



BJC



# BIODIVERSITY REPORT 2025

BERLI JUCKER PUBLIC COMPANY LIMITED

Berli Jucker Public Company Limited and the Group of Companies (BJC) place importance on environmental stewardship and non-impacting of nature, as well as giving importance to ecosystems on humans and business operations. At the same time, it is committed to helping preserve and restore biodiversity in order to create a positive impact.

In 2025, BJC enhanced its biodiversity management policy to provide clearer guidance for its subsidiaries, employees, suppliers, and partners. The updated policy emphasizes actions aligned with the No Gross Deforestation approach, aiming to prevent adverse impacts on biodiversity and ecosystems. It also reflects the company's commitment to contributing to ecosystem restoration and long-term environmental stewardship.

BJC manages biodiversity in alignment with the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD). In 2025, the Company enhanced its biodiversity assessment approach by adopting the WWF Biodiversity Risk Filter (WWF BRF) to evaluate biodiversity-related dependencies, impacts, environmental conditions, and reputational risks across its operations. Assessment results are used to support risk analysis, identify priority areas, and develop appropriate management measures in line with BJC's commitments to No Net Loss and Net Positive Impact by 2030.

## **CORPORATE BIODIVERSITY MANAGEMENT**

### **1. Governance**

The Board of Directors has assigned the Sustainable Development Committee (SDC) to oversee BJC's biodiversity-related initiatives, including conservation, restoration, and the enhancement of ecosystem abundance. The Risk Management Committee is responsible for identifying and assessing biodiversity-related risks and opportunities, ensuring that appropriate risk mitigation measures are implemented to maintain risks at an acceptable level for the organization.

In parallel, the Management Board is responsible for setting climate-related goals and work plans, as well as managing the Group's operations to ensure the achievement of these targets.

BJC has established a comprehensive set of policies covering environmental protection, biodiversity conservation, and deforestation prevention. These policies are designed to guide business operations in a way that minimizes negative impacts on ecosystems and biodiversity, supporting the company's sustainability goals and targets.

To support effective implementation, a Sustainable Development Subcommittee (SDS), comprising senior executives from each business group, has been established. The SDS is tasked with supporting, monitoring, and evaluating biodiversity-related activities across business units to ensure alignment with corporate strategies and overarching sustainability objectives.

All biodiversity-related matters are regularly reviewed and reported to the Board of Directors by the respective committees to ensure continued focus, accountability, and strategic oversight.



## 2.Strategy

BJC has established a biodiversity strategy aligned with the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) and its LEAP approach (Locate, Evaluate, Assess, and Prepare). In 2025, the Company enhanced its biodiversity assessment process by adopting the WWF Biodiversity Risk Filter (WWF BRF) to identify biodiversity-related dependencies, impacts, and priority areas across its operations. These assessments support BJC's commitments to achieving No Net Loss and Net Positive Impact by 2030.

To support these commitments, BJC has established the following strategic actions:

- 1) Avoid business activities that may adversely affect biodiversity throughout the value chain, including avoiding operations in or near nationally and globally important biodiversity areas.
- 2) Reduce biodiversity-related dependencies, risks, and impacts across operations and supply chains through risk assessment and mitigation measures.
- 3) Protect biodiversity and ecosystem services to prevent biodiversity loss and maintain ecosystem resilience.
- 4) Restore degraded ecosystems and contribute to nature-positive outcomes in accordance with the mitigation hierarchy principles.
- 5) Promote awareness, engagement, and capacity building on biodiversity stewardship among employees, suppliers, customers, communities, and other stakeholders.

## 3. Risk and Opportunity Management

BJC places importance on managing risks and opportunities related to biodiversity in accordance with LEAP (Locate, Evaluate, Assess, Prepare) principles as follows:

**Locate:** Identifying Operational Areas and Biodiversity Risk Prioritization

As of 2025, The majority of of BJC's operations are located in Thailand, comprising 10 manufacturing facilities, 153 hypermarkets, 36 Big C Market stores, 1,407 Mini Big C stores, 6 depot facilities, 6 Big C Food Service (BFS) facilities, 7 distribution centers, and 1 head office.

BJC reviewed the locations of its operational sites and confirmed that none are located within or adjacent to Ramsar-designated wetlands or Key Biodiversity Areas (KBAs). In 2025, the Company enhanced its biodiversity assessment process by applying the WWF Biodiversity Risk Filter (WWF BRF) to assess biodiversity-related dependencies, impacts, environmental conditions, and reputational factors associated with each site.

To support the Company's No Net Loss commitment, priority areas are identified based on:

- Geographic location and ecological context;
- Biodiversity-related dependencies and pressures;
- Nature and scale of operations
- Site-level biodiversity risk exposure derived from WWF BRF results.

Based on the assessment results, operational sites are classified into Very High, High, Medium, and Low biodiversity risk categories. Sites classified as Very High or High biodiversity-related risks are prioritized for further assessment, monitoring, and mitigation actions in accordance with the mitigation hierarchy.

**Evaluate: Assess the organization's dependence on ecosystem and the impact of the organization's business operations on biodiversity.**

BJC has conducted an assessment of its dependence on ecosystems and the impact of its business operations on biodiversity across three key business units that are closely linked to natural resource use. These include:

| Business Units                                      | Key Activities                         | Dependencies                                                                                                                                                                           | Impacts                                                                                                                                                                                                                             |
|-----------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Packaging (Glass bottles, Aluminum cans)</b>     | Melting, forming, packaging            | <ul style="list-style-type: none"> <li>• Water (cooling, cleaning)</li> <li>• Energy (electricity &amp; heat)</li> <li>• Natural raw materials (sand, aluminum ores)</li> </ul>        | <ul style="list-style-type: none"> <li>• Industrial waste (wastewater, dust)</li> <li>• High GHG emissions from heat processes</li> <li>• Raw material extraction affecting ecosystems</li> </ul>                                   |
| <b>Consumer Products (Soap, Shower cream, etc.)</b> | Formula mixing, filling                | <ul style="list-style-type: none"> <li>• Water (ingredient and equipment cleaning)</li> <li>• Plant-based ingredients (e.g. palm oil)</li> <li>• Biobased materials</li> </ul>         | <ul style="list-style-type: none"> <li>• Wastewater with chemical substances</li> <li>• Upstream deforestation risks from palm oil sourcing</li> </ul>                                                                              |
| <b>Food &amp; Snacks (Potato chips, etc.)</b>       | Processing, frying, packaging          | <ul style="list-style-type: none"> <li>• Water</li> <li>• Agricultural raw materials (potatoes, corn)</li> <li>• Vegetable oils, palm oil</li> </ul>                                   | <ul style="list-style-type: none"> <li>• Wastewater and food waste</li> <li>• Soil degradation upstream from monoculture farming</li> </ul>                                                                                         |
| <b>Paper Products (Tissue paper factory)</b>        | Pulping, drying, converting, packaging | <ul style="list-style-type: none"> <li>• Water (for pulping and processing)</li> <li>• Wood pulp (from trees or recycled sources)</li> <li>• Energy (electricity and steam)</li> </ul> | <ul style="list-style-type: none"> <li>• High water consumption and wastewater generation</li> <li>• Deforestation risks if using non-certified wood sources</li> <li>• GHG emissions from energy use and drying process</li> </ul> |
| <b>Retail (Hypermarket, Mini Big C, DC)</b>         | Selling, refrigeration, distribution   | <ul style="list-style-type: none"> <li>• Energy (electricity, refrigeration)</li> <li>• Water (cleaning)</li> <li>• Packaging from natural resources</li> </ul>                        | <ul style="list-style-type: none"> <li>• GHG emissions from cooling and logistics</li> <li>• Food and packaging waste</li> </ul>                                                                                                    |



- Packaging: such as glass bottle and aluminum can manufacturing plants
- Consumer: including snack factories, potato chip production facilities, soap manufacturing plants, and tissue paper production facilities
- Retail: covering nationwide retail operations

#### Assessment of Ecosystem Dependence and Biodiversity Impact by Business Unit

BJC has conducted an evaluation of the relationship between ecosystem dependence and biodiversity impact across its core business units, using the following definitions:

- Ecosystem Dependence: The degree to which business operations rely on natural systems and resources.
- Biodiversity Impact: The extent to which business activities may disrupt or harm ecosystems and biodiversity.

The assessment results are summarized in the table below:

| Business Units | Key Operations                                                       | Ecosystem Dependence | Biodiversity Impact | Dependence and Impact Level | Notes                                                                                                           |
|----------------|----------------------------------------------------------------------|----------------------|---------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------|
| Packaging      | Glass bottle plant, Aluminum can plant                               | High                 | Medium              | High                        | Depends on natural raw materials (e.g., sand, bauxite); potential impacts from energy consumption and emissions |
| Consumer       | Snack, potato chips, soap, tissue manufacturing                      | High                 | Medium              | High                        | Depends on agricultural products (e.g. palm oil, potatoes, pulp); wastewater management is a key concern        |
| Retail         | Hypermarkets, convenience stores, logistics and distribution centers | Low                  | Low                 | Low                         | Indirect impact through product sourcing and waste generation                                                   |

**Assess : Assess risks and opportunities related to biodiversity and appropriate risk management.**

Based on the ecosystem dependency and biodiversity impact assessment, BJC identified biodiversity-related risks and opportunities across its core business units. Assessment results from the WWF Biodiversity Risk Filter indicate that physical, Transition and reputational risks are generally moderate across the portfolio, with higher exposure associated with manufacturing and consumer businesses due to their reliance on natural resources and agricultural commodities.

| <b>Business Unit</b> | <b>Key Biodiversity-related Risks</b>                                                    | <b>Physical Risks</b>                                                                                              | <b>Transition &amp; Reputational Risks</b>                           | <b>Opportunities</b>                                                       |
|----------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------|
| <b>Packaging</b>     | Dependence on water and natural raw materials, emissions and waste generation            | Water availability, resource scarcity and ecosystem degradation                                                    | Biodiversity-related regulations and stakeholder expectations        | Reuse of cooling water, cullet recycling, eco-efficient furnaces           |
| <b>Consumer</b>      | Dependence on agricultural commodities and forest-based materials, wastewater generation | Agricultural productivity and water availability                                                                   | Sustainable sourcing requirements and changing consumer expectations | Sustainable sourcing, certified raw materials, resource efficiency         |
| <b>Retail</b>        | Food and packaging waste, indirect impacts through product sourcing                      | Limited direct physical risks, with indirect exposure through supply chain dependencies and resource availability. | Market expectations and biodiversity-related disclosures             | Circular economy initiatives, waste reduction programs and green logistics |

Overall assessment results indicate moderate physical, transition and reputational risks across BJC's portfolio, with no significant biodiversity-related risks identified. Higher exposure is primarily associated with manufacturing operations and upstream supply chains due to their dependence on natural resources and agricultural commodities.

BJC integrates biodiversity-related risks into its Enterprise Risk Management (ERM) framework and processes. Environmental conditions, ecosystem dependencies, and biodiversity-related factors are considered by each business unit as part of risk identification and assessment to support effective risk management and long-term business resilience.



## Scope of Biodiversity Risk Assessment

BJC has conducted assessments on biodiversity-related management and explore risks associated with factories and distribution centers, including our own operation, areas surrounding operations, adjacent areas to own operations, upstream, and downstream operations in order to use data to assess and analyze the organization's risks and opportunities.

The assessment of biodiversity-related risks and opportunities in 2025 can be summarized as follows:

### 1) Physical Risk

#### Water

BJC conducted a comprehensive water risk assessment using the Aqueduct Water Risk Atlas, developed by the World Resources Institute (WRI). This tool was utilized to identify and evaluate water-related physical risks across:

- All BJC operations in Thailand
- All Tier 1 supplier base
- All critical Tier 1 suppliers
- Agricultural raw material sources

#### Key Findings:

A significant proportion of the Group's value chain operates in areas with High to Extremely High-Water Stress:

- Own Operations: 74%
- Tier 1 supplier 87%
- Critical Tier 1 Suppliers: 98%

For agricultural raw materials, the proportion exposed to water stress is:

- Palm Oil: 9.7%
- Sugar: 13.8%
- Cacao: 0%
- Soy: 0%

\*Additional details on the water risk analysis are available on the company's official website.

BJC further incorporated water stress results into the broader nature-related risk assessment, combining them with levels of ecosystem dependence and biodiversity impact to determine overall risk exposure for each business unit, as summarized below:

| Business Unit | Dependence & Impact Level | Water Stress   | Overall Risk Level |
|---------------|---------------------------|----------------|--------------------|
| Packaging     | High                      | Extremely High | High               |
| Consumer      | High                      | Extremely High | High               |
| Retail        | Low                       | Extremely High | Medium             |

Risk Management:

#### Water Resource Management

BJC actively monitors water availability across all operations, particularly in areas prone to floods, droughts, or water scarcity. Key mitigation measures include:

- Establishing water reserves in high-risk areas
- Enhancing operational water efficiency by:
  - Reducing water consumption at source
  - Preventing and minimizing wastewater generation
  - Expanding the use of treated/recycled water (wastewater reuse)
- Conserving and protecting natural water systems such as rivers, canals, and groundwater sources

#### Agricultural Raw Materials

To mitigate upstream risks:

- BJC promotes supply diversification by sourcing from multiple suppliers and regions
- Regular monitoring of agricultural production volumes helps optimize inventory and reduce disruption
- The Group collaborates with farmers to promote sustainable agricultural practices, including:
  - Improved water use efficiency
  - Reduction of negative environmental impacts
  - Enhanced biodiversity protection throughout the supply chain

## **2) Transition Risk**

BJC systematically assesses transition risks associated with policy and regulatory changes, technological advancements, and evolving market dynamics. The assessment incorporates considerations such as asset lifespans and operational timelines to ensure alignment with changing external conditions. This comprehensive approach covers BJC's own operations as well as upstream and downstream activities, enabling proactive risk mitigation and enhancing the company's resilience in the transition toward a low-carbon economy.

#### New Laws

The proposed Climate Change Act, expected to come into effect in 2025, will introduce key regulatory mechanisms, including a carbon tax and the establishment of a national Emissions Trading System (ETS). These emerging frameworks are anticipated to have significant implications for BJC's operations, potentially increasing production costs, affecting capital investment decisions, and requiring deeper engagement with suppliers to ensure compliance across the value chain.

Risk Management:

In response, BJC has proactively assessed the potential financial and operational impacts of these policy changes and is integrating relevant insights into its risk management framework and long-term strategic planning to ensure continued competitiveness and regulatory readiness in a transitioning economy.

Although BJC's business units operate in full compliance with existing environmental laws and regulations, the Group remains committed to continuously enhancing its environmental practices. Therefore, in the event that new environmental legislation or regulations are introduced, BJC is well-prepared to adapt and expects minimal impact on its overall business operations.

#### Consumer demand

In recent years, consumers particularly Gen Z and Millennials have shown a growing awareness of nature conservation and ecosystem protection. As this demographic increasingly becomes the dominant purchasing power, there is a marked shift toward products and services that are environmentally responsible. These consumers are more likely to support organizations that demonstrate strong environmental stewardship.



#### Risk Management:

BJC recognizes the importance of this trend and is committed to conducting its business in a manner that minimizes environmental impact. The Company actively communicates its environmental commitments to consumers and ensures that its product offerings include environmentally friendly options that align with evolving consumer expectations.

\*Additional details on the transition risk analysis can be found in the Climate Change Management Report available on the company's official website.

### **3) Systemic Risk**

#### Ecosystem Erosion

Biodiversity loss leading to ecosystem degradation poses significant risks to water resources and raw material availability. This may result in material shortages for production or product offerings, driving up input costs. In extreme cases, such degradation could intensify disease outbreaks and negatively impact sectors such as tourism, particularly moral or nature-based tourism. A decline in tourist activity can reduce business opportunities and hinder broader economic growth.

#### Risk Management:

BJC places strong emphasis on protecting and restoring ecosystems to mitigate the risk of ecosystem collapse. Key initiatives include reforestation projects to rehabilitate degraded forests, farmer education programs focused on reducing chemical use in agriculture, and biodiversity restoration activities such as releasing native fish species into natural water bodies.

#### Financial Stability

Severe biodiversity loss may directly impact the availability and cost of raw materials required for production, leading to increased operational costs and potential revenue loss due to product shortages. This could result in income volatility and reduced financial stability.

Beyond the organization, biodiversity loss also poses systemic risks to suppliers and customers. Suppliers may experience disruptions that prevent them from fulfilling

commitments, while reduced consumer purchasing power may lower overall demand, further affecting the supply chain and business performance.

#### Risk Management:

To address these risks, BJC diversifies its sources of raw materials and actively researches alternative materials to reduce dependency and mitigate supply disruptions. Operational enhancements are implemented to improve business efficiency and manage rising costs. BJC also employs hedging strategies and engages in price assurance measures to minimize exposure to price volatility.

Furthermore, BJC provides close support to farmers, helping them implement standardized agricultural practices to meet quality and quantity requirements. BJC also continuously explores new business opportunities to achieve its long-term revenue growth objectives.

After assessing biodiversity-related risks and opportunities and implementing risk management in line with the enterprise risk management framework, no significant biodiversity-related risks were identified.

Prepare: Establish strategies and allocate resources appropriately, as well as set goals and monitor performance continuously.

Based on the outcomes of the biodiversity assessment and risk evaluation, BJC establishes strategies, allocates resources, and continuously monitors performance to strengthen biodiversity management and support long-term business resilience.

BJC implements biodiversity-related actions in line with its commitments to No Net Loss, Net Positive Impact, and No Gross Deforestation by 2030. Assessment results are used to identify priority areas and support decision-making across operations and supply chains.

The Company continues to apply the mitigation hierarchy approach by avoiding impacts on areas of biodiversity importance, minimizing operational impacts through resource efficiency and pollution prevention, restoring ecosystems through conservation activities, and exploring opportunities to enhance positive outcomes across the value chain.

### Ongoing Biodiversity Management Guidelines

BJC continuously monitors its biodiversity impacts and implements the following management practices:

- **Avoiding Biodiversity-Sensitive Areas:** Ensuring operational sites are not located in areas critical to biodiversity.
- **Reducing Negative Impacts:** For example, increasing domestic potato sourcing to reduce imports and lower environmental impact.
- **Restoring Biodiversity:** To support biodiversity restoration, BJC released native fish species into community water bodies, including 24,000 White Silver Barb, 150 Snakeskin Gourami, and 150 Giant Barb, to help enhance aquatic biodiversity and ecosystem resilience.
- **Transforming Operations:** BJC supported circular economy initiatives by transforming waste glass collected on remote islands, where recovering and returning glass bottles to the recycling system is challenging, through upcycling into interlocking paving blocks. This initiative helps reduce the accumulation of glass waste on the islands while promoting resource circularity and environmental conservation.

## 4) Goals and measurements

BJC is committed to achieving no net loss of biodiversity and moving towards a net positive impact, as well as ensuring no gross deforestation by 2030. To support this commitment, the company has established biodiversity-related targets for priority areas, which primarily cover its Packaging and Consumer businesses and their tier 1 suppliers. These suppliers provide critical raw materials such as fresh potatoes, sand, and aluminum resources that are highly linked to land use, natural resource extraction, and potential biodiversity impacts. By focusing on these key areas and suppliers, BJC ensures that the most material risks and opportunities within its value chain are addressed. Progress against these targets is summarized below:

| No. | Category                           | Target                                                                                                                       | Performance (as of 2025)                                           |
|-----|------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 1   | Restoration / Compensation         | Number of trees planted – 150,000 by 2032                                                                                    | 57,504 trees planted                                               |
| 2   | Reduction of resource exploitation | Reduction in water consumption – 15% by 2032 (2021 baseline)                                                                 | Reduction achieved                                                 |
| 3   | Reduction of resource exploitation | Reduction in food waste – 15% by 2032 (2021 baseline)                                                                        | Reduction achieved                                                 |
| 4   | Avoidance / Risk identification    | Biodiversity assessments – 100% coverage by 2025                                                                             | 100% of high-impact business groups assessed                       |
| 5   | Avoidance                          | New projects screened for biodiversity-sensitive areas – 100%                                                                | 100%                                                               |
| 6   | Value chain practices              | Critical Tier-1 agricultural suppliers trained in regenerative or biodiversity-friendly practices – at least 1 time per year | 1 time per year (BJF's Critical Tier-1 agricultural 686 suppliers) |