

ESG Briefing

## ESG activities at the NRI Group

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**Concept of ESG activities at the NRI Group**

**2**

**ESG activities at the NRI Group**

**3**

**TCFD handling this fiscal year**

**4**

**Efforts for human rights**

## 1. Concept of ESG activities at the NRI Group

# Concept of ESG activities at the NRI Group

### 1. External environment

- The age of digital capitalism
- The rise of AI
- Rapid increase in ESG investment

### 2. Business philosophy and management strategy

- Dream up the future.
- Consulting x IT solutions
- Contributing to the future society via suggestions and system proposals for society
- Value co-creation awareness of executives and employees

### 3. Business strategy

- Expansion of business IT
- Providing shared online services
- Global business expansion
- Owning social infrastructure in the form of a data center

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- ✓ Acting in a way suitable for a company **aiming to be a global company**
  - ✓ Having an **NRI identity**, and implementing effective and successful measures
  - ✓ Working together with **executives, employees, and business partners**

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### Environmental initiatives

#### Past activities

**Establishing an environmental promotion committee (currently the Sustainability Promotion Committee) on May 2014, and promoting activities that recognized international standards**

- Promoting the analysis of external evaluation institutions and disclosing environmental information
- Formulating environmental targets, obtaining authorization from international institutions, and reducing greenhouse gases
- Deploying NRI-EMS (environmental management system)
- Promoting environmental education
- Issuing green bonds
- Promoting green purchasing (including items considering ESG in procurement policies)
- **Announcing TCFD scenario analysis results (financial impact)**

#### Future priority measures

There is concern that the popularization of IoT and AI will further increase power consumption. It is highly likely that restrictions on the greenhouse gas emissions of ICT companies will be tightened internationally.

- Promote use of renewable energy
- Survey/research taxonomy
- Adopt carbon pricing
- Promote environmental activities in the supply chain (Scope 3)

## 2. ESG activities at the NRI Group

### Environmental initiatives



Elephant statue at the 1F lobby of the Yokohama Center  
(Charity art for the conservation of Asian elephants)



Energy-saving building for the purpose of procuring green bond capital, Yokohama Center



Overseas expansion of NRI-EMS work auditing  
(Zhiming Software Beijing Chengdu Branch, China)



Promoting environmental education  
(Forest conservation activities at Tadami in Fukushima Prefecture)

### Social initiatives

#### Past activities

**Promoting women's participation and advancement in the workplace, system reforms, and health and productivity management, focused on personnel departments and human resource development departments. Enhancing encouragement at business partners in addition to internally.**

- Student essay contest/career education program
- Assistance for disaster-affected areas
- Promotion of women's participation and advancement in the workplace/childbirth, parenting and nursing care support
- Health and productivity management
- Promoting workplace participation by persons with disabilities
- Signing the "CEO Guide to Human Rights" of the WBCSD
- **Formulating guidelines for AI ethics**
- **Releasing human rights reports** (human rights risks/impact assessments, countermeasures, and disclosure, etc.)

#### Future Priority measures

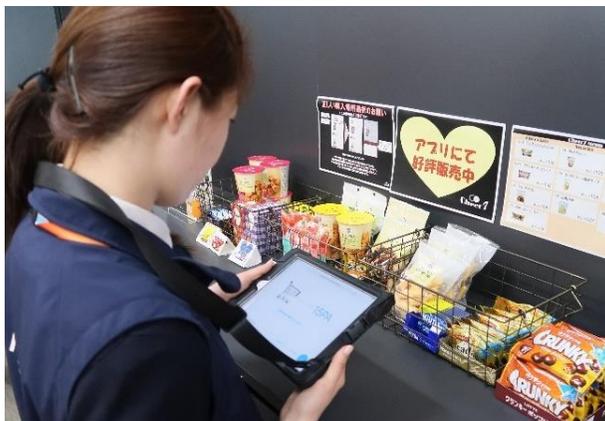
Since globalization is proceeding at the NRI Group with ASG and M&A for SMS, etc., we need to tackle issues such as human rights due diligence as a global corporation.

There is increasing global concern regarding human rights violations due to the use of AI, and countermeasures are required.

- Enhance disclosure of information related to society, such as human rights (relevant information within the group/globally)
- Infiltration of human rights policy and guidelines for AI ethics within the group, etc.

## 2. ESG activities at the NRI Group

### Social initiatives



An NRI Mirai employee replenishes snack foods (proof of concepts at convenience stores for persons with disabilities)



For department heads/managers  
In-house training for diversity and inclusion



Yumeminato Nursery School, our in-house nursery school



Career education program for high school students  
IT strategy program



A speech by the champion of an NRI Student  
Essay Contest



Riko-Challenge project by the Gender Equality  
Bureau Cabinet Office encouraging female  
students to select a career path in the STEM fields

# Governance initiatives

### Past activities

**Holding dialog with overseas experts from FY2017 in recognition of globalization.**

- Establishing independent executive meetings
- Formulating the NRI Corporate Governance Guidelines
- Implementing the evaluations of the Board of Directors' effectiveness
- **Evaluating executive efforts for value co-creation at the division level, and adding it to their bonuses**
- Establishing a Nomination Committee and changing the members composing the Compensation Committee from external experts to independent directors
- **Indicating our acceptance of the Japanese Stewardship Code, a first for a contract-type defined-benefit corporate pension**
- Signing the UN Global Compact
- Holding dialog with experts

### Future Priority measures

We have a high level of governance compared to other Japanese companies, but we need an equivalent level of governance as global companies in recognition of overseas ESG investors and global expansion.

- Disclosing taxes paid on a global basis
- Enhancing engagement with ESG investors, etc.
- Reviewing systems to meet international standards
- Adopting clawback provisions

## 2. ESG activities at the NRI Group

# Governance initiatives



Exchanging opinions with BNP Paribas Asset Management, which leads the world in ESG investment



Convey ESG initiatives to partner companies  
Hold sustainability dialog



Exchanging opinions with the person responsible for ratings at Vigeo EIRIS, the global ESG rating institution

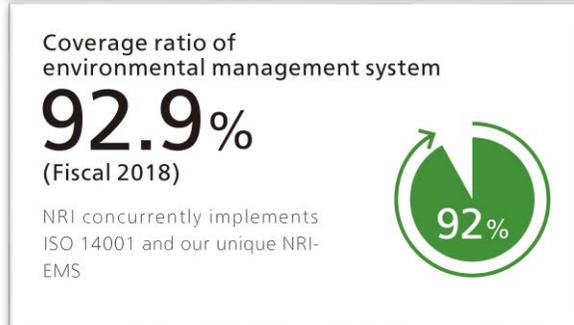


Participating in the WBCSD  
(World Business Council for Sustainable Development)

## 2. ESG activities at the NRI Group

# Quantitative ESG information of the NRI Group and major external evaluations in FY2019

### Quantitative ESG information (March 2019)



### Major external evaluations in FY2019

MEMBER OF

**Dow Jones Sustainability Indices**

In Collaboration with RobecoSAM



CLIMATE



2019

- **DJSI World**  
Selected continuously for 2 years from 2018
- **DJSI Asia Pacific**  
Selected continuously for 4 years from 2016

- **CDP2019 climate change**  
Selected for the "A list" for the first time in 2019
- **CDP2019 supplier engagement evaluation**  
Selected for the "leader board" for the first time in 2019



- **MSCI ESG Ratings**  
Rating increased to "AA" in 2019



- **RobecoSAM "Sustainability Award 2020"**  
Selected for the "bronze class" for the first time in 2020

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### 3. TCFD handling this fiscal year

## Conducting scenario analysis based on identified risks and opportunities

- The NRI Group started investigating TCFD from the previous fiscal year, and has identified risks and opportunities
- This year, we conduct scenario analysis for highly important items and evaluate their impact



**Investigating scenarios  
Identifying risks/opportunities**

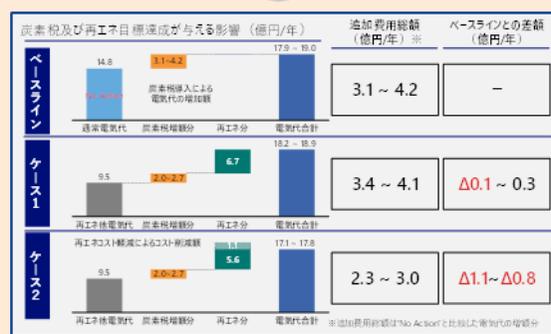
- ✓ Identifying risks/opportunities for the 2°C and 4°C scenarios

	2°Cシナリオ	4°Cシナリオ
事業分野	2°Cシナリオ	4°Cシナリオ
IT	+	-
電力	+	-
データセンター	+	-

**Items implemented this time**

**Scenario analysis for the data center business**

- ✓ Implementing scenario analysis for highly important items



**For next fiscal year and later**

**Expanding the target business for scenario analysis**

- ✓ Expanding scenario analysis to other business

### 3. TCFD handling this fiscal year

## Referring to the IPCC and IEA scenarios for scenario analysis

### Less than 2°C scenario

- ✓ For the less than 2°C scenario, refer to the sustainable development scenarios (SDS) of IEA and RCP2.6 of IPCC and utilize the 1.5°C special report (SR1.5) as supplemental information

#### Major expected phenomena

Expanded use of renewable energy

Adoption of carbon tax

Popularization of energy-saving

Growth in low-carbon products and services

### 3 to 4°C scenario

- ✓ The current scenario mainly refers to RCP8.5 of IPCC

#### Major expected phenomena

More extremely hot days

Increased frequency of heavy rain

Extreme rises in tide levels  
Rises in average tide levels

#### ○ Similar scenarios (not utilized in this investigation)

- ✓ IEA 450 scenario
- ✓ IEA 2DS, B2DS
- ✓ IPCC RCP2.6

#### ○ Similar scenarios (not utilized in this investigation)

- ✓ IEA Stated Policies Scenario (SPS) (formerly New Policies Scenario)
- ✓ IEA Reference Technology Scenario

### 3. TCFD handling this fiscal year

For the less than 2°C scenario, evaluate the cost burden of zero/low-carbonizing data centers

## Identified risks and opportunities

Business Field	2°C scenario	
Consulting	+	Increased demand for consulting work regarding sustainability
Finance	+	Shared online services increase the rate of using renewable energy to further increase demand
Industry	+	Improving the efficiency of supply chains and distribution processes help achieve a low-carbon society and are an opportunity for increasing demand
Data centers	+	We aim for zero-carbon data centers and stronger client interest in the environment will lead to opportunities for increased demand



Emissions from data centers account for about 70% of total group emissions

## Measures to relieve risks and gain opportunities

Join RE100 and set renewable energy ratio target

Target renewable energy ratio

FY2030: 36%

FY2050: 100%

## Target for scenario analysis

- ✓ Cost burden of achieving renewable energy target (36% by 2030) due to joining RE100
- ✓ Cost burden if the carbon tax supposed by the 2°C scenario is adopted

### 3. TCFD handling this fiscal year

## Evaluation of the impact of intensifying natural disasters and rising average temperatures due to climate change on data centers in the 3 to 4°C scenario

### Identified risks and opportunities

Business Field	4°C scenario	
Consulting	—	Intensifying natural disasters may impact sales due to a worsening of the macro economy and client business environment
Financial IT	—	Climate change may impact demand for services if the earnings of financial institutions worsen
Industrial IT	+	Cloud-based systems can be provided to minimize the damage of natural disasters
Data centers	+	Reducing the risk of business topping by taking natural disasters into account when choosing sites and conducting mutual backups with multiple data centers
	—	Power failures due to natural disasters and more hot summer days increases the risk of device repairs/updates and increased cooling costs

### Measures to relieve risks and gain opportunities

Implement energy-saving measures  
Implement natural disaster contingency

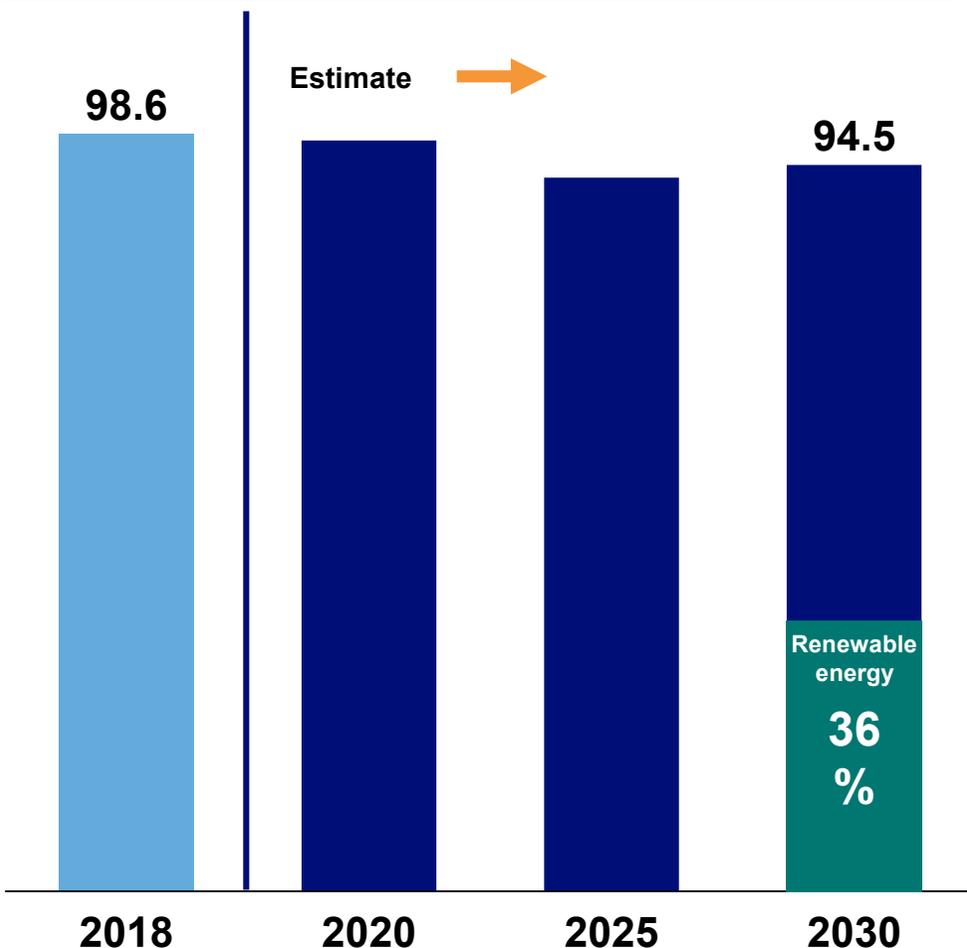
### Target for scenario analysis

- ✓ Impact of natural disasters on data center equipment
- ✓ Impact of rising average temperatures on power consumption

### 3. TCFD handling this fiscal year

Evaluate the impact of each scenario based on the estimated power consumption of data centers based on previous results and future forecasts

Data center power consumption in 2030 (MWh)



### Less than 2°C scenario

Base line	Electricity cost increase of 21 to 28% due to carbon tax (75 to 100\$/t-CO <sub>2</sub> )
Case 1	Carbon tax + renewable energy procurement of 36%
Case 2	Carbon tax + renewable energy procurement of 36% Drop in the price of renewable energy

### 3 to 4°C scenario

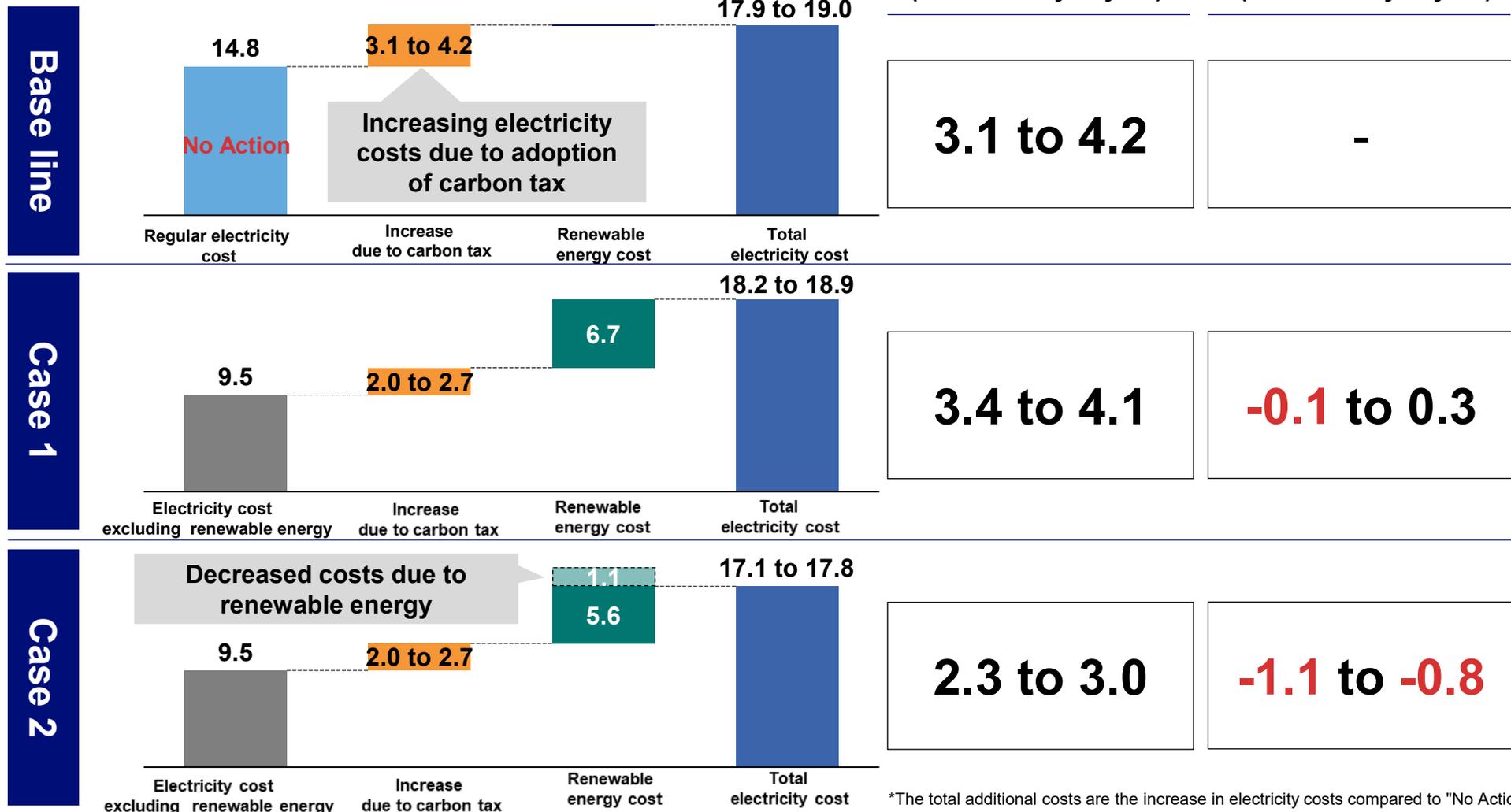
Risk of intensifying natural disasters

Impact if the average temperature rises by 1°C from current levels

### 3. TCFD handling this fiscal year

## Less than 2°C scenario: Achieving renewable energy targets can relieve impact of adopting carbon tax

Impact of carbon tax and achieving renewable energy targets (100 million yen/year)



\*The total additional costs are the increase in electricity costs compared to "No Action"

### 3. TCFD handling this fiscal year

## 3 to 4°C scenario: Risk of site flooding and landslides deemed to be small

- Upon analyzing the risk of flooding and landslides in a map, the financial impact is deemed to be small
- We will continue investigating the financial impact of a rise in average temperatures

### Landslide and flood risk evaluation

**Data center position information not released due to security concerns.**

### 3. TCFD handling this fiscal year

**3 to 4°C scenario: We are implementing measures at our data centers to respond to increased natural disasters such as flooding due to intensifying typhoons and heavy rain**

#### Expected risk events

#### Overview of countermeasures

Water restrictions/  
water cutoffs

- Store water for water-cooled air conditioning in case of water restrictions/water cutoffs
- Prioritize use of air-cooled air conditioning equipment to minimize use of water

Water damage  
(localized heavy  
rainfall, etc.)

- Design drainage equipment with sufficient capacity based on rainfall data, etc.
- Select building locations not susceptible to natural disasters

Gale damage

- Consider building height and regional characteristics based on Building Standards Act
- Set wind loads for target areas to design the strength of outer materials, etc.

Power supply  
failure

- When a failure occurs, automatically switch to battery power to ensure the power supply continues
- Switch from battery power to in-house power generation

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## 4. Efforts for human rights

# Promote efforts for respecting human rights based on the International Bill of Human Rights and Guiding Principles on Business and Human Rights

## NRI efforts for respecting human rights

### Policy formulation/commitment

- Formulation/commitment of policies regarding the respect of human rights, including our Human Rights Policy, and building systems
- Dissemination/infiltration of policies/commitment

### Evaluate impact on human rights and identify themes

- Identifying areas with latent human rights risks
- Investigating/identifying human rights themes
- Communicating with stakeholders
- Understanding the situation/evaluating impact

### Efforts for respecting human rights

- Measures for human rights themes
- Implementing measures based on the result of evaluating impact on human rights
- +
- Complaint handling/rescue mechanism

### Monitoring and information disclosure

- Continuous monitoring of the status of countermeasures and their impact on human rights
- Disclosing the status of efforts

#### 4. Efforts for human rights

### Policy formulation/commitment

> Reflect our stance on respecting human rights in various polices such as the NRI Group Human Rights Policy

- We are reviewing our various policies and internal rules to ensure that they are in line with the respect for human rights outlined in the NRI Group Human Rights Policy

#### NRI Group Human Rights Policy

- We declare that NRI Group companies and their executives and employees promote efforts to respect human rights and define policies for those efforts

#### NRI Group Employees' Code of Business Conduct

- We understand human rights and define our conduct with a recognition that our business activities may impact human rights

#### NRI Group Procurement Policy

- We declare a policy for conducting procurement activities in consideration of the environment and society, etc., including human rights

#### 4. Efforts for human rights

### Evaluate impact on human rights and identify themes

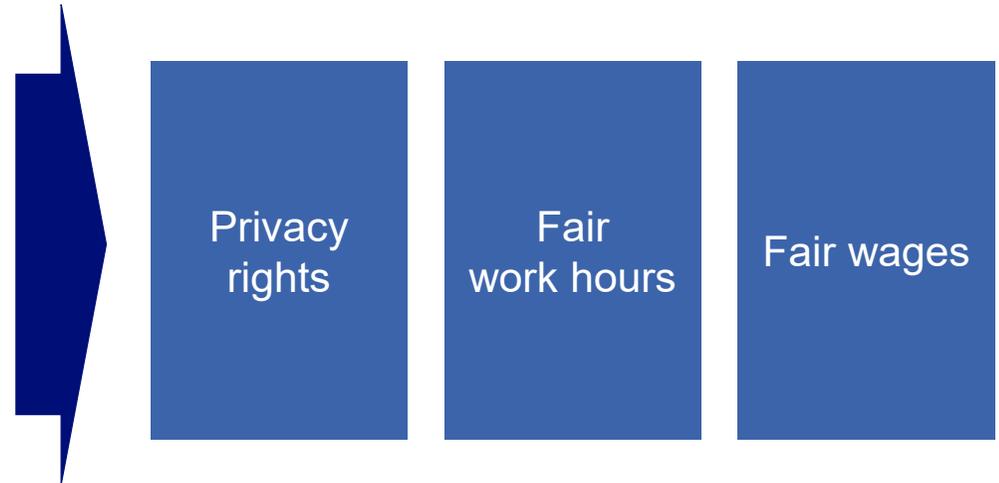
## > Conduct an evaluation of latent human rights risks based on the business and regions of the NRI Group

- Conduct an evaluation of latent human rights risks with the cooperation of Verisk Maplecroft and Caux Round Table Japan
  - Evaluate latent human rights risks that could occur in the regions where the NRI Group conducts business and transactions, focused on the software/IT service industry that includes the IT service business and the professional services industry that includes the consulting business, as these are the major businesses of the NRI Group

#### Scope of evaluating latent human rights risks

Target	<b>Two industry categories of defined by Maplecroft</b> Software/IT service industry (IT service business) Professional service industry (consulting business)
Target countries/ regions	<b>Countries/regions where NRI conducts business or where partners are located</b> Australia, China, India, Japan, Luxembourg, Philippines, Russia, Singapore, South Korea, Taiwan, Thailand, United Kingdom, United States, Vietnam, etc.
Human rights risk index	<b>10 human rights risk indices defined by Verisk Maplecroft</b> Child labor, fair wages, fair work hours, workplace discrimination, contemporary slavery, occupational health and safety, right to privacy, right of association and collective bargaining, rights of indigenous peoples, and rights regarding land, property, and residence

#### Areas with latent human rights risks for NRI



#### 4. Efforts for human rights

### Evaluating the impact on human rights/selecting human rights themes

- > Investigate and identify themes based on NRI vision and risk evaluation/  
hearing survey of latent human rights risks

- In the future, promote efforts in line with human rights themes while also reviewing human rights themes according to changes in the environment and technologies

### Human rights themes of the NRI Group (current)

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#### Decent Work

- Achieving worthwhile work that is healthy and humane
- Working with fair work times and wages

#### Privacy and Data Security

- In addition to employees, appropriately handle the data of partners and service recipients, etc. and protect privacy
- Achieving respect for human rights in line with evolution in technology including AI

#### Diversity

- Enable people from various backgrounds to flourish without any discrimination or harassment

## 4. Efforts for human rights

### Tackling risks

## NRI Group AI ethical guidelines formulated in 2019

### [Background/description]

■ Formulate policies for promoting the development utilization of AI while reducing the negative impact of AI

- Promoting dialog and co-creation with stakeholders
- Developing AI and cultivating human resources
- Respecting fairness
- Ensuring safety and security
- Protecting data and privacy
- Ensuring transparency

### [Efforts]

■ We are conveying our policies at internal education regarding AI and digitization and **promoting recognition in business activities**

■ We are promoting initiatives to include these efforts in work processes, such as the creation of **check lists for developing and utilizing AI**

■ NRIグループAI倫理ガイドライン

NRIグループ（以下、「NRI」）は、「未来社会創発企業」として、イノベーションによって未来を切り拓き、社会課題の解決や持続可能な社会の実現に貢献したいと考えています。こうした社会の実現に向け、昨今、AIの利活用が不可欠になっている一方で、AIによる社会への影響も懸念されています。このように、AIの利活用を推進し、社会への影響を最小化する「AI倫理ガイドライン」を策定しました。NRIは、今後も人々の生活を豊かにするために、AIの利活用を推進し、社会への影響を最小化する取り組みを継続してまいります。

■ NRI Group AI Ethics Guidelines

As the NRI Group (hereinafter "NRI") is "Company creating future society," NRI strives to unlock the future through innovation, solve social issues, and contribute to achieving a sustainable society. While the use of AI has recently become a key component to creating such a society, there are also concerns about social impacts of AI. In light of these circumstances, NRI has formulated "NRI Group AI Ethics Guidelines" to be followed by all officers and employees of the NRI Group. The guidelines shall apply to AI research, design, development, operation, and utilization at NRI. Going forward, NRI will continue working toward a future society in which humans utilize AI effectively.

1. Engaging in dialogue and co-creation with stakeholders

Considering the social impact of AI, NRI aims to solve social issues and contribute to achieving a sustainable future while striving to utilize AI for the appropriate scope and applications. To accomplish this, NRI engages in dialogue and co-creation with various stakeholders.

2. Advancement of AI and human resources development

As the NRI Group is "Company creating future society," NRI will discover the social impact of AI, then actively engage in research, design, development, operation, utilization, and fostering professional human talent for AI that can create a better future society.

3. Respecting fairness

NRI recognizes that the representativeness of data used in training and social biases contained within datasets can cause the decisions made by AI to be biased. In accordance with "NRI Group Policy on Human Rights", NRI will respect human rights and strive to ensure that its utilization of AI does not discriminate against any individual.

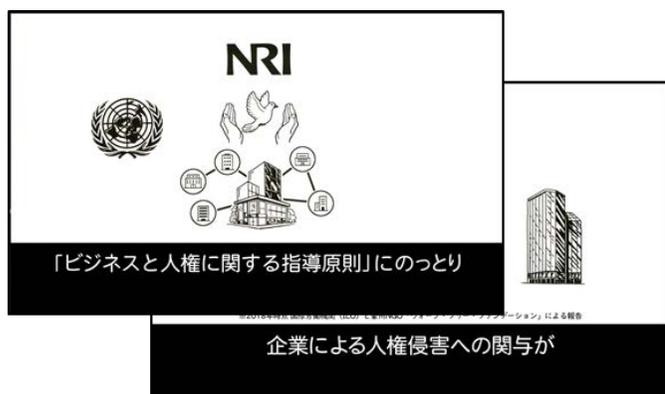
4. Ensuring safety and security

## 4. Efforts for human rights

### Future efforts

> Promote internal/external communication, evaluate the impact on human rights, and promote measures to counter human rights risks

### Internal/external communication



### Evaluate impact on human rights and investigate countermeasures

分野	項目	調査	対応	評価
方針・ルール	方針・ルール	方針・ルール	方針・ルール	1.1
		方針・ルール	方針・ルール	2.1
管理体制	方針・ルール	管理体制	管理体制	3.1
		管理体制	管理体制	4.1
対応の仕組み	管理体制	対応の仕組み	対応の仕組み	5.1
		対応の仕組み	対応の仕組み	6.1
関係者の関与	対応の仕組み	関係者の関与	関係者の関与	7.1
		関係者の関与	関係者の関与	8.1
関係者の関与	関係者の関与	関係者の関与	関係者の関与	9.1
		関係者の関与	関係者の関与	10.1
関係者の関与	関係者の関与	関係者の関与	関係者の関与	11.1
		関係者の関与	関係者の関与	12.1
関係者の関与	関係者の関与	関係者の関与	関係者の関与	13.1
		関係者の関与	関係者の関与	14.1



### E-learning for ESG



◀ The theme of "business and human rights" are to be included in the sustainability guidelines for business partners

### Communication with partners

### Surveys on the NRI Group/business partners

[Example themes for investigation]

- Handle risks identified by surveys
- Analysis and countermeasures of the impact that AI and digitization may have on human rights such as privacy
- Create complaint office and rescue system, etc.



### Investigate efforts to respond to human rights risks

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.

***Share the Next Values!***