

Encouraging behavioral change

In the operations of each branch within the food business, employees are encouraged to recognize the importance of using water efficiently, as follows:

- Systematic water use for dishwashing: Instead of letting water flow continuously, employees are encouraged to soak dishes before washing to minimize unnecessary water consumption.
- Regular maintenance and repairs: Routine checks on water pipes and faucets ensure that any leaks are promptly repaired, reducing water loss.
- Water usage monitoring: A water usage analysis system is implemented to track consumption trends and identify opportunities for more efficient resource management.

Use of Water-Saving Technologies and Devices

The Company invests in and selects equipment that reduces water consumption while maintaining the efficiency of its food business operations, including:

- Automatic Faucet: Equipped with intelligent sensor systems that control the automatic opening and closing of water.
- Foot Pedal Faucet: Operated by foot control to prevent accidental water discharge while enhancing convenience.

Wastewater Treatment

Efficient and legally compliant wastewater treatment is a crucial step in ensuring the sustainability of the Company's operations. It also demonstrates the Company's strong commitment to social and environmental responsibility.

For branch restaurants located in rented spaces, primary wastewater treatment must be conducted in accordance with the system established by the landlord.

- Solids removal: Food scraps, waste, and sediment are separated from wastewater to reduce pollution and enhance water treatment efficiency.
- Filtration and sedimentation: Wastewater is passed through a grease trap to filter out impurities and allow grease to settle.

For the CRG Manufacturing Plant located in the Navanakorn area, wastewater treatment is conducted in strict compliance with factory law standards. 100% of the wastewater is treated before being discharged into the Navanakorn wastewater treatment system (Recheck). Additionally, water samples from both the incoming and outgoing ponds are sent to Quality Control Department for detailed measurement and assessment of wastewater quality. Each year, the water quality is officially tested by the Navanakorn Industrial Zone to ensure that the factory's wastewater treatment process meets environmental standards and effectively prevents any potential impact from wastewater discharge into the environment.

Waste Management

Challenges

- Waste remains a growing environmental issue of global concern, particularly due to the increasing volume of waste sent to landfills and the rising amount of food waste. Businesses face challenges stemming from changing consumer behaviors and societal lifestyles, while waste disposal management in some areas still lacks of effective infrastructure, leading to significant social impacts if not properly addressed. Hotel businesses, especially those located near natural tourist attractions, may be particularly affected, facing rising waste collection and disposal costs if waste separation systems at the origin are ineffective. Additionally, a lack of employee awareness regarding proper waste segregation can hinder efficient disposal. In the future, failure to comply with government regulations or legal measures may result in penalties and negatively impact the business's reputation.

Opportunities

- Implementing an effective waste management system within an organization not only reduces pollution and enhances the Company's image but also plays a crucial role in unlocking new business opportunities. It enables cost reduction, improves operational efficiency, creates additional revenue streams, and transforms waste into value-added products, benefiting both the organization and society as a whole.

In 2024, the Company's total waste volume reached 17,175.14 tons, marking an 18% increase from the previous year. This increase resulted from more comprehensive data collection on various types of waste in accordance with hotel and food business operations, as well as improved waste separation and management processes, ensuring proper disposal or recycling to maximize value and benefits.



Recycling rate
20%



Surplus food donation
79.05 tons



318 Employees
participated in waste management training

Waste Management Training with Recycle Day

To enhance understanding and promote effective waste sorting skills, the Company organized a training session led by experts from Recycle Day. The training provided employees in the hotel and food businesses with knowledge and was conducted in a hybrid format, with 261 employees participating online and 57 attending on-site.



Hotel Business

Targets:

- To reduce the amount of waste sent to landfills per occupied room by 20% by 2029 compared to the base year of 2019.
- In 2024, the general waste sent to landfills intensity per occupied room decreased by 2% compared to the previous year.



Recycling rate
29.04%



All employees participated in
waste management training
96%



72.06 tons
of used cooking oil were sold
and repurposed into fuel energy
for vehicles.

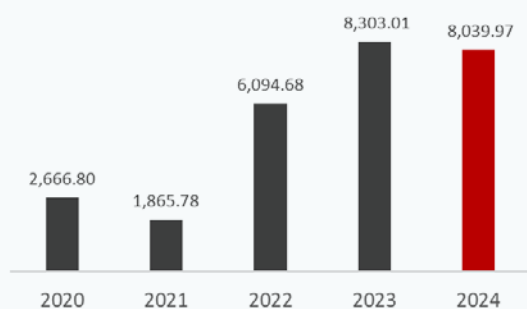


Collaborating with OCYCO,
1,665.59
kilograms
of plastic waste were sent for
the process of creating added
value

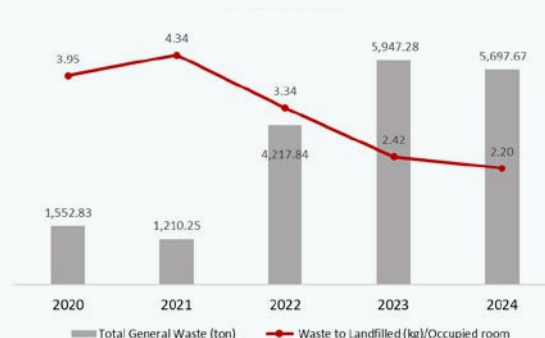
In the hotel business, each service process or activity generates a significant amount of waste and solid waste to meet customer demands. Therefore, the Company has established a standard of procedure for waste and solid waste management, requiring all hotels and resorts under Centara Group to manage waste from the outset according to the waste management hierarchy. A key aspect of this process is waste separation, which must be categorized into four types: general waste, food waste, recyclable waste, and hazardous waste, ensuring proper disposal. Hazardous waste must be disposed of by a properly licensed service provider or a local agency responsible for waste management, ensuring minimal impact from waste and solid waste generated by the hotel's operations on the surrounding community and environment. Additionally, the Company encourages cooperation from business partners to reduce the use of single-use packaging when delivering raw materials such as vegetables, fruits, and bread. Instead, they are urged to switch to reusable containers, returnable packaging, or containers provided by the hotel to minimize unnecessary waste.

In 2024, the total waste volume was 8,039.97 tons, with 5,697.67 tons sent to landfills. The waste volume intensity rate was 2.2 kilograms per occupied room, reflecting a 29.03% decrease from the base year and a 21.15% reduction compared to the target set for the same year.

Total Waste Generate (Ton)



Total Waste to Landfilled



Waste Management Training on “SAY No! to Single-use plastic”

To ensure employees have a precise understanding of the different types of plastic packaging, including those that are naturally biodegradable, and to enable them to make informed product choices for hotel use, a training session was conducted. A total of 6,036 executives and employees participated in the training.



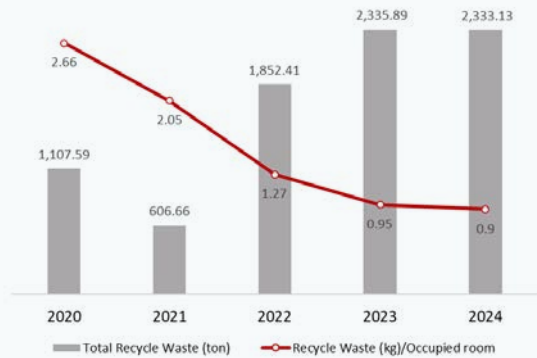


Recyclable Waste

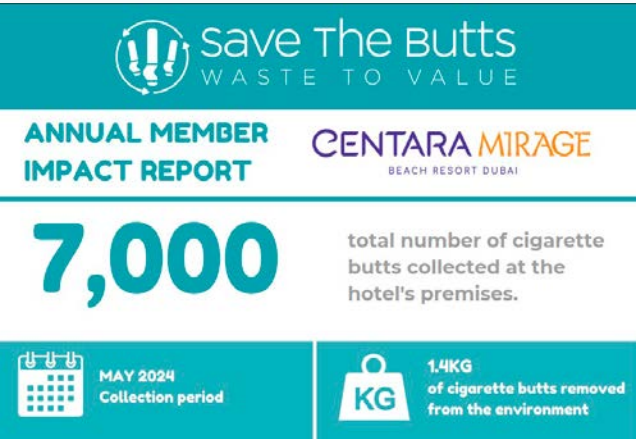
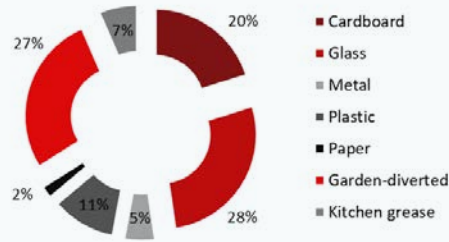
All hotels and resorts under Centara Group collect and record daily waste volumes to monitor waste generation and identify effective reduction strategies. Standard of procedure have been established for waste and solid waste management, ensuring that recyclable waste is properly separated into various categories and continuously documented.

In 2024, the total amount of recyclable waste was 2,333.13 tons, reflecting a slight decrease of 0.12% from the previous year. However, the recycling rate increased to 29.04%.

Total Recycled Waste (Ton)



Total Recycled Waste by Type



Collaboration with UNISOAP and Goumbook

For the second consecutive year, Centara Mirage Beach Resort Dubai has partnered with UNISOAP United Arab Emirates through Goumbook to collect 239.51 kilograms of used soap from guest rooms. The soap was cleaned and repurposed by UNISOAP into new bars for vulnerable individuals in local communities, improving access to basic hygiene. Additionally, the resort participated in the “Save the Butts” project with Goumbook for the second year, contributing 7,000 cigarette butts, totaling 1.4 kilograms, collected from the hotel and beach cleanup efforts. A total of 7,000 cigarette butts, weighing 1.4 kilograms, were collected. These cigarette butts are then processed into plywood, providing a sustainable alternative that helps prevent deforestation while simultaneously addressing marine waste issues that impact beaches and marine ecosystems.

Collaboration with Local Organization OCYCO, Krabi Province

Single-used plastic waste poses a significant threat to marine and coastal ecosystems. Some of this waste accumulates on beaches, creating unsightly scenery, while some degrades into microplastics that flow into the ocean. To mitigate these impacts, four properties under Centara Hotels & Resorts in Krabi have partnered with OCYCO to recycle 1,665.59 kilograms of plastic waste. This initiative repurposes plastic into new products, adding value to them.



Upcycled Christmas Tree under the Concept: “Turning Trash into Art”

During the Christmas celebrations, eight properties under Centara Hotels & Resorts created Christmas trees using recycled and natural materials, transforming waste into unique works of art. This initiative allowed guests to participate in the festivities while raising awareness about the value of recycled materials and supporting locally sourced materials.



The Christmas tree was made from:

- 1,187 glass bottles
- 1,178 plastic bottles
- 316 cardboard boxes
- 1,000 dried coconut shells

8 participating properties

- Centara Grand Beach Resort & Villas Hua Hin
- Centara Ras Fushi Resort & Spa Maldives
- Centara West Bay Hotel & Residences Doha
- Centara Pattaya Hotel
- Centara Koh Chang Tropicana Resort
- Centara Sonrisa Residences & Suites Sriracha
- Centara Life Maris Resort Jomtien
- Centara Life Hotel Bangkok Phra Nakhon

Recycling glass into sustainable pavement bricks

Centara Reserve Samui collected 800 kilograms of broken glass and donated it to the Ban Maphrao community on Nathon Beach, Koh Samui, for repurposing into paving bricks.

Donating Aluminum Rings to Support Prosthetic Leg Production

Five properties under Centara Hotels & Resorts, including Centara Udon, Centara Watgate Pavilion Hotel Bangkok, Centara Korat, Centara Ubon, and Centara Life Government Complex Hotel & Convention Centre Chaeng Watthana, donated 270.5 kilograms of aluminum water bottle cap rings to support the production of prosthetic legs for individuals with disabilities.



Supporting “Loy Lay” Works

During the monsoon season, large amounts of driftwood wash ashore, contributing to marine debris that harms the environment. To address this issue, “Loy Lay” repurposes driftwood into artistic marine animal sculptures, adding value to wood scraps while raising awareness about marine debris and its impact on aquatic life. Centara Ao Nang Beach Resort & Spa Krabi and Centara Anda Dhevi Resort & Spa Krabi have supported this initiative by showcasing and selling 100 Loy Lay products within the hotels. Additionally, they have organized coloring activities for children in the kids’ club.



POP Fish ‘Plastic Only Please!’

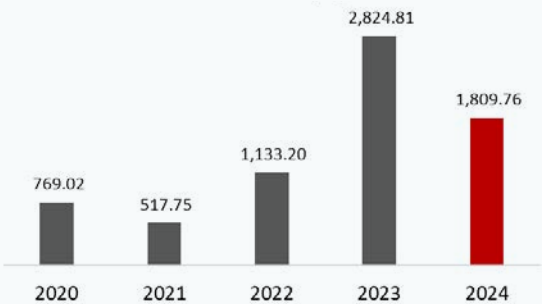
To raise awareness and highlight the importance of plastic waste management, Centara Hotels & Resorts introduced the POP Fish as a symbol of plastic waste separation. This year, 743.62 kilograms of plastic waste were recycled, helping to reduce landfill waste.



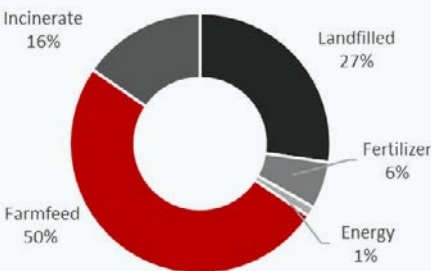
Food Waste

If not properly managed, food waste contributes to air, water, and visual pollution. Additionally, when mixed with other waste in landfills, it releases methane, a greenhouse gas 27.9 times more potent than carbon dioxide (IPCC AR6). To reduce food waste sent to landfills, the Company has implemented a food waste separation system and redirected it to beneficial uses such as animal feed, composting, and biogas energy production. In 2024, hotel operations generated a total of 1,809.76 tons of food waste sent to landfills, marking a 36% decrease from the previous year. Additionally, the amount of food waste sent to landfills decreased by 62%, reflecting the commitment and collective efforts of hotel employees in achieving the Company’s sustainability goals.

Total Food Waste (Ton)



Food Waste Disposal Methods 2024



Coffee Grounds Management

Each day, a significant amount of coffee grounds is left over from serving customers at the hotel. To minimize waste, the hotel separates and repurposes these coffee grounds by mixing them with vegetable and fruit scraps to produce compost for on-site use. Additionally, the grounds are sun-dried, packaged, and distributed to customers who wish to use them.



Repurposed

1,384.11 kilograms
of coffee ground into organic compost.

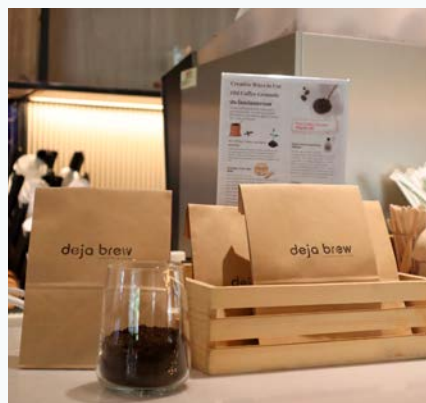
- Centara Grand & Bangkok Convention Centre at CentralWorld
- Centara Grand Beach Resort & Villas Hua Hin
- Centara Koh Chang Tropicana Resort



Repurposed

34,521 kilograms
of coffee grounds for spa treatments and
take-home gifts for guests.

- Centara Ubon
- Centara Life Maris Resort Jomtien
- Centara Life Hotel Bangkok Phra Nakhon



Reduction of Food Waste in Employee Cafeterias

Centara Grand Beach Resort & Villas Krabi, Centara Ras Fushi Resort & Spa Maldives, Centara Ao Nang Beach Resort & Spa Krabi, and Centara Anda Dhevi Resort & Spa Krabi launched the "NO Bin Day" project to reduce food waste in employee cafeterias. As part of this initiative, food waste bins were removed from the restaurants, and chefs prepared meals without bones or inedible parts, ensuring that staff could take as much food as they wanted but were required to finish their meals to minimize waste. The initiative received excellent cooperation from all staff, and on the event day, no food waste was left uneaten.





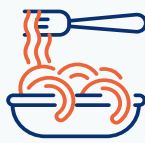
Surplus Food Donation

To reduce food waste, the Company has continuously donated surplus food to the Scholars of Sustenance Foundation Thailand for the seventh consecutive year since the project's launch in 2017. The foundation distributes edible surplus food to underprivileged and vulnerable groups in need. In 2024, Centara Hotels & Resorts donated 28,153.13 kilograms of surplus food, equivalent to 118,263 meals, helping to reduce greenhouse gas emissions by 71,240 kilograms of carbon dioxide equivalent. Seven hotels participated in the project: Centara Grand & Bangkok Convention Centre at CentralWorld, Centara Grand at Central Plaza Ladprao Bangkok, Centara Watergate Pavilion Hotel Bangkok, Centara Grand Beach Resort Phuket, Centara Kata Resort Phuket, Centara Villas Phuket, and Centara Riverside Hotel Chiang Mai.

Surplus food donation data from 2017 to 2024



Surplus food
137,150.17
kilograms



Serving (Meal)
538,692

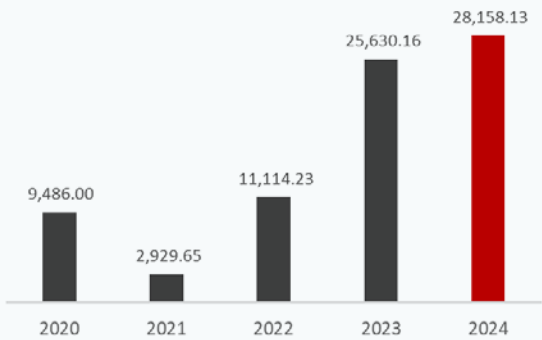


Reducing GHG
302,248
(kgCo2e)

Food Business



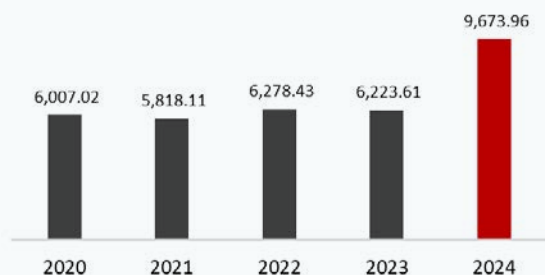
Surplus Food (Kg)



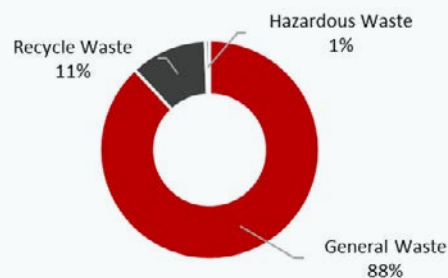
The Company is committed to systematic waste management and has developed a targeted plan to reduce the amount of waste sent to landfills from its restaurant operations.

In 2024, the food business enhanced its waste data collection system by requiring each branch to record waste generation through a newly developed reporting system. The data revealed that in 2024, the total waste volume amounted to 9,673.96 tons, comprising 8,517.04 tons of general waste, 1,096.51 kilograms of recyclable waste, and 60.41 kilograms of hazardous waste.

Total Waste Generated (Ton)



Waste Generated by Type 2024



Recycling rate

11%



1,021.76 tons

of used cooking oil were sold and repurposed into fuel energy for vehicles.



Surplus food donation

140,889 Kg.



Reduced plastic waste by

16.49

million items through the use of biodegradable products.



reducing GHG emissions

356,448

kgCO2e

Converting Cooking Oil into Aviation Fuel

The Company has separated a total of 1,021.76 tons of used oil for use in the production of sustainable aviation fuel. Used cooking oil is stored in appropriate containers before being transferred to a legally licensed business partner for purchase. This initiative not only helps reduce waste management costs but also generates additional revenue from the sale of used cooking oil.

CRG Say NO to Plastic – Save the World, Stop Using Plastic.

To reduce plastic usage in the food business, the Company has transitioned to using 100% biodegradable products that leave no residual substances and decompose in landfills within 180 days. This initiative has successfully reduced plastic waste by 16,490,000 pieces, demonstrating the Company's commitment to environmental conservation while enhancing its image as an environmentally responsible organization.



Surplus food donation

To reduce food waste from production processes, the food business has implemented surplus food donations to minimize food waste, which impacts greenhouse gas emissions. This initiative is also part of efforts to alleviate hunger for those in need.

1. CRG x VV Share Food Donation Project and CRG SOS Project

The Company, in collaboration with Mister Donut brand, donated 763,331 donuts, equivalent to approximately 50,888 kilograms, to VV Share Foundation and Scholars of Sustenance Foundation (SOS) Thailand. This initiative helped reduce greenhouse gas emissions by a total of 317,865 kilograms of carbon dioxide equivalent.

2. Harvest & Colonel's Kitchen Food Donation Project

Through 80 branches, the Company's KFC donated a total of 720,000 pieces of food, equivalent to approximately 90,000 kilograms, valued at 32,400,000 Baht to charities.

This initiative helped reduce greenhouse gas emissions by 227,700 kilograms of carbon dioxide equivalent.



Enhancement of Production Processes for Minimizing Food Waste

The food business is actively working to reduce food loss in the production process through the following initiatives:

1. Raw Material Management to reduce the loss and spoilage of raw materials

- FIFO (First-In, First-Out) system: This system allows for real-time monitoring of incoming raw materials, which helps reduce spoilage and minimizes losses during the production process.
- Use of AI-powered Program: The Company is developing AI-powered systems to optimize the calculation and control of raw material usage. This helps reduce waste from unused raw materials and enables more accurate procurement planning.

2. Food Design

The Company has designed a highly flexible menu that enables leftover raw materials from one dish to be repurposed in another, ensuring that raw materials are fully utilized before they spoil or expire.

3. Food Waste Utilization

The Company installed a food waste shredder at the central kitchen of Salad Factory to convert food waste into compost for use in the organization's agricultural activities. This initiative enhances the sustainability of the food production process and promotes the efficient use of resources.

Promoting the Collaboration in Waste Separation within Shopping Malls

The food business by Central Restaurants Group Co., Ltd. has partnered with restaurants within the Group to implement a waste separation project at CPN shopping centers, promoting sustainable waste management. The participating restaurants include: Pepper Lunch, Chabuton, Yoshinoya, Ootoya, Tenya, Katsuya, Thai Terrace, Salad Factory, Sontamnuva and Kagetsu Arashi.

In 2024, a total of 74,749.60 kilograms of waste was separated, resulting in a reduction of approximately 189.12 tCO₂e. This initiative is part of the food business's Zero Waste to Landfill strategy, which aims to reduce waste sent to landfills and increase recycling rates. The project implements several measures, including installing waste separation points in stores and common areas of shopping malls, organizing employee training on proper waste management, encouraging customers to separate waste before disposal, and collaborating with external partners to utilize waste for beneficial purposes, such as recycling and converting waste into energy.