurately measure our clients’ overall Scope 3 emissions and monitor their trends. Nevertheless, we continue to strive to improve our measurements.

[37] *The Global GHG Accounting and Reporting Standard for the Financial Industry*, Box 6, p. 101, PCAF

PCAF and PCAF Japan initiatives

The Partnership for Carbon Accounting Financials (PCAF) is an international initiative that develops and implements methodologies to measure the GHG emissions from financial institutions' finance portfolios. As of May 2023, over 390 financial institutions have joined PCAF, including commercial banks, investment banks, insurance companies, and institutional investors, representing a total of more than USD 90 trillion in financial assets.

November 2021 saw the launch of the PCAF Japan coalition for PCAF member institutions in Japan, and as of May 2023, 26 financial institutions are taking part in the coalition.

Mizuho Financial Group joined PCAF in July 2021, becoming the first Japanese financial institution to participate, undertaking measurements by means of a trial-and-error approach. In the process of measurements, we come across several practical challenges. These included reclassifying sectors according to Japanese standards, coping with insufficient data of GHG emission and others from clients to whom we provide financing and investment, developing efficient data collection methods, and eliminating duplicate counting of GHG emissions across multiple layers.

Mizuho recognized that to overcome these challenges, we needed to strengthen our collaborations with various stakeholders, including collaborations in the financial sector. One step we took towards this was to contribute to organize the PCAF Japan coalition as the first PCAF member institution in Japan and to serve as Chair of the coalition at the time of its launch in November 2021.

Through discussions among member institutions, the PCAF Japan coalition establishes and announces annual workplans and promotes activities that contribute to the enhancement of member institutions' initiatives. At the coalition, we will continue to share experiences, knowledge, and other matters with member institutions, further strengthen collaborations among institutions toward solving common issues, and promote improved measurements and disclosures of GHG emissions from financing and investments.

PCAF Japan coalition FY2022 workplan

FY2022 action plan: **Advance collaboration and the sharing of experience, knowledge, and issues among participating financial institutions to promote enhancement of the measurement and disclosure of greenhouse gas emissions from loans and investments (financed emissions), while also strengthening stakeholder collaboration toward solving common issues.**

	Plans for initiatives	Specific administration details / output	Results (FY2022)
Sharing knowledge	• **Share knowledge and experience related to practical issues in measuring financed emissions in order to enhance the efforts of each company.** • **Hold discussions about the measurement methods and discussion papers announced at PCAF.**	・Present examples of initiatives from each company at regular meetings. ・Carry out surveys of participating financial institutions to investigate responses in areas with differing interpretations (e.g., financial items, sector classifications, etc.) and the framework of each company (e.g., data collection methods, department / division structures, etc.). Summarize the results as a reference for carrying out measurements ・Hold discussions on matters such as the approach to and issues in applying new guidance, and share ideas from PCAF Japan as necessary.	・Presented by 5 companies in FY21-22 ・Implemented ・Implemented
Identifying common issues	• **Identify and organize issues common among Japanese financial institutions.**	・Identify the two types of issues below through surveys and other such means and hold discussions on responses. (1) Issues that can be organized through collaboration between participating financial institutions (2) Issues that require cooperation with external stakeholders	・Implemented (refer to p.10)
Stakeholder collaboration	• **Strengthen collaboration with a wide range of stakeholders toward solving common issues.**	・Regarding issues that fall under (2) above, good practices in corporate disclosure, etc., share the issues and exchange ideas with relevant stakeholders such as regulatory authorities and industry associations.	・Implemented (refer to p.10,12)
Promoting disclosure	• **Provide examples related to the initiatives and disclosures of participating financial institutions.**	・Create a collection of example cases from disclosure materials on measurements of financed emissions issued by participating financial institutions.	・Implemented (this report)
Administration plan	• Hold Japan coalition meetings quarterly (the agenda for each meeting will be discussed between the PCAF Secretariat and the PCAF Japan coalition chair with consideration to feedback from participants). • Based on the response policies for issues that fall under (1) above and on the growing number of participating financial institutions, consider holding workshops by topic, sub-meetings by industry/topic, etc.		

Source: *PCAF Japan coalition Report 2023*

7. Conclusion

Addressing climate change and achieving net zero by 2050 will be a long journey. Each fiscal year, Mizuho examines our progress from the previous fiscal year, the external business landscape, and other factors, reviews our action plans based on these examinations, and sets a course to steadily advance our climate-related initiatives. Our FY2023 action plans are shown below.

We will continue to strengthen and accelerate our responses to climate change across the whole Group, to contribute to the achievement of a decarbonized society, and to pursue higher corporate value for both Mizuho and our clients.

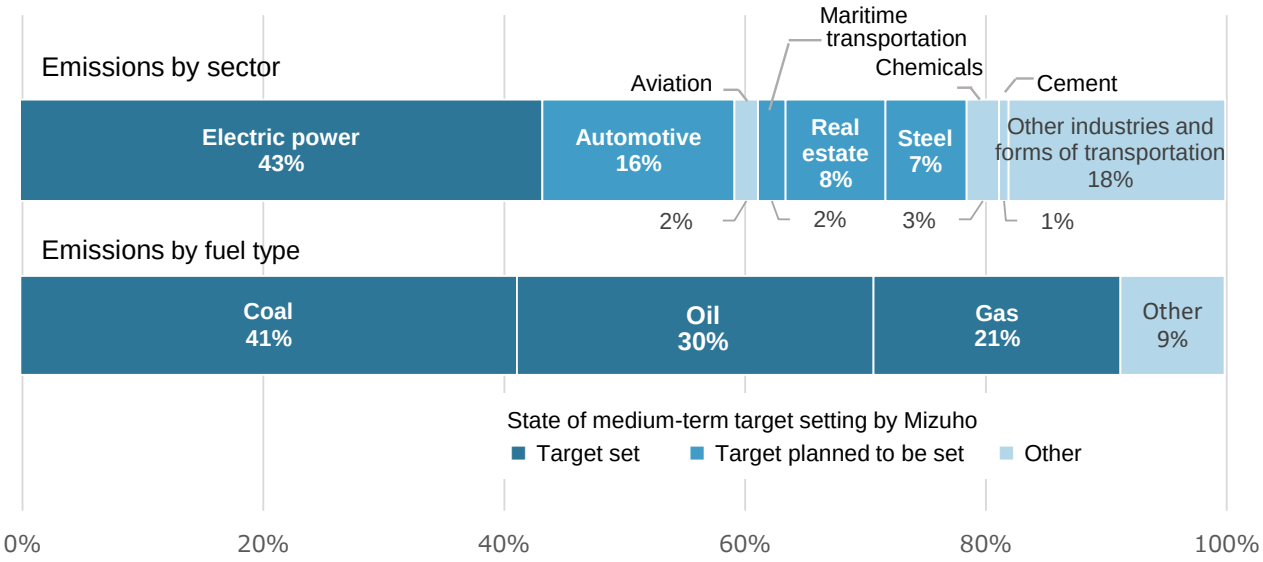
Table 20: FY2023 Action Plans

Governance	• Strengthen and accelerate the business execution line's initiatives to implement the Net Zero Transition Plan, and report on those initiatives to the supervisory line. • Build a response framework based on climate-related disclosure regulations.
Strategy	• Clarify engagement strategies, in terms of both capturing opportunities and managing risks that account for the characteristics of each sector. • Consider quantitative examinations of the financial impacts (risks, opportunities, expenses, etc.) of climate change, with consideration also of disclosure regulations. • Further improve scenario analyses (including verification of scenario adequacy, expansion of the scope of analyses, model advancements, incorporation into individual company plans, and documentation of analysis logic and processes).
Risk management	• Improve our methods of verifying the status of clients' transition risk responses, including their transition strategies. • Improve our control policies and exposure planning for carbon-related sectors by quantifying climate-related risks. • Revise our financing and investment policies so they accurate reflect the state of the environment and society.
Metrics and targets	• Financed emissions: Gradually set interim sector-level targets (automotive, maritime transportation, steel, and real estate), monitor progress in sectors where targets have been set, and weigh additional measures as needed. • Our own GHG emissions: Improve responses in anticipation of disclosure regulations, and execute emission-reduction measures.

8. Appendix

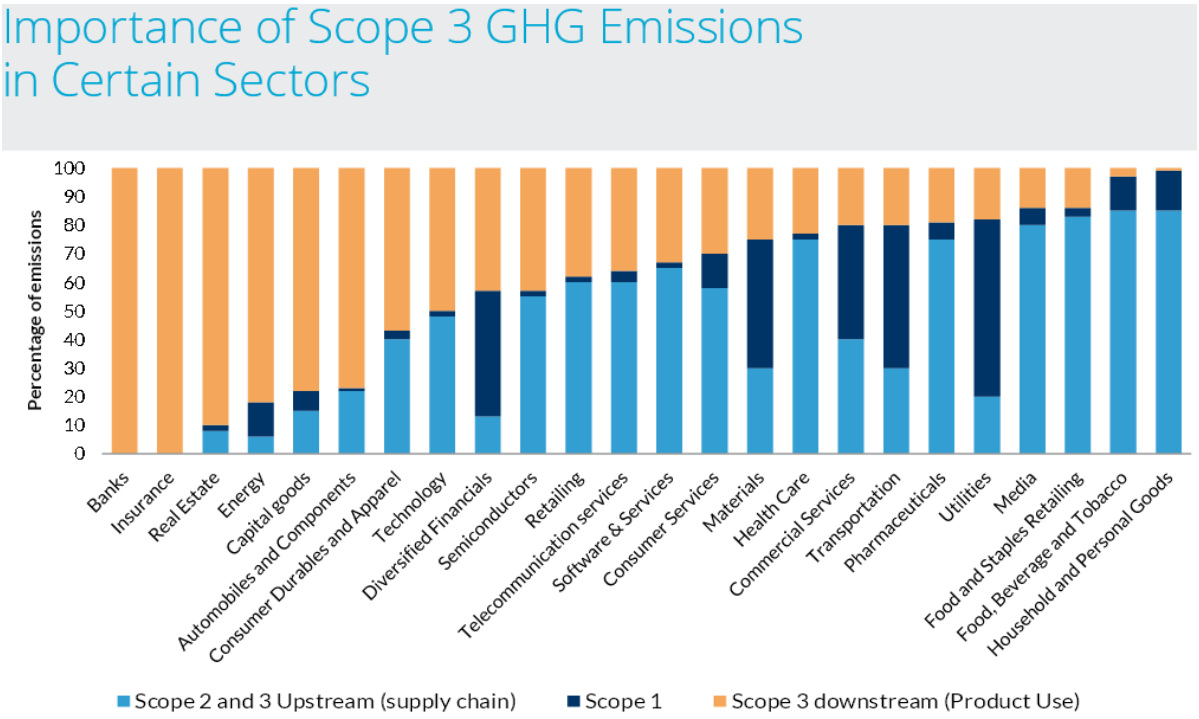
1. Details of Scope 3 medium-term targets

(1) Reference: 2021 global CO2 emissions by sector and by fuel type



Source: IEA World Energy Outlook 2022

(2) Reference: Percentage of Scope 1, 2, and 3 emissions by sector



Source: Guidance on Metrics, Targets, and Transition Plans, TCFD, Oct. 2021
Original data source: Carbon Compass: Investor Guide to Carbon Footprinting, Kepler-Cheuvreux, 360 Report, Nov. 2015

(3) Reduction of emissions from financing and investment: Approach and measurement standards of medium-term target

a. Details of the medium-term target for the electric power sector

Targeted value chain	**Companies and projects whose primary business is power generation**[38]
Metrics	**GHG emission intensity (kg CO_2e/MWh)** — GHG emissions per unit of power generated
Targeted emissions	GHG emissions from power generation operations by companies and projects in the electric power sector (Scope 1)
Targeted power generation	Actual annual power generated by companies and projects in the electric power sector
Targeted assets	Loans (Total of corporate finance and project finance)[39]
Metric formula	$\sum \left(\text{GHG emission intensity of each company or project} \times \frac{\text{Loan balance to company or project}}{\text{Total loan balance across the target}} \right)$
Target year	Base year: FY2020, Target year: FY2030
Numerical target	GHG emission intensity in FY2030: **Between 138**(scenario 1) **and 232**(scenario 2) **(kgCO_2e/MWh)** Change from FY2020 levels of between –65% and –40%
Benchmark scenarios	**(1) IEA Net Zero Emissions by 2050 Scenario (NZE)**[40] **(2) IEA Sustainable Development Scenario (SDS)**[40]
Data sources	Information disclosed by clients, Bloomberg, discussion points in meetings with clients, etc.

Target setting approach

Reasons for selecting the electric power sector	・The electric power sector accounts for approximately 43% of GHG emissions by global demand sectors and accounts for a large portion of Mizuho's emissions from financing and investment. The sector is critical for the decarbonization of society and industry as a whole. ・Mizuho places companies whose primary business is coal-fired, oil-fired, or gas-fired power generation in the transition risk sector and has instituted policies to support these companies' responses to climate change and transitions to a low-carbon society from a medium to long term perspective. ・Progress has been made on establishing GHG emissions disclosures, transition pathways to net zero, and international guidance for this sector.
Approach to the targeted value chain and scope	・Scope 1 emissions from power generation operations are targeted because they account for the majority of GHG emissions in the electric power sector.
Approach to metrics	The target was set in GHG emission intensities (GHG emissions per unit of power generated) for the following reasons. ・An important component of decarbonization of society and industry as a whole is reducing GHG emission intensities in power generation businesses, through support for the widespread take-up of renewable energy and for the development and practical application of next-generation technologies. ・In view of the transition of society as a whole, it is necessary to address the increase in demand for electric power that will be driven by greater energy demands in emerging economies and further electrification. ・If the target were set in absolute GHG emissions, the target might obstruct the flow for the growth and expansion of power generation projects with low emission coefficients.
Benchmark scenarios	・We set the target as a range to pursue efforts to limit the global temperature increase to 1.5° C and keep it well below 2° C. ・In order to set targets that account for regional characteristics and that support countries achieving their NDCs,[41] Mizuho's country-specific portfolios are used to calculate and set the SDS scenarios for each country.
Initiatives to achieve the target	・With engagement as the starting point, Mizuho supports clients in reducing their GHG emission intensities by providing both financial and non-financial solutions and encouraging clients to promote business structural transformations and transition risk responses. ・We provide financing to clients for climate change responses and actively support the development and practical application of next-generation technologies, through such initiatives as project finance for renewable energy and green loans and bonds. ・We have prohibited financing and investment that will be used to fund the construction of new coal-fired power generation facilities or the expansion of existing facilities. ・We have set a target to reduce the outstanding credit exposures of coal-fired power generation facilities, based on the Environmental and Social Management Policy for Financing and Investment Activity.

[38] A company's sector is determined by its largest business segment by sales. Mizuho has established our sector classifications based on the classifications in the *Industry Classification Table* formulated by the Bank of Japan.
[39] Aggregate for Mizuho Bank and Mizuho Trust & Banking
[40] *IEA World Energy Outlook 2021*
[41] NDC: Nationally Determined Contribution

b. Details of the medium-term targets for the oil and gas sector

Targeted value chain		**Companies and projects whose primary business is in upstream production (including integrated oil and gas companies)**	
Metrics		**GHG emission intensity (gCO_2e/MJ)**	**Absolute GHG emissions (Mt CO_2e)**
	Targeted emissions	Direct GHG emissions from oil and gas production operations (including methane leaks) (Scope 1 + Scope 2)	Indirect GHG emissions from oil and gas production operations (Scope 3 (Category 11))[42]
	Targeted production	Upstream oil and gas production volume	
Targeted assets		Loans (Total of corporate finance and project finance)	
Metric formula		$\sum\left(\text{GHG emission intensity of each company or project} \times \frac{\text{Loan balance to company or project}}{\text{Total loan balance across the target portfolio}}\right)$	$\sum\left(\text{GHG emissions of each company or project} \times \frac{\text{Balance of loans to company or project}}{\text{Corporate value of the company or project}}\right)$
Target year		Base year: FY2019, Target year: FY2030	
Numerical targets		**FY2030: 4.2 gCO_2e/MJ**	**FY2030: Between –12%** (scenario 1) **and –29%** (scenario 2) (Compared with FY2019 results)
Benchmark scenarios		**IEA Net Zero Emissions by 2050 Scenario (NZE)[43]**	**(1) IEA Sustainable Development Scenario (SDS)[43]** **(2) IEA Net Zero Emissions by 2050 Scenario (NZE)**
Data sources		Wood Mackenzie database, information disclosed by each company, hearing from clients, etc.	

Target setting approach

Reasons for selecting the oil and gas sector	・Over 90% of the world's CO_2 emissions come from fossil fuels. Reducing these emissions is essential to achieving a low-carbon society. ・The greenhouse gas methane is second only to CO_2 in driving global warming and is released in the oil and gas production process. There is a need to make improvements to production processes, including the reduction of methane emissions. ・The oil and gas sector accounts for a significant percentage of Mizuho's GHG emissions from financing and investment. ・GHG emissions data are more readily available and science-based scenarios are more advanced for this sector than for other sectors.
Approach to the targeted value chain and scope	・We have focused on upstream production businesses due to the share they comprise of Mizuho's oil and gas sector portfolio and the impact they have on the overall value chain in regard to transition in the real economy. ・Over 80% of emissions in the oil and gas sector are Scope 3 (CO_2 emissions from the combustion of sold products). For this reason, we have targeted Scope 3 emissions as well as Scope 1 and 2 emissions.
Approach to metrics	・Decarbonization of the oil and gas sector entails reducing absolute GHG emissions by scaling back use of fossil fuels and reducing GHG emission intensities by having oil and gas companies improve their production processes. ・Compared to Scope 1 and 2 emissions (direct), Scope 3 emissions (indirect) require different actions on the part of oil and gas companies and also have a different level of impact. In order to raise the effectiveness of our target-setting initiatives, we set separate emission targets for Scope 1 and 2 and for Scope 3.
Benchmark scenarios	・We adopted the IEA NZE scenario to pursue efforts to limit the global temperature increase to 1.5°C. ・However, because the IEA NZE scenario assumes a significant decline in demand for oil and gas towards to 2030 and because initiatives must match the actual speed of transition in the real economy, we have set the target for Scope 3 emissions (absolute GHG emissions) to a range between the IEA NZE scenario and the IEA SDS scenario, which is a well-below 2°C scenario.
Initiatives to achieve the targets	・Reducing emissions from the oil and gas sector encompasses both initiatives to reduce emissions from oil and gas production and initiatives to decarbonize the demand side that uses oil and gas. ・Through engagement, we verify the transition progress of clients and provide them with both financial and non-financial solutions. In this way, we support client initiatives toward business structural transformations and production process improvements. ・In tandem with these initiatives, we are furthering our initiatives to encourage decarbonization on the demand side.

[42] Emissions when sold products are used (combusted)
[43] *IEA World Energy Outlook 2021*

	・We take social impacts into consideration, such as impacts on the stable supply of energy, in our initiatives.

c. Details of the medium-term targets for the thermal coal mining sector

Targeted value chain	**Companies whose primary business is in thermal coal mining**
Metrics	**Absolute emissions (Mt CO_2e)**
Targeted emissions	Direct emissions (Scope 1 + Scope 2) and indirect emissions (Scope 3 (Category 11)) from thermal coal mining operations
Targeted assets	Loans (Total of corporate finance and project finance)
Metric formula	$\sum \left(\text{GHG emissions of each company or project} \times \frac{\text{Loan balance to company or project}}{\text{Total loan balance across the target portfolio}} \right)$
Target year	Base year: FY2020, Target years: FY2030 and FY2040
Numerical targets	**OECD economies: Zero by FY2030, non-OECD economies: Zero by FY2040**
Benchmark scenarios	**Consistent with the approach taken in the IEA Net Zero Emissions by2050 Scenario (NZE)[44]**
Data sources	Wood Mackenzie database, information disclosed by each company, hearing from clients, etc.

Target setting approach

Reasons for selecting the thermal coal mining sector	・Over 90% of the world's CO_2 emissions come from fossil fuels. Reducing these emissions is essential to achieving a low-carbon society. ・There is international consensus, most prominently in the Glasgow Climate Pact adopted at COP26, on phasing out coal-fired power generation.[45]
Approach to the targeted value chain and scope	・In view of the Glasgow Climate Pact adopted at COP26, we focused on the mining of thermal coal, which is used as fuel in coal-fired power generation. ・Over 90% of emissions in the thermal coal mining sector are Scope 3 (CO_2 emissions from the combustion of sold products). For this reason, our targets cover Scope 3 emissions as well as Scope 1 and 2 emissions.
Approach to metrics	・Decarbonization of the thermal coal mining sector requires reducing emissions from the use of thermal coal. Accordingly, we adopted absolute GHG emissions (Mt CO_2e) as our target metric.
Benchmark scenarios	・To pursue efforts to limit the global temperature increase to 1.5°C, our targets are a zero balance by FY2030 for OECD economies and by FY2040 for non-OECD economies, based on the Glasgow Climate Pact adopted at COP 26 and the approach in the IEA NZE scenario.
Initiatives to achieve the targets	・Mizuho is phasing out financing provided to thermal coal mining, based on the Environmental and Social Management Policy for Financing and Investment Activity. ・Through engagement, we verify the transition progress of clients and provide them with both financial and non-financial solutions. In this way, we support client initiatives toward business structural transformations. ・We take social impacts into consideration, such as impacts on the stable supply of energy, when implementing initiatives. ・These initiatives are being advanced in concert with the initiatives toward the medium-term target (FY2030 target) for the electric power sector.

[44] *IEA World Energy Outlook 2021*
[45] Coal-fired power generation with no measures to reduce emissions.

d. Common items to the electric power, oil and gas, and thermal coal mining sectors

Setting medium-term targets	・The medium-term targets have been established in reference to the NZBA's target-setting guidance[46] and have been approved by Mizuho Financial Group's Board of Directors.
Method for selecting the target portfolio	・The target portfolio consists of companies or projects that belong to clients in the targeted sectors and whose primary business is in the targeted value chain. ・We determine a company's sector and primary business by its largest business segment by sales.[47] ・Mizuho has established its sector classifications based on the classifications in the *Industry Classification Table* formulated by the Bank of Japan.
Measurement coverage percentages	・When we are not able to obtain emissions data, production data, financial data, or similar data on a company in the target portfolio and are consequently unable to calculate the target metric (GHG emission intensity or absolute GHG emissions), we consider the company outside the scope of measurement. ・We have been able to calculate metrics for almost 100% of the loan balances in the target portfolios in the electric power, oil and gas, and thermal coal mining sectors. ・Through our engagement with the clients, we regularly confirm and update our records on our clients' primary businesses. Because of this, the target portfolio and measurement coverage percentages may change in the future.
Data quality scores	・The table below lists the data quality scores of actual FY2021 emissions for each sector (average weighted by the amount of loans).

Electric power	GHG emission intensities
	2.6

Oil and gas	Scope 1 and 2 GHG emission intensities	Scope 3 absolute GHG emissions
	3.1	3.1

Coal mining	Absolute GHG emissions
	3.3

Note: A score of 1 is most certain (values disclosed by company with third-party certification), and a score of 5 is least certain (based on estimated data and asset balances)

Carbon offsets	・We do not currently take carbon credits or other offset schemes into account. We continue to examine carbon offsets, based on the direction of global discussions and formulation of international standards.
Ongoing initiatives to improve data quality	・Calculating GHG emissions from financial institutions' financing and investment portfolios requires relevant data on emissions and production that are aligned with consistent global standards. At present, however, there is only limited uniform corporate disclosure data available. We have, consequently, had to rely on data from external vendors with expert sector-specific knowledge and insight to calculate our results. ・Our figures for GHG emissions and GHG emission intensities are subject to change going forward, as companies expand and enhance their emissions disclosures.

[46] *Guidelines for Climate Target Setting for Banks*

[47] The NZBA specifics the inclusion in target setting of any company that makes 5% or more of its direct sales from a thermal coal mining business. However, there is no established method for identifying these companies. We will continue to examine this issue going forward.

2. Details of measurement standards for Scope 3 emissions

(1) Formulas and measurement processes by asset class

a. Formula and applications from the PCAF standard

[Corporate finance and proprietary investment]

$$Financed\ emissions = \sum_{c} Attribution\ factor_c \times Company\ emissions_c$$

$$(with\ c = borrower\ or\ investee\ company)$$

For business loans and equity investments to/in private companies:

$$Attribution\ factor_c = \frac{Outstanding\ amount_c}{Total\ equity + debt_c}$$

For business loans to listed companies:

$$Attribution\ factor_c = \frac{Outstanding\ amount_c}{Enterprise\ Value\ Including\ Cash_c}$$

$$(with\ c = borrower\ or\ investee\ company)$$

Source: PCAF standard

- Attribution factor
  - Numerator: On-balance sheet loans from Mizuho to the client[48] and proprietary investment balance[49]
    Denominator:
    Listed companies — The client's enterprise value including cash (EVIC; the sum of the market capitalization of ordinary and preferred shares and the book values of interest-bearing debt (bonds + borrowing) and non-controlling interests (with no deductions of cash or cash equivalents))
    Private companies — The client's corporate value (total equity + interest-bearing debt)
  - EVIC data on listed companies come from a data vendor (Bloomberg). Other data come from Mizuho's internal credit data.
  - When it is not possible to calculate the attribution factor due to missing data, the PCAF standard allows for estimating financed emissions by multiplying the amount of financing and investment in the company by the emission coefficient per unit of asset from the PCAF database (equivalent to data quality scores between 3 and 5). However, when we estimated financed emissions using this method, we found significant gaps between the estimates and companies' disclosed values, which could affect the accuracy of the measurement results. Because of this, we refrained from using estimates equivalent to a score of 5, and we considered financed emissions for which we were not able to calculate an attribution factor outside the scope of measurement.
- GHG emissions (company emissions)

  We prioritized data in the following order when calculating Scope 1, 2, and 3 emissions.
  - Data vendor data (Bloomberg and CDP), data disclosed by the company, data obtained in meetings with the company (the percent of third-party certifications (from 0% to 100%) were mapped to a rating between score 1 and score 2 to two decimal places).
  - When the data above were not available, we estimated emissions either using estimated data from data vendors (equivalent to a score between 3 and 5 depending on the estimation methodology) or multiplying the emission coefficient per unit revenue from the PCAF database with the company's sales (calculated by region and score and equivalent to a score of 4).

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[48] Combined figures for the loan balances of Mizuho Bank and Mizuho Trust & Banking. Available credit under committed lines of credit, securities, derivatives, and similar are not included. Loans to special purpose vehicles for securitization, trade finance, and sovereign loans are outside the scope of this measurement, as it is not possible to calculate attribution factors for these types of loans.

[49] Combined investment balance for Mizuho Bank and Mizuho Trust & Banking. Covers directly held portions of individual company bonds (publicly offered bonds and privately placed bonds) and stocks. Indirect holdings through fund investments and investments in sovereign bonds are excluded.

[Project finance]

$$Financed\ emissions = \sum_{p} Attribution\ factor_p \times Project\ emissions_p$$

$(with\ p = project)$

$$Attribution\ factor_p = \frac{Outstanding\ amount_p}{Total\ equity + debt_p}$$

Source: PCAF standard

Attribution factor

- Numerator: On-balance sheet loans from Mizuho to the project
  Denominator: Total project cost for each project (equity + debt)

- GHG emissions (project emissions)
  - Project finance for power-generation projects: Estimated by multiplying the project's annual power generation by the emission coefficient per unit of power generated from the IEA World Energy Outlook (calculated by region and sector) (equivalent to a score of 3)
  - Other project finance: Same as the method given above for calculating company emissions for corporate finance

b. Measurement process

We measured emissions from corporate finance and project finance (other than for power generation projects) and from proprietary investments (stocks and corporate bonds) using the process as follows.

i. Reconcile sector classifications
   - To come up with usable data, we reconciled the sectors in Mizuho's internal credit data (which follow the classifications in the *Industry Classification Table* formulated by the Bank of Japan), the sectors in the TCFD recommended disclosures (which have no set classification method), and the sectors in the 2022 edition of the PCAF database (which applies multiple classifications, including the Global Industry Classification Standard (GICS), North American Industry Classification System (NAICS), and Statistical Classification of Economics Activities in the European Community (NACE, from the French abbreviation)).

ii. Organize internal credit data
   - We determined the parent company/subsidiary relationships for each individual client and organized them on a case-by-case basis according to Mizuho's business relationship with the parent company and subsidiaries and the availability of financial data and emissions data.
   - We reconciled client data from data vendors with Mizuho's internal credit data.

iii. Calculate the attribution factors and GHG emissions (company emissions)
   - As described on the previous pages

iv. Measure the financed emissions and data quality score
   - We multiplied the attribution factor with the company emissions to calculate financed emissions from loans and investments respectively in all sectors subject to measurement.
   - We weighted the average of the data quality scores for each calculated data point by the respective loan balance or investment balance by sector to calculate the score for each sector.

(2) Issues faced and our responses

We have been conducting financed emission measurements based on the PCAF standard since FY2021. In the process, we have worked toward improving our measurements through trial-and-error as we encountered a number of issues. The following are examples of some specific issues we faced and our responses to them.

a. **Handling of consolidated and non-consolidated data**

- Issue: Boundaries vary depending on the data set. For example, while data on GHG emissions, EVIC, and corporate value in company disclosures are frequently on a consolidated basis, Mizuho's internal credit data are on a nonconsolidated basis. Furthermore, some clients in our financing and investment portfolio are subsidiaries of consolidated corporate groups that only make financial and emissions data available on a consolidated basis, impeding correct calculation of attribution factors. There is a need to organize

approaches to the attribution factor's numerator and denominator and to the boundaries of company emissions in the measurement process.

- Response: We adjusted the relationship of the parent company and subsidiaries for each individual client in our credit data. When we had loans with both the parent company and its subsidiary, we aggregated them under the parent company's consolidated data. Otherwise, we organized the data case-by-case, such as when we had loans only with the subsidiary and emissions and financial data were available on a non-consolidated basis of the subsidiary or when we had loans only with the subsidiary but data were available only for the parent company on a consolidated basis.

  We also considered that some clients may use different criteria for consolidating emissions data than they do for consolidating financial data. But given the work involved in confirming the criteria for consolidation at each individual company, we chose to assume that the criteria for both types of data were the same in carrying out our measurements.

b. **Reconciling client data from data vendors with Mizuho's internal credit data**

- Issue: In merging the company emissions and EVIC data we obtained from data vendors with our internal credit data, we needed to perform reconciliation using codes for each client. For companies in Japan, we used the securities code as a key to merge the data sets. For companies outside Japan, because our internal data do not contain a suitable code, we had to use company names as the key. Some company names are similar or abbreviated, so reconciling the data based on company names proved to be extremely labor intensive.
- Response: We reconciled client data for each individual company, excluding data that was low priority due to the size of the loan balance or other reasons. We organized all ticker information when making measurements in the previous fiscal year. For this and future measurements, we will refine our data by reconciling new clients and re-verifying data not covered in the previous fiscal year.

c. **Reconciling sector classifications**

- Issue: To organize usable data, we needed to match the sectors in Mizuho's internal credit data (which follow the classifications in the *Industry Classification Table* formulated by the Bank of Japan), the sectors in the TCFD recommended disclosures (which have no set classification method), and the sectors in the PCAF database (which applies multiple classifications, including GICS, NAICS, and NACE).
- Response: We linked each sector after confirming the validity of the matches. For the TCFD sectors and PCAF database sectors, we based the matching on GICS codes.

d. **Integrating the PCAF database's region-specific emission coefficients**

- Issue: The PCAF database includes separate emission coefficients (to use in making estimates based on revenue or assets) for a range of countries and regions. This allows financial institutions to make estimates in line with their own country-specific portfolios. On the other hand, there is considerable variation in the values of emission coefficients for different countries (for example, there are cases where the gap between the minimum and maximum is about 3,000 times). Therefore, applying the emission coefficients as is runs the risk of producing estimates that diverge from reality.
- Response: We consolidated PCAF's country-specific data into six world regions and calculated emission coefficients for each region (the average of emission coefficients of the countries in each region). We then used the emission coefficient that corresponded to the headquarters' location for each client.

e. Measurements for the Other sectors

- Issue: We disclosed emissions in Other sectors for the first time in FY2022, and we used the same process as the 19 named sectors to make measurements. But because of the large number of clients in this category — around 48% of the total number of clients in all sectors, there is room to improve the accuracy of data reconciliation, sector classification, and other steps. Furthermore, the financial industry, which is included in the Other sectors, uses non-standard definitions for sales, EVIC, and other financial data, which made it impossible to calculate the attribution factors in many cases. As a result, the measurement coverage percentage for the Other sectors is low.
- Response: As far as possible, we reconciled codes for each client in the same way as the 19 named sectors, and we organized individual sectors included in the Other sectors with the sectors in the PCAF database. These measures raised the measurement coverage percentage to around 80 percent. Going forward, we will further refine our data by eliminating individual client errors and collecting additional data, starting with clients with a significant impact on the total loan balance, and by establishing methods to calculate attribution factors for the financial industry.

f. **Obtaining project data**

- Issue: Measuring project emissions from project finance for power generation projects requires project data such as power output capacity and facility usage rates. While such data were available internally in individual departments, it was not centralized.
- Response: We centralized project data necessary for measuring project emissions, as well as attribution factor data for each project. Going forward, we will update the data each year as necessary and add more projects to the measurements. In this way, we will streamline our management of our project data.

3. Overview of our Environmental and Social Management Policy for Financing and Investment Activity

I. Our approach under our Environmental and Social Management Policy for Financing and Investment Activity

It is imperative for companies to collaborate with stakeholders in taking appropriate action on sustainability-related environmental and social agenda to achieve a medium and long-term corporate value and growth. Companies are expected to be good corporate citizens and contribute to sustainable development of domestic and international economies & societies. They are required to act in an ethical and transparent way and remain considerate of the impact their activities have on the environment and society. It is a company's responsibility to satisfy stakeholders' expectations in conformity with the international standards of corporate conduct.

Mizuho commits itself to environmentally-conscious action and to respecting internationally recognized human rights in *Mizuho Code of Conduct*, *Environmental Policy* and *Human Rights Policy*. As a global financial group, Mizuho will act as a responsible corporate citizen in satisfying our stakeholders' expectations and serving the communities in which Mizuho operate with sustainable social and economic development principles, and Mizuho will contribute to sustainable development of domestic and international economies & societies. Mizuho will fulfill financial brokerage and consulting functions as well vis-a-vis environmental and social agenda (such as actions on climate change, conservation of biodiversity, and respect for human rights) in an effort to enhance the positive impact on the environment and society, while seeking to prevent and mitigate the negative impact. By providing financial services to the companies that properly address environmental and social agenda, Mizuho will be able to fulfill our social responsibility and commitment including our contribution to sustainable development of domestic and international economies & societies, our contribution to finding solutions to environmental and social agenda. At the same time, we are also sensitive to the risks involved in engaging in business with companies that do not properly address environmental and social agenda.

II. Scope of businesses subject to this policy and implementation methods of this policy

1. Scope of Businesses subject to this policy
   - Financing to client at our own discretion
   - Support of client's funding
   - Holding an asset in our own name to support client's business

   More specifically, it refers to the following activities which are collectively called as '*financing and investment*' in this document:
   - Lending[50], underwriting and proprietary investment in individual stocks, and trust service (excluding trust service related to asset management)
2. Implementation methods of this policy
   - '*Prohibitions*' identify the projects and companies which have significant risks and/or significant adverse impacts on the environment and society. Mizuho will not provide *financing and investment* to such projects and companies.
   - '*Other policies*' identify the projects and companies which have risks and/or adverse impacts on the environment and society. To prevent and mitigate the adverse impacts, Mizuho will make transactional decisions after taking such actions as follows, based on specific nature of individual financial activity: adding a process for checking the measures taken by client or requesting the client to take appropriate action, based on the *risks that Mizuho should recognize*.

III. Cross-sectional policies

1. Scope of application

   Regardless of industrial sector,
   - The projects which have significant risks or significant adverse impacts on the environment and society
   - The projects which have risks or adverse impacts on the environment and society, requiring appropriate actions by the clients against such environmental and social agenda
2. Overview of risks that Mizuho should recognize
   - The scope of '*Prohibitions*' covers the restrictions of international conventions.

[50] Includes corporate finance and project finance

- Development projects have inherent risks as follows: serious environmental pollution, human rights abuse including involuntary resettlement of indigenous peoples and local communities.
- There is a risk of delay in development and project completion resulting from protests organized by or lawsuits filed by indigenous peoples and local communities as well as human rights organizations.
- In conflict areas, there is a risk of human rights abuse due to various contexts of conflict or governance insufficiency for protecting human rights of civilians.

3. Policy

Prohibitions

- Mizuho will not provide *financing and investment* to:
  - Projects which have adverse impacts on wetlands registered in the Ramsar Convention
  - Projects which have adverse impacts on sites and properties registered on the UNESCO World Heritage List, unless UNESCO and the government of the site/property location country have given a prior consent
  - Projects which are in violation of the Washington Convention (It is necessary to pay attention to any provisions suspended by the countries involved in the project)
  - Projects which are causing forced labor, child labor, and human trafficking

Other policies

- To prevent and mitigate the adverse impacts in the following projects, Mizuho will prudently make transactional decisions after verifying of the measures taken by the client based on the *risks that Mizuho should recognize*:
  - Projects which have adverse impacts on indigenous people's communities
  - Projects involving land acquisition which will result in involuntary resettlement of residents
  - Projects which is causing, contributing to or directly linked with human rights abuse in conflict areas
- Mizuho will not provide *financing and investment* if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business

IV. Policy on forced labor, child labor, and human trafficking

Mizuho commits ourselves to respecting internationally recognized human rights in our *Mizuho Code of Conduct*. Based on our *Human Rights Policy*, Mizuho strives to meet our responsibility to respect human rights throughout our global value chain in accordance with the *UN Guiding Principles on Business and Human Rights*.

Mizuho expects our clients to understand our commitments to human rights based on our *Human Rights Policy* and expects them to act to prevent and mitigate adverse impacts on human rights throughout their operations and supply chain as well as to provide remedy if necessary.

1. Scope of application
   - Companies exposed to risk of forced labor, child labor and human trafficking
2. Overview of risks that Mizuho should recognize
   - Forced labor, child labor and human trafficking are the extremely serious human rights issues that international conventions and laws prohibit.
   - Companies have a risk of causing or contributing to forced labor, child labor and human trafficking through their business operations.
   - Companies have a risk that forced labor, child labor, and human trafficking are directly linked to their operations, products, or services.
3. Policy

Other policies

- To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*. More specifically, Mizuho will perform *human rights due diligence*.

Human rights due diligence

(1) Identification and assessment of our client's adverse impacts on human rights

With the aim of eliminating forced labor, child labor, and human trafficking from our business and value chain, Mizuho will strengthen our human rights due diligence process and check if our clients have any risks of forced labor, child labor and human trafficking:

- When starting new *financing and investment* transaction with a company with no existing *financing and investment* transactions, or
- With regard to a company with existing *financing and investment* transactions, an external party shared findings or a public organization provided credible information.

(2) Measures to be taken by Mizuho if clients have any risks of forced labor, child labor and human trafficking

A. When the client is causing forced labor, child labor or human trafficking

(a) If Mizuho has no existing *financing and investment* transactions with the client

- Mizuho will not provide *financing and investment* to the company, if it is evident that forced labor, child labor, or human trafficking is caused by the company.

(b) If Mizuho has existing *financing and investment* transaction with the client

- If the client is evidently causing forced labor, child labor, or human trafficking, Mizuho will require the client to provide remedy and prevent recurrence.
- If the client does not respond to our requirements after a certain period of time, we carefully consider whether or not to continue our business with them.

B. When the client is contributing to forced labor, child labor, or human trafficking, or when forced labor, child labor, or human trafficking is directly linked to the client's operations, products, or services

- Mizuho will engage in dialogues with the client to prevent and mitigate adverse impacts. More specifically, Mizuho will require the client to:
  - Report the progress of measures taken against the relevant issue
  - Take additional measures if measures taken by the client is unsatisfactory

V. Policy on transition risk sector

Based on our *Environmental Policy*, Mizuho will launch the following initiatives targeting at net zero greenhouse gas emissions society by 2050, and for building a climate-resilient society.

- Mizuho will reduce greenhouse gas emissions volume through our financing and investment portfolio in a medium and long-term perspective, to shift to a finance portfolio aligned with the Paris Agreement in a phased manner.
- Mizuho will engage in proactive, constructive dialogue in response to our clients' individual concerns and needs, and in support of their efforts to introduce climate change countermeasures and transition to a low-carbon society in both the medium and long term.

Mizuho formulated a policy on the industrial sectors which are faced with high transition risk (e.g. policy risk, technology risk, and reputation risk): such industrial sectors are collectively referred to as '*transition risk sector*'.

1. Scope of application
   - Companies whose primary business is any of the following sectors:
     - Coal-fired, oil–fired and gas-fired power generation, coal mining, oil, gas, steel and cement
2. Overview of risks that Mizuho should recognize
   - Companies whose primary businesses are those above are at a high risk of exposure to transition risks (policy risks, technology risks, reputational risks, etc.) if their responses to the transition to a low-carbon society are not appropriate.
3. Policy

   <u>Other policies</u>
   - To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*. More specifically, Mizuho will enter into *client engagement*.

   <u>Client Engagement</u>

   (1) Mizuho will request our clients to take the following measures for stepwise enhancement:
   - Develop a strategy for shifting to a low-carbon society
   - Set quantitative targets and/or medium and long-term KPIs to give validity to the strategy
   - Take actions based on the strategy, targets and KPIs, as well as disclose the progress
   - Measure and disclose greenhouse gas emissions volume
   - Enhance disclosures based on TCFD or equivalent framework

   (2) Mizuho will identify the risk classification of clients based on their primary business and transition risk response level.

(3) Mizuho will check and evaluate client's transition risk response level at least annually, based on the criteria including, but not limited to:
- Willingness to take measures against transition risk
- Development of the strategy, setting of quantitative targets
- Target level, tangibility of means to an end and progress, track record and objectivity

(4) If the client has not developed a transition strategy one year after the first engagement, we make decisions whether or not to continue our business with them based on careful consideration.

VI. Sector-specific policies

1. Weapons

(1) Scope of application
- Companies whose primary business is weapons manufacturing, sale or distribution
- Companies which manufacture:
  - Cluster munitions, antipersonnel landmines and biochemical weapons

(2) Overview of risks that Mizuho should recognize
- Companies which engage in the weapons business have an adverse social risk from the perspective of humanitarian due to its ability to be used as tools of killing, wounding or destruction in a war and/or military conflict.

(3) Policy

Prohibitions
- Mizuho will not provide *financing and investment* to:
  - Companies which manufacture cluster munitions, antipersonnel mines, and biochemical weapons

Other policies
- To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*.
- Mizuho will not provide *financing and investment* if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business

2. Coal-fired power generation

(1) Scope of application
- Companies which run coal-fired power plant operations

(2) Overview of risks that Mizuho should recognize
- Coal-fired power generation has a risk of causing climate change or air pollution because it emits more greenhouse gas than other type of power generation and releases sulfur oxide and nitrogen oxide.

(3) Policy

Prohibitions
- Mizuho will not provide *financing and investment* to:
  - Companies with no existing *financing and investment* transactions and whose primary business is coal-fired power generation
- Mizuho will not provide *financing and investment* which will be used for:
  - New construction of coal-fired power plant
  - Expansion of existing coal-fired power plant

Other policies
- To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*.
- Mizuho will not provide *financing and investment* if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business.
- We will support development of innovative, clean, and also efficient next-generation technology that will contribute to the energy conversions that lead to a low-carbon society by 2050.

3. Coal mining (thermal coal)

(1) Scope of application

- Companies which run coal mining (thermal coal) operations
- Companies which run infrastructure operations linked with coal mining (thermal coal)

(2) Overview of the risks that Mizuho should recognize

- Coal mining has a risk of enormous adverse impacts on the environment including those on ecosystems resulting from hazardous waste produced from coal mines and removed soil in the development process.
- Coal mining has risks as follows in the absence of proper management of the mining sites: casualties in mining accident, forced labor of mineworkers, and human rights abuse such as involuntary resettlement of indigenous peoples and local communities caused by development project.
- Produced coals have a risk of increasing greenhouse gas emissions when they will be burned for power generation.

(3) Policy

Prohibitions

- Mizuho will not provide *financing and investment* to:
  - Companies with no existing *financing and investment* transactions and whose primary business is coal mining (thermal coal)
  - Companies with no existing *financing and investment* transactions and whose primary business is infrastructure operations linked with coal mining (thermal coal)
- Mizuho will not provide financing and investment which will be used for:
  - Development of new coal mine (thermal coal)
  - Expansion of existing coal mine (thermal coal)
  - Acquiring an interest in existing coal mine (thermal coal), only when it is vital to the stable energy supply of a country which has announced a target of Net Zero greenhouse gas emissions by 2050[51], we may provide financing or investment based on careful consideration
  - Development of new infrastructure linked with coal mining (thermal coal)
  - Expansion of existing infrastructure linked with coal mining (thermal coal)

Other policies

- To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*.
- Mizuho will not provide financing and investment if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business.

4. Oil and gas

(1) Scope of application

- Companies which run oil and gas extraction business
- Companies which run pipeline operation

(2) Overview of risks that Mizuho should recognize

- Depending on production and development method, oil and gas extraction business has a risk of emitting more greenhouse gas because of methane gas leaks, flaring, the energy used in extraction process.
- Oil and gas production-related assets have a risk of potential exposure to transition risk (e.g. tougher climate-related regulations, shifting to renewable energy).
- Oil and gas extraction has a risk of enormous adverse impacts on the environment including marine and river pollution in the event of oil and gas spills.
- At both construction and operation, oil and gas pipelines have risks as follows: adverse impacts on the environment due to deforestation or oil spills; human rights abuse such as involuntary resettlement of indigenous peoples and local communities.
- The projects indicated below particularly impose enormous burden on the environment due to oil and gas extraction. They also have risks as follows: impacts on ecosystem, damages to biodiversity, and human rights abuse such as involuntary resettlement of indigenous peoples and local communities.
  - The Arctic (66° 33' N and beyond) is the region which requires special consideration for preservation of rare species as well as the lives of indigenous peoples.

51 Nationally Determined Contribution (NDC)

- A large volume of greenhouse gas is emitted from oil sands because the production requires heat treatment. It also has such risks as: deforestation due to oil sands deposits development; creating an impact on water resources by using a large volume of water; soil and water pollution resulting from wastewater.
- Shale oil and gas extraction with fracking has such risks as: creating an impact on water resources by using a large volume of water; soil and water pollution resulting from wastewater; triggering earthquakes.

(3) Policy

Other policies

- To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*.
- Mizuho will not provide *financing and investment* if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business.
- For new *financing and investment* which is used for oil and gas extraction, Mizuho will assess if sufficient measures are taken by the client to reduce greenhouse gas emissions.
- Mizuho will carry out an appropriate environmental and social risk assessment based on operation-specific risks, for *financing and investment* which will be used for:
  - Oil and gas extraction in the Arctic
  - Oil sands extraction
  - Shale oil and gas extraction
  - Pipelines

5. Large-scale hydroelectric power generation

(1) Scope of application

- Companies which run large-scale hydroelectric power plant[52]

(2) Overview of risks that Mizuho should recognize

- Large-scale hydroelectric power generation has risks of impacts on regional river ecosystems and damages to biodiversity, at construction of the power plant.
- Large-scale hydroelectric power generation has a risk of human rights abuse such as involuntary resettlement of indigenous peoples and local communities.

(3) Policy

Other policies

- To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*.
- Mizuho will not provide *financing and investment* if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business.
- For *financing and investment* which will be used for large-scale hydroelectric power generation, Mizuho will recommend our clients to:
  - Carry out an environmental and social assessment based on Hydropower Sustainability Assessment Protocol.

6. Large plantations

(1) Scope of application

- Companies which run large plantation farming business[53]

(2) Overview of risks that Mizuho should recognize

- Destruction and burning of natural forests for development of large plantations as well as operations of plantations have such risks as:
  - Desertification and soil degradation resulting from deforestation, rise of global climate change risk
  - Reduction of wild fauna and flora habitats, damages to biodiversity

[52] Hydroelectric power plants with 25 MW or larger output and has 15m or higher dam wall.

[53] Large plantation farming business refers to the plantation with 10,000 hectares or larger of land where any crops (e.g. soybeans, natural rubber, cacao and coffee beans) are cultivated, or used as pastureland.

- Violation of the rights of indigenous peoples resulting from logging and development of plantations
- Troubles with local communities resulting from environmental destruction
- Emission of carbon dioxide under the soil resulting from drying peatland, damages to the soil resulting from subsidence and submergence, and forest fires and pollution by smoke caused by carbon under the soil that caught fire
- Illegal child labor in plantation farming

(3) Policy

Other policies

- To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*.
- Mizuho will not provide *financing and investment* if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business.
- Mizuho will require our clients to:
  - Respect indigenous peoples' and local communities' right to FPIC[54]
  - Formulate a policy on the environment and human rights which includes NDPE[55]
- Mizuho will request our clients to:
  - Enhance their supply chain management and traceability to ensure that their policy will also apply to their supply chain

7. Palm oil

(1) Scope of application

- Companies which run oil palm plantation farming business

(2) Overview of risks that Mizuho should recognize

- Destruction and burning of natural forests for development of oil palm (the raw material for palm oil) plantations as well as operations of plantations have such risks as:
  - Desertification and soil degradation resulting from deforestation, rise of global climate change risk
  - Reduction of wild fauna and flora habitats, damages to biodiversity
  - Violation of the rights of indigenous peoples resulting from logging and development of plantations
  - Troubles with local communities resulting from environmental destruction
  - Emission of carbon dioxide under the soil resulting from drying peatland, damages to the soil resulting from subsidence and submergence, and forest fires and pollution by smoke caused by carbon under the soil that caught fire
  - Illegal child labor in plantation farming

(3) Policy

Other policies

- To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*.
- Mizuho will not provide *financing and investment* if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business.
- Mizuho will check if our clients address the environmental and social agenda properly during the transaction period.
  - Mizuho will urge our client to take immediate remedial measures if any unlawful act (e.g. deprivation of local certification) is identified. If remedial measures taken by the client is unsatisfactory, Mizuho will not provide new *financing and investment*.
  - Mizuho will enter into a dialogue with the client in the case of the client's failure to address environmental and social agenda. If remedial measures taken by the client is unsatisfactory, Mizuho will not provide new *financing and investment*.
- Mizuho will require our clients to:

[54] Free, Prior, and Informed Consent
[55] No Deforestation, No Peat, No Exploitation

- Respect indigenous peoples' and local communities' right to FPIC
- Formulate a policy on the environment and human rights which includes NDPE
- Satisfy either of the following requirements:
  (a) Acquire RSPO[56] certification for every plantation farm, or
  (b) If a client is not to acquire RSPO certification, the client shall take measures equivalent to the certification and periodically deliver a status report.
- If it will take time to satisfy the above-mentioned (a) or (b), the client shall formulate a time-bound action plan.

• Mizuho will request our clients to:
- Enhance their supply chain management and traceability to ensure that their policy will also apply to their supply chain

8. Lumber and pulp

(1) Scope of application
• Companies which run forest logging operations[57]

(2) Overview of risks that Mizuho should recognize
• Large-scale commercial logging for lumber and pulp production has a risk of deforestation. Similarly, afforestation in the production of raw materials has a risk of leading to the destruction of old-growth forest. Both may result in the following issues:
- Desertification and soil degradation resulting from deforestation, rise of global climate change risk
- Reduction of wild fauna and flora habitats, damages to biodiversity
- Violation of the rights of indigenous peoples resulting from logging
- Troubles with local communities resulting from environmental destruction
- Emission of carbon dioxide under the soil resulting from drying peatland, damages to the soil resulting from subsidence and submergence, and forest fires and pollution by smoke caused by carbon under the soil that caught fire

(3) Policy
<u>Other policies</u>
• To prevent and mitigate adverse impacts, Mizuho will make transactional decisions after verifying the measures taken by the client based on the *risks that Mizuho should recognize*.
• Mizuho will not provide *financing and investment* if a risk assessment reveals that the client has not properly addressed environmental and social agenda and as a result faces crucial difficulty continuing its business.
• Mizuho will check if our clients address the environmental and social agenda properly during the transaction period.
- Mizuho will urge the client to take immediate remedial measures if any unlawful act is identified. If remedial measures taken by the client is unsatisfactory, Mizuho will not provide new *financing and investment*.
- Mizuho will enter into a dialogue with the client in the case of the client's failure to address environmental and social agenda. If remedial measures taken by the client is unsatisfactory, Mizuho will not provide new *financing and investment*.
• Mizuho will require our clients to:
- Respect indigenous peoples' and local communities' right to FPIC
- Formulate a policy on the environment and human rights which includes NDPE
• For *financing and investment* which is used for logging in the countries excluding high-income OECD countries, Mizuho will require our clients to:
- Acquire FSC[58] or PEFC[59] certification, or.
- If it will take time to satisfy the above-mentioned certification, the client shall formulate a time-bound action plan.
• Mizuho will request our clients to:

[56] Roundtable on Sustainable Palm Oil
[57] Operations for following purposes: producing lumber or producing woodchips as raw material for pulp
[58] Forest Stewardship Council
[59] Programme for the Endorsement of Forest Certification

- Enhance their supply chain management and traceability to ensure that their policy will also apply to their supply chain

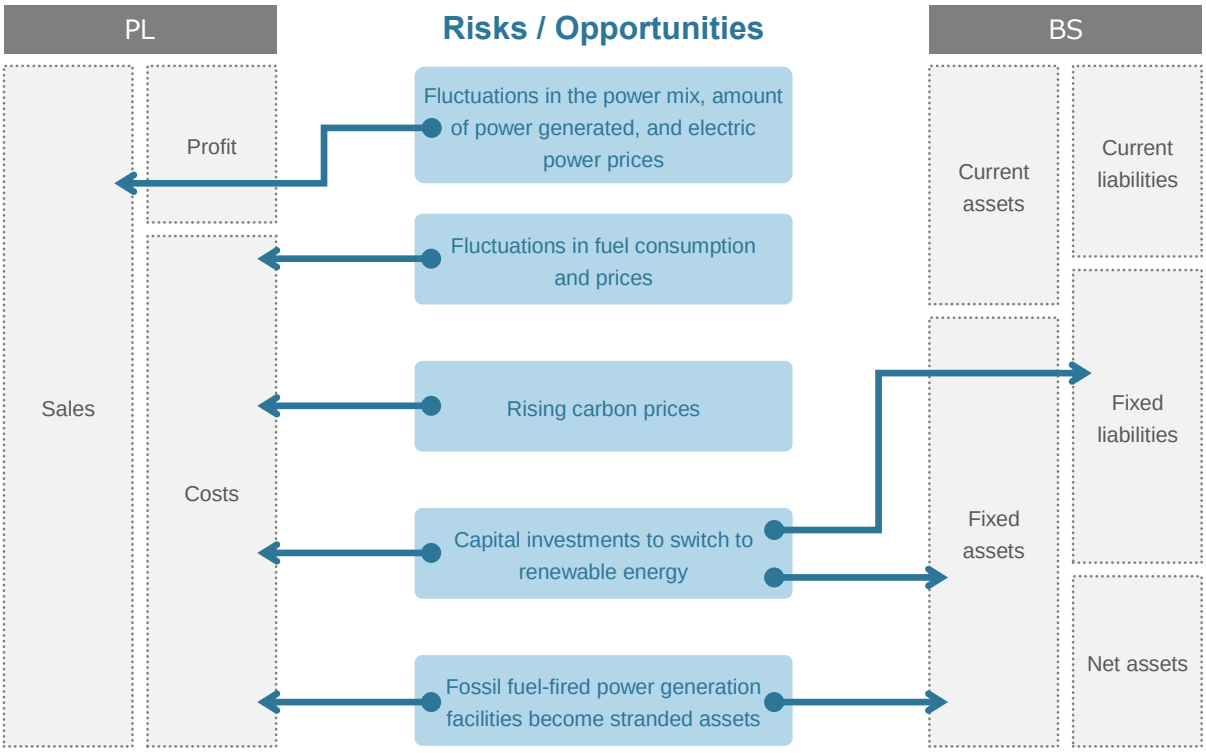
VII. Governance related to this policy

1. Governance
   - Relevant governing bodies within Mizuho such as our Executive Management Committee and/or Business Policy Committee will regularly review whether our measures related to the risks, sectors, and other factors covered under this policy are appropriate and sufficient, with consideration to changes in the external environment and the results of implementation. Following these reviews, our governing bodies may revise or otherwise make changes to our measures to enhance their implementation.
   - Mizuho Bank, Mizuho Trust & Banking, Mizuho Securities, and Mizuho Americas put in place an operational framework for this policy and began implementing it from July 1, 2023. The global subsidiaries of the four companies above will begin implementing the framework in stages by October 2023.
   - Based on this policy, our primary subsidiaries participate in engagement with specific clients in each sector with the aim of sharing a medium- to long-term perspective on opportunities and risks accompanying environmental, social, and governance (ESG) issues and climate change.
2. Education and training
   - Mizuho will conduct training and professional development exercises to enhance executive officers' and employees' understanding of environmental and human rights issues. We will also implement educational seminars, training, and awareness building activities for executive officers and employees regarding compliance with the internal regulations and procedures which are relevant to their field of work.
3. Stakeholder communication
   - As part of our initiatives in this area, we place a strong emphasis on engagement with stakeholders. Our objective in taking this approach is to ensure that our initiatives are aligned with expectations and perspectives of our stakeholders.

4. Reference: Transition risk scenario analyses

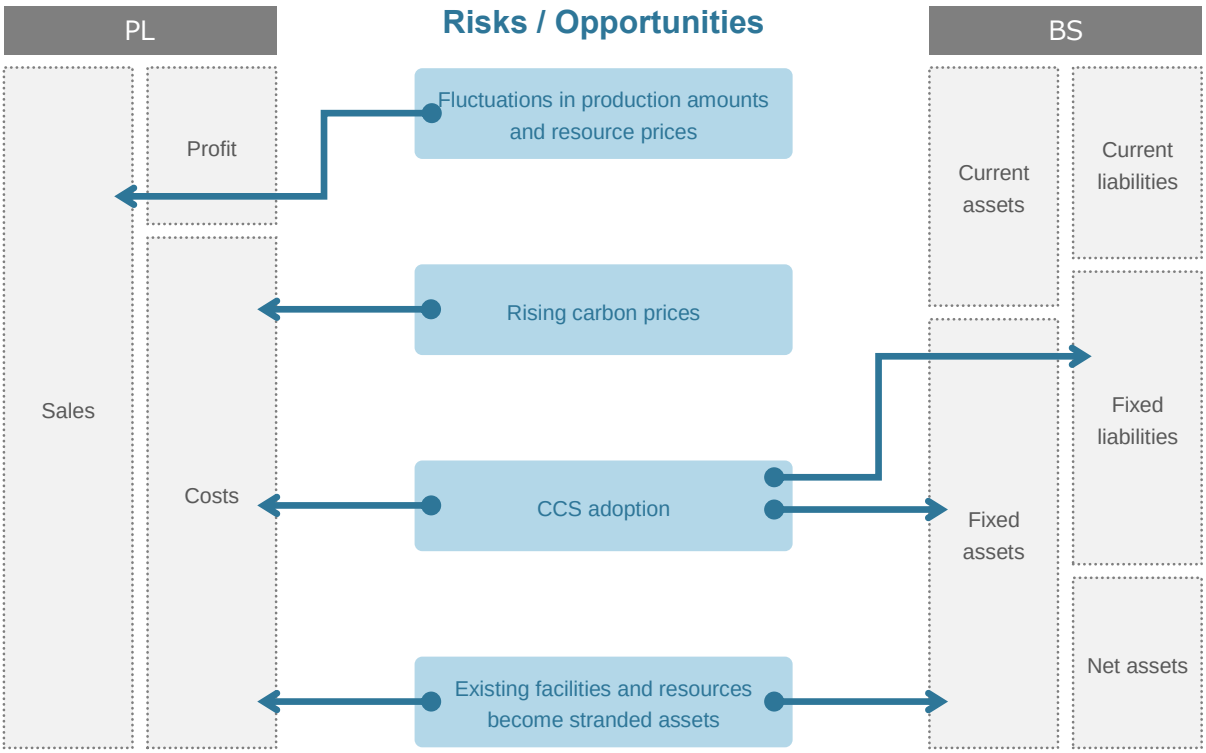
(1) Overview of the scenario worldview and analysis details for the electric utilities sector

Scenario	Scenario summary	Impact on client financial results
Current Policies	● Total power generated will increase 2.1 times by 2050 compared to 2020 ● The percentage of power generated from fossil fuels of all power generated will decrease from 58% in 2020 to 20% in 2050	● The impact on client financial results will be limited, because carbon cost and renewable energy investment burdens will be smaller compared to the other scenarios
Below 2°C	● Total power generated will increase 2.3 times by 2050 compared to 2020, due to the advancement of electrification toward carbon neutrality ● The percentage of power generated from fossil fuels will decrease to 25% in 2030 and to nearly zero in 2050	● Carbon cost burdens will be relatively small ● Renewable energy investment burdens will be considerable and will negatively impact some clients' financial results
Delayed Transition	● Total power generated will increase 2.3 times by 2050 compared to 2020, due to the advancement of electrification toward carbon neutrality ● The percentage of power generated from fossil fuels will still be at 39% in 2030 but will fall to nearly zero in 2050	● Carbon cost burdens will be present from 2030 onward, but they will diminish as clients switch to renewable energy ● Renewable energy investment burdens will be considerable and will negatively impact some clients' financial results
Net Zero 2050	● Total power generated will increase 2.4 times by 2050 compared to 2020, due to the advancement of electrification toward carbon neutrality ● The percentage of power generated from fossil fuels will decrease to 15% in 2030 and to nearly zero in 2040	● The carbon cost burdens will be relatively larger from the outset compared to the other scenarios, but they will diminish as clients switch to renewable energy ● Renewable energy investment burdens will be considerable and will negatively impact some clients' financial results



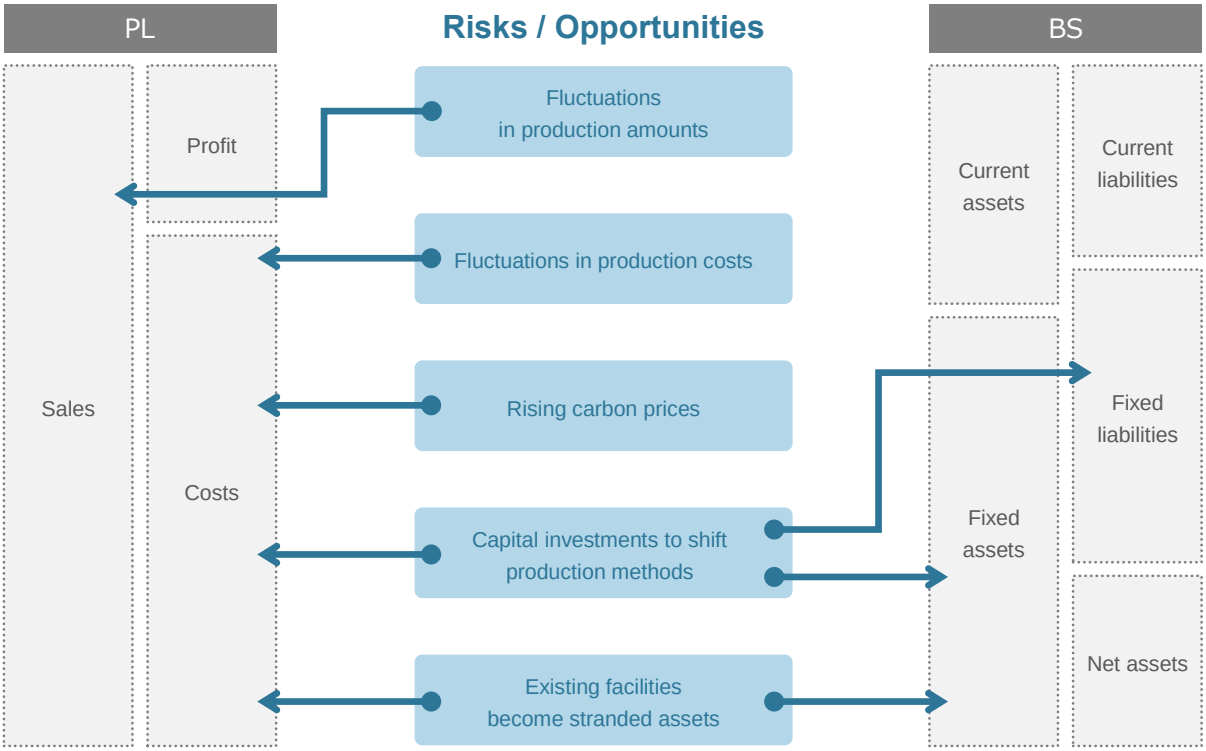
(2) Overview of the scenario worldview and analysis details for the oil and gas and coal sectors

Scenario	Scenario summary	Impact on client financial results
Current Policies	● Energy demand (fossil resources + biomass + hydrogen) will increase by 21% by 2050 compared to 2020 ● The percentage of fossil resources in the energy demand mix will be largely unchanged, falling from 89% in 2020 to 82%	● The impact on client financial results will be limited because energy demand will increase
Below 2°C	● Energy demand will decrease by 41% by 2050 compared to 2020 ● The percentage of fossil resources will decline from 89% in 2020 to 64% in 2050	● The impact on client financial results will be limited because, although energy demand will fall from the outset, carbon cost burdens will be relatively small
Delayed Transition	● Energy demand will stay almost flat until 2030 and then decrease by 43% by 2050 compared to 2020 ● The percentage of fossil resources will remain at around 89% from 2020 to 2030 and then decline to 57% in 2050	● From 2030 on, the decline in energy demand and the carbon cost burdens will have a negative impact on some clients' financial results
Net Zero 2050	● Energy demand will decrease by 51% by 2050 compared to 2020 ● The percentage of fossil resources will decline from 89% in 2020 to 47% in 2050	● Energy demand will decrease from the outset and the carbon cost burdens will be large, having a negative impact on some clients' financial results



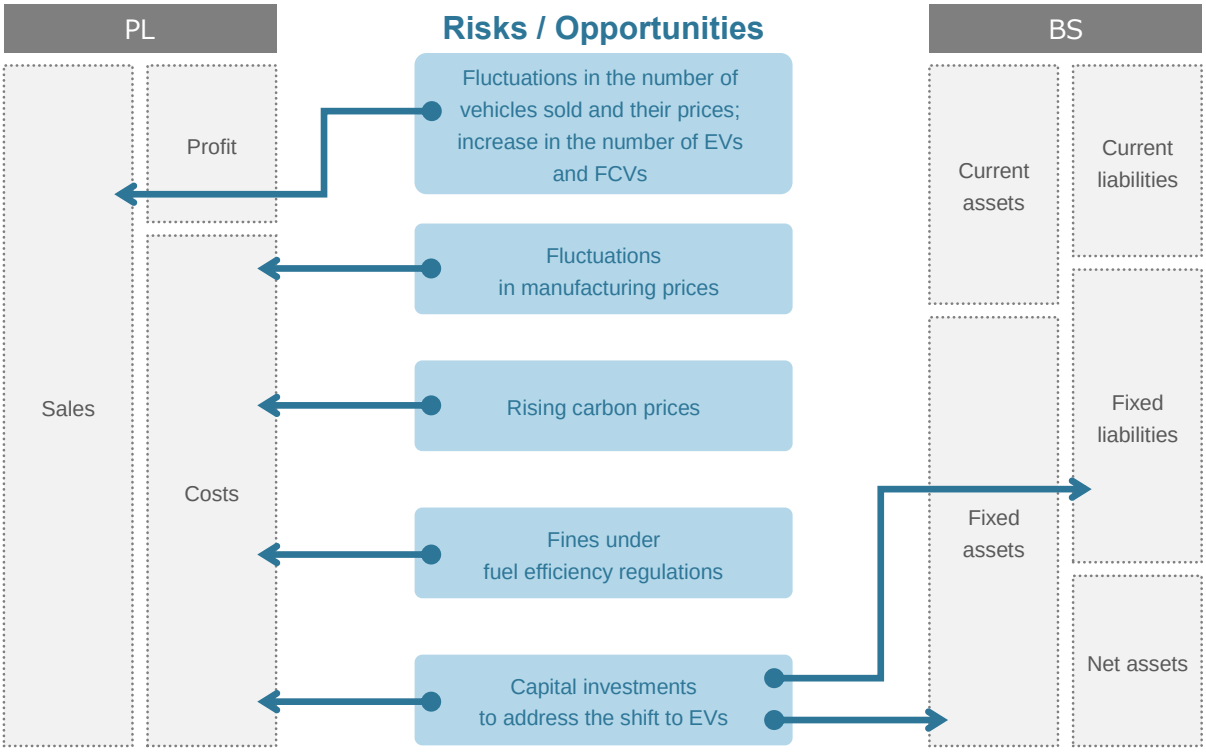
(3) Overview of the scenario worldview and analysis details for the steel sector

Scenario	Scenario summary	Impact on client financial results
Current Policies	● Steel production will increase until 2050 ● There will be no major changes in production methods, and the share of fossil fuels (coal, etc.) in the energy consumption of the steel sector will remain almost unchanged from 85% in 2020 to 79% in 2050	● The impact on client financial results will be limited, as the carbon cost burdens and investment burdens to shift production methods will be relatively small
Below 2°C	● Steel production will generally remain flat ● The share of fossil fuels will decline from 85% in 2020 to 52% in 2050, due to a shift to electric furnaces and hydrogen-based production methods	● The impact on client financial results will be smaller than in other scenarios, although there will be some carbon cost burdens and investment burdens to shift production methods
Delayed Transition	● Steel production will peak in 2030 and then decline until 2035, after which it will remain flat ● Production methods will shift beginning in 2030, and the share of fossil fuels will decline from 85% in 2020 to 47% in 2050	● From 2030 on, the carbon cost burdens and investment burdens to shift production methods will have a negative impact on some clients' financial results
Net Zero 2050	● Steel production will gradually decline until 2030, after which it will level off ● Production methods will shift, and the share of fossil fuels will decline from 85% in 2020 to 41% in 2050	● The sharp rise in carbon cost burdens from the outset will be coupled with investment burdens to shift production methods, having a negative impact on some clients' financial results



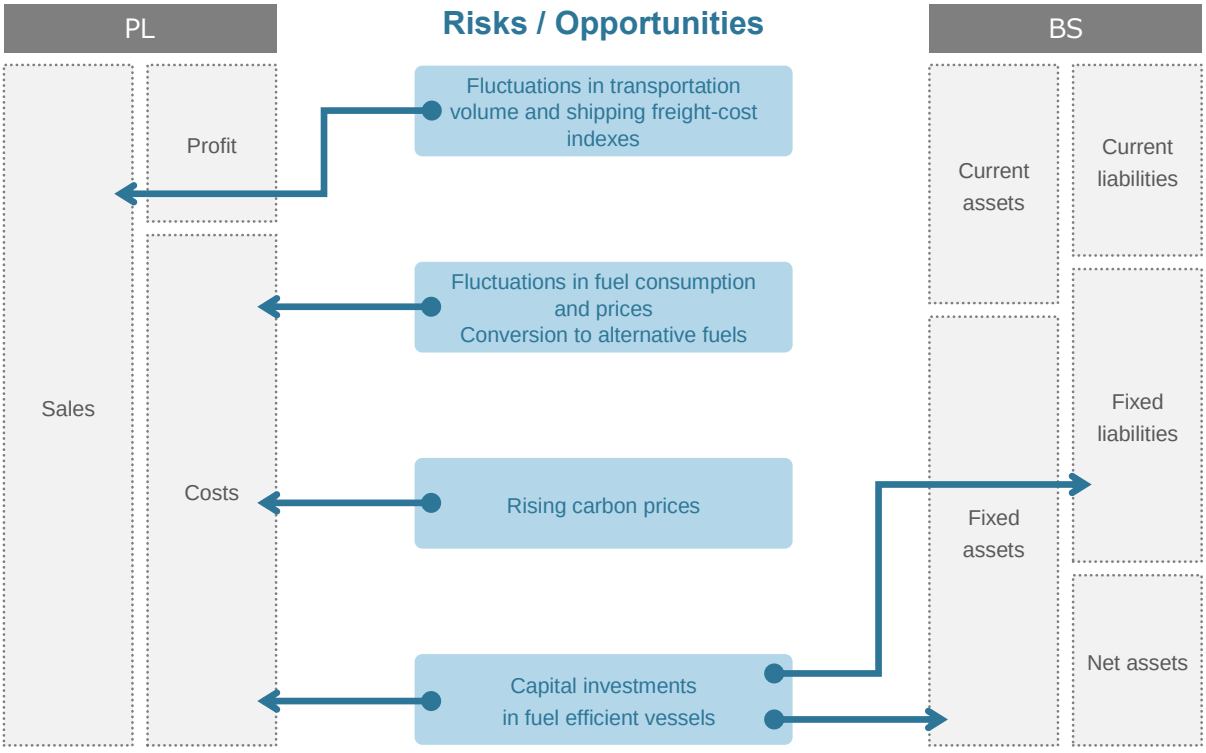
(4) Overview of the scenario worldview and analysis details for the automobile sector

Scenario	Scenario summary	Impact on client financial results
Current Policies	● Increases in demand, particularly in emerging economies, will increase the number of vehicles sold ● The share of EVs and FCVs will increase from 2% in 2020 to 18% in 2030 and 49% in 2050	● The impact on client financial results will be limited, as the cost burdens associated with decarbonization (EV and FCV investments and compliance with fuel efficiency regulations) will be small
Below 2°C	● The number of vehicles sold will increase as in the Current Policies scenario until 2030, after which sales will level off ● The share of EVs and FCVs will increase from 2% in 2020 to 18% in 2030 and 100% in 2050	● The impact on client financial results will be limited, although the cost burdens associated with decarbonization will be considerable
Delayed Transition	● The number of vehicles sold will increase, but growth will be moderate compared to the Current Policies scenario due to stricter fuel efficiency regulations and other factors ● The share of EVs and FCVs will increase from 2% in 2020 to 42% in 2030 and 100% in 2050	● The impact on client financial results will be limited, although the cost burdens associated with rapid decarbonization from 2030 on will be considerable
Net Zero 2050	● The number of vehicles sold will increase, but growth will be moderate compared to the Current Policies scenario due to stricter fuel efficiency regulations and other factors ● The share of EVs and FCVs will increase from 2% in 2020 to 57% in 2030 and 100% in 2050	● The impact on client financial results will be limited, although the cost burdens associated with decarbonization will be considerable



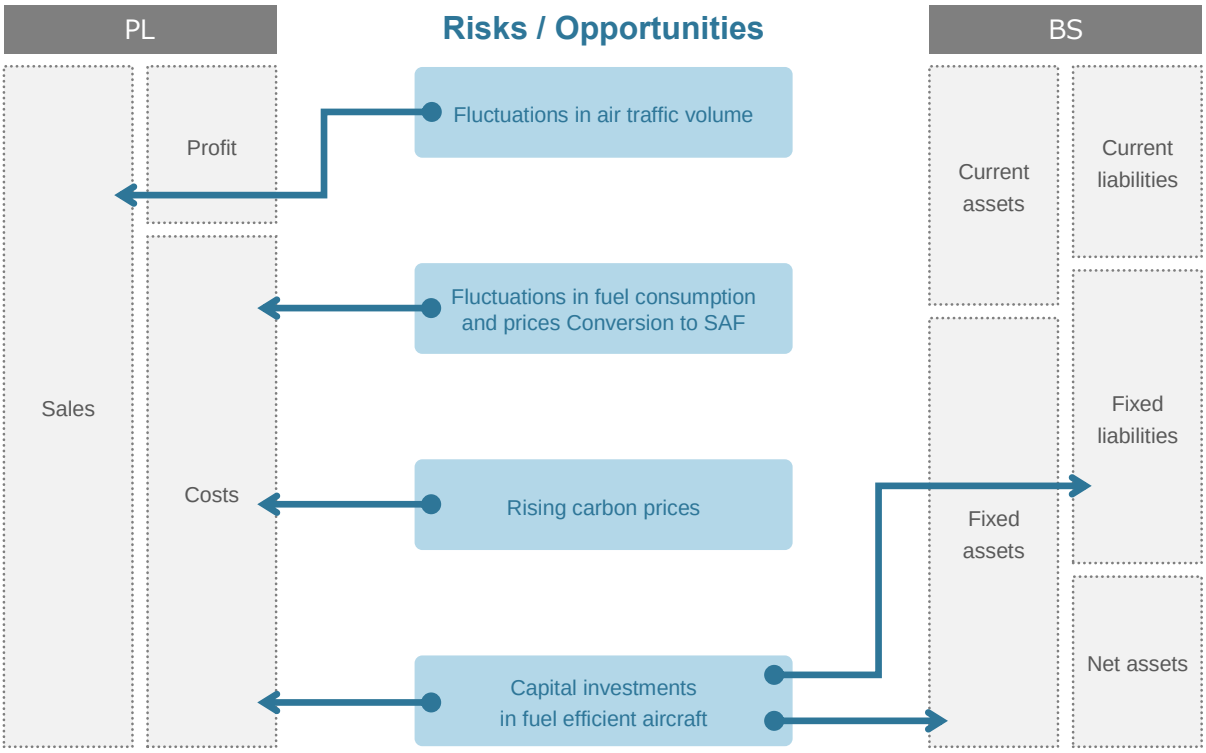
(5) Overview of the scenario worldview and analysis details for the maritime transportation sector

Scenario	Scenario summary	Impact on client financial results
Current Policies	● Japan's transportation volume and fuel mix will experience no major changes	● The impact on client financial results will be limited, as carbon cost burdens will be smaller compared to the other scenarios
Below 2°C	● Japan's transportation volume will decline by 9% over the period to 2050 ● Transformations in the fuel mix will progress, with the percentage of fuel oil falling from 100% in 2020 to 46% in 2050	● The impact on client financial results will be limited, although carbon cost burdens and investment burdens in fuel efficient vessels will be considerable
Delayed Transition	● Japan's transportation volume will remain flat until 2030, after which it will decline by 16% from 2020 levels by 2050 ● Transformations in the fuel mix will begin progressing from 2030 on, with the percentage of fuel oil falling from 100% in 2020 to 46% in 2050	● Carbon cost burdens and investment burdens in fuel efficient vessels will rise sharply after 2030, having a negative impact on some clients' financial results
Net Zero 2050	● Japan's transportation volume will decline by 16% over the period to 2050 ● Transformations in the fuel mix will progress, with the percentage of fuel oil falling from 100% in 2020 to 16% in 2050	● Compared to the other scenarios, carbon cost burdens will rise sharply from the outset and investment burdens in fuel efficient vessels will also be present, having a negative impact on some clients' financial results



(6) Overview of the scenario worldview and analysis details for the aviation sector

Scenario	Scenario summary	Impact on client financial results
Current Policies	● International air traffic will increase by 140% for passengers and by 41% for freight by 2050 ● The fuel mix will not experience any major changes	● The impact on client financial results will be limited, as carbon cost burdens will be smaller compared to the other scenarios
Below 2°C	● International air traffic will increase by 87% for passengers and by 29% for freight by 2050 ● Fuel conversions will start from 2040 on and 12% of jet fuel will be converted to SAF in 2050	● The impact on client financial results will be limited, although carbon cost burdens and investment burdens in fuel efficient aircraft will be considerable
Delayed Transition	● International air traffic will increase by 78% for passengers and by 19% for freight by 2050 ● Fuel conversions will start from 2045 on and 9% of jet fuel will be converted to SAF in 2050	● Carbon cost burdens and investment burdens in fuel efficient aircraft will rise sharply after 2030, having a negative impact on some clients' financial results
Net Zero 2050	● International air traffic will increase by 59% for passengers and by 17% for freight by 2050 ● Fuel conversions will start from 2030 on and 27% of jet fuel will be converted to SAF in 2050	● Compared to the other scenarios, carbon cost burdens will rise sharply from the outset and investment burdens in fuel efficient aircraft will also be present, having a negative impact on some clients' financial results



5. Glossary

（Prepared based on information available as of June 2023）

Term	Definition / explanation
ABL	Asset-Based Lending - A business of loaning money in an agreement that is secured by liquid assess such as inventories and account receivables.
BECCS	Bioenergy with Carbon Capture and Storage - Biomass power generation with CCS (CO_2 capture and storage) technology. This technology extracts energy through combustion from biomass that has absorbed CO_2 from the atmosphere and then stores the emitted CO_2 in the ground, thereby lowering the total amount of CO_2 in the atmosphere.
BEMS	Building Energy Management System - a system that understands environmental data within a building in real time with sensors and other devices and optimizes the building's lighting, HVAC systems, and other demand facilities and its energy supply facilities.
CCS / CCU・CCUS	Carbon dioxide Capture and Storage - a technology that separates out and captures CO_2 emitted from coal-fired power generation plants, factories, and then stores the captured CO_2 in a geological formation that is impervious to CO_2. Carbon dioxide Capture and Utilization - a technology that separates out and captures CO_2 emitted from coal-fired power generation plants, factories, and then uses the captured CO_2 as a resource. Technology that combines CCS and CCU is referred to as CCUS.
CO_2e	CO_2 equivalent - an amount of CO_2 equivalent into which is converted GHGs such as methane and nitrous oxide with the global warming potential (GWP).
COP	Conference of the Parties - a conference by the countries that have ratified a treaty or protocol. There are various COP in many different fields in addition to climate change and biodiversity. Recent Conferences of the Parties to the United Nations Framework Convention on Climate Change: COP26 (Oct – Nov 2021 in Glasgow, United Kingdom), COP27 (Nov 2022 in Sharm El Sheikh, Egypt), COP28 ((scheduled) Nov – Dec 2023, in Expo City, Dubai) Recent Conferences of the Parties to the Convention on Biological Diversity: COP15 (Dec 2022 in Montreal, Canada), COP16 ((scheduled) second half of 2024 in Turkey)
DACCS	Direct Air Carbon Capture and Storage - a technology that removes CO_2 directly from the atmosphere.
e-fuel	e (electic)-fuel - a class of synthetic fuels derived from renewable energy sources that are produced by combining CO_2 with hydrogen obtained from water by electrolysis. Compared to carbon-neutral biofuels, e-fuels can be produced on industrial scales in short timeframes.
ENCORE	Exploring Natural Capital Opportunities, Risks and Exposure - a tool to visualize the impact environmental changes have on economies, jointly developed by the UNEP-FI, UNEP-WCMC, and Global Canopy.
EVIC	Enterprise Value Including Cash - calculated as the sum of the market capitalization of common and preferred stocks, interest-bearing liability (bonds + loans) and book value of non-controlling interests.
FE	Financed Emissions - GHG emissions from financing and investment, falling under Category 15 (investment) in Scope 3 emissions.
FIT / FIP	Feed-in Tariff - a system in which a government promises that electric power companies will purchase electric power produced from renewable energy sources at a given price for a given period of time. Feed-in Premium - a system to support and encourage renewable energy projects by adding a certain premium as a subsidy when renewable energy producers sell electric power at market price.
GFANZ	The Glasgow Financial Alliance for Net Zero - a voluntary alliance of global financial institutions committed to achieve net zero by 2050. Under this umbrella, several alliances have been established for each financial sector, including banking (NZBA), insurance (NZIA), asset managers (NZAM), asset owners (NZAOA), and others.
GHG	Greenhouse Gases - a gas in air that contributes to the greenhouse effect. Major greenhouse gases include carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons.

Term	Definition / explanation
GICS	Global Industry Classification Standard - an industry classification standard that classifies companies in four tiers: Sector, Industry Group, Industry, and Sub-industry.
GX	Green Transformation - an initiative to transform conventional fossil fuel-dependent industrial structures into economic and social systems centered on clean energy. In Japan, green transformation is positioned as a strategy to achieve a non-carbon society and economic growth.
ICMA	International Capital Market Association - an association dedicated to promoting a well-functioning international bond market for sustainable economic growth and development.
IEA	International Energy Agency - an international organization within the framework of the Organization for Economic Cooperation and Development (OECD) that is involved in all aspects of energy policy with the goals of economic growth, environmental protection, and building and improving global engagement, for the purpose of ensuring stable energy supply and demand structures in the short, medium, and long term.
IPCC	Intergovernmental Panel on Climate Change - an intergovernmental organization established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP). With the cooperation of scientists from around the world, it prepares regular reports based on published literature and provides an assessment of the latest scientific knowledge on climate change.
ISSB / SSBJ	International Sustainability Standards Board - a council established by the IFRS Foundation, which formulates international accounting standards, to develop international sustainability disclosure standards. Sustainability Standards Board of Japan - an internal organization of the Financial Accounting Standards Foundation of Japan (FASF) established to communicate Japan's positions and opinions during the development of international sustainability disclosure standards and to develop standards for Japan.
NGFS	Network of Central Banks and Supervisors for Greening the Financial System - a network of central banks and financial regulators established to examine financial supervisory responses to climate risks.
NZAM	Net Zero Asset Managers initiative - an international initiative by asset managers to achieve by 2050 net zero GHG emissions from their investment portfolios, in line with the goal of the Paris Agreement. It was established in December 2020 by a group of asset managers on a voluntary basis.
NZBA	Net-Zero Banking Alliance - an international initiative by banks to achieve by 2050 net zero GHG emissions from their financing and investment portfolios. It was established by the United Nations Environment Programme Finance Initiative (UNEP-FI) in April 2021.
NZE	Net Zero Emissions by 2050 Scenario - a scenario formulated and published by the IEA based on the assumption that the world as a whole will achieve net zero GHG emissions by 2050.
PCAF	Partnership for Carbon Accounting Financials - an international initiative to develop a methodology to measure GHG emissions from financing and investment of financial institutions.
PPA / Offsite corporate PPA	Power Purchase Agreement - an agreement between a power producer (PPA business), who sells electric power to users, and an electric power consumer. An offsite corporate PPA is a purchase agreement for electric power from renewable energy sources at a pre-agreed price and for a pre-agreed period concluded between a power producer and an electric power consumer. The electric power generated by remotely located renewable energy sources is supplied to the customer as a service via the power transmission and grids.
RAF	Risk Appetite Framework - a concept that increases corporate value through the integrated oversight of business strategies, financial strategies, and risk management. This is a framework that manages business operations and risks by clarifying guidelines for business operations, risk-taking, and profit targets.
RCP	Representative Concentration Pathways - a representative GHG concentration trajectory that will lead to a concentration level at which future GHG emissions will stabilize. The higher the value of the number following the RCP, the greater the radiative forcing (i.e., the effects causing global warming) in 2100.
RM	Relationship Manager - people in charge of managing client relationships. In the financial industry, RM generally refers to corporate sales representatives and private bankers.

Term	Definition / explanation
SAF	Sustainable Aviation Fuel - alternative fuels that are cleaner than conventional jet fuel and are produced by decarbonizing and hydrogenating reusable raw materials and wastes such as waste oil and used cooking oil.
SBT / SBTi	Science Based Targets / Science Based Targets initiative - SBTs are GHG emissions reduction targets set by companies for the next 5 to 15 years that are consistent with the levels required by the Paris Agreement. - SBTi is an international initiative jointly established by CDP, the United Nations Global Compact (UNGC), the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF). The initiative encourages companies to set science-based GHG reduction targets, audits and certifies corporate targets from an impartial position.
Scope 1, 2, 3	- Scope 1: GHG emissions directly emitted by a business itself. - Scope 2: indirect GHG emissions from the use of electric power, heat, and steam supplied by other companies. - Scope 3: indirect GHG emissions from business activities in the supply chain of a business that are not counted as Scope 1 and 2 emissions.
SDS	IEA Sustainable Development Scenario - a scenario formulated and published by the IEA in which the world has a 67% probability of limiting the global temperature increase to 1.8°C or less and a 50% probability of limiting the increase to 1.65°C.
SPV	Special Purpose Vehicle - a company established for a limited purpose such as liquidation, securitization, or project financing of its underlying assets.
UNEP-FI	United Nations Environment Programme Finance Initiative - a global partnership between the United Nations Environment Programme (UNEP) and financial institutions around the world for transition to financial systems that integrate economic development and ESG considerations.
Carbon-related sectors / Risk control in carbon-related sectors	- Carbon-related sectors are sectors identified by Mizuho as having high transition risks based on qualitative evaluations (sectors designated as carbon-related sectors in FY2023: electric utilities (excluding renewable energy / nuclear power generation, and power transmission and distribution), oil and gas, coal-mining, steel, and cement). - Risk control in carbon-related sectors is a framework for identifying and monitoring high-risk areas by assessing risks in the above sectors along two axes: client's sector and the status of the client's responses to transition risks.
ES Policy	Mizuho's Environmental and Social Management Policy for Financing and Investment Activity - a policy that identifies and specifies measures for businesses and sectors that have a high probability of contributing to adverse environmental and social impacts, in order to prevent or mitigate the adverse effects through financing and investment activities.

Forward-Looking Statements

This report contains forward-looking statements, including estimates, forecasts, targets, and plans. These statements are based on management's current expectations and are subject to uncertainty and changes in circumstances. These forward-looking statements do not represent any guarantee by management of future performance. These statements reflect our current views with respect to future events and are subject to risks, uncertainties, and assumptions. Actual results may differ materially from those included in these statements due to a variety of factors, including, among others, global socio-demographic and economic trends, energy prices, technological innovations, climate-related conditions and weather events, governmental policies and legislative and regulatory changes as well as other unforeseen events or conditions. Further information regarding factors that could affect our results is included in "Item 3.D. Key Information—Risk Factors" in our most recent Form 20-F filed with the U.S. Securities and Exchange Commission, which is available in the Financial Information section of our website at www.mizuhofg.com/index.html and also at the SEC's website at www.sec.gov. We are under no obligation, and disclaim any obligation, to update or alter our forward-looking statements, whether as a result of new information, future events, or otherwise.

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