

# **BCG Model Policy and Guidelines**

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## Introduction

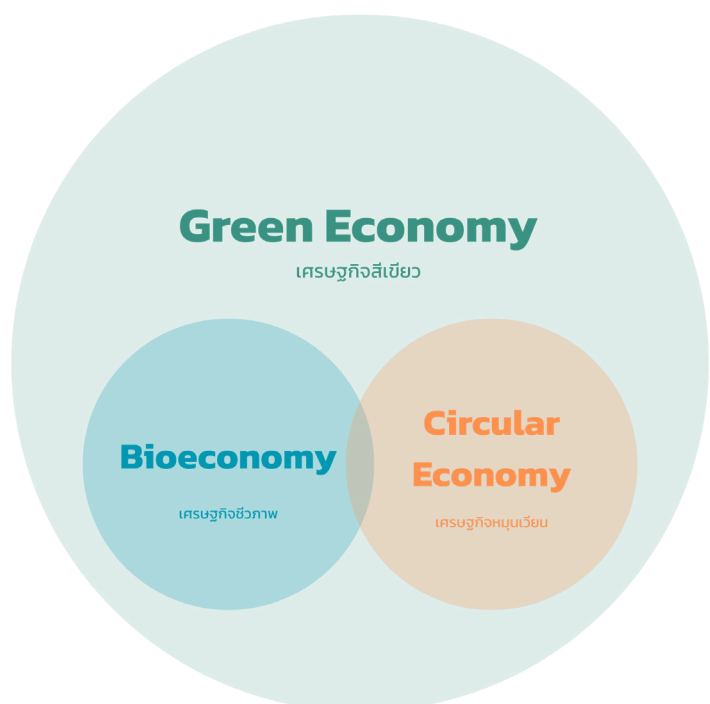
NSL Foods Public Company Limited recognizes the significance of the **BCG (Bio Economy, Circular Economy, Green Economy) model**, an integrated economic development framework that emphasizes simultaneous progress across three key economic areas.

- **Bio Economy** : Focuses on generating added value from biological resources.
- **Circular Economy** : Prioritizes maximizing resource efficiency and extending their lifecycle.
- **Green Economy** : Aims to develop the economy while ensuring the sustainability of resources and the environment.

The BCG model serves as a vital mechanism for driving sustainable development and has been designated a national agenda for Thailand. It aims to improve quality of life, enhance competitiveness, and reduce environmental impacts in tangible ways. Furthermore, the BCG approach plays a critical role in achieving the Sustainable Development Goals (SDGs) set by the United Nations.

In response, the company has developed policies and practical guidelines to integrate the BCG concept into all dimensions of its operations, including management, production, innovation development, environmental care, community engagement, and market advancement at both the domestic and international levels.

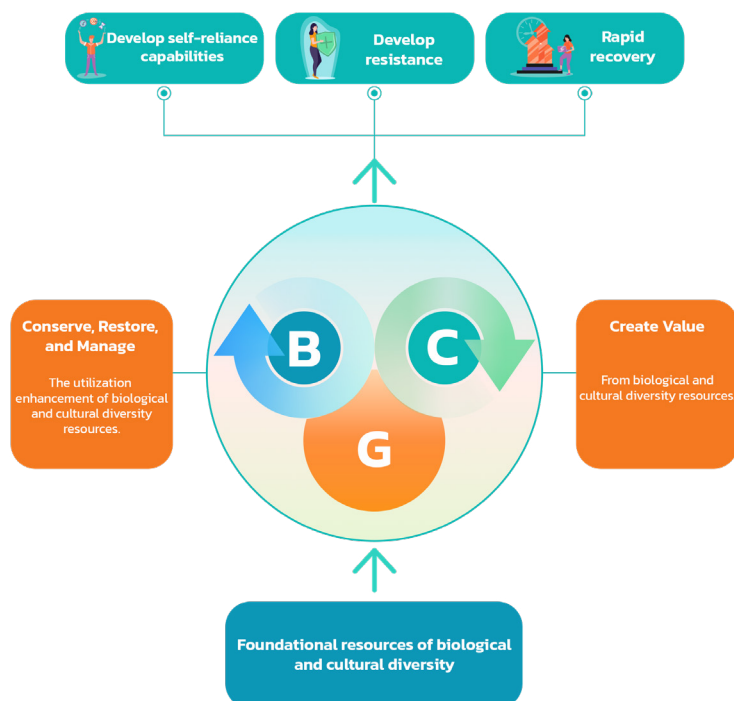
This initiative supports the 20-Year National Strategy and Thailand's aspiration to become the Bioeconomy Hub of Southeast Asia. It is also aligned with the National BCG Master Plan (2021–2030), which serves as a strategic foundation for steering the country toward security, prosperity, and sustainability. Moreover, the company is committed to conducting its business responsibly with respect to environmental, social, and governance (ESG) principles.





NSL has established ESG as a core operational framework alongside the BCG model, striving to achieve a balance between economic performance, social responsibility, and environmental conservation. The company places particular emphasis on addressing critical issues throughout the value chain from upstream to midstream to downstream.

Moreover, NSL actively engages in comprehensive communication and stakeholder consultation, involving employees, customers, partners, communities, and shareholders. This ensures that the company operates transparently, sustainably, and responsibly in all aspects.



## 1. Organizational Management with BCG Integration

The company has a policy to integrate the BCG concept into its management processes at all levels, from strategic planning, production, procurement, and marketing to human resource management. Key focus areas include:

- Sourcing raw materials from sustainable sources (Sustainable Sourcing).
- Promoting the use of high-value biological resources.
- Minimizing waste and maximizing resource efficiency through Circular Economy practices.
- Enhancing transportation systems to reduce carbon emissions.
- Promoting environmental awareness and responsible consumption within the organization.

These approaches align with the United Nations Sustainable Development Goals (SDGs):

- SDG 9: Industry, Innovation, and Infrastructure.
- SDG 12: Responsible Consumption and Production.
- SDG 13: Climate Action.

## 2. Policy Implementation Guidelines

The Board of Directors is responsible for establishing the company's policies, goals, and directions in alignment with Thailand's BCG strategy. These policies are reviewed annually to ensure relevance and effectiveness.

- Developing mechanisms for ESG Risk Assessment in accordance with international standards.
- Exploring opportunities for collaboration with government agencies and academic institutions, such as:
  - The Office of the National Economic and Social Development Council.
  - The National Innovation Agency (NIA).
  - The Ministry of Industry.
  - University.

These efforts align with the United Nations Sustainable Development Goals (SDGs):

- SDG 16: Peace, Justice, and Strong Institutions.
- SDG 17: Partnerships for the Goals.

### 3. Continuous Performance Measurement and Evaluation

The company has established a system for continuous monitoring and evaluation of its BCG-related initiatives, using comprehensive Key Performance Indicators (KPIs) that cover economic, social, and environmental dimensions. Key KPIs include:

- Reduction in greenhouse gas emissions (GHG Emission Reduction).
- • Reduction in food waste from production lines (Food Waste Reduction).
- Proportion of products certified with environmental standards (e.g., Green Label, Eco Product).
- Increased awareness among employees and partners regarding the BCG concept.
- Number of ESG–BCG initiatives at individual, departmental, and organizational levels.

These efforts contribute concretely to the following United Nations Sustainable Development Goals (SDGs):

- SDG 12: Responsible Consumption and Production.
- SDG 13: Climate Action.

### 4. Strategies to Enhance Competitive Advantage

The company is committed to developing products and operational processes aligned with the BCG concept to enhance sustainable competitiveness. Key strategies include:

- Developing products with health, safety, and environmental benefits to meet the needs of modern consumers.
- Elevating production standards to become a Green Factory by adopting renewable energy, reducing water usage, and managing waste according to Circular Economy principles.
- Applying digital technologies such as Artificial Intelligence (AI) and the Internet of Things (IoT) to improve production efficiency, reduce losses, and enhance organizational competitiveness.
- Enhancing employee skills at all levels to ensure a tangible understanding and implementation of the BCG economic principles.

These strategies align with the United Nations Sustainable Development Goals (SDGs):

- SDG 8: Decent Work and Economic Growth.
- SDG 9: Industry, Innovation, and Infrastructure.



## 5. Strategies for Introducing BCG to Markets and Promoting Consumers Both Domestically and Internationally

The company promotes the adoption of the BCG Economy concept in markets and among consumers both in Thailand and abroad through the following key strategies:

- Promoting products that communicate the value of the BCG concept to consumers via certifications or labels, such as Low Carbon Labels, Bio-based Labels, Sustainable Packaging Labels, or equivalent certifications.
- Building a brand image centered on being "Green, Healthy, and Responsible" to meet the demands of international markets.
- Leveraging marketing channels that encourage consumer participation, such as recycling activities, food surplus donation programs, and campaigns that promote responsible consumption behaviors.

These strategies align with the United Nations Sustainable Development Goals (SDGs):

- SDG 3: Good Health and Well-being
- SDG 12: Responsible Consumption and Production.

## 6. Strategies for Developing BCG-Aligned Product Innovations

The company actively promotes continuous innovation and research aligned with the BCG Economy concept to enhance competitiveness and achieve long-term sustainability. Key strategies include:

- Establishing a Center of Excellence (CoE) within the organization to integrate the BCG Economy concept into research and development operations.
- Developing alternative food products, such as plant-based proteins, fermented proteins, and high-potential local ingredients.
- Exploring and pursuing opportunities to secure research and development funding from government agencies, such as the National Innovation Agency (NIA), the National Science and Technology Development Agency (NSTDA), and the National Research Council of Thailand (NRCT), to strengthen the organization's R&D capabilities.
- Collaborating with universities and research institutions to co-develop knowledge, transfer technology, and accelerate the commercialization of innovations.

These strategies align with the United Nations Sustainable Development Goals (SDGs):

- SDG 9: Industry, Innovation, and Infrastructure.
- SDG 12: Responsible Consumption and Production.

## 7. Strategies for Promoting BCG in Communities and Across the Company's Value Chain

The company actively promotes the integration of the BCG concept into community operations and the entire value chain to ensure comprehensive, sustainable, and inclusive development.

Key strategies include:

- Exploring collaborations with farmers to source environmentally friendly raw materials, such as organic farming practices, which reduce environmental impacts and enhance resource efficiency.
- Encouraging employment and livelihood creation in communities by supporting the use of local resources and indigenous knowledge, thereby adding value to products and improving the quality of life for local populations.
- Advocating for the use of biodegradable packaging and developing post-consumption waste management systems to promote resource circulation and sustainable waste reduction.
- Engaging business partners across the supply chain to adopt BCG practices by implementing processes for auditing and supporting the integration of the BCG Economy throughout production and distribution activities.

These strategies represent a critical approach to achieving sustainable business operations at NSL while conserving natural resources, enhancing community well-being, and driving innovation for the future.

Furthermore, these efforts align with Thailand's vision of becoming a "Developed Country Driven by the BCG Economy" by 2030 and contribute to achieving all 17 Sustainable Development Goals (SDGs) in measurable and tangible ways.

