

# Packaging Management Program 2024

## Towards Circular Packaging: Projects Progress





# Introduction

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Packaging constitutes a critical element of product delivery, ensuring product quality, safety, and consumer satisfaction. However, the growing environmental impacts associated with packaging materials, particularly plastic, and post-consumer waste have elevated packaging management as a key area of corporate responsibility and strategic focus.

At BJC, the pursuit of excellence extends beyond product performance to encompass broader environmental considerations. In parallel with ongoing efforts to enhance product quality, the organization places significant emphasis on the development and implementation of sustainable packaging solutions. This integrated approach ensures that both product integrity and environmental stewardship are advanced simultaneously.

This report, entitled "**Towards Circular Packaging: Projects and Progress,**" provides a comprehensive overview of BJC's strategic initiatives aimed at improving packaging sustainability across its operations. It highlights key programs focused on reducing plastic usage, increasing the use of recycled content, enhancing recyclability, incorporating alternative and renewable materials, and promoting packaging design principles aligned with circular economy practices. These initiatives support BJC's commitment to reducing plastic packaging by 15 percent by the year 2032.

Through a structured, innovation-led approach, BJC is committed to addressing packaging-related challenges by transforming them into opportunities for environmental improvement and long-term value creation. The initiatives detailed in this report reflect the organization's continued efforts to strengthen environmental performance, maximize resource efficiency, and demonstrate leadership in responsible business practices.



# Programs to increase the use of reusable packaging.

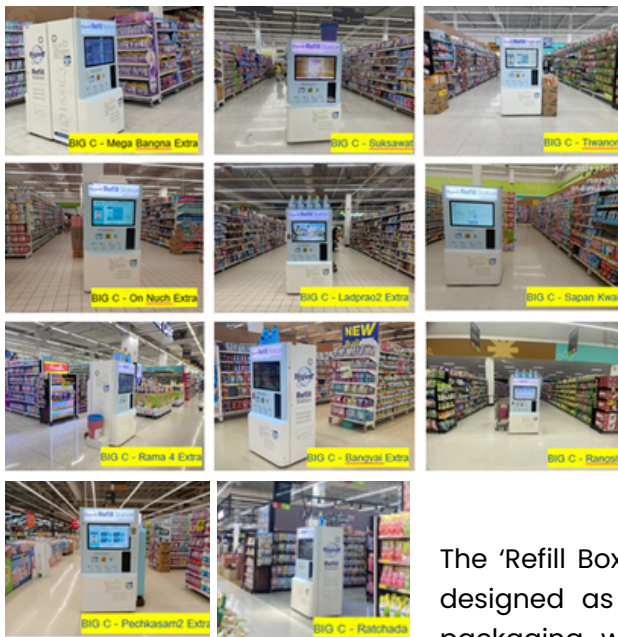
## Hygiene Refill Station Store

Since 2021, Big C has partnered with I.P. One Company Limited, the manufacturer and distributor of Hygiene brand products, to jointly initiate and officially launch the “Hygiene Refill Station”, an innovative fabric softener refill solution, at Big C Extra, Mega Bangna.

This collaboration was established with the primary objective of promoting sustainable consumer behavior by encouraging the reuse of packaging and reducing dependence on single-use plastics.

The initiative aligns with broader environmental goals to minimize plastic waste and contribute to a circular economy.

As of 2024, Hygiene Refill Stations have been installed at 12 Big C branches: Mega Bangna, On Nut, Bang Yai, Rangsit 1, Ladprao, Tiwanon, Rama 4, Saphan Khwai, Phetkasem 2, Ratchadaphisek Extra, BangNa and Suksawat.



Year	No. of Big C branches	Revenue (THB)
2021	1	158,950
2022	9	1,344,970
2023	11	3,851,405
2024	12	3,900,875

## Cellox Refill Box

The ‘Refill Box’ by CPC (Cellox Purify) is a refillable tissue box designed as a sustainable alternative to traditional tissue packaging, which is typically discarded after use. Instead of disposing of the entire box, customers can simply refill it through its removable sides.

This design promotes the use of reusable packaging, helping to reduce paper waste and lower packaging costs for customers.

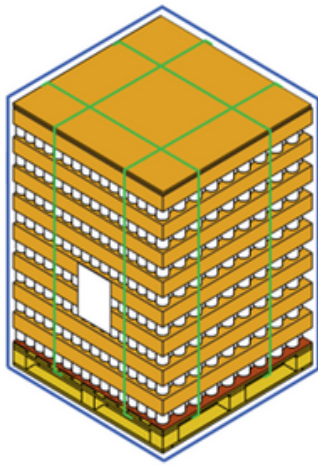


Year	Sale (carton)
2023	15,967
2024	7,439



## Programs to increase the use of reusable packaging.

### Paper Tray Reuse Program for Packaging and Delivery



Old Packing



New Packing

**Objective:** To reduce waste generation and increase the use of reusable packaging.

**Target:** To reduce waste by 100 tons per year.

**Activities Implemented:**

- In 2024, BJC Glass collaboration with the Packaging Material Control (PMC) department was carried out to identify and select suitable plastic or paper trays from TBR for reuse in subsequent distribution cycles, reducing the need to purchase new paper trays.
- Defined tray usage procedures and provided guidelines for the Operations team.

**Progress / Implementation Results:**

- Waste reduced by 138.38 tons
- Cost savings of 3,518,000 THB

### One-Way Pallet Reuse Strategy @ BJL Warehouse



**Activities Implemented:**

- The one-way pallets that arrive with imported goods are reused for internal storage purposes instead of being disposed of outside the warehouse. These reused pallets are designated for storing goods on lower shelves or lightweight products

**Progress / Implementation Results:**

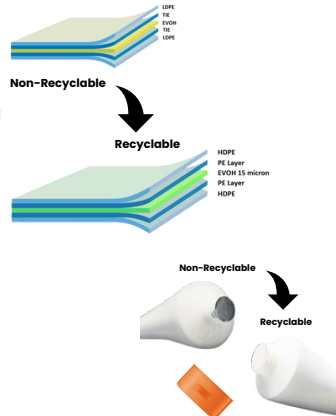
- Reduces the need to rent LOSCAM pallets 850 pallets per month
- Estimated cost savings: 0.16 million THB per year





# Programs to increase the use of recyclable packaging

## DMP Sunscreen and Lotion Tube Development Project Using 100% Recyclable Plastic Materials



Previously, DMP's sunscreen and lotion tubes were made from a specialized five-layer plastic structure, which could not be fully recycled. To enhance environmental sustainability, Rubia Industries collaborated with packaging manufacturers to develop a new type of tube made from materials that are 100% recyclable. This applies to both the tube and the cap. In addition, the packaging design was revised to reduce plastic usage by eliminating the use of PVC shrink wrap around the cap (Shrink Cap), which significantly contributes to plastic reduction.

The new recyclable tube not only supports environmental goals but also reduces production costs by approximately 0.5 THB per unit compared to the traditional five-layer tube. In 2024, the elimination of PVC Shrink Caps alone is projected to reduce plastic usage by 20.6%, equivalent to approximately 5.8 tons of plastic.

## Recyclable Packaging for Belle Tissue Value Set



BJC Cellox introduces the new BELLE Tissue Value Set, featuring hand towels and other tissue products in eco-friendly packaging. Made from recycled paper, the packaging replaces traditional plastic wrap and is designed for easy carrying, transport, and recycling. This launch reflects BJC's commitment to reducing plastic use and promoting sustainable living.

## Recyclable Packaging for Fresh Bakery Products

Big C has expanded eco-friendly packaging to its own brand bakery, We Are Fresh, by using packaging made from recyclable materials. Additionally, the packaging is certified by the Forest Stewardship Council (FSC), ensuring that the materials come from responsibly managed forests.

This program reflects our commitment to increasing the use of recyclable packaging that supports waste reduction.

By choosing FSC-certified recyclable packaging, we promote sustainable forestry practices while providing customers with fresh products in environmentally responsible packaging.





## Programs to phase out single-use plastic packaging.

### Packaging Design & Optimization Program

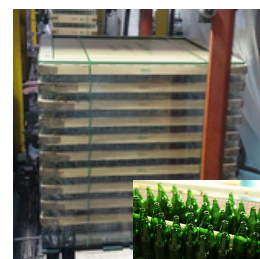
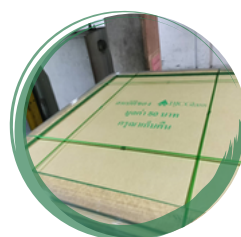
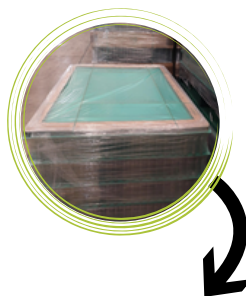


Continuing from initiatives launched in 2023, Berli Jucker Foods (BJF) implemented the Packaging Resizing Project by reducing the width of snack packaging under the Tasto brand from 170 mm to 155 mm. This adjustment aims to decrease the use of metalized foil and single-use plastic, which are materials that are difficult to recycle

In 2024, this project is expected to reduce plastic packaging consumption by 15.7 tons per year and lower greenhouse gas emissions by 45.2 tCO<sub>2</sub>e. In addition, BJF has introduced a new initiative to reduce the number of polyethylene (PE) film layers used in packaging from five layers to four. This change will further reduce plastic packaging usage by 2,033 tons annually. Together, these efforts are projected to eliminate approximately 2,050 tons of plastic packaging per year, supporting broader programs to phase out single-use plastics and advance sustainable packaging solutions.

### Phase out the Use of Plastic Sheets on Pallet Tops

BJC Glass has recognized an opportunity to reduce the use of single-use plastic packaging, which contributes significantly to environmental problems. Previously, certain glass bottle SKUs were packed with a plastic sheet covering the top layer of the pallet before being wrapped in paper for delivery to customers. The plastic sheet often resulted in excess material that was cut off and discarded—representing unnecessary resource consumption. This project began by evaluating the necessity of plastic sheet usage in pallet packing and removing it where it was not essential to product safety or quality. BJC Glass engaged in clear and proactive communication with customers to explain the rationale and benefits of discontinuing the use of these plastic sheets.



#### Outcomes

Elimination of approximately 1.6 meters of plastic sheet per pallet or 11,000 meters per year (0.26 ton per year)





## Programs to phase out single-use plastic packaging.

### TMG Cuts Single-Use Plastic in Project TM.1256



TMG has discontinued the use of block pads and plastic sheets in the packaging process for project TM.1256 as part of its sustainability initiative to reduce waste and phase out single-use plastic packaging. The company set a target to reduce single-use plastic by 0.30 tons.

To support this initiative, TMG developed sample pallets that excluded block pads and plastic sheets, which were then used for trial shipments to customers. The results confirmed that the revised packaging method did not compromise product quality or safety during transportation.

As a result, in 2024, the company successfully reduced plastic usage by 0.26 tons, saving 125,000 THB



## Programs to Enhance Sustainable Packaging, Certified by FSC

We are Fresh by Big C uses bakery bags made from paper pulp sourced from suppliers certified by accredited bodies, such as the Forest Stewardship Council™ (FSC™), ensuring that the production of paper-based products is free from deforestation to protect the well-being of its paper sources by minimizing negative impacts on surrounding society and the environment.



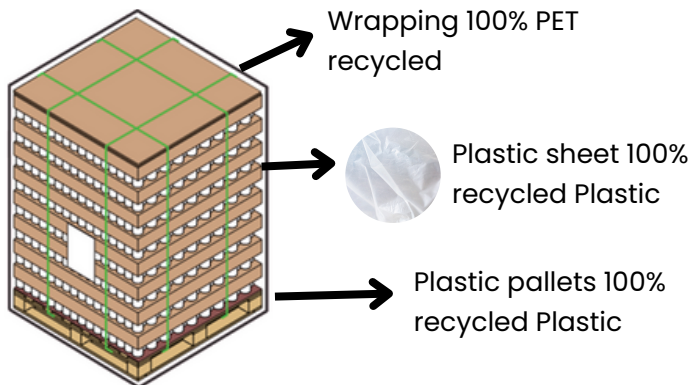


## Programs to increase the use of recycled material as packaging solutions.

### BJC Glass Reduces Plastic Use and Promotes 100% Recycled Content



BJC Glass has adopted the use of plastic pallets for packaging and transporting goods as part of its sustainability efforts. These pallets are made from two types of materials: 100% recycled polypropylene (PP) and recycled high-density polyethylene (rHDPE). By utilizing recycled plastic pallets, GTH demonstrates its commitment to sustainability and minimizing environmental impact in its packaging and logistics operations.



In 2024, BJC Glass stopped purchasing plastic pallets and reduced its use of plastic packaging from 3,709 ton in 2023 to 2,260 ton representing a 39% reduction. All components of the packaging used are made from 100% recycled plastic. This initiative contributes significantly to BJC's broader target to reduce overall plastic packaging consumption and promote the use of recycled packaging materials across its operations.

### Scales Up Recycled Plastic Pallets and Baskets Across Operations

In 2024, BJC expanded the deployment of plastic pallets and baskets containing recycled content across its warehouse distribution centers and factory operations throughout the organization. By integrating post-consumer recycled materials into key logistics and production assets, the company not only helps divert plastic waste from landfills but also actively supports the development of a circular economy within its supply chain. These recycled-content pallets and baskets maintain the same level of durability and performance as those made from virgin plastic, making them fully compatible with delivery systems, heavy-duty handling, and repeated operational use.

In 2024, the percentage of recycled content further increased to 29%, showing continuous improvement and commitment to sustainability



Plastic Packaging	2021	2022	2023	2024
% of recycled content within plastic packaging	21	19	26	29





# Programs to ensure that recyclable packaging is actually recycled.

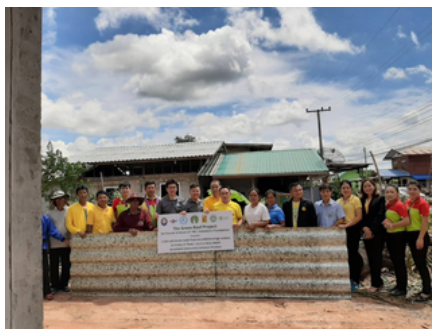
## Green Shelter Project



"The Green Shelter Project" is an initiative developed to continue the success of the "หลังคาเขียว" (Green Roof Project). BJC and Big C, in collaboration with Tetra Pak, the Friends in Need (of "Pa") Volunteers Foundation, and the Thai Red Cross Society, are working together to expand sustainable collection channels for used beverage cartons.

These cartons are not only made from recyclable materials, but through this program, they are actually collected, processed, and recycled into construction materials such as roofing sheets and other components used to build homes.

This ensures that recyclable packaging truly completes the recycling loop and avoids ending up in landfills.



Currently, over 190 Big C branches nationwide serve as official drop-off points for recyclable materials, including used beverage cartons, plastic bottles, and aluminum cans. All materials are directed through proper recycling processes.

So far, the project has:

- Successfully built 10 homes for communities affected by natural disasters or housing insecurity.
- Recycled 36,660 kilograms of used cartons in collaboration with Tetra Pak Thailand.
- Significantly reduced landfill waste by turning packaging waste into valuable resources.

The Green Shelter Project is a strong example of how a circular economy can be realized when recyclable packaging is not only recyclable by design, but actually recycled in practice—benefiting both people and the planet.

## Big C Circular Packaging

Big C Distribution centra has partnered with SCG Packaging, one of Asia's leading integrated petrochemical companies, to collect plastic packaging waste generated during its distribution process. This includes materials such as paper box, plastic film and plastic cable. The collected plastics are sent to SCG Packaging' recycling facilities, where they are properly sorted and processed to ensure that recyclable packaging is actually recycled and diverted from landfills.



No. of Big C branches	Total weight of packaging collected (ton)
1,818	10,491



## Programs to ensure that recyclable packaging is actually recycled.

### P' Mee Biggie Chuan Recycle

(Brother Bear Biggie invites Recycling)



The “Biggie Bear Recycling Campaign” serves as a centralized initiative to collect used aluminum beverage cans at over 192 Big C Supercenter branches, covering five regions across Thailand. The goal is to collect 2,000 kilograms of aluminum cans and deliver them to Thai Beverage Can Ltd. for recycling. The recycled material will be used to produce 80,000 new drinking water cans, which will then be donated to field hospitals and public health agencies nationwide.

In addition, under the “Biggie Bear Recycling Campaign”, the program also accepts donations of plastic bottles (PET), which are sent to Indorama Ventures Public Company Limited.

These bottles are recycled into PPE suits and bedding sets, including pillowcases and bed sheets made from recycled plastic fibers, and donated to medical personnel and field hospitals. In 2024, the project successfully collected more than 800 kilograms of plastic packaging for recycling.





# Allocation of R&D resources to sustainable packaging and alternative solutions.

## New Packaging Development Project for dmp Baby Bath

Rubia Industries has undertaken the improvement of dmp Baby Bath packaging by reducing the bottle weight from 45 grams to 42 grams. Additionally, Calcium Carbonate, a plastic substitute, has been incorporated into the packaging material to reduce reliance on conventional plastic in the production process.



This initiative has resulted in an annual reduction of approximately 35 tons of plastic usage and has effectively increased the proportion of alternative materials used in the packaging. Moreover, by decreasing the use of High Density Polyethylene (HDPE), the project contributes to a reduction of approximately 45 tCO<sub>2</sub> in GHG emission each year.

## Big C adopts limestone-based material 'LIMEX' for shopping baskets.



Since 2023, BJC has continued to invest in research and development (R&D) focused on sustainable packaging innovations and alternative materials. This includes exploring biodegradable, compostable, and recyclable options that support the company's circular economy strategy.

As part of this commitment, Big C has adopted LIMEX Pellet, a limestone-based sustainable material, for shopping baskets used across its retail formats.

"LIMEX" contains over 50% inorganic material, such as calcium carbonate, significantly reducing reliance on petroleum-based plastics and lowering greenhouse gas emissions.



These new shopping baskets maintain the same durability and functionality as traditional plastic ones, ensuring a seamless shopping experience for customers. As of 2024, LIMEX shopping baskets are in use at Big C Hypermarket, Big C Supermarket, Mini Big C, and Big C Food Service branches, covering more than 1,640 locations across Thailand.

