ESG Briefing

ESG activities at the NRI Group

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Nomura Research Institute, Ltd.

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1. 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

✔ 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
1. Concept of ESG activities at the NRI Group

2. ESG activities at the NRI Group

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2. ESG activities at the NRI Group

Environmental initiatives

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)

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)
2. ESG activities at the NRI Group

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
2. ESG activities at the NRI Group

Governance initiatives

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

Past activities

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

Future Priority measures
2. ESG activities at the NRI Group

Governance initiatives

- Exchanging opinions with BNP Paribas Asset Management, which leads the world in ESG investment
- Exchanging opinions with the person responsible for ratings at Vigeo EIRIS, the global ESG rating institution
- Convey ESG initiatives to partner companies
- Hold sustainability dialog
- 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)

<table>
<thead>
<tr>
<th>Greenhouse gas emissions</th>
<th>38% Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results from fiscal 2018 (compared to fiscal 2013)</td>
<td></td>
</tr>
<tr>
<td>Targets for fiscal 2030</td>
<td>55% Reduction</td>
</tr>
</tbody>
</table>

Coverage ratio of environmental management system

92.9% (Fiscal 2018)

NRI concurrently implements ISO 14001 and our unique NRI-EMS

Number and ratio of female managers

202 7.1% (as of April 1, 2019)

NRI has formulated an action plan based on the Act on Promotion of Women’s Participation and Advancement in the Workplace. Our target is to increase the ratio of female employees serving as managers to at least 8.5% by the end of fiscal 2022.

Major external evaluations in FY2019

- **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
1. 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
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

Scenario analysis for the data center business

✔ Implementing scenario analysis for highly important items

Items implemented this time

For next fiscal year and later

Expanding the target business for scenario analysis

✔ Expanding scenario analysis to other business

These materials were prepared for the solo purpose of providing information to use as reference in making investment decisions, and are not intended as a solicitation for investment.
3. TCFD handling this fiscal year

Referring to the IPCC and IEA scenarios for scenario analysis

<table>
<thead>
<tr>
<th>Less than 2°C scenario</th>
<th>3 to 4°C scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ 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</td>
<td>✓ The current scenario mainly refers to RCP8.5 of IPCC</td>
</tr>
</tbody>
</table>

**Major expected phenomena**

<table>
<thead>
<tr>
<th>Less than 2°C scenario</th>
<th>3 to 4°C scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Expanded use of renewable energy</td>
<td>✓ More extremely hot days</td>
</tr>
<tr>
<td>✓ Adoption of carbon tax</td>
<td>✓ Increased frequency of heavy rain</td>
</tr>
<tr>
<td>✓ Popularization of energy-saving</td>
<td>✓ Growth in low-carbon products and services</td>
</tr>
<tr>
<td>✓ Extreme rises in tide levels Rises in average tide levels</td>
<td></td>
</tr>
</tbody>
</table>

**Similar scenarios (not utilized in this investigation)**

<table>
<thead>
<tr>
<th>Less than 2°C scenario</th>
<th>3 to 4°C scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ IEA 450 scenario</td>
<td>✓ IEA Stated Policies Scenario (SPS) (formerly New Policies Scenario)</td>
</tr>
<tr>
<td>✓ IEA 2DS, B2DS</td>
<td>✓ IEA Reference Technology Scenario</td>
</tr>
<tr>
<td>✓ IPCC RCP2.6</td>
<td></td>
</tr>
</tbody>
</table>
3. TCFD handling this fiscal year

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

<table>
<thead>
<tr>
<th>Identified risks and opportunities</th>
<th>Measures to relieve risks and gain opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Field</strong></td>
<td><strong>2°C scenario</strong></td>
</tr>
<tr>
<td>Consulting</td>
<td>Increased demand for consulting work regarding sustainability</td>
</tr>
<tr>
<td>Finance</td>
<td>Shared online services increase the rate of using renewable energy to further increase demand</td>
</tr>
<tr>
<td>Industry</td>
<td>Improving the efficiency of supply chains and distribution processes help achieve a low-carbon society and are an opportunity for increasing demand</td>
</tr>
<tr>
<td>Data centers</td>
<td>We aim for zero-carbon data centers and stronger client interest in the environment will lead to opportunities for increased demand</td>
</tr>
</tbody>
</table>

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

**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

Join RE100 and set renewable energy ratio target

<table>
<thead>
<tr>
<th>Target renewable energy ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2030: 36%</td>
</tr>
<tr>
<td>FY2050: 100%</td>
</tr>
</tbody>
</table>
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

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

### 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)

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimate</th>
<th>2018</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>98.6</td>
<td></td>
<td>94.5</td>
<td></td>
</tr>
</tbody>
</table>

Less than 2°C scenario

<table>
<thead>
<tr>
<th>Case</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base line</td>
<td>Electricity cost increase of 21 to 28% due to carbon tax (75 to 100$/t-CO2)</td>
</tr>
<tr>
<td>Case 1</td>
<td>Carbon tax + renewable energy procurement of 36%</td>
</tr>
</tbody>
</table>
| 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

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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)

<table>
<thead>
<tr>
<th>Case</th>
<th>Regular electricity cost</th>
<th>Increase due to carbon tax</th>
<th>Renewable energy cost</th>
<th>Total electricity cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base line</td>
<td>14.8</td>
<td>3.1 to 4.2</td>
<td></td>
<td>17.9 to 19.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increasing electricity costs due to adoption of carbon tax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case 1</td>
<td>9.5</td>
<td>2.0 to 2.7</td>
<td>6.7</td>
<td>18.2 to 18.9</td>
</tr>
<tr>
<td>Case 2</td>
<td>9.5</td>
<td>2.0 to 2.7</td>
<td>5.6</td>
<td>17.1 to 17.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Total additional costs (100 million yen/year)*</th>
<th>Difference from base line (100 million yen/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Action</td>
<td>3.1 to 4.2</td>
<td>-</td>
</tr>
<tr>
<td>Case 1</td>
<td>3.4 to 4.1</td>
<td>-0.1 to 0.3</td>
</tr>
<tr>
<td>Case 2</td>
<td>2.3 to 3.0</td>
<td>-1.1 to -0.8</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Expected risk events</th>
<th>Overview of countermeasures</th>
</tr>
</thead>
</table>
| 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 ares 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 |
1. 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
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

<table>
<thead>
<tr>
<th>Policy formulation/commitment</th>
<th>Evaluate impact on human rights and identify themes</th>
<th>Efforts for respecting human rights</th>
<th>Monitoring and information disclosure</th>
</tr>
</thead>
</table>
| ● Formulation/commitment of policies regarding the respect of human rights, including our Human Rights Policy, and building systems  
● Dissemination/infiltration of policies/commitment | ● Identifying areas with latent human rights risks  
● Investigating/identifying human rights themes  
● Communicating with stakeholders  
● Understanding the situation/evaluating impact | ● Measures for human rights themes  
● Implementing measures based on the result of evaluating impact on human rights  
+  
● Complaint handling/rescue mechanism | ● Continuous monitoring of the status of countermeasures and their impact on human rights  
● Disclosing the status of efforts |

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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**

<table>
<thead>
<tr>
<th>Target</th>
<th>Areas with latent human rights risks for NRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two industry categories of defined by Maplecroft</td>
<td></td>
</tr>
<tr>
<td>Software/IT service industry (IT service business)</td>
<td></td>
</tr>
<tr>
<td>Professional service industry (consulting business)</td>
<td></td>
</tr>
<tr>
<td>Countries/regions where NRI conducts business or where partners are located</td>
<td></td>
</tr>
<tr>
<td>Australia, China, India, Japan, Luxembourg, Philippines, Russia, Singapore, South Korea, Taiwan, Thailand, United Kingdom, United States, Vietnam, etc.</td>
<td></td>
</tr>
<tr>
<td>10 human rights risk indices defined by Verisk Maplecroft</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>Privacy rights</td>
</tr>
</tbody>
</table>
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)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Decent Work</strong></td>
<td>• Achieving worthwhile work that is healthy and humane</td>
</tr>
<tr>
<td></td>
<td>• Working with fair work times and wages</td>
</tr>
<tr>
<td><strong>Privacy and Data Security</strong></td>
<td>• In addition to employees, appropriately handle the data of partners and service recipients, etc. and protect privacy</td>
</tr>
<tr>
<td></td>
<td>• Achieving respect for human rights in line with evolution in technology including AI</td>
</tr>
<tr>
<td><strong>Diversity</strong></td>
<td>• Enable people from various backgrounds to flourish without any discrimination or harassment</td>
</tr>
</tbody>
</table>
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 checklists for developing and utilizing AI
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

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

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