

# ESG Briefing

## ESG activities at the NRI Group

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Feb. 25, 2022



# NRI will attain sustained growth by helping to create a sustainable future society

Sustained Growth of the NRI Group

Building Sustainable Futures

Corporate Philosophy "Dream Up the Future"

## NRI Group Sustainability Management (Medium-Term Management Plan 2019 - 2022)



### [Vision 2022 Numerical Targets]

Consolidated operating profit (JPY billion)	100
Consolidated operating profit margin	14% or more
Overseas sales (JPY billion)	100
ROE	14%*1

\*1 Continuously aiming for higher capital efficiency

### Solving social issues through value co-creation (CSV\*2)

Co-create a thriving future society  
by driving new value.

Co-create an ideal society  
by effectively utilizing its resources.

Co-create a safe and secure society  
by advancing its infrastructure.



\*2 CSV: Creating Shared Value

### Materiality for sustainable growth

**ESG activities at the NRI Group**  
by Hihara / Honda

- Reduction of environmental impact for preserving global environment
- Provision of opportunities for all kinds of professionals to take on challenge
- Compliance with laws, regulations and risk management to increase trust from society
- Management of the information system for secure infrastructure

**1**

**ESG activities of NRI Group**

**2**

**Report on TCFD scenario analysis results**

## 1. ESG Activities of the NRI Group

### Environmental (E) initiatives and key future measures

#### Past activities

**Environmental Promotion Committee (now Sustainability Activities Committee) began full-scale activities in FY 2014**

- Deploying NRI-EMS (environmental management system) [FY 2015-]
- Promoting disclosure of environmental information/assuring environmental data [FY 2015-]
- Issuing Japan's first yen-denominated green bonds [September 2016]
- Disclosing TCFD scenario analysis results [February 2019-]
  - **Conducting scenario analysis for capital markets & wealth management solutions business** [June 2021-February 2022]
- 1.5°C target certified by international certification organization SBTi [February 2021]
- Reducing overseas CO<sub>2</sub> emissions by purchasing environmental value certificates [March 2021-]
  - **Reducing overseas CO<sub>2</sub> emissions by 90% through certificate procurement from China, the U.S., Australia, and India** [February 2022]
- Adopting the world's first scheme to **issue of Sustainability Linked Bonds** [March 2021]
- **Switching the power of major data centers to renewable electricity** [August 2021-]
- **Authorizing construction of Osaka Data Center 2 which is certified as "Adaptive Business Plan" under the Act on Strengthening Industrial Competitiveness** [December 2021]

#### Future priority measures

**Promoting management strategies and information disclosure based on climate change risks**

- Expanding the scope of TCFD scenario analysis
- Full-scale participation in WBCSD projects
- Understanding European regulatory trends and reviewing countermeasures (EU Taxonomy, CSRD\*, etc.)

\*CSRD: A new directive on corporate sustainability information disclosure being considered in Europe

# Adopted world's first scheme to issue Sustainability-Linked Bonds

## ■ Issuance of 'NRI Sustainability-Linked Bonds' in March 2021

- Part of the environmental targets are set as Sustainability Performance Targets (SPTs). Terms and conditions of the bonds vary depending on achievement of the SPTs

- **Adoption of a scheme where investors don't face losses even if targets are achieved (world's first ever)**

In conventional sustainability linked bonds, the interest rate rises when the target is not achieved, and falls when the target is achieved, resulting in a loss for the investor. The new scheme resolves this problem by **allowing investors to choose early redemption** when the target is achieved

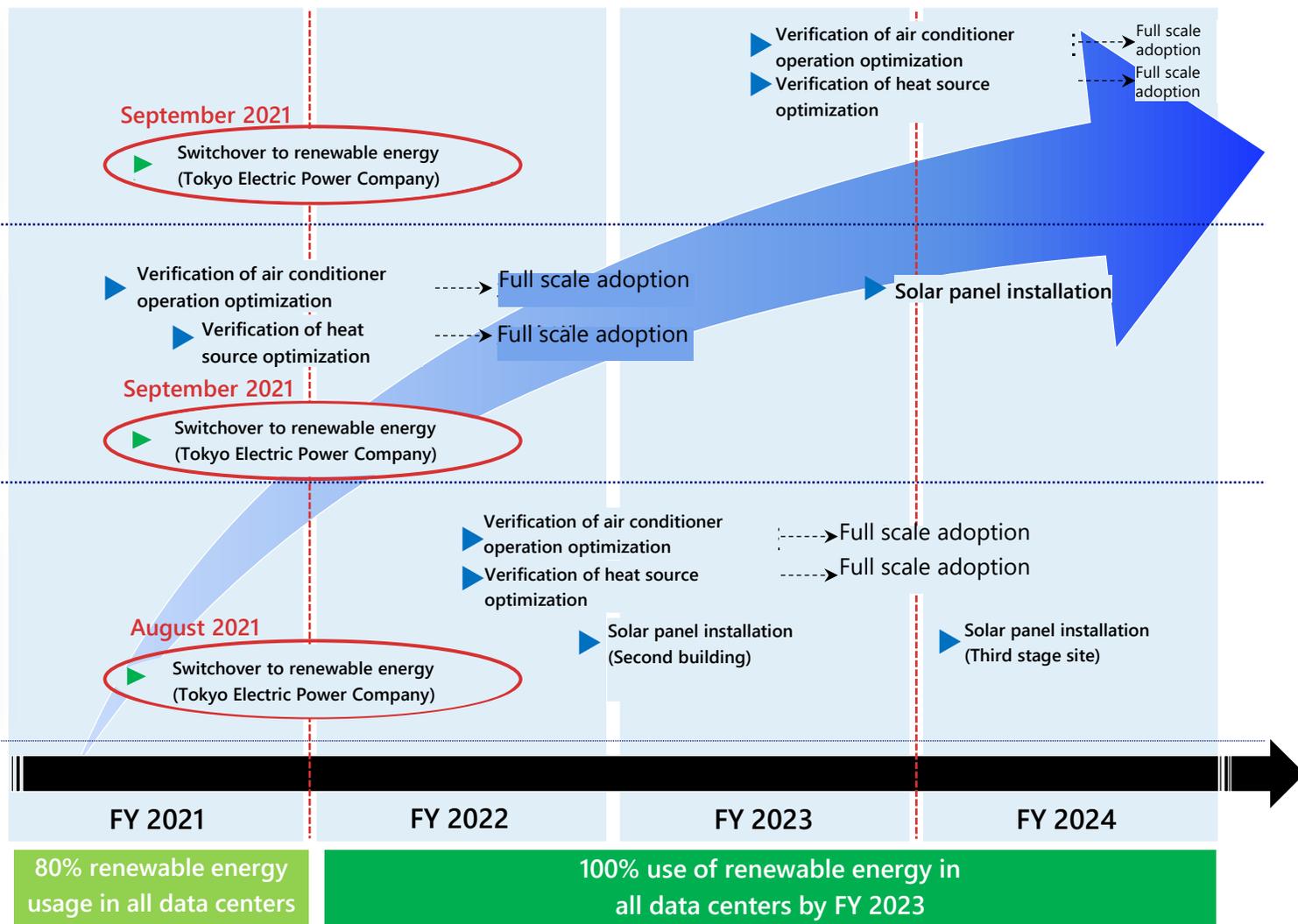
## ▼ Overview of NRI Sustainability-Linked Bonds

Date of Issuance/Payment Date	March 26, 2021
Tenor	12 years (with early redemption clause)
Issue amount	5 billion JPY
Interest rate	0.355% per year after March 26, 2021 to September 30, 2031 <b>0.811% per year after September 30, 2031 (applicable if not redeemed regardless of target achievement or non-achievement)</b>
Key Performance Indicator (KPI)	1) NRI Group greenhouse gas emissions (Scope 1+2) 2) Renewable energy utilization rate of data centers
Sustainability Performance Targets (SPTs)	1) 72% reduction of NRI Group greenhouse gas emissions by FY 2030 (compared to FY 2013) (Scope 1+2) 2) Renewable energy utilization rate by NRI Group Data Centers by FY 2030: 70% <b>Upon target achievement, redemption possible in 10.5 years before maturity (non-redemption option also available)</b>
Usage	Unrestricted

# 1. ESG Activities of the NRI Group

## Adoption of renewable energy for power used at NRI's data centers

■ Adoption of renewable energy at major data centers was announced in a press release on January 26, 2022



# 1. ESG Activities of the NRI Group

## Current environmental targets (FY 2030) expected to be achieved by FY 2023

- By switching to renewable energy as a source of electricity in FY 2021 (TEPCO's "Non-FIT Non-Fossil Certificate Electricity" and KEPCO's "Green Premium Renewable Energy"), **the data centers are expected to reach renewable energy use of 100% in FY 2023, achieving the 2030 target ahead of schedule.**

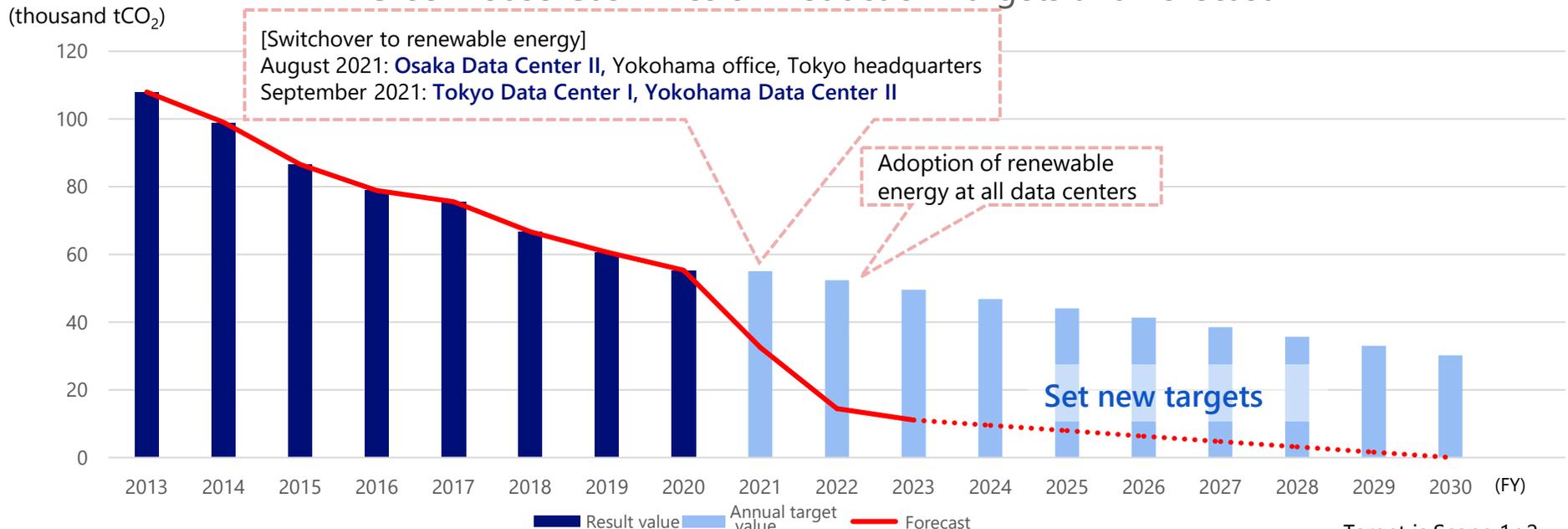
### FY 2030 targets (revised in February 2021)

- Reduce NRI Group's greenhouse gas emissions by 72% (compared to FY 2013)
- Data Centre renewable energy use of 70%

### Forecast

- In FY 2023 **approx. 90% reduction** is expected for entire NRI Group (Non-electricity emissions at small and medium scale offices and data centers remains same)
- Expected to **achieve 100%** use of renewable energy at data centers by FY 2030

### Greenhouse Gas Emission Reduction Targets and Forecast



## 1. ESG Activities of the NRI Group

### New environmental targets

- The target year for “net-zero emissions” **has been changed from 2050 to 2030** because the greenhouse gas (Scope 1+2) reduction target, established in February 2021 and certified as SBT 1.5°C, was achieved ahead of schedule.

Category	Current Targets	New Targets
	FY 2030 targets	FY 2030 targets
Scope 1+2	<ul style="list-style-type: none"> <li>✓ NRI Group greenhouse gas emissions <b>reduced by 72%</b> (compared to FY 2013)</li> <li>✓ Data center renewable energy use of <b>70%</b></li> </ul>	<ul style="list-style-type: none"> <li>✓ NRI Group <b>Net-zero</b> greenhouse gas emissions*</li> <li>✓ NRI Group <b>100%</b> use of renewable energy</li> </ul>
	<p style="text-align: center;"><b>FY 2050 targets</b></p> <ul style="list-style-type: none"> <li>✓ NRI Group’s <b>Net-Zero</b> greenhouse gas emissions</li> <li>✓ NRI Group’s <b>100%</b> use of renewable energy</li> </ul>	
Scope 3	<p style="text-align: center;"><b>FY 2023 targets</b></p> <ul style="list-style-type: none"> <li>✓ <b>70% or more of NRI Group suppliers</b> have set an environmental target at the SBT level (target: categories 1, 2, and 11 of Scope 3)</li> </ul>	
	<p style="text-align: center;"><b>FY 2030 targets</b></p> <ul style="list-style-type: none"> <li>✓ Reduce emissions of employee business trips and commuting by 25% (target: categories 6 and 7 of Scope 3)</li> </ul>	

\* Scope 1 emissions, which account for approximately 2% of the NRI Group's greenhouse gas emissions, will be considered in light of future SBT guidelines and carbon removal technology trends

### Social (S) initiatives and key future measures

#### Past activities

Formulating policies and guidelines according to international norms and disclosing information

Actively promoting efforts and disclosure on human rights and diversity

- **Promoting diversity and inclusion** [FY 2010-]
- Formulating **human rights policy** [February 2019]
- Formulating **guidelines for AI ethics** [October 2019]
- Promoting the disclosure of social information/External assurance of social data [FY 2020-]
- Simple human rights risk assessment of NRI group companies in Japan [FY 2020]
- Signing the "CEO Guide to Human Rights" of the WBCSD [January 2020]
- Publishing the second **report on human rights** [March 2020]
- **Formulating 'NRI Group business partner code of conduct'** [May 2021]

#### Future priority measures

**Promoting initiatives (human rights, etc.) not only within the company but also throughout the supply chain in Japan and overseas**

- **Understanding human rights risks** at NRI Group companies in Japan (currently compiling responses)
- Obtaining **written compliance to "NRI Group business partner code of conduct"** (in progress)
- Conducting **due diligence on business partners** (in preparation)

# 1. ESG Activities of the NRI Group

## Human rights risk assessment of NRI and group companies in Japan from FY 2020

### FY 2020: Simple human rights assessment during COVID-19

#### Aim

- To understand the status of efforts and respect for human rights and risks at NRI group companies during the COVID-19 crisis

#### ■ Survey details:

Survey the human rights risks of NRI Group companies using the "Human Rights Due Diligence and COVID-19: Rapid Self-Assessment for Business" created by the UNDP, which specializes in the COVID-19 crisis

\*UNDP: United Nations Development Programme

#### ■ Survey items:

Health and safety in the workplace, worker rights, preventing prejudice and discrimination, etc.

- **Survey target:** 13 group companies in Japan

- **Survey duration:** January-February 2021

### FY 2021: Understanding human rights risk status

- To comprehensively understand the human rights risk status of NRI group companies in Japan and assess the anticipated risks in the NRI Group

#### ■ Survey details:

Survey of the risk status of NRI group companies based on the "human rights areas that companies should respect" and other factors as described in the Ministry of Justice's guidelines on "Business and Human Rights"

#### ■ Survey items:

Impact of AI and technology on human rights, privacy, harassment, forced labor, safety and sanitary work environment, etc.

- **Survey target:** 14 group companies in Japan

- **Survey duration:** January-February 2022

#### Overview

#### Results

- No significant risks were found
- Measures and improvements on the following issues in cooperation with the departments in charge
  - Strengthen efforts to prevent discrimination and prejudice against people diagnosed with Covid-19
  - Ensure the privacy of people diagnosed with Covid-19
  - Strengthen emergency supplies for women

- Responses are currently being compiled.
  - ⇒ Based on the results, additional surveys will be conducted as needed to determine risk areas and appropriate countermeasures

## 1. ESG Activities of the NRI Group

### Promotion of sustainability management throughout our supply chain

- Confirm and encourage sustainability initiatives by recognizing the supply chain (development partners and other suppliers) as part of the scope of social responsibility

#### Educate business partners about the policy

- **NRI Group Business Partner Code of Conduct: Code of Conduct that we want our business partners to follow**
  - ✓ Publish on NRI's official website and use the portal site to promote awareness among business partners
  - ✓ Continue to raise awareness through annual partner dialogs (67 companies/135 people participated in the FY 2021 dialog held in January 2022)

#### Incorporate into the commissioning process

- **At the time of contract, etc.**
  - ✓ Require business partners to submit a written agreement to the "NRI Group Business partner code of conduct" (implemented from August 2021)
  - ✓ Written agreement has been obtained from 241 companies (as of February 2022)

#### Promote due diligence

- **Monitor sustainability status, including environmental, human rights, health and safety, etc.**
  - ✓ Conduct a survey (self-assessment) among business partners (scheduled to begin in March 2022)
- **Factual investigation**
  - ✓ To be implemented based on the survey results (FY 2022 onwards)

# 1. ESG Activities of the NRI Group

## Efforts to Promote Diversity

- Promote three of the seven areas of the action policy as priority areas: "gender," "career and specialization," and "generation"

### ▼NRI Action Policy for Promoting Diversity and Inclusion

Promote the creation of a work environment where each and every employee, with their various strengths and personalities, can work actively and continue to take on challenges



Key focus areas for promoting employee advancement

#### 1. Promotion of women's participation

Focus on developing female leadership (division heads and GMs) and executive candidates

[Main efforts]

- Confirm and increase the appointment of females as division heads and GM candidates at each department, including the time of their appointment
- Evaluate diversity promotion efforts on a divisional basis and add to bonus
- Training for female managers, with female executives serving as instructors and mentors
- Discuss promotion of female executives at board meetings and management meetings

#### 2. Career and specialization

Employees with diverse careers and expertise

[Main efforts]

- Strengthen onboarding at the time of hiring (follow-up interviews and networking support)
- Direct dialog with the President for new employees

#### 3. Intergenerational integration

Recognize each other's strengths, despite age and generational differences

[Main efforts]

- Conduct seminar for managers on "Generational" inclusion

### Governance (G) initiatives and key future measures

#### Past activities

- Efforts to enhance corporate governance and maintain systems
- Establishing independent executive meetings [FY 2015]
  - Formulating the NRI Corporate Governance Guidelines [October 2015]
  - Implementing the evaluations of the Board of Directors' effectiveness [FY 2016]
  - Establishing a Nomination Committee and changing the members composing the Compensation Committee from external experts to independent directors [FY 2017]
  - Adopting "Restricted Stock Unit (RSU) Compensation Plan," a medium- to long-term incentive for directors [FY 2018]
  - Evaluating efforts for value co-creation at the division level, and adding it to their compensation [FY 2020]
  - Adopting claw-back and malus\* provisions [FY 2020]
  - **Engaging** with ESG-minded **investors** [FY 2020-]
  - Revising NRI Corporate Governance Guidelines [December 2021]

\*Clawback and malus clause: a system that, under certain conditions, allows return of compensation paid to directors in the past.

#### Future priority measures

#### Building a higher level of governance as a prime listed company in the market

- Revising and upgrading the Group's governance structure
- Revising NRI's materiality in the new vision/new medium-term management plan

## 1. ESG Activities of the NRI Group

# Held 10th CSR expert dialogue

Date 19<sup>th</sup> November, 2021 (Friday)

Experts Mr. Takeshi Mizuguchi, President, Takasaki City University of Economics  
Ms. Emi Onozuka, COO, Executive Vice President, Japan Catalyst, Inc.  
Mr. Yasushi Hibi, Managing Director, Conservation International Japan



Mr. Takeshi  
Mizuguchi



Ms. Emi  
Onozuka



Mr. Yasushi  
Hibi

### Key points of discussion

- **How should sustainability be positioned and systematized in the management vision and medium-term management plan?**
  - Investors are aware of double materiality\*<sup>1</sup> and expect companies to have a **sustainability story that fits their financial growth strategy**
    - ➔ Ongoing discussion on the future of the sustainability policy
  - One of the positioning of sustainability at NRI would be to put forward our position as a think tank and **make recommendations for the direction of society**
    - ➔ Expanding themes for future R&D that focus on social issues
- **How should linking sustainability performance to director compensation be promoted?**
  - Rather than simply linking sustainability indices to compensation, it is more meaningful to link them to compensation at the end because of sustainability commitments made and **integrated into the business strategy** by the board of directors
- **How to procure renewable energy?**
  - **Renewable energy with additionality\*<sup>2</sup> should be procured** in the sense that it can co-create social value.
    - ➔ Continue to examine the possibility of procuring additional renewable energy sources while monitoring market trends and system revisions

\*1: A concept that considers both the impact of ESG issues on the company and the impact of the company on environment and society \*2: The effect of creating new renewable energy sources

# 1. ESG Activities of the NRI Group

## External evaluation

### Dow Jones Sustainability Indices

Member of  
**Dow Jones  
Sustainability Indices**  
Powered by the S&P Global CSA

Adopted by the World Index for four consecutive years from 2018 and the Asia Pacific Index for six consecutive years from 2016.

### MSCI ESG Leaders Indexes\*



Adopted for six consecutive years from 2016.

### FTSE 4 Good Developed Index



Adopted for 16 consecutive years from 2006.

### MSCI ESG Ratings\*



The highest rating rank, AAA, has been awarded since 2021.

### GPIF ESG related Indices



NRI is a constituent of all four ESG indices adopted by GPIF from 2017.

### Sustainalytics



Selected as a "Top Rated Company" for sustainability in the IT industry.

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## 1. ESG Activities of the NRI Group

### Environmental and social awards, etc.

#### CDP



In FY 2021, we were certified as a CDP climate change A list company for the third consecutive year. We were also selected for the CDP Supplier Engagement Leaderboard for the third consecutive year.

#### Euronext Vigeo World 120 Index



Selected for the first time in 2021 as one of the top 120 companies that are particularly outstanding in their ESG efforts.

#### Platinum Kurumin Certification



In 2018, we were certified as a company that has implemented a higher level of initiatives, such as achieving targets set in action plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children.

#### Health and Productivity Management



Selected in the large enterprise category of Health and Productivity Management Organization Recognition Program for four consecutive years from 2017.

#### Eruboshi



NRI was awarded the highest rank (third tier) of the award, which is based on the Act on the Promotion of Women's Participation and Advancement in the Workplace.

#### Nadeshiko Brand



Selected for the fifth consecutive year from 2017 as a publicly traded company that excels in promoting the advancement of women.

## 1. ESG Activities of the NRI Group

### Initiatives we are a part of



#### United Nations Global Compact

May 2017

A voluntary initiative for creating a global framework to achieve sustainable growth via the responsible leadership of companies and other groups.



#### Japan Climate Initiative

June 2018

A network for strengthening the exchange of opinions and sharing of information by diverse bodies other than national governments, such as companies and local municipalities that are actively working to tackle climate change.



#### Task Force on Climate-related Financial Disclosures

July 2018

We endorse the TCFD Final Report, established by the Financial Stability Board, an international organization for the stabilization of the global economy.



#### Science Based Targets Initiative

September 2018

An initiative that requests companies to set reduction targets based on science-based knowledge in order to keep the average global temperature increase below 2°C.



#### World Business Council for Sustainable Development

January 2019

A CEO association of approximately 200 companies aiming for sustainable development, which works together to contribute to the shift to a sustainable society.



#### Renewable Electricity 100%

February 2019

An initiative established to reduce the environmental impact of business activities. Aims to use 100% renewable energy for the power required for business operation.



#### Business Ambition for 1.5°C

May 2020

A commitment that requires companies to reduce their carbon emissions to effectively zero by the year 2050, in order to keep the global temperature increase below 1.5°C.

**1**

**ESG activities of NRI Group**

**2**

**Report on TCFD scenario analysis results**



## 2. Report on TCFD Scenario Analysis Results

# Examine the relationship between services of the capital markets & wealth management solutions business and the variation factors

## Analyze what factors are causing sales fluctuation and which services are being affected

### ■ Services provided

- ASP (shared online systems service): NRI determines specifications and develops the service, and clients continue to pay as long as they use the service
- SI (new system development): Developed by NRI according to client needs, with specifications determined by the client, and accrued as client's assets

### ■ Variation factors by services offered

			Transactions	Share price, asset balance and brokerage revenue	Contracts	Functions used per client
ASP (STAR, I-STAR)	Whole	<ul style="list-style-type: none"> <li>• Combination of fixed and metered rates</li> <li>• Fixed: Metered = 4:6</li> </ul>	◎			◎
	Retail	<ul style="list-style-type: none"> <li>• Combination of fixed and metered rates (Fixed: Metered = 6:4)</li> <li>• Standard system is transaction oriented</li> </ul>	◎	◎		◎
	SI	<ul style="list-style-type: none"> <li>• Developed by NRI according to client needs, with specifications determined by the client</li> </ul>			◎	

## 2. Report on TCFD Scenario Analysis Results

# Identify risks and opportunities based on climate-related events in the capital markets & wealth management solutions business

	Climate related event	Anticipated changes	Risks/Opportunities	Related businesses
(1)	Adoption and strengthening of policies for transition, such as carbon pricing (carbon tax, etc.)	Changes to corporate competitiveness and corporate value impacts the asset balance		ASP for retail
(2)	Adoption of carbon pricing (carbon tax, etc.)	Rising costs associated with higher costs for manufacturing servers and other machinery due to higher energy costs due to carbon pricing		ASP (NRI internal costs)
(3)	Market reforms (sustainable finance-related), increased pressure/requirements for environmentally conscious behavior	Sustainability-related market reforms (classification, tax incentives, etc.) and increased focus on environmentally conscious behavior, leading to increased sustainable investment by individual investors		ASP (transactions, securities company revenue), SI
(4)	Trading reforms, increased pressure/requirements for environmentally conscious behavior	Adoption of renewable energy utilization rate in the terms and conditions of transactions	 (No impact)	ASP, SI
(5)	Changes in trading conditions, increased pressure/requirements for environmentally conscious behavior	In response to adoption of renewable energy utilization rate as a trading condition, procuring renewable energy will increase some costs, which can be suppressed if cost of renewable energy is reduced		ASP, SI (NRI internal costs)
(6)	Intensifying natural disasters	Trading halts in the market due to intensity of natural disasters (while creating a competitive advantage by developing better response measures than others)		ASP
(7)	Intensifying natural disasters	Measures to cope with intense natural disasters require response to wide-area damage		ASP (NRI internal costs)
(8)	Intensifying natural disasters, changes in weather patterns	Increased costs due to severe natural disasters, as development halts overseas are replaced domestically Increase in labor costs due to soaring resource prices, etc.		ASP, SI (Domestic commission fee)

## 2. Report on TCFD Scenario Analysis Results

### Method for calculating financial impact

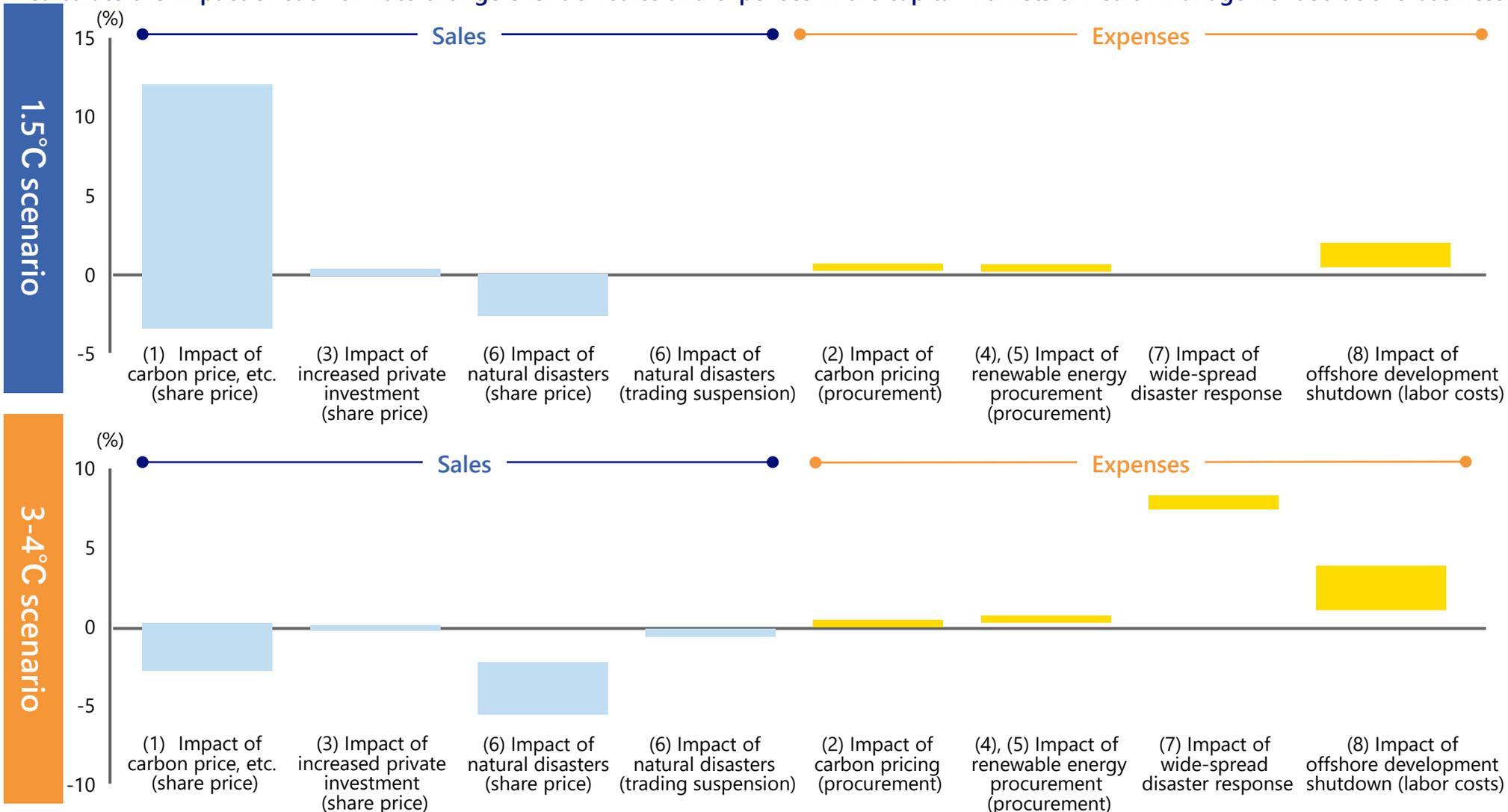
The method for calculating financial impact was derived by anticipating the changes expected from climate change events

	Climate related events	Overview of anticipated changes	Analysis method (impact and incidence)
(1)	Adopt and strengthen policies for transition, such as carbon pricing (carbon tax, etc.)	Impact of carbon price (share price)	The impact on share price is estimated on the basis of the GPIF report, utilizing its volatility and estimating the impact on NRI after estimating the earnings of brokerage firms
(2)	Adoption of carbon pricing (e.g., carbon tax)	Impact of carbon price (procurement)	Estimate the impact of the anticipated increase in electricity prices in DC if carbon tax is adopted
(3)	Market reform (related to sustainable finance), increased pressure/requirements for environmentally conscious behavior	Impact of increased private investment (share price)	Calculate the impact on NRI based on the anticipated share price appreciation in terms of the ratio of anticipated sustainable investment by individuals to the amount of transactions in the market
(4)	Changes in trading conditions, increased pressure/requirements for environmentally conscious behavior	Impact of renewable energy procurement (procurement)	Assume that clients can be retained by adopting renewable energy as per existing targets (License to operate)
(5)	Changes in trading conditions, increased pressure/requirements for environmentally conscious behavior		Estimate the impact of the anticipated increase in electricity prices in that case
(6)	Intensifying natural disasters		Estimate based on GPIF report, utilizing range of variation in physical impacts
		Impact of natural disasters (trading suspension)	Estimate the impact of a one or two-day trading suspension in the market
(7)	Intensifying natural disasters	Impact of wide-spread disaster response	Consider the extent of cost variation based on existing cost data
(8)	Intensifying natural disasters, changes in weather patterns	Impact of offshore development suspension (labor costs)	Estimated the cost of a 10-20% outage overseas and a domestic replacement

## 2. Report on TCFD Scenario Analysis Results

# Financial impact expected in the capital markets & wealth management solutions business

Calculate the impact of each climate change event on sales and expenses in the capital markets & wealth management solutions business



These materials were prepared for the sole purpose of providing information to use as reference in making investment decisions, and are not intended as a solicitation for investment.

## 2. Report on TCFD Scenario Analysis Results

# Status of NRI's Response to TCFD Guidance

- Supplementary guidance announced by TCFD, confirming the sufficiency of disclosure of NRI's TCFD scenario analysis including supplementary guidance

#	TCFD Final Item + Supplemental Guidance	Status	Description items
Governance	a) <ul style="list-style-type: none"> <li>Board supervision on climate-related risks and opportunities</li> </ul>	○	The Sustainability Activities Committee (chaired by an executive officer) has been established to promote initiatives related to sustainability management as a management foundation to support value co-creation. This committee also reports regularly to the Board of Directors.
	b) <ul style="list-style-type: none"> <li>Management's role in assessing and managing climate-related risks and opportunities</li> </ul>	○	(same as above)
Strategy	a) <ul style="list-style-type: none"> <li>Short, medium, and long-term climate-related risks and opportunities</li> </ul>	△	Disclose "Potential Impact on Businesses (Opportunities and Risks)," with a timeline of 2030
	b) <ul style="list-style-type: none"> <li>Impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning</li> <li>Financial impacts of climate change should be disclosed</li> </ul>	○	Disclose business-wise results of scenario analysis
	Suppl ement <ul style="list-style-type: none"> <li>Companies with reduction targets and companies operating in countries with targets have a "transition plan"</li> </ul>	△	Disclose emission reduction targets and targets for adopting renewable energy. Disclose details and results of feasibility studies using scenarios for the realization of RE100 for data centers.
	c) <ul style="list-style-type: none"> <li>Consider the resilience of organizational strategies in light of climate-related scenarios</li> <li>*Consistency of scenario analysis with the Paris Agreement, including the restriction to 1.5°C</li> </ul>	○	Adopt the 1.5°C scenario for business-wise analysis result scenarios from FY 2020
Risk management	a) <ul style="list-style-type: none"> <li>Process for identifying and assessing climate-related risks</li> </ul>	○	The contents of the Integrated Risk Management Conference are reported to the Board of Directors multiple times a year. Sustainability Activities Committee has been established to address ESG issues including climate change risks.
	b) <ul style="list-style-type: none"> <li>Process for managing climate-related risks</li> </ul>	○	(same as above)
	c) <ul style="list-style-type: none"> <li>Resiliency of organizational strategy of how the process of identifying, assessing, and managing climate-related risks is integrated into the organization's overall risk management, considering climate-related scenarios</li> </ul>	○	(same as above)
Indicators and targets	a) <ul style="list-style-type: none"> <li>Indicators used to assess climate-related risks and opportunities in the context of our strategy and risk management process</li> </ul>		
	— GHG emissions (total, intensity, etc.) for Scope 1-3	○	Disclosure including Scope 3
	— Transition risk (amount/ratio)	○	Disclose business-wise results of scenario analysis
	— Physical risk (amount/ratio)	○	Disclose business-wise results of scenario analysis
	— Opportunity (amount/percentage)	○	Disclose business-wise results of scenario analysis
	— Capital allocation (e.g., R&D share of low-carbon products in revenues)	—	We will consider response in the future
	— ICP (Internal Carbon Price)	△	Increases associated with conversion of data centers to renewable energy are allocated to each business unit
	— Climate-related executive compensation (e.g., percentage of achievement relative to compensation)	—	We will consider response in the future
	b) <ul style="list-style-type: none"> <li>GHG emissions and associated risks for Scope 1, 2, and, Scope 3 where applicable</li> </ul>	○	Disclose Scope 1-3 emissions and related risks
	c) <ul style="list-style-type: none"> <li>Targets used to manage climate-related risks and opportunities, and performance against those targets</li> </ul>	○	Disclosure of Scope 1-3 results

\*Plan to review the items and contents of the disclosure as appropriate, referring to the dialogue with stakeholders and the disclosures made by other companies.

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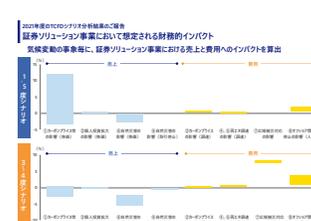
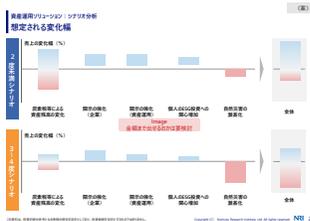
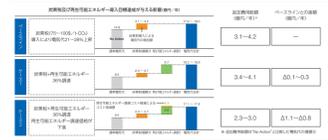
## 2. Report on TCFD Scenario Analysis Results

# Future development of scenario analysis

- Conduct scenario analysis for the **distribution solution, insurance solution, financial solution, and services & industrial solution businesses** over a three-year period starting from FY 2022
- By FY 2024, scenario analysis will be conducted for **related businesses of overseas group companies** as well



事業分野	2°C/4°Cシナリオ	2022年以降
生命保険	...	...
損害保険	...	...
資産運用	...	...
その他	...	...



**Complete scenario analysis of key business areas**

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# Reference Materials

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# Overview of the C-Zero Project

## Procurement of renewable energy

- Long-term procurement
  - Ensure renewable energy in the long term
  - Avoid cost fluctuation risk
  - Procurement that considers local residents
- Procurement that recognizes international standards
  - Procurement that meets international standards such as RE100
  - Awareness of strict environmental standards such as those of the EU
- Application of green finance
  - Procurement of funds via green bonds and sustainability-linked bonds, etc.
  - Utilization of carbon tax systems

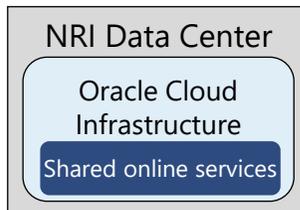


Renewable energy procurement



## NRI

- Adoption of renewable energy at data centers
  - Gradual adoption of renewable energy, aiming for 70% data center renewable energy by FY 2030
  - All power used by data centers will be derived from renewable energy sources (Renewable Energy Offers)
- Adoption of renewable energy for shared online services
  - Further improve decarbonization benefits of shared online services



### Carbon Zero SaaS

- Environmental target of NRI \*Planned to be achieved ahead of schedule
  - FY 2030  
Reduce greenhouse gas emissions by 72% (compared to FY 2013) and achieve a 70% renewable energy for data centers
  - FY 2050  
100% renewable energy

**RE100**

Service provision



## Client companies

- Business development of DX3.0
  - Study of a new SaaS type business model to comply with environmental regulations, etc.
  - Green transformation by working together with clients
- Expansion of shared online services
  - Increase in requests for disclosing CO<sub>2</sub> emissions (Scope 1, 2, and 3) over the entire supply chain of financial institutions
  - For financial institutions, the CO<sub>2</sub> emissions of shared online services correspond to Scope 3

### Benefits for client companies

- Shift Scope 2 (internal development) CO<sub>2</sub> emissions to Scope 3 (shared online services) to reduce CO<sub>2</sub> emissions by 74%
- Adopt renewable energy for NRI shared online services to achieve zero CO<sub>2</sub> emissions from service use

Contribute to government pledge for zero greenhouse gas emissions by 2050

## Anticipated scenarios for calculating financial impact

Two scenarios were prepared to calculate the financial impact for the identified risks and opportunities

### 1.5°C or lower scenario

#### ○ Policy (1) + technology

Adoption of carbon tax

\$100 to \$130/t-CO<sub>2</sub>

Subsidies for new technology, etc.

Plentiful subsidies for environmental technologies

Large impact on business profit structure and corporate value, etc.

#### ○ Policy (2)

Improved ESG and climate-related disclosures

Requests/obligations for improved ESG disclosure increase the information disclosed by companies  
Disclosure frameworks, etc. will also be standardized

#### ○ Economy/society

Increased environmental and social awareness

Raise awareness among asset owners and individuals about the environmental and social impact of their own asset management

#### ○ Natural environment

Intensifying natural disasters

Intensifying natural disasters will not change significantly from the current situation

### 3 to 4°C scenario

#### ○ Policy (1) + technology

Adoption of carbon tax

\$30 to \$50/t-CO<sub>2</sub>

Subsidies for new technology, etc.

Certain amount of subsidies for environmental technologies

Small impact on business profit structure and corporate value, etc.

#### ○ Policy (2)

Improve disclosure regarding ESG and climate

While ESG-related disclosure is required to be strengthened and corporate disclosure information is increasing, there is no standardization of disclosure frameworks, etc.

#### ○ Economy/society

Increased environmental and social awareness

Asset owners and individuals are not very concerned about environmental and social impact of their asset management

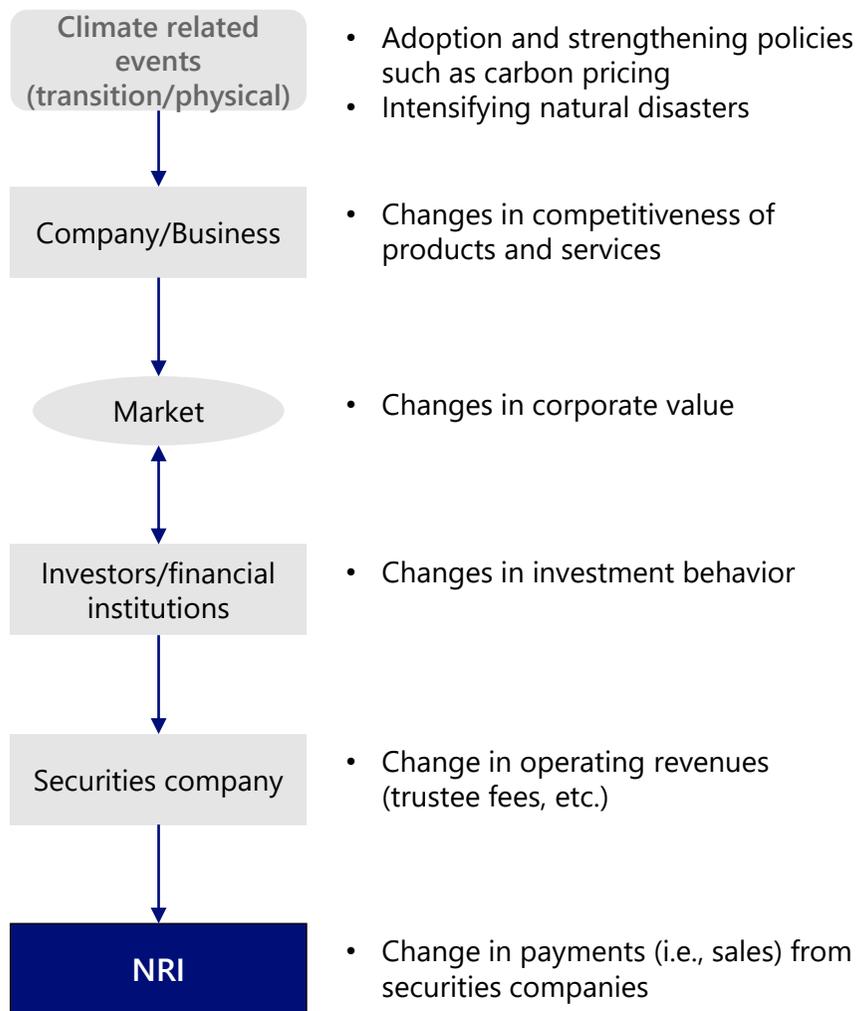
#### ○ Natural environment

Intensifying natural disasters

As natural disasters intensifies, changes in climate patterns become more evident

# Methodology for analyzing the impact of adopting and strengthening policies for transition, such as carbon pricing (e.g., carbon tax, etc.)

## Impact Pathway



## Assumptions in impact estimation of corporate value changes (share price)

### Overview of climate change risk and opportunity analysis of GPIF Portfolio

- Climate change action costs are calculated by multiplying each company's emission reduction requirements by a future carbon price to
- calculate the climate change policy risk CVaR
- Technological opportunities are analyzed based on patent status and technology estimated revenue Used in estimation

CVaR for the 3°C Scenario	Equities	Corporate Bonds	Total Portfolio
(1) Transition Risks and Opportunities	0.76	-0.32	0.69
Policy Risks	-1.69	-0.44	-1.61
Technological Opportunities	2.45	0.12	2.31
(2) Physical Risks and Opportunities	-6.75	-0.82	-6.37
(3) <b>Aggregate</b>	<b>-5.98</b>	<b>-1.14</b>	<b>-5.67</b>

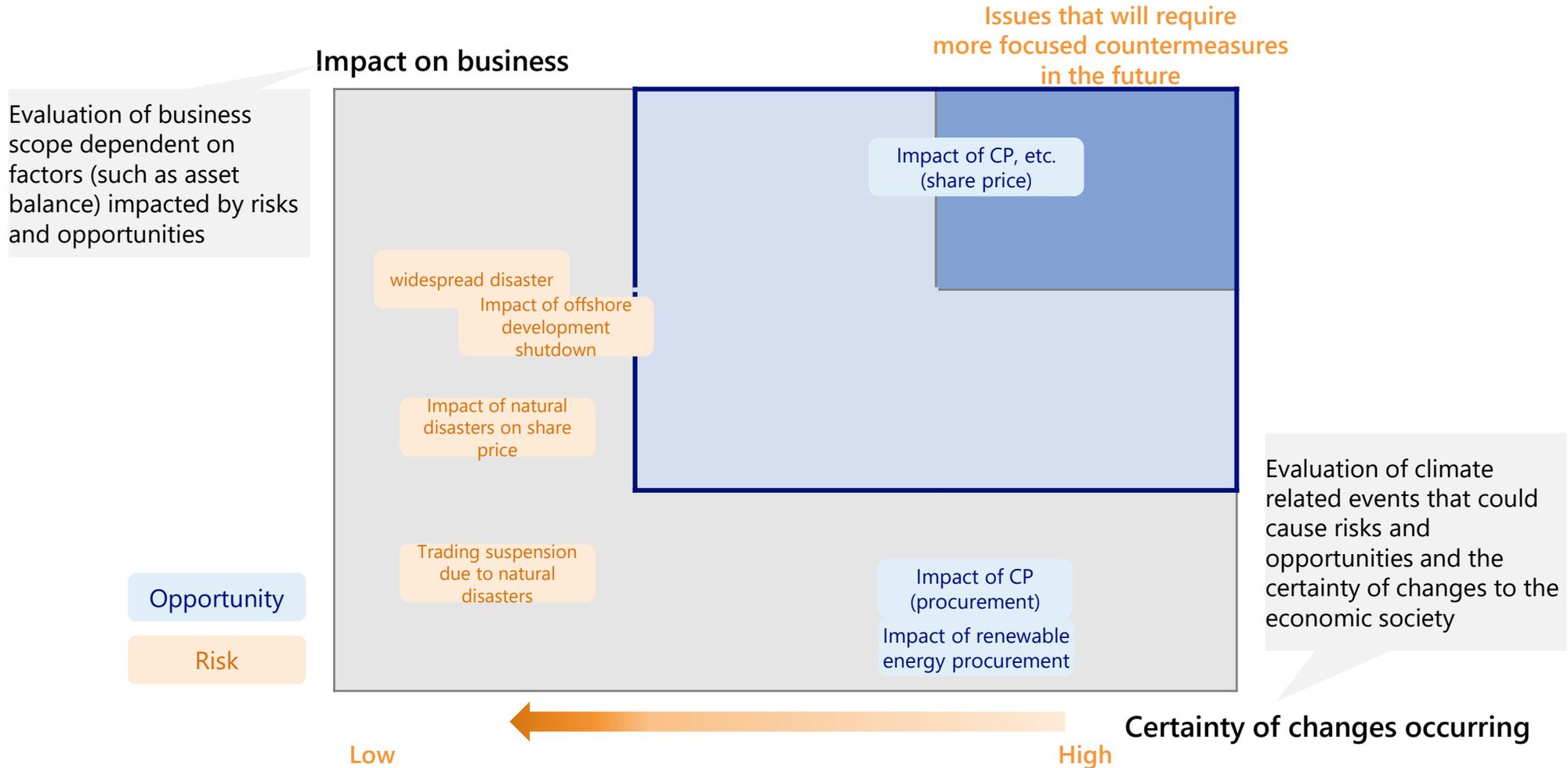
CVaR for the 2°C Scenario	Equities	Corporate Bonds	Total Portfolio
(1) Transition Risks and Opportunities	8.83	-3.06	8.09
Policy Risks	-6.77	-3.52	-6.57
Technological Opportunities	15.61	0.46	14.66
(2) Physical Risks and Opportunities	-6.75	-0.82	-6.37
(3) <b>Aggregate</b>	<b>2.09</b>	<b>-3.88</b>	<b>1.72</b>

CVaR for the 1.5°C scenario	Equities	Corporate Bonds	Total Portfolio
(1) Transition Risks and Opportunities	25.17	-6.39	23.19
Policy Risks	-11.04	-7.13	-10.79
Technological Opportunities	36.20	0.73	33.98
(2) Physical Risks and Opportunities	-6.75	-0.82	-6.37
(3) <b>Aggregate</b>	<b>18.42</b>	<b>-7.21</b>	<b>16.82</b>

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## Priority evaluation of risks/opportunities

Importance of the identified risks/opportunities was evaluated in terms of future feasibility and impact on the business.



The text is framed by two decorative swooshes. The top swoosh is a gradient bar transitioning from blue on the left to red on the right. The bottom swoosh is a solid blue bar.

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