



บริษัท ฝาจิบ จำกัด [มหาชน]  
**CROWN SEAL PUBLIC COMPANY LIMITED**

คู่มือการวิเคราะห์ประเด็นสำคัญด้านความยั่งยืน

Materiality and Sustainability Analysis



Environment



Social



Governance

# Materiality and Sustainability Analysis



Crown Seal Public Company Limited

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## **Scope**

This manual has been developed to serve as a guideline for analyzing the Company's material sustainability issues. It encompasses the following key steps:

1. Reviewing sustainability issues in the context of the organization
2. Analyzing stakeholder engagement
3. Identifying and prioritizing sustainability topics
4. Managing sustainability issues and validating the completeness of material sustainability topics
5. Managing sustainability issues on an ongoing basis

The framework can be applied across all departments within the organization, with the objective of ensuring a consistent understanding in analyzing and selecting issues that may impact both the Company and its stakeholders across economic, social, and environmental dimensions.

In addition, this manual may be used as a reference for preparing the Sustainability Report or for assessments aligned with relevant international frameworks and standards.

## **Objective**

This manual aims to provide a structured approach for understanding, analyzing, and prioritizing economic, social, and environmental issues that may impact the organization and its stakeholders. It is intended to support the development of appropriate sustainability strategies by fostering a balanced approach between business performance and social responsibility, while creating long-term sustainable value.

## **Definitions**

### **1) Sustainability Materiality Topics**

Sustainability materiality topics refer to issues or subjects that have a significant impact on the Company's business operations and its ability to create value over the short, medium, and long term. These topics may also affect stakeholders, society, and the environment. The organization must identify, assess, and prioritize such issues to serve as a structured foundation for formulating sustainability strategies and implementing sustainability initiatives in a systematic manner.

### **2) Value Chain (Supply Chain Value or Value Chain)**

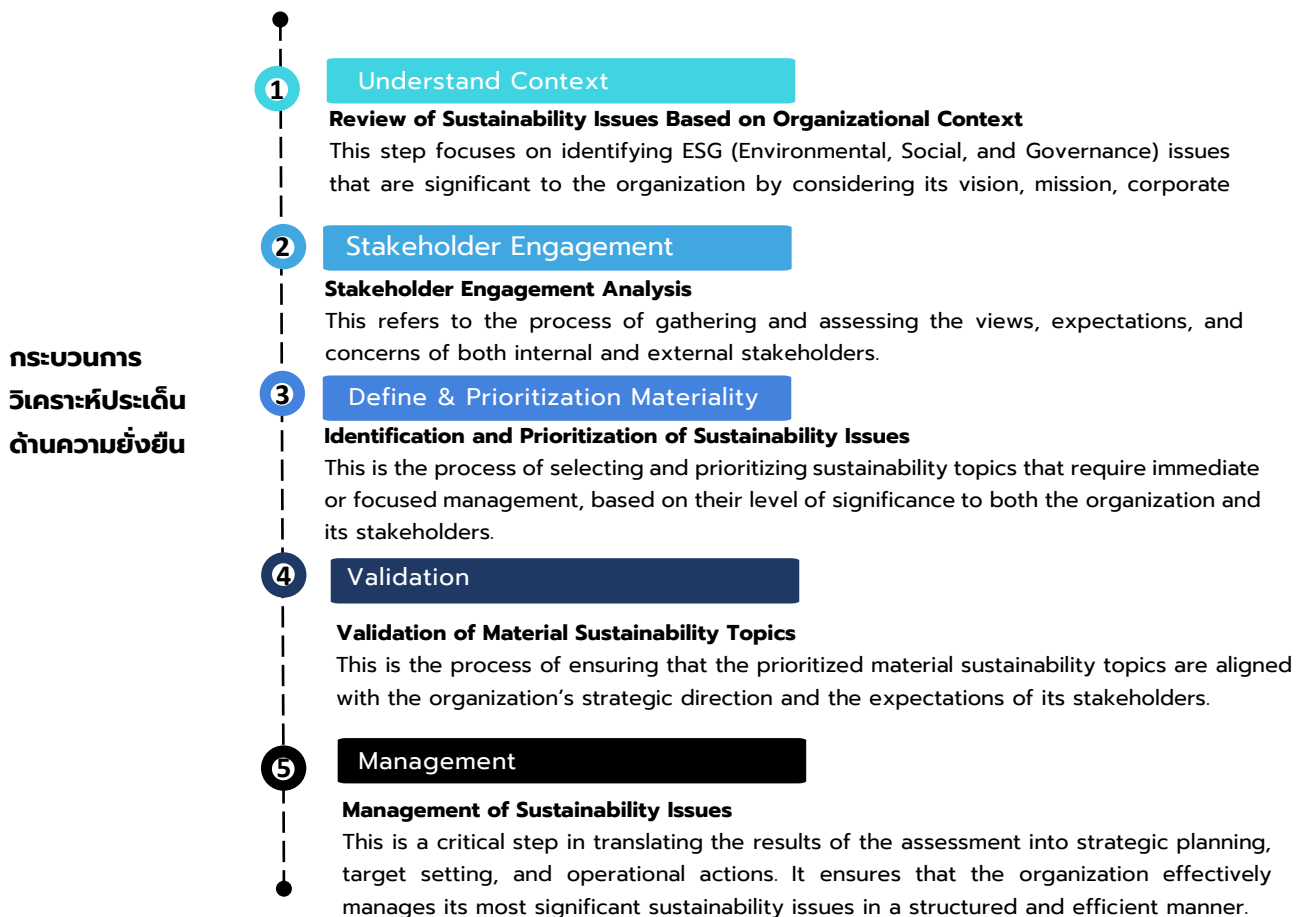
The value chain represents the sequence of activities undertaken by the organization, from raw

material sourcing and production to distribution and delivery of products to customers. It comprises both primary activities and support activities. The concept emphasizes how each stage contributes to creating value for the product and the organization. Analyzing the value chain enables the identification of areas for improvement to enhance efficiency, reduce costs, and strengthen competitive advantage.

### Sustainability Issue Analysis Process

Crown Seal Public Company Limited has adopted and adapted the Sustainability Issue Analysis Process developed by the Sustainable Capital Market Development Center, The Stock Exchange of Thailand (SET Thailand, 2021).

The process consists of five key steps, as illustrated in Figure 1.



**Figure 1: Sustainability Issue Analysis Process**

Adapted from: Sustainable Capital Market Development Center, The Stock Exchange of Thailand (SET)

(Source: <https://elearning.set.or.th/>)

**Step 1: Review of Sustainability Issues Based on Organizational Context (Understand Context)**

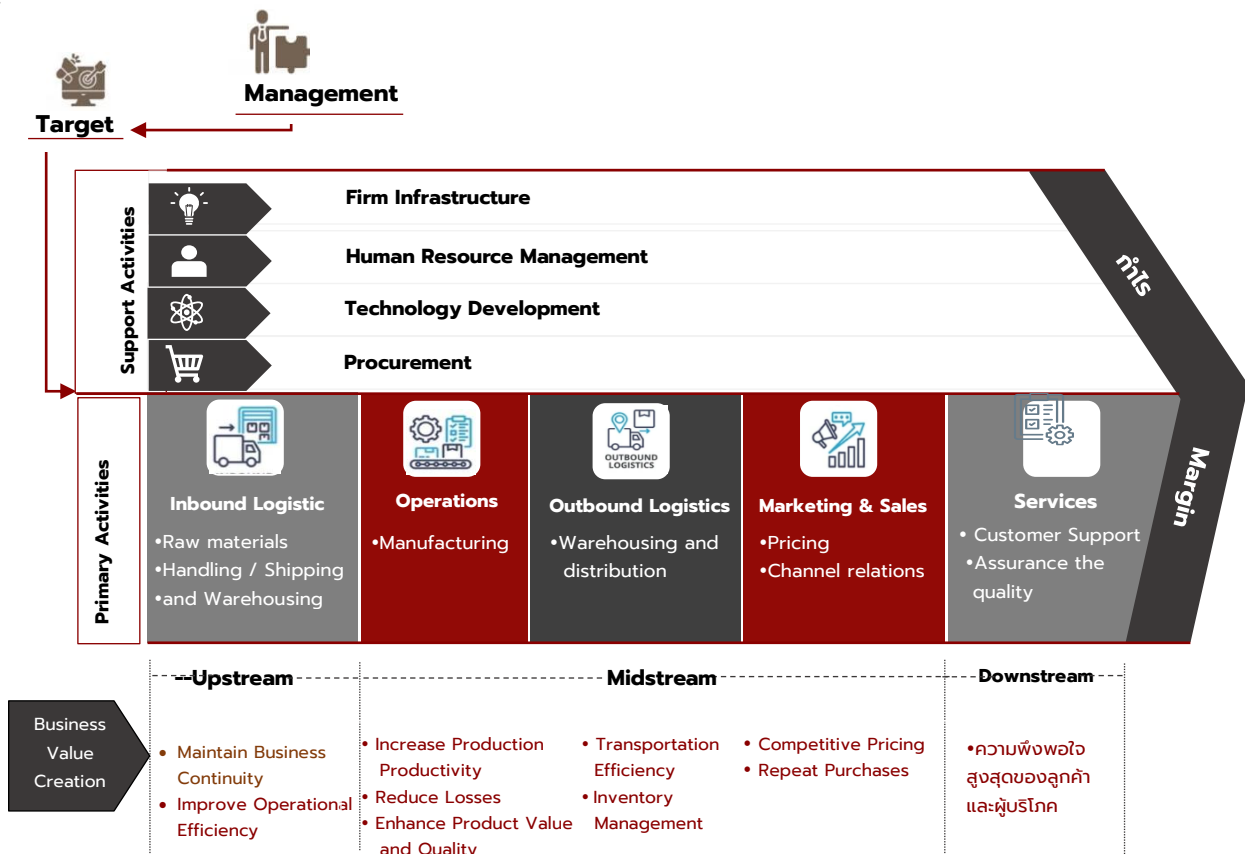
**1.1 Value Creation**

The Company recognizes the importance of creating sustainable value in its business operations by generating economic value while simultaneously addressing social challenges and stakeholder needs. These values are delivered to stakeholders through the Company’s sustainability value framework, including its value chain and value delivered, as well as through the assessment of organizational risks and opportunities.

Such risks and opportunities are identified by considering global trends and external drivers, the Company’s vision and mission, corporate strategy, and stakeholder expectations.

This comprehensive approach enables the Company to identify its material sustainability topics, which serve as a foundation for guiding future sustainability development.

The Company has developed a sustainability value chain framework to enhance long-term business value, covering activities from upstream to downstream operations. This includes all relevant processes, both direct (primary activities) and indirect (support activities), as illustrated in Figure 2.



**Figure 2: Value Chain**  
Crown Seal Public Company Limited

## ▪ **Primary Activities**

Primary activities consist of the following processes:

### **(1) Inbound Logistics**

This involves the procurement and receipt of raw materials used in the production of beverage bottle caps, such as metal sheets, printing inks, coating compounds, foam liners, plastic resin pellets, color masterbatch, etc., including proper storage and inventory management in warehouses.

### **(2) Operations**

This refers to the transformation of production inputs—such as metal sheets, inks, coating materials, plastic resins, and color masterbatch—into final products, including printed sheets, metal caps, and plastic caps used for sealing bottled beverages.

### **(3) Outbound Logistics**

This process covers the distribution of finished caps stored in the warehouse after completion of production at the factory, delivering them to beverage manufacturing companies, which are the Company's customers.

### **(4) Marketing and Sales**

This includes pricing strategies, market development, and directing the Company's products to target customers—namely bottled beverage manufacturers—both domestically and internationally.

### **(5) Services**

The Company has established a technical service and customer satisfaction team to provide prompt and effective support and troubleshooting related to the use of cap products. The Company also provides product warranties in compliance with quality and food safety standards to build trust and ensure the highest level of satisfaction among customers and end consumers.

## ▪ **Supporting Activities**

Supporting activities consist of the following processes:

### **(1) Firm Infrastructure**

The Company establishes management systems to enhance efficiency and ensure business continuity. These include accounting and financial management, tax management, as well as corporate strategy formulation and policy planning.

## **(2) Human Resource Management**

The Company manages its human resources systematically, covering recruitment, employee development, and fair compensation management. It also ensures employee welfare and quality of work life at all levels to support the sustainable growth of the organization.

## **(3) Technology Development**

The Company actively seeks and adopts technology and innovation in its operations to enhance efficiency and production capacity, reduce costs and environmental impacts, and conduct research and development of new products to meet market demands. This strengthens the Company's long-term competitiveness.

## **(4) Procurement**

The Company procures essential production inputs, including raw materials, consumables, tools, machinery, and spare parts. It also engages contractors for maintenance, construction, and internal service operations.

### **▪ Business Value Creation Management**

Based on the primary and supporting activities described above, the Company has implemented management practices to enhance business value as follows:

- (1) Ensure business continuity and improve operational efficiency across various processes to achieve long-term business sustainability.
- (2) Continuously improve production processes to reduce lead time and minimize waste, thereby lowering resource consumption and enhancing productivity, while maintaining strict quality control and developing products that meet market and customer needs in order to increase value and strengthen competitiveness.
- (3) Enhance warehouse and transportation management efficiency by maintaining optimal inventory levels and minimizing unnecessary storage space utilization.
- (4) Establish appropriate, fair, and competitive pricing strategies, along with marketing and communication initiatives to build product awareness and brand recognition among customers and target markets.
- (5) Provide after-sales services, including technical support during product usage and product quality assurance in accordance with agreed standards, as well as conducting customer satisfaction assessments.
- (6) Establish clear procurement regulations and supplier selection and evaluation criteria and implement a sustainable supply chain management process. Key suppliers are categorized into:
  - Critical Tier 1: Key suppliers that conduct direct business with the Company
  - Critical Non-Tier 1: Key suppliers that do not conduct direct business with the Company

### 1.1.2 Sustainability Issue Analysis through Value Delivered

To ensure actionable outcomes and tangible results, the Company places importance on the concept of Value Delivered, aiming to conduct its business in a manner that generates economic value alongside social value simultaneously.

This is achieved through the application of the Shared Value Creation (CSV) concept, in accordance with the principles introduced by Michael Porter and Mark Kramer (2006). The approach integrates business competitiveness with positive societal impact, as illustrated in Table 1.

Table 1: Creating Shared Value (CSV)

<b>Creating Shared Value</b>	<b>Business Value</b>	<b>Social Value</b>
1. Focus on products and marketing	<ul style="list-style-type: none"> <li>• Drive sales growth</li> <li>• Expand market share</li> <li>• Enhance market expansion</li> <li>• Improve profitability</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen environmental sustainability efforts</li> <li>• Lower greenhouse gas emissions</li> <li>• Advance nutrition improvement initiatives</li> <li>• Promote access to quality education</li> </ul>
2. Driving productivity across the value chain	<ul style="list-style-type: none"> <li>• Increase production productivity</li> <li>• Reduce costs and optimize resource utilization</li> <li>• Lower transportation and operational costs</li> <li>• Enhance procurement and delivery efficiency</li> <li>• Minimize waste and improve quality</li> <li>• Increase profitability</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce energy, resource, and raw material consumption</li> <li>• Increase local employment opportunities</li> <li>• Enhance workforce skills and labor quality</li> <li>• Increase employee wages and income</li> </ul>
3. Focusing on external context development (Cluster Development)	<ul style="list-style-type: none"> <li>• Business growth and productivity enhancement</li> <li>• Cost reduction</li> <li>• Improved delivery reliability and supply security</li> <li>• Enhanced procurement and delivery efficiency</li> <li>• Increased access to labor</li> <li>• Profitability improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Promoting and supporting education</li> <li>• Increasing job creation</li> <li>• Enhancing local quality of life</li> <li>• Improving access to employment opportunities</li> <li>• Increasing income generation</li> </ul>

### 1.13 Sustainability Issue Analysis through Risks and Opportunities

The Company has conducted an assessment of potential impacts across Environmental, Social, Governance, and Economic (ESG) dimensions that may affect its business operations. The objective is to identify potential threats that could cause adverse impacts, as well as business opportunities that can generate long-term value and support the achievement of sustainable development goals.

The results of this impact assessment are presented in Table 2.

**Table 2: Sustainability Issue Analysis through Risks and Opportunities**

■ **Environmental Dimension**

Risk	Sustainability Opportunities
<ol style="list-style-type: none"> <li>1. Air pollution, water pollution, and solid waste may arise from various processes throughout the supply chain.</li> <li>2. The use of energy and natural resources in activities across the supply chain may lead to resource scarcity.</li> <li>3. Greenhouse gas emissions from activities along the value chain may contribute to global warming and climate change.</li> <li>4. The company’s location and business operations may potentially impact surrounding communities.</li> <li>5. Additional environmental laws or tax measures may be introduced for organizations that do not prioritize environmental protection.</li> </ol>	<ol style="list-style-type: none"> <li>1.1) An incentive to seek new technologies that help reduce pollution.</li> <li>1.2) Opportunities for innovation in selling waste or developing it into recycled products with added value.</li> <li>2. Opportunities to develop and improve energy efficiency within the organization in a sustainable manner.</li> <li>3. Opportunities to reduce greenhouse gas emissions, enhancing the organization’s competitiveness and corporate image.</li> <li>4. Opportunities to build stronger relationships with local communities, creating a positive corporate image.</li> <li>5. Opportunities to develop environmentally friendly products or processes to reduce risks from potential environmental taxes.</li> </ol>
<p><b>Management Approach:</b> Taking environmental responsibility throughout the supply chain into consideration, including:</p> <ul style="list-style-type: none"> <li>• Sourcing environmentally friendly raw materials and materials.</li> <li>• Using energy efficiently and adopting alternative energy sources within the organization to reduce greenhouse gas emissions.</li> <li>• Reducing the amount of waste generated across the supply chain, such as selling waste to recyclers or buyers for further utilization.</li> <li>• Controlling water and air pollution in compliance with legal requirements and improving treatment processes to achieve better environmental quality in the future.</li> </ul>	

■ **Social Dimension**

Risk	Sustainability Opportunities
1) Human rights violations and illegal employment practices in the supply chain.	Establishing monitoring and governance systems for employment practices across the supply chain to ensure respect for human rights and full compliance with labor laws.
2) Labor union conflicts, legal risks, and employee dissatisfaction.	Developing employee voice and grievance mechanisms, along with transparent communication, to strengthen employee engagement and trust among employees and labor unions.
3) Possible opposition from nearby communities to the organization’s business expansion or operations.	Enhancing collaboration and trust with local communities to foster social acceptance, sustainable coexistence, and a positive corporate reputation.
4) Shortage of skilled personnel (talent), limited knowledge and capabilities, and a high turnover rate among potential successors.	Implementing successor development and talent management systems, together with employee retention measures to sustain organizational capability.
5) Retirement of key personnel	Developing and empowering the next generation of employees to transfer organizational knowledge and strengthen skills to adapt to future changes.
<p><b>Management Approach:</b></p> <p>(1) Conduct regular Employee Engagement surveys to understand employee needs and address potential dissatisfaction at an early stage.</p> <p>(2) Regularly review legal and regulatory requirements to ensure full compliance with labor laws and workplace policies.</p> <p>(3) Organize collaborative activities between the company and nearby communities to strengthen relationships and mutual understanding.</p> <p>(4) Implement job rotation plans to enhance employees’ skills and capabilities, enabling workforce flexibility and effective role substitution.</p> <p>(5) Develop leadership development programs and skill development strategies to prepare the next generation of employees to smoothly replace retiring personnel.</p>	

■ **Governance Dimension**

Risk	Sustainability Opportunities
Non-compliance with regulations, the code of conduct, and anti-corruption policies.	Provides an opportunity for the company to enhance transparent, complete, accurate, and reliable disclosure that is fair, compliant with laws, and verifiable.
Non-compliance with the sustainability standards of the SEC.	Opportunity to develop sustainability-related initiatives to align the organization with other listed companies.

**Management Approach:**

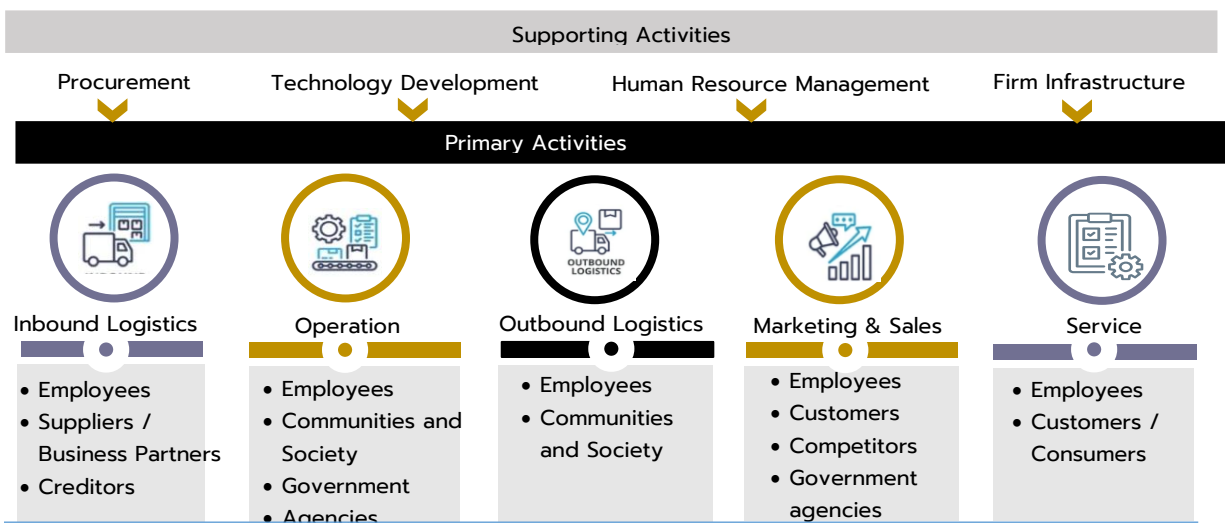
1. Provide regular training, communication, and awareness programs on compliance with regulations, the code of conduct, and the anti-corruption policy.
2. Establish a sustainability development team to drive and implement activities in alignment with the sustainability standards set by the SEC.

**Step 2: Stakeholder Engagement Analysis**

The Company seeks to understand the expectations of both internal and external stakeholders in order to analyze sustainability issues (environmental, social, governance, and economic aspects) and to support the organization’s sustainable growth. The stakeholder analysis is conducted through the following steps:

**2.1 Identification of Stakeholders in the Business Value Chain**

Stakeholders are identified by considering those involved in each activity throughout the Company’s value chain who play a role in the business, both directly and indirectly, as illustrated in Figure 3.



**Figure 3:** Stakeholders in Each Primary Activity of the Value Chain

**2.2 Stakeholder Analysis Results**

The Company has identified communication channels, stakeholder expectations, and responses to those expectations. Stakeholders were analyzed across the business value chain by considering both their impact on the Company’s operations and the impacts they may receive from the Company’s business activities. The results of this analysis are presented in Table 3.

**Table 3: Stakeholder Expectations**

Stakeholders	Communication channels	Stakeholder expectations	Response to expectations
Shareholders	<ul style="list-style-type: none"> <li>• Annual Report</li> <li>• Shareholders' Meeting</li> <li>• News and announcements via the Stock Exchange of Thailand (SET)</li> <li>• Opportunity Day</li> <li>• Website / E-mail</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to generate continuously growing business performance</li> <li>• Fair and equal treatment of all shareholders</li> <li>• Timely, accurate, and complete disclosure of information, with transparent and accountable business operations</li> <li>• Strong corporate governance and effective risk management</li> </ul>	<ul style="list-style-type: none"> <li>• Establish a clear and appropriate dividend policy</li> <li>• Ensure good corporate governance and adhere to business ethics</li> <li>• Develop communication channels with shareholders and investors, and disclose information accurately, completely, and transparently</li> <li>• Implement systematic, careful, and effective risk management</li> </ul>
Customers & consumers	<ul style="list-style-type: none"> <li>• Telephone / E-mail / Direct meetings or visits</li> <li>• Satisfaction surveys</li> <li>• Whistleblowing or complaint channels <i>(For consumers, communication is conducted through customers.)</i></li> </ul>	<ul style="list-style-type: none"> <li>• Receive products that are of high quality and meet food safety standards.</li> <li>• Receive prompt responses to requests and quick resolution of issues.</li> <li>• Products are delivered according to requirements and on time.</li> <li>• Customer's important information is kept confidential and not disclosed without consent.</li> <li>• New or improved products are developed and offered to meet customer needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Control the production process according to defined standards and conduct quality inspections before delivery.</li> <li>• Use an electronic system to collect and manage problem-solving information to enable prompt responses.</li> <li>• Clearly define storage and delivery procedures and use electronic systems to ensure speed and accuracy.</li> <li>• Store customer information in an electronic system and restrict access to protect confidentiality.</li> <li>• Monitor new product trends and gather customer feedback to support product development.</li> </ul>
Employees	<ul style="list-style-type: none"> <li>• Company meetings</li> <li>• Communication via email and internal announcements</li> <li>• Employee engagement activities</li> </ul>	<ul style="list-style-type: none"> <li>• Fair and appropriate compensation and benefits</li> <li>• Job security, career growth, and advancement opportunities</li> <li>• Equal treatment of all employees and respect for human rights</li> </ul>	<ul style="list-style-type: none"> <li>• Provide fair employment, compensation, and benefits in compliance with legal requirements and additional company welfare programs.</li> </ul>

	<ul style="list-style-type: none"> <li>• Employee participation surveys</li> <li>• Communication through supervisors / suggestion box</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities to participate in meetings, training, seminars, and express opinions</li> <li>• A safe and healthy working environment</li> </ul>	<ul style="list-style-type: none"> <li>• Establish clear career paths with promotion based on capability, including job rotation to enhance employees' skills and readiness.</li> <li>• Ensure equal and fair treatment of all employees, with proper care and without discrimination.</li> <li>• Provide training programs aligned with job responsibilities and business operations, keeping pace with changes, and organize activities that encourage employee participation.</li> <li>• Maintain a safe and suitable working environment in accordance with safety standards, while promoting employee health and wellness activities to reduce risks from workplace accidents and occupational diseases.</li> </ul>
Local community and social	<ul style="list-style-type: none"> <li>• Participation in community network activities</li> <li>• Social media / Email</li> <li>• Whistleblowing or complaint channels</li> </ul>	<ol style="list-style-type: none"> <li>(1) Conduct business responsibly without causing disturbance or negative impacts to the community.</li> <li>(2) Receive information about the company's activities to ensure they do not affect the community.</li> </ol>	<ol style="list-style-type: none"> <li>(1) Establish a Corporate Social Responsibility (CSR) policy and ensure strict compliance.</li> <li>(2) Organize activities to build positive relationships with communities and society.</li> <li>(3) Conduct business in accordance with the environmental policy, which is regularly reviewed for appropriateness.</li> </ol>
Partners	<ul style="list-style-type: none"> <li>• Communication via telephone and email</li> <li>• Regular meetings with business partners</li> <li>• Whistleblowing or complaint channels</li> </ul>	<ol style="list-style-type: none"> <li>(1) Fair and non-discriminatory procurement practices</li> <li>(2) An efficient, fair, transparent, and professional procurement system</li> <li>(3) Long-term and sustainable business partnerships</li> </ol>	<ol style="list-style-type: none"> <li>(1) Establish clear and fair procurement policies and procedures for all parties.</li> <li>(2) Listen to feedback and cooperate on operational approaches.</li> <li>(3) Maintain good relationships to ensure smooth business operations.</li> </ol>

Competitors	<ul style="list-style-type: none"> <li>• Feedback and suggestions via website / email</li> <li>• Whistleblowing channel for reporting concerns or complaints</li> </ul>	<p>(1) Fair and transparent business competition without taking advantage of others.</p>	<p>(1) Promote fair and free competition without monopoly.</p> <p>(2) Disclose business information on the company website and the Stock Exchange of Thailand website.</p>
Creditor	<ul style="list-style-type: none"> <li>• Annual Report</li> <li>• Suggestions or complaints</li> <li>• Whistleblowing channel for reporting concerns or complaints</li> </ul>	<p>(1) Transparent management</p> <p>(2) Debt repayment according to agreed terms within the specified timeframe</p>	<p>(1) Conduct business transparently and in accordance with good corporate governance, ensuring accountability.</p> <p>(2) Comply with contractual obligations in line with applicable laws and regulations.</p>
Regulatory agencies	<ul style="list-style-type: none"> <li>• Meetings and coordination with government agencies</li> <li>• Participation in meetings, seminars, and activities organized by government agencies</li> </ul>	<p>(1) Compliance with laws, regulations, and policies of regulatory authorities</p> <p>(2) Continuous participation in activities and programs organized by government agencies</p>	<p>(1) Conduct business transparently, fairly, and in compliance with the law</p> <p>(2) Provide transparent, complete, and verifiable information disclosure</p> <p>(3) Cooperate in Corporate Social Responsibility (CSR) initiatives</p>

### Step 3: Define and Prioritize Sustainability Materiality Issues

The Company has compiled and selected sustainability issues from internal processes together with external sources related to the packaging, food, and beverage industries. This also includes ESG assessment frameworks from the Securities and Exchange Commission of Thailand and the Stock Exchange of Thailand.

These issues were reviewed to ensure alignment with the Company’s business context and operations, and were then defined as the Company’s key sustainability issues, as shown in Figure 4.

Environmental Dimension	Social Dimension	Governance and Economic Dimension
<b>E1:</b> Climate Change Strategy <b>E2:</b> Electricity & Resource Consumption <b>E3:</b> Waste and Pollution Management <b>E4:</b> Product Responsibility	<b>S1:</b> Respect for Human Rights and Fair Labor Practices <b>S2:</b> Employee Capability Development <b>S3:</b> Employee Motivation and Retention <b>S4:</b> Occupational Health and Workplace Safety <b>S5:</b> Stakeholder Engagement	<b>G1:</b> Code of Conduct & Anti-Corruption <b>G2:</b> Risk and Crisis Management <b>G3:</b> Customer Relationship Management <b>G4:</b> Tax Strategy <b>G5:</b> Social and Environmental Business Innovation

**Note:** The analysis of sustainability material topics in subsequent years can be conducted according to the details shown in the “Material Sustainability Topics Analysis Table” for each issue, as illustrated in Appendix B.

#### Figure 4: Key Sustainability Topics of the Organization

After identifying the organization’s sustainability topics, these issues were assessed for their positive and/or negative impacts across the environmental, social, governance, and economic dimensions.

Such impacts were evaluated in terms of their implications for the organization’s business, through the company’s internal risk assessment methodology, as well as their relevance to stakeholders. The results are presented in Table 4.

Subsequently, the issues were prioritized, as shown in Table 5 and Figure 5.

**Table 4: Analysis of ESG Impacts on the Organization’s Stakeholders**

ESG topics	Impact on Stakeholders								Total (1–8)
	Shareholders	Customers	Employees	Communities	Suppliers	Competitors	Creditors	Regulatory Authorities	
E1	○	○	○	○	○			○	6
E2		○	○	○	○			○	5
E3			○	○				○	3
E4		○	○	○					3
S1	○	○	○	○	○	○	○	○	8
S2	○	○	○		○				4
S3			○						1
S4	○	○	○	○				○	5
S5	○		○	○				○	4
G1	○	○	○	○	○	○	○	○	8
G2	○	○	○	○	○	○	○	○	8
G3		○	○			○	○		4
G4			○				○	○	3
G5		○	○		○			○	4

**Table 5: Prioritization of Business Sustainability Material Issues**

Sustainability topics	Impact on			Priority Ranking
	Business (1–25)	Stakeholders (1–8)	Total Score	
E1: Climate Change Management	6	6	12	<b>3</b>
E2: Electricity & Resource Consumption	6	5	11	<b>4</b>
E3: Waste and Pollution Management	3	3	6	<b>8</b>
E4: Product Responsibility	9	3	12	<b>3</b>
S1: Respect for Human Rights and Fair Labor Practices	4	8	12	<b>3</b>
S2: Employee Capability Development	6	4	10	<b>5</b>
S3: Employee Engagement and Retention	6	1	7	<b>7</b>
S4: Health and Safety in the Working Environment	6	5	11	<b>4</b>
S5: Stakeholder Engagement	2	4	6	<b>8</b>
G1: Code of Conduct & Anti-Corruption	6	8	14	<b>1</b>
G2 Risk and Crisis Management	3	8	11	<b>4</b>
G3: Customer Relationship Management	9	4	13	<b>2</b>
G4: Tax Strategy	6	3	9	<b>6</b>
G5: Social and Environmental Business Innovation	6	4	10	<b>5</b>

**Note:**

- (1) The assessment of ESG impacts on the Company’s business is referenced in Appendix A.
- (2) In cases where sustainability topics have the same total score, the topic with the higher business impact will be given higher priority.

(3) In cases where sustainability topics have the same business impact score and stakeholder impact score, they will be assigned the same priority ranking, and the subsequent ranking will be skipped.



**Figure 5:** Prioritization of the Organization’s Material Sustainability Issues

**Step 4: Sustainability Materiality Validation**

The identified and prioritized material sustainability topics are reviewed by the Sustainability Development Committee, consisting of at least five members, to ensure their completeness and relevance. The Chairperson of the Sustainability Working Committee signs to confirm the review, and the Chairperson of the Sustainability Development Committee provides final approval. This process ensures that the topics are accurate, reliable, and aligned with the Company's sustainability strategy, risk management, and public sustainability reporting. The validation results are documented and attached as an appendix to this report.

**Step 5: Sustainability Management**

After approval, responsible working groups develop action plans, management approaches, and targets for each material topic. The Company manages these topics using the PDCA approach (Plan–Do–Check–Act), including implementation, performance monitoring, and continuous improvement. Progress is reported quarterly with reference to the annually updated ESG Action Plan.

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## Results of the Validation of Material Sustainability Topics

**Company Name:** Crown Seal Public Company Limited

Validation Date: 11 February 2026

Validation Method: A meeting of the Sustainability Development Committee was held to validate the results, attended by nine members as follows:

1	Mrs. Jiraporn	Nuthong	President
2	Mr. Motokatsu	Yamada	Senior Vice President -Technical
3	Mr. Jittapon	Sittisak	Vice President – Finance and Accounting
4	Mr. Ariya	Dhananukulkit	Vice President-Sales
5	Mr. Buncha	Triyapunjavit	Vice President-Quality Assurance
6	Mr. Charin	Vanichvatanyoo	Vice President – Technical
7	Mr. Wanchalerm	Thayansil	Deputy Vice President – Plant
8	Ms. Ratree	Chanthum	Company Secretary Office Manager
9	Ms.Charuwan	Panyasiri	Sustainability Development Section Head

(Report Preparer)

### 1. Objective

To validate the accuracy, completeness, and alignment of the sustainability topics identified and prioritized by the organization, considering their linkage with the corporate strategy, stakeholder perspectives, and impacts on the economic, social, and environmental dimensions.



### 2. รายการประเด็นความยั่งยืนที่ผ่านการประเมินเบื้องต้น

No.	Sustainability Topics	(E/S/G)	Reason for Materiality	Source of Information	Committee's Comments
E1	Climate Change Management	E	The Company's business operations may contribute to greenhouse gas emissions.	<ul style="list-style-type: none"> <li>• CFO Assessment Data</li> <li>• Greenhouse Gas (GHG) Emission Reduction Activities</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
E2	Electricity & Resource Consumption	E	Reduce the impact of resource scarcity / Reduce waste generated from resource consumption	<ul style="list-style-type: none"> <li>• Water consumption data</li> <li>• Paper consumption data</li> <li>• Electricity consumption data</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
E3	Waste and pollution management	E	The Company's activities result in the generation of waste and environmental pollution.	<ul style="list-style-type: none"> <li>• Waste volume data</li> <li>• Pollution monitoring results</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
E4	Product Responsibility	E	Defective products from the production process and product safety in usage may impact the environment and society as a whole.	<ul style="list-style-type: none"> <li>• Quantity of defective products</li> <li>• Number of defective products resulting from product safety issues</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved

S1	Respect for Human Rights and Fair Labor Practices	S	Compliance with labor laws and international standards requires proper oversight and control.	<ul style="list-style-type: none"> <li>Number of complaints related to labor laws and human rights</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
S2	Employee Capability Development	S	Enhancing employees' knowledge and capabilities helps improve work efficiency.	<ul style="list-style-type: none"> <li>Training Plan</li> <li>Training Records</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
S3	Employee Engagement and Retention	S	Providing activities that foster positive attitudes toward the organization helps strengthen employees' loyalty and engagement.	<ul style="list-style-type: none"> <li>Details of activities to motivate and retain employees</li> <li>Employee turnover statistics report</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
S4	Health and Safety in the work environment	S	Ensuring employees' health and safety supports smooth operations without disruption.	<ul style="list-style-type: none"> <li>Number of workplace accidents and occupational illness reports</li> <li>Annual health check-up reports</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
S5	Stakeholder Engagement	S	Community participation in the organization's activities helps build strong partnerships and better understand community needs.	<ul style="list-style-type: none"> <li>Details of community participation activities</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
G1	Code of Conduct & Anti-Corruption	G	Contents of the Company's Code of Conduct	<ul style="list-style-type: none"> <li>List of Employees Acknowledging the Company's Code of Conduct</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
G2	Risk and Crisis Management	G	Reduce risks and ensure business continuity.	<ul style="list-style-type: none"> <li>Risk assessment and management records</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
G3	Customer Relationship Management	G	Customer satisfaction encourages repeat purchases and generates revenue for the organization, which is an essential part of sustainable business growth.	<ul style="list-style-type: none"> <li>Customer satisfaction and expectation assessment results</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
G4	Tax Strategy	G	The organization must ensure transparency in tax payments in compliance with legal requirements.	<ul style="list-style-type: none"> <li>Records of complete and timely tax payments (in the tax filing system).</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved
G5	Social / Environmental Business Innovation	G	Innovation creates differentiation and enables the business to remain competitive.	<ul style="list-style-type: none"> <li>Details of product or process innovations developed by the organization.</li> </ul>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved

Additional Remarks: .....

### 3. Approval and Signature

Position	Name	Signature	Date
Head of the SD Working Committee (2025)	Mr. Charin Vanichvatanyoo		11 / 02 / 2569
Chairman of the SD Committee	Mrs. Jiraporn Nuthong		11 / 02 / 2569

## Appendix A

**Table: Results of Risk Assessment Related to Material Sustainability Issues**

<Referenced from the Company's Risk Assessment System on the Intranet>

Risk Event	Risk Level		Sustainability Issue
	Inherent	Residual	
Climate Change and Greenhouse Gas Emissions	12	6	E1: Climate Change Strategy
Retirement of Key Employees	10	6	S2: Employee Capability Development
Energy and resource consumption in operational activities	8	6	E2: Electricity & Resource Consumption
Labor union conflicts, legal and compliance risks, and employee dissatisfaction	8	3	G2: Risk and Crisis Management
Non-compliance with the SET ESG standards	8	4	<b>(Overall, for all items)</b>
Air pollution, water pollution, and solid waste generation	8	3	E3: Waste and pollution management
Shortage of internal personnel, lack of knowledge, and resignation of successors for key positions.	6	6	S3: Employee Engagement and Retention S2: Employee Capability Development
Non-compliance with regulations, codes of conduct, and anti-corruption policies.	6	6	G1: Code of Conduct & Anti-Corruption
The Company's activities may have environmental impacts on surrounding communities.	6	2	S5: Stakeholder Engagement
Human rights violations	4	4	S1: Respect for Human Rights and Fair Labor Practices
Potential environmental tax imposed on companies that do not adequately consider environmental impacts.	3	2	Risk Category: Emerging Risk
Environmental complaints raised by communities or government authorities	3	2	(Aligned with S5)
Product Quality Management	9	9	E4: Product Responsibility G3: Customer Relationship Management
Business Continuity and Emergency Management Risk	15	6	S4: Health and Safety in the Work Environment
Risk of Non-Compliance with Applicable Laws and Regulations	20	6	G4: Tax Strategy
Risk of Delays in the Product Development Process	8	6	G5: Social / Environmental Business Innovation


**Note:** The risk assessments for E4, G3, S4, G4, and G5 were derived from the risk evaluations of related departments/functions with similar contexts and were not conducted as direct ESG risk assessments. Therefore, in the following year, ESG impacts should be assessed separately to ensure more accurate and specific evaluation.

## Appendix B

### Example of a Material Sustainability Issues Analysis Table

*(Linked to Value, Stakeholders, Risks, Impacts, and Impact Levels from the Risk Assessment)*

※ This form is used as a guideline for recording evidence of the analysis. In actual practice, the format and content may be adjusted according to the situation and the information available at that time.

<b>E1: Climate Change Strategy</b>	
Key Stakeholders	<ul style="list-style-type: none"> <li>▪ Shareholders</li> <li>▪ Partners</li> <li>▪ Creditor</li> <li>▪ Customers</li> <li>▪ Government sector</li> <li>▪ Local Community and Social</li> <li>▪ Employees</li> </ul>
Level of Environmental and Social Impact	<div style="display: inline-block; background-color: red; color: white; padding: 5px 10px;">12</div> <span style="font-size: 2em; color: blue; margin: 0 5px;">→</span> <div style="display: inline-block; background-color: yellow; color: black; padding: 5px 10px;">6</div>
Level of Impact on the Company	
Root Cause of Impact	Relevant Value Chain Activities <ul style="list-style-type: none"> <li>▪ Internal Operations</li> <li>▪ Products and Services</li> <li>▪ Supply Chain</li> </ul>
Impacts and Categories of Impact	<ul style="list-style-type: none"> <li>▪ Operational Efficiency</li> <li>▪ Reduction in Greenhouse Gas Emissions</li> <li>▪ Climate Change</li> <li>▪ Revenue Loss</li> <li>▪ Increase in Operating Costs</li> </ul>
Expected Timeframe of Impact	<ul style="list-style-type: none"> <li>▪ Short-term</li> <li>▪ Long-term</li> </ul>
SDGs Alignment	
Relevant Risk Factors	Risk Factors Related to the Achievement of Strategic Objectives <ul style="list-style-type: none"> <li>• Risk Factors Related to Greenhouse Gas Emissions</li> <li>• Risk Factors Related to Electricity Consumption</li> <li>• Emerging Risk Factors</li> </ul>
Strategy and Management Approach (Business Strategy)	The Company has established an energy conservation policy to encourage participation from all employees, recognizing it as part of their responsibilities in daily operations. The Company implements and continuously develops an appropriate energy management system while improving the efficiency of energy resource utilization across the organization.
Implementation Approach (Outline)	<ol style="list-style-type: none"> <li>(1) Energy conservation practices</li> <li>(2) Installation of solar rooftop systems within the organization</li> <li>(3) Utilization of land by planting trees on 50 rai in collaboration with government agencies and representatives of nearby communities to support GHG sequestration</li> <li>(4) Support for the use of green energy promoted by the government</li> </ol>

Short-term Target	The baseline year for greenhouse gas (GHG) emissions has been established. <ul style="list-style-type: none"> <li>• Solar Phase 1: Reduction of Scope 2 GHG emissions by 274 tCO<sub>2</sub>e per year</li> <li>• Solar Phase 2: Reduction of Scope 2 GHG emissions by 191 tCO<sub>2</sub>e per year</li> </ul>
Target Year	2025
Long Term Target	Carbon Neutral or Net Zero Emission (in CFO assessment)
Target Year	2050
Project Owner	Mr. Pairin, Mr. Manop, and Mr. Warunyu
Implementation Progress	Scope 2 greenhouse gas (GHG) emissions in 2024 were 9,910 tCO <sub>2</sub> e, compared to 11,150 tCO <sub>2</sub> e in 2022, representing a reduction of 1,240 tCO <sub>2</sub> e (11.12%). This decrease was mainly due to the installation of a solar rooftop system and reduced production capacity. In 2024, production was 10,690 million caps, compared to 12,626 million caps in 2022.

## Appendix C

### Example of Material Sustainability Issue Management

#### Issue E1: Climate Change Strategy

Crown Seal Public Company Limited has conducted an organizational carbon footprint (CFO) assessment, with the activity results detailed as follows:

<b>Objective</b>	To control and manage greenhouse gas (GHG) emissions generated from the Company's operational activities.			
<b>Action Plan</b>	Reduction in electricity consumption through energy conservation projects and reduction of fuel use from vehicles.	Removal: Carbon dioxide sequestration through tree planting.	Offset: Compensating for emissions that cannot be reduced through carbon credit offsets.	
<b>KPI</b>	Greenhouse Gas (GHG) Emissions from the Organizational Carbon Footprint Assessment			
<b>Data Collection Period:</b>	1 January 2024 – 31 December 2024 ( <i>Assessment Year: 2025</i> )			
<b>Results</b>	GHG Emissions (tCO <sub>2</sub> e)		Increase or Decrease in GHG Emissions	
	2022	2024	Amount (TonCO <sub>2</sub> e)	Percentage (%)
<b>Scope 1</b>	13,752	13,614	138	$(138/13752) * 100 = 1.00$
<b>Scope 2</b>	11,150	9,910	1240	$(1240/11150) * 100 = 11.12$
<b>Scope 3</b>	57,126	77,216	Different calculation methodology; data are not comparable	
<b>Scope 1+2</b>	24,902	23,524	1378	$(1378/24902) * 100 = 5.53$
<b>Scope 1+2+3</b>	82,028	100,740	Different calculation methodology; data are not comparable	
<b>Production Volume (M pcs)</b>	12,625.8	10,690.69	<b>Note:</b>	
<b>Carbon intensity (Scope 1 + 2)</b>	$(24,902/12,625.8) = 1.97$ TonCO <sub>2</sub> eq/(M pcs)	$(23,524/10,690.69) = 2.20$ TonCO <sub>2</sub> eq/(M pcs)	(1) As of 2025 (B.E. 2568), the public disclosure of GHG emissions for Scope 1 and Scope 2 is mandatory, while Scope 3 disclosure is voluntary and may be reported at the Company's discretion. (2) Carbon Intensity represents GHG emissions relative to the production volume to reflect the actual operational efficiency. This indicator may be used internally without the requirement for public disclosure.	

