



# ESG Road map to 2030

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**BST Group**

English Version 3

28-Jan-25



# About the ESG Roadmap

The ESG roadmap is organized according to BST Group Sustainable Development (ESG) Policy Rev.4, which fall under the three ESG areas: Environment, Social, and Governance as following.



## Environment (E)

1. Aim for “Carbon Neutrality” within 2050 by 30% reduction of greenhouse gas emissions of Scope 1 and 2 within 2030 in comparison with 2019.
2. Reduce energy consumption by 20% within 2030 in comparison with 2019
3. Reduce water withdrawal by 25% within 2030 in comparison with 2019.
4. Continue the zero hazardous and non-hazardous waste to landfill and increase waste utilization by 100% by 2030.
5. Strengthen VOCs emission control to better than standard.
6. Reduce and control environmental impact with zero pollution incident impact to communities and nearby plants.



## Social (S)

1. Intend to have no injury and occupational disease of employees and business partners from any work-related incident.
2. Respect human right of every individual, ensure equitable treatment to all without discrimination and intention for no labor and human right violations at all the time.
3. Conduct product risk assessment throughout its lifecycle and provision of 100% communication on the latest Safety Health and Environment information of all products within 2025 to ensure no incident from adverse impact on health and safety for employee, business counterpart customers and concern stakeholders and reduce the impact on the environment.
4. Promote and encourage all suppliers and business partners to comply with the company's sustainable development which consists of environmental, social, and governance practices.
5. Engage the management and employees at all levels in participating in CSR activities by 100% to develop community enterprises to be strong in order to have better quality of life and sustainable income for the community and having community satisfaction level more than 92%.



## Governance (G)

1. Conduct the business in accordance with “BST Group - Code of Conduct” by communication and training all employees with 100% pass the Ethic test in order to understand the code of conduct and implement it properly to ensure no unethical incident and no corruption and fraud incident.
2. Conduct the business legally including complying with related regulatory and requirements including information security with no violation incident of related legal and regulatory.

To support the linkage of key sustainable issues as an important part of business operation to cover and support the changes continuously, as well as integrate into the company's business strategy, therefore, the Sustainable Development committee and the Steering Committees for ESG has established.

All department managers will join in a steering committee member that they are involved to support and cause the driving to be fully consistent and harmonious. The steering committees have a meeting at least once a month to follow up on Key Performance Indicators (KPIs) and action plans

In addition to the ESG policy announcement, we have started to apply the ESG Index as a sustainability indicator in all employees' levels and all functions to ensure that the guidelines in ESG policy are implemented effectively. Based on the ESG Index score we get, we will improve it in various areas in the next coming year.



# Environment Road map to 2030

## *Key Sustainable Issues*

- Greenhouse Gases and Energy
- Emission and Local Pollution
- Water Withdrawal
- Circular Economy

# Environment Roadmap to 2030

Key Issues	Strategy	Target 2023-2029	Target 2030	SDGs Goal
<ul style="list-style-type: none"> <li>Greenhouse Gases and Energy</li> </ul>	<ul style="list-style-type: none"> <li>GHG Roadmap (see next page)</li> <li>Process &amp; energy efficiency improvement</li> <li>Renewable energy project</li> <li>Carbon capture to store or utilize</li> <li>Development of greenhouse gas storage</li> </ul>	<ul style="list-style-type: none"> <li>% Reduction of greenhouse gas emissions of Scope 1 and 2 in comparison with 2019 from 3% and increasing every year</li> <li>% Reduction of energy consumption in comparison with 2019 from 6% and increasing every year</li> </ul>	<ul style="list-style-type: none"> <li>30% Reduction of greenhouse gas emissions of Scope 1 and 2 in comparison with 2019</li> <li>20% Reduction of energy consumption in comparison with 2019</li> </ul>	GOAL 13: Climate Action GOAL 07: Affordable and Clean Energy
<ul style="list-style-type: none"> <li>Water Withdrawal</li> </ul>	<ul style="list-style-type: none"> <li>Increase water efficiency in the production process</li> <li>Treat wastewater to meet the standard quality</li> <li>Continuously monitor water usage trends and plan for water shortages</li> </ul>	<ul style="list-style-type: none"> <li>% Reduction of water withdrawal consumption in comparison with 2019 from 21.5 % and increasing every year</li> </ul>	<ul style="list-style-type: none"> <li>25% Reduction of water withdrawal consumption in comparison with 2019</li> </ul>	GOAL 9: Industry Innovation and Infrastructure GOAL 12: Responsible Consumption and Production
<ul style="list-style-type: none"> <li>Emission and Local Pollution</li> </ul>	<ul style="list-style-type: none"> <li>Apply the best available technology to reduce VOCs problems</li> <li>Comply with the code of practice for plant maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Each year: 100% VOCs Fugitive concentration (as methane) better than std. 40% all equipment</li> <li>Each year: Zero Environmental Complaint</li> </ul>	<ul style="list-style-type: none"> <li>100% VOCs Fugitive concentration (as methane) better than std. 40% all equipment</li> <li>Zero Environmental Complaint</li> </ul>	GOAL 9: Industry Innovation and Infrastructure GOAL 12: Responsible Consumption and Production
<ul style="list-style-type: none"> <li>Circular Economy</li> </ul>	<ul style="list-style-type: none"> <li>Follow the ISCC Plus for recycling of resources or bio-based materials which will result in reduction of waste generation</li> </ul>	<ul style="list-style-type: none"> <li>Each year: ISCC Plus Certification on recycling of resources or bio-based materials</li> </ul>	<ul style="list-style-type: none"> <li>ISCC Plus Certification on recycling of resources or bio-based materials</li> </ul>	GOAL 12: Responsible Consumption and Production
<ul style="list-style-type: none"> <li>Materials, Chemicals and Waste</li> </ul>	<ul style="list-style-type: none"> <li>Seek waste management method that can be utilized for all waste items.</li> <li>Gather companies that handle waste by utilizing waste in other methods</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Zero waste to landfill</li> </ul>	<ul style="list-style-type: none"> <li>Zero waste to landfill</li> </ul>	GOAL 12: Responsible Consumption and Production

The incident in company target are count at Level 2 or higher means

- incident resulting an injury or illness which requires medical treatment or resulting in death, disability,
- incident by leaks of flammable chemicals or gases above the Material Release Threshold Quantities (TQ) or leaks of non-hazardous materials (except air, nitrogen, water, steam, condensate) that more than 5,000 kg or a fire or explosion in the company area and resulted in entering the emergency control plan level 2 (according to the crisis management plan).
- A written complaint from a neighboring plant or receiving verbal /written complaints from government agencies or communities environmental (smell, smoke) or noise from abnormal events of chemical or energy leaks (by verification)
- incident of unethical/fraud related to compliance with the company's code of conduct or fraud and corruption that has a damage value of 100,000 baht or more, or has received the attention of the local media, community, and social media, has spread related news on social media for 1-2 days or more, or risk to the image and reputation of the company
- incident of related legal including authority to act and all regulations issued by the company that has a damage value of 100,000 baht or more, or has received the attention of the local media, community, and social media, has spread related news on social media for 1-2 days or more, or risk to the image and reputation of the company

**Aiming to create  
a green supply  
chain**

**Reduce GHG  
within the  
organization**



**and support  
environmentally,  
socially, and  
economically  
responsible  
business  
partners,  
suppliers, and  
other business  
counterparts**



**Suppliers**

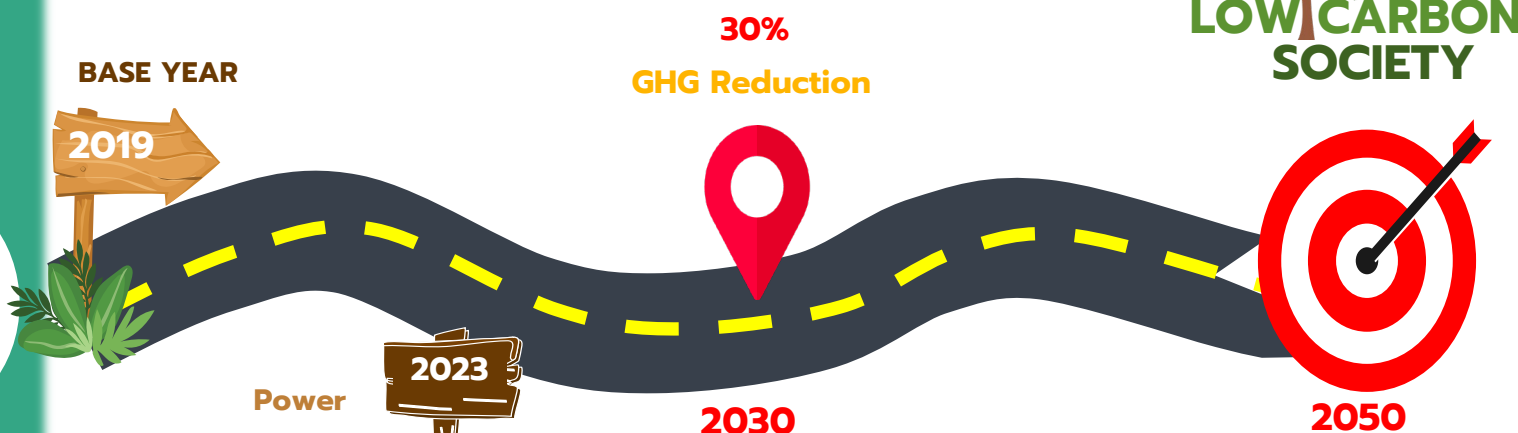


**Transporters**



**Customers**

# GHG ROADMAP



- Reduce carbon leakage
- Carbon Capture and Storage
- Process & energy efficiency improvement
- Reforestation
- Renewable Energy
- Offset Carbon Credit



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# Social Road map to 2030

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## *Key Sustainable Issues*

- Process Safety Management
- Health and Safety in Workplace
- Labor and Human Right
- Social Responsibility (CSR)
- Sustainable Supply Chain
- Product Quality and Safety
- Employee Care and Skills Development



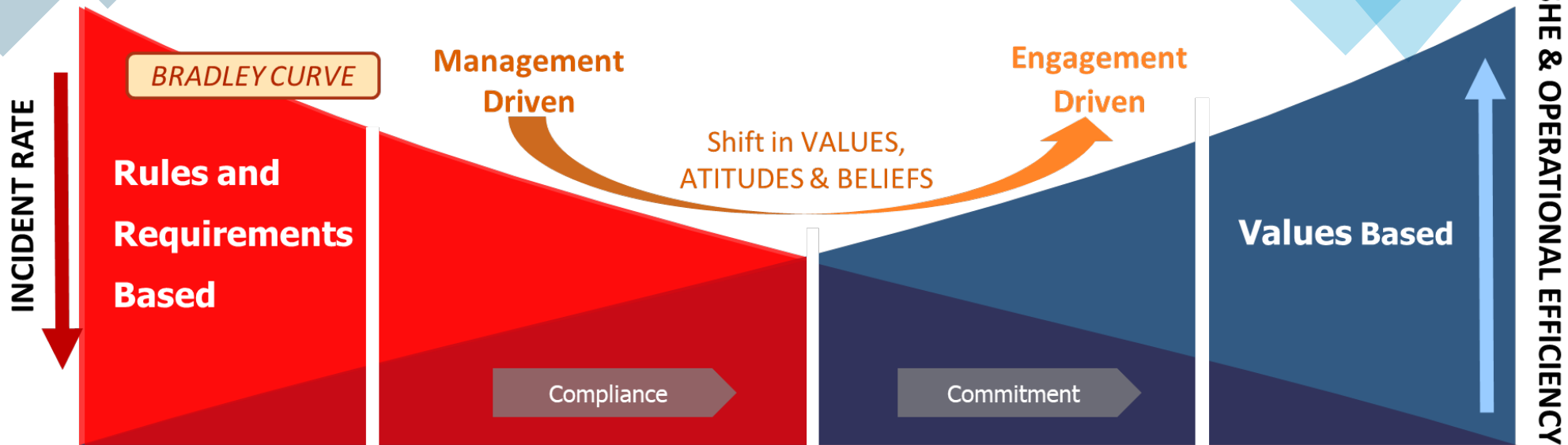
# Social Responsible Roadmap to 2030

Key Issues	Strategy	Target 2023-2029	Target 2030	SDGs Goal
<ul style="list-style-type: none"> <li>Process Safety Management</li> </ul>	<ul style="list-style-type: none"> <li>Promote a safety culture for employees at all levels</li> <li>Raise the standards of process safety management</li> <li>Strengthen regulations for contractors as guidelines for all employees and contractors</li> <li>Reduce the risk of spill and leakage</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Zero factory incident frequency rate (FIR)</li> </ul>	<ul style="list-style-type: none"> <li>Zero factory incident frequency rate (FIR)</li> </ul>	GOAL 9: Industry Innovation and Infrastructure GOAL 03: Good Health and Well-being
<ul style="list-style-type: none"> <li>Health and Safety in workplace</li> </ul>	<ul style="list-style-type: none"> <li>Follow Safety Culture Transformation (see next page)</li> <li>Process and prevent hazards and assess risks for routine and non-routine work, covering all activities and work areas including health risk assessment</li> <li>Follow ISO standards 45001</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Zero injury frequency rate (IFR)</li> <li>Each year: Zero injury severity rate (ISR)</li> </ul>	<ul style="list-style-type: none"> <li>Safety Culture Interdependent stage</li> <li>Zero injury frequency rate (IFR)</li> <li>Zero injury severity rate (ISR)</li> </ul>	GOAL 03: Good Health and Well-being
<ul style="list-style-type: none"> <li>Labor and Human Right</li> </ul>	<ul style="list-style-type: none"> <li>Follow TLS 8000 (Mor Raw Tor)</li> <li>Promote labor human right companywide</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Zero labor and human right violations at all time</li> </ul>	<ul style="list-style-type: none"> <li>Zero labor and human right violations at all time</li> </ul>	GOAL 10: Reduced Inequality
<ul style="list-style-type: none"> <li>Social Responsibility (CSR)</li> </ul>	<ul style="list-style-type: none"> <li>Engage with all communities and NGO</li> <li>Maintain the management and all employees participating in CSR activities</li> <li>Support and develop community enterprises</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Employees at all levels in participating in CSR activities by 100%</li> <li>Community satisfaction more than 85% in 2024 and increasing every year</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Employees at all levels in participating in CSR activities by 100%</li> <li>Community satisfaction more than 92%.</li> </ul>	GOAL 03: Good Health and Well-being
<ul style="list-style-type: none"> <li>Sustainable Procurement</li> </ul>	<ul style="list-style-type: none"> <li>Implement supplier ESG risk analysis and supplier ESG assessment</li> <li>Develop suppliers and business partners, especially in ESG</li> <li>Implement the green supply chain</li> </ul>	<ul style="list-style-type: none"> <li>Each year: 100% of AVL supplier signed the supplier code of conduct</li> <li>Each year: Evaluate suppliers' on ESG risks, covering 100% of the procurement value and reviewing evaluation</li> <li>Govern suppliers with high ESG impacts (High potential ESG suppliers) to be at an acceptable level by completing 100% audits by 2024 on ward</li> </ul>	<ul style="list-style-type: none"> <li>100% of AVL supplier signed the supplier code of conduct</li> <li>Evaluate suppliers' on ESG risks, covering 100% of the procurement value and reviewing evaluation results</li> <li>Govern suppliers with high ESG impacts (High and medium potential ESG suppliers) to be at an acceptable level</li> </ul>	All SDGs
<ul style="list-style-type: none"> <li>Product Quality and Safety</li> </ul>	<ul style="list-style-type: none"> <li>Develop and improve quality and services to meet customer needs.</li> <li>Assess risks throughout the product lifecycle and communicate product safety and occupational health information.</li> <li>Conduct annual customer satisfaction surveys</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Maintain or higher customer engagement score every year</li> <li>Each year: 100% Stakeholders' communication on the latest SHE information of all products</li> </ul>	<ul style="list-style-type: none"> <li>Maintain or higher customer engagement score every year</li> <li>100% Stakeholders' communication on the latest SHE information of all products</li> </ul>	All SDGs
<ul style="list-style-type: none"> <li>Employee Care and Skills Development</li> </ul>	<ul style="list-style-type: none"> <li>Talent attraction and retention, alignment between employee competencies and company needs</li> </ul>	<ul style="list-style-type: none"> <li>Each year: % Employee engagement better than average industrial</li> </ul>	<ul style="list-style-type: none"> <li>Each year: % Employee engagement better than average industrial</li> </ul>	GOAL 08: Decent Work and Economic Growth

The incident in company target are count at Level 2 or higher means

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- A written complaint from a neighboring plant or receiving verbal /written complaints from government agencies or communities environmental (smell, smoke) or noise from abnormal events of chemical or energy leaks (by verification)
- incident of unethical/fraud related to compliance with the company's code of conduct or fraud and corruption that has a damage value of 100,000 baht or more, or has received the attention of the local media, community, and social media, has spread related news on social media for 1-2 days or more, or risk to the image and reputation of the company
- incident of related legal including authority to act and all regulations issued by the company that has a damage value of 100,000 baht or more, or has received the attention of the local media, community, and social media, has spread related news on social media for 1-2 days or more, or risk to the image and reputation of the company

# BST Group Safety Culture Transformation



## BST SHE CULTURAL TRANSFORMATION ROADMAP STAGES

	"SHE Foundation Building" 2014 - 2017	"Measuring" 2018	"Improving" 2019 - 2020	"High Performing" 2021-2024	"World Class" 2025
<b>SYSTEMS</b>	<ul style="list-style-type: none"> <li>- PSM Implemented</li> <li>- Incident Measurement Criteria</li> </ul>	<ul style="list-style-type: none"> <li>- PSM Effectiveness Auditing</li> </ul>	<ul style="list-style-type: none"> <li>- 3rd Party PSM System Validation</li> <li>- Job Controller Qualification Process</li> <li>- Improved Work Instruction Process</li> </ul>	<ul style="list-style-type: none"> <li>- Sustainability &amp; Continuous Imp.</li> <li>- Increase effectiveness of PSM Governance Process</li> <li>- ISO45001 &amp; Occupational Health Process</li> </ul>	
<b>BEHAVIORS</b>	<ul style="list-style-type: none"> <li>- Vision, Principles, Requirements</li> <li>- Alignment and Understanding</li> <li>- <b>Independent Stage Validation</b></li> </ul>	<ul style="list-style-type: none"> <li>- Behavior Cause Definitions</li> <li>- Incident Cause Analyses</li> </ul>	<ul style="list-style-type: none"> <li>- Qualified Job Controllers for staff</li> <li>- Risk Reduction Behaviors</li> <li>- Personal Behavior Commitments (SOT)</li> </ul>	<ul style="list-style-type: none"> <li>- OD Re-Implementation</li> <li>- Qualified Job Controller for Contractor</li> <li>- Safety promotion and Incentive Program</li> <li>- <b>Internal Interdependent Stage Validation</b></li> </ul>	- <b>Interdependent Stage Validation</b>
<b>PERFORMANCE</b>		- <b>Baseline Incident Performance</b>	- <b>Zero Project Incidents Level 3</b>	- <b>Reduce Incidents Level 2 up by 50% every year</b>	- <b>"Incident Free" (Zero Level 2 Up)</b>



# Governance Road map to 2030

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## *Key Sustainable Issues*

- Anti-Fraud and Corruption
- Information Security



# Governance Roadmap to 2030

Key Issues	Strategy	Target 2023-2029	Target 2030	SDGs Goal
<ul style="list-style-type: none"> <li>Fraud and Corruption</li> </ul>	<ul style="list-style-type: none"> <li>Implement fraud/corruption risk assessment</li> <li>Implement and maintain business assurance assessment and audit</li> <li>Communication and training all employees with 100% pass the Ethic test</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Zero corruption and fraud incident</li> <li>Each year: BST Group - Code of Conduct communication and training all employees with 100% pass the Ethic test</li> </ul>	<ul style="list-style-type: none"> <li>Zero corruption and fraud incident</li> <li>BST Group - Code of Conduct communication and training all employees with 100% pass the Ethic test</li> </ul>	<ul style="list-style-type: none"> <li>All SDGs</li> <li>GOAL 16: Peace and Justice</li> </ul>
<ul style="list-style-type: none"> <li>Information Security</li> </ul>	<ul style="list-style-type: none"> <li>Implement and maintain information security management system</li> <li>Implement and maintain information security management audit</li> </ul>	<ul style="list-style-type: none"> <li>Each year: Zero information security incident</li> </ul>	<ul style="list-style-type: none"> <li>Zero information security incident</li> </ul>	<ul style="list-style-type: none"> <li>All SDGs</li> </ul>

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# Linking the UN Sustainable Development Goals (SDGs)



Convinced that business sector plays a key role in the realization of the United Nations Sustainable Development Goals (SDGs), BST Group consider linking the SDGs to BST Group operations to drive achieving UN Sustainable Development goals.

There are operations and connections with the SDGs and 17 main goals with high relevant goals as follows:

High Relevant Goal	BST Related to SDGs	Related BST Group Operational Activities
 <p><b>3</b> GOOD HEALTH AND WELL-BEING</p> <p>3.4 3.5 3.6 3.9</p>	<p>Promote a safe work culture consistent with the vision “No harm to anyone, anytime” and cares for the health and safety of employees and stakeholders. and covers all related activities, whether production, service, or transportation</p>	<ul style="list-style-type: none"> <li>Occupational health and safety standards ISO 45001</li> <li>Promote Safety Culture</li> <li>Employee health and safety care</li> <li>Mobile Medical Unit for communities</li> </ul>
 <p><b>8</b> DECENT WORK AND ECONOMIC GROWTH</p> <p>8.2 8.3 8.5 8.7 8.8</p>	<p>Conduct businesses according to human rights and labor principles and focus on quality employment, equal and fair</p>	<ul style="list-style-type: none"> <li>Thai labor standards. (TLS 8001-2553 basic level)</li> <li>Labor and human rights Activities</li> <li>Employee development</li> <li>Community Enterprises</li> </ul>
 <p><b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> <p>9.4 9.5</p>	<p>Apply technology in every business activities to increase efficiency, add business value with increase long-term competitiveness, and to promote comprehensive and sustainable industrial development</p>	<ul style="list-style-type: none"> <li>Seek technology to reduce environmental impact.</li> <li>Sustainable Procurement</li> <li>Product stewardship</li> </ul>
 <p><b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION</p> <p>12.2 12.4 12.5 12.7</p>	<p>Conduct business by increasing efficiency in using resources in a worthwhile manner and reduce the impact on the environment to a minimum.</p>	<ul style="list-style-type: none"> <li>Environmental Standard ISO14001</li> <li>Water management</li> <li>Waste and Air quality management</li> <li>Sustainable Procurement</li> <li>Circular Economy</li> </ul>
 <p><b>13</b> CLIMATE ACTION</p> <p>13.1 13.3</p>	<p>Accelerate adaptation to deal with global warming by paying attention to reducing greenhouse gas emissions, which is an important international issue. Including cooperation and support for both the public and private sectors in dealing with global warming problems.</p>	<ul style="list-style-type: none"> <li>GHG Roadmap to 2030</li> <li>Carbon footprint certification.</li> </ul>